

Embryos and Stem-Cell Research

Americans are in a quandary about stem cell research. On the one hand, the research promises valuable medical help for people with various debilitating diseases; on the other hand, it destroys pre-implantation embryos in pursuit of the hoped-for medical advances. So, it behooves us to consider what kind of beings pre-implantation embryos are.

Are embryos persons? Many today think that biology tells the whole story about what we most fundamentally are. Biologically, human persons are continuous with the rest of the animal kingdom; but, on my view, there is an ontological difference—a difference in kind—between human persons and the (other) Great Apes.

Although I agree with the biological view that human persons have animal natures, I also hold that a person's nature is not exhausted by its biological aspects. On my view, a human person is not identical to a human organism; nor is a human person a combination of a human organism and an immaterial mind or soul. Rather, a human person is constituted by a human organism—just as a marble statue is constituted by a piece of marble.

Persons and organisms (like statues and pieces of marble) have different identity conditions. The identity of an organism requires biological continuity; the identity of a person requires a first-person perspective. Persons have first-person perspectives essentially. Organisms, by contrast, can exist without first-person perspectives. When an organism develops a rudimentary first-person perspective, a new being—a person—comes into existence. So, human organisms come into existence months before they come to constitute persons. Since no human embryo is (or constitutes) a human person, the destruction of a human embryo is not destruction of a human person.

Are embryos human organisms? Logic provides a reason to deny that a multi-celled pre-implantation embryo is a human organism. In the first couple of weeks after fertilization, it is possible for a human embryo to “twin.” As long as it is possible for an

embryo to twin (whether it actually does so or not), an embryo is not *a* human individual, but only a cell cluster. This is so, because it is logically impossible for an organism (or any individual) to be identical to two.

To see this, suppose that an embryo (a cell cluster) divides and twins result. Call the embryo 'A', and one of the twins 'B' and the other twin 'C'. Since both B and C stand in exactly the same relation to A, it would be arbitrary to suppose that A was identical to one but not to the other. However, if A were identical to both B and C, then—by the transitivity of identity—B and C would be identical to each other. But B is clearly not identical to C. Therefore, A (the original embryo) cannot be identical to B or C. A human organism cannot come into existence until there is no further possibility of twinning—a week or two after fertilization. A frozen embryo that is still capable of twinning is demonstrably *not* a human organism.

So, embryos used in stem-cell research are not human persons, nor even human organisms. In making a case for cloning embryos for the purpose of biomedical research, Michael Gazzaniga, a neuroscientist who served on President Bush's Bioethics Council, points out, "After natural sexual intercourse, an estimated 60 to 80 percent of all embryos generated through the union of egg and sperm spontaneously abort—many without our knowledge. So," he continues, "if we use IVF [in vitro fertilization] to create embryos and then implant only a select few, aren't we doing what nature does?"

There are good reasons to be cautious about stem-cell and other biomedical research, but I do not think that stem-cell research should be curtailed because of destruction of pre-implantation embryos.