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CLONING, PUBLIC POLICY AND THE CONSTITUTION

I. INTRODUCTION

Recently, the media reported that scientists at the University of Texas have succeeded in cloning a cat.¹ The news that yet another animal has been cloned reminds us of the seriousness of possible human cloning.² The moral and ethical issues of cloning a human being seem staggering,³ and people vigorously argue about whether scientists should ever be allowed to clone a human being.⁴

Several fairly recent governmental developments are worth noting. After it became known that Scottish researchers cloned a sheep early in 1997, President Clinton issued an executive order preventing federal funds from being used to clone human beings.⁵ Soon after, at Clinton's direction, the National Bioethics Advisory Commission made their report on the dangers of cloning, after which the President introduced a bill called the *Cloning Prohibition Act*.⁶ Although Congress has since de-

3. Tina Hesman, Ban's Critics, Backers Fear Consequences, St. Louis Post-Dispatch B1 (Apr. 14, 2002) (available in 2002 WL 2557381) (discussing the moral, ethical and political dilemmas with regards to cloning); Dana Visser, Student Author, Who's Going to Stop Me From Patenting My Six-Legged Chicken? An Analysis of the Moral Utility Doctrine in the U.S., 46 Wayne L. Rev. 2067, 2087 (2000) (arguing that if product of biotechnology is immoral, then that biotechnology does not deserve a patent).

4. Bob Kemper, Bush Seeks Total Human Cloning Ban; Senate Leader Balks at Ending Research, Chi. Trib. 8 (Apr. 11, 2002) (available in 2002 WL 2643552) (quoting President George W. Bush, "human cloning is deeply troubling to me and to most Americans ... life is a creation, not a commodity").

5. Fahd Riaz, Genetic Transplantation, Cloning and Federal Legislation: Some Constitutional Issues, 7 B. U. J. Sci. & Tech. L. 421, 426 (2001).

6. Id. at 422; H.R. Rpt. 107-172 § 2 (July 30, 2001).

^{1.} Maggie Fox, Texas Researchers Herald cc: A Real Live Copycat: The Clone Appears "Completely Normal:" The Humane Society Objects, The Phila. Inquirer A02 (Feb. 15, 2002) (announcing that the first cloned cat, now two months old, appears healthy and normal).

^{2.} Thomas W. Still, Cloning Crossroads: Where Do We Draw the Line?, Wis. St. J. B1 (Apr. 14, 2002) (available in 2002 WL 6337172) (explaining that the public is generally opposed to human cloning for ethical reasons, although not objecting as much to "therapeutic" cloning (cloning which does not produce a human child)); Four of Five Oppose Human Cloning: U.S. Funding of Stem Cell Research has More Acceptance, a Survey Reports, Grand Rapids Press A6 (Apr. 14, 2002) (explaining that most of the public opposes cloning) (available in 2002 WL 18289223).

bated the cloning issue, no permanent federal ban on human cloning has resulted.⁷ On February 28, 2003, the U.S. House of Representatives passed a bill making it a felony "to perform or attempt to perform human cloning," but Senate approval of the bill is currently pending.⁸ President George W. Bush has also expressed his disapproval of human cloning, and has even urged the Senate to pass legislation banning cloning.⁹ Various religious groups, including the Vatican, have voiced their opposition to human cloning.¹⁰

In trying to address concerns about human cloning, legislative bodies have been grappling with the moral, ethical, and legal implications of this newly emerging technology.¹¹ Some states, notably California and Michigan, have enacted legislation prohibiting the cloning of human beings.¹² The California law, passed in 1997, prohibited cloning for a fiveyear period.¹³ Michigan and Rhode Island have passed laws banning the cloning of human beings altogether.¹⁴ Early in 2002, the Colorado legislature was considering a bill that would prohibit both the cloning of human beings and the use of stem cells in research.¹⁵

This Comment will focus mainly on the safety and legal issues surrounding human cloning and somewhat less on the scientific and moral

9. Joannie Fischer, Nell Boyce & Rachel K. Sobol, *The Cell Wars Begin*, U.S. News & World Rep. 56, ¶ 3 (Dec. 10, 2001) (available in 2001 WL 30366320); see also Kemper, supra n. 4, at 8; Bush Calls for Ban on Human Cloning, Indianapolis News/Indianapolis Star D5 (Apr. 14, 2002) (available in 2002 WL 16982173) (indicating that President Bush has urged the Senate to pass a bill banning cloning).

10. Lori Andrews, Is There a Right to Clone?: Constitutional Challenges to Bans on Human Cloning, 11 Harv. J.L. & Tech. 643, 681 (1998). The Union of Orthodox Jewish Congregations and the Rabbinical Council of America (two orthodox Jewish groups) have voiced their opposition to cloning human beings. See Two Jewish Groups Take Cloning Stand, Chi. Trib. 8, \P 1 (Mar. 15, 2002) (available in 2002 WL 2633970).

11. Zuckman, supra n. 7, at 10; see also Bush to Seek Law Banning All Cloning, Chi. Trib. 12, ¶ 4 (Apr. 10, 2002) (reporting Senator Bill Frist, the Senate's only doctor, opposing cloning because it destroys human embryos).

12. David Orentlicher, Beyond Cloning: Expanding Reproductive Options for Same-Sex Couples, 66 Brook. L. Rev. 651, 676-677 (2000-2001) (arguing cloning should be allowed for reproduction for both homosexuals and the unmarried) [hereinafter Orentlicher, Beyond Cloning].

13. Andrews, supra n. 10, at 646.

14. See e.g. R.I. Gen. Laws § 23-16.4-2 (2001); Mich. Comp. Laws § 333.16275 (2001).

15. John R. Sladek, Troubled Harvest: As Proposed Human Cloning Ban Shows, the Fruit of Scientific Progress Can Prove To Be Bittersweet, Nettlesome, Rocky Mountain News 4B (Feb. 2, 2002) (available in 2002 WL 9091362).

^{7.} Id.; Jill Zuckman, GOP Says Democrats Stalling Senate's Work, Chi. Trib. 10, § Formula for Finger-Pointing (Apr. 13, 2002) (discussing, in part, that Democrats in Senate are dragging their feet on the bill to ban cloning).

^{8.} Michael Rowett, Human Cloning Ban Gets Panel's Approval: Bill Would Ascribe Felony Status to Process, The Arkansas Democrat Gazette 13 (Mar. 7, 2003) (available in 2003 WL 4941159).

issues. Part A of the Background will address recent developments in cloning. Part B is a brief history of privacy law, which is essential to understanding the legal implications of cloning. Having laid a historical foundation for the history of both cloning and where we are in regards to privacy in the Background, the focus will be on some of the legal and policy problems that cloning would cause. Part A of the Analysis will discuss why cloning is not just another reproductive technology. Part B will discuss a few serious and troubling legal and policy issues with regards to cloning human beings. Part C will address the ongoing debate among scholars as to whether a fundamental privacy right to clone can be found under the Constitution. Part D will briefly discuss the legislative solution to the possibility of human cloning. The Conclusion will reiterate the reasons why human cloning is not protected by the Constitution, and why the government should be encouraged to ban the cloning of adult human beings.

II. BACKGROUND

A. CLONING IN GENERAL

Each human being has a unique set of chromosomes, known as deoxyribonucleic acid ("DNA").¹⁶ At conception, a sperm enters an egg of the female mammal.¹⁷ The sperm cell and the egg cell each contain essentially one half of the chromosomes (DNA) needed to produce a complete new individual.¹⁸ Through a new process known as somatic cell nuclear transfer ("SCNT"), scientists have been able to take a newly fertilized egg and inject it with DNA from a somatic cell (a cell other than a sperm or egg) and thus produce a clone.¹⁹ After the nucleus (containing the DNA) has been injected into the egg, a minute amount of electricity is used to activate the fertilized egg so it will begin developing into a fetus.²⁰ Although scientists have done other types of cell cloning for

^{16.} Kevin H. Smith, Déjà Vu All Over Again: What to Do When the Octogenarian Really is Fertile and Other Legal Conundrums Which Will Result From the Cloning of Human Beings, 77 Denv. U. L. Rev. 35, 40 (1999).

^{17.} Kevin FitzGerald, *Cloning: Can It Be Good for Us: An Overview of Cloning Tech*nology and Its Moral Implications, 32 U. Toledo L. Rev. 327, 328 (2001) (explaining various reasons for rejecting human cloning at this time, not only for moral reasons, but also for technological problems in cloning that the general public is not aware of).

^{18.} Id. at 328.

^{19.} Id. at 328-30. For articles explaining the science of cloning (including SCNT cloning) in layman's terms, see generally Richard A. Merrill & Bryan J. Rose, FDA Regulation of Human Cloning: Usurpation or Statesmanship?, 15 Harv. J.L. & Tech. 85 (2001), Anne Lawton, The Frankenstein Controversy: The Constitutionality of a Federal Ban on Cloning, 87 Ky. L.J. 277 (1999), FitzGerald, supra n. 17, at 327-31.

^{20.} Susan Greenlee, Student Author, Dolly's Legacy to Human Cloning: International Legal Responses and Potential Human Rights Violations, 18 Wis. Intl. L.J. 537, 538 (2000).

years, 21 the new SCNT process was how the famous sheep, Dolly, was cloned. 22

The public reaction to Dolly's cloning seems to be what prompted President Clinton to issue his executive order.²³ The announcement of Dolly's birth led the public to speculate on whether humans would be cloned in the near future.²⁴ Since Dolly's birth, many other animals have been cloned, such as cows,²⁵ mice,²⁶ pigs,²⁷ a cat,²⁸ and recently, a rabbit.²⁹ Scientists have even begun cloning endangered species. A few months ago, researchers at a Massachusetts laboratory, Advanced Cell Technology, implanted embryos of a banteng into dairy cattle wombs.³⁰ A banteng is a rare cow-like creature with horns that inhabits Indonesian forests.³¹

Unfortunately, the cloned animals that have survived birth have all had various problems. At five years of age, Dolly exhibited signs of premature aging, and later developed a bad case of arthritis.³² Scientists also reported that mice who were cloned seemed to live much shorter lives than those conceived naturally.³³ Other problems with cloning have happened even earlier in the scientific process. For example, it took about 277 tries to successfully implant a female sheep before one was actually born.³⁴ The researchers who cloned the cat also indicated that it took them eighty-seven tries before a single live cat developed *in utero*

25. Gina Kolata, Japanese Scientists Clone a Cow, Making Eight Copies, N.Y. Times A8 (Dec. 9, 1998).

26. Lab Mice Death Raises Fears for Human Clones, Agence Fr.-Presse (Feb. 11, 2002) (available in 2002 WL 2337467) [hereinafter Lab Mice Death].

27. Nell Boyce, Cloning a Piggy Organ Bank, U.S. News & World Rep. 58 (Jan. 14, 2002) (available in 2002 WL 8429900).

28. Fox, supra n. 1, at A02.

29. Peter Gorner, *Cloning Takes Another Hop Forward: French Team Pulls Rabbit Out* of Hat, Chi. Trib. 14 (Mar. 31, 2002) (available in 2002 WL 2639652) (reporting that cloned rabbits will be useful for research to help cure cystic fibrosis in humans).

30. Anne McIlroy, Can Clones Revive Lost, Endangered Species?, Pittsburgh Post-Gazette A3 (Mar. 9, 2003) (available in 2003 WL 3894600).

31. Id.

32. Lab Mice Death, supra n. 26. Dolly the sheep was put down after being diagnosed with progressive lung disease in February 2003. Cameron Simpson, Cloning Fears As Dolly the Sheep Dies, The Herald P1 (Feb. 15, 2003).

33. Id.

34. J. Madeleine Nash, Cloning's Kevorkian, Who Is This Eccentric Physicist Named Seed Who Wants to Start a Clinic In Chicago to Clone Humans?, Time Mag. 58 (Jan. 19,

^{21.} Riaz, supra n. 5, at 422.

^{22.} FitzGerald, supra n. 17, at 328.

^{23.} Riaz, supra n. 5, at 421.

^{24.} See generally Jeffrey Kluger & Dick Thompson, Will We Follow the Sheep? It Will Be Up to Science to Determine if Human Cloning Can Be Done. It Is Up to the Rest of Us to Determine if it Should Be, Time Mag. 66 (Mar. 10, 1997) (available in 1997 WL 8543306) (speculating on whether because of Dolly the sheep, humans would soon be cloned).

and was actually born.³⁵ As pointed out by Dr. Kevin Fitzgerald, many of the animal clones died while still in the uterus of the female, and even the ones who were born had serious health problems.³⁶ Not all of the calves that have been cloned have turned out to be normal.³⁷ An estimated thirty percent of the cloned calves were abnormally large before birth and had to be delivered by caesarean section.³⁸

At the present time, although it is not clear that we could successfully clone human beings, the technology indicates that scientists are getting closer.³⁹ However, the risks, not only to the child, but also to the expectant mother, seem to outweigh any benefits cloning would bring.⁴⁰ The technology has not advanced far enough for some scientists to even feel comfortable cloning a human being.⁴¹ In December of 2001, Advanced Cell Technology ("ACT"), risked public indignation by proclaiming in December 2001, that it had successfully cloned the first human embryo.⁴² Because the embryos died, the scientists at ACT were unable to isolate "stem cells" (the cells actually used in cloning) for their

37. Mary B. Mahowald, Genes, Clones, and Gender Equality, 3 DePaul J. Health Care L. 495, 508 (2000).

38. Id.

39. First Clone Pregnancy?, Chi. Sun-Times 18 (Apr. 6, 2002) (available in 2002 WL 6454033) (reporting that Severino Antinori, a Roman fertility specialist, had supposedly cloned a human embryo and that it was implanted in a woman's uterus). Experts are doubtful that Antinori has really succeeded in both cloning a human being and successfully implanting the embryo. *Id.* Whether or not we are close to cloning a human being is an ongoing debate. It is this author's view that, given our current technological advances, cloning of human beings seems possible within the next five years, based on everything we have seen in the news regarding the subject. See also Valarie H. Spears, First Human Cloning Might Start Next Month, Lexington Herald Leader C1 (Aug. 17, 2002) (reporting that Zavos, a fertility specialist, will try to clone several human embryos and implant them in childless women).

40. For instance, the animal clones have been aging faster than normal sexually reproduced animals. Lab Mice Death, supra n. 26. It would be unfortunate to clone humans if the result would be abnormal children who age quickly. FitzGerald, supra n. 17, at 330-31. The concern about the mother comes from implanting the cloned embryo in the uterus. Considering it took 277 tries to implant the sheep and 87 tries to implant the cat embryo before success, the idea that a woman could be implanted with relative ease and safety seems questionable. Concern about the fetuses being too large (as in the case of the calves) would also be a danger to the expectant mother. Nash, supra n. 34, at 58; Gorner, Cloning Produces Cat, supra n. 35, at 1.

- 41. FitzGerald, supra n. 17, at 330-31.
- 42. Fischer, supra n. 9, at 56.

^{1998) (}available in 1998 WL 7694181) (discussing Richard Seed, who announced that he wanted to open a clinic to clone human beings).

^{35.} Peter Gorner, *Cloning Produces Cat, More Questions*, Chi. Trib. 1 (Jan. 15, 2002) (available in 2002 WL 2624044) [hereinafter Gorner, *Cloning Produces Cat*]. *In utero* simply means the fetus develops in the uterus.

^{36.} FitzGerald, supra n. 17, at 330-31.

research.43

Despite the real and disturbing physical problems animal clones have exhibited, not everyone has been opposed to cloning.⁴⁴ One of the most notorious of these was Richard Seed, a somewhat eccentric physicist from Oak Park, Illinois who publicly proclaimed his intention to open a clinic in Chicago to clone human beings.⁴⁵ Dr. Seed also wanted to begin by having himself cloned and implanting the embryo in his wife's womb.⁴⁶ It is apparent that scientists have not taken Seed very seriously, and his announcement has never come to fruition, but Seed's comments have raised ethical concerns about whether a person has the right to clone himself.⁴⁷

B. CLONING, PRIVACY RIGHTS AND THE CONSTITUTION

The right to privacy was formulated in the late nineteenth century by a very influential law review article written by two young lawyers, Samuel H. Warren and Louis D. Brandeis.⁴⁸ Because of this article, privacy began to be accepted by courts as legal doctrine.⁴⁹ The advent of genetics, computers and other technology has brought with it a host of privacy issues.⁵⁰

Although the Constitution has no specific text indicating a privacy right, privacy rights began to be a basis for the Supreme Court's decisions in cases during the 1960s, such as in *Griswold v. Connecticut.*⁵¹ In *Griswold*, the Court struck down a Connecticut law that prevented the use of, or the dissemination of information about, contraceptives.⁵²

46. Greenlee, supra n. 20, at 544.

47. Id. at 545.

48. See generally Samuel D. Warren & Louis D. Brandeis, The Right to Privacy, 4 Harv. L. Rev. 193 (1890).

49. Irwin R. Kramer, *The Birth of Privacy Law: A Century Since Warren and Brandeis*, 39 Cath. U. L. Rev. 703, 716-18 (1990) (arguing that privacy law is still as relevant as it was 100 years ago).

50. Id. at 720 (pointing out that computer technology is such that private information about individuals stored in electronic data banks is subject to recall years later at the press of a button). There is a growing fear that genetic technology will be used to create "designer" babies and the result is that genetic information will no longer be private, but in the hands of unscrupulous scientists. See generally Jim Ritter, Are 'Designer Babies' Next?, Chi. Sun-Times A12 (Mar. 24, 2002) (voicing concerns that babies will be genetically engineered in the future).

51. Griswold v. Conn., 381 U.S. 479 (1965).

52. Id. at 484-86.

^{43.} *Id*.

^{44.} Nash, supra n. 34, at 58.

^{45.} Id. One of the most vocal advocates of human cloning is the molecular biologist Lee M. Silver. See generally Lee M. Silver, Popular Cloning Versus Scientific Cloning in Ethical Debates, 4 N.Y.U. J. Legis. & Pub. Policy 47 (2000-01) (arguing that cloning of humans should be allowed by the government).

Under the Court's analysis, substantive due process was used to find a right of privacy under the penumbras of First Amendment liberties.⁵³ Thus, reproduction and choices about reproduction involved fundamental privacy rights under *Griswold*.⁵⁴

In another important case, *Eisenstadt v. Baird*, the Supreme Court held that a person's decision about whether or not to have a child is a fundamental right under the Fourteenth Amendment's Due Process Clause of the Constitution.⁵⁵ In *Roe v. Wade*, another early 1970s case, the Supreme Court grappled with the issue of how to balance a woman's privacy to have an abortion and when the state's interests in preserving unborn children overrides the woman's privacy. Ultimately, the Court found a fundamental privacy right in a woman's decision to have an abortion during the first trimester of pregnancy.⁵⁶

How does the privacy right relate to cloning? There are two answers to this question. The first answer involves how the Supreme Court reviews state and federal laws for their constitutionality.⁵⁷ Courts view fundamental rights under the Constitution differently than non-fundamental rights.⁵⁸ If the fundamental privacy right to reproduction is extended to cover the cloning of a human being, the Supreme Court will look at cloning legislation under the very rigid standard of strict scrutiny.⁵⁹ This means that the legislation will only be upheld if the state can show a "compelling governmental interest" in the government restricting legislation, a very high hurdle for the government.⁶⁰ On the other hand, if the Supreme Court were to hold that there is no funda-

57. See San Antonio Indep. Sch. Dist. v. Rodriguez, 411 U.S. 1 (1973) (upholding the constitutionality of Texas school districts being able to use local taxes to finance education, even though the effect of the ordinance was to limit the amount of money used for poor school students in poor neighborhoods). The majority used the "rational basis test" to reach its result, an easy burden for the state to show to uphold the educational system. Id. at 17. Justice Marshall, in a stinging dissent, notes that, "the Court today, decides, in effect, that a State may constitutionally vary the quality of education which it offers its children in accordance with the amount of taxable wealth located in the school districts within which they reside." Id. at 70. Apparently, Justice Marshall felt that poor students had a *fundamental right* to have educational opportunities equal to those students in more affluent neighborhoods. Id.

59. Id.

60. Village of Belle Terre v. Boraas, 416 U.S. 1, 18 (1974) (Marshall, J., dissenting) (upholding the constitutionality of a zoning ordinance restricting the number of unrelated people who could live in a household). The Court used the "rational basis test" in this case, but arguably, Justice Marshall, in his dissent, had the better argument when he observed

^{53.} Lawton, supra n. 19, at 335-36 (analyzing in great detail the Supreme Court's uneasiness with expanding substantive due process and how the Court will likely uphold a cloning ban).

^{54.} Id.

^{55.} Eisenstadt v. Baird, 405 U.S. 438, 443 (1972).

^{56.} Roe v. Wade, 410 U.S. 113, 154-55, 163 (1973).

^{58.} Id. at 17.

mental right to clone, then the "rational basis test" would be used.⁶¹ Under this test, the government can freely regulate an activity if it can show a "rational basis" for doing so.⁶² Since a rational basis is much easier for the state to show than a compelling governmental interest, legislation being reviewed by courts under the rational basis test is much less likely to be struck down as unconstitutional.⁶³

The second reason privacy is important to cloning is because advocates of cloning claim that cloning should be included under the fundamental right to reproduce.⁶⁴ Following this rationale, a person who wants to reproduce has a fundamental privacy right in matters of reproduction, and thus, cloning should be included as simply the right to reproduce.⁶⁵ The debate about the "procreative" right to clone centers on these fundamental liberties that the Supreme Court has found by applying substantive due process principles to reproduction.⁶⁶ According to Professor Anne Lawton, it is doubtful that the Supreme Court would ever find cloning to be a fundamental constitutional right.⁶⁷

As an alternative constitutional argument, Ira H. Carmen suggests that cloning may be permissible under the Constitution by characterizing scientific inquiry as part of Freedom of Speech under the First Amendment.⁶⁸ Although this argument seems dubious, it nevertheless has been set forth as a valid First Amendment right protecting scientific inquiry.⁶⁹

The analysis section of this Comment will address the implications of the recent debate about whether or not the cloning of human beings is a good idea. The focus will be on the public policies, the dangers, and the

62. Id.

63. Rodriguez, 411 U.S. at 17.

64. Paul Tully, Student Author, Dollywood Is Not Just a Theme Park in Tennessee Anymore: Unwarranted Prohibitory Human Cloning Legislation and Policy Guidelines for a Regulatory Approach to Cloning, 31 John Marshall L. Rev. 1385, 1411-12 (1998) (favoring cloning of human beings); see also David Orentlicher, Cloning and the Preservation of Family Integrity, 59 La. L. Rev. 1019, 1037-39 (1999) (arguing in favor of cloning) [hereinafter Orentlicher, Cloning and the Preservation of Family].

65. Orentlicher, Cloning and the Preservation of Family, supra n. 64, at 1037-39.

66. Lawton, supra n. 19, at 336-37.

67. Id. at 351.

68. Ira H. Carmen, Should Human Cloning Be Criminalized?, 13 J. L. & Pol. 745, 752-753 (1997).

69. E. Donald Shapiro, Jennifer Long, and Rebecca Gideon, *To Clone or Not to Clone*, 4 N.Y.U. J. Legis. & Pub. Policy 23, 32-33 (2000-2001).

that the ordinance invaded a fundamental right to privacy and free association, which should give rise to the "strict scrutiny" standard. Id. at 13.

^{61.} Moore v. City of East Cleveland, 431 U.S. 494, 498 (1977) (discussing substantive due process under the Fourteenth Amendment and how certain rights are deemed fundamental).

legal issues at stake, and what Congress and the public need to consider in debates about this newly emerging technology.

III. ANALYSIS

The underlying theme of this Comment is to oppose the cloning of human beings.⁷⁰ Not only is there no fundamental constitutional right to clone, we are wholly unprepared, at least in the foreseeable future, to embark on an irresponsible scientific experiment to clone human beings. The legal, moral, and constitutional issues seem almost insurmountable, if approached with rationality and sense. Cloning in the United States should be banned, and we should encourage Congress to formulate appropriate legislation.

A. CLONING AS JUST ANOTHER REPRODUCTIVE TECHNOLOGY

Ever since the cloning of Dolly the sheep, the first mammal ever to be cloned,⁷¹ various commentators have suggested that human cloning is simply another form of reproduction, as valid as *in vitro* fertilization, surrogacy, or other forms of scientific solutions to infertility.⁷² Dr. Lee Silver, professor of molecular biology at Princeton and one of the most vocal professionals in favor of cloning, has stated that cloning is another form of reproduction, similar to various other reproductive technologies.⁷³ According to Dr. Silver, cloning should be encouraged and allowed as a way for childless, infertile people to reproduce.⁷⁴ Dr. Silver believes that the public really does not understand the scientific process

74. Id. at 55.

^{70.} It is important to note what this author is not arguing. He is not arguing that all forms of cloning should be prohibited, but only those forms that produce a human infant. Cell cloning, which may be helpful in curing disease, should still be allowed because it doesn't result in the creation of possibly malformed children. Additionally, whether an embryo or a fetus is a live human being is beyond the scope of this Comment. For an introduction to some other types of cloning useful in medicine, see Warren D. Woessner, The Evolution of Patents on Life: Transgenic Animals, Clones and Stem Cells, 83 J. Pat. & Trademark Off. Socy. 830, 841-43 (2001) (discussing how cloning techniques can help to regenerate organs or help cure muscular dystrophy); Kevin P. Quinn, Embryonic Stem Cell Research as an Ethical Issue: On the Emptiness of Symbolic Value, 13 St. Thomas L. Rev. 851, 851-52 (2001) (arguing that stem cell research and cloning may help to treat Alzheimer's, diabetes, and nerve injuries).

^{71.} Kluger, supra n. 24, at 66. Dolly was cloned in Scotland in 1997. Id.

^{72.} See generally Lawrence Wu, Family Planning Through Human Cloning: Is There a Fundamental Right?, 98 Colum. L. Rev. 1461 (1998) (arguing that married people have a fundamental right to clone because they are reproducing); Orentlicher, Cloning and the Preservation of Family, supra n. 64, at 1037-39 (arguing that cloning is a reproductive right); Tully, supra n. 64, at 1395-98 (assuming that human cloning would be just another reproductive technology).

^{73.} Silver, supra n. 45, at 47-48, 55.

of cloning.⁷⁵ Silver explains,

[t]wo women want to have a baby together. One woman can obviously produce an oocyte. The other woman can take a cell from her cheek, put that cell into an immature spermatozoa and produce sperm . . . Two women could have a baby. Two men could do the same thing, in fact this has also already been done. One man makes sperm naturally. The other man can take one of his cheek cells and stick it into an immature oocyte. When the immature oocyte becomes a mature oocyte, they put the two together and put it into a surrogate mother.⁷⁶

It may be conceded that from a neutral scientific perspective, this type of cloning process is a true scientific breakthrough. Cloning certainly can be viewed simply as a specialized form of "reproduction." Similarly, childless, infertile couples would benefit through the use of cloning.⁷⁷ One option would be to allow only married couples the right to clone.⁷⁸ Others feel that human cloning is simply another way for any person, married or single, to replicate himself without involving another person in the procreative process.⁷⁹ The debate over whether cloning actually is a new reproductive technology seems to grow sharper as time goes on.⁸⁰

Dr. Silver's argument lacks credibility because he believes the only reason humans should be cloned is because we are capable of doing so. This, however, is a very poor argument. His writings simply ignore the safety and moral issues involved. He does point out that we go against nature every day when we fight against diseases, even genetic diseases.⁸¹ Silver feels that if we go against nature to fight disease, we should be in favor of going against nature to produce children by the cloning process.⁸² Somehow, the scientific triumph of producing a clone that happens to be a human infant erases all ethical concerns. This type of circular argument does not withstand scrutiny when it is applied to the complexity of legal, moral, and safety issues surrounding cloning.

Not every scientist, however, sees human cloning as a positive step in overcoming infertility among the childless. Dr. Silver acknowledges that Dr. Ian Wilmut, the scientist in charge of cloning Dolly the sheep, expressed extreme reservations about applying the new technology of SCNT to human beings.⁸³ Dr. Silver dismisses Dr. Wilmut's reluctance

^{75.} Lee M. Silver, *Public Policy Crafted in Response to Public Ignorance is Bad Public Policy*, 53 Hastings L.J. 1037, 1038 (July, 2000) [hereinafter Silver, *Public Policy*].

^{76.} Id. at 1046.

^{77.} Orentlichter, Cloning and the Preservation of Family, supra n. 64, at 1037-39.

^{78.} Wu, supra n. 72, at 1461.

^{79.} Orentlicher, Cloning and the Preservation of Family, supra n. 64, at 1019.

^{80.} Id.; Wu, supra n. 72, at 1461.

^{81.} Silver, Public Policy, supra n. 75, at 1045.

^{82.} Id.

^{83.} Silver, supra n. 45, at 51.

by saying, "perhaps . . . scientists who hope to use cloning technology for non-reproductive purposes, including animal and human tissue work. felt he needed to take what they view as the 'moral high ground' in order to protect their own research from public censure."⁸⁴ In other words. Silver asserts that scientists denounce cloning simply because if they did not, an indignant public would lobby for legislation banning any type of cloning altogether, and then scientists will be prevented from doing research in this area.⁸⁵ Whatever the merits or fallacies of Silver's view of scientists in general, we are still stuck with his seemingly innocent reproduction argument — cloning is not simply replication, but reproducing in an asexual way.⁸⁶ Once again, the gist of this argument is that cloning will eventually win out because once a couple can have a normal. healthy child as a result of scientific tinkering, the ethical considerations will then be irrelevant.⁸⁷ Unfortunately, the issue is not that simple. The argument holds up only if everyone agrees that scientific research and experimentation should be given great deference by the public and that technology that produces children for the childless is somehow inherently ethical.⁸⁸ Silver and others⁸⁹ assume that cloning is practically equivalent to reproduction. Actually, the process of cloning, when viewed from sociological and scientific perspectives, is fundamentally different from other reproductive technologies. As one commentator noted,

somatic cell nuclear transfer differs materially from any of the currently used assisted reproductive technologies. Although the currently available assisted reproductive technologies may be 'unconventional' methods of reproduction, they still require the union of an egg and sperm from two distinct persons. Cloning, on the other hand, is closer to replication or manufacturing, and it represents 'a difference in kind,

88. This author's view is that scientific experimentation should not supersede public policy simply because we are dealing with a supposedly "reproductive" issue. Public policy concerns should, in this instance, override the freedom of scientific inquiry.

89. Ronald Chester, To Be, Be, Be, Be. . . Not Just to Be: Legal and Social Implications of Cloning for Human Reproduction, 49 Fla. L. Rev. 303, 308-09 (1997) (arguing that cloning is simply another assisted reproductive technology); see also Debra L. Moore, Student Author, Don't Rush to Judgment on "Dolly": Human Cloning and its Individual Procreative Liberty Implications, 66 UMKC L. Rev. 425, 426 (1997) (citing doctors who have said that cloning will be used primarily to assist infertility).

^{84.} Id. at 51-52.

^{85.} Silver, Public Policy, supra n. 75, at 1045-46.

^{86.} Silver, supra n. 45, at 55. Here, Dr. Silver argues that cloning is reproduction. Id. It is not that simple. Cloning involves taking the DNA matter from one cell and injecting it into another in order to produce an identical twin of the person cloned. Id. No "reproductive technology" except cloning results in an exact genetic duplicate. Id. For a good discussion about why cloning is not really a reproductive technology, see generally Andre P. Rose, Student Author, Reproductive Misconception: Why Cloning is Not Just Another Assisted Reproductive Technology, 48 Duke L.J. 1133 (1999) (explaining that cloning is not the same as reproductive technologies like *in vitro* fertilization).

^{87.} Silver, supra n. 45, at 54-55.

not in degree,' in the way humans conceive children. This distinction is worth remembering when considering the legal implications that would follow from treating cloning as just another assisted reproductive technology.⁹⁰

This view makes much more sense. Cloning does not require any kind of fertilization of human gametes (sperm and egg cells),⁹¹ unlike more traditional forms of reproductive technology;⁹² instead, the clone would be an identical twin of the person cloned.⁹³ Thus, human cloning should not be viewed as if it were simply another form of reproductive technology.⁹⁴

B. OTHER PROBLEMS WITH CLONING

Perhaps the most critical problem of cloning is the damage it may do to the cloned child and possibly the gestational mother.⁹⁵ It is often pointed out that producing a viable cell to implant in the female sheep took scientists over 250 tries.⁹⁶ Despite today's advances in reproductive technology, the invasive harvesting of viable egg cells always puts a woman at some sort of medical risk, and cloning would be no exception.⁹⁷ Also, after several years had gone by, it was clear that Dolly was not doing as well as expected.⁹⁸ One of her problems was an early onset of arthritis.⁹⁹ Physical abnormalities have been shown in other cloned animals as well.¹⁰⁰

A cloned child's problems do not end with possible physical deformities. As Professor Stephen Newman points out, cloning human beings would be a grand experiment, fraught with emotional dangers.¹⁰¹ Emo-

95. See supra n. 40 and accompanying text (discussing dangers to child and the mother in the cloning process).

96. Shapiro, supra n. 69, at 29.

97. Mahowald, *supra* n. 37, at 511 (arguing that feminist issues are not addressed by advocates of cloning, as it is a woman who is at medical risk, whether she has her eggs harvested, has to undergo implantation of a cloned embryo, or has to carry the child to term, with all of pregnancy's possible medical problems).

98. Lab Mice Death, supra n. 26.

99. Id.

100. Id.

101. Stephen A. Newman, *Human Cloning and the Substantive Due Process Riddle*, 8 S. Cal. Interdisc. L. J. 153, 164 (1998) (arguing that cloning deserves no constitutional protection).

^{90.} Rose, supra n. 86, at 1150.

^{91.} FitzGerald, supra n. 17, at 329.

^{92.} Lawton, supra n. 19, at 284.

^{93.} Id.

^{94.} Stephanie J. Hong, And "Cloning" Makes Three: A Constitutional Comparison Between Cloning and Other Assisted Reproductive Technologies, 26 Hastings Const. L.Q. 741, 760 (1999).

tional problems would arise with respect to the child's identity.¹⁰² It is not clear how a cloned child would react to the notion that he had been cloned and therefore is not, in a sense, a true human being with two parents.¹⁰³ The dangers here are very real, and should not be ignored. Emotional and identity damage may well be the most important reason the cloning of humans is not a good idea.

Law professor, David Orentlicher, argues that safety concerns will take care of themselves, stating that, "people will not be interested in using cloning to have children if it is not a safe way to do so."¹⁰⁴ Similarly, Matthew Hsu argues that "lilf... human cloning turns out to be an unsafe and ineffective reproductive technique resulting in children with severe birth defects, it is unlikely that couples wishing to have a child will turn to cloning as a means of infertility treatment."¹⁰⁵ Statements like these are particularly troubling. Relying on the public's judgments as to whether something is safe is a poor way to stop emotionally distraught people from unethical and damaging behavior. When people are stricken with grief over the loss of a pet or a loved one, they may feel that their only option to get that person or pet back would be to clone them.¹⁰⁶ This is not rational thinking. Questions about cloning human beings should not be left up to the whim of the people who are under emotional stress, either by impending death of a loved one or by the disappointment of being unable to bear offspring.

A serious safety issue arises in the context of the scientific method. As explained above, the cloning of animals has produced unexpected and unexplained physical deformities, including premature death.¹⁰⁷ Good scientific methodology requires substantial amounts of experimentation. How can we be ready for human cloning when we are dealing only with a first generation of cloned animals? Are the clones sterile, or can they reproduce? Clearly, these are unanswered questions. It would be irresponsible to clone a human child without first following animals through

107. See supra § Background, ¶ 3.

^{102.} Id.

^{103.} Id. at 164-65.

^{104.} Orentlicher, Cloning and the Preservation of Family, supra n. 64, at 1021.

^{105.} Matthew B. Hsu, Student Author, Banning Human Cloning, An Acceptable Limit on Scientific Inquiry or an Unconstitutional Restriction of Symbolic Speech?, 87 Geo. L.J. 2399, 2422 (1999).

^{106.} See Devin Rose, Clone Your Dearly Departed Pet? Good Grief?, Chi. Trib. 1 (Mar. 10, 2002) (available in 2002 WL 2632343) (reporting that Genetic Savings and Clone, the company that furnished the money used by the University of Texas to clone the first cat, has announced that it would be offering pet owners a chance to clone their pets). This encourages people who grieve over their pet to use cloning as an alternative, regardless of the safety issues in doing so. If people are so devastated over the loss of a pet that they would consider cloning it, it is reasonable to assume that the loss of a child would perhaps be an even greater incentive to clone.

successive generations to discover latent problems. Cloning is in its infancy, and good medical science should not fail to recognize this, although it has been overlooked amid all the moral and religious controversy.

Even if we assume that at some point the technology would be relatively "safe" for the gestational mother of a clone, parents who are infertile and grief stricken over this may want to have a child no matter what the consequences. The consequences could be deadly in that cloning could produce deformed children – a very unethical solution to childlessness. Mr. Hsu argues that:

a ban on human cloning would only prevent a small number of birth defects. If cloning is used primarily as a means of infertility treatment, then only a fraction of the couples trying to have children will need to seek cloning to assist in reproduction. Therefore, even if cloning carries with it some substantial chance of creating birth defects, it will only be a chance of birth defects within an already more limited group.¹⁰⁸

Thus, it can be argued that a limited number of children with birth defects would be acceptable. On the other hand, knowingly producing birth defects can also be viewed as unethical. Producing any number of babies with birth defects would not necessarily be either ethical or "safe." The human desire to have children should not be a justification for plunging ahead into an untested and questionable technology just because we think it will help those who are infertile or those who do not wish to have a baby in the usual way. We do not have to look very far to see the people like Richard Seed who would prematurely and irresponsibly set up a clinic to clone people for a fee,¹⁰⁹ just because the technology might be available.

Nor is the scientist the best person to rely on to judge the "safety" of cloning.¹¹⁰ How will scientists ever know what is "safe" without experimenting by cloning human beings and seeing how they "turn out?" Mr. Hsu, Professor Orentlicher, and Dr. Silver simply assume that someone will determine whether or not cloning will be safe, but they fail to tell us who is authorized to announce that cloning humans is safe. How many experimental human clones would have to be born before a scientist or doctor could declare cloning to be "safe?" No easy answer to these questions is readily apparent, but the point here is that we should never assume that scientific experimentation always leads to something rational and safe for human kind.¹¹¹ Professor Susan Martyn's observations seem particularly poignant. She states that:

^{108.} Hsu, supra n. 105, at 2422.

^{109.} Orentlicher, Cloning and the Preservation of Family, supra n. 64, at 1020.

^{110.} Susan R. Martyn, Human Cloning: The Role of Law, 32 U. Toledo L. Rev. 375, 377

^{(2001) (}addressing the concerns about unlimited scientific inquiry in the area of cloning). 111. Id. at 377.

[w]e have more than occasionally come to regret our encouragement of science. We split the atom before we learned how to prevent harmful radiation or polluting the planet. Likewise, we now stand on the threshold of discovering secrets of our genetic legacy, yet we do not fully understand the risks of genetic engineering.¹¹²

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We should be careful not to risk a child's well being to satisfy scientific curiosity.

A related issue with respect to damage to the child, but no less important, would be the invasion of the child's personal privacy after birth.¹¹³ Advocates of cloning, such as Dr. Silver and Professor Orentlicher, do not address the near certainty that the first humans cloned would be nothing more than scientific experiments, subjected to further scientific inquiry, in order for the scientists to learn "how to get it right" for future cloned humans.¹¹⁴ The child's right to personal privacy should include the right to be free from wide press coverage, as well as the poking and prodding of scientists and doctors. Since the first "test tube" baby, Louise Brown, was born in 1978, she has had wide press coverage, as well as scientific study.¹¹⁵ Unlike Louise Brown, however, cloning is an unnatural process that would require close monitoring even after the fetus was carried to term and then born.¹¹⁶ The result of cloning would be that a child would never be free from scientific study, especially because we do not know whether a child will turn out "normal" in every sense of the word. We would have to, in effect, perform "experiments" on innocent children to determine if they were going to turn out to be physically and emotionally like any other child. In some ways, scientists and physicians would have no choice but to keep a child emotionally and perhaps physically imprisoned because of his/her unlikely genetic heritage. This type of restraint is not in any child's best interests. Supreme Court Justice Brandeis explained personal privacy rights when he stated, "the

^{112.} Id.

^{113.} Olmstead v. U.S., 277 U.S. 438 (1928) (Brandeis, J., dissenting) (discussing Fourth Amendment privacy rights with regard to unreasonable searches and seizures). Interestingly, the Supreme Court subsequently followed Brandeis' dissent by adopting a slightly more expansive view of privacy when it overruled Olmstead in Katz v. U.S., 398 U.S. 347 (1967).

^{114.} The idea in this paragraph that cloned children would never be let alone by scientists is this author's view. No commentator seems to address this issue.

^{115.} Virtually every article about *in vitro* fertilization talks about Louise Brown, the world's first test tube baby. See generally David Brown, Studies: Test Tube Babies Face Higher Health Risks, Wash. Post A03 (Mar. 7, 2002) (available in 2002 WL 15843022) (reporting that the New England Medical Journal of Medicine did a study indicating that test tube babies (*in vitro* fertilization) have more birth defects than babies naturally conceived); Karen Snead, Fertile Imagination of Youth, Evening News – Scot. 14 (Apr. 16, 2002) (available in 2002 WL 15822756) (discussing how women are nervous about being infertile).

^{116.} See supra n. 114.

right to be let alone" is "the right most valued by civilized men."¹¹⁷ Children ought to be granted the very important legally protected privacy right of being let alone.

The laws regarding surrogacy are still not well established in the United States, and this would have a tremendous impact on cloning. For example, in a noted Massachusetts case, an infertile wife and husband agreed that the husband would donate his sperm for the surrogate mother to be artificially inseminated.¹¹⁸ The Massachusetts court held that a birth mother did not have to give up her baby even though she had an agreement with the intended parents (and one genetic parent, the father) of the child.¹¹⁹ In fact, in several states, surrogacy agreements have been held to be against public policy, reflecting the concern of courts regarding people "paying" a surrogate to produce a baby.¹²⁰ Often, the birth mother is the legal parent of the child and the biological father has no legal paternal rights at all.¹²¹ A noted exception was the famous Baby M case, where the genetic father and his wife were allowed to keep the child, even though the birth mother protested.¹²² Since several states have laws that do not uphold a father's right to his genetically related child,¹²³ even when he has a contract with the surrogate mother to relinquish her parental rights, cloning would add more layers on this already very complex problem of who is the rightful parent of the clone. Professor Orentlicher is in favor of single men, single women, and even homosexual couples being able to have children through cloning.¹²⁴ In the case of a single woman, she could clone herself and carry the child to term, and the courts would uphold her right to do so.¹²⁵ But what about the single male or homosexual male who wants a genetically related child? Professor Orentlicher does not even address the surrogacy issues,¹²⁶ but as we have seen already, surrogacy would be an obstacle to

121. Chester, supra n. 89, at 330-31.

122. Id.; see generally Matter of Baby M., 109 N.J. 396 (N.J. 1998); see also Michael E. Eisenberg, Student Author, What's Mine Is Mine and What's Yours Is Mine: Examining Inheritance Rights By Intestate Succession From Children Conceived Through Assisted Reproduction Under Florida Law, 3 Barry L. Rev. 127, 139-40 (2002) (discussing the Baby M case).

126. Cloning advocates such as Professor Orentlicher and Dr. Silver do not address any surrogacy issues with respect to men and cloning.

^{117.} Olmstead, 277 U.S. at 478.

^{118.} R.R. v. M.H. & Another, 426 Mass. 501, 504 (1998).

^{119.} Id. at 511.

^{120.} Jurisdictions denying enforcement of surrogacy agreements are as follows: Arizona, District of Columbia, Indiana, Michigan, New York, North Dakota, Utah. Some states, such as Kentucky and Nebraska, do not allow a surrogate to be compensated. The state of the law with regard to surrogacy in the United States is muddled.

^{123.} See supra n. 120.

^{124.} Orentlicher, Beyond Cloning, supra n. 12, at 653-54.

^{125.} Orentlicher, Cloning and the Preservation of Family, supra n. 64, at 1020.

establishing legal paternity in many states. This issue applies as well to single, infertile women. If a person wants a child either through cloning or a reproductive technology, she has no guarantee that the surrogate will relinquish all parental rights after the fetus has been carried to term. If the courts and legislatures have been extremely divided when considering surrogacy in the context of *in vitro* fertilization and artificial insemination, they will surely do no better in the future with cloning. The surrogacy issue has to be squarely addressed before any discussion of the legal consequences of cloning makes any sense, particularly because surrogacy law in the states has not resolved the issues of who ought to be a child's parents with respect to genetic engineering.

Finally, family law issues that arise from cloning would be a significant barrier to cloning human beings on a wide scale. For instance, who would get the custody of a cloned child in case of a divorce?¹²⁷ Professor Martyn asks some very disturbing questions with regard to the family law implications of cloning.¹²⁸ It is not at all clear, particularly in the case of divorce, who would be the child's rightful parent.¹²⁹ Genetic engineering, such as cloning, would seriously muddy child and custody law.¹³⁰ Resolution of these issues are beyond the scope of this Comment, yet they must be addressed by legislatures if human cloning were ever to become a reality. Andre Rose explains, "courts cannot rely upon guidelines expressed in other assisted reproductive technology cases to determine parental rights in the context of cloning. The parentage issues that cloning raise present questions that extend beyond the ability of these cases to answer."¹³¹

Clearly, since family law and surrogacy issues have never had an adequate legal resolution with regards to maternal and paternal rights of surrogates, cloning without resolution of these issues is irresponsible and unethical. Courts would have to change their public policy in order to resolve these issues, and public policy rationales are not easily overcome. Perhaps we need more liberal judges to address the current state of surrogacy law. Public policy issues such as this one could take generations to resolve. Legislation will not be enough, but would be the place to start. Since these are family law issues, state legislation is appropriate, rather than any federal law. An important governmental interest has been in promoting what is in the best interests of the child.¹³² Uncertain paternity or maternity is not good for children.

^{127.} Martyn, supra n. 110, at 379-80.

^{128.} Id.

^{129.} Id.; see also Rose, supra n. 86, at 1154-55.

^{130.} *Id*.

^{131.} Rose, supra n. 86, at 1155.

^{132.} Reno v. Flores, 507 U.S. 292, 303 (1993) (holding that it is not unconstitutional for the INS to retain custody of juvenile aliens).

C. The Constitution and Cloning: Privacy and Procreative Liberty

Much has been written about the constitutional implications of cloning. Undoubtedly, the single most important constitutional issue is whether there is a fundamental right for a person to procreate via cloning.¹³³ The U.S. Supreme Court has indicated that the Constitution implies a right of personal privacy in matters such as procreation, family, and contraception.¹³⁴ This personal privacy right is derived from the Due Process Clause in the Fourteenth Amendment of the U.S. Constitution, as well as the penumbras of the Bill of Rights.¹³⁵

One writer argues that married couples, at least, have a constitutional fundamental right to use cloning as an alternative means of reproduction.¹³⁶ One of the most quoted dicta of any Supreme Court opinion by advocates of human cloning is found in Eisenstadt v. Baird, "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."137 In another important case, the Supreme Court stated, "[m]arriage and procreation are fundamental to the very existence and survival of the race."138 People who favor cloning tend to interpret these cases to mean that a broad fundamental right exists to engage in the cloning process because cloning would simply be another way of procreating.¹³⁹ Since reproducing is similar to marital privacy rights and abortion rights, these decisions imply a broad liberty interest to procreate.¹⁴⁰ It has also been pointed out that the Court, in Skinner v. Oklahoma, intended the "procreative liberty interest" to be broad because the court talks about the "right to have offspring," and does not differentiate the ways in which offspring are conceived and born.¹⁴¹ This view is that the procreation rights in *Eisenstadt* and *Skinner* are not narrowly tailored to the cases themselves, but implicate a much broader

^{133.} See generally Lawton, supra n. 19; Moore, supra n. 89, at 425 (arguing that cloning is a procreative liberty guaranteed by the Constitution).

^{134.} Roe, 410 U.S. at 152.

^{135.} Id.

^{136.} Wu, supra n. 72, at 1461.

^{137.} Eisenstadt, 405 U.S. at 453.

^{138.} Skinner v. Okla., 316 U.S. 535, 541 (1942) (invalidating an Oklahoma statute that required compulsory sterilization for certain convicted felons).

^{139.} Orentlicher, Cloning and the Preservation of Family, supra n. 64, at 1034-35; Moore, supra n. 89, at 429-30; Carl H. Coleman, Religious Values and Legal Dilemmas in Bioethics: Assisted Reproductive Technologies and the Constitution, 30 Fordham Urb. L.J. 57, 61-63 (2002) (citing speakers who argue that cloning is a fundamental procreative right).

^{140.} Id. at 1482, 1484.

^{141.} Wu, supra n. 72, at 1480.

standard.¹⁴² In a later case, *Stanley v. Illinois*, the Supreme Court stated that conceiving and raising one's children is an essential right, perhaps even more important than property rights.¹⁴³ Finally, in *Planned Parenthood of Southeastern Pennsylvania v. Casey*, the Court found that matters of home, family, and procreation are protected by the liberties granted in the Fourteenth Amendment of the Constitution.¹⁴⁴ Each of these cases can be cited as evidence that the right of procreation is protected by the Due Process Clause.¹⁴⁵

On the other hand, not every decision in a person's private life falls under the protection of the Due Process Clause.¹⁴⁶ Clarke Forsythe argues that *Skinner* and *Eisenstadt* and other substantive due process cases involve issues that are relatively narrow, and thus cloning would not be a fundamental right under the Fourteenth Amendment.¹⁴⁷ The decision to "bear or beget a child" language, so often quoted by advocates of human cloning, simply refers to the "literal physical burden of pregnancy."¹⁴⁸ The essence of Forsythe's argument is that matters of procreation, family, child bearing, and even whether to have a child, fall under a society's most basic social institution – that of marriage.¹⁴⁹ According to Forsythe, "in American law procreation is inextricably intertwined with the marital relationship between husband and wife."¹⁵⁰ In Forsythe's view, procreative freedom cannot be expanded to include the cloning of human beings.¹⁵¹

Forsythe discusses further the limits of a later case, *Roe v. Wade.*¹⁵² In *Roe*, the central issue was simply a woman's privacy right to terminate a pregnancy.¹⁵³ As with other Supreme Court cases already discussed, several commentators have argued that *Roe* should be extended

^{142.} Id. at 1479-80.

^{143.} Stanley v. Ill., 405 U.S. 645, 651 (1972) (holding that the Due Process clause entitles an unwed father to a hearing to determine if his dependent children can be taken away by the state).

^{144.} Planned Parenthood of S.E. Pe. v. Casey, 505 U.S. 833, 851 (1992) (holding that requirements of a woman getting consent to her husband before obtaining an abortion was an unconstitutional violation of her liberties because the law was an undue burden on a woman's decision); see also Elizabeth Price Foley, The Constitutional Implications of Human Cloning, 42 Ariz. L. Rev. 647, 690 (2000) (discussing the myriad of constitutional implications of cloning).

^{145.} Foley, supra n. 144, at 689-91.

^{146.} Orentlicher, Cloning and the Preservation of Family, supra n. 64, at 1035.

^{147.} Clark D. Forsythe, *Human Cloning and the Constitution*, 32 Val. U. L. Rev. 469, 514-15 (1998) (arguing that cloning is not a fundamental right under the Constitution).

^{148.} *Id.* at 518.

^{149.} Id. at 514-15.

^{150.} Id.

^{151.} Id.

^{152.} Id. at 516.

^{153.} Roe, 410 U.S. at 154-55.

to include cloning as a fundamental right because it involved a personal privacy right to reproduce.¹⁵⁴ This right, Forsythe argues, has nothing to do with a positive procreative right, and should not be expanded to include human cloning.¹⁵⁵ Forsythe explains that, "while *Roe* created a liberty to end the life of a child conceived *in utero* but not yet born, it says nothing about ending the life of children conceived *in vitro*. *Roe* involves a right to be free of the physical burden of pregnancy."¹⁵⁶

Finally, in an interesting and novel argument, Forsythe asserts that *Roe* and subsequent cases have held that a man, even a married man, has no such privacy right regarding abortion at all.¹⁵⁷ Because the decision to have an abortion is one that must be made by the woman and her doctor alone, her husband or lover cannot be involved in this privacy right.¹⁵⁸ Forsythe notes that, "legal commentators who reject legal regulation of IVF [In Vitro Fertilization] are inclined to wax eloquently over the involvement of 'couples' in 'decisions about whether and when to bear children,' but fathers (and spouses) are strictly and absolutely excluded from the *Roe* framework and abortion decision-making."¹⁵⁹ In other words, *Roe* only addresses a woman's right to terminate a pregnancy, and has nothing to do with couples deciding whether or not to have children.¹⁶⁰ Arguably, the Supreme Court intended the privacy right to be somewhat narrow.

Other commentators have also expressed their doubts about a constitutional liberty interest in human cloning. Stephen Newman, in his article discussing substantive due process in the context of cloning, argues that:

because human cloning is unprecedented, it does not have the endorsement of tradition. It is possible to argue, however, that private decision making about having children is within our traditions, and that this should be the relevant tradition. In this view, the means used to procreate, whether sexual or asexual, are not significant . . . Cloning . . . challenges some basic ideas about family, offspring, and human individuality. These are foundational community concepts, and it seems unsound to permit individual liberty values to preclude the community from defining its basic social institutions. The community may choose to alter or adjust its foundational ideas (for example, by ex-

^{154.} Orentlicher, Cloning and the Preservation of Family, supra n. 64, at 1034-35; Moore, supra n. 89, at 429-30; Coleman, supra n. 139, at 61-63.

^{155.} Forsythe, supra n. 147, at 516.

^{156.} *Id.*; *See also* Coleman, supra n. 139, at 63-4 (discussing procreative liberty as involving family, marriage and personal relationships rather than simply reproductive choice).

^{157.} Forsythe, supra n. 147, at 519.

^{158.} Id.

^{159.} Id.

^{160.} Id.

panding the notion of marriage to include same-sex partners). But it should have the choice not to do so. $^{161}\,$

Professor Newman gives us a disturbing reminder that personal liberty should not be used unwisely to undermine basic social institutions without the consent of the community.¹⁶²

Professor Newman could even take his argument a step further and offer an explanation of why cloning advocates feel that there is a constitutional "green light" to push ahead with cloning. In addition to the substantive due process arguments under the Fourteenth Amendment, some scientists argue that First Amendment freedom of speech should apply to scientific inquiry.¹⁶³ Mr. Hsu argues that experimentation with reproduction is symbolic speech, and falls under the protection of the First Amendment. Hsu states, "[u]sing scientific advancement to control DNA and human conception is an idea protected by the First Amendment. Dr. Seed has stated this idea and now wishes to engage in conduct to express that idea."¹⁶⁴ Additionally, Hsu argues, "the restraint of science is repugnant to human dignity, because humanity's desire to explore and understand the world through science is a human value to be celebrated."¹⁶⁵

Celebrating human values,¹⁶⁶ as suggested by Hsu, surely would not include bringing malformed children into the world in the interest of free speech and free scientific inquiry! Such an act would be scientific, but would be profoundly immoral.¹⁶⁷ Hsu's argument is unpersuasive because cloning, unlike many other forms of expression, has potentially devastating effects on the final human product.¹⁶⁸ Science cannot be so easily separated from morality.¹⁶⁹ The free dissemination of ideas does not give rise to a constitutional mandate to protect all scientific inquiry without regard to the consequences of that inquiry. Our respect for science should never become a basis for finding a fundamental right to promote scientific ideals. Freedom to express ourselves, as found in the First Amendment, should not be distorted so as to impose a new technology simply out of reverence for science.

169. Gregory E. Kaebnick, On Genetic Engineering and the Idea of the Sacred: A Secular Argument, 13 St. Thomas L. Rev. 863 (2001) (discussing possible immorality of genetic engineering from a non-religious point of view).

^{161.} Newman, supra n. 101, at 163.

^{162.} Id.

^{163.} Andrews, supra n. 10, at 661-62.

^{164.} Hsu, supra n. 105, at 2415.

^{165.} Id. at 2413.

^{166.} Id.

^{167.} Martyn, supra n. 110, at 377.

^{168.} Id.

D SOLUTION

Congress should act to ban the cloning of human beings. While other types of cloning, such as cell cloning, should be permissible, human cloning should never be allowed, as it is dangerous, irresponsible and immoral. A good model for Congress to follow would be the law in Rhode Island that prohibits the cloning of a human being.¹⁷⁰ The Rhode Island statute states, "no person or entity shall utilize somatic cell transfer for the purpose of initiating or attempting to initiate a human pregnancy nor shall any person create genetically identical human beings by dividing a blastocyst, zygote, or embryo."¹⁷¹ The statute also indicates that cloning that does not result in a human being (e.g. for medical purposes) is exempt from this prohibition.¹⁷² Congress does not need to have a complicated statute. They should simply pass a bill banning human cloning, similar to this Rhode Island statute. Public policy should direct Congress to outlaw scientific experimentation as outrageous as the cloning of human beings. Should the issue ever reach the Supreme Court, it will uphold a legislative ban on cloning because no fundamental right exists to clone a human being.

IV. CONCLUSION

It is apparent that the cloning of human beings would produce many problems, many of which we, as a country, are not yet ready to tackle. In addition to the ethical problems of experimentation with cloned children and possible physical deformities,¹⁷³ legal problems abound. If cloning were allowed on humans, critical surrogacy¹⁷⁴ and custody issues¹⁷⁵ would arise almost immediately.

There is no fundamental liberty granted by the Constitution to clone human beings. As found by the Supreme Court, reproductive liberties include procreation,¹⁷⁶ child rearing, and the liberty interest a woman has to terminate a pregnancy.¹⁷⁷ Cloning creates a person by replication, and is therefore not procreation at all, but simply genetic tinkering.¹⁷⁸ Cloning cannot be included under the umbrella of another "reproductive" technology, as it requires no union of a male and female gamete.179

^{170.} R.I. Gen. Laws § 23-16.4-2 (2002).

^{171.} Id.

^{172.} Id.

^{173.} Lab Mice Death, supra n. 26; see supra n. 39 and accompanying text.

^{174.} Chester, supra n. 89, at 331-32.

^{175.} Martyn, supra n. 110, at 379-80.

^{176.} Roe, 410 U.S. at 152.

^{177.} Id. at 153.

^{178.} Rose, supra n. 86, at 1150.

^{179.} Id.

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We should be urging our legislators to pass laws banning the cloning of adult human beings. A general law passed by Congress banning cloning would be upheld by the Supreme Court.¹⁸⁰ We do need a new cloning law, and in the interest of science and medicine, cloning research not producing a human being should be allowed on a limited basis.¹⁸¹ Clearly, the legal, moral, and medical concerns outweigh the interest of scientific inquiry in this very new technology. Congress does have a rational basis for severely limiting the potentially devastating effects cloning would have on parents, children, and family relationships.

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^{180.} Lawton, supra n. 19, at 351.

^{181.} See supra n. 70 and accompanying text.

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