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Philosophy and Theology: Notes on the Human Embryo Debates

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Debates over the moral status of embryonic human life continue unabated. In an article devoted to exploring Martha Nussbaum’s book *Hiding from Humanity*, John Haldane notices that although Nussbaum defends other vulnerable, dependant, and underdeveloped human beings, she is silent about the moral status of the unborn—though her inclusive principles and emphasis on capabilities rather than actual performative function would seem to suggest that human beings in utero should be accorded moral status and protection by law (*Journal of Applied Philosophy*, November 2008).

Although Nussbaum does state her opposition to sex-selection abortion, Haldane asks where she stands on the moral status of the unborn. She responds,

First of all, it would appear that nobody consistently regards the fertilized ovum as a full-fledged person. Although this theological doctrine is paid lip service, people’s practices suggest that it is not strictly interpreted. No religion holds funerals when there is a miscarriage. Women’s menses are not inspected to see whether they contain a fertilized egg that has failed to implant. These facts suggest that even strict Roman Catholics do not really think that a person has died in such cases, or at least that they hold this in a half-hearted and not fully consistent way.

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Of course, we generally do not know if and when an embryo or, to use Nussbaum’s dehumanizing term, “fertilized egg” has died in utero, so it is not inconsistency but ignorance that prevents due acknowledgment of the loss of human life, a lack of knowledge that would probably not be remedied by inspecting women’s menses.

Nussbaum’s assertion that “no religion holds funerals when there is a miscarriage” admits a few exceptions. The Catholic Church teaches that “the corpses of human embryos and fetuses, whether they have been deliberately aborted or not, must be respected just as the remains of other human beings,” so miscarried babies can indeed receive Catholic funerals (canon 1183.2). Likewise, Protestant churches have conducted funeral services following both miscarriages and abortions. In Islam, funeral prayers should be said for a fetus if death occurs after ensoulment. In Buddhism, the mizuko kuyo is a memorial service performed for the deceased human fetus. In Hinduism, the unborn are depicted as having great value from the very beginning of their lives (immediate hominization), having abilities similar to mature human persons such as hearing, learning, and remembering in utero, and in the case of premature death, prayers are offered for their departed souls. Orthodox Judaism is an exception that proves too much, for in this tradition no funeral is required unless the baby survives thirty days after birth. So unless Nussbaum is willing to deny moral status to newborn babies in the first month of life, appeal to this Jewish practice will not be of much help in denying the moral status of the unborn human being.

Even if Nussbaum were correct in saying that no religion offered funerals following miscarriage, it would still not follow that not conducting funeral services for miscarriages indicates a tacit denial of the moral status of human beings prior to birth. If one understood funerals as services for the sake of the living, to comfort and console them in their loss, rather than as services owed to the dead for their own sake, in cases where little or no loss is experienced by the living, as when the deceased human being was not known well, there would be no need for a funeral. Needless to say, the fact that the death of a human being is not experienced as a loss or cause for sadness by other human beings does not change the moral status that the deceased human being had prior to death. Moral status does not depend on other people’s emotional states.

In an article critiquing Francis Beckwith’s Defending Life: A Moral and Legal Case Against Abortion (Dean Stretton, “Critical Notice—Defending Life: A Moral and Legal Case Against Abortion by Francis J. Beckwith,” Journal of Medical Ethics, November 2008), Dean Stretton offers different arguments to deny moral status to human embryos. The standard argument from size holds that the embryo is too small to have basic moral status equal to larger human beings. In a variation of the argument

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4 Congregation for the Doctrine of the Faith, Donum vitae (February 22, 1987), I, 4.
from size, Stretton asks us to imagine a species called *shrinkers* that begin as embryos then grow through various stages of development towards maturity as rational adults. After a few years in the stage of functioning rational adults, they begin to shrink and regress all the way through the developmental stages to the zygotic stage, where they can remain alive as zygotes for five years. There is no way for *shrinkers* to regain functional rationality. Stretton holds that we do nothing wrong in cutting short their lifespan. Since *shrinkers* do not have a right to live by virtue of having a natural capacity for rationality, neither do human embryos have a right to live by virtue of having a natural capacity for rationality.

How could a pro-life advocate respond? Size itself is completely irrelevant to personhood. If healthy adult human beings were somehow shrunk to tiny size but otherwise continued normally, no one would deny their right to live. So let us posit a slightly different case of *shrinkers* to focus our intuitions on morally relevant characteristics. Imagine beings that do not shrink but remain basically the same size in maturity. However, like *shrinkers*, these beings who were once able to function rationally will never rationally function again. They have permanently lost their ability to speak, make decisions, or think logically. Indeed, we do not need to merely imagine such beings because they already exist. Human beings who are severely mentally handicapped fit the bill, at least those who have become handicapped as adults. Patients with advanced Alzheimer’s are in the same condition, as are human beings with severe senility. Since it is morally wrong to intentionally kill these human beings, it would also be wrong to kill *shrinkers*, whether they are small or not. Thus, *shrinkers* provide no basis for denying basic respect to the human embryo.

Of course, the pro-choice advocate may say that it is *not* wrong to intentionally kill patients with advanced Alzheimer’s or victims of accidents who become severely mentally handicapped, but such a contention is deeply controversial, and one can hardly establish the truth of one controversial claim (embryos lack human rights) by means of another, perhaps even more controversial claim.

Stretton offers a further argument: “At the first cell division, the single-celled zygote fissions into two duplicate cells. But no substance can survive fission into duplicates, and so we cannot identify the single-celled zygote with the subsequent organism” (797). Surely, the human person is a substance, but if so, the human person cannot begin as a single-celled zygote.

One premise of Stretton’s argument is that the single-celled zygote fissions into two duplicates, but it remains unclear whether the two cells are really duplicates, that is, if duplicates are understood to be identical cells. “Its first cleavage is from one cell to two. Subsequent cleavages are asynchronous. First one of the two cells divides; there are now three cells. Then the second cell divides to result in a total of four cells.” 7 The first cell division in the zygote gives rise to two cells, one of which will give rise to the embryo proper; the other of which will give rise to the trophoblast. 8

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8 Ibid., 154–155.
Since these first two cells differ in their developmental paths, giving rise to different parts of the embryo, they would seem not to be exact duplicates or identical. So the differing developmental paths of the first two cells of the human embryo show that the single-celled zygote does not fission into two exactly identical cells.

The second premise of Stretton’s argument is the claim that a substance cannot survive fission into duplicates, and this premise is also dubious. For instance, in the division of a tapeworm into two, one might describe this as a fission in which each half is basically a duplicate of the other. Must we also say that this means the original tapeworm died or ceased to exist, giving rise to two offspring tapeworms? Another possibility is to describe the division as a form of budding. A large section of the original has been cut off, allowing both the original tapeworm (now diminished) and the piece cut off now to survive independently. The initial division of the zygote could be described as the first cell giving rise to another cell and, though diminished in size, surviving the production of this other cell.

Stretton provides another argument against the idea that the early human embryo is the same being as the human fetus, let alone the human newborn. “The vast majority of the cells in the very early embryo go towards the creation of the placenta and amniotic sac rather than the later embryo. Thus we cannot identify the very early embryo with the later embryo, because the very early embryo has a better claim to being identical with the placenta or amniotic sac” (797).

As David Oderberg points out in his article, “The Metaphysical Status of the Embryo: Some Arguments Revisited,” the false assumption of this argument is that the placenta and amniotic sac are not parts of the human being in question, but something other than the human embryo (Journal of Applied Philosophy, November 2008). In fact, both the placenta and amniotic sac are quite plausibly regarded as organs of the developing human being. They share the genetic makeup of the embryonic human being rather than that of the mother. Their function is similar to any other organ, namely to serve the good of the whole organism. The fact that these organs are shed at a later stage of development does not entail that they are not parts of the human being at an earlier stage of development. Some parts or developmental aspects of a human being, like baby teeth or secondary sex characteristics, are not present in all stages of human development. The fact that certain parts can be lost, as in the case of baby teeth, or gained, as in the case of secondary sex characteristics, as the human organism moves through the various stages of development does not entail that baby teeth or secondary sex characteristics are not really a part of a human being during a given stage of life.

Even if the placenta and amniotic sac were not parts of the human being in question, there is still reason to reject Stretton’s argument, for it would still not follow that the very early embryo is identical with the placenta or amniotic sac which arose from the trophoblast. The very early embryo cannot be identical with the placenta, amniotic sac, or even the later human embryo because there are many important differences among them. Many things are true of the early embryo but not true of the placenta or amniotic sac, most obviously size. If we construe “identical” as meaning “arising from,” then the placenta, amniotic sac, and the later human embryo all are identical with the very early embryo.
In another argument, commonly known as the “embryo rescue case,” Stretton imagines a scenario in which an emergency arises and a person is faced with the choice of rescuing ten frozen human embryos or five adult patients. Since virtually everyone would choose to save the adult patients rather than the embryos, this indicates that the patients have a higher moral status than the frozen human embryos.

However, we have moral justification for treating human beings enjoying equal basic moral status in different ways. If forced to choose between saving the President of the United States and four other heads of state, rather than ten unknown patients, most people would choose to rescue the world leaders. To choose to save presidents and prime ministers rather than ordinary persons is not a denial of the equal basic rights of those not saved, but rather a recognition that the deaths of the heads of state would most likely lead to greater adverse consequences than the deaths of the unknown patients. Similarly, in the embryo rescue case, by virtue of the fact that the adult patients have received an “investment” from their parents and society in terms of education and upbringing, have future plans that would be thwarted, have responsibilities to discharge, and have strong relationships with others, it makes sense to choose to save five adult persons rather than ten frozen embryos. The embryo rescue case does not show that human embryos lack basic human rights.

Consider one more argument against the basic dignity of the human embryo. Human beings are organisms that have various parts which contribute to the good of the whole. By contrast, a bag of marbles or a heap of shoes consists of various individual things in proximity to one another, but each of the things is a “free agent” without a role in an organized structure, unfettered to making contributions to the whole. Some defenders of lethal embryonic research claim that the cells of the early human embryo within the embryonic membrane known as the zona pellucida are akin to a bag of marbles rather than to an organism since the various cells do not interact with each other for the sake of the whole.

One difficulty with the bag of marbles analogy is that there is evidence that the cells of the early human embryo are interacting with one another and becoming specialized so as to contribute to the development of a mature human body. As Robert George and Christopher Tollefson argue in their book _Embryo: A Defense of Human Life_, the early human embryo, if things go right, achieves certain goals, including preventing more than one sperm from fertilizing the egg, moving into the uterus, making implantation possible, and overcoming various threats to its continued existence. To achieve these goals, the cells of the early embryo must work together in an organized way.

Modifying the bag of marbles argument, others like Stretton admit some interaction between the cells but posit that the interaction is insufficient for the being to be considered an organism or that it is unclear whether or not the being is an organism. If human embryos are not organisms, however, what is it that makes these loose collection of cells accomplish the tasks that embryos regularly accomplish? If there is no

inner unity and directedness to the embryo, how can the “bag of marbles” become later what is uncontroversially recognized as an organism? The level of organization of the early embryo is sufficient to regularly accomplish what is needed to prevent more than one sperm from fertilizing the egg, to make implantation possible, and to overcome various threats to its continued existence, and so the level of interaction and organization is sufficient for the early embryo to be an organism. After all, the tasks achieved by the human embryo are more complex and they involve greater coordination than the complexity and tasks achieved by one-celled organisms, such as monerans, protozoans, and protists, which are uncontroversially recognized as organisms in their own right.

In achieving these goals, the various cells of the embryo must work together, communicate to overcome obstacles to achieve the goals, and develop further cells of greater specialization. George and Tollefson cite Bruce Carlson, an embryologist who notes,

Even at the early stage the blastomeres of a cleaving embryo are not homogenous. Simple staining methods reveal pronounced differences among cells in human embryos as early as the seven-cell stage. Autoradiographic studies have shown that all blastomeres of four-cell human embryos have low levels of extranucleolar and nonnucleolar RNA synthesis. By the eight-cell stage, some blastomeres have very high levels of RNA synthesis, but other blastomeres still show the pattern seen in blastomeres of the four-cell embryo. Morphological studies show corresponding differences between transcriptionally active and inactive blastomeres (154).

The early embryo is not, in other words, akin to a bag of marbles without internal ordering of parts coordinating activity for the sake of the good of the whole organism. Rather, even at the earliest stages, the parts have begun to differentiate themselves from one another for the sake of accomplishing the goal of further development toward human maturity.10

Some people have noted that the embryo does indeed have directedness toward human maturity, but they object that the embryo lacks the inner directedness characteristic of an organism. The embryo’s developmental trajectory is governed by maternal RNA, not by the embryo’s own genetic endowment. In the words of Stretton, “organisms during their early stages exhibit self-directed development, or in other words development ‘from within’, but the zygote’s development until the four to eight cell stage is externally directed by the mother’s RNA (inherited from the ovum), and so the zygote during this phase is not an organism” (797). William Saletan in a New York Times book review of George and Tollefsen’s Embryo: A Defense of Human Life raises the same objection that maternal RNA directs the early embryo’s growth, rather than the embryo developing itself toward greater human maturity.11

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George and Tollefsen respond:

The RNA is “maternal” only in the sense that it is contributed by the oocyte. But as human embryologist Maureen Condic explains, “once an embryo has come into existence, the maternally derived RNA, like the embryo’s genome, belong to the embryo itself. They are not components of the mother, somehow acting at a distance, but components of the embryo acting to further its own development.” They form aspects of the complete developmental program of the embryo and are neither extrinsic nor distinct agents. (Nor do they cause the embryo of some early stage to become a numerically different being.) These facts discredit Saletan’s claim—central to his case against our position—that “maternal factors don’t just facilitate the embryo’s program; they direct it.” The truth is that the embryo’s development is internally directed. The embryo directs not only its own integral organic functioning, but also its development in the direction of maturity as a member of the human species.12

No one denies that the early embryo, and indeed the later embryo and human fetus, are influenced by many maternal factors. Indeed, the influence goes both ways, with the mother being influenced also by even the early embryo. Such two-way interactions continue after birth when newborns nurse, and oxytocin is released as a result of this nursing in the mother’s body. But none of these mutual influences or interactions undermines the identities of mother and child as distinct organisms of the species Homo sapiens.

Does the human embryo deserve to be protected by law and welcomed in life? In light of the critiques brought forward by George, Tollefsen, and Oderberg, the considerations provided by Nussbaum, Stretten, and Saletan offer no sound argument for a negative answer. The denial of equal basic worth to the human embryo looks more and more like a conclusion in search of an argument.

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