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ARTICLES

HUMAN CLONING AND THE RIGHT TO REPRODUCE

*Elizabeth Price Foley**

INTRODUCTION

Since the birth of “Dolly the sheep” in July 1996,¹ cloning via the nuclear transfer of differentiated cells² has been successfully expanded to numerous and varied animal species,³ including pigs,⁴ mice,⁵ goats,⁶ and cows.⁷ Applying cloning techniques to humans, it

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¹ See CLONING HUMAN BEINGS: REPORT AND RECOMMENDATIONS OF THE NATIONAL BIOETHICS ADVISORY COMMISSION (1997) [hereinafter NBAC REPORT].

² Differentiated cells are cells that have differentiated themselves into performing a specialized function in the body (e.g., liver or muscle cells). See *id.* app. at 1. Undifferentiated cells (i.e., totipotent cells) are those cells present in an embryo that have not yet undergone the process of differentiation. *Id.* at app. 3. The cloning of undifferentiated cells, often referred to as “embryo splitting,” has been performed on human embryos since 1993. See Rebecca Kolberg, *Human Embryo Cloning Reported*, 262 SCIENCE 652, 652, (1993); Susan Katz Miller & Gail Vines, *Human Clones Split Fertility Experts*, NEW SCIENTIST, Oct. 30, 1993, at 7.

³ The widely reported cloning of rhesus monkeys by researchers at the Oregon Health Sciences University was the result of cloning using embryonic cells, not adult differentiated cells. See *Biotechnology and the Ethics of Cloning: How Far Should We Go?: Hearing Before the Subcomm. on Tech., House Comm. on Sci.*, 105th Cong., 21–22 (1997) (statement of M. Susan Smith, Ph.D., Director, Oregon Regional Primate Research Center, Oregon Health Sciences University). Cloning undifferentiated embryonic cells (i.e., embryo splitting) does not pose the same ethical dilemmas as cloning using adult differentiated cells because when one clones undifferentiated embryonic cells, one does not know what one is “getting” since the DNA donor is, by definition, an embryo, and thus his/her traits (e.g., intelligence, height, hair color, etc.) are not yet known. See Elizabeth Price Foley, *The Constitutional Implications of Human Cloning*, 42 ARIZ. L. REV. 647, 653 (2000).

⁴ See Gina Kolata, *Company Says It Cloned Pig in Effort to Aid Transplants*, N.Y. TIMES, Mar. 15, 2000, at A21 (reporting that the Scottish company, PPL Therapeutics, had created five piglets using cloning techniques).

⁵ See *Researchers Clone Mouse from Male Adult Body Cells*, N.Y. TIMES, June 1, 1999, at F2 (announcing that University of Hawaii scientists had successfully cloned a male mouse using cells taken from the donor mouse’s tail).

seems, is only a matter of time.⁸ Indeed, in late November 2001, researchers at Massachusetts-based Advanced Cell Technology announced that they had used somatic cell nuclear transfer to create three human embryos.⁹ Specifically, the researchers harvested human eggs from seven volunteers, removed the nucleus from each egg, and re-nucleated the eggs with cells taken from an adult human donor.¹⁰ In all, nineteen human eggs were successfully re-nucleated using the nuclear transfer technique.¹¹ Eleven of the nineteen eggs were re-nucleated with cells taken from the skin of a human donor the other eight eggs were re-nucleated with cumulus cells taken from a human donor.¹² None of the eggs that were re-nucleated with the skin cells were able to begin the process of cell division, but three of the eight eggs that were re-nucleated with cumulus cells did begin dividing, with one surviving to the two-cell stage, one surviving to the four-cell stage, and the third surviving to the six-cell stage before dying.¹³ Although some in the scientific community have downplayed the significance of these experiments because the embryos did not survive to the blastocyst stage,¹⁴ it is clear that the use of nuclear transfer cloning techniques on humans has begun.

⁶ See Ron Nissimov, *A&M is Hog-Wild over Cloned Animals*, HOUS. CHRON., Sept. 6, 2001, at A26, 2001 WL 23626415 (noting that Texas A&M University was the first academic institution to clone three different animal species).

⁷ See Gina Kolata, *Japanese Scientists Clone a Cow, Making Eight Copies*, N.Y. TIMES, Dec. 9, 1998, at A8 (reporting that Japanese researchers at Kinki University had created eight calves by cloning cumulus and fallopian tube cells obtained from the remains of slaughterhouse cattle); see also Alice Dembner, *Cows Cloned by Worcester Firm Reported to be Growing Normally*, BOSTON GLOBE, Nov. 23, 2001, at A2, 2001 WL 3963462 (disclosing that two dozen cloned cows continue to live, grow, and behave remarkably similar to their "noncloned" relatives).

⁸ See Nancy Gibbs, *Baby, It's You! And You, And You . . .*, TIME, Feb. 19, 2001, at 48 ("The consensus among biotechnology specialists is that within a few years—some scientists believe a few months—the news will break of the birth of the first human clone.").

⁹ See Jose B. Cibelli et al., *Rapid Communication: Somatic Cell Nuclear Transfer in Humans: Pronuclear and Early Embryonic Development*, 2 E-BIOMED: J. REGENERATIVE MED. 25, 25 (Nov. 26, 2001), <http://www.liebertpub.com/ebi/default1.asp> (last visited January 31, 2002) [hereinafter E-BIOMED]; see also Gina Kolata with Andrew Pollack, *A Breakthrough on Cloning? Perhaps, or Perhaps Not Yet*, N.Y. TIMES, Nov. 27, 2001, at A1.

¹⁰ E-BIOMED, *supra* note 9, at 27-28.

¹¹ *Id.* at 28.

¹² *Id.* at 28 tbl. 3.

¹³ *Id.* at 29.

¹⁴ Blastocyst is the term used to refer to a preimplantation embryo beginning at approximately the fourth day after conception, the hallmark of which is the separation of an inner cell mass (which later becomes the fetus) from an outer mass of support cells. See NBAC REPORT, *supra* note 1, app. at 1. It is currently believed that stem cells with the potential for therapeutic purposes cannot be harvested successfully until the developing embryo reaches the blastocyst stage. See *Monkey Eggs Grow Into Embryos in Experiment*, WASH. POST, Dec. 3, 2001, at A07, 2001 WL 30329925.

Recognizing the inevitability of successful human cloning, numerous states¹⁵ and countries¹⁶ have enacted prophylactic bans on the technique. The United States Congress, although threatening on numerous occasions to enact a federal ban,¹⁷ has not yet followed suit. Laws prohibiting cloning that have been enacted thus far by the states have raised an important legal question: namely, whether the constitutional right to reproduce protects an individual's right to produce a child using cloning techniques and, if so, under what circumstances may this right be exercised?

I. IS THERE A POSITIVE RIGHT TO REPRODUCE?

In order to assess whether or to what extent reproductive human cloning is constitutionally protected, one must first delineate the contours of the constitutional right to reproduce. The United States Supreme Court has clearly indicated that humans have the right *not* to reproduce, as evidenced by contraceptive cases such as *Griswold v. Connecticut*¹⁸ and abortion cases such as *Roe v. Wade*¹⁹ and *Planned Parenthood of Southeastern Pennsylvania v. Casey*.²⁰ Whether the Constitution also provides an affirmative, or positive, right to reproduce is less clear because the government has rarely acted to prevent individuals from procreating; hence, there has not been much litigation directly on point. Nonetheless, the vast

¹⁵ As of the date this article was written, five states—California, Louisiana, Michigan, Rhode Island, and Virginia—had enacted statutory bans on human cloning. See CAL. HEALTH & SAFETY CODE § 24185 (West Supp. 2001); LA. REV. STAT. ANN. § 40:1299.36.2 (West 2001); MICH. COMP. LAWS § 750.430a (2001); R.I. GEN. LAWS § 23-16.4-2 (reenactment 2001); VA. CODE ANN. § 32.1-162.22 (Michie Supp. 2001).

¹⁶ See *Foley*, *supra* note 3, at 649 (noting that four states and twenty European nations have enacted cloning bans). In early December 2001, the United Kingdom became the most recent nation to ban human cloning, although the law would only ban the implantation into a human womb of a human embryo created by cloning. See Human Reproductive Cloning Act, 2001, c. 23 (Eng.), <http://www.hmsso.gov.uk/acts/acts2001/20010023.htm> (Dec. 4, 2001) ("A person who places in a woman a human embryo which has been created otherwise than by fertilisation is guilty of an offence."). The new British law thus bans only reproductive, as opposed to therapeutic, cloning. The penalty for violating the law is "imprisonment for a term not exceeding 10 years or a fine or both." *Id.* § 1(2).

¹⁷ On July 31, 2001, the U.S. House of Representatives passed a bill that would ban both therapeutic and reproductive human cloning. Human Cloning Prohibition Act of 2001, H.R. 2505, 107th Cong. (2001). The U.S. Senate has yet to enact a companion bill. See Sheryl Gay Stolberg, *Cloning Executive Presses Senate*, N.Y. TIMES, Dec. 5, 2001, at A26.

¹⁸ 381 U.S. 479 (1965) (declaring the right to use contraceptives to be protected under the penumbra of the right to privacy).

¹⁹ 410 U.S. 113, 153–54 (1973) (concluding that, although subject to regulation, the right to privacy encompasses the abortion decision).

²⁰ 505 U.S. 833, 846 (1992) (determining that "[b]efore viability, the State's interests are not strong enough to support a prohibition of abortion").

majority of academic writing in this area acknowledges that a positive right to reproduce may be implied from extant case law.

One of the earliest cases from which a positive right of reproduction may be inferred is the Supreme Court's 1923 decision in *Meyer v. Nebraska*.²¹ In *Meyer*, the Court invalidated a Nebraska law prohibiting the teaching of any language other than English to children prior to the eighth grade, stating in dicta, "[w]ithout doubt, [the liberty interest of the Due Process Clause of the Fourteenth Amendment] denotes not merely freedom from bodily restraint but also the right of the individual . . . to marry, *establish a home and bring up children*."²² An affirmative right to reproduce was more specifically addressed by the Court's 1942 decision in *Skinner v. Oklahoma*,²³ which struck down an Oklahoma statute mandating sterilization for repeat felons convicted of crimes involving moral turpitude.²⁴ In invalidating the law, the Court invoked strict scrutiny²⁵ and concluded that, because "[m]arriage and procreation are fundamental to the very existence and survival of the [human] race,"²⁶ the mandatory sterilization law violated "one of the basic civil rights of man."²⁷ Thus, *Skinner* not only suggests that a positive right of procreation exists, but also that it is a fundamental right entitled to the highest level of judicial scrutiny (i.e., strict scrutiny).²⁸

This interpretation of *Skinner* appears to have been confirmed by the Court's 1972 decision in *Eisenstadt v. Baird*.²⁹ In *Eisenstadt*, the Court invalidated a Massachusetts statute that criminalized the dispensing of contraceptives to single persons who wished to use them for the prevention of pregnancy.³⁰ The statute violated equal protection because the law was not rationally related to the

²¹ 262 U.S. 390 (1923).

²² *Id.* at 399 (emphasis added).

²³ 316 U.S. 535 (1942).

²⁴ *Id.* at 536, 543. It should be noted that the Court struck down the Oklahoma statute on Equal Protection grounds because it forced sterilization only upon a class of habitual felons convicted of moral turpitude crimes, leaving other habitual felons untouched. *Id.* at 541-43.

²⁵ *Id.* at 541.

²⁶ *Id.*

²⁷ *Id.*

²⁸ Under strict scrutiny, a law infringing on the exercise of the asserted constitutional right will be invalidated by the court unless the government can prove that the law in question furthers a compelling governmental interest and is narrowly tailored to further that interest. See *Washington v. Glucksberg*, 521 U.S. 702, 721 (1997).

²⁹ 405 U.S. 438 (1972).

³⁰ *Id.* at 441-42, 454-55. As the Court noted, the statute in question had been interpreted by the Massachusetts court to allow distribution of contraceptives to married persons for use in the prevention of pregnancy, and also to married or single persons for use in the prevention of disease. *Id.* at 441-42.

purposes it was supposedly designed to serve—namely, deterring fornication and protecting public health.³¹ Although *Eisenstadt* is an equal protection—rather than a substantive due process case—it is nevertheless instructive in determining the contours of the right to reproduce because the Court made it clear that, pursuant to *Griswold*, reproductive rights “must be the same for the unmarried and the married alike”³² and that, “[i]f the right of privacy means anything, it is the right of the *individual*, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to *bear or beget a child*.”³³

Although a good deal of early case law in this area suggested that the emerging right to reproduce was grounded in the penumbral right to privacy,³⁴ more recent Court pronouncements suggest that the right is grounded instead in the liberty interest of the Fourteenth Amendment’s Due Process Clause. In *Planned Parenthood of Southeastern Pennsylvania v. Casey*,³⁵ for example, the Supreme Court stated:

Our law affords constitutional protection to personal decisions relating to marriage, procreation, contraception, family relationships, child rearing These matters, involving the most intimate and personal choices a person may make in a lifetime, choices central to personal dignity and autonomy, *are central to the liberty protected by the Fourteenth Amendment*. At the heart of liberty is the right to define one’s own concept of existence, of meaning, of the universe, and of the mystery of human life. Beliefs about these matters could not define the attributes of personhood were they formed under compulsion of the State.³⁶

More recently, in its 1997 decision *Washington v. Glucksberg*,³⁷ the Court rejected an argument that the liberty interest of the Due Process Clause includes the right to receive a physician’s assistance with suicide, but acknowledged that “[i]n a long line of cases, we have held that . . . the ‘liberty’ specially protected by the Due

³¹ *Id.* at 447-52.

³² *Id.* at 453.

³³ *Id.* (emphasis added).

³⁴ See *Griswold v. Connecticut*, 381 U.S. 479 (1965); *Eisenstadt*, 405 U.S. at 453, *Roe v. Wade*, 410 U.S. 113, 153-54 (1973).

³⁵ 505 U.S. 833, 870 (1992) (holding that the right to abortion exists until the point of fetal viability).

³⁶ *Id.* at 851 (emphasis added).

³⁷ 521 U.S. 702 (1997).

Process Clause includes the right to marry; *to have children*; to direct the education and upbringing of one's children; to marital privacy; to use contraception; to bodily integrity; and to abortion."³⁸

At a minimum, *Skinner* and its progeny thus appear to establish a positive right to reproduce via old-fashioned sexual intercourse.³⁹ Whether this positive right, however, also extends to non-coital forms of procreation—including widely used technologies such as in vitro fertilization (IVF)⁴⁰ and artificial insemination⁴¹—is a matter of conjecture to which one can only make an educated guess.

II. DOES THE RIGHT TO REPRODUCE EXTEND TO NON-COITAL REPRODUCTION?

As mentioned earlier, there is a paucity of case law on the question of the extension of reproduction rights to non-coital forms of reproduction because, prior to the enactment of bans on human cloning, neither the states nor the federal government had attempted to ban antecedent types of non-coital reproduction. In vitro fertilization and artificial insemination, for example, have not been banned in the U.S., despite initially widespread and vociferous objections to their use.⁴²

The federal government has, however, enacted laws regulating certain limited aspects of non-coital reproduction. For example, the

³⁸ *Id.* at 720 (emphasis added) (internal citations omitted).

³⁹ An interesting question exists as to whether this positive right to procreate extends only to married individuals. The Court's dicta suggests that the right would extend to either married or single individuals. See *Eisenstadt v. Baird*, 405 U.S. 438, 453 (1972) ("If the right of privacy means anything, it is the right of the *individual*, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child."). Most courts seem to agree, however, that the right would not extend to adulterous liaisons. See *Foley*, *supra* note 3, at 690 n.279 (surveying case law that suggests that the right to reproduce does not extend to adulterous situations).

⁴⁰ It has been estimated that greater than 150,000 children have been born worldwide as a result of the use of in vitro fertilization (IVF), and this figure is estimated to reach over 500,000 by the year 2005. LEE M. SILVER, *REMAKING EDEN: CLONING & BEYOND IN A BRAVE NEW WORLD* 69 (1997).

⁴¹ It is estimated that approximately 30,000 children are born each year from the use of artificial insemination by donor (AID). Jenna H. Bauman, Note, *Discovering Donors: Legal Rights to Access Information About Anonymous Sperm Donors Given to Children of Artificial Insemination in Johnson v. Superior Court of Los Angeles County*, 31 *GOLDEN GATE U. L. REV.* 193, 196 (2001). This figure does not include the use of artificial insemination by husband (AIH), which is used when the husband's sperm is insufficient to impregnate his wife through intercourse. See *Foley*, *supra* note 3, at 651 n.27 (citing MARGOT JOAN FROMER, *ETHICAL ISSUES IN SEXUALITY AND REPRODUCTION* 263 (1983)).

⁴² See *Foley*, *supra* note 3, at 696-700 (surveying initial objections to artificial insemination and in vitro fertilization and their gradual progress to cultural acceptance).

Fertility Clinic Success Rate and Certification Act of 1992⁴³ mandates those facilities performing IVF,⁴⁴ GIFT,⁴⁵ and ZIFT⁴⁶ report their annual live birth rates (the so-called “take home baby” rate) to the federal government, which then publishes this material and makes it available to consumers.⁴⁷

Recently, the U.S. Food and Drug Administration (FDA) has taken steps to regulate fertility clinics and cloning research. In January 2001, the FDA issued a final regulation, which requires establishments that use human cells, tissues, and cellular and tissue-based products (HCT/Ps) to register their facilities and list their products with the FDA.⁴⁸ Notably, the final rule explicitly includes establishments, such as fertility clinics, that use reproductive tissues and cells.⁴⁹ The FDA has also proposed two additional regulations that will, if finalized, require HCT/P establishments to abide by rules for donor suitability⁵⁰ and good tissue practices.⁵¹ The FDA has also expressed its belief that it has existing statutory authority to regulate human cloning.⁵² As such, the FDA’s position is that those wishing to conduct human cloning research in the United States must obtain an investigational new

⁴³ 42 U.S.C. §§ 263a–1 to 263a–7 (1994).

⁴⁴ IVF involves the combination of sperm and egg outside the body and the implantation of the resulting embryo into the uterus. See Foley, *supra* note 3, at 656 n.52. IVF is a treatment used primarily to treat infertility caused by damaged, absent, or blocked fallopian tubes. See Kelly L. Frey, Comment, *New Reproductive Technologies: The Legal Problem and a Solution*, 49 TENN. L. REV. 303, 310–12 (1982). GIFT and ZIFT, on the other hand, are used when the woman has healthy fallopian tubes—as both of these procedures involve the implantation of a fertilized or unfertilized egg directly into the fallopian tubes. See *infra* notes 45 and 46.

⁴⁵ GIFT refers to gamete intrafallopian transfer, a process whereby egg and sperm are combined outside the body and transferred back into a woman’s fallopian tubes—unfertilized—in the hope that the actual process of fertilization will occur inside the fallopian tubes rather than the petri dish. See Foley, *supra* note 3, at 656 n.53.

⁴⁶ ZIFT refers to zygote intrafallopian transfer, a process whereby the egg and sperm are combined, and fertilization occurs, outside the body. See Foley, *supra* note 3, at 656 n.54. The zygote is then placed inside the woman’s fallopian tubes. *Id.*

⁴⁷ The information is compiled and published by the Centers for Disease Control and is available on their website. See <http://www.cdc.gov/nccdphp/drh/art98/index.htm> (last reviewed Aug. 14, 2001).

⁴⁸ See Food and Drugs, 21 C.F.R. pts. 207, 807, 1271 (2001).

⁴⁹ 21 C.F.R. §§ 207.20, 807.20. The purported purpose behind the FDA’s new regulatory framework is to prevent the spread of communicable disease. 21 C.F.R. § 1271.1.

⁵⁰ Suitability Determination for Donors of Human Cellular and Tissue-Based Products, 64 Fed. Reg. 52,696 (proposed Sept. 30, 1999) (to be codified at 21 C.F.R. pts. 210, 211, 820 and 1271).

⁵¹ Current Good Tissue Practice for Manufacturers of Human Cellular and Tissue-Based Products; Inspection and Enforcement, 66 Fed. Reg. 1508 (proposed Jan. 8, 2001) (to be codified at 21 C.F.R. pt. 1271).

⁵² See Elizabeth C. Price, *Does the FDA Have Authority to Regulate Human Cloning?*, 11 HARV. J.L. & TECH. 619, 619–20 (1998).

drug (IND) application approval from the FDA prior to conducting such research—approval, which the FDA has indicated, will not be forthcoming due to “major unresolved safety questions.”⁵³ Many food and drug law scholars, however, disagree with the FDA’s interpretation of its statutory authority in this area.⁵⁴

Even assuming for the moment that the constitutional right to reproduce includes the right to use assisted reproductive techniques in certain situations, governmental regulations of the sort just mentioned would appear to satisfy even the most rigorous level of judicial scrutiny. Who would doubt, for example, that the FDA’s HCT/P regulations, which are based upon the Agency’s authority to prevent the spread of communicable diseases,⁵⁵ would satisfy strict scrutiny’s requirement that the law in question furthers a compelling governmental interest? There may be some question around the margins as to whether a given set of regulations is sufficiently narrowly tailored, but even assuming that this is the case, it would merely require the government to redraft the regulations in a more narrow fashion, not scrap to them wholesale.⁵⁶

Regulation of assisted reproduction is thus clearly possible within certain parameters. But what of banning such practices? What if, for example, a state or the federal government decided to completely ban the use of certain non-coital reproduction methods such as IVF? Would such a sweeping ban be constitutional?

Extant case law—although admittedly limited—appears to suggest a negative answer to this question. One of the most recent and closely analogous cases, *Gerber v. Hickman*,⁵⁷ involved a Section 1983 action by a state prisoner who claimed that his substantive due process rights—specifically, his right to reproduce—was

⁵³ Letter from Kathryn C. Zoon, Ph.D., Director, FDA Center for Biologics Evaluation and Research, to various researchers (Mar. 28, 2001), at <http://www.fda.gov/cber/ltr/aaclone.htm>.

⁵⁴ See generally, Price, *supra* note 52; Gregory J. Rokosz, *Human Cloning: Is the Reach of FDA Authority Too Far a Stretch?*, 30 SETON HALL L. REV. 464, 512–15 (2000) (suggesting that the FDA has overstepped the bounds of its legal authority); Rick Weiss, *Legal Barriers to Human Cloning May Not Hold Up*, WASH. POST, May 23, 2001, at A1, 2001 WL 17630199; Caroline Daniel, *Conflicting Aims Leave Ban on Human Cloning in Limbo*, WASH. POST, July 26, 1998, at A8, 1998 WL 11594186 (reporting the concern expressed by some authorities that the FDA is unequipped to deal with the widespread ethical and social issues involved with cloning).

⁵⁵ See 42 U.S.C. § 264(a) (1994) (“The Surgeon General, with the approval of the Secretary, is authorized to make and enforce such regulations as in his judgment are necessary to prevent the introduction, transmission, or spread of communicable diseases . . .”).

⁵⁶ See Foley, *supra* note 3, at 714-15, 719, 725-26, 729-30 (urging that a more narrowly tailored means of regulating human cloning, short of a complete ban, exist).

⁵⁷ 264 F.3d 882 (9th Cir. 2001), *reh’g granted*, 273 F.3d 843 (2001). As indicated by the citation just provided, the Ninth Circuit has agreed to reconsider the *Gerber* decision en banc. As of this writing, the en banc decision had not yet been rendered.

violated by the prison's refusal to allow him to mail a semen specimen to a laboratory for use in artificially inseminating his wife.⁵⁸ The federal district court initially granted a Rule 12(b)(6) motion in favor of the prison, ruling that "[w]hatever right plaintiff has to artificial insemination, it does not survive incarceration."⁵⁹ A divided Ninth Circuit panel reversed, explicitly acknowledging that a positive right to reproduce exists⁶⁰ and that this right survives incarceration.⁶¹ The court further concluded that the reproductive rights of prisoners could be restricted for "legitimate penological reasons."⁶² Based on the relatively bare record before it, the Ninth Circuit concluded that the prison's articulated penological reasons for restricting the prisoner's reproductive freedom were insufficient to warrant a 12(b)(6) dismissal of the prisoner's Section 1983 substantive due process claim and remanded the case back to district court for further proceedings.⁶³

The *Gerber* decision is remarkable for several reasons. First, the court (including the dissenting judge) seems to assume that there is a fundamental, positive right to reproduce. Second, the judges all seem to imply that this right would, at least *outside* the prison context, include the right of an individual to access and use non-coital means of reproduction such as artificial insemination. The majority, for example, goes out of its way to make clear that the prisoner's right that has been infringed is the general right to procreate, and that the salient question, therefore, is whether the action by the prison—refusing to allow access to artificial insemination—is being restricted for legitimate penological reasons.⁶⁴ The court refuses to frame the question presented as

⁵⁸ *Id.* at 884-85.

⁵⁹ *Gerber v. Hickman*, 103 F. Supp. 2d 1214, 1218 (E.D. Cal. 2000).

⁶⁰ *Gerber*, 264 F.3d at 887.

⁶¹ *Id.* at 890.

⁶² *Id.* at 890; *see also* *Washington v. Harper*, 494 U.S. 210, 223 (1990). The *Harper* Court made it clear that this "legitimate penological interests" standard is the appropriate standard to employ in assessing the constitutionality of prison regulations, even if the constitutional right infringed by the regulation is a fundamental one. *Id.* at 223.

⁶³ *Gerber*, 264 F.3d at 892-93.

⁶⁴ *See, e.g., id.* at 886 n.3

The district court concludes in part that a prisoner does not have a fundamental right to artificial insemination. The district court erred in its framing of the fundamental right involved in this case. The question of whether a prisoner retains a fundamental right to procreate while in prison is a different question than whether a constitutional right to artificial insemination exists and survives incarceration.

Id. (internal citations omitted).

As we make clear, the general fundamental right to procreate, well-recognized by the federal courts, is the right we hold to survive incarceration, not a more narrow manifestation of that right involving a particular means of procreation. The narrower

whether a prisoner has a right to artificial insemination,⁶⁵ instead preferring to start with the assumption that any individual—prisoner or not—has a fundamental right to reproduce, and then assessing whether the prison's policy barring access to artificial insemination can be characterized as furthering legitimate penological purposes. In this manner, the court assumes that, since artificial insemination provides a means to reproduce, it falls within the ambit of a larger, fundamental right to reproduce. Thus, the court suggests that disallowing conjugal visits may not violate a prisoner's right to reproduce because the restriction may, in some instances, serve a legitimate penological purpose (presumably, safety and security). On the other hand, a policy restricting alternative forms of reproduction that do not require physical contact with the prisoner (such as artificial insemination) may well violate the prisoner's right to reproduce.⁶⁶

The dissenting judge in *Gerber* likewise implies that, outside the prison context, the right to reproduce could encompass a right to access assisted reproductive technology such as artificial insemination. Unlike the majority, however, he frames the issue in the case as whether "inmates retain a constitutional right to procreate from prison via FedEx."⁶⁷ While he acknowledges that prisoners have a "right to maintain their procreative abilities for later use once released from custody,"⁶⁸ he concludes that, while in prison, this right to reproduce does not exist at all because it is "fundamentally incompatible with imprisonment itself."⁶⁹

Another illuminating case is *Lifchez v. Hartigan*,⁷⁰ rendered by the United States District Court for the Northern District of Illinois

issue is one that can be answered only after a record is developed and an examination can be conducted of the penological reasons, if any, for prohibiting the particular conduct at issue.

Id.

⁶⁵ *Id.* at 888 n.6.

⁶⁶ *See id.* at 890.

Procreation that results from the employment of recently developed methods or techniques that bypass physical contact with the prisoner's spouse is not inherently inconsistent with one's status as a prisoner. In fact, even conjugal visits and childbirth are not inherently inconsistent with such status, as the experience in California's prisons demonstrates.

Id.

⁶⁷ *Id.* at 893 (Silverman, J., dissenting).

⁶⁸ *Id.* (emphasis omitted).

⁶⁹ *Id.* at 894. This case repeated the standard set forth in *Hudson v. Palmer*, 468 U.S. 517 (1984), that "prisoners be accorded those rights not fundamentally inconsistent with imprisonment itself or incompatible with the objectives of incarceration. *Id.* at 523.

⁷⁰ 735 F. Supp. 1361 (N.D. Ill. 1990), *aff'd without opinion, sub nom.* Lifchez v. Hartigan, 914 F.2d 260 (7th Cir. 1990), *cert. denied*, Scholberg v. Lifchez, 498 U.S. 1069 (1991).

in 1990. In *Lifchez*, a physician brought a class action on behalf of all physicians specializing in reproductive endocrinology and fertility counseling, seeking to have the Illinois fetal anti-experimentation statute declared unconstitutional.⁷¹ Dr. Lifchez asserted that the statute was a violation of a woman's right to privacy and reproductive freedom, as well as unconstitutionally vague.⁷² The statute in question stated:

No person shall sell or experiment upon a fetus produced by the fertilization of a human ovum by a human sperm unless such experimentation is therapeutic to the fetus thereby produced. Intentional violation of this section is a Class A misdemeanor. Nothing in this subsection (7) is intended to prohibit the performance of in vitro fertilization.⁷³

The court first determined that the statute was unconstitutionally vague for failing to adequately define the terms "experiment," "experimentation," and "therapeutic."⁷⁴ After reading the statute, the court concluded that a physician could not be sure whether certain assisted reproductive technologies and procedures were prohibited.⁷⁵ Specifically, although the statute explicitly exempted in vitro fertilization, the court agreed with Dr. Lifchez that it was not clear whether the statute prohibited related non-coital reproduction techniques, such as the use of IVF followed by embryo transfer.⁷⁶ Furthermore, the court found that the statute might prohibit IVF-related techniques such as genetic screening of the in vitro embryos⁷⁷ the hormonal induction of ovulation⁷⁸ and

⁷¹ *Lifchez*, 735 F. Supp. at 1363.

⁷² *Id.*

⁷³ *Id.* at 1363-64 (citing Ill. Rev. Stat., Ch. 38 para. 81-26, § 6(7) (1989)).

⁷⁴ *Id.* at 1364-72.

⁷⁵ *Id.* at 1370.

⁷⁶ *Id.* at 1367-68. The court described embryo transfer as the "removal of an embryo from one woman's uterus and placing it in the uterus of a second woman." *Id.* at 1367. Although this basic description would encompass both coital and non-coital reproduction, the court went on to specifically address the non-coital use of embryo transfer. *Id.* at 1367 ("The variations on this basic technique are considerable. A donated egg could be fertilized *in vitro* (with a partner's or a donor's sperm), be placed in a second woman's uterus to gestate for five days, and then be flushed out for implantation in the woman trying to get pregnant.")

⁷⁷ *Id.* at 1368 ("If the genetic screening on the single cell is negative, the remaining seven cells can be gestated to produce a child. This experimental procedure is undisputedly non-therapeutic to the embryo, and although it could fall within the statute's *in vitro* exception, that exception speaks to fertilization, not genetic testing.") (internal citation omitted).

⁷⁸ *Id.* at 1368-69

In order to improve the chances of super-ovulation resulting in a pregnancy, Dr. Lifchez may need to experiment with particular elements in the procedure to achieve a more receptive uterine lining or better quality embryos. Not all such attempts will be successful, and any particular one might not be therapeutic to the embryos, thus violating § 6(7).

changes to the manner by which the *in vitro* fertilization occurs.⁷⁹ Because the legislative history behind the statute's passage indicated that the bill's sponsor may well have intended the IVF exception language to allow IVF only "as it is presently performed"⁸⁰ and disallow future research or alteration of IVF techniques,⁸¹ the court concluded that the act "impermissibly restricts a woman's fundamental right of privacy, in particular, her right to make reproductive choices free of governmental interference with those choices."⁸² Citing cases such as *Griswold*, *Eisenstadt*, *Roe*, and *Population Services International*,⁸³ the court determined that

[e]mbryo transfer is a procedure designed to enable an infertile woman to bear her own child. It takes no great leap of logic to see that within the cluster of constitutionally protected choices that includes the right to have access to contraceptives, there must be included within that cluster the *right to submit to a medical procedure that may bring about, rather than prevent, pregnancy*.⁸⁴

The *Lifchez* decision thus indicates that lower courts may view the landmark Supreme Court decisions protecting such things as an individual's right to use contraceptives,⁸⁵ to obtain pre-viability abortions,⁸⁶ and to be free from forced sterilization⁸⁷ as part of a larger constitutional right to "reproductive autonomy" which is, perhaps, best defined as a right to "be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision *whether to bear or beget a child*."⁸⁸

Id. (internal citation omitted).

⁷⁹ See *id.* at 1369 (mentioning possible changes in the "shape of the vessel in which *in vitro* fertilization occurs, and the growth media in which the ova are fertilized").

⁸⁰ *Id.* at 1369.

⁸¹ *Id.*

⁸² *Id.* at 1376.

⁸³ *Id.*

⁸⁴ *Id.* at 1377 (emphasis added).

⁸⁵ See *Griswold v. Connecticut*, 381 U.S. 479, 485 (1965) (declaring a law, which forbade the use of contraceptives, as violative of the fundamental right to privacy); *Carey v. Population Services Int'l*, 431 U.S. 678, 690-91 (1977) (holding that a law limiting the distribution of contraceptives only by licensed pharmacists unconstitutional because the state interests did not justify such an intrusion on fundamental protected rights).

⁸⁶ See *Planned Parenthood of Southeastern Pa. v. Casey*, 505 U.S. 833, 846 (1992) (concluding that a woman's right to an abortion is derived from the Due Process Clause of the Fourteenth Amendment).

⁸⁷ See *supra* notes 23-28 and accompanying text.

⁸⁸ *Eisenstadt v. Baird*, 405 U.S. 438, 453 (1972) (emphasis added). See also *supra* notes 29-33 and accompanying text.

Another case worth noting is the famous *Baby M* case decided by the New Jersey Supreme Court in 1988.⁸⁹ In this case, William Stern entered into a surrogacy contract with Mary Beth Whitehead,⁹⁰ whereby Stern would provide semen with which Whitehead would be artificially inseminated.⁹¹ Pursuant to the terms of the contract, any resulting child would be delivered to the custody of Stern, and Whitehead covenanted to take all necessary legal steps to terminate her maternal rights to the child.⁹² After the baby was born, Whitehead refused to relinquish custody and Stern sued to enforce the terms of the surrogacy contract.⁹³

Stern and Whitehead both asserted that their state and federal constitutional rights would be violated if they were not granted custody of Baby M—Stern basing his argument on the right to reproduce, Whitehead on the right to companionship of her child.⁹⁴ Citing numerous decisions of the U.S. Supreme Court, the New Jersey Supreme Court explicitly acknowledged that both of these asserted rights existed and were fundamental.⁹⁵ With regard to Stern's asserted right to reproduce, the court delineated its contours as "the right to have natural children, whether through sexual intercourse or artificial insemination."⁹⁶ In so stating, the New Jersey Supreme Court clearly accepted the notion that the fundamental right to reproduce includes the right to use ARTs such as artificial insemination. Indeed, because the court defined the right as "the right to have natural children,"⁹⁷ this arguably includes the right to use other, non-sexual ARTs such as cloning. After having accepted and defined the right to reproduce, the court concluded that, because Baby M indeed had been born, Stern had not been deprived of this fundamental right.⁹⁸

⁸⁹ *In re Baby M*, 537 A.2d 1227 (N.J. 1988).

⁹⁰ *Id.* at 1235. Mrs. Stern was not a party to the contract, but Mr. Whitehead was. *Id.*

⁹¹ *Id.*

⁹² *Id.* Mr. Whitehead also covenanted to take all legal steps necessary to rebut the presumption of paternity that attached to the husband of a pregnant woman under New Jersey law. *Id.*

⁹³ *Id.* at 1237.

⁹⁴ *Id.* at 1253.

⁹⁵ *Id.* ("Whatever their source, it is clear that [these asserted rights] are fundamental rights protected by both the federal and state Constitutions.")

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.* at 1253–54 (adding that the care of the child after birth is not included in the right to procreate).

III. DOES THE RIGHT TO REPRODUCE EXTEND TO ASEXUAL REPRODUCTION?

Even assuming the Supreme Court would accept that the Constitution protects, at least to some extent, the right to reproduce by non-coital, sexual methods, such as artificial insemination or IVF, the question remains as to whether it would agree that the right of reproduction extends even further to include the use of non-coital, *asexual* methods.

As an initial matter, it is worth noting that, as recent research has indicated, asexual reproduction is not limited to cloning. Parthenogenesis, or “virgin birth,” is a process whereby eggs spontaneously begin the process of cell division without the need for sperm.⁹⁹ Parthenogenesis thus differs from nuclear transfer cloning because it does not require the re-nucleation of a donor egg using the differentiated cell of a donor.¹⁰⁰ All it takes, in other words, is an egg and the right environment. In a situation not involving natural parthenogenesis, this likely means that the egg must be soaked in a combination of chemicals. If the mix of chemicals is right, the egg will begin spontaneously dividing as though fertilization had occurred.

Parthenogenesis occurs naturally in numerous animal species, including some mammals.¹⁰¹ And in late November 2001, the scientists at Advanced Cell Technology revealed that they had successfully induced parthenogenesis in human eggs stimulated by chemicals.¹⁰² Specifically, the study involved the use of twenty-two donor eggs from three volunteers that were incubated in certain substances, rinsed, and placed in a culture media.¹⁰³ After twelve hours, twenty of the twenty-two eggs (ninety percent) had begun the

⁹⁹ See LAURENCE E. KARP, M.D., GENETIC ENGINEERING: THREAT OR PROMISE? 185 (1976).

¹⁰⁰ See *id.* at 185 (explaining that parthenogenesis does not require fertilization); see also E-BIOMED, *supra* note 9, at 28 (detailing the requirements of nuclear transfer cloning as involving eggs fertilized with sperm).

¹⁰¹ The species are varied, including drone bees, poultry, mice, golden hamsters, KARP, *supra* note 99, at 188–90, aphids, turkeys and some reptiles. See Rick Weiss, ‘Parthenotes’ Expand the Debate on Stem Cells, WASH. POST, Dec. 10, 2001, at A11, 2001 WL 31541438 [hereinafter *Parthenotes*]. It is also used by some to explain the phenomenon of Jesus’ birth to the Virgin Mary. See Judith F. Daar, *The Future of Human Cloning: Prescient Lessons From Medical Ethics Past*, 8 S. CAL. INTERDISC. L.J. 167, 169 n.11 (1998).

¹⁰² See E-BIOMED, *supra* note 9, at 25, 27–28; see also *Parthenotes*, *supra* note 101 (explaining that the “human eggs . . . gr[e]w into embryo-like balls of about [one hundred] cells”).

¹⁰³ E-BIOMED, *supra* note 9, at 27.

process of cell division; after five days, six of the original twenty-two (thirty percent) had divided to the point of forming blastomeres.¹⁰⁴

Whether by parthenogenesis or cloning, some scholars adamantly insist that asexual reproduction is qualitatively different from reproduction by sexual means (including sexual ARTs such as IVF), and thus should be afforded little or no constitutional protection.¹⁰⁵ The gist of this objection is that cloning, and presumably, parthenogenesis precisely because it is asexual, should be treated differently, even though the result is the same as with sexual reproduction—namely, the creation of a human being.¹⁰⁶ Opponents of cloning thus assert that, although the *ends* are the same as that of sexual reproduction, the *means* are different, and the law should focus on the means, not the ends.

The difficulty with this objection is its vagueness. What is the difference between sexual and asexual reproduction? The only objectively apparent difference is that sexual reproduction requires the union of sperm and egg (whether in the bedroom or petri dish), whereas asexual reproduction does not.¹⁰⁷ The other differences discussed thus far in the debate are merely speculative and based more on one's theological or ideological preferences than on any objective data.¹⁰⁸ These include fears about the impact of asexual reproduction on the institutions of marriage and the family, personal autonomy and privacy, the sanctity of life, the health and safety of the developing human embryo, and genetic diversity.¹⁰⁹

¹⁰⁴ *Id.* at 27-28, tbl. 2. For more information on blastomeres, see *supra* note 14 and accompanying text.

¹⁰⁵ See Lori B. Andrews, *Is There a Right to Clone? Constitutional Challenges to Bans on Human Cloning*, 11 HARV. J.L. & TECH. 643, 666 (1998) (comparing present legal reproductive technologies, which require a mix of genes that create a genotype that has never existed before, to cloning, which merely replicates a genotype already in existence); George J. Annas, *Human Cloning: A Choice or an Echo?*, 23 U. DAYTON L. REV. 247, 254 (1998) (arguing that cloning is not reproduction at all, but is merely replication, and represents an entirely different method in which humans can reproduce); Andre P. Rose, Note, *Reproductive Misconception: Why Cloning Is Not Just Another Assisted Reproductive Technology*, 48 DUKE L.J. 1133, 1150 (1999) (analogizing cloning with manufacturing, since the only objective is the replication of that which already exists).

¹⁰⁶ No legitimate scholar has suggested, to this author's knowledge, that the offspring of human cloning would not be fully human, science fiction scenarios notwithstanding. See Foley, *supra* note 3, at 658-77 (discussing the personhood of the offspring of human cloning, and the statutory and constitutional protections flowing therefrom).

¹⁰⁷ See Foley, *supra* note 3, at 700 (reporting that while other ARTs require the unification of sperm and egg, cloning does not).

¹⁰⁸ For a general discussion of these speculative fears about asexual reproduction, see Foley, *supra* note 3, at 710-30.

¹⁰⁹ *Id.*

Many of these fears were also vehemently voiced as the basis for opposing the use of sexual ARTs such as IVF and artificial insemination.¹¹⁰ Not surprisingly, these fears have significantly subsided as time has gone by, to the point where an overwhelming majority of Americans supports the use of sexual ARTs.¹¹¹ Moreover, it seems axiomatic that fear should not provide a sufficient basis for legal prohibition of action. As Justice Brandeis eloquently put it in the context of the First Amendment, “[f]ear of serious injury cannot alone justify suppression [Because of fear] [m]en feared witches and burnt women.”¹¹²

Because these speculative fears about asexual reproduction are ineluctably rooted in one’s subjective experience and beliefs (i.e., ethics and morality), many find it difficult, if not impossible, to move beyond them. I do not mean to suggest that there is no room for ethical considerations in the development of public policy and law—quite the contrary. I do mean to suggest however, that, absent objective evidence that damage to persons or valued institutions will occur, judges and lawmakers should resist the temptation to base public policy on such considerations. If majoritarian fears of harm—without evidence that such harms will indeed occur—can provide a valid basis for governmental prohibition of conduct, many of the liberties we now enjoy would undoubtedly be short-lived. If one puts aside, at least for the moment, these speculative fears about asexual reproduction, one is left with considering whether asexual reproduction—merely because it does not require union of sperm and egg—should be treated differently under the law.

As I have argued strenuously in the past¹¹³ the asexual nature of cloning (or, for that matter, parthenogenesis), standing alone, should not be sufficient to justify a ban on the practice. There is simply no evidence that the asexual nature of this particular means of reproduction will result in any harms not already presented by sexual reproduction. Moreover, the end result—the birth of a child—is undeniably the same, whether reproduction is accomplished by sexual or asexual means. If the affirmative right to reproduce means anything, should it not mean that we, as human

¹¹⁰ See Foley, *supra* note 3 at 696-99 (cataloging initial objections to AI and IVF).

¹¹¹ *Id.* at 699-700 (contending that many supporters consider the use of ARTs as a “fundamental aspect of liberty”).

¹¹² *Whitney v. California*, 274 U.S. 357, 376 (1927) (Brandeis, J., concurring).

¹¹³ See generally Elizabeth Price Foley, *The Constitutional Implications of Human Cloning*, 42 ARIZ. L. REV. 647 (2000).

beings, have the right to bear or beget biologically related offspring? If so, what difference should the means employed make? Why should the law care, in other words, how our children are conceived?

If the law does not care what sexual position we assume when we conceive our children and does not care whether our children are conceived in a petri dish, why should it care whether our children are conceived without the use of sperm? From a feminist perspective, a legal construct that allows reproduction by sexual intercourse or by the artificial sexual union of sperm and egg (e.g., IVF) but not by cloning or parthenogenesis smacks of sexism, or more precisely, sperm-ism. How could the law justify allowing all means of reproduction except those requiring the use of sperm? Is there something magical about sperm that gives lawmakers comfort, other than the fact that most of them have it? Although the Founding Fathers certainly never envisioned the possibility of reproduction without the use of sperm, do we really believe they intended to deny the right to have a biologically related child simply because the means employed did not involve its use? Should the ability of an individual to fulfill the dream of raising and loving his or her own child hinge upon the presence or absence of this one substance? I think it clear that it is the ends that matter, not the means. So long as the object is to have a child of one's own, the means employed should be legally irrelevant.

Although my own conclusions with regard to this issue are rather clear, I am left wondering (as is any academic writing about an issue of first impression) whether a court would concur. In other words, what would be the likely reaction of a court to this question? If asked, would a court sanction the use of asexual reproduction as constitutionally protected activity? Answering these questions requires a different construct, for these questions are not normative ones (i.e., what *should* a court do?), but pragmatic ones (i.e., what will a court likely do?). This, in turn, requires something more than acknowledgment and assessment of legal doctrine. It requires acknowledgment and assessment of the inevitable human tendency towards outcome-orientation (i.e., what is the conclusion I wish to reach and how do I then justify it?).

With this in mind, we can now turn to the pragmatic question: What would a court likely do when asked whether the right to reproduce encompasses the use of asexual methods such as cloning? A court would undoubtedly start with the substantive due process analytical legal framework pronounced in *Washington v.*

Glucksberg.¹¹⁴ Specifically, the Supreme Court has recognized two salient features that identify practices protected by substantive due process: (1) the practice is “deeply rooted in this Nation’s history and tradition” and “implicit in the concept of ordered liberty,” such that “neither liberty nor justice would exist if they were sacrificed,”¹¹⁵ and (2) there is a “careful description” of the liberty interest being asserted.¹¹⁶

The second feature—the careful description of the interest being asserted—is necessary, according to the *Glucksberg* Court, “because guideposts for responsible decisionmaking in this unchartered area are scarce and open-ended”¹¹⁷ and because “[b]y extending constitutional protection to an asserted right or liberty interest, we, to a great extent, place the matter outside the arena of public debate and legislative action,”¹¹⁸ thus running the risk that “the liberty protected by the Due Process Clause be subtly transformed into the policy preferences of the Members of this Court.”¹¹⁹ With a cognizance of the possibility of subjective *Lochnerian*¹²⁰ judicial lawmaking thus firmly in mind, the *Glucksberg* Court went on to carefully describe the right asserted by the respondents as “a right to commit suicide which itself includes a right to assistance in doing so.”¹²¹ The plaintiffs in *Glucksberg* had, not surprisingly, framed the issue quite differently. Specifically, they had argued that the right being asserted was a “right to die with dignity,”¹²² to “choose a humane, dignified death”¹²³ or to “control[] the manner and timing of . . . death.”¹²⁴

Once the *Glucksberg* Court had “carefully described” the right asserted as a “right to commit suicide,” the outcome of the case was

¹¹⁴ 521 U.S. 702 (1997).

¹¹⁵ *Id.* at 721 (internal quotations and citations omitted).

¹¹⁶ *Id.* (citation omitted).

¹¹⁷ *Collins v. City of Harker Heights*, 503 U.S. 115, 125 (1992), *quoted in part in Glucksberg*, 521 U.S. at 721.

¹¹⁸ *Glucksberg*, 521 U.S. at 720.

¹¹⁹ *Id.* (citing *Moore v. City of E. Cleveland*, 431 U.S. 494, 502 (1977) (plurality opinion)).

¹²⁰ *Lochner v. New York*, 198 U.S. 45 (1905) (invalidating, as violative of the substantive due process right of liberty of contract, a New York statute forbidding employment in a bakery for more than sixty hours per week or ten hours per day). For more on the *Lochner* era of substantive due process analysis and the New Deal Court’s rejection of *Lochnerian* judicial behavior, see Elizabeth C. Price, *Constitutional Fidelity and the Commerce Clause: A Reply to Professor Ackerman*, 48 SYRACUSE L. REV. 139, 157-67 (1998).

¹²¹ *Glucksberg*, 521 U.S. at 723.

¹²² *Id.* at 790 (Breyer, J., concurring).

¹²³ *Id.* at 722.

¹²⁴ *Id.* at 742 (Stevens, J., concurring); *see also id.* at 790 (Breyer, J., concurring) (suggesting that the precise words used are incidental since “personal control” over the specifics is the paramount significance in each phrase).

sealed.¹²⁵ Applying the second feature of substantive due process analysis, the Court concluded that the Nation's history and traditions did not indicate that there was a "deeply rooted" right to commit suicide—quite the contrary, since hundreds of years of Anglo-American law have considered assistance with suicide a crime.¹²⁶

A similar fate could await those who may assert that there is a constitutional right to have access to or to use cloning, parthenogenesis, or other asexual reproductive technology. If the Court determined, as a normative matter, that asexual reproduction was undesirable, it could reject a substantive due process claim by "carefully describing" the right being asserted as a "right to engage in asexual reproduction." So described, there is little doubt that the second substantive due process inquiry—i.e., whether the asserted right is "deeply rooted" in our Nation's history and traditions—would be answered in the negative. Given the recent genesis of asexual means of human reproduction and the virtually uniform popular condemnation of such procedures, the use of asexual reproductive technology is not likely to be characterized by the court as "deeply rooted" in our nation's history and traditions.

Of course, the newness of a given action is not, *ipso facto*, the death knell for its constitutional protection. Even conservative justices such as Justice Scalia have recognized that activities that are not "old" enough to qualify as deeply rooted in our history and traditions may, nonetheless, be found to qualify for constitutional protection, so long as courts refer "to the most specific level at which a relevant tradition protecting, or denying protection to, the asserted right can be identified."¹²⁷ In other words, in situations involving new phenomena, one must attempt to analogize as best as

¹²⁵ *Id.* at 723–24. A similar statement about the outcome-determinative force of how issues are framed could be made with regard to the Court's 1986 decision in *Bowers v. Hardwick*, 478 U.S. 186 (1986). In that case, the Court was asked to determine the constitutionality of a Georgia statute criminalizing sodomy. *Id.* at 188. After framing the issue as "whether the Federal Constitution confers a fundamental right upon homosexuals to engage in sodomy and hence invalidates the laws of the many States that still make such conduct illegal and have done so for a very long time," *id.* at 190, the Court concluded that such conduct was not protected by substantive due process. *Id.* at 192–96. Given the manner in which the asserted right was "carefully described" by the Court, the conclusion seemed foregone. The four dissenters in *Bowers*, of course, framed the issue very differently. *See id.* at 199, 203–05 (Blackmun, J., dissenting) (characterizing the asserted right as "the right to be let alone"—especially in matters of sexual privacy); *id.* at 214 (Stevens, J., dissenting) (depicting the asserted right as the "right to choose for [one's self] how to conduct... intimate relationships").

¹²⁶ *Glucksberg*, 521 U.S. at 711.

¹²⁷ *Michael H. v. Gerald D.*, 491 U.S. 110, 127–28 n.6 (1989) (Scalia, J.) (plurality opinion).

one can. Thus, the lawyer's job is to identify, as closely as possible, an analogous tradition that is either protected or not protected.

The constitutional protection afforded to asexual reproduction thus depends, once again, on how one frames the right being asserted. Specifically, proponents and opponents of human cloning must attempt to identify an analogous tradition and argue, respectively, that it historically has or has not been protected by law. Which analogy the courts ultimately embrace will thus seal the outcome of this substantive due process issue. But what are the possible analogies for which proponents and opponents of human cloning would argue?

Proponents of human cloning would, of course, argue for the use of a broad analogue. Specifically, they would argue that the most closely analogous tradition that can be identified is reproduction. If a court agreed with this characterization, it would necessarily conclude that asexual reproduction (such as cloning) is but a subset of the larger category of reproduction; hence, because reproduction historically has been protected, so should asexual reproduction. This approach, however, probably would not satisfy conservative jurists, such as Justice Scalia, who presumably would emphasize that the Court's task, in assessing the constitutional protection of a new activity under substantive due process analysis, is to identify the most *specific*—i.e., most narrowly drawn—analogue possible in order to avoid *Lochnerian* pitfalls.

Proponents of asexual reproduction could, however, also argue for a more narrow analogue—specifically, the use of sexual ARTs such as IVF and artificial insemination. A court wishing to adopt such a middle ground approach would be required to decide whether and to what extent sexual ARTs are constitutionally protected. The constitutional protection afforded to human cloning (and parthenogenesis) would thus be coextensive with that of other ARTs. Since other ARTs appear to enjoy a high degree of constitutional protection,¹²⁸ asexual reproductive methods would be similarly protected.

A court could also conclude that there is no apt analogy to be drawn between asexual reproduction and sexual reproduction—that these are, in other words, *sui generis*, “apples and oranges. In order to conclude, however, that asexual and sexual reproduction are apples and oranges, the court would need to catalog the differences between the two types of reproduction. Given the strong

¹²⁸ See *supra* notes 57–98 and accompanying text.

similarities between cloning and existing sexual ARTs such as IVF, this would be a difficult task.

The differences between reproduction via sexual intercourse and reproduction via ARTs (sexual or asexual), on the other hand, are rather apparent. The former requires a physical intimacy between a man and woman, the latter does not, at least not in the traditional sense. Indeed, once one moves away from old-fashioned intercourse (and perhaps artificial insemination), reproduction is accomplished in essentially the same way: an ovum is somehow stimulated to begin the process of cell division. With IVF, the stimulation is achieved by the addition of sperm. With parthenogenesis, the stimulation is achieved by chemicals. With cloning, the stimulation is achieved by a combination of a mild jolt of electricity followed by cell starvation. Traditional physical intimacy between man and woman is neither implicated nor threatened.

Given the rather stark difference between sexual intercourse and all forms of assisted reproduction, and the equally stark similarities among the various types of artificial reproduction, a court wishing to say that sexual and asexual reproduction are “apples and oranges” would thus have a difficult time. A more apt characterization would be that sexual intercourse is the “apple” and all other artificial reproductive technologies are the “oranges.” The difficulty with this conclusion, of course, is that it leaves all of the oranges (ARTs) constitutionally unprotected and hence, vulnerable to complete prohibition. IVF, GIFT, ZIFT, and other ARTs could be as easily banned as cloning—a result that is, pragmatically speaking, unacceptable.

An outcome-oriented court preferring not to leave all types of ARTs vulnerable to legislative attack could, as an alternative, conclude that all forms of reproduction are constitutionally protected but vary the degree of constitutional protection according to the means employed. A court could thus acknowledge a hierarchy of constitutional protection, similar to the hierarchy recognized in equal protection jurisprudence.¹²⁹ Under this approach, presumably, reproduction via sexual intercourse would receive the highest degree of constitutional protection, given its inherent privacy implications and undoubted characterization as a right which is deeply rooted in our nation’s history and traditions.¹³⁰

¹²⁹ See ARCHIBALD COX, *THE COURT AND THE CONSTITUTION* 305–21 (1987) (illustrating landmark court decisions that established the application of various levels of scrutiny to cases involving such issues as gender, race, and other forms of discrimination).

¹³⁰ The Court clearly does not look favorably on legal impediments to intimate heterosexual

Laws attempting to infringe upon an individual's ability to engage in reproduction via sexual intercourse would thus be subjected to the strictest judicial scrutiny.¹³¹ Just below this category of judicial protection would fall laws regulating reproduction by assisted (i.e., non-coital) means.¹³² A court opting for this approach would likely reason that although many ARTs have achieved a broad level of acceptance and use, they do not enjoy the same historical and traditional reverence as reproduction via sexual intercourse.¹³³ Moreover, while there are certain intimacy and privacy interests implicated by reproduction via ARTs, these interests are somewhat diminished. When an egg is stimulated to begin division in a petri dish, whether by sperm, chemicals, or a jolt of electricity, the specter of "bedroom police" is not as apparent or threatening. For this reason, under a hierarchical approach, a court could uphold a law regulating the personnel and facilities employed in IVF cloning or other ARTs¹³⁴—regulations that would not be tolerated for reproduction via sexual intercourse. Thus, while the government would be able to restrict the use of ARTs to certain places (e.g., licensed facilities) and prohibit the application of ARTs except by certain personnel (e.g., physicians), it certainly would not be able to impose the same kinds of restrictions on sexual intercourse.

relations. In invalidating Connecticut's law restricting access to contraceptives, the Court stated:

Would we allow the police to search the sacred precincts of marital bedrooms for telltale signs of the use of contraceptives? The very idea is repulsive to the notions of privacy surrounding the marriage relationship.

We deal with a right of privacy older than the Bill of Rights—older than our political parties, older than our school system.

Griswold v. Connecticut, 381 U.S. 479, 485-86 (1965).

Subsequently, the Court made it clear that the rights pronounced in *Griswold* extended to unmarried persons as well. *Eisenstadt v. Baird*, 405 U.S. 438, 453 (1972). The right to engage in sexual intercourse, however, whether for procreative or non-procreative purposes, does not currently extend to homosexual relations. See *Bowers*, 478 U.S. at 191.

¹³¹ See *Skinner v. Oklahoma*, 316 U.S. 535, 541 (1942) (invoking strict scrutiny to invalidate an Oklahoma law that authorized the mandatory sterilization of certain habitual felons). Strict scrutiny demands that the law in question "serve a compelling governmental interest, and must be narrowly tailored to further that interest." *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200, 235 (1995) (applying strict scrutiny to federal racial classifications).

¹³² Under the current equal protection hierarchy, a law subject to intermediate scrutiny must serve an important governmental objective, and the means employed must be substantially related to the achievement of those objectives. See *United States v. Virginia*, 518 U.S. 515, 524 (1996) (citing *Mississippi Univ. for Women v. Hogan*, 458 U.S. 718, 724 (1982)) (demanding that an 'exceedingly persuasive justification' be shown to preserve a government action dealing with gender classifications).

¹³³ Indeed, as discussed more extensively in Part II, *supra*, there is very little case law even addressing the issue of whether the use of ARTs is constitutionally protected.

¹³⁴ See *supra* notes 44-46 and accompanying text (explaining the main differences among several methods of non-coital reproduction).

CONCLUSION

It appears quite clear that the Constitution provides individuals with the fundamental right to reproduce. While Supreme Court caselaw has only directly addressed the right to reproduce in the context of sexual intercourse, lower courts have, in a few rare instances, been asked to consider whether the right extends to the use of ARTs. The limited number of courts that have considered this question thus far have unanimously agreed that the right to reproduce does include the right to use ARTs such as artificial insemination and IVF. Thus, although it seems reasonable to assume that the use of ARTs enjoys some degree of constitutional protection, it is not clear whether laws attempting to regulate ARTs would be entitled to strict judicial scrutiny.

A more challenging question is posed by the emerging possibility of the use of asexual ARTs such as cloning or parthenogenesis. Whether the constitutional right to reproduce extends to asexual reproduction is a question that can, in the end, only be answered by engaging in a traditional substantive due process analysis, which would require a court to identify the most closely analogous protected or unprotected activity extant. The analogue chosen by the courts, moreover, will ineluctably hinge upon pragmatic, outcome-oriented considerations; hence, depending on the analogue chosen by the courts, asexual reproduction may or may not be constitutionally protected. Analogizing asexual reproduction to reproduction in general would allow a court to grant full constitutional protection to asexual reproduction, as well as sexual ARTs. On the other hand, a court could assert that asexual reproduction and sexual reproduction are apples and oranges, and that there is no currently protected activity analogous to asexual reproduction. This conclusion would be pragmatically difficult to justify given the strong similarities between cloning and existing sexual ARTs such as IVF, and could lead to the conclusion that reproduction by sexual intercourse enjoys full constitutional protection whereas non-coital reproduction (including IVF) enjoys no constitutional protection at all.

Between these two extremes, a court could opt for a middle ground, reasoning that asexual reproduction is most analogous to existing sexual ARTs such as IVF. The constitutional protection afforded to asexual means of reproduction would thus be coextensive with the constitutional protection afforded to sexual ARTs. Since the courts that have addressed the constitutional

protection of sexual ARTs have thus far unanimously concluded that sexual ARTs do fall within the ambit of the right to reproduce, this approach would likely extend some degree of constitutional protection to asexual ARTs such as cloning and parthenogenesis.

Although there are numerous pragmatic considerations that will drive the decision as to which analogue a court will embrace in a substantive due process analysis, courts and citizens alike should not lose sight of the fact that the end result of asexual reproduction—the birth of a child—is something we should all welcome and embrace. And although, by definition, asexual reproduction does not require the use of sperm, the end result is one that has been witnessed billions of times over millions of years, and it is this miraculous end—not the means—that the fundamental right to reproduce should protect.