The Reproductive Rights Reader

Law, Medicine, and the Construction of Motherhood

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Chapter 29

Is There a Right to Clone?

Constitutional Challenges to Bans on Human Cloning

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Perhaps in recognition of the surrealistic circumstances they should have spelled it D-A-L-I, instead of D-O-L-L-Y.

—Ray Suarez, Talk of the Nation

On December 5, 1997, Richard Seed shocked the scientific community by announcing that he intended to begin cloning human beings. Seed planned to use the techniques that Ian Wilmut and Keith Campbell had used to create Dolly the sheep, the first cloned mammal. Dolly resulted from a transfer of the nucleic DNA of an adult mammary tissue cell to the enucleated egg cell of an unrelated sheep, and gestation in a third, surrogate mother sheep.

Governments worldwide reacted strongly to the idea of human cloning. Nineteen European countries signed an accord banning cloning. President Clinton denounced Seed’s plan in a national radio address and renewed his efforts to get Congress to adopt a moratorium on human cloning. When Dolly’s birth was first announced in February 1997, President Clinton issued an executive order banning the use of federal funding for human cloning and asked his newly formed National Bioethics Advisory Commission (“NBAC”) to prepare a comprehensive report on the scientific, ethical, and legal issues raised by human cloning. When the NBAC report was released in July 1997, Harold T. Shapiro, NBAC Chair, indicated that further public discussion of this matter is important ...

The NBAC report recommended that Congress enact federal legislation banning the creation of a child through cloning—no matter what the source of funds—for three to five years, at which time the issue should be reconsidered. President Clinton forwarded a bill to Congress based on that recommendation. By April 1, 1998, seven other bills had been introduced in Congress and eighteen states were considering cloning laws.


*Editor’s note: At the time of this book’s publication, no federal law had been enacted by Congress, but President Clinton’s moratorium on federal funding was still in place.
Many medical organizations surveyed by the NBAC, including the American Medical Association, the World Medical Association, and the World Health Organization, find cloning human beings to be unacceptable. In fact, the majority of the thirty-two scientific societies surveyed opposed the procedure, although, notably, the infertility professional societies did not join in advocating a ban. Certain religious groups oppose the procedure as well. In reaction to the cloning of Dolly the sheep, the Vatican stated that a "person has the right to be born in a human way."  

I. The Goals and Potential Impacts of Cloning Research

A. What Is Cloning and Why Might It Be Desirable?

Mammalian "cloning" is the manipulation of a cell from an animal or human in such a way that it grows into a virtual copy of that animal or human with identical nucleic DNA. One way to think about it is that cloning is a way to create later-born twins of an individual who is living or has already lived. Unlike naturally occurring twins, however, the clone will not be one hundred percent genetically identical because it will have mitochondrial DNA from the donor of the enucleated egg. In the case of Dolly the sheep, an adult mammary cell containing a copy of every gene needed to make the lamb was extracted, then starved of its nutrients, forcing the cell into a quiescent state. This cell was then fused with an enucleated egg cell—one in which the nucleus has been extracted—and an electric current was run through the fused cell, activating it and causing it to begin to divide. These active cells were then implanted into a surrogate mother and carried to term.

Cloning may be an attractive means of creating a child to people in a variety of situations. If one or both members of a couple are infertile, cloning presents one viable reproductive option. If one member of the couple has a genetic disorder that the couple does not wish to pass on to a child, they could clone the unaffected member of the couple. If both husband and wife are carriers of a recessive genetic disease and are unwilling to run the twenty-five percent risk of bearing a child with the disorder, they may seek to clone one or the other of them. This may be the only way in which the couple will be willing to have a child that will carry on their genetic line.

Even people who could reproduce coitally may desire to clone for a variety of reasons. People may want to clone themselves, deceased or living loved ones, or individuals with favored traits. A wealthy childless individual may wish to clone himself or herself to have a genetic heir or to pass on control of a family business. Parents who are unable to have another child may want to clone their dying child.

People might wish to clone individuals with desired traits, such as Mother Teresa, Michael Jordan, or Michelle Pfeiffer. Less well-known individuals could also be cloned for specific traits, such as a high pain threshold or resistance to radiation. Those who can perform a particular job well, like soldiers or athletes, might also make good candidates. One biologist even suggested cloning legless men for the low gravitational field and cramped quarters of a space ship.
Clones could be created to donate non-essential organs like kidneys or bone marrow. John Fletcher, former bioethicist at the National Institutes of Health, argues, "[t]he reasons for opposing this are not easy to argue." Going further with this idea, John Robertson advocates cloning a "back up supply of embryos from which tissue or organs could be obtained if a tragedy befell a first child." Cloning also broadens the options available to non-traditional family units. Clone Rights United Front, a group of gay activists based in New York, demonstrated against the proposed New York legislation that would ban nuclear transplantation research and human cloning because they see human cloning as a significant breakthrough for same-sex reproduction.\textsuperscript{7} ... 

Ursula Goodenough, a cell biologist from Washington University, raised an additional application of cloning—reproduction without men. If females cloned themselves, men would be superfluous in reproduction, leading to a world where men may eventually be phased out entirely—the ultimate feminist utopia. Ann Northrop, a columnist for the New York gay newspaper, LGNY, says that cloning is enticing to lesbians because it offers them a means of reproduction and "has the potential of giving women complete control over reproduction." \textsuperscript{8} "This is sort of the final nail in men's coffins. ... Men are going to have a very hard time justifying their existence on this planet, I think. Maybe women may not let men reproduce."\textsuperscript{9}

B. The Potential Physical Risks in Cloning Humans

Many scientists, including Dolly's creators, are concerned that it would be premature to begin human cloning without first addressing the many safety concerns through animal research. ... [T]here are technical questions which can only be answered by continued animal research. Of 277 attempts in the sheep cloning experiment, only one—Dolly—survived.

 Reactivating the genes of a cell is risky. An adult cell which has already been differentiated contains a complete complement of genes, but only a small proportion are activated in order to do the specialized task of that cell. Activating the slumbering genes may reveal hidden mutations. Mutations are "a problem with every cell, and you don't even know where to check for them," according to Ralph Brinster of the University of Pennsylvania.\textsuperscript{10} ... Also, if all the genes in the adult DNA are not properly reactivated, there could be a problem for the clone at a later developmental stage. The high rate of laboratory deaths suggests that cloning may in fact damage the DNA of a cell, and scientists urge that Dolly should be closely monitored for abnormal genetic anomalies that did not kill her as a fetus but may have long-term harmful effects.

Furthermore, because scientists do not fully understand the cellular aging process, they do not know what "age" or "genetic clock" Dolly inherited. On a cellular level, when the report of her existence was published in \textit{Nature}, was she a normal seven month old lamb, or was she six years old (the age of the mammary donor cell)? There is speculation that Dolly's cells most likely are set to the genetic clock of the nucleus donor, and therefore are comparable to those of her six year old progenitor. One commentator stated that if the hypotheses of a cellular, self-regulating genetic clock were correct, clones would be cellularly programmed to have much shorter life spans than
the “original.” This could . . . lead people to view cloned animals and humans as short-lived, disposable copies. This concern for premature aging has lead Dr. Sherman Elias, geneticist and obstetrician at the Baylor College of Medicine, to call for further animal testing of nuclear transplantation as a safeguard to avoid subjecting human clones to premature aging and the potential harms associated with aged cells.11

The history of animal cloning from embryonic and fetal cells also suggests caution before cloning humans . . . When the Grenada Corporation in Texas began the cloning of cows from differentiated embryonic cells, some of the cloned calves were abnormally large. Some weighed up to one hundred and eighty pounds at birth, more than twice the normal seventy five pound birth weight of this breed. Also, some of these calves were born with diseases such as diabetes and enlarged hearts, and eighteen to twenty percent of these calves simply died after birth.

The gross deformities and early deaths among cloned animals raise concerns that initial trials in human nuclear transplantation will also meet with disastrous results. Dr. Wilmut is specifically concerned with the ethical issues raised by any such defective births. He responded to the announcement that Dr. Richard Seed intended to clone human beings within the next two years by stating: “Let me remind you that ¼ of the lambs born in our experiment died within days of birth. Seed is suggesting that a number of humans would be born but others would die because they didn’t properly develop. That is totally irresponsible.”12 . . . Many scientific groups are voluntarily observing a moratorium on human cloning because “the chance of abhorrent offspring is high.”

C. The Potential Psychological Impacts of Cloning

Concerns about the psychological impact of cloning focus on the parent/child relationship, the undermining of the clone’s autonomy and free will, and the later-born twin’s loss of ability to control private information.

The unique origins of a clone might create unreasonable expectations about her. When a clone is created from a dead child, the parents might expect the second child to be a replacement for the first. . . . But the clone will invariably be different. The parents will be older—even if just by a few years—than they were when rearing the first child. They will also have suffered an indelible grief, the death of their child, and thus may have a tendency to overprotect the clone. They may also narrow the experiences of the clone, exposing it only to the type of food, toys, or classes that the first child liked.

These two problems—the specter of difference, leading to disappointment, and the narrowing of experiences—are likely to haunt all cloning arrangements. Consider, for example, what might happen if a couple cloned a famous basketball player. If the clone breaks his knee at age ten, would his parents consider him a disappointment? Would he view himself as a failure?

Family relationships could also be altered by the fact that a cloned child may seem more like an object than a person, since he or she is “designed and manufactured as a
product, rather than welcomed as a gift."13 As the NBAC observed, "[s]omatic cell nuclear transfer cloning, some fear, offers the possibility of virtually complete control over one important aspect of a child’s development, his or her genome, and it is the completeness of this control ... [that] invokes images of manufacturing children according to specification."14 It might diminish the personhood of a clone if he were created to satisfy the vanity of the nucleic DNA donor or to meet the needs of a pre-existing individual, such as a child needing bone marrow. In attempting to cull out from the resulting child the favored traits of the loved one or celebrity who has been cloned, the social parents might limit the environmental stimuli to which the child is exposed.

"Arguably a person cloned from a departed loved one ... has less chance of being loved solely for his own intrinsic worth."15

Some scientists argue that these concerns are unfounded, because a clone will be invariably different from the original. The NBAC report observes that "the idea that one could make through somatic cell nuclear transfer a team of Michael Jordans, a physics department of Albert Einsteins, or an opera chorus of Pavarottis, is simply false."16

However, we are in an era of genetic determinism. James Watson, co-discoverer of deoxyribonucleic acid ("DNA") and the first director of the Human Genome Project, has stated, "[w]e used to think our fate was in our stars. Now we know, in large measure, our fate is in our genes."17 Harvard zoologist Edward O. Wilson asserts that the human brain is not tabula rasa later filled in by experience, but rather "an exposed negative waiting to be slipped into developer fluid."18

Whether or not genetics actually play such a large role in human development, parents may raise a clone as if they do. After all, regardless of their belief in genetic determinism, the only reason people want to clone (as opposed to adopting or using an egg or sperm donor in the case of infertility) is to assure that a child has a certain genetic make-up. It seems absurd to think that they would forget about that genetic make-up once the clone was born. We already limit parents’ genetic foreknowledge of their children because we believe it will improperly influence their rearing practices. Medical genetics groups often caution parents against having their children tested for late-onset genetic disorders, because a child who tested positive could “grow up in a world of limited horizons and may be psychologically harmed even if treatment is subsequently found for the disorder.”19

Cloning could undermine human dignity by threatening the replicant’s sense of self and autonomy. A vast body of developmental psychology research has demonstrated children’s need to have a sense of an independent self. This might be difficult for the clone of a parent or of a previous child who died.

Clones are very different from naturally-occurring twins. With twins:

[E]ach life begins ignorant of what [the genome’s determinative effects] will be, and so remains as free to choose a future as are individuals who do not have a twin. In this line of reasoning, ignorance of the effect of one’s genome on one’s future is necessary for the spontaneous, free, and authentic construction of a life and self.20
Another problem is that a clone cannot control disclosure of intimate personal information. ... An individual might be stigmatized or discriminated against based on foreknowledge of her genotype. If an individual were cloned and later died young of an inheritable disease, the clone might suffer from insurance or employment discrimination.

D. The Potential Societal Impacts of Cloning Humans

The prospect of cloning humans raises several serious concerns about its overall effect on society. Cloning may interfere with evolution, because it promotes genetic uniformity, thus increasing the danger that a disease might arise in the future to which clones would have no resistance. ... Genetic adaptation has allowed the human species to survive; producing genetically identical humans may therefore be threatening to the species. Further, although Dolly the sheep has gotten pregnant, the possibility that human clones would be sterile is another concern. Despite these overall risks, some commentators argue that if human cloning is restricted to very rare cases, then the evolution of the human species should not be stunted nor the human gene pool disturbed any more than the gene pool is currently affected by naturally occurring identical twins.

Cloning might also bring detrimental changes to the institution of the family. Boston College theologian Lisa Sowhill Cahill is concerned that cloning may lead to the commodification of human beings and their genes and to the manipulation of human genetics to achieve more socially desirable children. ... Other opponents envision a world where clones are “cannibalized for spare parts”—made solely for medical purposes and asked to donate their organs.

Cloning may also have negative impacts on broader legal concepts. [Francis] Pizzulli points out that “... cloning might have macroeffects upon society by eroding the concept of individuality which is at the core of our notions of privacy and autonomy.”

IV. Would a Ban on Cloning Infringe upon the Right to Make Reproductive Decisions?

A variety of personal desires may motivate people to utilize cloning. The NBAC report suggests it would be “understandable, or even, as some have argued desirable,” to create a child from one adult if both members of the couple have a lethal recessive gene; from a dying infant if his father is dead and the mother wants an offspring from her late husband; or from a terminally ill child to create a bone marrow donor. Some of the experts testifying before the NBAC also suggested that cloning should be appropriate in exceptional circumstances. Rabbi Dorff opined that it would be “legitimate from a moral and a Jewish point of view” to clone a second child to act as a bone marrow donor so long as the “parents” raise that second child as they would any other. Rabbi Tendler raised the scenario of a person who was the last in his genetic line and
whose family was wiped out in the Holocaust. "I would certainly clone him," said Tendler. In contrast, the Catholic viewpoint is that cloning "is entirely unsuitable for human procreation even for exceptional circumstances."

The right to make decisions about whether or not to bear children is constitutionally protected under the constitutional right to privacy and the constitutional right to liberty. The Supreme Court in 1992 reaffirmed the "recognized protection accorded to liberty relating to intimate relationships, the family, and decisions about whether or not to beget or bear a child." Early decisions protected a married couple's right to privacy to make procreative decisions, but later decisions focused on individuals' rights as well: "If the right of privacy means anything, it is the right of the individual, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child."

A federal district court has indicated that the right to make procreative decisions encompasses the right of an infertile couple to undergo medically-assisted reproduction, including in vitro fertilization and the use of a donated embryo. Lifchez v. Hartigan held that a ban on research on fetuses was unconstitutional not only because it was impermissibly vague, but also because it impermissibly infringed upon a woman's fundamental right to privacy. Although the Illinois statute banning embryo and fetal research at issue in the case permitted in vitro fertilization, it did not allow embryo donation, embryo freezing, or experimental prenatal diagnostic procedures. The court stated: "It takes no great leap of logic to see that within the cluster of constitutionally protected choices that includes the right to have access to contraceptives, there must be included within that cluster the right to submit to a medical procedure that may bring about, rather than prevent, pregnancy."

Using similar logic, some commentators argue that the Constitution also protects the right to create a child through cloning. As Pizzulli points out, "[i]n comparison with the parent who contributes half of the sexually reproduced child's genetic formula, the clonist is conferred with more than the requisite degree of biological parenthood, since he is the sole genetic parent." John Robertson argues that cloning is not qualitatively different from the practice of medically assisted reproduction and genetic selection that is currently occurring. Consequently, he argues that "cloning ... would appear to fall within the fundamental freedom of married couples, including infertile married couples to have biologically related offspring." Similarly, June Coleman argues that the right to make reproductive decisions includes the right to decide in what manner to reproduce. However, cloning is too qualitatively different from normal reproduction and from the types of assisted reproduction protected by the Lifchez case to simply assume the same Constitutional protections apply. Cloning is not a process of genetic mix, but of genetic duplication. In even the most high-tech reproductive technologies available, a mix of genes occurs to create an individual with a genotype that has never before existed on earth. Even in the case of twins, their futures are unknown and the distinction between the offspring and their parents is acknowledged. In the case of cloning, however, the genotype in question has already existed. Even though it is clear that a clone will develop into a person with different traits because of different social, environmental, and generational influences, there is strong speculation that the fact that he or
she has a genotype that already existed will affect how the resulting clone is treated by himself, his family, and social institutions.

Even if a fundamental constitutional right to clone were recognized, any legislation that would infringe unduly upon this right would be permissible if it were narrowly tailored to further a compelling state interest. As demonstrated by the discussion in Part I, the potential physical and psychological risks of cloning an entire individual are sufficiently compelling to justify banning the procedure. Further, the notion of replicating existing humans seems to fundamentally conflict with our legal system, which emphatically protects individuality and uniqueness.

Some commentators argue that the potential harm to the cloned child should not matter because the child would not have been born otherwise and thus cloning is beneficial to that child. But there are obviously some harms that are worse than non-existence, as courts recognize in wrongful life cases. If this were not the case, any amount of pain and suffering could be inflicted on a child, so long as the parents claimed they would not have given birth to him otherwise.

Similarly, it has been argued that, because the risk of physical harm of cloning is no different from risks with normal reproduction from certain genetic disorders, cloning should not be restricted any more than other forms of reproduction. This analogy is not apt, though. Parents might conceive a child who was unable to walk due to the genetic anomaly of spina bifida. But if they intervened with a child, by beating her, and caused the same result, the moral analysis would be much different. To the extent that cloning is a purposeful intervention that causes harm, it should be viewed differently from traditional reproduction.

The government could also assert a compelling interest in protecting against broader social harms. For example, the government could assert an interest in preserving evolution and thus forbid cloning because it could lessen diversity in society. The government may also assert an interest in diversity as a cultural good independent of its value for evolution.

Additionally, the creation of persons to be used as "spare parts" for transplantation would not only be socially repugnant, but might be violative of the clone's Thirteenth Amendment rights against involuntary servitude. The clone's right to bodily integrity and personal property are also violated by the notion of spare organ part banking.

Francis Pizzulli points out that a ban on cloning individuals might be constitutional if it were not based on a religious rationale but on "the valid secular purpose of safeguarding a normative view of human identity," resting upon the personal privacy and individual autonomy values of the Thirteenth and Fourteenth Amendments. "Implicit in the prohibition of clonal humans is the rationale that certain types of humans ought not to exist, either because they have inalienable rights to nonexistence or because their presence would erode important social values."

Some commentators argue that potential psychological and social harms from cloning are too speculative to provide the foundation for a governmental ban. Elsewhere, I have argued that speculative harms do not provide a sufficient reason to ban reproductive arrangements such as in vitro fertilization or surrogate motherhood.
But the risks of cloning go far beyond the potential psychological risks to the original whose expectations are not met by the clone, or the risks to the child of having an unusual family arrangement if the original was not one of his or her rearing parents.

The essential difference with cloning is the risk of hubris, of abuse of power. Cloning represents the potential for "[a]buses of the power to control another person's destiny—both psychological and physical—of an unprecedented order." As Pizzulli suggests, legal discussions of whether the replicant is the property of the cloned individual, the same person as the cloned individual, or a resource for organs all show how easily the replicant's own autonomy can be swept aside.

In that sense, maybe the best analogy is [sic] cloning is incest. Arguably, reproductive privacy and liberty are threatened as much by a ban on incest as by a ban on cloning. Arguably the harms are equally speculative. Yes, incest creates certain potential physical risks to the offspring, due to the potential for lethal recessive disorders. But no one seriously thinks that this physical risk is the reason we ban incest. A father and daughter could avoid [sic] that risk by contracepting or agreeing to have prenatal diagnosis and abort the affected fetuses. There might even be instances in which, because of their personalities, there is no psychological harm to either party. Yet we ban incest—despite the speculative nature of the harm—because it allows an exercise of excessive power of parents over children.

VI. Conclusion

In May of 1971, Dr. James Watson, the Nobel Prize winner for co-discovering the structure of DNA, authored the seminal article for The Atlantic called Moving Toward the Clonal Man. He explained how cloning could be done and he tried to alert ethicists and scientists that [sic] the realization that human cloning was "a matter far too important to be left solely in the hands of the scientific and medical communities." When President Clinton assigned the task of making recommendations about cloning to the National Bioethics Advisory Commission, he noted that "any discovery that touches upon human creation is not simply a matter of scientific inquiry, it is a matter of morality and spirituality as well." This article has addressed the potential barriers that may block federal and state attempts to prohibit human cloning such as constitutional challenges based on the Commerce Clause, scientists' right of inquiry, or individuals' or couples' privacy or liberty rights to make reproductive decisions. In each case, it has been shown that human cloning could permissibly be restricted based on compelling potential harms to the clone or to the society as a whole.

NOTES


3. CLONING HUMAN BEINGS, supra note 2.

4. Id. at 56.


7. See Anita Manning, “Pressing a ‘Right’ to Clone Humans, Some Gays Foresee Reproduction Option,” USA TODAY, Mar. 6, 1997, at 1D.

8. Id. (quoting Northrup).


13. CLONING HUMAN BEINGS, supra note 2, at 52 (citing Gilbert Meilaender, Testimony before the National Bioethics Advisory Commission, Mar. 13, 1997).

14. Id. at 69.


16. CLONING HUMAN BEINGS, supra note 2, at 33.


20. See CLONING HUMAN BEINGS, supra note 2, at 68 (citing HANS JONAS, PHILOSOPHICAL ESSAYS: FROM ANCIENT CREED TO TECHNOLOGICAL MAN (1974)).


23. CLONING HUMAN BEINGS, supra note 2, at 79.

24. See id. at 80.

25. Id. at 55 . . .


29. Id. at 1377 (citations omitted). The court also held that the statute was impermissibly vague because of its failure to define “experiment” or “therapeutic.” See id. at 1376.


31. See Robertson Statement, supra note 6. This seems to be a reversal of Robertson’s earlier position that cloning “may deviate too far from prevailing conception[s] of what is valuable about reproduction to count as a protected reproductive experience. At some point attempts to
control the entire genome of a new person pass beyond the central experiences of identity and meaning that make reproduction a valued experience.” John A. Robertson, CHILDREN OF CHOICE: FREEDOM AND THE NEW REPRODUCTIVE TECHNOLOGIES 169 (1994).

35. Pizzulli, supra note 15, at 583.
36. Id. at 493.
38. Pizzulli, supra note 15, at 492.
39. See id.
41. Transcript of Clinton Remarks on Cloning, supra note 1.