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# THE ETHICAL IMPLICATIONS OF HUMAN CLONING

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MICHAEL J. SANDEL

IN THIS ESSAY, I WILL CONSIDER the ethics of reproductive and therapeutic cloning. But I want also to advance a more general claim: that the cloning issue, and related debates about genetic engineering, will change the way philosophers think about their subject. Much of the debate about cloning and genetic engineering is conducted in the familiar language of autonomy, consent, and individual rights. Defenders of “liberal eugenics” argue that parents should be free to enhance the genetic traits of their children for the sake of improving their life prospects (Agar 1999; Buchanan et al. 2000; Dworkin 2000). Ronald Dworkin, for example argues that there is nothing wrong with the ambition “to make the lives of future generations of human beings longer and more full of talent and hence achievement.” In fact, he maintains, the principle of ethical individualism makes such efforts obligatory (Dworkin 2000, p. 452). Many opponents of cloning and genetic engineering also invoke the language of autonomy and rights. For example, Jurgen Habermas (2003) worries that even favorable genetic enhancements may impair the autonomy and individuality of children by pointing them toward particular life choices, hence violating their right to choose their life plans for themselves.

But talk of autonomy and rights does not address the deepest questions posed by cloning. In order to grapple with the ethical implications of cloning and genetic engineering, we need to confront questions largely lost from view in the

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modern world—questions about the moral status of nature and about the proper stance of human beings toward the given world. Since questions such as these verge on theology, or at least involve a certain view of the best way for human beings to live their lives, modern philosophers and political theorists tend to shrink from them. But our new powers of biotechnology make these questions unavoidable.

In the United States today, no federal law prohibits human cloning, either for purposes of reproduction or for purposes of biomedical research. This is not because most people favor reproductive cloning. To the contrary, public opinion and almost all elected officials oppose it. But there is strong disagreement about whether to permit cloning for biomedical research. And the opponents of cloning for biomedical research have so far been unwilling to support a separate ban on reproductive cloning, as Britain has enacted. Because of this stalemate, no federal ban on cloning has been enacted.

### THE ETHICS OF REPRODUCTIVE CLONING

I turn first to the ethics of reproductive cloning, and then to cloning for biomedical research. The case for banning human reproductive cloning is not difficult to make, at least for now. Most scientists agree that it is unsafe and likely to lead to serious abnormalities and birth defects. But suppose that, one day, producing a baby through cloning were no more risky than natural reproduction. Many believe—and I agree—that it would still be ethically objectionable. But it is not easy to say why.

The autonomy argument against cloning is not persuasive, for it wrongly implies that, absent a genetically designing parent, children can choose their physical characteristics for themselves. But none of us has a right to choose our genetic inheritance. The alternative to a cloned or genetically enhanced child is not an autonomous one, but a child at the mercy of the genetic lottery.

Some argue that cloning is wrong because it departs from natural, sexual procreation (Kass and Wilson 1998). But this objection also fails to reach the heart of the matter. What makes reproductive cloning morally troubling is that its primary purpose is to create children of a certain kind. In this respect, it is similar to other forms of genetic engineering by which parents seek to choose the traits of their children—sex, eye color, perhaps one day even their intellectual attributes, athletic prowess, and musical ability. Although a few eccentric narcissists might aspire to create genetic replicas of themselves, the real market for designer children lies elsewhere, in the desire of parents to produce children with genetic traits superior to their own.

The desire to control the genetic characteristics of one's offspring points to the heart of the ethical issue. The moral problem with reproductive cloning lies not in its asexual character, but in its assault on the understanding of children as gifts rather than possessions, or projects of our will, or vehicles for our happiness.

It might be replied that cloning and genetic engineering are in principle no different from other ways in which parents go to great lengths to produce children of a certain kind, or “designer children.” But rather than giving us reason to embrace cloning, this observation may give us reason to worry about existing practices of childrearing.

What is most troubling about human cloning and bioengineering is not that they represent a radical departure, but that they carry to full expression troubling tendencies already present in our culture, especially in the way we regard and treat children. We have already traveled some distance down the path of regarding children as vehicles for our own ambitions or fulfillment. Consider the chilling discrepancy in sex ratios in China, South Korea, and parts of India, where boys now outnumber girls by up to 30% (Eberstadt 2002). But think also of the enormous pressure parents put on children in the United States and many other Western societies to qualify for admission to the best schools—not only at the university level, but even, in Manhattan at least, at the preschool level. Sometimes, the drive to produce successful children begins even earlier. The Harvard college newspaper recently carried an advertisement from a couple seeking an egg donor. They did not want just any egg donor. The ad specified that the donor should be attractive, athletic, at least 5 feet, 10 inches tall, and with a college entrance exam score of 1400 or above. For an egg from a donor meeting these stringent qualifications, the couple was offering a payment of \$50,000 (Kolata 1999).

The notion that the project of mastery and choice is subject to certain limits is at odds with the spirit of contemporary liberalism. That is why many who are uneasy with human cloning try to cast their objections in the language of autonomy and rights, arguing that choosing the traits of one’s children, by cloning or otherwise, violates their rights. The European Assembly has maintained, for example, that human cloning is wrong because it is a violation of human rights. But the language of rights misses the point. The problem is not that parents usurp the autonomy of the child they design: it is not as if the child could otherwise choose her gender, height, and eye color for herself. The problem lies in the hubris of the designing parents, in their drive to master the mystery of birth. Even if this hubris does not make parents tyrants to their children, it disfigures the relation of parent and child. It deprives the parents of the humility and enlarged human sympathies that an openness to the unbidden “otherness” of our progeny can cultivate.

Like the autonomy objection, the argument that focuses on the asexual character of reproductive cloning misses the point. Understood simply as a departure from sexual procreation, cloning would not represent a serious threat. Sex will survive perfectly well on its own—without the help of federal legislation. By contrast, the sense of life as a gift we cannot summon or control is fragile and vulnerable. In the face of the Promethean drive to mastery that animates modern societies, an appreciation of the giftedness of life is in constant need of support.

**THE ETHICS OF CLONING FOR  
BIOMEDICAL RESEARCH**

I turn now to the ethics of cloning for biomedical research. It is here that the greatest disagreement prevails. The U.S. Senate is split between those who want to ban all cloning and those who want to ban reproductive cloning but not cloning for stem cell research and regenerative medicine. (For the American debate on cloning, see President's Council 2002.) As in the case of reproductive cloning, the concepts of autonomy and rights cannot by themselves resolve the moral question. In order to assess the moral permissibility of cloning for stem cell research, we need to determine the moral status of the early embryo. If the six-day, pre-implantation embryo (or blastocyst) is morally equivalent to a person, then it is wrong to extract stem cells from it, even for the sake of curing devastating diseases such as Parkinson's, Alzheimer's, or diabetes. If the embryo is a person, then not only should all therapeutic cloning be banned, so also should all embryonic stem cell research.

Before turning to the moral status of the embryo, I would like to consider one influential argument against cloning for biomedical research that stops short of opposing embryonic stem cell research as such. Some opponents of research cloning, troubled by the deliberate creation of embryos for research, support embryonic stem cell research, provided it uses "spare" embryos left over from fertility clinics (Sandel 2002). Since in vitro fertilization (IVF) clinics (at least in the United States) create many more fertilized eggs than are ultimately implanted, some argue that there is nothing wrong with using those spares for research: if excess embryos would be discarded anyway, why not use them (with donor consent) for potentially life-saving research?

This seems to be a sensible distinction. But on closer examination, it does not hold up. The distinction fails because it begs the question whether the "spare" embryos should be created in the first place. If it is immoral to create and sacrifice embryos for the sake of curing or treating devastating diseases, why isn't it also objectionable to create and discard spare IVF embryos in the course of treating infertility? Or, to look at the argument from the opposite end, if the creation and sacrifice of embryos in IVF is morally acceptable, why isn't the creation and sacrifice of embryos for stem cell research also acceptable? After all, both practices serve worthy ends, and curing diseases such as Parkinson's, is at least as important as enabling infertile couples to have genetically related children.

Of course, bioethics is not only about ends, but also about means. Those who oppose creating embryos for research argue that doing so is exploitative and fails to accord embryos the respect they are due. But the same argument could be made against fertility treatments that create excess embryos bound for destruction. In fact, a recent study found that some 400,000 frozen embryos are languishing in American fertility clinics, with another 52,000 in the United Kingdom and 71,000 in Australia (Wade 2003).

If my argument is correct, it shows only that stem cell research on IVF spares

and on embryos created for research (whether natural or cloned) are morally on a par. This conclusion can be accepted by people who hold very different views about the moral status of the embryo. If cloning for stem cell research violates the respect the embryo is due, then so does stem cell research on IVF spares, and so does any version of IVF that creates and discards excess embryos. If, morally speaking, these practices stand or fall together, it remains to ask whether they stand or fall. And that depends on the moral status of the embryo.

### THE MORAL STATUS OF THE EMBRYO

There are three possible ways of conceiving the moral status of the embryo: as a thing, as a person, or as something in between. To regard an embryo as a mere thing, open to any use we may desire or devise, is, it seems to me, to miss its significance as nascent human life. One need not regard an embryo as a full human person in order to believe that it is due a certain respect. Personhood is not the only warrant for respect: we consider it a failure of respect when a thoughtless hiker carves his initials in an ancient sequoia, not because we regard the sequoia as a person, but because we consider it a natural wonder worthy of appreciation and awe—modes of regard inconsistent with treating it as a billboard or defacing it for the sake of petty vanity. To respect the old growth forest does not mean that no tree may ever be felled or harvested for human purposes. Respecting the forest may be consistent with using it. But the purposes should be weighty and appropriate to the wondrous nature of the thing.

One way to oppose a degrading, objectifying stance toward nascent human life is to attribute full personhood to the embryo. I will call this the “equal moral status” view. One way of assessing this view is to play out its full implications, in order to assess their plausibility. Consider the following hypothetical: a fire breaks out in a fertility clinic, and you have time to save either a five-year-old girl or a tray of 10 embryos. Would it be wrong to save the girl?<sup>1</sup>

A further implication of the equal moral status view is that harvesting stem cells from a six-day-old blastocyst is as morally abhorrent as harvesting organs from a baby. But is it? If so, the penalty provided in the proposed U.S. anti-cloning legislation—a \$1 million fine and 10 years in prison—is woefully inadequate. If embryonic stem cell research is morally equivalent to yanking organs from babies, it should be treated as a grisly form of murder, and the scientist who performs it should face life imprisonment or the death penalty.

A further source of difficulty for the equal moral status view lies in the fact that, in natural pregnancies, at least half of all embryos either fail to implant or are otherwise lost. It might be replied that a high rate of infant mortality does not justify infanticide. But the way we respond to the natural loss of embryos or even early miscarriages suggests that we do not regard these events as the moral

<sup>1</sup>I am indebted to George Annas for this hypothetical (see Annas 1989).

or religious equivalent of infant mortality. Otherwise, wouldn't we carry out the same burial rituals for the loss of an embryo that we observe for the death of a child?

The conviction that the embryo is a person derives support not only from certain religious doctrines but also from the Kantian assumption that the moral universe is divided in binary terms: everything is either a person, worthy of respect, or a thing, open to use. But this dualism is overdrawn.

The way to combat the instrumentalizing impulse of modern technology and commerce is not to insist on an all-or-nothing ethic of respect for persons that consigns the rest of life to a utilitarian calculus. Such an ethic risks turning every moral question into a battle over the bounds of personhood. We would do better to cultivate a more expansive appreciation of life as a gift that commands our reverence and restricts our use. Human cloning to create designer babies is the ultimate expression of the hubris that marks the loss of reverence for life as a gift. But stem cell research to cure debilitating disease, using six-day-old blastocysts, cloned or uncloned, is a noble exercise of our human ingenuity to promote healing and to play our part in repairing the given world.

Those who warn of slippery slopes, embryo farms, and the commodification of ova and zygotes are right to worry but wrong to assume that cloning for biomedical research necessarily opens us to these dangers. Rather than ban stem cell cloning and other forms of embryo research, we should allow it to proceed subject to regulations that embody the moral restraint appropriate to the mystery of the first stirrings of human life. Such regulations should include licensing requirements for embryo research projects and fertility clinics, restrictions on the commodification of eggs and sperm, and measures to prevent proprietary interests from monopolizing access to stem cell lines. This approach, it seems to me, offers the best hope of avoiding the wanton use of nascent human life and making these biomedical advances a blessing for health rather than an episode in the erosion of our human sensibilities.

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