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A NOTE ON METAPHYSICS AND EMBRYOLOGY

To the Editor:

In a recent article published in this journal, Carson Strong has raised interesting objections to some arguments I have offered either on my own or jointly with Robert P. George in defense of the claim that human beings should be protected from the inception of their lives onwards.¹ I cannot offer here a detailed examination of every claim Carson Strong makes nor can I pretend to represent Robert George, who in these matters is doubtless “*il melior fabro*,” but I would like, however, to point to some basic metaphysical assumptions made by Professor Strong that, in my view, are wrong and hence undermine the essentials of his criticisms.

The line of defense of human inviolability at the early stages of life that I find most reasonable starts from the common sense conviction that children are conceived, that they are born, and that they grow to be the adults they are today. If an attempt is made to formulate this common sense view in philosophical terms, we cannot dispense with the metaphysical notion of identity through time (my eldest daughter is now *the same child* that was conceived in 1963 and was born in 1964, i.e., she did not become something else in midstream) and of potentiality (my little daughter was potentially an adult and now she is actually an adult).

When doubts about identity through time arise, philosophers propose criteria for identity, that is, they fix attention on some feature of a thing that allows us to decide whether a given object at time t_1 is the same object later confronted at time t_2 . Likewise, when the need arises to explain how something became an F, philosophers introduce the notion of potentiality. Some things *cannot*, whereas some things *can*, become F. There is something the former lack and the latter possess: the capacity or potentiality to become F. Without potentiality, the world would be either completely static or a succession of unconnected episodes.²

In my opinion, Professor Strong makes mistaken assumptions both about identity and about potentiality when attacking the claims that we are identical to the embryo each one of us once was, and that we have now actualized the potentialities we already possessed at the embryonic stage. These two metaphysical claims, of course, are the ones that contribute to the grounding of the specific ethical norm that we ought to respect fellow humans who find themselves presently at their embryonic stage.

Professor Strong's views on identity are marked by his use of a term that was tentatively introduced some thirty years ago, but has been completely discarded in the scientific literature, i.e., "the pre-embryo." His argument to revert to this term is based on a non-identity claim:

The entity that began as a zygote, then became a two-celled entity, then four-celled, and so on, becomes the entire collection of cells in question. But the embryo is not identical to the entire collection of cells, for it consists of only part of the entire collection [the remaining part is the trophoblast AG-L]. Therefore, the preembryo is not identical to the embryo.³

The difficulty in holding that identity of an organism requires sameness of "the entire collection of cells" is that, as Plato already remarked,⁴ organisms are constantly changing and eliminating parts no longer needed for the life of the whole. Imagine Capt. Jones with two legs before Trafalgar and losing one to amputation after the battle. It follows that the young Capt. Jones is not identical to the elder Capt. Jones. The latter is identical only to young Capt. Jones, minus the collection of cells from one leg. But this is absurd, for the loss of a leg does not abolish identity, as all of Jones' comrades-in-arms will grant.

Given the present state of developmental biology, rather than re-identify an organism on the basis of the same collection of cells (which will prove to be impossible), it is much more plausible to resort to sameness of genome as a reasonable criterion of identity through all stages of the life of an organism. If the trophoblast of an embryo arises during the first 4 or 5 days after fertilization as part of the overall development of an embryo governed by that individual's genome, and if the genomic program subsequently directs the trophoblast to become a placenta and other membranes, we have good reasons to eschew the term "preembryo" and to assert that *the same embryo* first developed a trophoblast and then a placenta that was finally discarded when he or she was born. Again, no loss of identity

can be inferred from the remarkable changes that occur during gestation and even less so from those that happen after birth.

A further possibility should be considered because of its ethical implications: perhaps an organism can become a person without changing its biological identity.⁵ Respect would then be due only after the change to personhood has taken place. This view seems to me extremely implausible because of its metaphysical assumptions. If *ex hypothesi* the body retains its identity throughout its life, then personhood would have to be a reality that comes into the biological process from the outside. It would require an independent and immaterial soul, or something of that ilk. Needless to say, this would be a return to Cartesian dualism and all of its irresolvable difficulties. I submit that it is much more consonant with our daily life experience (as well as with developmental biology) to assume that our personhood is deeply embedded in our bodies, and that the organs that sustain our higher functions arise, like the rest of our organs, at the prompt of our DNA. If, then, sameness of DNA guarantees biological identity, and if personhood is a function of our DNA, then a change from non-person to person could only take place if there were a drastic change in DNA during gestation. And this just does not happen.

In sum, there are no reasons to abandon the common sense view that humans retain their identity from conception onwards, even though the exercise of the higher human functions is initially only potentially present in the developing organism.

This form of appeal to potentiality, however, has also been questioned by Professor Strong, but he relies, in my opinion, on a defective understanding of this notion which is best illustrated by his own words:

If Professor George were to walk into class and announce that he has a potential to become self-conscious, his students would hardly know what to make of that comment; perhaps they would think that he is making a joke, because the statement implies that he is not self-conscious. As pointed above, it is indeed part of the logic of the term "potentiality" that if A has the potentiality to become B, then A is not B.⁶

The latter part of the quotation is a reference to an earlier passage based on a claim of H.T. Engelhardt that I have analyzed elsewhere in this journal.⁷ Let me make a fresh attempt to show in a more intuitive manner what is wrong with Professor Strong's understanding of potentiality.

Assume that someone can (has the potentiality, has the potential, has the capacity, has the ability, *dynatai* in Greek) to speak Spanish, but normally teaches in English. If she walks into class and says: “*Puedo (tengo la capacidad de, etc.) llegar a hablar español,*” I doubt it would sound like a joke. On the contrary it would sound rather boring to her students if they know she is a native speaker. But surely no one would infer from her statement that she is not a speaker of Spanish. This is clearly not implied by her claim. Likewise if Professor George walks into class and claims that he has a potential to become self-conscious, his Princeton students, smart as they are, will readily assent because his own statement shows that he has the aforementioned potential: he is indeed fully actualizing it in their presence.

The point is that it is simply *not* part of the logic of the term “potentiality” that potentiality and actuality are mutually exclusive forms of being B. A’s being potentially B, i.e., being able to become B, does not imply *without qualification* not being B. It implies at most not being *actually* B, for certain values of B. Indeed, it is part of the explanatory merits of the notion of potentiality that it does not cease to exist when actuality is achieved. It is preserved and perfected when it is actualized. When someone speaks in a foreign language, she does not thereby cease to have the potentiality to speak it. Quite the reverse is true. When speaking it, she brings this capacity to full fruition.⁸

The implication of the aforementioned considerations is that normal human adults have an immediately exercisable capacity for characteristically human mental functions. Sometimes they exercise it (when they are awake), sometimes they do not (when they are asleep). In both cases the potentiality is clearly present. Human embryos, of course, do not have the immediately exercisable capacity. That is what adults have. Young humans require a long biological development before they reach that point. Again, this is the common sense view (anyone who has raised children knows this), and a philosophical account must hold that there is in them a genetic potentiality that will gradually reach a stage when it will be immediately exercisable. This is only possible on the assumption that the remote natural potentiality is already present in a well-formed human embryo. But, as the previous argument has shown, the possession of the (remote) potentiality for the exercise of characteristic human functions does not entail that an embryo is not a being endowed with a capacity for characteristic human functions. If a capacity for

human mental functions defines humanity, then a human embryo is as human as a human adult.

The preceding remarks surely do not address all of Professor Strong's arguments. My intention was only to show that his application of the metaphysical notions of identity and potentiality to human organisms is seriously flawed.

NOTES

¹ C. Strong, "Preembryo personhood: an assessment of the President's Council arguments," *Theoretical Medicine and Bioethics* 27 (2006):433–453; R. P. George and A. Gómez-Lobo, "Statement of Professor George," in *Human Cloning and Human Dignity: An Ethical Inquiry*, The President's Council on Bioethics, (Washington, D.C., 2002), pp. 258–266; A. Gómez-Lobo, "Does Respect for Embryos Entail Respect for Gametes?" *Theoretical Medicine and Bioethics* 25 (2004): 199–208; A. Gómez-Lobo, "On Potentiality and Respect for Embryos: A Reply to Mary Mahowald," *Theoretical Medicine and Bioethics* 26 (2005): 105–110.

² In antiquity, Parmenides and the Megarians denied the reality of potentiality, with the devastating effects mentioned above. On the Megaric school see Aristotle, *Metaphysics*, Book IX Chapter 3, *passim*.

³ C. Strong, "Preembryo Personhood," p. 441.

⁴ Cf. *Symposium* 207d.

⁵ This possibility is briefly explored in Strong, "Preembryo Personhood," p. 436.

⁶ *Ibid.*, p. 444.

⁷ See H. T. Engelhardt, Jr., *The Foundations of Bioethics* (New York: Oxford University Press, 1986), p. 111 and A. Gómez-Lobo, "Does Respect," p. 205. My observations on Engelhardt's dictum are addressed by Strong, "Preembryo Personhood," p. 450, n. 28.

⁸ See Aristotle, *De Anima*, Book II, Chapter 5, *passim*, for an insightful treatment of the different forms of potentiality and actuality that are relevant to the present dispute.

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