

Overcoming the Imaginative Barrier to Embryonic Personhood

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Abstract: Modern science tells us of the identity of each individual human being from conception to adulthood, but our imagination does not fully cooperate. It is difficult to look at a photograph of a zygote and see a fellow human being. There are, however, two strong ways to better align our knowledge and our intuition. One is to look backward in the developmental process. It is easy to grasp that our fellow human beings all used to be zygotes. A second method is now becoming available. DNA can be used to reveal the future face and even the eyes of each zygote. With these aids, our imagination can draw closer to our knowledge, making the pro-life case more convincing.

OUR IMMEDIATE INTUITIONS sometimes favor the pro-life position and sometimes oppose it. An ultrasound video of an unborn child sucking its thumb makes a case against abortion that reason hardly need supplement. But a zygote photographed just after an *in vitro* conception is not so easily recognizable as a human being or person.

Pro-lifers often assume that this difficulty has been overcome by modern science, starting with the first clear evidence of ovular fertilization in the 1830s and leading today to the universally-accepted scientific view that the life of a human being is a continuum from conception to death. The Aristotelian notion that the embryo is only a building block – to be formed into a human being by the father’s semen during the earliest months of gestation and by the insertion of a rational soul somewhere in mid-pregnancy¹ – has been displaced by a recognition that the *conceptus* is a self-developing being with a continuity of human and individual identity from its first beginning to adulthood and beyond.¹

¹ For an elaboration of the construction-based concept of gestation, see my “Construction vs. Development: Polarizing Models of Human Gestation,” *Kennedy Institute of Ethics Journal* 24/4 (2014): 345–84.

Scientific knowledge that each of our lives began with conception, however, is not enough to convince many people that an embryo is already one of us. Listen to journalist Michael Kinsley, writing in *The Washington Post* in favor of embryonic stem cell research, express his utter bewilderment at opposition to such research: “I cannot share, or even fathom, [the anti-research] conviction that a microscopic dot – as oblivious as a rock, more primitive than a worm – has the same rights as anyone reading this article.... Moral sincerity is not impressive if it depends on willful ignorance and indifference to logic.”²

Of course, Kinsley’s intuition that an embryo is “as oblivious as a rock” depends on his own obliviousness to what he simultaneously must know about the embryo’s inner directedness and connection to its environment. Jon Shields has put this point quite well:

[To say that] embryos are merely “clumps of cells”...tends to obscure scientific truth itself. This characterization suggests that an embryo is not *biologically* different than what we might find under our fingernails if we were to gouge a bit of skin from under our arms. It is to imply erroneously that they lack coherence, integrity, and self-direction as organisms.³

Shall we therefore conclude that Kinsley and other defenders of embryo research and early abortion – or at least those with a minimal scientific education – must be acting in bad faith? Are they claiming that individual human identity is lacking in the embryo only because they do not wish to be seen to be attacking widely shared principles that affirm the dignity, equality, or inviolability of all human beings? Such an explanation is too simple. It is belied by the utter bewilderment that Kinsley expects to resonate with his readers. Indeed, the accusation of bad faith ignores the imaginative barrier that many or all of us have in recognizing the embryo already to be something that it still in no way appears to be, i.e., a human person.

When a human embryo is visualized simply in terms of its current

² Michael Kinsley, “False Dilemma on Stem Cells,” *The Washington Post* (July 7, 2006), available at <http://www.washingtonpost.com/wpdyn/content/article/2006/07/06/AR2006070601554>.

³ Jon Shields, “The Stem Cell Fight,” *Social Science and Modern Society* 44 (2007): 18–21 at 19.

appearance, its ongoing self-development can easily be missed. No photograph can depict the inner self-direction of a growing embryo. The embryo looks like nothing more than an inert ball of cells, for its future is hidden. Because an entity that had merely embryonic characteristics as its natural end-state would indeed not qualify as a human being, it makes quite a bit of sense to suppose that the entity in such a photograph is not human. Scientific knowledge of its inner capability may not be enough to overcome this impression, for it is hard to imagine a nature or design utterly hidden from view.

There is a still greater difficulty. Whatever intuitive problems we may have with imagining biological metamorphosis, with seeing continuity of identity despite seemingly substantial future change in form, with recognizing a caterpillar to be a developing butterfly, it seems nigh to impossible to think of a caterpillar as a *particular* or *individual* butterfly in the process of development. But this is how embryos have to be imagined by us if we are fully to understand their human development. We normally think of other creatures generically, as just a certain type of insect, for example, but we think of humans as specific individuals, albeit ones whose individuality may happen to be unknown to us. Because the embryo in the photo cannot (except arbitrarily) be ascribed any particular characteristics, it cannot easily be thought of as a developing individual. The scientific fact that “this embryo can grow up to be an adult human being” is too abstract. We have all seen plain butterflies, but none of us has ever seen a plain (i.e., non-individuated) adult human.

Hence, pro-lifers who are honest with themselves must admit that there exist limits to our ontological imagination that are a great barrier to the achievement of full respect for human life,⁴ especially very early in pregnancy when the unborn child does not yet look much like the rest of us. There are, however, ways to push back these limits and expand our imaginative understanding.

Although we may have considerable difficulty in recognizing *future*

⁴ For an elaboration of the concept of “respecting” as opposed to that of “valuing,” see my “The Priority of Respect: How Our Common Humanity Can Ground Our Individual Dignity,” *International Philosophy Quarterly* 44 (2004): 165–84.

continuity of being, we have little or no difficulty in seeing identity-despite-change when looking back into the *past*. We may doubt that a new sprout, or even a barren vine, is really a tomato plant, but once it bears tomatoes, we know that it was always a tomato plant. We may doubt that embryos are persons, but as we look back upon ourselves or upon our neighbors, we realize that we and they were all once embryos. An embryo in a photograph may at first seem no more than a grain of sand, but if that embryo snapshot was taken twenty years ago, just after our friend Mary was conceived *in vitro*, we may well exclaim to her, “Look, Mary. That’s you!”

Thinkers on each side of the debates about early human life have agreed that the identity – and any accompanying dignity – of life over time becomes much more compelling when we look back into the past. Philosopher Jeffrey Reiman, a defender of abortion, acknowledges ruefully that

we tend to read a kind of personal identity backwards into fetuses, and personal identity carries connotations of moral identity beyond mere physical identity.... Just because it is so natural to us to think that way, I believe that this “retroactive empowerment” is the single greatest source of confusion in the abortion debate.⁵

Abortion opponent Oliver O’Donovan makes the same point when he writes, “[T]hose...yet unborn become *known* to us as persons when they are children....”⁶ We come to know embryos as persons when we come to know the child-persons who first came into existence as embryos.

Opponents of embryonic stem-cell research (and early abortion) have often pressed the continuity of identity that is more visible in hindsight. The U.S. Conference of Catholic Bishops a few years ago made widely available an ad with a picture of a newborn baby and the caption “270 days ago, Joshua was just an embryo.” The text went on to

⁵ Jeffrey Reiman, *Abortion and the Ways We Value Human Life* (Lanham MD: Rowman & Littlefield, 1999), p. 92.

⁶ Oliver O’Donovan, “Again, Who Is a Person?” in *On Moral Medicine*, ed. Stephen E. Lammers and Allen Verhey, (Grand Rapids MI: Eerdmans, 1998), pp. 380-86 at p. 384 (emphasis in original).

emphasize that “embryonic stem cells...come with a heavy price tag: they are only obtained by destroying a living human embryo. An embryo like Joshua, 270 days ago.” In 2010, Irish opponents of embryo research put up billboards with photos of many stages of life, from embryonic to elderly, and the words “YOU. ME. EVERYBODY. WE’RE ALL JUST GROWN-UP EMBRYOS” (capitalization in original).

Such arguments by the opponents of embryo-destructive research are fundamentally cognitive, not emotional. They are attempts to wrap our minds more fully around human development as known to modern science, attempts to overcome our difficulty in imagining that a very tiny organism can, with time, manifest itself as a mature human being. They work (insofar as they do work) by first looking backward from fully developed human beings, where the continuity of identity is personal and easy to see, and then very quickly looking forward from undeveloped embryos and thinking about how they are likewise on a trajectory toward showing themselves to be the kind of people we know and love. That initial backward-looking intuition is not only compatible with but actually depends upon modern scientific knowledge. It is only because of this knowledge that we can point to an old photo of an embryo and say “That was you, Mary, when you were newly conceived.” Someone who still believed with Aristotle that Mary first came into existence in mid-pregnancy when a rational soul entered into a previously constructed subhuman fetus would not, *could not*, point to the embryo in the photo and say “That was you, Mary.”

If we could somehow visualize facets of a still undeveloped embryo’s human future, our forward-looking intuition might, all by itself, come to approximate our backward-looking intuition. Consider this hypothetical example. Suppose that someone is on a trip with her spouse in Chiapas, Mexico, and she snaps a picture with their old-fashioned Polaroid camera. (As may be recalled, within minutes after each Polaroid snapshot, the finished print would develop in an envelope. After opening the envelope, the print could then be directly examined and passed around.) Now, suppose further that the picture that she took is of something reasonably believed to be unique and valuable, as we say each individual human being is unique and valuable. Let us say that it was a photo of a jaguar darting out of the jungle for only a second or

two, something not likely to happen again on their trip. But her husband in his eagerness grabs the envelope out of their camera and rips it open too quickly, thus permanently stopping the photo's development at a very early stage. Since her jaguar picture is now forever gone (old Polaroids not retaining any negative or other copy), she is naturally very upset with him. Would this be a good defense for him to use? "Look, honey, I didn't really do much harm anyway. Your picture was still at the brown smudge stage when I wrecked it. You surely don't care much about brown smudges, do you?"

Not only would this argument be unacceptable to her. She would not even understand it. Her spouse would appear to be talking gibberish. She thought that she had a photo of a jaguar, not a brown smudge. The chemicals present just needed time to re-arrange themselves to become a picture manifest to a viewer. So it is that a known future can make the continuity of identity fully intuitively evident.

Philosopher Kwame Anthony Appiah has taken a giant step toward imagining just such an actual, individual future for the unborn in writing that Americans debating abortion might consider that "those dead fetuses could have been...their children's friends."⁷ The capacity to be a friend is a universal trait of human beings and yet also a personalizing one, for every friend is a unique individual. To say that an embryo could be a friend is thus to envision it as a human individual, even though nothing individual is yet known about him or her.

If we could analyze an embryo's genetic structure and conclude that "this embryo will grow up to be a petite Asian woman with considerable artistic talent," the continuity of human identity might become yet more intuitive. Still more powerfully: If a computer (despite any uncertainties of epigenesis) could someday read off visual images from her DNA and show us her likeness – even her very face – as a newborn infant, a little girl, a teenager, or an adult, opinions opposed to violence against embryonic human beings could more easily emerge. Emmanuel Levinas has suggested that it is precisely the face of the Other that calls us to

⁷ Kwame Anthony Appiah, *Cosmopolitanism: Ethics in a World of Strangers* (New York NY: W. W. Norton & Co, 2006), p. 82.

obligation,⁸ and neuro-behavioral studies of young children have lent support to his observations. Real-time ultrasound images of fetal faces have already brought about more respect for prenatal life. How much greater might be the effect of faces with open eyes. Could we easily “look an embryo in the eyes” and decide to annihilate her?

The technological possibility of such images appears to be upon us. A story entitled “Building a Face and a Case on DNA” was the lead in the *Science Times* section of *The New York Times* for February 24, 2015. Forensic investigators are already using “DNA phenotyping” as a supplement to artists’ sketches in developing visual profiles of suspects, especially where no one has witnessed a crime but traces of unexpected DNA have been left behind. Such a use of DNA makes sense in that (as the *Times* points out) identical twins look very much alike, and people often resemble their close relatives, bespeaking a strong genetic influence on the human face. The story contains examples of computer-generated faces paired with their actual counterparts, and the resemblance is striking though not yet perfect. Researchers Mark Shriver and Peter Claes are said to be seeking to improve the match by adding ever more genetic variables.

If adult DNA can lead to a sketch of that person’s face, surely gestational DNA (obtained in a non-injurious way – from maternal blood, for example) could likewise be used to sketch the future face of an unborn child, for the content of the DNA in our cells changes little or not at all during our lifetimes.

We may on the brink of a technological advance on the order of ultrasound, one that may further overcome the imaginative barrier that keeps us from recognizing human persons in their earliest embryonic stages.⁹

⁸ Emmanuel Levinas, *Totality and Infinity: An Essay on Exteriority*, translated by Alphonso Lingis (Pittsburgh PA: Duquesne Univ. Press, 1969).

⁹ A shortened version of this article was published as “Facing the Unborn,” *First Things* (August-September 2015), pp. 17-19.