



A human embryo in the blastocyst stage of development. Opponents of embryonic stem cell research argue that it is unethical because extracting stem cells destroys the blastocyst, which they believe is morally equivalent to a person. (Getty Photo)

Embryo ethics

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As the debate over stem cell research resumes in Washington this week, the moral principle on which the White House bases its position remains largely unexamined

By Michael J. Sandel | April 8, 2007

As the Senate prepares to take up stem cell legislation this week, Congress and the president are at odds over a tangled question at the boundary of science, ethics, and religion. President Bush has restricted federal funding of embryonic stem cell research, and last year cast the first veto of his presidency when Congress tried to ease the restriction. With majorities in both houses of Congress ready to try again, the president has threatened another veto.

The main arguments are by now familiar. Proponents argue that embryonic stem cell research holds great promise for understanding and curing diabetes, Parkinson's disease, spinal cord injury, and other debilitating conditions. Opponents argue that the research is unethical, because deriving the stem cells destroys the blastocyst, an unimplanted human embryo at the sixth to eighth day of development. As Bush declared when he vetoed last year's stem cell bill, the federal government should not support "the taking of innocent human life."

It is surprising that, despite the extensive public debate -- in Congress, during the 2004 and 2006

election campaigns, and on the Sunday morning talk shows -- relatively little attention has been paid to the moral issue at the heart of the controversy: Are the opponents of stem cell research correct in their claim that the unimplanted human embryo is already a human being, morally equivalent to a person?

Perhaps this claim has gone unaddressed because stem cell proponents and many in the media consider it obviously false, a faith-based belief that no rational argument could possibly dislodge. If so, they are making a mistake.

The fact that a moral belief may be rooted in religious conviction neither exempts it from challenge nor puts it beyond the realm of public debate. Ignoring the claim that the blastocyst is a person fails to respect those who oppose embryonic stem cell research on principled moral grounds. It has also led the media to miss glaring contradictions in Bush's stem cell policy, which does not actually live up to the principle it invokes -- that destroying an embryo is like killing a child.

It is important to be clear, first of all, about the embryo from which stem cells are extracted. It is not implanted and growing in a woman's uterus. It is not a fetus. It has no recognizable human features or form. It is, rather, a blastocyst, a cluster of 180 to 200 cells, growing in a petri dish, barely visible to the naked eye. Such blastocysts are either cloned in the lab or created in fertility clinics. The bill pending in Congress would fund stem cell research only on excess blastocysts left over from infertility treatments.

The blastocyst represents such an early stage of embryonic development that the cells it contains have not yet differentiated, or taken on the properties of particular organs or tissues -- kidneys, muscles, spinal cord, and so on. This is why the stem cells that are extracted from the blastocyst hold the promise of developing, with proper coaxing in the lab, into any kind of cell the researcher wants to study or repair.

The moral and political controversy arises from the fact that extracting the stem cells destroys the blastocyst. It is important to grasp the full force of the claim that the embryo is morally equivalent to a person, a fully developed human being. For those who hold this view, extracting stem cells from a blastocyst is as morally abhorrent as harvesting organs from a baby to save other people's lives. This is the position of Senator Sam Brownback, Republican of Kansas, a leading advocate of the right-to-life position. In Brownback's view, "a human embryo . . . is a human being just like you and me; and it deserves the same respect that our laws give to us all."

If Brownback is right, then embryonic stem cell research is immoral because it amounts to killing a person to treat other people's diseases. But is he right? Is there good reason to believe that the blastocyst is a person?

Some base this belief on the religious conviction that the soul enters the body at the moment of conception. Others defend it without recourse to religion, by the following line of reasoning:

Human beings are not things. Their lives must not be sacrificed against their will, even for the sake of good ends, like saving other people's lives. The reason human beings must not be treated as things is that they are inviolable. At what point do we acquire this inviolability? The answer cannot depend on the age or developmental stage of a particular human life. Infants are inviolable, and few people would countenance harvesting organs for transplantation even from a fetus. Every human being -- each one of us -- began life as an embryo. Unless we can point to a definitive moment in the passage from

conception to birth that marks the emergence of the human person, we must regard embryos as possessing the same inviolability as fully developed human beings.

This argument can be challenged on a number of grounds. First, it is undeniable that a human embryo is "human life" in the biological sense that it is living rather than dead, and human rather than, say, bovine. But this biological fact does not establish that the blastocyst is a human being, or a person. Any living human cell (a skin cell, for example) is "human life" in the sense of being human rather than bovine and living rather than dead. But no one would consider a skin cell a person, or deem it inviolable. Showing that a blastocyst is a human being, or a person, requires further argument.

Some try to base such an argument on the fact that human beings develop from embryo to fetus to child. Every person was once an embryo, the argument goes, and there is no clear, non-arbitrary line between conception and adulthood that can tell us when personhood begins. Given the lack of such a line, we should regard the blastocyst as a person, as morally equivalent to a fully developed human being.

But this argument is not persuasive. Consider an analogy: although every oak tree was once an acorn, it does not follow that acorns are oak trees, or that I should treat the loss of an acorn eaten by a squirrel in my front yard as the same kind of loss as the death of an oak tree felled by a storm. Despite their developmental continuity, acorns and oak trees differ. So do human embryos and human beings, and in the same way. Just as acorns are potential oaks, human embryos are potential human beings.

The distinction between a potential person and an actual one makes a moral difference. Sentient creatures make claims on us that nonsentient ones do not; beings capable of experience and consciousness make higher claims still. Human life develops by degrees.

A further reason to be skeptical of the notion that blastocysts are persons is to notice that many who invoke it do not embrace its full implications. President Bush is a case in point. In 2001, he announced a policy that restricted federal funding to already existing stem cell lines, so that no taxpayer funds would encourage or support the destruction of embryos. And in 2006, he vetoed a bill that would have funded new embryonic stem cell research, saying that he did not want to support "the taking of innocent human life."

But it is a striking feature of the president's position that, while restricting the funding of embryonic stem cell research, he has made no effort to ban it. To adapt a slogan from the Clinton administration, the Bush policy might be summarized as "don't fund, don't ban." But this policy is at odds with the notion that embryos are human beings.

If harvesting stem cells from a blastocyst were truly on a par with harvesting organs from a baby, then the morally responsible policy would be to ban it, not merely deny it federal funding. If some doctors made a practice of killing children to get organs for transplantation, no one would take the position that the infanticide should be ineligible for federal funding but allowed to continue in the private sector. In fact, if we were persuaded that embryonic stem cell research were tantamount to infanticide, we would not only ban it but treat it as a grisly form of murder and subject scientists who performed it to criminal punishment.

It might be argued, in defense of the president's policy, that Congress would be unlikely to enact an

outright ban on embryonic stem cell research. But this does not explain why, if the president really considers embryos to be human beings, he has not at least called for such a ban, nor even called upon scientists to stop doing stem cell research that involves the destruction of embryos. In fact, Bush has cited the fact that "there is no ban on embryonic stem cell research" in touting the virtues of his "balanced approach."

The moral oddness of the Bush "don't fund, don't ban" position confused even his spokesman, Tony Snow. Last year, Snow told the White House press corps that the president vetoed the stem cell bill because he considered embryonic stem cell research to be "murder," something the federal government should not support. When the comment drew a flurry of critical press attention, the White House retreated. No, the president did not believe that destroying an embryo was murder. The press secretary retracted his statement, and apologized for having "overstated the president's position."

How exactly the spokesman had overstated the president's position is unclear. If embryonic stem cell research does constitute the deliberate taking of innocent human life, it is hard to see how it differs from murder. The chastened press secretary made no attempt to parse the distinction. His errant statement that the president considered embryo destruction to be "murder" simply followed the moral logic of the notion that embryos are human beings. It was a gaffe only because the Bush policy does not follow that logic.

The president's refusal to ban privately-funded embryonic stem cell research is not the only way in which his policies betray the principle that embryos are persons. In the course of treating infertility, American fertility clinics routinely discard thousands of human embryos. The bill now before the Senate would fund stem cell research only on these excess embryos, which are already bound for destruction. (This is also the position taken by former governor Mitt Romney, who supports stem cell research on embryos left over from fertility clinics.) Although Bush would ban the use of such embryos in federally funded research, he has not called for legislation to ban the creation and destruction of embryos by fertility clinics.

But if embryos are human beings, to allow fertility clinics to discard them is to countenance, in effect, the widespread creation and destruction of surplus children. Those who believe that a blastocyst is morally equivalent to a baby must believe that the 400,000 excess embryos languishing in freezers in US fertility clinics are like newborns left to die by exposure on a mountainside. But those who view embryos in this way should not only be opposing embryonic stem cell research; they should also be leading a campaign to shut down what they must regard as rampant infanticide in fertility clinics.

Some principled right-to-life opponents of stem cell research meet this test of moral consistency. Bush's "don't fund, don't ban" policy does not. Those who fail to take seriously the belief that embryos are persons miss this point. Rather than simply complain that the president's stem cell policy allows religion to trump science, critics should ask why the president does not pursue the full implications of the principle he invokes.

If he does not want to ban embryonic stem cell research, or prosecute stem cell scientists for murder, or ban fertility clinics from creating and discarding excess embryos, this must mean that he does not really consider human embryos as morally equivalent to fully developed human beings after all.

But if he doesn't believe that embryos are persons, then why ban federally funded embryonic stem cell research that holds promise for curing diseases and saving lives?

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