Cloning And Reproductive Liberty

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CAN THE PRINCIPLES that gave rise to reproductive liberty, prin-ciples that undergird the reasoning of several United States Supreme Court decisions, be extended to include the right to clone? I will attempt to answer that question in this paper. However, prior to directly addressing that question, I will (1) explain the science of cloning, and human cloning in particular; (2) present a brief overview of the cloning controversy, as well as the political, legal, and public reactions to it; and (3) discuss the possible uses for cloning, and interact with some of the objections raised against the practice. I believe it is important that we address these three topics so that we may better grasp the issue of cloning and its implications for reproductive liberty.

I. WHAT IS CLONING?

In early 1997 Dr. Ian Wilmut, a Scottish scientist, made headlines when he presented Dolly to the world, a sheep that he cloned from a six year-old ewe. Three and a half years earlier, Doctors Jerry Hall and Robert Stillman cloned a human embryo by successfully splitting one human embryo into two.[i] This process occurs naturally in the case of identical human twins, but Hall and Stillman were the first to replicate this process artificially. And on October 13, 2001 scientists at Advanced Cell Technology (Worcester, Mass.) made biomedical history when they became the first to produce a human embryo by employing the same method used to produce Dolly.[ii] These human embryos did not survive for very long, with only one progressing to the six-cell stage.[iii]

Although many of us are acquainted with the concept of cloning because of popular films like *Multiplicity*, *The Boys From Brazil*, and *The Sixth Day*, most people are unaware that cloning, as well as scientific and ethical discussions of cloning, has been going on for decades. Technically, "the word clone, in its most simple and strict sense, refers to a precise genetic copy of a molecule, cell, plant, animal, or human

being."[iv] Cloning has been part of the world of horticulture and agriculture for quite a long time and serves as an important contribution to our knowledge in contemporary biological research. "Indeed, genetically-identical copies of whole organisms are commonplace in the plant-breeding world and are commonly referred to as 'varieties' rather than clones."[v]

In addition, "scientists have been cloning human and animal genes for several decades," for "it provides greater quantities of identical cells or genes for study; each cloned cell or molecule is identical to the others."[vi] The "clones" that result are not copies of whole organisms but mere fragments of deoxyribonucleic acid (DNA), as in molecular cloning, or non-germ cells, as in cellular cloning. Both of these types of cloning have important uses in developing new medicines, such as those employed in the treatment of diabetes, heart attack, and kidney disease.[vii]

The idea of cloning entire organisms can be traced back to a 1938 book by Hans Spemann, an embryologist.[viii] In 1952 Thomas King and Robert Briggs were the first to clone frog embryos.[ix] In 1962 entire adult frogs were first cloned.[x] Dolly was the first clone resulting from the genetic material of an adult mammal. Researchers at the University of Wisconsin–Madison employed the technology that produced Dolly to clone five different species, including rhesus monkeys.[xi] The pregnancies miscarried, but the experiments did show that the technology used to produce Dolly can be employed to generate living embryos of a diversity of animals.[xii] Several generations of mice were cloned by scientists at the University of Hawaii who used the Dolly method more efficiently.[xiii] It is alleged that in December 1998 South Korean researchers used this more efficient method to create a human embryo cloned from a thirty-year-old woman. According to this unconfirmed story, the researchers prevented the embryo from developing past four cells.[xiv] That same month, scientists in Japan cloned eight calves in ten attempts by employing a variation on the Dolly method.[xv]

When scientists refer to cloning an entire organism rather than merely a cell or fragment of DNA, they may be speaking of one or both of two procedures: (a) embryo cloning or (b) somatic cell nuclear transfer (SCNT) cloning.

A. EMBRYO CLONING

Hall and Stillman employed this type of cloning in their 1993 groundbreaking experiment, in which they cloned a human embryo. Scientists have been successfully using this cloning method with animals for many years. Hall and Stillman began with what is called "in-vitro fertilization," or IVF. In a laboratory they produced human embryos in a petri dish by taking ova and fertilizing them with male sperm. Medical ethicist Scott B. Rae explained the process:

> The embryos they used in their experiments had been fertilized by two sperm instead of one, making them abnormal embryos and destined to die within a week. This cloning process would be no different if the embryo were properly fertilized and had a normal chance at becoming a baby if implanted.[xvi]

Hart and Stillman produced defective embryos rather than normal ones because they did not intend for either the clones or the defective embryos to develop into babies.[xvii] They just wanted to see if they could artificially clone a human embryo. In order to induce cloning, the scientists followed the subsequent procedure. After they fertilized the ovum, the resulting zygote divided in two, which is what occurs in normal development. The scientists then removed the zona pellucida, "the coating that contains enzymes that promote cell division that is necessary for growth and development."[xviii] The two cells were then separated. Because development cannot continue unless the zona pellucida is replaced, Hall and Stillman "used an artificial zona pellucida to recoat the two embryonic cells, enabling development to continue. As the cells [grew] they form[ed] genetically identical embryos, a laboratory equivalent to what occurs naturally in the body when identical twins are conceived."[xix] However, because the embryos were defective, they perished after six days.[xx]

B. SOMATIC CELL NUCLEAR TRANSFER (SCNT) CLONING

This is the type of cloning that produced Dolly. Because sheep, like human beings, are mammals, scientists were able to clone human beings by this same method in October 2001.

The DNA of every cell in the human body, except the sperm and egg, contains the genetic material that, in theory, is capable of producing an identical clone of the body from which the cell is taken. But because nature programs the cells to perform certain functions (i.e., liver cells perform different functions than brain cells) and because all other functions are dormant, a scientist must replicate conception in order to bring into existence a new and genetically-identical human being. A scientist may accomplish this by extracting the nucleus of a cell from the human body, fusing that cell with an ovum which has had its nucleus removed, and then electrically stimulating this fused entity. It was by this method that Scottish scientists brought Dolly into existence. But, according to molecular biologist Dr. Raymond Bohlin, "[t]he process was inefficient. Out of 277 cell fusions, 29 began growing in vitro. All 29 were implanted in receptive ewes, 13 became pregnant, and only one lamb was born as a result. This is a success rate of only 3.4%. In nature, somewhere between 33 and 50% of all fertilized eggs develop fully into newborns."[xxi]

Of course, Dolly is not the same age as her six year-old twin, whose genetic material was used to clone her. Thus, if scientists were able to clone human beings by SCNT, a resulting clone will always be younger than her twin, unlike the adult clones of the character played by actor Michael Keaton in the film *Multiplicity*. As a result, if a twenty-four year-old woman were to clone herself, her cloned twin would always be twenty-four years her junior.

Although embryo cloning is an important and controversial topic,[xxii] this paper will focus primarily on SCNT, which is what most ethicists, legal scholars, public policy experts, and ordinary citizens mean when they say that they oppose or support human cloning. Nevertheless, some of the moral and legal questions raised by human cloning may apply to embryo cloning as well.

II. The Controversy: Legal, Political, and Public Reactions

Alarmed by the prospect of human cloning generated by Dolly, Congress and the White House called for legislation in March of 1997 that would ban human cloning. President Bill Clinton, by executive order,

prohibited the use of federal funds for cloning.[xxiii] The President also requested that the National Bioethics Advisory Commission (NBAC) evaluate the legal and ethical questions raised by the possibility of human cloning.[xxiv] In arriving at its conclusion and recommendations, the Commission conducted hearings over approximately three months in which it heard testimony from scientists, philosophers, bioethicists, legal scholars, theologians, and others.[xxv] It also commissioned papers by eight scholars from a diversity of fields, and these papers were then published in Volume II of the NBAC's report.[xxvi]

In its June 9, 1997 report, the Commission concluded that "it is morally unacceptable for anyone in the public or private sector, whether in research or clinical setting, to attempt to create a child using somatic cell nuclear transfer cloning."[xxvii] The Commission gave two sets of reasons for this conclusion: (1) it was concerned with the safety of the procedure for the embryo, fetus, and subsequent child that may result from SCNT; and (2) it "found that concerns relating to the potential harms to children and effects on the moral, religious, and cultural values of society merited further reflection and deliberation" (ibid). However, the Commission also asserted that "whether upon such further deliberation our nation will conclude that the use of cloning techniques to create children should be allowed or permanently banned is, for the moment, an open question (ibid.).

The Commission then made a number of recommendations,[xxviii] summarized as follows: (1) the current moratorium on federal funding of SCNT should continue; (2) non-federally-funded researchers should voluntarily comply with the moratorium; (3) scientific and professional "societies should make clear that any attempt to create a child by somatic cell nuclear transfer and implantation into a woman's body at this time" is "an irresponsible, unethical, and unprofessional act" (ibid.), (4) any federal or state prohibition of SCNT should have a sunset clause to force review of the policy and reassessment of its ethical implications in the near future by an appropriate oversight committee (the Commission suggested three to five years); (5) legislatures should carefully craft any regulations or prohibitions so that they do not interfere with other non-SCNT forms of human cloning (e.g., cloning of DNA sequences and

cell lines); (6) in the absence of legislative prohibitions, clinical use of SCNT "techniques to create a child should be preceded by research trials that are governed by the twin protections of independent review and informed consent, consistent with existing norms of human subjects protection,"[xxix] (7) when other nations and international organizations have policies on cloning, the U.S. government should cooperate with those entities in enforcing shared aspects of those policies; (8) given the diversity of religious and ethical views in American culture, the federal government should "encourage widespread and continuing deliberation on these issues in order to further our understanding of the ethical and social implications of this technology;"[xxx] and (9) in order to further understanding of scientific knowledge and its possible impact on one's values, beliefs, and cultural practices, agencies and departments of the federal government should seek out and support opportunities to provide information to the general public in understanding genetics and other areas of research and discovery in the biomedical sciences.

Since 1997 the U.S. Congress has proposed several bills,[xxxi] in both the Senate and House of Representatives, that would have resulted in some ban on human cloning and/or a ban on federal funding of human cloning research; however, none could command a majority in either or both houses. This is because disagreements arose over such issues as whether a federal ban should apply only to government funding or include private research, whether the law should ban both SCNT and embryo cloning, and whether the law should ban a gestation of a clone rather than its creation. These distinctions, apparently subtle but quite profound, touch on some of the deep issues that divide Americans over issues such as the nature of human personhood, the importance of the traditional family for human flourishing, and the weight of competing values like personal autonomy and the pursuit of scientific knowledge.[xxxii] The apparent conflict between these values came to the forefront in the context of another hotly contested issue: the federal funding of stem-cell research. On August 9, 2001 President Bush, in an attempt to balance these competing values, called for (1) no federal funding for the production of human embryos for the purpose of extracting their stem cells from human embryos, and (2) federal funding for research on "more

than sixty genetically-diverse stem cell lines [that] already exist."[xxxiii]

Many states now have statutes that forbid some form of human cloning and/or state funding of the practice.[xxxiv] Other countries have also reacted strongly against human cloning. For example, on January 12, 1998 the Council of Europe proposed an international treaty that calls for the banning of cloning human beings.[xxxv] As of January 21, 2002 twenty-nine of the forty-one member states that comprise the Council–and none of the non-member nations (including the U.S.)–have signed the treaty.[xxxvi] Of the twenty-nine that have signed the treaty, nine have ratified it, exceeding the number required for the treaty to take effect (five ratifying states, including four member states, are required for the treaty to take effect).[xxxvii] In March 1997 the World Health Organization (WHO) released an official pronouncement against human cloning.[xxxviii] Recently, however, because of the promise of stem-cell research, Great Britain has sought to ease its ban on cloning in order to allow embryo-cell research.[xxxix] Although numerous ethicists and public policy experts have condemned cloning outright,[xl] others have taken stances ranging from moderately conservative[xli] to bordering on enthusiastic.[xlii] An extreme example of the latter is Dr. Richard Seed, a Chicago physicist, who in January 1998 announced his intention to create a for-profit clinic that would clone human beings.[xliii]

Public opinion seems firmly set against cloning. According to a March 1997 CNN Poll conducted among 1005 American adults (with a margin of error of 3%): 89% believed that cloning humans was morally wrong; 66% believed that cloning animals was morally wrong; 69% of the respondents were scared of the possibility of cloning human beings; and 74% said that human cloning is against God's will, while 19% disagreed with this assessment.[xliv] According to an August 2000 Portrait of America poll, "64% of the country says researchers have no right to clone human embryos for medical research," while "41% of the nation would allow cloning other animals such as pigs, cows and sheep; 42% disagree. 78% of the country is against cloning humans; of that percentage, 25% believe human embryonic cloning should be allowed for the treatment of disease."[xlv]

III. The Uses of Cloning

Why would anyone want to produce a clone? There are numerous reasons,[xlvi] many of which can be divided into two general categories: (A) reproductive reasons; and (B) non-reproductive reasons. In section C, I will explore some of the reasons against cloning.

A. Reproductive Reasons

Human cloning could be used for a number of reproductive reasons, including the following: (1) a method of reproduction for infertile heterosexual couples; (2) a means by which parents may be able to "replace" a dead child or replicate a twin of an already existing child; and (3) a method of reproduction for gay and lesbian couples whose sexual union is biologically incapable of resulting in procreation.

Concerning the first, "human cloning would allow women who have no ova or men who have no sperm to produce offspring biologically related to them."[xlvii] Such potential parents may use the ovum of the female partner with the genetic material of the male, or they may use another's ovum or the genetic material of another individual–including the female partner's or that of a friend, family member, or even a stranger–with a natural talent or an appearance that is thought to be strongly connected to his or her genes (e.g., Michael Jordan, Albert Einstein, Marilyn Monroe). Although it is likely that most couples would choose cloning because of infertility, there are other concerns that may motivate them. For example, one or both partners may have an inheritable disease that they do not want to pass on to their children. Thus, they may choose to use only the genetic material of one of the partners or the genetic material of a third party.

SCNT cloning may also be used by couples as a means to "clone someone who had or has special meaning to them, such as a child who had died."[xlviii] Parents may also elect to use SCNT to clone a living child where the parents, for a variety of reasons (such as medical motives, e.g., the living child does not have an inheritable disease), would like another child just like him or her.[xlix]

It has been suggested by some that gay and lesbian couples may

employ SCNT so that they may be able to have children that result from the genetic material of at least one member of the couple.[1] And in the case of lesbians, the ovum of one can be used with the genetic material of the other. Although the resulting child would be the genetic twin of the latter, both partners would have contributed to the child's existence.

B. NON-REPRODUCTIVE REASONS

Someone may want to clone entire human beings, as well as incomplete human beings, for purposes other than becoming a parent. For example, cloning could be a plentiful resource for stem cells, which could "serve as the starter stock for growing replacement nerve, muscle and other tissues that might one day be used to treat patients with a variety of diseases."[li] In addition, non-reproductive cloning holds out the possibility of increasing the supply of tissues and organs for transplantation. Consider the following scenario: a couple's one-year-old child is suffering from two defective kidneys and, if no donor of a healthy kidney can be found within one year, the child will die. If cloning technology were available, the parents could theoretically clone their child so that an identical twin could be produced and that twin could serve as a kidney donor for the dying child. This is not as far-fetched as one may think. Shannon H. Smith tells of a 1990 case in which "the parents of a nineteen-year-old suffering with leukemia chose to have another child in hopes of obtaining a source for a bone marrow transplant."[lii] The parents in question, the Ayalas, did conceive and give birth to a child whose bone marrow matched that of their dying nine-teen-year-old. Around the time the Ayalas were going through their travail, an Indiana couple "chose to immediately attempt to have another child in order to provide fetal stem cells to their newborn, who had been diagnosed with Falconi's Anemia." The mother miscarried. She then "waited a month and got pregnant again. When this child was born, she was an unsuitable donor. Twelve weeks later, the mother was pregnant again, this time with a child who turned out to be compatible."[liii] Although these two cases were not cases of SCNT, one can imagine that, if the couples could have had access to such technology, they would have employed it in order to save their children's lives.

Cloning of incomplete human beings is another possible, non-reproductive purpose of cloning. For example, Dan W. Brock cites a proposal by Carol Kahn, in which she argues that "[a]fter cell differentiation, some of the brain cells of the embryo or fetus would be removed so that it could then be grown as a brain-dead body for spare parts for its earlier twin."[liv] According to Brock, "this body clone would be like an anencephalic newborn or presentient fetus, neither of whom arguably can be harmed, because of their lack of capacity for consciousness."[lv]

C. Objections Raised Against Cloning

These possible uses of cloning have raised a number of ethical quandaries that have legal implications. Here are some, but by no means all, of the problems raised by critics of cloning.[lvi]

1. *Cloning Will Use and Destroy Prenatal Human Beings.* In order to get to the point where science is capable of cloning human beings with relative ease, literally hundreds of thousands of human embryos will have to be brought into existence and then discarded. Cloning is not a routine procedure. In the case of Dolly, 277 implants were created before Dolly was produced. The numerous human embryos resulting from the work of Hall and Stillman eventually perished. In order for Dr. Seed's proposed cloning clinic to succeed, thousands of human embryos will have to be purposefully brought into existence and then disposed. These embryos will not be treated as intrinsically-valuable human subjects, but rather as things to be used to further the ends of science or the benefit of others.

Of course, this concern has been countered by those who argue that, because the Fourteenth Amendment does not recognize embryos and fetuses as protectable persons,[lvii] it is permissible to experiment on them for the sake of some greater good for actual persons.[lviii] It is true that the Supreme Court has ruled that a State's interest in prenatal life may never trump the privacy interests of the pregnant woman, at least prior to fetal viability.[lix] But it does not follow from that holding that embryos and fetuses, outside of the context of pregnancy, ought not to be accorded any rights whatsoever.[lx] In fact, the rights of embryos and fetuses have been

increasingly acknowledged in both tort and criminal law in a growing number of jurisdictions.[lxi] Given these points, it is possible to argue that a State may prohibit cloning by combining two reasons: (1) cloning involves the destruction of and experimentation on human embryos and fetuses, and (2) the State has an interest in protecting potential life outside of the context of pregnancy.[lxii]

2. *Cloning May Undermine the Delicate Balance of Family Life.* Imagine if an infertile couple were to produce a clone of the male partner so that they may have a child of their own. This poses some interesting problems. First, the "child" would technically be the father's brother, not the father's son, which would make the "mother" her "son's" sister-in-law. In addition, it would mean that her "son" is also her husband's twin brother. Second, what if this couple were to clone another "child," but this time it is the female partner's clone. This would make the "other," paradoxically, both the biological "father" and "mother" of the clone, her biological twin sister. Technically, this "child" would not be the sister of her "father's" "son." In fact, she would be as much her "brother's" "sister" as her "father" is her "mother's" brother. Thus, the "sister" and "brother" could marry each other and have children the old-fashioned way, because, after all, their siblings, their clone-parents, did so as well.

Moreover, if a person were to clone himself, he would literally be giving his parents a new child and his siblings a new heir with which to compete for inheritance. Also, if this clone in turn were to clone himself, he would be giving to his progenitor another sibling and to his progenitor's parents yet another child.

Thus, critics of cloning argue that the distinctions between parent, child, sister, and brother–the definitions which ground our notion of family life–are at risk of unraveling if cloning is treated as just another exercise of "reproductive rights." In reply, perhaps legislators could craft laws in a way such that these odd situations can be accommodated in order to fit into traditional categories (e.g., my clone, by law, would be my child and not my sibling). This seems to have been accomplished in other contexts. For example, if my wife and I were to adopt my baby

sister after the unexpected deaths of our parents, she would be my biological sister as well as my legal daughter. However, it is difficult to know if such an accommodation would succeed if it were applied to something as unique as cloning.

3. *Cloning May Lead to Viewing Human Beings as Commodities.* Unlike other forms of reproductive assistance, SCNT cloning allows one to choose the particular genome for one's "offspring." Some have argued that this sort of control over and selection of another's genome may result in viewing the child-clone produced as "made" rather than "begotten."[lxiii] That is, some argue that human cloning will have more in common with manufacturing than procreating, and this will lead people to begin to think of these children (and perhaps non-cloned children as well) as commodities selected for their attributes rather than as persons who should be valued for their own sake. Commodities stand in an object-subject relation to their owners and/or their makers; that is, commodities, by virtue of their nature, are inferior to the subjects who make and own them. On the other hand, moral agents stand in a subject-subject relation to other moral agents, including their parents, spouses, children, and siblings. Commodities are replaceable, while moral agents are not. You can always get a new microwave oven to replace the defective one, but a clone of one's deceased child is not really a replacement.

Nevertheless, defenders of human cloning believe that the "commodities argument" is overstated. After all, as Lawrence Wu points out, parents already exercise near absolute control over their children:

> as evidenced by contraception, the timing of the birth, the choice of where to live, and a host of developmental interventions, ranging from the trivial (e.g., piano lessons) to the considerable (e.g., boarding school or religion). Though selection of the genome certainly does amount to complete control over an aspect of the child's life, such control does not occur within a vacuum, but within a complex network of interactions between the parent and child, where the parent is almost always exercising some degree of control over the child's life. In this continuum, cloning *per se* does not involve the type of control that will constrain or diminish the child's life (as opposed to bad parenting) because his or her life will still be autonomous and indeterminate. Thus, selecting the

genome can be understood as just another aspect of acceptable parental control, albeit at the higher end of the continuum.[lxiv]

It seems, however, that Wu misses the point of the commodities argument. It is not really about a parent's control over her child, for in the cases of accepted control listed by Wu, the child is treated as an end in himself, whom the parent is directing and instructing, so that the child may become a flourishing member of the community. But what troubles opponents of cloning is not that people have the power to become parents and then exercise their parental authority in helping to direct the development of their child. Rather, what troubles them is that cloning will allow parents to have the power to choose their children and their attributes, in much the same way they may choose a toaster, automobile, or computer. For example, J.L.A. Garcia, an opponent of human cloning, argues:

> It strikes me as so transparently demeaning to a human being to make her a product of technological manufacture that it is difficult to understand why some people claim not to see it. This is *not* the way we have ever treated human beings; it *is* the way we have always treated subhuman things we regard as wholly subject to our will. Thus, cloning a human person is treated in a way otherwise reserved only for subhuman beings. It is hard to know a better definition of degrading, depreciating.... Even some advocates of cloning consider it "replication," not reproduction. It is hard to see equal treatment or much acknowledgment of human equality in a situation where one person is planned and designed by another, and then manufactured to the latter's specifications.[lxv]

Of course, supporters of human cloning, such as Wu, maintain that "the manufacturing aspect of cloning is not limited to this particular [assisted reproductive technology], or even to noncoital reproduction."[lxvi] Some people, for example, direct IVF, artificial insemination, and ordinary sexual procreation for the same purposes that SCNT will likely be directed. Garcia replies by asserting that this argument "shows not that such perversions are morally unproblematic, but that they should be avoided and condemned everywhere and that forms of reproduction that facilitate or encourage them have a heavy moral presumption against

them."[lxvii]

4. *Non-Reproductive Uses of Cloning May Lead to Treating Human Beings as Commodities*. Some may also raise the commodity objection in reply to possible non-reproductive uses of cloning. Concerning the cloning of entire human beings, one may raise the question: Is it permissible to bring a human being into existence for the primary purpose of using him or her, or his or her parts, as means by which to save or preserve another's life? Although some scholars believe that such a use is morally permissible, and thus ought to be legally permissible in both cloning and non-cloning scenarios,[lxviii] they appeal to a broad interpretation of reproductive liberty[lxix] that they believe they can find in, and extract from, a string of U.S. Supreme Court decisions tracing back to the middle of the twentieth century.[lxx] The logic of their case goes something like this: the State may not conscript a woman's (or even a man's) body as a means by which to sustain another's life or potential life because people have near absolute bodily autonomy; it follows, then, that there is a fundamental right to reproductive freedom which is broad enough to encompass cloning for both reproductive and non-reproductive reasons. Ironically, the critic of cloning could employ this same reasoning in order to critique the justification of the sort of reproduction employed by the Ayalas (and others) that may possibly extend to future uses of cloning human beings. Their reasoning may go something like this: the same woman whose body cannot be conscripted by the State for pregnancy ought not to be conscripted when this body is less developed and the woman's mind less mature. For example, if the parents of a fourteen-year-old daughter cannot, according to the canons of reproductive freedom, force their daughter to carry her prenatal sister in her womb because her sister's mother is physically incapable of doing so, it is not clear why it would have been permissible to bring that same fourteen-year-old into existence over fourteen years earlier so that her body may be used for the purpose of saving another's life, such as that of her older sibling. Imagine if these parents had combed the adoption rolls in order to find a suitable organ donor for their dying child. Even if they promised to love that child and nurture her in the same way they had

loved and nurtured their dying child, it would not make less true that the key condition for choosing *that* child, rather than another, was her value as an organ donor for their dying child. Thus, it would seem that the appeal to reproductive liberty to justify cloning a child for organ donation is much more problematic, given the premise–near absolute bodily autonomy–on which reproductive liberty is thought by many to rest.

The cloning of incomplete human beings has its problems as well. Even though, as Brock argues, "this body clone" could not arguably be harmed because of its "lack of capacity for consciousness,"[lxxi] "most people would likely find" the practice of purposely creating non-sentient human beings "appalling and immoral, in part because here the cloned later twin's capacity for conscious life is destroyed *solely as a means* to benefit another."[lxxii]

However, given the Supreme Court's claim that the fetus is not protected under the Fourteenth Amendment,[lxxiii] as well as Brock's belief that the presentient fetus cannot be harmed, it is not precisely clear what would be wrong with cloning brainless human beings for the purpose of harvesting their organs. That is, if there is no injustice done to another and someone receives a benefit, it is difficult to know where exactly the wrong is to be located in the act. I suspect that some would locate it in the moral intuition that the presentient fetus is deprived of something to which he is entitled. But if that is the case, then current capacity for consciousness is a condition that is sufficient, but not necessary,[lxxiv] for a human being to possess both rights and a present capacity to be harmed. Yet, what follows is that the intentional creation of brainless children for the purpose of harvesting their organs is a serious wrong whose prohibition should be reflected in our laws, for their presentient selves are rights-bearers entitled to some protection by the wider community.[lxxv] But if we were to extract from this insight the principle that seems to ground this wrong–it is *prima facie* wrong to destroy another's capacity for a yet-to-be-achieved property *solely as a means* to benefit another– then a fundamental aspect of reproductive freedom, the right to abortion, is imperiled by that principle: according to the U.S. Supreme Court, the right to abortion is justified *precisely because* a woman undergoing an abortion is merely destroying the fetus's capacity for, as opposed to its

current possession of, actual life.[lxxvi]

IV. Reproductive Liberty

Is the constitutional right to reproductive liberty broad enough to encompass cloning? It depends.[lxxvii] There are aspects of the Supreme Court's decisions on reproductive liberty that seem to point toward personal autonomy on matters of lifestyle, marital choices, and intimacy as being part of the foundation of that liberty. If that is the case, then it seems that there is a constitutional right to clone that states may restrict only if there is a compelling State interest. On the other hand, there are aspects of these same Supreme Court decisions that seem to point toward viewing reproductive liberty as merely allowing individuals the right to reject the burden of pregnancy and subsequent child-rearing. That is, there is no jurisprudential basis for affirming a constitutional right either to clone or employ other reproductive technologies that one could reasonably infer from these decisions. Although the Court could go in either direction, it seems to me that a plausible reading of these cases does not entail a constitutional right to clone.

The first hint at a right to reproductive liberty can be found in *Skinner v. Oklahoma*.[lxxviii] In that case, the Court ruled in favor of a male plaintiff, an habitual criminal who, after being convicted for his most recent crime, was ordered by the trial court to undergo the "operation of vasectomy"[lxxix] so that his undesirable genetic traits could not be passed on to offspring. Although not dealing with the scientific credibility of such a claim, the Court ruled in the majority opinion (authored by Justice Douglas) that the Oklahoma statute providing the jury its justification to order the punishment violated the Equal Protection Clause of the Fourteenth Amendment because the statute did not allow for the punishment of sterilization for higher classes of thieves (e.g. embezzlers), whose wayward practices could be just as habitual as those of Skinner and other small-time crooks.[lxxx]

Chief Justice Stone pointed out in his concurring opinion that the Equal Protection Clause argument proposed by Justice Douglas does not correctly identify the wrong in the Oklahoma statute. For if the statute had punished all habitual thieves equally–chicken thieves and embezzlers

alike–by requiring that the state sterilize them, one would *still* think that there is something wrong with such a statute.[lxxxi] Stone believed he had found a solution to this awkward consequence in the Due Process Clause:[lxxxii] the State of Oklahoma has the burden to prove, in a fair procedure, that it can justify its intent to surgically and permanently remove the function for which Skinner's reproductive equipment was designed, to sire offspring. Nevertheless, both the holding of the majority, as well as the concurring opinion, seem less like affirmations of reproductive liberty and more like opinions about the morality of equal treatment and the level of judicial scrutiny required to allow State-mandated battery.

However, the aspect of *Skinner*'s majority opinion that seems to have stood the test of time (though it is uncertain whether it was part of the Court's holding)–and seems to have had an influence in the formation of the plurality opinion (authored by Justice Douglas) in *Griswold v. Connecticut*–is the section in which Justice Douglas wrote that "[m]arriage and procreation are fundamental to the very existence and survival of the race. The power to sterilize, if exercised, may have subtle, far reaching and devastating effects."[lxxxiii] In *Griswold*, the Court ruled as unconstitutional a Connecticut statute that forbade the use of, sale of, and/or the assisting in the use of contraceptive devices.[lxxxiv] Justice Douglas concluded that the right of privacy grounds this judgment, for the wrongness of this statute lies in its broad scope: it includes the private judgments and activities of couples within the sanctuary of marriage. This right of privacy, according to Douglas, can be gleaned not from a literal reading of the words found in the Bill of Rights but from "penumbras" that stand behind these words, and these penumbras are "formed by emanations from those guarantees that help give them life and substance."[lxxxv] What was tucked-away in *Skinner* becomes explicit in *Griswold*:

> We deal with a right of privacy older than the Bill of Rights – older than our political parties, older than our school system. Marriage is a coming together for better or for worse, hopefully enduring, and intimate to the degree of being sacred. It is an association that promotes a way of life, not causes; a harmony in living, not political faiths; a bilateral loyalty, not commercial or social projects.

> Yet it is an association for as noble purpose as any involved in our prior decisions.[lxxxvi]

It seems that, according to Justice Douglas, the right to marry and form a family is logically and chronologically prior to the state. What the Court seems concerned about is that Connecticut, through its anti-contraception statute, interfered with the sanctity of marriage and the couple's judgments about intimate matters, including reproduction.[lxxxvii] In his concurring opinion, Justice Goldberg understood the plurality's rejection of the Connecticut statute as firmly grounded in this notion of marital sanctity.[lxxxviii] But because of this understanding, Goldberg did not think that reproductive liberty and the right of privacy were endlessly elastic, for he maintained that "the Court's holding today...in no way interferes with a State's proper regulation of sexual promiscuity and misconduct,"[lxxxix] and then approvingly cited Justice Harlan's comments in *Poe v. Ullman*: "Adultery, homosexuality and the like are sexual intimacies which the State forbids...but the intimacy of husband and wife is necessarily an essential and accepted feature of the institution of marriage which the State not only must allow, but which always and in every age it has fostered and protected."[xc]

In *Eisenstadt v. Baird*, the Court ruled that a Massachusetts statute violated the Equal Protection Clause because it provided, in its laws regarding the distribution of contraceptive devices, "dissimilar treatment for married and unmarried persons who are similarly situated."[xci] In the words of Justice Brennan, author of the majority opinion:

> If under *Griswold* the distribution of contraceptives to married persons cannot be prohibited, a ban on distribution to unmarried persons would be equally impermissible. It is true that in *Griswold* the right of privacy in question inhered in the marital relationship. Yet the marital couple is not an independent entity with a mind and heart of its own, but an association of two individuals each with a separate intellectual and emotional makeup. 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 to bear or beget a child.[xcii]

It seems that, at this point in the historical trajectory of the right of

privacy, one could reasonably infer that reproductive liberty was moving in a libertarian direction. That is, the Court was setting into motion certain principles of constitutional liberty that were at such a high level of abstraction that it would become nearly impossible for a community to proscribe in its laws the sorts of research and reproductive technologies that are presently offered, or may soon be offered (e.g., human cloning), in twenty-first century North America.

In *Roe v. Wade*, the Court established a right to abortion based on the right of privacy found in *Griswold* and *Eisenstadt*, as well as other decisions.[xciii] However, it would be a mistake, the Court explained, to think of this right as absolute,[xciv] for the Court took into consideration the legitimate State interests of both the health of the pregnant woman and the prenatal life she carries. Concerning the former, the Court allowed States to regulate abortion, as they may regulate other medical facilities and other procedures.[xcv] In regard to prenatal life, the Court thought the question of metaphysical personhood to be outside the realm of the Court's expertise,[xcvi] even though the Court asserted that the fetus is not a person according to the Constitution.[xcvii] In any event, the State's interest in prenatal life increases as the fetus develops;[xcviii] and when it reaches the point of viability, the State *may* restrict abortion, except in cases in which an abortion is necessary to preserve the health or life of the pregnant woman.[xcix] Thus, reproductive liberty in the context of *Roe* should be seen as a limited freedom, established within the nexus of three parties: the pregnant woman, the fetus, and the State. The woman's liberty trumps both the value of the fetus and the interests of the State, except when the fetus reaches viability (and an abortion is unnecessary to preserve the life or health of the pregnant woman) and/or when the State has a compelling State interest in regulating abortion before and after viability in order to make sure that the procedure is performed in accordance with accepted medical standards.[c]

As one might guess, this reading of *Roe* is not universally embraced. This is why some courts[ci] and some scholars[cii] see *Roe* and its predecessors as establishing a near absolute right to reproductive liberty (including the use of reproductive technologies, such as cloning). On the other hand, some courts[ciii] and scholars[civ] embrace a reading similar to the

one I am presenting here.

Regardless of which is the correct interpretation of these cases, it seems that the Supreme Court, since the late 1980s, has come to embrace the latter interpretation. For this reason, the Court will likely leave the question of human cloning to the state and federal legislatures rather than attempt to settle the issue by judicial fiat. That is, the Court seems to have shifted to a more minimalist perspective when it comes to constitutional interpretation; for there seems to be reluctance to lay down highly abstract principles of moral philosophy that could be extended beyond their intended use in particular cases.[cv] There are several reasons to believe this is the case.

First, in the five-four decision of *Bowers v. Hardwick* (1986), the Supreme Court stopped the expansion of the right of privacy in its tracks when it rejected the argument that Georgia's anti-sodomy statute violated that right.[cvi] Thus, the right of privacy has limits, and a state may restrict certain conduct, even if it occurs in private between consenting adults.

Second, in *Planned Parenthood v. Casey* (1992), the Court more carefully defined the right to abortion in terms of a woman's right to avoid the burden of unwanted pregnancy.[cvii] Although such reasoning was not absent from *Roe*,[cviii] the *Casey* plurality seems to have crafted its opinion in order to accentuate the State's interest in prenatal life and that that interest *may only be trumped* by a woman's fundamental right to terminate her pregnancy.[cix] Thus, a State's protection of prenatal life, outside of the abortion context, is not impermissible.

Unfortunately for the authors of the plurality opinion, a particular passage from it has been taken by lower courts and some scholars (see below) to establish a near absolute right to personal autonomy:

> Our law affords constitutional protection to personal decisions relating to marriage, procreation, contraception, family relationships, child rearing, and education.... 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 by the State.[cx]

In 1994, Federal District Court Judge Barbara Rothstein struck down Washington State's ban on physician-assisted suicide. In her opinion she employed what she thought was the logic of *Casey*: "Like the abortion decision, the decision of a terminally ill person to end his or her life 'involves the most intimate and personal choices a person can make in a lifetime,' and constitutes a 'choice central to personal dignity and autonomy'."[cxi] Legal philosopher Ronald Dworkin makes a similar claim:

> Our Constitution takes no sides in these ancient disputes about life's meaning. But it does protect people's right to die as well as live, so far as possible, in the light of their own intensely personal convictions about "the mystery of human life." It insists that these values are too central to personality, too much at the core of liberty, to allow a majority to decide what everyone must believe.[cxii]

It is not difficult to imagine, given Rothstein's and Dworkin's interpretation of *Casey*, that one could conclude that there exists a near absolute right to personal autonomy that would include both a right to physician-assisted suicide as well as a right to clone. However, in *Washington v. Glucksberg*, the Court corrected this interpretation of its "autonomy passage":

> By choosing this language, the Court's opinion in *Casey* described, in a general way and in light of our prior cases, those personal activities and decisions that this Court has identified as so deeply rooted in our history and traditions, or so fundamental to our concept of constitutionally ordered liberty, that they are protected by the Fourteenth Amendment. The opinion moved from the recognition that liberty necessarily includes freedom of conscience and belief about ultimate considerations to the observation that "though the abortion decision may originate within the zone of conscience and belief, it is *more than a philosophic exercise*." *That many of the rights and liberties protected by the Due Process Clause sound in personal autonomy does not warrant the sweeping conclusion that any and all important, intimate, and personal decisions are so protected, and* Casey *did not suggest otherwise.*[cxiii]

Thus, the *Glucksberg* Court saw its "autonomy passage" in *Casey* as having application limited to those activities that can be grounded in

identifiable and deeply-rooted traditions, as well as that which is fundamental to the concept of ordered liberty. Therefore, the Court concluded that there is not a right to physician-assisted suicide as there is a right to abortion.[cxiv]

This provides an important clue as to how the Court may rule concerning the question of whether the right of privacy is broad enough to encompass a right to clone. For, like physician-assisted suicide, cloning, as we have seen, is a matter over which there is a profound debate regarding its morality, legality, and practicality.[cxv] In addition, cloning, like physician-assisted suicide, is not grounded in our nation's history and traditions.[cxvi] Strong evidence of such is found in the largely negative political, legal, and public reaction to cloning in the United States, as well as the NBAC's conclusions and careful analysis of the issue.[cxvii] Therefore, it is likely that the Court will say the same thing about cloning that is has said about physician-assisted suicide:[cxviii] "Throughout the Nation, Americans are engaged in an earnest and profound debate about the morality, legality, and practicality of physician-assisted suicide. Our holding permits this debate to continue, as it should in a democratic society."[cxix]

CONCLUSION

Given what we have covered in this essay, it seems to me that the Supreme Court could reasonably, and is likely to, reject a constitutional right to clone. The Court may employ something like the following argument:

1. The right of privacy establishes the right of contraceptive use. (*Griswold*, *Eisenstadt*).
2. The right of privacy encompasses the right to abortion, though that right is the result of a balance between three interests: the woman's burden of pregnancy and future childrearing, the State's interest in the fetus, and the State's interest in maternal health. (*Roe*, *Casey*).
3. Therefore, it is not unconstitutional for a State to ban or restrict cloning, because such an action would not involve a ban on contraceptive use and/or an absolute prohibition of a woman's right

to abortion.

4. Cloning, like physician-assisted suicide, is a controversial matter better left to public discussion, deliberation, and debate. (*Glucksberg*).
5. Given (3) and (4) above, a State may ban cloning on any rational basis, including for the purpose of protecting unborn human life (as has been done in tort and criminal statutes and common law cases), preventing the commodification of children and their parts, or preserving the integrity of the family, an institution whose right to exist predates the Bill of Rights (*Griswold*).

Of course, this does not mean that cloning ought not to be permitted or that scientists ought not do research in this area. It means simply that, given the Supreme Court's current trajectory on the matter of reproductive liberty, there is no constitutional right to clone.

NOTES

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i. Special thanks to Professor Susan F. Appleton (Washington University School of Law, St. Louis) for her feedback on the first draft of this paper. Because of her insights, it is a much better paper, though I take full responsibility for all of its flaws. I would also like to thank the James Madison Program in American Ideals and Institutions (Department of Politics, Princeton University) and its director, Robert P. George (McCormick Professor of Jurisprudence, Princeton), for providing me a one-year research fellowship (2002-2003), in an idyllic environment with brilliant colleagues and a proficient staff, so that I can complete work on this paper as part of a larger project on reproductive rights, cloning, and human personhood.

ii. Gina Kolata, "Scientist Clones Human Embryos, and Creates an Ethical Challenge," *New York Times*, Oct. 24, 1993, at A1; Rebecca Kolberg, "Human Cloning Reported," 262 *Science* 652 (1993); Kathy Sawyer, "Researchers Clone Human Embryo Cells; Work is 'Small Step' in Aiding Infertile," *Wash. Post*, Oct. 25, 1993, at A4; Philip Elmer-DeWitt, "Cloning: Where Do We Draw the Line?" in *Time*, Nov. 8, 1993, at 65; Jerry Adler et al., "Clone Hype,"

Newsweek, Nov. 8, 1993, at 60. Jose B. Cibelli, Robert P. Lanza, & Michael D. West (with Carol Ezzell), "The First Human Cloned Embryo," *Scientific American* (Nov. 24, 2001), available at http://www.sciam.com/explorations/2001/112401ezzell/ (last visited October 11, 2002).

iii. Ibid.

iv. National Bioethics Advisory Commission, "Cloning Human Beings" (1997), p. 13 (hereinafter NBAC).

v. Ibid, p. 14.

vi. Ibid.

vii. Ibid.

viii. Gina Kolata, "Clone: The Road to Dolly, and the Path Ahead," pp. 47-51, 61 (1998). See also Hans Spemann, "Embryonic Development and Induction" (1938).

ix. Kolata, *supra* n8, at 61-65; Robert Briggs and Thomas King, "Transplantation of Living Nuclei from Blastula Cells Into Enucleated Frogs' Eggs," 38 *Proc. Nat'l Acad. Sci.* 455 (1952).

x. Kolata, *supra* n8, at 67.

xi. "5 Species Cloned Using Cow's Eggs," *San Francisco Chronicle*, Jan. 19, 1998, at A1. I first read of this story, as well as the remaining ones, in this paragraph in Stephanie J. Hong, "And Cloning Makes Three: A Constitutional Comparison Between Cloning and Other Assisted Reproductive Technologies," 28 *Hastings Const. L.Q.* 741, 747-48 (Spring 1999).

xii. Ibid.

xiii. Ellen Ruppel Shell, "Cloning of Humans Will Be Inevitable; What Have We Done, Done, Done?" in *Cincinnati Enquirer*, Jan. 5, 1999, at A6.

xiv. " Human Embryo Clone, S. Korean Team Claims" in *Sacramento Bee*, Dec. 17, 1998, at A1.

xv. David Derbyshire, "Made in Japan, A Herd of Cloned Calves," *Daily Mail*, Dec. 8, 1998, at 9; "Japanese Clone 8 Genetically Identical Calves from a Cell of Single Adult Cow," *Transplant News*, Dec. 17, 1998.

xvi. Scott B. Rae, *Brave New Families* (1996), pp. 172-73.

xvii. Connie Cass, "Spotlight Thrust on Scientists Who Cloned Human Embryos," *Las Vegas Review-Journal*, Oct. 23, 1993, at 1A, 2A.

xviii. Rae, *supra* n16, at 173.

xix. Ibid.

xx. Rae's description of the technical procedure is taken from Philip Elmer-Dewitt, "Cloning: Where Do We Draw the Line?" in *Time*, November 8, 1993, at 67.

xxi. Raymond G. Bohlin, "The Little Lamb that Made a Monkey of Us All, March 7, 1997," available at http://www.probe.org/ docs/lambclon.html (last visited Oct. 11, 2002). Dr. Bohlin's analysis is confirmed by the findings of the NBAC, supra note 4, at 22. However, a variation of the Dolly technique used by University of Hawaii researchers proved more efficient, with an eighty percent success rate when employed by Japanese scientists who cloned four calves in five attempts. See Derbyshire, *supra* n15.

xxii. See, e.g., Rae, supra n16, at 169-88; 1 NBAC, supra n4, at 13-34.

xxiii. See" Cloning Technology: Scientific Developments and Current Guidelines," 77 *Cong. Dig*. 38 (Feb. 1998): "[R]estrictions have been in place in January 1996 which prohibit the Department of Health and Human Services (DHHS) from using Federal funds to support cloning research involving human embryos. President Clinton's March 4 directive to all Executive departments and agencies extends this ban to all federally supported research, but does not apply to research done in the private sector."

xxiv. "The Clone Age," *A.B.A. J.*, July 1997, at 68.

xxv. "To aid in these tasks NBAC invited testimony from an array of scientists, scientific societies, ethicists, theologians, and legal experts, and heard from a variety of interested parties during the public comment session at each meeting." 1 NBAC, supra n 4, at 9.

xxvi. Ibid., National Bioethics Advisory Commission, "Cloning Human Beings" 2 (1997), hereinafter, 2 NBAC. The scholars who contributed papers are Stuart H. Orkin, Janet Rossant, Elisa Eiseman, Courtney S. Campbell, Dan W. Brock, Lori B. Anderson, Bartha Maria Knoppers, and Robert Mullan Cook-Deegan.

xxvii. 1 NBAC, supra n4, at iii.

xxviii. An overview of the commission's recommendations can be found in 1

NBAC, supra n4, at iii-v, 107-10.

xxix. Ibid. at 4.

xxx. Ibid. On November 28, 2001 President Bush, like his predecessor, President Clinton, created his own bioethics commission (Executive Order 13237), "The President's Council on Bioethics" (PCB). Like the NBAC, it provided to the president its own set of recommendations. However, at the time of the completion of this essay, only the pre-publication version of that report is available: PCB, "Human Cloning and Human Dignity: an Ethical Inquiry" (July 2002), available at http://www.bioethics.gov/cloningreport/ (last visited October 11, 2002). Assuming that there are no substantive changes in the final version, PBC offers two recommendations, one by the majority (ten members) and the second by a minority (seven members). The first is summarized in the following way: "Ten Members of the Council recommend a ban on cloning-to-produce-children combined with a four-year moratorium on cloning-for-biomedical-research. We also call for a federal review of current and projected practices of human embryo research, pre-implantation genetic diagnosis, genetic modification of human embryos and gametes, and related matters, with a view to recommending and shaping ethically sound policies for the entire field." The minority recommended "a ban on cloning-to-produce-children, with regulation of the use of cloned embryos for biomedical research" (ibid.). Although it may seem that the PCB majority's recommendation differs little from that of the NBAC, a careful reading of the former, along with the reasons provided for its conclusion, reveals a stronger condemnation of human cloning for reproduction as intrinsically wrong and perhaps, also, for other purposes of cloning (hence, the call for a federal review of current and projected research of pre-born human beings). The NBAC also condemns cloning for reproduction, but not because it is intrinsically wrong, but rather, because it may have bad consequences and society may not be adequately prepared for it; hence, its claim that reproductive cloning is unethical "at this time." In addition, the NBAC report seems more open to human cloning research outside of reproductive purposes than does the PCB report.

xxxi. See, e.g., Human Cloning Prohibition Act, H.R. 923, 105th Cong. § 2 (1997), asserting that "[i]t shall be unlawful for any person to use a human somatic cell for the process of producing a human clone." See also Human Cloning Prohibition Act, S. 1601, 105th Cong. § 3 (1997), asserting that "[i]t shall be unlawful for any person or entity, public or private, in or affecting interstate commerce, to use human somatic cell nuclear transfer technology." H.R. 922, 105th Cong. (1997); S. 368, 105th Cong. (1997), a bill, proposed by Senators Ashcroft and Bond, seeking to codify President Clinton's executive

order to ban federal funding of cloning research. H.R. 2264, 105th Cong. (1997), a bill banning federal funding for "the creation of a human embryo or embryos for research purposes." S. 1061, 105th Cong. (1997); S. 1602, 105th Cong. (1998), Proposed by Senators Kennedy and Feinsten, this bill would not forbid embryo cloning but would make it illegal to "perform or use somatic cell nuclear transfer with the intent of introducing the product of that transfer into a woman's womb or in any other way creating a human being." Cloning Research Prohibition Act, H.R. 3133, 105th Cong. (1998). Cloning Prohibition Act of 1998, S. 1599, 105th Cong. (1998). Prohibition on Cloning Human Beings Acts of 1998, S. 1611, 105th Cong. (1998). Cloning Prevention Act of 1999, H.R. 571, 106th Cong. (1999). Cloning Research Prohibition Act, H.R. 2326, 106th Cong. (1999); S. 2439, 107th Cong. (2001), "To prohibit human cloning while preserving important areas of medical research, including stem cell research." S. 1899, 107th Congress (2001), "To amend title 18, United States Code, to prohibit human cloning." H. R. 1644, 107th Congress (2001), "To amend title 18, United States Code, to prohibit human cloning."

xxxii. For differing views on these questions, see John A. Robertson, "Liberty, Identity, and Human Cloning," 76 *Tex. L. Rev.* 1371 (1998); Leon R. Kass, "The Wisdom of Repugnance: Why We Should Ban the Cloning of Humans," 32 *Val. U. L. Rev*. 679 (1998).

xxxiii. President George Bush, "Remarks by the President on Stem Cell Research" (Aug. 9, 2001), available at http://www.whitehouse.gov/news/releases/ 2001/08/20010809-2.html (last visited October 12, 2002). According to the President, "[These stem-cell lines] were created from embryos that have already been destroyed, and they have the ability to regenerate themselves indefinitely, creating ongoing opportunities for research. I have concluded that we should allow federal funds to be used for research on these existing stem cell lines, where the life and death decision has already been made."

xxxiv. See, e.g., Cal. Health & Safety Code § 24185 (West 1997); La. Rev. Stat. Ann. § 40:1299.36.2 (West 1999); Mich. Stat. Ann. § 333.16274 (Michie 1999); Mo. Rev. Stat. § 1.217 (1998); R.I. Gen. Laws § 23-16.4 (1998).

xxxv. See "Additional Protocol to the Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine, on the Prohibition of Cloning Human Beings," available at http://conventions.coe.int/treaty/EN/cadreprincipal.htm (last visited 12 Oct. 2002).

xxxvi. Nations that have signed the treaty are Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Moldova, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, the former Yugoslav Republic of Macedonia, and Turkey (ibid.).

xxxvii. The nine nations that have ratified the treaty are Czech Republic, Georgia, Greece, Hungary, Portugal, Romania, Slovakia, Slovenia, and Spain (ibid.).

xxxviii. Clarke D. Forsythe, "Human Cloning and the Constitution," 32 *Val. U. L. Rev.* 469 (1998).

xxxix. Emma Ross, "Britain May Ease Ban on Cloning to Allow Embryo-Cell Research," *Philadelphia Inquirer,* Aug. 17, 2000.

xl. See, e.g., Lisa Sowle Cahill, "No Human Cloning: A Social Ethics Perspective," 27 *Hofstra L. Rev*. 487 (Spring 1999); Kass, supra n35; Forsythe, supra n41; and John Finnis, "Public Reason, Abortion, and Cloning," 32 *Val. U. L. Rev*. 361 (1998).

xli. See, e.g., Richard A. Epstein, "A Rush to Caution: Cloning Human Beings," in *Clones and Clones* 262 (Martha Nussbaum & Cass R. Sunstein eds., 1998); See also James Q. Wilson, "The Paradox of Cloning," *Weekly Standard*, May 26, 1997, at 23-27.

xlii. See, e.g., Shannon H. Smith, "Ignorance is Not Bliss: Why a Ban on Human Cloning Is Unacceptable," 9 *Health Matrix* 311 (1999); Robert C.L. Moffat, "Cloning Freedom: Criminalization or Empowerment in Reproductive Policy?," 32 *Val. U. L. Rev*. 583 (1998); Laurence Tribe, "On Not Banning Cloning for the Wrong Reasons" in *Clones and Clones*, supra n44, at 221; Gregory E. Pence, *Who's Afraid of Human Cloning?* (1998); Robertson, supra n35; Lawrence Wu, "Family Planning Through Human Cloning: Is There a Fundamental Right?" 98 *Columbia Law Rev*. 1461 (1998).

xliii. *Nightline* (ABC television broadcast, Jan. 7, 1998). Dr. Seed is quoted on the broadcast as saying, "God made man in his own image and his plan for humankind is that we should become one with God and this is a significant step in the right direction."

xliv. CNN Poll: "Most Americans Say Cloning is Wrong" (March 1, 1997), available at http://www.cnn.com/TECH/9703/ 01/clone.poll/index.html.

xlv. Available at http://www.portraitofamerica.com/html/poll-1186.html (last

visited Oct. 9, 2000).

xlvi. For an extensive list and evaluation of reasons for and against cloning, including possible individual and social harms and benefits, see David W. Brock, "Cloning Human Beings: An Assessment of the Ethical Issues Pro and Con," 2 NBAC, supra n26, at E4-E21.

xlvii. Ibid. at E7.

xlviii. Ibid. at E9.

xlix. This is suggested by Robertson, supra n35, at 1392-94. Robertson writes: "The use of DNA from existing children to produce another child should also fall within a couple's procreative liberty. This action is directly procreative because it leads to the birth of a child who is formed from the egg and sperm of each spouse, even though it occurs asexually with the DNA of an existing child and not from a new union of egg and sperm. Although it is novel to create a twin after one has already been born, the act still allows the couple to reproduce. The distinctly reproductive nature of their action is reinforced by the fact that they will gestate and rear the child that they clone. The parents' precise motive for cloning and subsequent transfer to the uterus will not affect the reproductive nature of their endeavor. Whether they simply want a second child like the first, want a second child who could be a source of tissue or organs, or want to replace a dead or dying child with one with its genes, they are engaged in reproduction because another child of their genes, whom they will gestate and rear, will be born " (ibid. at 1393).

l. See, e.g., Anita Manning, "Pressing a 'Right' to Clone Humans: Some Gays Foresee Reproduction Option," *USA Today*, Mar. 6, 1997, at D1; Timothy F. Murphy, "Our Children, Our Selves: The Meaning of Cloning for Gay People" in *Flesh of My Flesh: The Ethics of Human Cloning* 141 (Gregory E. Pence ed. 1998).

li. Cibelli et. al., supra n2.

lii. Smith, supra n45, at 325. According to Smith, "The father underwent surgery to reverse a vasectomy (a procedure with a 40% success rate), and the mother became pregnant at the age of 43, knowing that the odds were one in four that the baby's bone marrow would match" (ibid. n61); see Lance Morrow, "When One Body Can Save Another: A Family's Act of Lifesaving Conception Was on the Side of Angels, but Hovering in the Wings is the Devilish Ghost of Dr. Mengele," *Time*, June 17, 1991, at 54.

liii. Smith, supra n45, at 325; see Morrow, supra n55, at 58.

liv. Brock, supra n49, at E8, citing the work of Carol Kahn, "Can We Achieve Immortality? The Ethics of Cloning and Other Life Extension Technologies," *Free Inquiry*, Spring 1989, at 14-18).

lv. Brock, supra n49, at E8.

lvi. For more extensive criticisms of cloning, see Forsythe, supra n41, at 527-42; Kass, supra n35; J.L.A. Garcia, "Human Cloning: Never and Why Not" in *Life and Learning IX: Proceeding of the Ninth University Faculty for Life Conference* 1 (Joseph Koterski ed. 1998).

lvii. *Roe v. Wade*, 410 U.S. 113, 157 (1973): "The Constitution does not define 'person' in so many words. Section 1 of the Fourteenth Amendment contains three references to 'person'.... But in nearly all these instances, the use of the word is such that it has application only postnatally. None indicates, with any assurance, that it has any possible pre-natal application."

lviii. See, e.g., Pence, supra n45, at 85-98. Pence writes: "What is true about human embryogenesis...will never be known precisely until we do experiments with such human embryos. To say we can do such experiments because such embryos are 'tiny persons' or because it violates the 'sanctity of life' is to say that humans are never meant to know truths about how embryos develop, how genes regulate such development or fail to do so in deleterious ways, and how it all goes together with the uterine environment to create a baby's genotype" (ibid. at 96-97).

lix. *Roe*, 410 U.S. at 163-65; *Planned Parenthood v. Casey*, 505 U.S. 833, 846 (1992).

lx. The Supreme Court, in *Casey*, seems to say as much when it writes: "Before viability, the State's interests are not strong enough to support a prohibition of abortion or the imposition of a substantial obstacle to the woman's effective right to elect the procedure.... The State has legitimate interests from the outset of the pregnancy in protecting the health of the woman *and* the life of the fetus that may become a child" (*Casey*, 505 U.S. at 846, emphasis added).

lxi. See Forsythe, supra n41, at 494-501. Forsythe writes: "Although the Supreme Court in 1973 virtually abolished abortion law, *Roe* did not touch assaults on the unborn child outside the context of abortion. *Roe* stifled an ongoing process of increasing state protection for unborn human life through state criminal and tort law. But, despite *Roe*, that progressive process has

continued outside the immediate context of abortion. The upshot of this progression protection in both tort and criminal law has been an increasing abolition of the obsolete born alive rule and a growth in protection of the unborn child, even if stillborn, without regard to the stage of gestation. In tort law [as of 1997], virtually all states allow suits for prenatal injuries for children later born alive. (Obviously, if the child is not born alive, the suit would be for wrongful death.) A majority of state courts have expressly or implicitly rejected viability as a limitation on liability for nonfatal prenatal injuries.... Some states, by statute, have eliminated gestational time limits for recovery for injury or death to the unborn child" (ibid. at 497). Forsythe continues that, as of 1997, "more than half of all states treat the killing of an unborn human being, at some stage of gestation, as a form of homicide, even though the child is not born alive (stillborn). Eleven states, including Illinois and Minnesota, define by statute the killing of an unborn child as a form of homicide, regardless of the stage of pregnancy. One state defines by statute the killing of an unborn human being after eight to ten weeks gestation as a form of homicide. Eight states define by statute the killing of an unborn child after quickening as a form of homicide. Five states define by statute or by caselaw the killing of an unborn human being after viability as a form of homicide. In several cases, courts have rejected constitutional challenges to statutes of this type, including statutes applying throughout gestation. State and federal courts have recognized that *Roe* only limits state protection for the unborn human being when the woman's privacy interest is asserted" (ibid. at 499-500, footnotes omitted).

lxii. For a defense of this reading of the Supreme Court's view of reproductive liberty, see infra Part IV.

lxiii. See, e.g., Kass, supra n35, at 693-98. Kass writes: "Human cloning would also represent a giant step toward turning begetting into making, procreation into manufacture...a process already begun with IVF and genetic testing of embryos. With cloning, not only is the process in hand, but the total genetic blueprint of the cloned individual is selected and determined by the human artisans...we here would be taking a major step into making man himself simply another one of the man-made things" (ibd. at 696).

lxiv. Wu, supra n45, at 1504-05.

lxv. Garcia, supra n59, at 13.

lxvi. Wu, supra n45, at 1474-85. Wu writes, "the Constitution protects an affirmative right to procreate through the use of cloning technology. Such technology compromises no measure of individuality or humanity, and its use is consonant with the principle that procreation is protected as a fundamental right

because of the value of having children, and not because of the mode used to create the children" (ibid. at 1515). Wu also writes: "Whenever a couple decides they want to "try" for a child and acts on that desire, the resulting child will always, to some degree, be a product of their will, and will thus have been 'made.' Parents, after all, seek to procreate for all sorts of reasons that sound in the objectification of children–for instance, to replace a recently deceased child, to give their first child a playmate, to save their marriage, to stem boredom, or because the family already has two daughters and the father wants to try for a son. The particular mode of reproduction used does not alter that manufactured aspect. Society, however, does not police such motivations for having children, because it is generally assumed that parents will care for their children regardless of the motivations for having them" (ibid. at 1505).

lxvii. Garcia, supra n59, at 13.

lxviii. Smith, supra n45, at 326: "If cloning is held protected under procreative liberty, cloning for purposes of having a child that is an acceptable organ donor would fall under that protection as well." See Robertson, supra n35, at 1393-1421: "The idea of cloning an existing child is plausibly foreseeable in several circumstances.... [One circumstance] is one in which an existing child might need an organ or tissue transplant" (ibid. at 1394). Citing the example of the case of the Ayalas, Robertson writes: "If the Ayalas acted ethically because they were prepared to love the child whose conception was motivated by another child's potential need for bone marrow, then using an existing child's DNA in order to have another child as a source of organs or tissue should also be acceptable... The fact that the child was also desired to serve as a source of tissue or organ does not negate the love that parents will have for that child. The question of objectification is somewhat different if cell biology advances to the point that tissue or organs for transplant can be obtained from embryonic stem cells or early abortions. In that case cloning another to obtain tissue or organs for transplant need only produce cloned embryos or fetuses, and not live-born children, thus avoiding the problem of instrumentalizing a child created in part to serve as an organ source" (ibid. at 1421). See also Moffat, supra n45, at 587-88: "In the case of the child conceived to produce a bone marrow match, some critics object, in a naive form of Kantianism, that the younger child is being treated solely as a means to an end. When the child grows up and learns the story of her place in the family, will she feel that she was created only to be used as an instrumentality? Actual experience with such situations indicates that the child is loved not only as a member of the family, but is valued even more as the one who saved the life of the older sibling" (ibid. at 588).

lxix. Wu, supra n45, at 1474-85. Wu writes: "[T]he Constitution protects an

affirmative right to procreate through the use of cloning technology. Such technology compromises no measure of individuality or humanity, and its use is consonant with the principle that procreation is protected as a fundamental right because of the value of having children, and not because of the mode used to create the child.... Furthermore, granting constitutional protection is also more consistent with the longstanding recognition that decisions regarding matters of fundamental concern, like procreation, are best left to the decision-maker, and not to the majority. Viewed properly, therefore, the cloning of humans presents no threat to society or to the nature of reproduction or to the family; rather, human cloning is a promising, new technology that can help would-be parents have children and create new families" (ibid. at 1515). See also Smith, supra n45, at 320-23; Hong, supra n11, at 752-55. Hong writes, "The Court has found this right [to privacy] to be nearly inviolate in the context of the right to procreate" (ibid. at 753).

lxx. These cases usually include the following: *Skinner v. Oklahoma*, 316 U.S. 535 (1942); *Griswold v. Connecticut*, 381 U.S. 479 (1965); *Eisenstadt v. Baird*, 405 U.S. 438 (1972); *Roe v. Wade*, 410 U.S 113; *Doe v. Bolton*, 410 U.S. 179 (1973); *Thornburg v. American College of Obstetricians and Gynecologists*, 476 U.S. 747 (1986); and *Planned Parenthood v. Casey*, 505 U.S. 833 (1992).

lxxi. Brock, supra n49, at E8.

lxxii. Ibid. at E9.

lxxiii. *Roe*, 410 U.S. at 157.

lxxiv. What this means is that, if one can identify actual human beings by determining whether they have a current capacity for consciousness (C), it only follows that C is a sufficient condition for being an actual human being. That is, if a human being (X) were to lack C, it would not follow that X is *not* an actual human being, for if a condition is sufficient it does not follow that it is necessary. For example, being a sister is a sufficient condition for being female, though not a necessary condition, for one may be a female and an only child. However, being female is a necessary condition for being a sister, though not a sufficient one, for one may have no siblings. Thus, we could reject C as a necessary condition for being an actual human being on the grounds that we have good independent reasons to believe that there are actual human beings that lack C, *e.g.*, presentient fetuses, the comatose, etc.

lxxv. According to this view, each kind of living organism or *substance*, including the human being, maintains identity through change as well as possessing a nature or essence that makes certain activities and functions

possible. "A substance's *inner nature* is its ordered structural unity of ultimate capacities. A substance cannot change in its ultimate capacities; that is, it cannot lose its ultimate nature and continue to exist." J.P. Moreland, "Humanness, Personhood, and the Right to Die," 12.1 *Faith and Philosophy* 101 (January 1995).

For example, a German Shepherd dog, because it has a particular nature, has the ultimate capacity to develop the ability to bark. It may die as a puppy and never develop that ability. Regardless, it is *still* a German Shepherd dog as long as it exists, because it possesses a particular nature, even if it never acquires certain functions that by nature it has the capacity to develop. In contrast, a frog is not said to lack something if it cannot bark, for it is by nature not the sort of being that can have the ability to bark. A dog that lacks the ability to bark *is still a dog* because of its nature. A human person who lacks the ability to think rationally (either because she is too young or she suffers from a disability) *is still a human person* because of her nature. Consequently, a human being's lack makes sense *if and only if* she is an actual person.

Second, the German Shepherd remains the same particular German Shepherd over time from the moment it comes into existence. Suppose you buy a German Shepherd as a puppy and name him "Fred." When you first bring him home you notice that he is tiny in comparison to his parents and lacks their intellectual and physical abilities. But, over time, Fred develops these abilities, learns a number of things his parents never learned, sheds his hair, has his nails clipped, becomes ten times larger than he was as a puppy, and undergoes significant development of his cellular structure, brain, and cerebral cortex. Yet, this grown-up Fred is identical to the puppy Fred, even though he has gone through significant physical changes. Why? Because living organisms and substances maintain identity through change.

Consider another example. Suppose your Uncle Jed is in a terrible car accident that results in his being in a coma from which he may or may not wake. Imagine that he remains in this state for roughly two years and then awakens. He seems to be the same Uncle Jed that you knew before he went into the coma, even though he's lost some weight, hair, and memories. Was he a person during the coma? Could the physicians have killed Uncle Jed's body during that time because it was not functioning as a person? If one holds that current capacity for consciousness is a necessary condition for rights, it is difficult to see why it would be wrong to kill Uncle Jed while he is in the coma. Yet, it *would be* morally wrong to kill Uncle Jed while in this state.

Suppose you were to conclude that Uncle Jed's life is valuable while in the coma because, *at one time* prior to the coma, he functioned as a person and probably will do so in the future after coming out of the coma. But this would be a mistake. For we can change the story a bit and say that when Uncle Jed

awakens from the coma, he loses virtually all his memories and knowledge, including his ability to speak a language, engage in rational thought, and have a self-concept. It turns out that while in the coma he was in the exact same position as the standard fetus or embryo, for he had the same capacities as the fetus or embryo. He would still literally be the same person he was before the coma, but he would be more like he was before he had a "past." He would have the natural inherent capacity to speak a language, engage in rational thought, and have a self-concept, but he would have to develop and learn them all over again in order for these capacities to result, as they did before, in actual abilities.

For a defense of this view, see J.P. Moreland & Scott B. Rae, *Body & Soul: Human Nature and the Crisis in Ethics* (2000). For a critique of this view, see Michael Tooley, "In Defense of Abortion and Infanticide" in *The Abortion Controversy 25 Years after Roe v. Wade: A Reader* 209 (Louis P. Pojman & Francis J. Beckwith eds., 2d ed. 1998).

lxxvi. In the majority and plurality opinions of the leading cases that affirm a woman's right to abortion–*Roe, Doe, Thornburg,* and *Casey*–the Court refers to the fetus as *potential*, rather than actual, life. This is important because if the fetus were considered actual life by the Court, then there would be no right to abortion. For, in *Roe*, Justice Blackmun concedes that the most important premise in establishing the right to abortion is the non-personhood of the fetus: "If the suggestion of personhood [of the unborn] is established, the appellant's case, of course, collapses, for the fetus' right to life is then guaranteed specifically by the [Fourteenth Amendment]" (*Roe*, 410 U.S. at 157-58). But Blackmun writes elsewhere in *Roe*, "We need not resolve the difficult question of when life begins. When those trained in the respective disciplines of medicine, philosophy, and theology are unable to arrive at any consensus, the judiciary, at this point in the development of man's knowledge, is not in a position to speculate" (ibid. at 160). But this poses a curious problem for the justification of abortion rights. For if, as Blackmun admits, the right to abortion is contingent upon the status of the fetus, then the allegedly disputed fact about life's beginning means that the right to abortion is disputed as well. For a conclusion's support–in this case, "abortion is a fundamental right"–is only as good as the truth of its most important premise–in this case, "the fetus is not a human person." As a result, the Court's admission that abortion-rights are based on a widely disputed fact, far from establishing a right to abortion, entails that the Court not only does not know when life begins, but it does not know when, if ever, the right to abortion begins.

lxxvii. Cass Sunstein has authored an article that includes two imaginary Supreme Court decisions, one in which the Court rules reproductive liberty encompasses cloning and a second in which the Court rules that reproductive

liberty is not broad enough to include cloning. Cass Sunstein, "The Constitution and the Clone" in *Clones and Clones*, supra n44, at 207-20.

lxxviii. 316 U.S. 535 (1942).

lxxix. Ibid. at 537 (Douglas, J.).

lxxx. Ibid. at 538-41.

lxxxi. Ibid. at 543-44 (Stone, J., concurring).

lxxxii. Ibid. at 544-45.

lxxxiii. Ibid. at 541 (Douglas, J.).

lxxxiv. *Griswold v. Connecticut*, 381 U.S. 479 (1965).

lxxxv. Ibid. at 486.

lxxxvi. Ibid. at 486.

lxxxvii. "We do not sit as a super-legislature to determine the wisdom, need, and propriety of laws that touch on economic problems, business affairs, and social conditions. This law, however, operates directly on an intimate relation of husband and wife and their physician's role in one aspect of that relation" (Ibid. at 482).

lxxxviii. In his concurrence, Justice Goldberg stated: "The entire fabric of the Constitution and the purposes that clearly underlie its specific guarantees demonstrate that the rights to marital privacy and to marry and raise a family are of similar order and magnitude as the fundamental rights specifically protected.... The fact that no particular of the Constitution explicitly forbids the State from disrupting the traditional relation of the family–a relation as old and as fundamental as our entire civilization–surely does not show that Government was meant to have the power to do so" (ibid. at 495-96, Goldberg, J., concurring).

lxxxix. Ibid. at 498-99.

xc. Ibid. at 499, citing *Poe v. Ullman*, 367 U.S. 497, 553 (1961).

xci. *Eisenstadt*, 405 U.S. at 454.

xcii. Ibid. at 453.

xciii. *Roe*, 410 U.S. at 152-56: "This right of privacy, whether it be founded in the Fourteenth Amendment's concept of personal liberty and restrictions upon

state action, as we feel it is, or, as the District Court determined, in the Ninth Amendment's reservation of rights to the people, is broad enough to encompass a woman's decision whether or not to terminate her pregnancy" (ibid. at 153).

xciv. "[A]ppellant and some *amici* argue that the woman's right is absolute and that she is entitled to terminate her pregnancy at whatever time she alone chooses. With this we do not agree" (ibid). The Court wrote elsewhere in *Roe*: "The privacy right involved, therefore, cannot be said to be absolute. In fact, it is not clear to us that the claim asserted by some amici that one has an unlimited right to do with one's body as one pleases bears a close relationship to the right of privacy previously articulated in the Court's decisions. The Court has refused to recognize an unlimited right of this kind in the past. *Jacobson v. Massachusetts*, 197 U.S. 11 (1905) (vaccination); *Buck v. Bell,* 274 U.S. 200 (1927) (sterilization)" (ibid. at 154).

xcv. "The State has a legitimate interest in seeing to it that abortion, like any other medical procedure, is performed under circumstances that ensure maximum safety for the patient" (ibid. at 150).

xcvi. "We need not resolve the difficult question of when life begins. When those trained in the respective disciplines of medicine, philosophy, and theology are unable to arrive at any consensus, the judiciary, at this point in the development of man's knowledge, is not in a position to speculate" (ibid. at 160).

xcvii. "The Constitution does not define 'person' in so many words. Section 1 of the Fourteenth Amendment contains three references to 'person'.... But in nearly all these instances, the word is such that it has application only postnatally. None indicates, with any assurance, that it has any possible pre-natal application" (ibid. at 157).

xcviii. The Court went on to declare: "[T]he State does have an important and legitimate interest in preserving and protecting the health of the pregnant woman, whether she be a resident of the State or a nonresident who seeks medical consultation and treatment there, and that it has still *another* important and legitimate interest in protecting the potentiality of human life. These interests are separate and distinct. Each grows substantially as the woman approaches term and, at a point during pregnancy, each becomes 'compelling.' ... With respect to the State's important and legitimate interest in potential life, the 'compelling point' is at viability. This is so because the fetus then presumably has the capability of meaningful life outside the mother's womb" (ibid. at 162-63).

xcix. "If the State is interested in protecting fetal life after viability, it may go so far as to proscribe abortion during that period, except when it is necessary to preserve the life or health of the mother" (ibid. at 163-64).

c. Since the Court accepts the view that the primary reason for states prohibiting abortion by criminal statute in the 19th century and in early 20th century was to "protect the pregnant woman...from submitting to a procedure that placed her life in serious jeopardy," and since "modern medical techniques have altered this situation" for the better, there is no compelling reason to criminalize abortion prior to viability (ibid. at 149). For a reply to this argument, *see* James Witherspoon, "Reexamining Roe: Nineteenth-Century Abortion Statutes and the Fourteenth Amendment," 17 *St. Mary's L.J.* 29 (1985).

ci. See, e.g., *Lifchez v. Hartigan*, 735 F. Supp. 1361, 1376 (N.D. Ill. 1990), aff'd without opinion, 914 F.2d 260 (7th Cir. 1990), *cert. denied sub nom.*, *Scholberg v. Lifschez*, 498 U.S. 1069 (1991), striking down state statute that prohibited fetal experimentation because it was unconstitutionally vague and violated "a woman's right of privacy, in particular, her right to make reproductive choices free of governmental interference with those choices"; see also *Margaret S. v. Treen*, 597 F. Supp. 636 (E.D. La. 1984), aff'd on other grounds, Margaret S. v. Edwards, 794 F.2d 994, 999 (5th Cir. 1986), "the use of the terms 'experiment' and 'experimentation' makes the statute impermissibly vague."

cii. See, e.g., Wu, supra n45, at 1474-85; John A. Robertson, "Decisional Authority over Embryos and Control of IVF Technology," 28 *Jurimetrics J.* 285, 292 (1988).

ciii. See, e.g., *Jane L. v. Bangerter*, 794 F. Supp. 1537 (D. Utah 1992), upholding a state statute that forbids using prenatal children in experimentation.

civ. See, e.g., Forsythe, supra n41, at 517-27; Paul L. Linton, *"Planned Parenthood v. Casey*: The Flight from Reason in the Supreme Court," 13 *St. Louis U. Pub. L. Rev.* 15 (1993).

cv. For a provocative defense in favor of this type of judicial minimalism, see Cass R. Sunstein, "*Dred Scott v. Stanford* and Its Legacy" in *Great Cases in Constitutional Law* 64 (Robert P. George ed., 2000).

cvi. *Bowers v. Hardwick*, 478 U.S. 186 (1986), holding that the right of privacy does not apply to homosexual sodomy, since it is not a fundamental right grounded in our nation's traditions and institutions. In his dissent, Justice Blackmun would like to take the right of privacy to a higher level of generality so that homosexual sodomy is protected. He chastises the Court for not truly

appreciating the constitutional right of privacy and how it applies to intimate personal decisions about one's own sexuality. He understands the right of privacy in previous decisions (e.g., *Griswold*, *Eisenstadt*, *Roe*) as grounded in the right to be let alone, which would make it unconstitutional to legally forbid consenting adults from engaging in sodomy in the privacy of their own homes. Ibid. at 199-214.

cvii. See *Casey*, 505 U.S. at 852: "Though abortion is conduct, it does not follow that the State is entitled to proscribe in all instances. That is because the liberty of the woman is at stake in a sense unique to the human condition and so unique to the law. The mother who carries a child to full term is subject to anxieties, to physical constraints, to pain that only she can bear.... Her suffering is too intimate and personal for the State to insist, without more, upon its own vision of the woman's role, however dominant that vision has been in the course of our history and our culture. The destiny of the woman must be shaped to a large extent on her own conception of her spiritual imperatives and her place in society."

cviii. *See Roe*, 410 U.S. at 153: "The detriment that the State would impose on the pregnant woman by denying this choice altogether is apparent. Specific and direct harm medically diagnosable even in early pregnancy may be involved. Maternity, or additional offspring, may force upon the woman a distressful life and future. Psychological harm may be imminent. Mental and physical health may be taxed by child care. There is also the distress, for all concerned, associated with the unwanted child, and there is the problem of bringing a child into a family already unable, psychologically and otherwise, to care for it. In other cases, as in this one, the additional difficulties and continuing stigma of unwed motherhood may be involved. All these are factors the woman and her responsible physician necessarily will consider in consultation."

cix. See *Casey*, 505 U.S. at 869: "From what we have said so far it follows that it is a constitutional liberty of the woman to have some freedom to terminate her pregnancy. We conclude that the basic decision in *Roe* was based on a constitutional analysis which we cannot now repudiate. The woman's liberty is not unlimited, however, that from the outset the State cannot show its concern for the life of the unborn, and at a later point in fetal development the State's interest in life has sufficient force so that the right of the woman to terminate the pregnancy can be restricted...the urgent claims of the woman to retain the ultimate control over her destiny and her body, claims implicit in the meaning of liberty, require us to perform that function."

cx. Ibid. at 851 (citations omitted).

cxi. *Compassion in Dying v. Washington*, 850 F. Supp. 1454, 1459-60 (W.D. Wash. 1994).

cxii. Ronald Dworkin, "When Is It Right to Die?" *N.Y. Times*, May 17, 1994, at A19.

cxiii. *Washington v. Glucksberg,* 521 U.S. 702, 727-28 (1997), citations omitted, first emphasis in original; second emphasis, in final sentence, added.

cxiv. Susan F. Appleton, however, argues that "a closer look at the majority's analysis [in *Glucksberg*]...raises questions about whether a constitutional right to abortion truly escapes unscathed." Susan F. Appleton, "Assisted Suicide and Reproductive Freedom: Exploring Some Connections," 76 *Wash. U. L.Q.* 15, 19 (1998). She draws this conclusion from the Court's two tests in its analysis of the claim that physician-assisted suicide is a Constitutional right: (1) Is the claimed right deeply rooted in our Nation's tradition and history? and (2) Can one provide a careful description of precisely what fundamental liberty interest is claimed, as substantive due-process cases require? Appleton argues that subjecting the abortion right to these two tests may make the right less stable because (1) if the Court were to argue that the relevant tradition and history for assessing the abortion right is the time in which the Fourteenth Amendment was adopted, this test becomes problematic for sustaining a right to abortion, even though the Court's historical case in Roe is more persuasive, according to Appleton, when one includes its presentation of ancient and common law attitudes toward abortion, and (2) if abortion is viewed as situated "in more expansive protection that includes bodily integrity, family autonomy, and freedom of conscience . . . that formulation would then fail the 'precision' test," even though it "offers considerable support from this country's history and tradition." Ibid. at 19, 20 (citations omitted).

cxv. See supra Part III.

cxvi. *Glucksberg*, 521 U.S. at 708-19, presenting a history of the prohibition of suicide and assisting suicide from common law until the mid-1990s.

cxvii. See supra Part II.

cxviii. Appleton comes to a similar conclusion: "No doubt, the two-part test announced in *Glucksberg* would create significant obstacles for an expansive constitutional right to reproductive choice that includes protection for access to assisted conception and other 'high-tech' procedures." Appleton, supra n117, at

20. Presumably, one such procedure could be cloning.

cxix. *Glucksberg*, 521 U.S. at 735.