

Fetal Humanity and Brain Function

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Baruch Brody is Leon Jaworski Professor of Biomedical Ethics and Professor of Medicine at Baylor College of Medicine in Houston, Texas. In this article, Brody argues that while a fetus is not a human being from the point of conception, it becomes one early in the pregnancy. His strategy is to reason backwards from the conditions for death to a conclusion about when human life begins.

1 The question which we must now consider is the question of fetal humanity. Some have argued that the fetus is a human being with a right to life (or, for convenience, just a human being) from the moment of conception. Others have argued that the fetus only becomes a human being at the moment of birth. Many positions in between these two extremes have also been suggested. How are we to decide which is correct?

2 The analysis which we will propose here rests upon certain metaphysical assumptions which I have defended elsewhere. These assumptions are: (a) the question is when has the fetus acquired all the properties essential (necessary) for being a human being, for when it has, it is a human being; (b) these properties are such that the loss of any one of them means that the human being in question has gone out of existence and not merely stopped being a human being; (c) human beings go out of existence when they die. It follows from these assumptions that the fetus becomes a human being when it acquires all those characteristics which are such that the loss of any one of them would result in the fetus's being dead. We must, therefore, turn to the analysis of death.

3 We will first consider the question of what properties are essential to being human if we suppose that death and the passing out of existence occur only if there has been an irreparable cessation of brain function (keeping in mind that that condition itself, as we have noted, is a matter of medical judgment). We shall then consider the same question on the supposition that [Paul] Ramsey's more complicated theory of death (the modified traditional view) is correct.

4 According to what is called the brain-death theory, as long as there has not been an irreparable cessation of brain function the person in question continues to exist, no matter what else has happened to him. If so, it seems to follow that there is only one property—leaving aside those entailed by this one property—that is essential to humanity, namely, the possession of a brain that has not suffered an irreparable cessation of function.

5 Several consequences follow immediately from this conclusion. We can see that a variety of often advanced claims about the essence of humanity are false. For example, the claim that movement, or perhaps just the ability to move, is essential for being human is false. A human being who has stopped moving, and even one who has lost the ability to move, has not therefore stopped existing. Being able to move, and a fortiori moving, are not essential properties of human beings and therefore are not essential to being human. Similarly, the claim that being perceivable by other human beings is essential for being human is also false. A human being who has stopped being perceivable by other humans (for example, someone isolated on the other side of the moon, out of reach even of radio communication) has not stopped existing. Being perceivable by other human beings is not an essential property of human beings and is not essential to being human. And the same point can be made about the claims that viability is essential for being human, that independent existence is essential for being human, and that actual interaction with other human beings is essential for being human. The loss of any of these properties would not

mean that the human being in question had gone out of existence, so none of them can be essential to that human being and none of them can be essential for being human.

6 Let us now look at the following argument: (1) A functioning brain (or at least, a brain that, if not functioning, is susceptible of function) is a property that every human being must have because it is essential for being human. (2) By the time an entity acquires that property, it has all the other properties that are essential for being human. Therefore, when the fetus acquires that property it becomes a human being. It is clear that the property in question is, according to the brain-death theory, one that is had essentially by all human beings. The question that we have to consider is whether the second premise is true. It might appear that its truth does follow from the brain-death theory. After all, we did see that the theory entails that only one property (together with those entailed by it) is essential for being human. Nevertheless, rather than relying solely on my earlier argument, I shall adopt an alternative approach to strengthen the conviction that this second premise is true: I shall note the important ways in which the fetus resembles and differs from an ordinary human being by the time it definitely has a functioning brain (about the end of the sixth week of development). It shall then be evident, in light of our theory of essentialism, that none of these differences involves the lack of some property in the fetus that is essential for its being human.

7 Structurally, there are few features of the human being that are not fully present by the end of the sixth week. Not only are the familiar external features and all the internal organs present, but the contours of the body are nicely rounded. More important, the body is functioning. Not only is the brain functioning, but the heart is beating sturdily (the fetus by this time has its own completely developed vascular system), the stomach is producing digestive juices, the liver is manufacturing blood cells, the kidney is extracting uric acid from the blood, and the nerves and muscles are operating in concert, so that reflex reactions can begin.

8 What are the properties that a fetus acquires after the sixth week of its development? Certain structures do appear later. These include the fingernails (which appear in the third month), the completed vocal chords (which also appear then), taste buds and salivary glands (again, in the third month), and hair and eyelashes (in the fifth month). In addition, certain functions begin later than the sixth week. The fetus begins to urinate (in the third month), to move spontaneously (in the third month), to respond to external stimuli (at least in the fifth month), and to breathe (in the sixth month). Moreover, there is a constant growth in size. And finally, at the time of birth the fetus ceases to receive its oxygen and food through the placenta and starts receiving them through the mouth and nose.

9 I will not examine each of these properties (structures and functions) to show that they are not essential for being human. The procedure would be essentially the one used previously to show that various essentialist claims are in error. We might, therefore, conclude, on the supposition that the brain-death theory is correct, that the fetus becomes a human being about the end of the sixth week after its development.

10 There is, however, one complication that should be noted here. There are, after all, progressive stages in the physical development and in the functioning of the brain. For example, the fetal brain (and nervous system) does not develop sufficiently to support spontaneous motion until some time in the third month after conception. There is, of course, no doubt that that stage of development is sufficient for the fetus to be human. No one would be likely to maintain that a spontaneously moving human being has died; and similarly, a spontaneously moving fetus would seem to have become human. One might, however, want to claim that the fetus does not become a human being until the point of

spontaneous movement. So then, on the supposition that the brain-death theory of death is correct, one ought to conclude that the fetus becomes a human being at some time between the sixth and twelfth week after its conception.

11 But what if we reject the brain-death theory, and replace it with its equally plausible contender, Ramsey's theory of death? According to that theory—which we can call the brain, heart, and lung theory of death—the human being does not die, does not go out of existence, until such time as the brain, heart and lungs have irreparably ceased functioning naturally. What are the essential features of being human according to this theory?

12 Actually, the adoption of Ramsey's theory requires no major modifications. According to that theory, what is essential to being human, what each human being must retain if he is to continue to exist, is the possession of a functioning (actually or potentially) heart, lung, or brain. It is only when a human being possesses none of these that he dies and goes out of existence; and the fetus comes into humanity, so to speak, when he acquires one of these.

13 On Ramsey's theory, the argument would now run as follows: (1) The property of having a functioning brain, heart, or lungs (or at least organs of the kind that, if not functioning, are susceptible of function) is one that every human being must have because it is essential for being human. (2) By the time that an entity acquires that property it has all the other properties that are essential for being human. Therefore, when the fetus acquires that property it becomes a human being. There remains, once more, the problem of the second premise. Since the fetal heart starts operating rather early, it is not clear that the second premise is correct. Many systems are not yet operating, and many structures are not yet present. Still, following our theory of essentialism, we should conclude that the fetus becomes a human being when it acquires a functioning heart (the first of the organs to function in the fetus).

14 There is, however, a further complication here, and it is analogous to the one encountered if we adopt the brain-death theory: When may we properly say that the fetal heart begins to function? At two weeks, when occasional contractions of the primitive fetal heart are present? In the fourth to fifth week, when the heart, although incomplete, is beating regularly and pumping blood cells through a closed vascular system, and when the tracings obtained by an ECG exhibit the classical elements of an adult tracing? Or after the end of the seventh week, when the fetal heart is functionally complete and "normal"?

15 We have not reached a precise conclusion in our study of the question of when the fetus becomes a human being. We do know that it does so some time between the end of the second week and the end of the third month. But it surely is not a human being at the moment of conception and it surely is one by the end of the third month. Though we have not come to a final answer to our question, we have narrowed the range of acceptable answers considerably.

16 [In summary] we have argued that the fetus becomes a human being with a right to life some time between the second and twelfth week after conception. We have also argued that abortions are morally impermissible after that point except in rather unusual circumstances. What is crucial to note is that neither of these arguments appeal to any theological considerations. We conclude, therefore, that there is a human-rights basis for moral opposition to abortions.