

Procreative Liberty and Harm to Offspring in Assisted Reproduction

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I. INTRODUCTION

Assisted reproductive technologies (“ARTs”) have enabled many infertile couples to have children but have long been controversial.¹ Opposition initially focused on the “unnaturalness” of laboratory conception and the doubts that healthy children would result. Once children were born, ethical debate shifted to the status and ownership of embryos and the novel forms of family that could result.

The new century has brought forth both new and old ethical concerns. The growing capacity to screen the genomes of embryos has sparked fears of eugenic selection and alteration. In addition, concerns about safety have reasserted themselves. Several studies suggest that in vitro fertilization (“IVF”) may be associated with lower birth weights and major malformations. Ethical attention has also focused on whether all persons seeking ARTs should be granted access to them, regardless of their child-rearing ability, age, disability, health status, marital status, or sexual orientation.

Concerns about the welfare of offspring resulting from ARTs cover a wide range of procedures and potential risks. In addition to physical risks from the techniques themselves, they include the risk of providing ART services to persons who could transmit infectious or genetic disease to offspring, such as persons with HIV or carriers of cystic fibrosis. Risks to offspring from inadequate parenting may arise if ARTs are provided to persons with mental illness or serious disability. Questions of offspring welfare also arise from the use of ARTs in novel family settings, such as surrogacy, the posthumous uses of gametes and embryos, or with single parents or a same sex couples. Finally, both physical and psychological risks may result from alteration or manipulation of genes, gametes, and embryos.

Such situations have a common ethical structure. The use of ARTs may enable an infertile person or one who carries genes for serious disease to reproduce, but in doing so they risk having a child with diminished welfare. The degree, certainty, and kind of risk vary, as does the motivation for seeking reproductive assistance and

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¹ “Assisted reproductive technologies” (“ARTs”) refer in this Article to in vitro fertilization (“IVF”), artificial insemination, sperm and egg donation, surrogacy, and other forms of non-coital reproduction.

the person's other options for reproducing. But they all pose a risk that the child will experience physical, psychological, or social limitations that ordinarily do not occur without the use of ARTs. Persons who argue that the welfare of the child should be the primary ethical concern urge that society discourage or even prohibit ARTs that pose high risks of physical or social suffering to resulting children.

Such claims, however, present an ethical paradox. It is true that some techniques may lead to situations in which the child has a less favorable physical, psychological, or social situation than healthy children born after coital conception in a married nuclear family setting. But the only way to prevent those effects would be to eschew use of the ART that makes the birth of the child possible. This is the famous philosophical problem that Derek Parfit and others call "the non-identity problem"—the person protected never benefits because they are never born.²

How should professional practice and public policy about ARTs deal with this paradox? This Article will argue that even if children are not themselves "harmed," other effects or implications of the situation may be relevant in making professional and policy decisions about them. In doing so, however, due regard must also be paid to the liberty interests of persons needing reproductive assistance and to the moral responsibility of providers who decide whether or not to offer their services. The resulting judgments about different ARTs may seldom justify prohibiting them altogether, but they do and should leave wide room for physician discretion over whether to offer ART services in many of those situations.

Part II discusses six situations of harm to offspring that are of current policy concern. Part III analyzes the meaning of harm to offspring, and the role that procreative liberty and provider autonomy play in efforts to prevent harm to offspring. Part IV then applies that analysis to six situations of current policy concern. Part V explores the larger implications of the analysis.

II. PREVALENCE OF THE PROBLEM: THE MANY SITUATIONS OF POTENTIAL HARM TO OFFSPRING

ART situations that pose risks to the welfare of offspring vary in the degree, kind, and certainty of the risks presented and the existence of alternatives for reproduction. The risks posed are not always unique to assisted reproduction. Coital reproduction, for example, may also lead to the transmission of infectious or genetic disease to offspring or to birth in troubled social and rearing circumstances. In those cases, however, providers do not bear responsibility for imposing that risk, as happens when persons in those risk groups request ART services from physicians.³

Situations of potential harm to offspring are not equivalent in all respects, nor do they all deserve a similar practice or policy response. Resolution depends very much on the particular use, practice, or situation in question. Whether the degree and certainty of risk of harm to offspring justifies proceeding with, discouraging, or banning the request, depends upon an ethical analysis of offspring harm, procreative liberty, and provider autonomy in the particular factual contexts in which such questions arise. Six situations posing such risks are discussed.

² DEREK PARFIT, *REASONS AND PERSONS* ch. 16 (1984).

³ Although persons coitally reproducing in those circumstances might be held responsible for their actions, it is more difficult to prevent them from having children than it is to prevent access to ARTs for that purpose.

A. PHYSICAL RISKS FROM IVF AND ICSI

IVF, the most basic ART procedure, has generally been thought to be safe both for women and offspring. While hyperstimulation of the ovaries and egg retrieval are not risk-free, the incidence of ovarian hyperstimulation syndrome and other untoward effects has remained low.⁴ Nor did there appear to be a higher incidence of morbidity and mortality among IVF offspring.

Recently, however, studies of children born from IVF or intracytoplasmic sperm injection (“ICSI”) have shown that there may be a higher incidence of certain rare birth defects and lower birth weight among offspring. One study reported that singletons conceived using ART were at an increased risk for low birth weight, while another suggested an increased risk of major birth defects.⁵ Still another concluded that children conceived through IVF have an increased risk of neurological problems, especially cerebral palsy.⁶ ICSI, which now occurs in almost half of U.S. IVF treatments, has been reported to have a higher risk of sex chromosome and imprinting disorders.⁷

Some persons have criticized these studies because they rely on retrospective analyses of data collected through voluntary registries. The lack of proper controls makes it difficult to conclude reliably that the conditions reported result from the IVF process and not the condition of women who present with infertility problems. The appropriate control population would be “that of babies born to infertile women achieving pregnancies by methods other than IVF,” but none of these studies included such a control population.⁸ Others have argued that the relative risk of IVF over coital conception may be great, but the absolute risk still remains small, e.g., from 3-4% to 6-8%. All are agreed, however, that more study and data are needed on this topic.⁹

If future studies show that IVF, ICSI, and ART variations do have a higher risk of harmful outcomes for offspring, important ethical, legal, and policy issues will arise: Does an infertile person’s interest in having offspring justify the additional risk to resulting children posed by the procedure itself? What professional or public policy steps should be taken to minimize those risks or to restrict use of the ARTs causing them? Such an inquiry will depend largely on the degree of harm to

⁴ Some studies had suggested that women whose ovaries had been stimulated to produce multiple eggs had a higher rate of ovarian cancer, but this risk has not been substantiated. Alison Venn et al., *Risk of Cancer After Use of Fertility Drugs with In-Vitro Fertilisation*, 354 LANCET 1586 (1999); Gad Potashnik et al., *Fertility Drugs and the Risk of Breast and Ovarian Cancers: Results of a Long-Term Follow-Up Study*, 71 FERTILITY & STERILITY 853 (1999); Roberta B. Ness et al., *Infertility, Fertility Drugs, and Ovarian Cancer: A Pooled Analysis of Case-Control Studies*, 155 AM. J. EPIDEMIOLOGY 217 (2002).

⁵ Frans M. Helmerhorst et al., *Perinatal Outcome of Singletons and Twins After Assisted Conception: A Systematic Review of Controlled Studies*, 328 BRITISH MED. J. 261 (2004), at <http://www.bmj.com>.

⁶ George Kovalsky et al., *Do Assisted Reproductive Technologies Cause Adverse Fetal Outcomes?*, 79 FERTILITY & STERILITY 1270, 1272 (2003) (discussing the Stromberg study on children and cerebral palsy).

⁷ Gerald Cox et al., *Intracytoplasmic Sperm Injection May Increase the Risk of Imprinting Defects*, 71 AM. J. HUM. GENETICS 162 (2002); Richard M. Schultz & Carmen J. Williams, *The Science of ART*, 296 SCIENCE 2188 (2002).

⁸ See Kovalsky et al., *supra* note 6, at 1270.

⁹ The President’s Council on Bioethics has called for a federally funded prospective study to track the health of all babies born by in vitro fertilization and other techniques. Rick Weiss, *Bioethics Panel Calls for Ban on Radical Reproductive Procedures*, WASH. POST, Jan. 16, 2003, at A02.

offspring, its correctability, and the extent to which parental freedom to reproduce includes the right to take such risks in having children.

B. RISKS OF MULTIPLE GESTATION

The most serious health problem posed by assisted reproduction is the high rate of multiple gestations. One-third of IVF procedures lead to multiple births.¹⁰ In addition, ovulation induction or enhancement followed by intrauterine insemination also leads to a high rate of multiples. While the rate of triplets has leveled off, the rate of twins has increased or remained steady.¹¹ Multiple births pose significantly higher risks of morbidity and mortality for offspring and mothers. With the average cost of a twin for the healthcare system near \$100,000, it also poses economic and other costs.¹²

Of special concern for this Article is the impact which multiple gestations have on offspring. Twins and triplets stand a much higher risk of being born injured as a result of multiple gestation.¹³ They have more birth defects, more neurological problems, and create more stress for parents and other children.¹⁴ They thus pose questions about whether it is ethical to increase the chance of pregnancy and birth by using techniques such as transfer of two or more embryos or uncontrolled ovulation induction when those techniques carry a high risk that offspring will be born with physical deficits that do not normally occur in singletons. Careful analysis of the meaning of offspring harm and the scope of procreative liberty will be necessary to determine proper policy here.

C. RISKS OF TRANSMISSION OF INFECTIOUS AND GENETIC DISEASE

Persons with infectious or genetic disease who reproduce risk transmitting those diseases to offspring. Although those risks exist in coital reproduction, ARTs enable some persons with those conditions to have children who would not otherwise have been able to do so. For example, persons who are carriers of recessive or dominant genetic disease may be infertile and request the services of ART providers in order to have a child. If they successfully conceive and then refuse to screen embryos or fetuses for those genetic conditions, they risk a 25 to 50% risk of their child having that condition.¹⁵

¹⁰ See PRESIDENT'S COUNCIL ON BIOETHICS, REPRODUCTION AND RESPONSIBILITY: THE REGULATION OF NEW BIOTECHNOLOGIES ch. 2, at <http://www.bioethics.gov/reports/reproductionandresponsibility/chapter2.html> (Mar. 2004) [hereinafter REPRODUCTION AND RESPONSIBILITY].

¹¹ Tarun Jain et al., *Trends in Embryo-Transfer Practice and in Outcomes of the Use of Assisted Reproductive Technology in the United States*, 350 NEW ENG. J. MED. 1639, 1644 fig. 1 (2004).

¹² See generally Centers for Disease Control, *Contribution of Assisted Reproductive Technology and Ovulation-Inducing Drugs to Triplet and Higher-Order Multiple Births—United States, 1980-1997*, MORBIDITY & MORTALITY WEEKLY REP., June 23, 2000, at 535, available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4924a4.htm>.

¹³ See REPRODUCTION AND RESPONSIBILITY, *supra* note 10.

¹⁴ See *id.*; Carson Strong, *Too Many Twins, Triplets, Quadruplets, and So On: A Call for New Priorities*, 31 J.L. MED. & ETHICS 272 (2003).

¹⁵ Criticism of parents who take such risks surfaced in the public condemnation of Bree Walker-Lampley, a television journalist in California with an inheritable condition in which bones of the hands and feet fuse, who had another child with this condition. Steven A. Holmes, *Radio Talk About TV Anchor's Disability Stirs Ire in Los Angeles*, N.Y. TIMES, Aug. 23, 1991, at B18. See also Jay Mathews, *The Debate Over Her Deformity: Some People Think She Shouldn't Have Kids*, WASH.

In some cases, ARTs may provide a way to reduce the risk of infectious gene transmission through sperm washing and in vitro conception, as occurs in assisting reproduction by persons with HIV. But those efforts may not reduce to zero the risk of disease transmission to offspring. Also, ART procedures to avoid disease transmission may be more effective for some diseases than others. But this fact will not be known until some children with the disease have been born in the process of determining its safety.¹⁶

Determining when ART providers may ethically provide treatments to such groups requires assessing the extent, if any, to which it harms offspring. We must also determine whether persons have the right to have offspring even if doing so carries a high risk of transmitting disease to offspring. Physician autonomy in determining the level of risk that is acceptable is also a factor in developing policy for these practices.

D. RISKS OF INADEQUATE OR INCOMPETENT CHILD-REARING

Persons are generally free to reproduce with a consenting partner without a prior assessment of their child-rearing ability or competency. After a child is born they are then free to rear that child as they wish, subject only to a duty not to abuse or neglect the child. In the latter case, the child can be removed from them if there is clear and convincing evidence of the need to protect the child or other penalties may be imposed.¹⁷

ARTs are usually provided to medically qualified patients without any inquiry into the patient's child-rearing competency. Indeed, ART providers are not well-equipped to make such assessments and may err conservatively if they are required to do so. Nevertheless, ART providers sometimes have doubts about whether certain patients may be adequate child-rearers. They might learn that a patient has a history of mental illness or depression, has been a substance abuser, or abused a spouse or child in the past. It might also arise when persons with serious disabilities seek to have children, for example, if they are blind, deaf, non-ambulatory, or suffer from cerebral palsy, drug abuse, psychological or emotional instability, or morbid obesity.

In such cases the child may be born healthy without inheriting the parent's condition but are subject to harm if their parents' circumstances or abilities impair their child-rearing competency. As in other cases, we must analyze the meaning of harm to offspring, procreative liberty, and provider autonomy to assess how such situations should be resolved. The Americans with Disabilities Act ("ADA") may also set limits on whether ART providers may refuse to treat persons with disabilities.¹⁸

POST, Oct. 20, 1991, at F1. Dan Brock has also argued that parents at risk for offspring with genetic disease do wrong in not screening prospective children to avoid giving birth to a child with handicaps. See Dan W. Brock, *The Non-Identity Problem and Genetic Harms—The Case of Wrongful Handicaps*, 9 *BIOETHICS* 269, 272-73 (1995). See also Seana Valentine Shiffrin, *Wrongful Life, Procreative Responsibility, and the Significance of Harm*, 5 *LEGAL THEORY* 117 (1999).

¹⁶ The physical risks to offspring of low birth weight and related conditions may also arise from women with uncontrolled diabetes or hypertension, whether they reproduce coitally or with ARTs.

¹⁷ *Santosky v. Kramer*, 455 U.S. 745 (1982).

¹⁸ Questions of the child-rearing ability of persons with disabilities have also arisen in child custody decisions in which state child protection authorities have sought to remove children from parents because of allegations that their disability makes them inadequate child-rearers, thus harming

E. RISKS FROM MODIFYING, SELECTING, MANIPULATING GAMETES AND EMBRYOS

The risks of IVF and ICSI, which arise from the manipulation of gametes, embryos, and the conditions of conception and implantation, are an inevitable by-product of enabling infertile couples to conceive or become pregnant. An additional set of risks arises from manipulations done to determine the quality or make-up of gametes or embryos, or to modify, transfer, or remove genetic material.

Preimplantation genetic diagnosis ("PGD") to screen embryos, for example, carries some risk that embryo biopsy might affect the physical well-being of resulting children. If so, that risk would have to be added to the risk of IVF and ICSI, which are necessary to perform PGD. If IVF is otherwise being sought, the additional risks of embryo biopsy might be acceptable even if undergoing an IVF cycle solely for that purpose were not. Once embryo biopsy occurs, the extent of genetic analysis does not affect the child as such, though some kinds of analysis might lead to a greater risk of false negatives or having a child for whom the parents set unreasonable expectations.

Similarly, flow cytometry to select male or female bearing sperm for preconception sex selection subjects sperm to a fluorescent dye and laser energy with still unknown effects on sperm, embryos, and offspring.¹⁹ Reproductive cloning, pronuclei and cytoplasmic transfers, and other manipulations also raise questions of impact on offspring. Judging from the effects in other mammals and the many attempts needed to be successful, it is likely that cloned children might die young or experience an array of physical anomalies.²⁰ Finally, efforts at germline gene therapy or non-medical enhancement or diminishment could result in adverse physical or psychological consequences for offspring. Indeed, the very research needed to assess whether such procedures are safe and effective must necessarily risk harm to offspring.²¹

As with the other techniques discussed, determining proper policy for prenatal gametic, embryonic, or genetic manipulations requires a closer look at the meaning of harm to offspring in those circumstances. It also requires determining whether the procreative liberty of parents includes the right to alter the genetic make-up of prospective offspring.

F. RISKS OF NOVEL FAMILY ARRANGEMENTS

ARTs makes possible a variety of novel family situations, from donor gametes and surrogacy, to posthumous reproduction and reproduction by single persons and

the child. See Michael Ashley Stein, Book Review, *Mommy Has a Blue Wheelchair: Recognizing the Parental Rights of Individuals with Disabilities*, 60 BROOK. L. REV. 1069, 1069-70 (1994).

¹⁹ HUMAN FERTILISATION AND EMBRYOLOGY AUTHORITY, SEX SELECTION: OPTIONS FOR REGULATION 10, at <http://www.hfea.gov.uk/AboutHFEA/Consultations> (2003).

²⁰ NATIONAL ACADEMY OF SCIENCES, SCIENTIFIC AND MEDICAL ASPECTS OF HUMAN REPRODUCTIVE CLONING 41 (2002), available at <http://www.nap.edu/books/0309076374/html>. Daniel Mark Cohen, *Cloning and the Constitution*, *Cloning and the Constitution*, *Cloning and the Constitution*, 26 NOVA L. REV. 511, 524-25 (2002) (discussing likelihood that cloned children will die young or suffer from physical abnormalities).

²¹ See Rebecca Dresser, *Genetic Modification of Preimplantation Embryos: Toward Adequate Human Research Policies*, 82 MILBANK QUARTERLY 195 (2004) [hereinafter Dresser, *Genetic Modification*]; Rebecca S. Dresser, *Futile Science? Designer Babies as a Research Aim*, AM. J. BIOETHICS (forthcoming 2004) (on file with author); Rebecca S. Dresser, *Designing Babies: Research Ethics Issues*, IRB (forthcoming 2004) (on file with author) [hereinafter Dresser, *Designing Babies*]. Similar risks could arise from efforts to have children after nuclear transfer, gene alteration, or embryo fusion.

gays. Some persons condemn and some countries ban all or some of those procedures.²² The grounds for objection vary, but a strong ingredient of most objections is concern for the welfare of children who are born and reared by a single parent, by gay parents, or by persons who have not provided sperm, egg, or gestation.

Banning those procedures will mean that persons who are otherwise competent and able child-rearers but who due to infertility, widowhood, lack of a partner, or sexual orientation are not able to reproduce with their own gametes, will not have offspring. The ethical and policy question posed is whether the harm to children from being raised in such circumstances is so great that it justifies denying such persons the ability to reproduce in the only way available to them. Analysis of offspring harm and the meaning of procreative liberty is essential to resolve that issue.

III. ETHICAL ANALYSIS: THE PARADOX OF HARM, PROCREATIVE LIBERTY, AND PROVIDER AUTONOMY

Ensuring safe and effective use of ARTs should be the goal of ethical practice and sound public policy. Enabling a child to be born when there is a high risk that the child will be born harmed or damaged raises moral concerns of great significance. Yet determining what ethical practice and good policy is for the wide variety of situations potentially involving harm to offspring is not obvious or easy. To do so, we must first be clear about the meaning of harm to offspring. We must also have a firm understanding of the scope of procreative liberty and provider autonomy. At that point we can apply the analysis of offspring harm to the risk situations that have been identified.

A. THE PARADOX OF OFFSPRING HARM

In all of the situations surveyed, the child appears to be harmed by the very method of conception, gestation, or social setting of birth. If, as many commentators argue and legislative schemes provide, “the prime consideration must be the welfare of the child,” then use of ARTs in those situations described must be questioned.²³ To prevent the feared “injury” to the child, the person and couple should give up the use of the ARTs that pose those risks.²⁴

²² See Katheryn D. Katz, *Snowflake Adoptions and Orphan Embryos: The Legal Implications of Embryo Donation*, 18 WIS. WOMEN’S L.J. 179 (2003) (discussing persons and groups that would desire a ban on all uses of ART). See also John A. Robertson, *Protecting Embryos and Burdening Women and Infertile Couples: Assisted Reproduction in Italy*, 19 HUM. REPROD. (forthcoming 2004) (on file with author) (discussing ban on sperm, egg, and embryo donation in Italy and Germany).

²³ For example, the United Kingdom’s Human Fertilisation and Embryology Act is explicit that treatment services should be withheld “unless account has been taken of the welfare of any child who may be born as a result of treatment.” Human Fertilisation and Embryology Act ch. 37, § 13(5) (1990) (Eng.), reprinted in DEREK MORGAN & ROBERT G. LEE, BLACKSTONE’S GUIDE TO THE HUMAN FERTILISATION & EMBRYOLOGY ACT 1990: ABORTION & EMBRYO RESEARCH, THE NEW LAW 194 (1991). Similarly, the United Nations Convention on the Rights of Children states that “In all actions concerning children . . . the best interests of the child shall be a primary consideration.” G.A. Res. A/RES/S-27-2, U.N. GAOR, 27th Spec. Sess., Supp. No. 19, at 5, U.N. Doc. A/S-27/19, available at <http://www.unicef.org/crc/crc.htm>.

²⁴ While sometimes the “harm” is a result of the ART procedure itself, in other cases the “harm” arises from incompetent child-rearers or novel forms of family. In those cases, the “harm” could also be avoided if child-rearing rights and duties were transferred by adoption or other mechanism to more competent rearers. But most persons who use ARTs have no intention of giving

But this leads to a paradox. If offspring are “harmed” by being born in those conditions, then the only way to prevent the harm is to not use those techniques. But this means that the children sought to be protected will never be born. Because their lives will not be so miserable as to be “wrongful,” it would seem that once born they have benefited from rather than been harmed by being born.²⁵ If that is so, then using ARTs to enable their birth does not harm them and does not justify restriction on those grounds.²⁶

The logic of this position troubles many people. They rebel at reasoning that says that no harm to children has occurred in these or other situations in which a child is knowingly brought into the world in an unavoidably less than healthy or fully capable condition.²⁷ Its logic would seem to permit the use of any technology that leads to children with diminished welfare. Such uses strike them intuitively as wrong or unfair to children and possibly others.²⁸ Whether the child could otherwise have been born healthy should make no difference in assessing practices that lead to such results.

Some critics who take such a position misunderstand the argument or without explanation simply deny its logic.²⁹ Other critics directly engage the argument and try to identify weaknesses and counter-moves.³⁰ Still others acknowledge that the problem is unavoidable under person-affecting theories of harm and search for non-person-based theories to resolve it.

I discuss the three major positions that have emerged on this topic, and then suggest that in the toughest cases—the different number cases—a rigorous analysis of the meaning of procreative liberty may offer the only acceptable way to judge the most troubling cases. But even that approach leaves wide room for use of ARTs in most of the situations described.

up their children for adoption or having others share child-rearing. For practical purposes they may be viewed as posing risks that cannot be alleviated other than by not reproducing.

²⁵ I exclude the rare cases of truly wrongful life, in which every postpartum moment is excruciatingly painful. In such a case, one would have a moral obligation to end that child’s life. Professor Heyd would partly agree. He maintains that moral duties are owed only to “actual individuals.” Therefore, no duty is owed to a fetus and a wrong is only committed after the child is born and no effort is made to end its pain-ridden existence. DAVID HEYD, *GENETHICS: MORAL ISSUES IN THE CREATION OF PEOPLE* 61 (1992).

²⁶ This is Derek Parfit’s non-identity problem. PARFIT, *supra* note 2, at ch. 16. See JOEL FEINBERG, *THE MORAL LIMITS OF THE CRIMINAL LAW: HARM TO OTHERS* ch. 1 (1984) (defining the principle of harm and describing how legal wrongs impact a person’s ability to engage in his or her most treasured interests, such as life). *But see* Shiffrin, *supra* note 15.

²⁷ See HEYD, *supra* note 25, at 59-62.

²⁸ Derek Parfit’s example of the woman who could wait one month to conceive to avoid the birth of a child with a defect captures this sense perfectly. Derek Parfit, *On Doing the Best for Our Children*, in *ETHICS AND POPULATION* (M.D. Bayles, ed. 1976).

²⁹ See Carl H. Coleman, *Conceiving Harm: Disability Discrimination in Assisted Reproductive Technologies*, 50 U.C.L.A. L. REV. 17, 56 (2002) (preventing a birth even where the child would not consider his or her life a net disadvantage is justifiable when the life would be filled with “gratuitous suffering” or “suffering that is unnecessary in light of the alternatives available for achieving the patient’s parenting goals”). Ronald M. Green, *Parental Autonomy and the Obligation Not to Harm One’s Child Genetically*, 25 J.L. MED. & ETHICS 5, 10-11 (1997) (claiming that “parents have an obligation not to bring a child into being knowingly, deliberately, or negligently with a condition likely to cause significantly greater disability or suffering than others in its birth”).

³⁰ One such approach is to recognize both a harm and a wrong to the child only if it does not have a minimally decent life approach. See Bonnie Steinbock & Ron McClamrock, *When is Birth Unfair to the Child*, HASTINGS CENTER REP., Nov./Dec. 1994, at 15. Depending on how that concept is interpreted, there may be very few cases of non-wrongful life that do not meet that standard.

Avoidable vs. Unavoidable Harms. A key point about the paradox of non-wrongful life is that the person could not have been born without the condition of concern. If so, refusing the act or omission that causes the child to be born with that condition cannot harm the child. Of course, if changes in technique or treatment protocols could reduce the frequency of the condition, there would be an obligation to adopt those changes. However, in situations in which no improvement can be made one cannot show that the child has been harmed as a result.³¹

There may still, however, be some instances in which a duty to avoid harm might apply. As Melinda Roberts has pointed out, cases of multiple gestation present situations in which some children who are born would be better off if fewer siblings had been born.³² In this case, the total number of embryos or fetuses threatens the well-being of all. Through non-fertilization, non-transfer, or selective reduction, one could improve the welfare of a few by avoiding the birth of a greater number. Because the unborn have no right to be born, preventing the birth of some potential persons in order to enhance the welfare of those who are born does not harm or wrong those who are never born. No right or interest of those not born has been violated to improve the lot of the fewer who are born. Unfortunately, few ART situations will be covered by the principle of avoidability.³³

Same Numbers Substitutions. An important response to the non-identity problem has been to side-step it by developing a non-person affecting theory of harm—a theory that does not depend on attaching harm to the individual who was born. Derek Parfit, who first brought the very problem to light, has suggested a utilitarian principle “Q” for such situations when the numbers are kept the same.³⁴ That principle postulates: “If in either of two outcomes the same number of people would ever live, it would be bad if those who live are worse off, or have a lower quality of life, than those who would have lived.”³⁵ Dan Brock has adopted a similar approach of “avoidance by substitution,” as has Philip Peters.³⁶ As Brock puts it, “It

³¹ In few cases will the risk of harm be so great that one can reasonably say that this child would have been better off not existing at all or that the risk of harm is so great that parents cannot be seeking standard reproductive goals in using them. Being reared by incompetent or abusive parents or having a genetic or infectious disease is unlikely to be so clearly harmful to the child that it would be better not to exist at all. In addition, situations that *ex ante* look quite undesirable may work out much better in practice. Only in the most extreme case of unremitting pain would death then be preferable, and those cases are not encompassed in the ART procedures under discussion. See *supra* notes 15, 24-26.

³² Melinda A. Roberts, *Supernumerary Pregnancies, the Harm Issue and the Limits of Constitutional Privacy*, in *ETHICAL ISSUES IN THE TWENTY-FIRST CENTURY* (F. Adams ed., forthcoming 2004) (on file with author).

³³ Another example would be reproductive cloning in which the life of several clones created at the same time is diminished by the existence of the others. Even if the life of each would be acceptable to them, each could have been born with a higher quality of life if fewer had been born. See Melinda A. Roberts, *Cloning and Harming: Children, Future Persons, and the “Best Interest” Test*, 13 NOTRE DAME J.L. ETHICS & PUB. POL’Y 37, 56-59 (1999).

³⁴ PARFIT, *supra* note 2, at 360.

³⁵ *Id.* Parfit also calls this principle “The Same Number Quality Claim.” *Id.* See also Gregory S. Kavka, *The Paradox of Future Individuals*, 11 PHIL. & PUB. AFF. 93, 105 n.24. (1982), available at <http://www.jstor.org/journals/00483915.html>. Kavka’s argument that the moral right to have children justifies slaves having offspring even if they would be born into slavery and never escape it is very close to the position that I argue for here.

³⁶ Philip G. Peters, Jr., *Protecting the Unconceived: Nonexistence, Avoidability, and Reproductive Technology*, 31 ARIZ. L. REV. 487, 510-14 (1989); Brock, *supra* note 15, at 272-73.

is morally good to act in a way that results in less suffering and less limited opportunity in the world.”³⁷

Avoidance by substitution is a non-person affecting theory of harm because it does not tie the harm to a particular individual and does not require that “the individuals who experience suffering and limited opportunity in one alternative exist without those effects in the other alternative.”³⁸ The principle is utilitarian and seeks to minimize overall suffering. Although the person born with the condition in question would not have been harmed by birth, the world is better off if a person without that harm had been substituted in his place.³⁹ As a result, it requires that the same number of persons exist after the substitution of a person with a higher welfare. But this constraint means that it applies to relatively few cases of ART because in few of the ART situations of concern can a healthy child easily be substituted for the affected one.

Where same-numbers substitutions can easily be made, Parfit and Brock imply that a person would have a moral obligation to do so because more good would exist in the world than if the substitution did not occur.⁴⁰ In Parfit’s example, it is preferable that the woman takes the drug and waits one month to conceive.⁴¹ Presumably, she can be morally condemned for not incurring the small burden of delaying conception by a month. If not, she will not have harmed the child who is born, but she has violated a person’s moral duty to do good by not incurring that small restriction on her freedom. Indeed, since she would be presumably happier as well with a healthier child, it is hard to believe that many people would insist on not waiting the month. If so, the principle has little bite because common sense behavior has already incorporated it.⁴²

Similarly, Brock asserts that a couple at risk for severe genetic disease should be screened beforehand, presumably so that they can take the needed action to avoid such a birth.⁴³ In Brock’s case, however, substitution may be possible only if embryos are screened and not transferred, or affected fetuses are aborted and a new attempt to conceive occurs.⁴⁴ If so, there is no guarantee that the next embryo or fetus will be free of the condition. In addition, it may be quite burdensome for some couples to screen and discard embryos or abort fetuses.

The principles that Brock and Parfit enunciate are attractive, and can be adopted without accepting a full-scale utilitarianism in all areas of life. But the need to keep the numbers the same and not unreasonably burden parents in making substitutions constrains its impact. Due to infertility, medical uncertainty, or strongly held personal beliefs, a couple may not be able to substitute a healthy child for the

³⁷ Brock, *supra* note 15, at 273. See also discussion in ALLEN BUCHANAN ET AL., FROM CHANCE TO CHOICE: GENETICS AND JUSTICE ch. 6 (2000).

³⁸ Brock, *supra* note 15, at 273; BUCHANAN ET AL., *supra* note 37, at ch. 6. Although the harm is not tied to a particular individual, it does arise from the effect of the reproductive action on individuals and not in some disembodied form. Brock, *supra* note 15, at 273.

³⁹ One can articulate the point in terms of switching members of a class while keeping the number in the class constant. Under this approach, the world is better off if a class of 100 persons who are healthy are born rather than a class of 100 persons, 99 of whom are healthy and one who has a disability.

⁴⁰ See Brock, *supra* note 15, at 273; PARFIT, *supra* note 2, at ch. 16.

⁴¹ See Parfit, *supra* note 28, at 100-01.

⁴² A harder problem arises when the person has no guarantee that if they wait one month they will still be able to have a child or they have some other good reason for proceeding immediately.

⁴³ Brock, *supra* note 15, at 272.

⁴⁴ *Id.* at 275.

disabled one. It may not, for example, be possible to have a genetically related child unless one can use the ART procedure (IVF or ICSI) which creates the risk.⁴⁵ To substitute a healthy child would require that the parents give up having a genetically related child and accept childlessness, adoption, or use of a gamete donor. Or they would have to incur the physical burdens and financial costs of more IVF cycles. Or substitution may require invasive prenatal diagnostic procedures and destruction of embryos or fetuses, which many people oppose, even on the assumption that an unaffected child would then be born instead.⁴⁶

As the costs and burdens of substitution rise, it becomes too much to ask one person to shoulder those burdens in order to improve overall utility. At the very least some metric or criteria for determining when the burdens of substitution are acceptable is needed to determine when persons may be required to assume that burden in order to improve the overall good. As a result, the Parfit-Brock duty of creating more good by same-numbers substitution will apply to few cases and have limited applicability across the range of ART situations raising the issue of harm to offspring.

When the Numbers Differ. Parfit and Brock are careful to limit their claims to cases where the numbers are kept the same.⁴⁷ If the numbers change or the burdens of substitution are excessive, then the basis for arguing that there is a moral obligation to substitute vanishes.⁴⁸ When the numbers change one cannot be sure that one has maximized overall utility, which is the obligation at issue.

The problem that arises when the numbers change is that there is no principle that can solve the dilemma of choosing between average or total utility in determining the most favorable outcome. One possibility when the numbers change is that fewer children are born but each has a higher quality of life than if more had been born, thus increasing average utility at the price of total utility. On the other hand, opting for total utility over average utility would mean that many more people with a lower quality of life would be born. Although each has an interest in living once born, many people would find that maximizing utility by creating many children knowing that they will each have such a lesser quality of life is repugnant.⁴⁹ At present there is no easily ascertainable principle X that allows one to say that a harm or wrong occurs when children who would not otherwise have been born are born albeit with a low quality of life. If few cases of easy substitution exist, the Parfit-Brock approach carries us only a short way toward a solution.

Harm to Others. If substitution theories of the sort that Parfit and Brock have offered are not available, some other basis for making judgments about the wrongfulness of having offspring with a lower quality of life must be sought. Rather than focus on the welfare of the child *qua* child, one might focus on the burdens and demands which such births impose on others. If they are sufficiently great, the duty

⁴⁵ Depending on how that preference is weighted, it would also appear to exempt a person who would reproduce only if he or she could use the genetic enhancement or diminishment technique in question.

⁴⁶ The same issue would arise with a deaf couple who screens embryos prior to transfer. Rather than transfer those with normal hearing, they choose to transfer only those who have genetic mutations connected with loss of hearing. In this case, presumably hearing instead of deaf children could have been born if the parents wished to rear a hearing child. Resolution of the case will thus turn on whether the deaf parents had a good reason for preferring a deaf child even when they could have a hearing child.

⁴⁷ Brock, *supra* note 15, at 272; PARFIT, *supra* note 2, at 360-66.

⁴⁸ Brock, *supra* note 15, at 275; PARFIT, *supra* note 2, at 370-71.

⁴⁹ PARFIT, *supra* note 2, at 365, 387-90, 487-90.

not to harm others might provide a basis for limiting the use of techniques carrying those risks.

It may be difficult, however, to show such harms. First, many of the conditions of concern involve questions of relative well-being, and may not themselves impose such significant costs on others as to justify limitation of a person's reproductive plans in order to avoid them. Second, even if the conditions are more serious, if the parents have knowingly accepted the risk and have the resources to rear their child, no harm to others will occur. Third, even if rearing costs would be imposed on others, preventing the infertile but not the fertile from imposing them would treat the infertile unequally. Yet extending such limitations to the fertile to avoid imposition of such costs may be very difficult to enact.⁵⁰ Nor would the offense that others feel toward persons who knowingly take the risk of having affected offspring be a sufficient basis for restricting their reproduction.⁵¹

Is It Procreative? A more fruitful approach may be to shift attention away from a utility to a rights analysis. Instead of focusing on harm to resulting children or to society generally, we might focus on the persons who willingly undertake to procreate despite the risk of having offspring with a lower quality of life and ask whether they are exercising procreative rights in making such a choice. If not, they have no special claim to engage in that activity and the symbolic and dignitarian harms that cannot be directly tied to harm to offspring might suffice as a basis for regulation. Although not utilitarian, such an approach provides an alternative approach to the elusive principle X that Parfit seeks to handle different numbers cases.⁵² Examples of what might count as unacceptable under such an approach are discussed in greater detail in the next section.⁵³

The Legal Situation. Most courts throughout the world that have confronted this issue agree that children unavoidably born with the condition of concern have not been harmed or wronged. Courts generally award parents damages for negligence causing them to have such a child, but the child herself cannot recover.⁵⁴ Indeed, the

⁵⁰ Recall Justice Jackson's point in *Railroad Express Agency, Inc. v. New York*, 336 U.S. 106, 112 (1949) (Jackson, J., concurring) about the power of equal protection constraints in disciplining the power of law-makers: "[T]here is no more effective practical guaranty against arbitrary and unreasonable government than to require that the principles of law which officials would impose upon a minority must be imposed generally."

⁵¹ The objection, however, appears to be not the offense per se that others have so acted, but rather the fact that children with disabilities have been born when it would have been relatively easy to have healthier, albeit different, children either through their own reproduction, adoption, or use of donor gametes. As such, the offense argument is a version of the same-numbers substitution argument discussed *supra*.

⁵² Indeed, this approach might provide the principle X that Parfit seeks. PARFIT, *supra* note 2, at 361-71, 405. But it is no longer a utilitarian principle, and looks to the internal logic of why reproduction is so highly valued to distinguish cases.

⁵³ For a preview of that discussion, consider the case of a man who donates sperm without revealing his HIV status or hepatitis infections, leading to the infection of several children. (The example is inspired by Associated Press, *Diseased Sperm Forces Fertility Clinic to Close*, ST. LOUIS POST-DISPATCH, Nov. 30 1997, at A5). If the donor had disclosed those infections, children would not have been infected but also would not have been born. In this case, the donor's non-disclosure harmed recipients of the donation who were unaware of his condition, so there is an independent basis in harm to others to limit such donations. But if the harm to recipients were missing and the same-numbers proviso does not hold, he still may have no right to donate infected sperm. Donating sperm does not implicate the usual goods sought through procreation because the donor will not rear the child. Because the infected donor is not exercising procreative liberty, a much weaker basis for intervention or policy restriction would suffice. See *infra* notes 61-68 and accompanying text.

⁵⁴ See, e.g., *Berman v. Allan*, 404 A.2d 8 (N.J. 1979); *Becker v. Schwartz*, 386 N.E.2d 807 (N.Y. 1978); *Smith v. Cote*, 513 A.2d 341 (N.H. 1986); *Enright v. Kwun*, 100 L.S.G. 32, [2003]

three states that recognize an exception for special damages for such children do so only because the damages the parents can recover for the extra care of such a child end at age eighteen.⁵⁵ A similar outcome occurred after the French Cours de Cassation had recognized wrongful life recovery for a child born handicapped.⁵⁶ After an enormous outcry, the effect of the decision was clarified to provide damages only for the extra care of the child needed when other payments ran out.⁵⁷

The courts vary in their analysis of why recognizing a wrong to unavoidable children is not acceptable. Some focus on the difficulty of determining damages compared to no existence.⁵⁸ Others fear that awards of wrongful life might diminish respect for the life of the plaintiff and disabled persons generally.⁵⁹ Yet all seem to accept the premise that offspring who would not otherwise have been born have not been harmed, and thus cannot have been wronged by coming into existence.⁶⁰

B. PROCREATIVE LIBERTY

If ART practices harmed offspring, a strong case for limiting them might exist. But if due to the non-identity problem harm to offspring is questionable or non-existent, then harm to offspring in those cases cannot justify limiting use of ARTs. This is particularly true in those cases in which use of the ART implicates the procreative liberty of infertile couples and others who use them.

To address these issues we must first address the liberty interests or rights of persons to procreate with ARTs. It is widely accepted that the right to have or not have children is an important personal liberty. As a result, the state cannot restrict decisions about reproduction except in cases of serious harm.⁶¹ Indeed, even persons

E.W.H.C. 1000, 2003 WL 21047364 (Q.B. 2003) (Eng.); *Rand v. East Dorset Health Authority*, 56 B.M.L.R. 39, [2000] Lloyd's Rep. Med. 181, 2000 WL 774894 (Q.B. 2000) (Eng.).

⁵⁵ The California, New Jersey, and Washington Supreme Courts have allowed children to recover special but not general damages on a claim of wrongful life in situations in which their parents were able to recover both special and general damages for the child's birth. See *Turpin v. Sortini*, 643 P.2d 954, 966 (Cal. 1982); *Procanik v. Cillo*, 478 A.2d 755, 763-64 (N.J. 1984); *Harbeson v. Parke-Davis, Inc.*, 656 P.2d 483, 496-97 (Wash. 1983). These cases are less a recognition of wrongful life than they are a means to assure that the tortfeasor internalizes the full cost of the tort when legal duties of parental care end at majority.

⁵⁶ *Époux X v. Mutuelle d'Assurance du Corps Sanitaire Français*, Cass. ass. plén., Nov. 17, 2000, J.C.P. 2000, II, 10438 (Fr.).

⁵⁷ *Id.*

⁵⁸ The *locus classicus* is Justice Weintraub's statement in *Gleitman v. Cosgrove*, 227 A.2d 689, 707-12 (N.J. 1967).

⁵⁹ See, e.g., *Smith*, 513 A.2d at 341.

⁶⁰ See, e.g., *id.* The case is different if the parents have done something affecting the child's present condition which could have been avoided and yet the child be born, such as refraining from using drugs or alcohol in a pregnancy going to term. However, once the action affecting offspring occurs it is no longer avoidable except by terminating the pregnancy to prevent the birth of the affected child.

⁶¹ The right of prison inmates to reproduce, however, may be limited on lesser grounds because of security and other requirements of their confinement. See *Gerber v. Hickman*, 291 F.3d 617 (9th Cir. 2002) (en banc) (prison inmate has no right to provide sperm to his wife for artificial insemination outside the prison); see also *Goodwin v. Turner*, 908 F.2d 1395 (8th Cir. 1990). JOHN A. ROBERTSON, CHILDREN OF CHOICE: FREEDOM AND THE NEW REPRODUCTIVE TECHNOLOGIES 35-38 (1994). Judges have also on occasion required persons who have failed to pay child support or had previous children placed in foster care at public expense to refrain from having additional children as a condition of probation or on pain of contempt. See Associated Press, *Judge Orders Couple Not to Have Children*, CNN.COM (four previous children tested positive for cocaine and placed in foster care), at <http://www.cnn.com/2004/LAW/05/08/conception.banned.ap/index.html> (May 8, 2004); Robert E. Pierre, *In Ohio, Supreme Court Considers Right to Procreate*, WASH. POST, May 11, 2004,

with severe mental illness or retardation are protected against compulsory sterilization or contraception.⁶²

If that is so, the interest in using ARTs to overcome infertility or achieve other reproductive goals should presumptively be protected against limitation without the strong showing ordinarily needed to limit the reproductive rights of fertile persons. Just as fertile persons have strong interests in having offspring, so do infertile persons. If they are otherwise medically suitable for treatment, the state should not be able to deny them fertility treatment on the basis of harm that would not justify similar limitations on the rights of fertile persons to reproduce.⁶³

Still, treating both similarly does not mean that access must be provided to ARTs simply because coital conception is easily available to willing partners. An important point about reproductive rights is that ordinarily they are rights *against the state* limiting or restricting an individual's reproductive choices or efforts to obtain reproductive services from a willing provider. They are not rights to *have the state provide* the services or resources needed. Nor do they obligate private individuals to provide access to services or resources that the provider chooses not to provide. A private clinic need not meet the heavy burden the state must satisfy to ban a needed reproductive service. As long as the private provider is not acting on impermissible discriminatory grounds, he or she does not violate a person's procreative liberty by choosing not to treat them.⁶⁴

Finally, reproductive rights, like all rights, are not absolute, and can be restricted or limited for good cause. There is great dispute about what will count as a sufficient justification for *state* restrictions on reproduction. Overpopulation itself has not been grounds in the United States, and the right of all persons, including those with mental illness or retardation, to be free from state restrictions has been upheld.⁶⁵ Restricting ARTs might be marginally more acceptable because such bans do not impinge on coital reproduction, but much dispute exists here over what is an acceptable reason for banning or restricting ARTs.

The question of whether concerns about the impact on offspring justify limitation has not been directly litigated. Under person-affecting theories of harm and wrongful life tort precedents, one cannot persuasively say that children are harmed by the use of ART techniques that enable them to be born at all. Because the avoidability principle will rarely apply, one would have to come up with some other theory of harm to justify limits on ARTs to protect the welfare and quality of life of offspring.

at A02 (father of seven children with five women who owes \$40,000 in child support ordered to use "reasonable efforts" to avoid impregnating anyone for five years). Whether such orders are constitutionally valid has not yet been definitively resolved.

⁶² See *Buck v. Bell*, 274 U.S. 200 (1927); *Skinner v. Oklahoma*, 316 U.S. 535 (1942). Previously, most discussions of the liberty to have offspring involved questions of limiting the number of children to prevent over-population or parental fitness licensing schemes.

⁶³ Although regulation of sexual intercourse is much more difficult than regulation of procedures provided by licensed professionals, it does not follow that the state should be able to regulate ARTs on moral or speculative grounds that would not justify restriction of coital reproduction.

⁶⁴ However, some limits on provider discretion to refuse services may come from the federal Americans with Disabilities Act, which applies to private ART clinics and prohibits denying persons access to infertility services because of their disability. 42 U.S.C. § 12181(7)(F) (2000). For further discussion of the Americans with Disabilities Act, see *infra* notes 72-78 and accompanying text.

⁶⁵ See *Skinner*, 316 U.S. at 541.

Approaching the problem through the lens of procreative liberty provides such an alternative. Procreative liberty protects access to ARTs only if procreative liberty is directly implicated. One can ask whether parents who are willing to use ARTs that risk leading to children with a greatly reduced quality of life are pursuing reproductive needs as commonly valued and understood, thus qualifying them for the special protection usually accorded to reproductive choice.⁶⁶ A relevant question would be whether the contested use makes sense as a way to resolve an individual's goals of producing viable genetically related offspring in the next generation. If not, then those uses might be restricted on less compelling grounds than if they squarely implicated those interests.

A relevant factor in assessing the reproductive interest of persons seeking to use ARTs that risk adverse effects on offspring welfare is whether they are committed to the well-being of the resulting child, and will rear and care for the resulting children just as parents who reproduce coitally do.⁶⁷ If so, it will be difficult to claim that they are not seeking the usual goals of reproduction. While extreme or bizarre situations of willing rearing would challenge such an approach, as would the direct imposition of heavy rearing costs and burdens on others, a commitment to rear children born from use of ARTs makes the situation different from that of a person producing cloned or altered embryos or children for others to rear who have no genetic connection with them.⁶⁸

In short, while parents generally want healthy children, they may accept the risks of having a child who is not healthy because it is the only way that they can have children at all. As long as parents who use these techniques are committed to rearing resulting children, whatever their condition, or otherwise providing for their care, they should be viewed as engaged in an exercise of procreative activity. If so, a substantial ground for limiting it must then be shown, equivalent to the harm needed to limit coital reproduction.

C. PROVIDER AUTONOMY

The possibility of harm to offspring from the use of ARTs raises the question of the role of physicians and providers in making those outcomes possible. A key

⁶⁶ Those goods may be thought of as an internal constraint on rights. David Archard develops a similar idea when he argues that the willingness to have a child that is not likely to meet a threshold of a decent chance of a happy life, violates an internal constraint on procreative liberty and thus does not fall within the right. See David Archard, *Artificial Reproduction and the Interests of the Child*, Presentation at the Procreative Liberty Conference, Medical Center of the University of Giessen, Germany (June 13-14, 2003) (on file with author). For Archard an internal constraint is "a full and adequate specification of what the right in question contains or immediately entails." *Id.* By contrast, "an external constraint are contingent facts that arise from its exercise, such as effects on others." *Id.* I would disagree that having such a child violates such internal constraints if the parents were still willing to nurture and rear the child, preferably with their own resources. For further discussion, see *infra* notes 67-68 and accompanying text.

⁶⁷ Onora O'Neill makes a similar point about the internal logic of procreative liberty when she argues that "the right to beget or rear is not unrestricted, but contingent on begetters and bearers having some feasible plan for their child to be adequately reared by themselves or willing others. Persons who bear or beget without making any such plans cannot claim that they are exercising a right." Archard, *supra* note 66. I would agree that persons who procreate without such a plan may not be exercising the right to procreate because they have not met the internal constraint of seeking the usual reproductive goals of genetic transmission and the rearing and companionship of offspring.

⁶⁸ Although not harming the child, the person reproducing in such circumstances may be harming other interests, such as a collective or communal interest in a certain moral tone. Appeals to such an interest would not justify constraining choices that are clearly reproductive.

difference between reproduction by fertile and infertile persons is that fertile individuals do not need the help of physicians to conceive or get pregnant. A person who seeks ARTs to reproduce necessarily implicates the ART provider in offspring outcomes. As a result, providers must exercise moral responsibility in deciding whether to accede to or refuse such requests.

The problem of offspring harm poses questions about the physician's moral role. Is she simply a technician who provides services to all who ask or is she free to make judgments about the desirability of providing those services in particular cases? This issue arises less strongly in other areas of medical practice. There is a strong medical ethic of treating all patients in need, regardless of whether they are bad people or will survive to do bad things.⁶⁹ Given the physician's duty to her patient, Kantian ethicists might argue that even Hitler is entitled to treatment for a disease that enables him to survive and later pursue his evil deeds. But here there is a question of the provider's moral responsibility because the resulting child would not exist without the provider's assistance.

Although a strong ethic urges physicians to treat all persons in need, physician and professional autonomy is also an important value. Ordinarily, physicians are free to decide whether or not to enter into a doctor-patient relationship with a patient, and once in it, whether, with adequate notice to the patients, to terminate that relation.⁷⁰ Institutional or employment conditions aside, physicians providing fertility services are free to provide or withhold ART services as they choose, subject only to laws prohibiting discrimination against persons because of race, religion, ethnicity, or disability.

Providers faced with patients who pose a risk of having children with less favorable physical, social, or psychological situations, may not wish to treat them. Precisely because fertility services could produce a child, physicians may reasonably view themselves as having a moral responsibility for causing the existence of the resulting child and choose not to help bring about such an outcome.⁷¹ If they take that view and do not discriminate on the basis of disability or other impermissible factor, then they should be able to take the welfare of resulting children into account in deciding whether to provide services.

By the same token, some providers may take the position that they have an obligation to treat all patients who would benefit from medical treatment and not

⁶⁹ Timothy Murphy, *Gay and Lesbian Health Care as Politics/Ethics*, APA NEWSLETTERS (Spring 1999), at <http://www.apa.udel.edu/apa/archive/newsletters/v98n2/medicine/murphy.asp> ("Medical treatment should not be a reward offered in exchange for the promise of future moral behavior, with individual physicians defining the acceptable terms of a patient's future behavior. That approach would demand too much of physicians—to make moral judgments about who deserves treatment.").

⁷⁰ A strong strain of medical ethics would argue that doctors also have an obligation to care for the sick, even at some risk to themselves. When many doctors in the first years of the AIDS epidemic refused to treat persons with HIV, the American Medical Association's Council on Ethical and Judicial Affairs declared that "a physician may not ethically refuse to treat a patient whose condition is within the physician's current realm of competence solely because the patient is seropositive [for HIV]." Council on Ethical and Judicial Affairs, American Medical Association, Code of Medical Ethics: Current Opinions with Annotation, Opinion 9.131 (2002-2003). The same ethic has led many health care workers to risk their lives in the front-line battles against SARS. See Ezekiel J. Emanuel, *The Lessons of SARS*, 139 ANNALS INTERNAL MED. 589 (2003).

⁷¹ Dena Towner & Roberta Springer Loewy, *Ethics of Preimplantation Diagnosis for a Woman Destined to Develop Early-Onset Alzheimer Disease*, 287 JAMA 1038 (2002). See also G. Pennings, *The Physician as an Accessory in the Parental Project of HIV Positive People*, 29 J. MED. ETHICS 321 (2003).

make a patient's child-rearing abilities or other child welfare issues a pre-condition to treatment. This too is a reasonable position. Physicians and providers with this treatment philosophy should be free to treat persons about whom other providers might have serious doubts about their child-rearing competency. If so, they should not then be obligated to investigate further into rearing abilities, though they would of course be free to do so if they chose.

Professional autonomy as traditionally understood thus cuts both ways. It entitles physicians to choose *not to treat* persons whom they think will be inadequate child-rearers (as long as they comply with anti-discrimination laws). It also entitles them *to treat* such patients if they choose.

The physician's traditional autonomy, however, to accept or reject patients has been significantly limited by state and federal civil rights laws, most significantly by the federal Americans with Disabilities Act. The law treats physician offices as places of public accommodation and forbids discrimination on the basis of disability.⁷² Because a person who is infertile is incapable of engaging in the important life activity of reproduction, they are "disabled" within the meaning of the Act.⁷³ In addition, they may have other conditions that constitute a disability. In either case, they cannot be denied ART services because of factors based on their disability unless the provider can show that providing services was "a direct threat to the health or safety of others."⁷⁴

Although most debate and litigation under the ADA has concerned public and private employment and the duty of reasonable accommodation, questions have also arisen about access to private medical services.⁷⁵ The question has now arisen under the ADA's public accommodations provisions whether ART providers may turn away persons with disabilities because of concerns about their ability to effectively rear offspring. Under the analysis of this Article, children are not harmed in those situations because they could not or would not otherwise have been born. Thus denying them ART services to protect offspring would be an insufficient basis for denying them services.⁷⁶

ART providers do have a moral responsibility in helping people who could not otherwise have children to have them. It is quite understandable if some providers had strong feelings about their moral responsibility and were not comfortable in offering services, for example, to a single blind woman who had few resources for child-rearing.

⁷² 42 U.S.C. § 12181 (2000).

⁷³ See *Bragdon v. Abbott*, 107 F.3d 934 (1st Cir. 1997), *aff'd* 163 F.3d 87 (1st Cir. 1998).

⁷⁴ See 42 U.S.C. § 12182(b)(3) (2000). See also Ann Hubbard, *Understanding and Implementing the ADA's Direct Threat Defense*, 95 NW. U.L. REV. 1279 (2001).

⁷⁵ In the employment context, the scholarly debate has focused on whether a regulatory model of civil rights discrimination or an accommodation perspective should control applications of the act, and thus the extent to which employers must incur costs to accommodate disabled workers. Most recently, Samuel R. Bagenstos has argued that both approaches are rooted in the same fundamental values of reducing subordination and social inequality. Samuel R. Bagenstos, "Rational Discrimination," *Accommodation, and the Politics of (Disability) Civil Rights*, 89 VA. L. REV. 825 (2003). For issues of employment discrimination and access to facilities in the public sector, see *University of Alabama v. Garret*, 531 U.S. 356 (2001) (Eleventh Amendment bars application of the ADA to state employment decisions); *Lane v. Tennessee*, No. 02-1667, 2004 U.S. LEXIS 3386 (May 17, 2004) (Title II of the ADA valid as protection of fundamental right of access to the courts).

⁷⁶ Although not a disabilities case, *U.A.W. v. Johnson Controls*, 499 U.S. 187 (1991), an important gender discrimination case under Title VII of the Federal Civil Rights Act, found that employer concerns about tort suits from injured offspring were not sufficient to justify keeping women out of workplaces because of risks to resulting offspring.

But there is no conscience clause in the ADA nor category of exceptions for perceptions of moral responsibility. The very purpose of the ADA was to limit subjective perceptions about the worth and ability of disabled persons.⁷⁷ As a result, the ADA would not justify withholding services to prevent children from being born, even though interventions into child-rearing could occur after birth if the same standard of harm for interfering with the child-rearing of non-disabled persons were also followed.⁷⁸

IV. APPLYING THE ANALYSIS: THE SIGNIFICANCE OF IMPACT ON OFFSPRING

The discussion of harm to offspring, procreative liberty, and provider autonomy has shown the complexities of the ethical analysis needed to take impact on offspring properly into account in public policy for ARTs. As we have seen, harm to offspring *qua* offspring is rarely a sufficient ground to override core instances of procreative liberty, though impact on offspring is relevant in determining whether a core instance of procreative liberty is involved. Provider autonomy as constrained by the ADA may also be a significant factor. To understand how this analysis affects ART practice and policy, it is essential to assess separately the range of cases that have generated concern.

A. IVF AND ICSI

Major ethical and policy issues will arise if data shows that IVF, ICSI, or other ARTs carry a non-trivial risk of serious birth defects or other harmful conditions in offspring. As noted earlier, it may be very difficult to get reliable data of such effects because of the difficulty of doing controlled studies showing that it is the ART and not the underlying condition of infertility that is the cause of those effects. After all, if the population in question is infertile it will be difficult to find cases where enough infertile couples have reproduced without ARTs to determine the cause of the increased risk.

Suppose, however, that further research reliably shows that infertility itself or IVF or ICSI treatments do increase the risk of such outcomes and that the degree of risk cannot be reduced through protocol changes, standardizing culture media, reducing the indications for ICSI, or other steps.⁷⁹ If so, analysis would shift to the kinds of adverse effects, their correctability, and their long-term impact on offspring. Some procedures may pose more risk than others, with very little gain in success rate. ICSI, for example, which is rapidly becoming routine in IVF programs because of its greater efficiency in ensuring fertilization, may be used less widely if it poses an elevated risk of even relatively rare syndromes, such as Beckwith-Widemann or

⁷⁷ See 42 U.S.C. § 12101 (2000).

⁷⁸ It would be ironic if the very reason why an HIV patient could not be barred from a dentist's office in *Bragdon v. Abbott*, 107 F.3d 934 (1st Cir. 1997), *aff'd*, 163 F.3d 87 (1st Cir. 1998) (not reproducing because of risk to offspring) was now deemed sufficient to deny them services in the reproductive endocrinologist's office when they wished to reproduce. See Coleman, *supra* note 29, at 26-29, 34-39.

⁷⁹ The President's Council on Bioethics has recommended a federally funded longitudinal study on the health and development impacts of ARTs on children born with their aid. See PRESIDENT'S COUNCIL ON BIOETHICS, BIOTECHNOLOGY AND PUBLIC POLICY: BIOTECHNOLOGIES TOUCHING THE BEGINNINGS OF HUMAN LIFE, at <http://biotech.law.lsu.edu/research/pbc/background/bppinterim.html> (Jan. 2004).

Angelman's. Other risks, such as that of low birth weight, might be countered with better management of the pregnancy or perinatal measures. A higher risk of major birth defects will also need to be broken down to identify to what extent those outcomes are amenable to medical or surgical correction and whether they have significant long-term sequelae.⁸⁰

Policy responses will vary with the severity and probability of the outcome and whether the risk is from ART procedures or the infertility itself. At a minimum patients would have to be fully and honestly informed of the risks of such outcomes so that they might intelligently weigh them against the strength of their desire to reproduce and the attractiveness of alternatives such as adoption, donor gametes, or childlessness. No person should undergo ART without a clear realization of the risks of having a child with such conditions. They should also be informed of the special burdens that rearing such children pose, and the challenges of insurance coverage and support for meeting those burdens.

The more difficult public policy issue is whether the law should restrict or prohibit use of certain ART procedures because of such increased risk. Legal restrictions would infringe the procreative liberty of infertile couples and require a compelling justification. Our analysis of offspring harm, procreative liberty, and provider autonomy suggests that such policies would be highly problematic. First, restricting ART to protect offspring from the risks of ART procedures runs afoul of Parfit's non-identity problem.⁸¹ Once children have been born with those conditions, they would not have been wronged or harmed because there was no other way that they could have been born. Other grounds must be found to justify those restrictions. Greatly increased costs imposed on others are relevant but may be difficult to show in those cases.

Second, it may be hard to show that infertile persons who request ARTs despite full information about the risks are acting irresponsibly. In many cases, the increased risk may only be a doubling or tripling of a low background rate of malformations (a 6 to 8% risk rather than a 3 to 4% risk), well within a range of acceptable risk-taking.⁸² Most importantly, they will have no other way to have a genetically related child. Because their goal is to have biologic offspring whom they will love and rear whatever the outcome, they would be seeking the same reproductive goals that fertile couples seek. Standard conceptions of procreative liberty may thus protect them unless serious harm to others can be shown.⁸³

If reliable evidence shows that ART procedures carry a significantly higher risk of adverse outcomes, there may be no need for legal restrictions. Consumer demand for them will plummet, with many couples turning to donor gametes, adoption, or childlessness. The supply of reproductive endocrinologists and fertility providers will also drop. But persons who are still committed to having biologic offspring despite those risks, if they can find a willing provider and are committed to rearing

⁸⁰ See Kovalesvsky et al., *supra* note 6, at 1271 ("Of Note, many of the [major birth defects] are amenable to medical or surgical correction and do not have significant long-term sequelae.").

⁸¹ PARFIT, *supra* note 2, at ch. 16.

⁸² Michèle Hansen et al., *The Risk of Major Birth Defects After Intracytoplasmic Sperm Injection and In Vitro Fertilization*, 346 NEW ENG. J. MED. 725, 727-29 (2002) (infants conceived with IVF/ICSI have twice as high a risk of a major birth defect as naturally conceived infants).

⁸³ If so, the relevant question is whether those cost burdens are greater than those imposed (and tolerated) from other groups. If they are, a less restrictive alternative to prohibition would be to restrict use of those procedures to those who commit themselves to rearing and have insurance or the resources to cover the additional child-rearing costs that might result. Cases not meeting those conditions may be rare. See also Associated Press, *supra* note 61.

or providing for resulting children whatever their condition, may have a right to do so.

B. REDUCING MULTIPLE GESTATION

Our analysis of offspring harm and procreative liberty is also helpful in discerning the proper shape of policy for reducing multiple gestations. Alone among the situations discussed, some of the children resulting from multiple gestations could have been born healthy even though not all could be.⁸⁴ This would be the case if fewer embryos were transferred or eggs fertilized in a natural cycle. It is true that the children who would have been born from those eggs or embryos will now not exist, but no one's rights or interests will have been harmed because no person to suffer that setback in interests would ever have existed.

While all are agreed that triplets or more are clearly undesirable, there is less unanimity about the undesirability of twins or the extent to which efforts should be made to have all births be singletons.⁸⁵ Policies to reduce the incidence of triplets would have little effect on the ability of ART patients to achieve success, but policies directed at avoiding twins, such as single embryo transfer policies, may diminish the chances of success in a given cycle, thus necessitating additional cycles of IVF to reproduce.

If so, there will be a direct conflict between the interest of a woman/couple in having offspring in a particular cycle and the higher rate of morbidity in two or more children born at one time. That is, policies that require transfer of no more than two embryos may be acceptable but policies that require that only one embryo be transferred may unduly limit the ability to get pregnant. A range of options exist here, from full information to patients of the risks of twins to limits on number of embryos transferred.⁸⁶ But there is a trade-off between overall success rate and efforts to guarantee singleton births. Is singleton birth so important that should be sought even at the risk of lower pregnancy rates or increased IVF costs?

Resolution of this conflict will depend on the increased costs and morbidity from having twins and the impact on pregnancy success rates. In the United Kingdom and countries with a similar system of regulation, a central licensing authority may decree the answer.⁸⁷ Belgium now requires single embryo transfer only for the first transfer in women under thirty-six years, while the Swedish healthcare system will cover an unlimited number of IVF cycles in which a single embryo is transferred, but only four cycles if more than one embryo is transferred.⁸⁸ In the United States, professional guidelines and legal doctrines of negligent and informed consent will play a large role. At the very least, patients have to be fully informed of the risks and sequelae of singleton and multiple gestations. However, a

⁸⁴ Roberts, *supra* note 32.

⁸⁵ Many infertile couples, for example, prefer a multiple birth over a singleton because they think that they will more easily achieve a goal of having two children or because they like the idea of getting "two children for the price of one" ART procedure. See Ginny L. Ryan et al., *The Desire of Infertile Patients for Multiple Births*, 81 FERTILITY & STERILITY 500 (2004); Jain et al., *supra* note 11, at 1641-44 (discussing single embryo transfer policies to prevent twins).

⁸⁶ See Jain et al., *supra* note 11.

⁸⁷ HUMAN FERTILISATION AND EMBRYOLOGY AUTHORITY, CODE OF PRACTICE, at <http://www.hfea.gov.uk> (6th ed. 2003).

⁸⁸ Jain et al., *supra* note 11, at 1644.

direct ban on procedures that increase the risk of twins but decrease pregnancy rates may be subject to attack as a violation of procreative liberty.⁸⁹

From the perspective of the twins, a prisoner's dilemma exists. Both twins cannot be born without raising the chance of both doing less well than if either were born alone.⁹⁰ However, even if it is in the interest of one of the twins to be gestated singly, it may be in the interest of both of them to be born with lesser overall health rather than lose the chance of being born at all.

C. INFECTIOUS AND GENETIC DISEASE

The acceptability of using ARTs when there is risk of transmitting infectious or genetic disease to offspring depends upon whether such actions harm offspring and fall within a person's procreative liberty. Ethical and policy assessment will turn on whether the child could have been born without the disease if certain precautions were taken, or whether the disease is unavoidable if the child is to be born at all.⁹¹

Genetic Transmission. ART situations involving the risk of transmitting genetic disease arise when persons who are carriers of these diseases need the help of ART providers to have offspring. Because such situations commonly involve a 25% or 50% risk that the child will be born with the genetic condition of concern, persons with a family history of genetic disease will often be screened to determine their carrier status. If two carriers choose not to adopt, use donor gametes, or remain childless, they might resort to preimplantation genetic diagnosis to prevent implantation of affected embryos. If PGD is not used, they may request prenatal diagnosis and terminate affected pregnancies.

An ethical problem for the provider arises if the couple opposes embryo discard, abortion, and gamete donation, and wants a child of their own genes. Providing the services means there is a significant risk that a child will be born with a severe genetic disease. A child with such a disease, however, would not have been harmed by provision of ART services because those services made its birth possible. If enabling the birth of children with diseases such as cystic fibrosis, Tay Sachs, deafness, sickle cell anemia, or Huntington's disease is ethically problematic, it would have to be on some ground other than harm to the children themselves.

One argument for harm to others would be the increased costs to tax and insurance payers of caring for such a child. In many cases, however, these costs may not be significant enough to justify a limit on reproduction.⁹² Or the couple may be prepared to bear most of them themselves. If the cost is a sufficient reason to ban the use of ARTs for this purpose, similar penalties should extend to persons who reproduce coitally without attempting to ascertain their carrier status or screen embryos and fetuses. Because the couples who are willing to take such risks are

⁸⁹ But even if the law allowed couples and doctors to risk having twins, insurance coverage and state health programs would not be obligated to provide support for that extra effort. Nor would doctors be obligated to offer such services.

⁹⁰ The competition between twins that exists in this situation is quite familiar to embryologists. Until there were better methods of choosing the embryo most likely to implant, the choice between embryos of apparent equal quality would be made randomly.

⁹¹ Similar issues arise in non-ART situations in which there is a high risk that the child will be born with serious physical harm or disease, such as prenatal drug abuse, non-compliance with prenatal medical regimes, or refusal of prenatal screening in high risk cases.

⁹² For example, Bree Walker, the television announcer with congenital ectrodactyly who risked having another child with that same condition was hardly imposing high costs on others. See Holmes, *supra* note 15. Nor would a deaf child reared by deaf parents greatly increase costs.

seeking standard reproductive goals, it may be hard to find grounds to deny them the right to reproduce even when there is a risk that an affected child will result.⁹³

But even if the costs are insufficient to justify limitations on reproduction or providing the needed ART services, the risk of having affected offspring may suffice to justify providers who object to providing ART services to such couples. Because carrier status alone may not constitute a disability, denying them ARTs because of the risk to offspring may not constitute discrimination on the basis of disability.⁹⁴ If they are deemed to have a disability, however, then ART services may have to be provided.⁹⁵

Infectious Disease. Infectious disease poses a more complex set of issues. In cases where there are effective prenatal treatments for the disease, failure to use them would harm children born with the disease because the disease was avoidable. Thus women with HIV with access to drugs would have a duty to minimize the risk of vertical transmission by taking AZT during pregnancy. If they do not and the child gets HIV, they are morally and possibly even legally responsible for that outcome. Some risk of disease transmission may still exist even if the couple is diligent about antiretroviral therapy and other efforts to minimize vertical transmission. In those cases, the child could not be born without the risk that the disease would be transmitted.⁹⁶

If the drugs must be taken before conception and they refuse, then we are back to the situation of that child being born with a disease who could not otherwise have been born healthy. If they had taken medication and waited until the disease cleared up, they would have had a different child.⁹⁷ The child born after refusal of treatment could not have been born healthy, though a different child could have been born.

Although the child, strictly speaking, has not been harmed, the woman's willingness to conceive without taking easily available medications would appear to serve no reasonable reproductive or personal purpose, and thus may not be part of her procreative liberty. Waiting a few weeks would not prevent the woman from reproducing, and thus impinges only slightly on her procreative freedom. The state would have a rational basis for penalizing women and providers who enable that outcome to occur and to authorize providers not to provide ARTs in such circumstances.⁹⁸

D. INADEQUATE OR INCOMPETENT CHILD-REARING

ART situations that create the risk of children being born to inadequate or incompetent child-rearers differ from most of the other situations discussed because

⁹³ Laws requiring that they be informed of the risks that children will be born with the condition of concern would not infringe their reproductive freedom.

⁹⁴ If they are willing to reproduce despite their carrier status, they cannot claim that that status prevents them from engaging in the ordinary life activity of reproduction. On the other hand, providers who do view carrier status as such an interference might be brought within the ADA because they regard carriers as having a disability.

⁹⁵ See discussion *infra* pp. 23-24.

⁹⁶ See Ethics Committee of the American Society for Reproductive Medicine, *Human Immunodeficiency Virus and Infertility Treatment*, 77 FERTILITY & STERILITY 218 (2002).

⁹⁷ This is similar to Parfit's example of a woman waiting a month to conceive to have a healthy child. See Parfit, *supra* note 28, at 100-01.

⁹⁸ HIV-infected women in Africa who lack access to the antiviral therapy do not have the option of taking medications to prevent vertical transmission. Even if they do have access, there is still the risk that they will die while the child is young, thus contributing to the millions of AIDS orphans that now exist in Africa.

those children are usually born healthy and could have normal, healthy lives if they received adequate child-rearing. The parents seeking ARTs to help them reproduce, however, appear not to be competent child-rearers due to mental or physical illness, to severe disability, or to other social or psychological factors. Although some of those conditions might improve or substitute child-rearers might be provided, in some percentage of those cases the child stands a good chance of being adversely affected by the parent's reduced child-rearing skills. In those cases, the only way that the child can be born will be in those circumstances of less than ideal child-rearing.

Should persons with inadequate skills and no substitute rearers easily available still be permitted to reproduce? It is unlikely that direct prohibitions on persons with those characteristics will be acceptable. Short of issuing licenses to reproduce based on child-rearing ability, it will be difficult to impose such restrictions after the fact. Nor would it be easy to come up with a set of criteria that are good indicators of child-rearing competency. Requiring parenting licenses only for infertility patients would be difficult to justify on equal protection grounds, given the impact on their reproductive choice and the greater incidence of inadequate rearers who reproduce coitally.

Moreover, it would be difficult in those cases to show harm to offspring. After all, if not born to the parents possessing fewer child-rearing skills, the child would not have been born at all. True, once born, better child-rearers could be substituted to avert harm to the child. If the circumstances justify substitute parents, then they should be appointed. But if the circumstances do not warrant foster care or other restrictions on the birth parent, it will be difficult to show that children who would not otherwise have been born are harmed by being reared in less-than-ideal circumstances.

However, it would not follow that ART providers need be required to provide services to persons who pose such risks. ART providers with moral views about what they think is best for offspring should have some leeway in deciding whether to accept as patients persons who appear to lack such skills.⁹⁹ Whether the law will permit them to deny services on that basis will depend on whether the Americans with Disabilities Act permits withholding ART services because of a reasonable assessment that the person will not be a good child-rearer.

The lawfulness of service denials under the ADA depends on whether the person seeking services is disabled and whether the denial occurs because of his or her disability. If the ADA applies, the provider denying services has the burden of establishing on the basis of "medical or other objective evidence" that providing services would have posed "a direct threat to the health or safety of others."¹⁰⁰ In *Bragdon v. Abbott*, a case interpreting these requirements in the context of dental services, the Supreme Court found that a dentist had not established that he could not fill an HIV patient's cavities without harm to himself, staff, or other patients and thus had no justification for denying services.¹⁰¹ The question of safety with ARTs that make possible births that would not otherwise have occurred is whether providing those services poses a "direct threat to the health or safety" of the resulting children.

⁹⁹ See Coleman, *supra* note 29, at 57-67.

¹⁰⁰ *Bragdon v. Abbott*, 524 U.S. 624, 648 (1998).

¹⁰¹ *Id.* at 651, 653. The *Bragdon* Court actually remanded the case to the U.S. District Court for the District of Maine for further findings about whether such a threat existed. The court found none. *Bragdon v. Abbott*, 163 F.3d 87 (1st Cir. 1998).

Such a burden would be hard to sustain. The child sought to be protected would not exist if services are denied, and thus would not herself be harmed if birth to an inadequate rearer occurs.¹⁰² Second, it will be difficult to show in most cases that the persons seeking ART services will not be able to provide a minimally decent life for their child, for example, by meeting a child's basic needs themselves or with the help of others. Third, there are too many contingencies to make firm judgments on these matters prior to conception and birth. One cannot know for sure what assistance they will have in rearing children or what the options for meeting the child's needs will be once birth occurs.

Under this standard it will be very hard to deny services to persons with disabilities if their disability affects perceptions or judgments about their child-rearing ability. A case raising these issues arose when an unmarried woman who is blind requested artificial insemination from an ART provider in Denver.¹⁰³ The woman stated that she had a partner who would help with the rearing, and the clinic agreed to provide the services.¹⁰⁴ Later the clinic determined that the woman in fact had no partner and refused to treat her further.¹⁰⁵ She obtained services from another clinic and sued the first clinic, claiming discrimination on the basis of disability.¹⁰⁶

There is no question that blindness is a disability, so the question in the case was whether lack of a rearing partner posed such a risk to the well-being of the offspring that the clinic might legitimately choose to withhold services.¹⁰⁷ Much more evidence about this individual's ability to rear and overall sense of responsibility would be needed to justify denying services in her case. One would have to determine whether she would seek help from others in providing for the child. If she did not, provisions could be made after birth for such care to be provided. Unless there was overwhelming evidence about her inability to cope with the many challenges of living with blindness, the provider would have a very difficult time showing in advance of conception that she or others would not be able to provide adequate care.

Even if that showing were made, there is still the non-identity problem. Denying ART services to protect the child means that the child will not be born at all. Strictly speaking, the child is not harmed by being born to a single blind woman, and would have no grounds for a wrongful life recovery against the ART provider. If the provider cannot appeal to the quality of that child's life to justify his refusal of ART services, some other non-discriminatory basis for harm would have to be established. In this case, that may be difficult to do. Nor will the provider's own judgment of moral responsibility and associational freedom be given much

¹⁰² The imposition of greater rearing costs is not a "direct threat to the health or safety of others" and thus is not appropriately considered by the provider as a reason to deny services.

¹⁰³ See *Chambers v. Melmed*, No. 00-RB-1794 (D. Colo. Dec. 3, 2003); see also Jim Hughes, *Blind Woman Sues After Clinic Suspends Fertility Treatments*, DENVER POST, Nov. 7, 2003, at A01; Karen Abbott, *Doctor Defends Decision to Deny Artificial Insemination*, ROCKY MOUNTAIN NEWS, Nov. 13, 2003, at 22A. The case of deaf parents rearing a hearing child would be analyzed similarly. If the child would not be harmed because it would not have otherwise been born and the parents can provide competent rearing, either alone or with help, then there is no valid justification for refusing them services. For discussion of issues relating to deaf persons opting for deaf or hearing children, see John A. Robertson, *Ethical Issues in New Uses of Preimplantation Genetic Diagnosis*, 18 HUM. REPROD. 465 (2003).

¹⁰⁴ See *Chambers*, No. 00-RB-1794.

¹⁰⁵ See *id.*

¹⁰⁶ See *id.*

¹⁰⁷ See *id.*

weight. The very purpose of the ADA is to limit such freedom. Providers will be free to withhold services on the basis of their unwillingness to help produce children who will not have adequate rearing only in cases not involving disabilities.¹⁰⁸

The desire of many persons with disabilities to avoid reproduction does not mean that those who choose instead to reproduce are not making rational choices in a responsible way.¹⁰⁹ Because people with disabilities have the same interests in reproducing or avoiding reproduction that non-disabled persons do, they too will vary in whether they choose to reproduce or not. They should not be denied services because of provider judgments about the wisdom or desirability of their actions merely because some or most persons with disabilities would choose otherwise.

E. MANIPULATIONS OF GAMETES, EMBRYOS, AND GENES

Genetic manipulation of gametes and embryos is still too far in the future to know to what extent those actions will lead to offspring with greatly diminished welfare. Yet a few such techniques already exist and the question arises so frequently in debates about ARTs that it is discussed here. At issue are such techniques as nuclear transfer cloning, gametes from stem cells or fetuses, or genetic manipulation in having offspring. The concern is that resulting children will suffer from the anomalous methods of their conception or the genetic manipulations that are done prior to birth.¹¹⁰ There may also be objections based on the “dignity of human procreation.”¹¹¹

As in the other areas under discussion, the problem is that those children would not have been born if the method or manipulation of concern had not occurred. The acceptability of such actions will thus depend on whether their use serves important reproductive needs and whether they impose unacceptable costs on others.

Novel Methods of Conception. One set of concerns about impact on the welfare of offspring arises from novel methods of conception, such as nuclear transfer cloning, the use of gametes obtained from embryonic stem cells or aborted fetuses, hybrid human-animal embryos, chimeras made from fusing two embryos, or gestation of human embryos in animals. Although most of these techniques are highly speculative, President’s Council on Bioethics has argued that the “dignity of human procreation” is violated if children are born without “the natural connection of two human genetic parents.”¹¹² To secure for children born through ARTs the “same rights and human attachments naturally available to children conceived in

¹⁰⁸ For an insightful analysis of this issue, see Coleman, *supra* note 29, at 57-67. However, Coleman would allow a greater range of discretion to refuse ARTs to patients because of unavoidable risks to offspring than I argue the ADA, properly understood, should permit. Even Coleman agrees that the “inability to care for a child would have to be truly extraordinary to justify a decision to withhold ARTs.” *Id.* at 61. But it is such cases which have the weakest connection to the usual goods of reproduction and thus a claim to protection under the approach advocated in this Article. Only if the person had no other way to have genetic offspring and was able to rear the child should access to ART services then be required. This provides a more focused approach to the balancing that Coleman recommends but gives no guidance in how to carry out.

¹⁰⁹ The House of Lords faced a related question in *Rees v. Darlington Memorial Hospital NHS Trust*, [2003] U.K.H.L. 52 (2003) (Eng.) (blind person who was negligently sterilized entitled to a penalty payment but not to damages for unwanted birth of child).

¹¹⁰ PRESIDENT’S COUNCIL ON BIOETHICS, BIOTECHNOLOGY AND PUBLIC POLICY: BIOTECHNOLOGIES TOUCHING THE BEGINNINGS OF HUMAN LIFE: DRAFT RECOMMENDATIONS (REVISED), at <http://www.bioethics.gov/background/bppinterim.html> (Jan. 15, 2004).

¹¹¹ *Id.*

¹¹² *Id.*

vivo” they would make it a crime to conceive a child by any means other than union of egg and sperm or by using gametes obtained from a human fetus or from human embryonic stem cells (“ES cells”).¹¹³ I first discuss reproductive cloning, the most advanced procedure, and then turn to the other more hypothetical endeavors.

Reproductive Cloning. Reproductive cloning by nuclear transfer has been done successfully in several mammals, but has such a low efficiency and high rate of major birth defects that use in humans at the present time is almost universally decried.¹¹⁴ However, human embryos have now been produced by nuclear transfer cloning, and more are likely as scientists explore the possibility of therapeutic cloning to obtain histocompatible embryonic stem cells for therapy.¹¹⁵ If such work produces viable embryos and healthy cloned offspring are routinely born in other mammals, then there may eventually be a reasonable basis for thinking that transfer of human cloned embryos could safely occur.

At that point two concerns about harm to offspring would arise. One is the physical effects of the cloning procedure and the second is the existence of a clone. I will assume that safe and effective cloning for legitimate reproductive uses, e.g., cloning for azoospermic males who could not otherwise have a healthy offspring, may well be a legitimate exercise of procreative liberty and could not be prohibited merely because it is cloning.¹¹⁶ Of course, resulting clones in those cases cannot be harmed by existence alone because the only alternative to protect them would be to prevent their birth altogether.¹¹⁷ In addition, it is highly unlikely that they will have especially difficult social or psychological existence because they have been cloned. Nor would they be harmed by the possible effects of the cloning procedure itself because they would not otherwise have existed. None of the feared effects would be so severe as to amount to a wrongful life.

A key question then would be whether the persons seeking to clone would be seeking to fulfill the traditional reproductive goals of having genetically related offspring to rear. Does cloning serve those purposes? Are they prepared to be committed to the well-being of that child once it is born? Here the distinction between persons seeking reproductive cloning who are themselves fertile and those who are infertile comes into play.¹¹⁸ There is a much less compelling basis for finding that cloning when sexually fertile serves important or understandable reproductive interests, regardless of whether they would then rear. Reproductive cloning in those cases might then be prohibited without violating procreative liberty, even if reproductive cloning by the infertile were protected.

¹¹³ *Id.* Presumably they would also ban transfer of hybrid or fused embryos. The ban as stated would not extend to pronuclei transfer, to cytoplasmic transfers, or to germ line genetic engineering because the child would still result from the union of human egg and sperm. They may, however, find other reasons to object to those procedures.

¹¹⁴ The Raelian cult and a few disreputable scientists who have publicized their desires to produce a clone before health and safety have been established are exceptions.

¹¹⁵ Gina Kolata, *Scientists Claim Cloning Success*, N.Y. TIMES, Feb. 12, 2004, at A1; Gretchen Vogel, *Scientists Take Step Toward Therapeutic Cloning*, 303 SCIENCE 937 (2004).

¹¹⁶ See generally John A. Robertson, *Procreative Liberty in the Era of Genomics*, 29 AM. J.L. & MED. 439 (2003) [hereinafter Robertson, *Procreative Liberty*]; John A. Robertson, *Two Models of Human Cloning*, 27 HOFSTRA L. REV. 609 (1999) [hereinafter Robertson, *Two Models*]; John A. Robertson, *Liberty, Identity, and Human Cloning*, 76 TEX. L. REV. 1371 (1998).

¹¹⁷ The situation would be different if the welfare of offspring were determined in part by the number of clones from one source. As Philip Peters points out, making fewer clones would protect the few who are born, even if none were harmed if more were born. See Peters, *supra* note 36, at 548.

¹¹⁸ See Robertson, *Two Models*, *supra* note 116.

Other Novel Techniques. Other novel methods of conception, such as parthenogenesis, gametes obtained from ES cells or fetuses, and embryo chimeras, have not been extensively studied in animals and are a very long way from research and clinical applications in humans.¹¹⁹ Still other techniques are quite fanciful and most likely biologically impossible, for example, animal-human hybrids or chimeras or animal gestation of humans.¹²⁰

Fertilization of gametes obtained from embryonic stem cells or from aborted fetuses is also hypothetical. Because embryonic stem cells give rise to all the cells in the body, including germ cells, it should be possible to develop sperm or eggs from ES cells, as has been done with mice.¹²¹

If viable gametes could be produced in this way, they would be useful in obtaining the oocytes that would be needed for ES cell research and therapy. They might also yield sperm for men who are not otherwise able to produce viable sperm. Such sperm, which derives from the man's own DNA, would be the only way that he could have genetic offspring. Although nuclear transfer is involved, no cloning occurs. Other than appealing to notions of "the dignity of human procreation," it would be hard to see what the harm of such a procedure would be.¹²²

The use of gametes from aborted fetuses to conceive a child raises somewhat different issues. In those cases, the gamete of an entity that has already died will be used. The child will not have or know its genetic mother, but will be reared by the man who has provided the sperm and the gestational mother who needed that egg. The parallels with gamete donation and posthumous use of gametes is too close to find independent objections with substantive weight. A key point then would be whether use of such eggs served any useful reproductive interest, for example, as a source of eggs for infertile women. Such requests may well be rare, but if they occur, it may be hard to find a principled ground for banning them.

Other procedures are simply too hypothetical or fanciful to warrant discussion. Human-animal fertilizations are very unlikely on biologic grounds to yield offspring.¹²³ Nor is it conceivable how a human embryo would be gestated in a cow or other animal.¹²⁴ Fused embryos to deliberately create chimeras may one time be possible, but the uses for it appear rare.¹²⁵ If any of these practices become possible,

¹¹⁹ See, e.g., Tomohiro Kono et al., *Birth of Parthenogenetic Mice That Can Develop to Adulthood*, 428 NATURE 860 (2004); Rick Weiss, *In a First, Mice are Made Without Fathers*, WASH. POST, Apr. 22, 2004, at A13; Sherylynn Fiandaca, *In Vitro Fertilization and Embryos: The Need for International Guidelines*, 8 ALB. L.J. SCI. & TECH. 337, 354 (1998) (contending that currently "animal-human hybrids are an unlikely possibility").

¹²⁰ Fiandaca, *supra* note 119, at 354.

¹²¹ See Niels Giejsen et al., *Derivation of Embryonic Germ Cells and Male Gametes from Embryonic Stem Cells*, 427 NATURE 148 (2004) (study in which mouse embryonic stem cells were used to create sperm).

¹²² If harm to them or others cannot be shown, the case for banning them must fall back on such vague and general notions as the "dignity of human procreation." Once "dignity" is introduced as legitimate criterion for judging ARTs, however, it may be used in other cases that are more controversial.

¹²³ See Fiandaca, *supra* note 119, at 354 (noting that research indicates "that animal eggs fertilized with human sperm and implanted in animals have ceased development after the first few cell divisions").

¹²⁴ See *id.* (explaining that animal gestation of human embryos has been successful, in part, because the human immune system rejects foreign bodies).

¹²⁵ See LEE M. SILVER, REMAKING EDEN 187-90 (1997) (arguing two gay males could use the fusion method to create genetic offspring). For more analysis of the issue, see John A. Robertson, *Gay and Lesbian Rights to Procreate and Access to Assisted Reproductive Technology*, 55 CASE W. RES. L. REV. (forthcoming 2004) (on file with author).

the analysis of offspring harm, procreative liberty, and provider autonomy will frame the ethical debate.

Genetic Alteration. At some point in the future ART providers may be able to modify embryos genetically to avoid disease, to increase health or other characteristics, or to ensure a healthy birth. Such interventions will initially be sought to treat genetic diseases on the ground that treatment at the embryo stage, which also has germ line effects, is the most effective.¹²⁶ Eventually requests for germ line alterations for enhancement will occur. Such requests raise a variety of issues. One of the most important is their effect on the well-being of resulting offspring, either because of the genes and traits sought to be inserted or because of the dangers to resulting offspring from the manipulations themselves.

Therapeutic Uses. To assess whether harm to offspring is a sufficient basis for restricting genetic alteration techniques, I first address therapeutic uses. Parents who are at risk for having a child with a severe genetic diseases untreatable after birth might seek modifications of gametes or embryos to enable the child to be born healthy. But very few parents who are at risk for offspring with genetic disease would need such an intervention. In most cases, they would be able to produce several embryos and, through preimplantation genetic diagnosis, transfer to the uterus only embryos without that condition.

In a few cases, however, such as when both parents are homozygous for an autosomal recessive condition or both or one is homozygous for a dominant condition, no healthy embryos may be available for transfer.¹²⁷ In that case, the couple might consider using donor gametes, going childless, or adopting. A few, however, might still strongly prefer to have a genetically related child if a safe and effective treatment for replacing the defective genes existed. If so, that child would then be able to reproduce without facing similar risks in its offspring.

A major issue with approving such techniques would be the need to conduct research with human embryos, including transfer of some altered embryos to a uterus, in order to determine their safety. It is not clear whether current regulations for human subject research would or should permit such transfers.¹²⁸ Before clinical trials occurred in humans, animal studies would first have to show that genes can be accurately placed where needed without affecting other genes, that they stably integrate in the genome, and that they produce sufficient quantities of needed proteins without causing insertional mutagenesis or other adverse events.¹²⁹

Even if preclinical data has established safety and efficacy in animals, there is still a risk of adverse effects in humans. The first transfers would be a form of experimentation on embryos, fetuses, and resulting children, and would have to meet traditional standards of acceptable risk/benefit ratio in light of alternatives and informed consent. Because only affected embryos that have been manipulated will be transferred, one could argue that the research is for the benefit of the resulting child by enabling it to be born at all. If the parents are committed to rearing the child and have the means to do so, they would be attempting to have a healthy child of their own to rear. As long as there was a reasonable basis for thinking that the

¹²⁶ See SILVER, *supra* note 125, at 236-39.

¹²⁷ They might also have conscientious objections to destroying embryos. If they did, it would be odd that they would be willing to use IVF, PGD, and genetic alteration techniques to ensure the birth of a child without the disease.

¹²⁸ Dresser, *Genetic Modification*, *supra* note 21.

¹²⁹ Theodore Friedmann, *Overcoming the Obstacles to Gene Therapy*, SCI. AM., June 1997, at 96.

child would be born healthy, and they were willing to rear and love any child that resulted, they would be exercising procreative choice and should not be banned from doing so. Of course, no governmental funding or institutional support need be given to such endeavors nor providers required to offer it.

Non-Medical Enhancement. Genetic modification of embryos to enhance the traits of offspring is less easily supported.¹³⁰ Non-medical enhancements are even less likely to occur if only because the genetics of control are so much more complex.¹³¹ Because most traits of concern are likely to be controlled by the interaction of many genes, cellular pathways, and the environment, the idea that there is a quick and easy genetic fix to procure a desirable trait is most likely an illusion. Even if germ line alterations for therapeutic reasons become feasible, it is highly unlikely that non-medical enhancement will ever be possible and, if it is, whether it would be widely sought.¹³²

At that future time, the first attempts at enhancement could ethically occur only if substantial preclinical data has established that the altered genes are likely to have their effect without causing other harms to the child. But this can occur only through research. Here the ethical balance shifts from the case of therapeutic intervention. Unlike therapeutic cases, the couple who can produce a healthy child will be foregoing coital reproduction in order to undertake IVF, PGD, and genetic alteration of embryos with the intent of “enhancing” offspring characteristics. Indeed, if the embryos that are altered would have been transferred anyway, the alteration risks harms to offspring who could have been born without risk of that harm. The prospect of some benefit from the enhancement would not appear to justify the risk of a greater loss to the child. It would not satisfy the requirement that the risk to the subject—in this case the resulting child—are outweighed by the benefits.

To counter these claims, the couple could argue that they would not have had the child unless the genetic enhancement had occurred. Thus, it will not have been harmed by the intervention because if not done, it would not have been born at all. But even if the child *qua* child is not harmed, the parents would not necessarily have a right to engage in such actions.¹³³ Neither law nor ethics have yet resolved whether the internal logic of procreative liberty entails a strong right to select traits of offspring, including the right to enhance or diminish traits.¹³⁴ Until such time that robust genetic selection is deemed part of a person’s procreative liberty, his or her willingness to take such risks when they could otherwise have had healthy offspring would not be so closely connected with the values of reproduction that it would have

¹³⁰ The same is true for intentional diminishment of offspring characteristics, which makes offspring worse off than they would otherwise have been in cases in which the parent asserts that they would not have reproduced unless they could have diminished those characteristics. This is the “Bladerunner Problem” discussed in JOHN A. ROBERTSON, *CHILDREN OF CHOICE: FREEDOM AND THE NEW REPRODUCTIVE TECHNOLOGIES* 170-71 (1994). See also Robertson, *Procreative Liberty*, *supra* note 116, at 439.

¹³¹ See Robertson, *Procreative Liberty*, *supra* note 116, at 477.

¹³² The conventional thinking is that parents, especially upper-middle class parents, will rush to use these methods to improve the competitive positions of their children. Due to the costs and intrusiveness of gaining this advantage and the competitive arms-race that it would engender, I am skeptical that many parents would choose to do so.

¹³³ Dresser makes the same point by noting what full and adequate disclosure to parents should say: “do you want an invasive IVF and PGM in order to have a child who might be slightly happier, less happy or even deformed, etc.” See Dresser, *Designing Babies*, *supra* note 21.

¹³⁴ For a discussion of the right to trait selection as part of procreative liberty, see John A. Robertson, *Genetic Selection of Offspring Characteristics*, 76 B.U. L. REV. 421 (1996).

constitutional protection. Even if it did, there would be no obligation to provide public or institutional funding for such research. If not constitutionally protected, concerns about unfair genetic advantages or enhancement arms races would be sufficient justifications for state action aimed at restricting prebirth genetic enhancement.¹³⁵

F. NOVEL FAMILIES

Many persons have also objected to ARTs when they are used to create non-nuclear families. Objections have been made to the complete range of novel families—from the use of donor gametes and surrogacy for married couples to artificial insemination and IVF for single women, women who have been widowed, and gay and lesbian persons or couples.¹³⁶ Opponents of such arrangements argue, among other things, that the well-being of children is affected by being reared without two heterosexual, married partners.¹³⁷

The analysis of offspring harm and procreative liberty in this Article suggests that such objections are insufficient to justify denying ART services to persons in those groups. The risk of harm to offspring, for example, seems hardly so great that gamete donation and surrogacy should be banned, as some countries do, or that particular procedures, such as egg donation, should be outlawed or greatly restricted by denying compensation to donors and surrogates.¹³⁸

Donor insemination has led to thousands of births and no proof that children of donor insemination have any particular health, psychological, or social problems. Egg donation, which now leads to nearly 4,000 births per year in the United States, also appears to have a positive track record.¹³⁹ In any event, since the offspring of gamete donation could not have been born but in that status, they would not have been harmed. Also, infertile persons who request the use of donors and surrogates are trying to have genetically or gestationally related children to rear just like fertile persons. The case for banning such procedures to protect children is unpersuasive.

The same analysis applies to single women who request ARTs. One set of such requests might come from women without male partners. Although such women could coitally conceive and then raise their children alone, few people would argue for requiring single women to use contraception or penalizing them for giving birth while unmarried in order to protect offspring from being raised by single mothers. Such measures would be highly intrusive, and given the dearth of evidence that such children then lack adequate parenting, hard to justify. The grounds for banning it are no more compelling simply because an ART is needed to conceive.

The argument is equally strong for women who seek ARTs to use a previously stored sample of the husband's sperm after his death. It is now common practice for

¹³⁵ See discussion of competitive arms-races in offspring characteristics in Robertson, *Procreative Liberty*, *supra* note 116, at 475.

¹³⁶ See, e.g., Radhika Rao, *Assisted Reproductive Technology and the Threat to the Traditional Family*, 47 HASTINGS L.J. 951 (1996).

¹³⁷ See Paul C. Vitz, *Family Decline: The Findings of Social Science*, at <http://catholiceducation.org/articles/marriage/mf0002.html> (1999).

¹³⁸ See Angie Godwin McEwen, *So You're Having Another Woman's Baby: Economics and Exploitation in Gestational Surrogacy*, 32 VAND. J. TRANSNAT'L L. 271, 281-83 (1999).

¹³⁹ Society for Assisted Reproductive Technology and the American Society for Reproductive Medicine, *Assisted Reproductive Technology in the United States: 1999 Results Generated from the American Society for Reproductive Technology/Society for Assisted Reproductive Technology Registry*, 78 FERTILITY & STERILITY 918, 925 (2002).

married males of reproductive age with cancer to store sperm or testicular tissue prior to treatment.¹⁴⁰ When they are cured or in remission, they may then use the stored sperm to have a child with their wife.¹⁴¹ In cases where the cancer recurs and they die, their widows may request use of the stored sperm to have their late husband's child. A special case of single parenthood, there is no evidence that widows are inadequate child-rearers, that they lack the means for good child-rearing, or that children suffer from posthumous conception or implantation.¹⁴² Indeed, several court decisions now recognize the deceased father as the child's father when the deceased husband made an advance directive for posthumous use of his sperm to have a child born and supported as a result.¹⁴³

Another variation on single-person rearing arises with provision of fertility services to persons who are at greatly increased risk of dying during the childhood or adolescence of resulting children. This might occur with use of sperm by cancer patients in remission, persons who have Huntington's disease or early onset Alzheimer's disease, or egg donations to women over fifty-five years of age. In addition to claims that such reproduction is unnatural, some persons object to it on the ground of the grief or pain that offspring will suffer when their parent dies or becomes incapacitated during their formative years.¹⁴⁴ To protect offspring, they argue that ARTs should not be provided in such situations.

But such arguments are not convincing. The children in question would not otherwise exist. In many instances, they will be left with at least one genetically related child-rearer, and in many of those cases that person may remarry or find other rearing partners. True, the child may experience grief or loss of a parent, but such concerns hardly seem sufficient to justify preventing the child's birth altogether. Nor are persons who reproduce in circumstances carrying those risks seeking anything other than the normal reproductive experience that is ordinarily available through coital reproduction. The fact that they need medical assistance to reproduce is not alone a reason to deny them access to ART services from willing providers.

A third category of cases of novel families said to be of concern because of potential harm to offspring is that involving use of ARTs by gay males and lesbians to have children. Some lesbian couples reproduce through artificial insemination, with one partner gestating and the other assisting in rearing. In some cases, one partner provides the egg and the other the gestation, sometimes using the gestator's sibling's sperm to maintain a genetic tie. Many states allow the non-inseminated or non-gestational partner in a lesbian couple to adopt the resulting child.¹⁴⁵ A child with "two mommies" or "two daddies" is no longer a rarity.¹⁴⁶

¹⁴⁰ Matt J. Tomlinson & Allan A. Pacey, *Practical Aspects of Sperm Banking for Cancer Patients*, 6 HUM. FERTILITY 100 (2003).

¹⁴¹ A notable example is cyclist Lance Armstrong fathering twins with frozen sperm after successful treatment of his testicular cancer. See LANCE ARMSTRONG, IT'S NOT ABOUT THE BIKE (2000).

¹⁴² Often they will remarry.

¹⁴³ See, e.g., *Woodward v. Comm'r of Soc. Sec.*, 760 N.E.2d 257, 259 (Mass. 2001).

¹⁴⁴ See Merle Spriggs & Taryn Charles, *Should HIV Discordant Couples Have Access to Assisted Reproductive Technologies?*, J. MED. ETHICS ONLINE (Sept. 2002), at <http://jme.bmjournals.com/cgi/data/28/1/DC1/13> (stating that one ethical concern when considering ART for HIV infected couples is the potential for the child to be disadvantaged by the reduced life expectancy of the infected person).

¹⁴⁵ See American Civil Liberties Union, ACLU Fact Sheet: Overview of Lesbian and Gay Parenting, Adopting and Foster Care, at <http://www.aclu.org/issues/gay/parent.html> (Apr. 6, 1999).

Yet some people have questioned whether such arrangements are in the interest of children who are raised by two partners of the same sex. Sometimes the claim is that clear lines of kinship are essential to prevent genetic bewilderment. Others simply assert that rearing by two parents of opposite sex is more desirable.¹⁴⁷ Yet there appears to be ample evidence that gay or straight single persons and gay and lesbian couples are excellent child-rearers, and should not be denied the right to reproduce and rear on that ground alone.¹⁴⁸ Indeed, as we have seen, the children in question could not have been born other than in the rearing situation of concern. The gay persons seeking to have them are seeking the traditional reproductive experience of genetic connection and rearing of their own children. Even if later evidence shows that children reared by heterosexual couple fare somewhat better, the difference is unlikely to be so significant to justify denying gay males and lesbians the opportunity to reproduce.

The question remains, however, whether the right of gays to reproduce should be deemed so important that they should be protected against discrimination by ART providers who object to gay reproduction and rearing. A cogent case can be made that gays, just like persons with disabilities, have the same interests in reproducing—in gene transmission and companionship—that non-gays have, and should not be denied access to reproductive or other services because of their status as gays or persons with disabilities. If bans on anti-gay discrimination are enacted into law, ART providers could not withhold services from gay persons.¹⁴⁹

Still, some situations of concern might still arise even though, strictly speaking, resulting children are not harmed by the use of the ART alone. Consider, for example, a request from a single male with no partner or child-rearing skills to inseminate a surrogate mother whom he has hired to produce a child whom he will then rear on his own.¹⁵⁰ An ART provider should be legally free to refuse to provide insemination in such a case regardless of the sexual orientation of the man. Another problematic situation would be arranging for egg and sperm donation to create an embryo which is then carried by a gestational surrogate, as occurred in the notorious *Buzzanca* case.¹⁵¹ In such a case the person initiating the arrangement is not even

(stating that “at least 21 states have granted second-parent adoptions to lesbain and gay couples”).

¹⁴⁶ One article reports that there are 96,000 lesbian couples and 60,000 gay male couples now rearing children. Ginia Bellafante, *Two Fathers, With One Happy to Stay at Home*, N.Y. TIMES, Jan. 12, 2004, at A1. Most of these cases have resulted from adoption, but many of them are the results of intrauterine insemination, egg donation, or surrogacy.

¹⁴⁷ *Goodridge v. Dep’t of Pub. Health*, 798 N.E.2d 941, 978 (Mass. 2003) (Sosman, J., dissenting) (rejecting court’s holding that a ban on gay marriage violates due process and equal protection provisions of state constitution).

¹⁴⁸ See *id.* at 962-64 (“[T]he department [of public health] readily concedes that people in same-sex couples may be “excellent” parents. These couples (including four of the plaintiff couples) have children for the reasons others do—to love them, to care for them, to nurture them. But the task of child rearing for same-sex couples is made infinitely harder by their status as outliers to the marriage laws.”).

¹⁴⁹ For a discussion of whether straight or gay parents could use embryo screening or genetic alteration to control a child’s genetic predisposition to homosexuality, see John A. Robertson, *Extending Preimplantation Genetic Diagnosis: Medical and Non-Medical Uses*, 29 J. MED. ETHICS 213 (2003).

¹⁵⁰ See, e.g., *Huddleston v. Infertility Ctr. of Am.*, 200 A.2d 453 (Pa. 1997) (involving a single male who became a parent in this way who then murdered the child because it cried so much).

¹⁵¹ *In re Marriage of Buzzanca*, 72 Cal. Rptr. 2d 280 (1998) (involving a couple who initiated the arrangement was found responsible for rearing the resulting child).

procreating, and thus could not rely on rights of procreative liberty in seeking to carry it out.

V. CONCLUSION

People who reproduce have a strong interest in having healthy children, as do the ART providers who help make such births possible. In some cases, however, it may not be possible to guarantee a safe outcome. The techniques necessary to reproduce may carry inherent risks of physical defects or the social situation of the users may be less than ideal. In those situations, there may be no practical way to eliminate the risks of an unfavorable outcome and still enable the child to be born. The parents, however, may still wish to reproduce because it is the only way for them to have genetically related offspring whom they will rear or provide for.

Respecting the welfare of children in these situations thus poses an ethical paradox. Decisions about whether to provide a treatment will determine whether a child will be born at all, not whether the child will be born more or less healthy. In such cases, the only way to protect the child from a poor outcome would be to prevent its birth altogether.

This Article has shown that having a child in those circumstances does not ordinarily harm the child who has no other way to be born and will usually fall within the procreative liberty of parents. Physicians, however, who have moral reservations about facilitating such births should not be required to provide ART services in such circumstances as long as they do not unfairly discriminate against persons with disabilities or against gay males and lesbians.

Although a child is not strictly speaking “harmed” as a result of ART procedures that make its birth possible, the fact that he or she is unavoidably born with those characteristics is still a relevant factor in determining whether it is ethically acceptable to proceed. Proceeding with techniques that unavoidably risk unfavorable outcomes may unfairly shift rearing costs to others or indicate that the persons using those techniques are not seeking the usual goods of reproduction.

Whether the use of risky procedures to have offspring is part of a person’s procreative liberty will depend upon the risks of the technique and the circumstances of use. A key question in such an evaluation is whether the person is seeking to have a family of genetically related offspring to rear and nurture. The use of most of the ARTs discussed in this Article fall into that category. If the couple is committed to rearing resulting children and has no reasonably available alternative way of having genetic offspring, they would appear to be seeking the ordinary goods of reproduction. They should not be stopped from doing so because of unavoidable risks to offspring.

The situation is different when a colorable attempt to achieve traditional reproductive goals is not present. Such would be the case where there is no intention to rear, when the offspring will be a human-animal hybrid or chimera, when fertile persons attempt to clone, or when non-medical enhancement is sought. In those cases the state might ban the procedure or private actors may choose not to participate without denying the procreative liberty of persons seeking to use ARTs.¹⁵²

¹⁵² Because the state may have the constitutional power to ban the procedure, however, does not mean that it should do so.

Focusing on the internal logic of reproduction and asking whether use of a technique serves those goals is a more promising approach than appealing to such vague and contested notions as “the dignity of procreation.”¹⁵³ While disagreement about the scope of those internal constraints or about what are “the ordinary goods of reproduction” may still occur, those concepts focus attention directly on the reproductive function of the ART technique for the person seeking it rather than on a vague notion of “dignity.” Many uses of ART will satisfy that standard, but the most troubling uses probably would not. In those cases, the state may restrict or regulate ART procedures without meeting the higher standard of scrutiny ordinarily required to limit procreative liberty.

Persons who find that this approach slights the interests of children born in unavoidably unfavorable circumstances must find some way to escape the non-identity problem if they are to sustain their case. Except in greatly restricted circumstances, non-person affecting theories of harm have not proven persuasive for the most likely uses of ARTs. As the use of these techniques grows, it is all the more important that a sound moral basis for judging them and devising public policy be found. We will then stand on firmer moral and legal ground in accepting or condemning the use of assisted reproductive techniques to form families.

¹⁵³ See REPRODUCTION AND RESPONSIBILITY, *supra* note 10.