I would suggest that the claim that "the preembryo is not a human being" does not enjoy probability. To my mind the arguments put forth to substantiate the claim fall short because they do not fully appropriate the biological activity of the preembryo, on the one hand, and because of an exaggeration of the importance of certain biological data, on the other. Instead, the case could be made that it is probable that the preembryo is a human being, since it is an organism (i.e. individual living substance) of the human species (i.e. of a rational nature). It is difficult to find certitude in biology, and even more difficult to apply biology with certitude to theology, but I find the data and their application persuasive enough to suggest that recent Catholic claims of delayed hominization cannot be used to justify proposed action, whether from the probabiliorist, aequiprobabilist, or even probabilist, traditions of Catholic moral theology.

Saint Joseph's College, Rensselaer, Ind.

Mark Johnson

INDIVIDUALITY, PERSONAL IDENTITY, AND THE MORAL STATUS OF THE PREEMBRYO: A RESPONSE TO MARK JOHNSON

Mark Johnson has placed us all in his debt by his judicious evaluation of recent arguments for the delayed hominization of the preembryo. While he defends the view that the zygote itself should be considered to be a human person in the full sense, sometimes called immediate hominization, he also acknowledges that, unless this view can be defended on the basis of sound biological and philosophical arguments, it will not be practically effective. Indeed, his main criticism of the defenders of delayed hominization is that their work is "not biological enough."

Because Johnson believes that the defenders of delayed hominization have not adequately understood the relevant biological data, much of his article consists in a careful review of this data. His presentation of these data is clear and generally convincing, although, as he himself points out, we still do not know the answers to some important questions.² I do not find Johnson's philosophical interpretation

[&]quot;right here and now." For me, and I believe for them, the question is whether the substance of which we speak is a member of that species of living things to which cognition and intellective appetite (i.e. the will) pertain as a proper characteristic. We all share the contention that the human preembryo is constituted of material (i.e. genes) that biologically classifies it as being of that species of animal to which intellect and will pertain. Our disagreement is that they hold, which I think they should not, that there is no substance present until implantation, or soon thereafter. My contention is that an organism, and hence a substance, is present, so there does exist an "individual substance of a rational nature," a person.

¹ Mark Johnson, "Reflections on Some Recent Catholic Claims for Delayed Hominization" (above 743-63, at 762).

² See Johnson's footnotes 21, 24, 31 and 32.

of these data to be altogether persuasive, for reasons which I will discuss below. However, he does call attention to some of the ambiguities of the "delayed hominization" position, and by doing so, he invites us to clarify the issues which are at stake in this debate.

There are two ways to formulate the basic question at hand. On the one hand, we might simply ask when the product of human generation may be said to be a human person in the full metaphysical and moral sense. On the other hand, borrowing the language of Scholasticism, we might ask when the soul is infused into the developing fetus. After all, it is well known that in the Middle Ages, most Catholic theologians held that a distinctively human soul is not infused into the developing fetal body until the latter is sufficiently organized to receive it. For this reason, defenders of delayed hominization have tended to assume that they are retrieving a traditional argument, and defenders of immediate hominization have generally attempted to show that the traditional view depends on a faulty biology.

However, it is a mistake to assume that medieval defenders of delayed infusion of the human soul and contemporary defenders of delayed hominization are in fact making the same argument. For the medieval thinkers, the critical point is that God cannot infuse a distinctively human, that is, a rational soul into a body which does not yet have the capacity for rational functioning, even at the basic level of physical structure. For most of the contemporary defenders of delayed hominization, on the other hand, what is critical is to determine the point at which the developing embryo/fetus may be said to be identical with the person which will eventually be born. Practically, this means that a defense of delayed hominization based on a medieval account of ensoulment would lead to a much later date for the embryo's attainment of fully personal status than most contemporary moral theologians are in fact prepared to allow, that is, roughly speaking, twenty weeks after conception, as opposed to fourteen days.

What makes Johnson's argument for immediate hominization so interesting and fruitful is that he, too, does not base his claims on any particular account of ensoulment (although he briefly discusses the

 $^{^3}$ For an extensive discussion of this view, focused on but not limited to Aquinas, see Joseph F. Donceel, "Immediate Animation and Delayed Hominization," TS 31 (1970) 76–105.

⁴ Thomas Shannon and Allan Wolter clearly distinguish between the medieval and contemporary arguments for delayed hominization; see their "Reflections on the Moral Status of the Pre-Embryo," TS 51 (1990) 603–26, especially 614–19. Thomas Bole also argues that the rational soul can only exist in a body which has attained sufficient neural development, although he is less clear on the distinction between this view and the usual contemporary position; see his "Metaphysical Accounts of the Zygote as a Person and the Veto Power of Facts," Journal of Medicine and Philosophy 14 (1989) 647–53.

⁵ As Shannon and Wolter observe, "The biological data suggest that the minimal time of the presence of a rational nature would be around the 20th week, when neural integration of the entire organism has been established" ("Moral Status" 620).

question in footnote 16). Thus he engages the defenders of delayed hominization directly on their central claim, namely, that the zygote/preembryo cannot be considered to be an individual, or much less a human person, in its earliest stages of development.

Johnson's argument that the zygote is a human person proceeds in three stages. The bulk of his essay is devoted to showing that the zygote/preembryo is not only genetically unique, but is fully an individual in the sense proper to a living being. In order to do so, he marshals the biological evidence that it is a self-sustaining and selfdirected organism, actively engaged in the processes of nutrition and orderly growth. He then moves from the claim that the zygote is a biological individual to the claim that it is an ontological individual, on the ground that "there can be no real difference in living things between their biological individuality and their 'ontological' identity." Finally, because this individual incontrovertibly belongs to the human species, which is characteristically rational, it is an individual substance of a rational nature, and thus it is a human person in the fullest sense. Johnson actually says that the zygote is a "human being," but the context and the accompanying footnote imply that he intends to affirm the personhood, and not merely the biological humanity, of the zygote. 64

In order to evaluate this argument, it is necessary to distinguish three questions which are not only central to Johnson's argument, but to this whole debate: First, when does the product of conception become an individual? Second, at what point can it be said to be identically the same person as the child into which it will develop? Third, prescinding from the question of identity over time, what is the status of the zygote or preembryo; that is, is it a person in the full sense, or not? Let us consider each of these in turn.

With respect to the first question, Johnson's case rests on the claim that so far as living creatures are concerned, the self-sustaining organism is paradigmatically an individual. Since even the zygote is such, according to the biological evidence as he understands it, we must grant that the zygote is truly an individual, and not a part of some larger whole, or an aggregate of disconnected parts. As he realizes, the argument so far does not establish that the zygote is an individual human person, but only that it is an individual something—specifically, an individual organism. So far, his argument is cogent. In fact, it is so cogent that it is difficult to imagine anyone disagreeing with him up to this point. Is there any real question that the zygote is an individual, at least in the sense of being an individual organism?

In fact, there does seem to be some doubt on this point. James Diamond observes that until the primary organizer appears on the preembryo, no further cell differentiation can occur. Thus he holds that prior

⁶ 761; also see his footnote 30.

^{6a} 763, and see his note 37.

to this stage, the zygote/preembryo is not an organism, hence an individual in the relevant sense. Similarly, Norman Ford argues that the preembryo is not an integrated human organism until the process of cell differentiation begins with the formation of the primitive streak.8 Carlos Bedate and Robert Cefalo point out that the zygote does not even contain all the genetic information necessary to begin its process of development; according to them, further information must be conveyed through parental genetic materials and through the positioning of the preembryonic cells themselves. This, too, would seem to imply that the zygote/preembryo is not truly an organism.

Johnson does not directly address Diamond's point, but he responds briefly to Ford, and in more detail to Bedate and Cefalo. With respect to the latter, his response is best summarized in his footnote 22, where he observes that for these authors, "the movement from premise to conclusion is swift." This is a fair comment. More generally, Johnson has drawn together sufficient evidence to lend credibility, at least, to the claim that the zygote/preembryo is an individual organism, and those who would argue otherwise will need to take account of the data that he presents.

More importantly, from our perspective, most of those who argue for delayed hominization do not appear to base their arguments on the claim that the zygote/preembryo is not an individual organism. Thomas Shannon and Allan Wolter explicitly say that "once biological conception is completed we have a living entity."10 Richard McCormick claims that the preembryo is "not yet developmentally single [emphasis added]," but if I have understood him correctly, he does not deny that it is an individual organism. 11 Similarly, Thomas Bole says explicitly that the zygote is not an individual substance, or person, because of its potential for twinning, but this does not exclude the possibility that it is an individual organism. 12

In fact, Johnson makes a significant contribution to this debate by calling attention to a distinction which should be drawn more sharply than is often the case. For most of those who deny that the zygote/ preembryo is "developmentally" or "ontologically" individual, what is at issue is not the individuality of this entity, considered as an actually

⁷ James J. Diamond, "Abortion, Animation, and Biological Hominization," TS 36 (1975) 305-24, 315-16, 321-22

⁸ Norman M. Ford, When Did I Begin? Conception of the Human Individual in History, Philosophy and Science (Cambridge: Cambridge University, 1988) 168-77.

⁹ Carlos A. Bedate and Robert C. Cefalo, "The Zygote: To Be or Not Be a Person," Journal of Medicine and Philosophy 14 (1989) 641-45.

¹⁰ Shannon and Wolter, "Reflections on the Moral Status of the Pre-Embryo" 611. Thus I think Johnson is mistaken to conclude that for these authors, the preembryo is nothing but a "heap," as he says in note 35.

11 Richard A. McCormick, "Who or What Is the Preembryo?" Kennedy Institute of

Ethics Journal 1 (1991) 1-15, at 3.

¹² Thomas J. Bole, III, "Zygotes, Souls, Substances, and Persons," Journal of Medicine and Philosophy 15 (1990) 637-52, at 638.

existing organism. What they are denying is that the zygote/preembryo should be considered to be an individual *person*, because of its potential for dividing into two organisms (or, more rarely, combining with another preembryo to form one organism). If this is so, then it is confusing, at least, to assert that the zygote/preembryo is not an "ontological individual."

At the same time, I believe that Johnson himself moves too quickly from the claim that the zygote/preembryo is an individual organism, to the conclusion that it is a human individual, in just the sense in which persons are necessarily individuals. Those who argue for delayed hominization do have an argument that it is not a human individual, which Johnson does not adequately address. That is, they claim that the developing human entity cannot be said to be identical to the baby which will eventually be born, until after the point at which twinning can no longer take place. What might this mean?

Suppose that a preembryo divides into identical twins. Which of these is the "original" zygote? It cannot be said to be identical to both twins, since one entity cannot be identical to two. Yet there is no basis for identifying it with either twin in preference to the other. The twins are by hypothesis identical in their characteristics, and neither is temporally prior to the other. The only conclusion which remains is that the zygote which existed in the past cannot be said to be identical to either of the twins which has now emerged. If that is so, then there is no rational basis on which to describe that zygote as an earlier stage of this actual human individual (say, for example, either one of the twins, Sue and Sarah)—even granted that, at any point prior to twinning, the zygote/preembryo was itself an individual organism. Hence, until the possibility of twinning is past, we cannot say that this presently existing zygote/preembryo is definitely identical with one specific human being which will exist in the future. ¹³

Johnson claims that twinning would seem to be both rare and abnormal (759). However, the argument just summarized does not depend on the frequency or the normality of twinning. It simply depends on the possibility of the phenomenon, and that is established beyond any doubt. ¹⁴ Johnson might reply that for the majority of preembryos which do not divide into twins, there is no reason to deny that they are

¹³ Admittedly, none of the defenders of delayed hominization whom I have read spells out this argument in precisely these terms. However, Shannon and Wolter and Bole both offer what seem to me to be more compressed versions of this argument; see Shannon and Wolter, "The Moral Status of the Pre-Embryo" 612–13, and Bole, "Zygotes, Souls, Substances, and Persons" 644. Similarly, I believe McCormick presupposes this argument when he insists that the preembryo cannot be a person prior to the emergence of the primitive streak, because personal identity is substantial and incommunicable; see "Who or What is the Preembryo?" 9.

¹⁴ However, Johnson's argument at this point is focused on the claim that the preembryo is not even an individual organism, and I would agree that his observations here constitute a cogent response to that view.

identical with the babies which they will eventually become; therefore, we should act on the assumption that all zygotes/preembryos are identical with some incontrovertible person or other, and treat them accordingly. This is certainly an arguable position (although I do not find it altogether convincing, either logically or morally), but it does not really establish the actual personal identity of the zygote. At most, it provides a reason for acting as if the zygote were a human person.

Yet even granted that the zygote/preembryo cannot be said to be identical with some one person who will come to be at a future time, does it follow that the preembryo, here and now, is not a human person? After all, if at some point in the future, I were to be split into two identical persons, Star Trek style, it would be just as true of me, as I exist before division, that I am not identical with either Jean 1 or Jean 2. Yet it would seem to be obvious that I am a human person, whatever the possibilities of my future fission.

In fact, a number of philosophers have recently considered the implications of hypothetical cases such as this one. ¹⁵ However, this line of argument does not really lend support to the case for immediate hominization. Not everyone admits that the division of one actual person into two is a real possibility (as opposed to a fantasy). ¹⁶ Those who do treat personal division as a real possibility are inclined to argue from it that there is no such thing as a substantial personal identity, over and above the stream of experiences and memories which constitute our immediate phenomenal reality. ¹⁷ If this is all that personal identity means, however, then not only is the zygote not a person, but none of us is a person in the traditional Catholic sense. Correlatively, if we are to hold on to the traditional understanding of a person as an incommunicable substance, then it is at least very difficult to see how this understanding can be rendered consistent with a claim that persons can be split into two.

This brings us to what I take to be Johnson's central philosophical point. Is a living human organism ipso facto a human person? Johnson argues that because any such organism is an individual member of a species which is characterized by rationality, it is therefore an individual substance of a rational nature. But this is precisely the point which is under dispute in the debate over delayed hominization. Even though the species homo sapiens is characterized by a capacity for rationality, it does not follow that every member of this biological

¹⁵ These arguments are summarized and discussed by Andrew Brennan in his *Conditions of Identity: A Study of Identity and Survival* (Oxford: Clarendon Press, 1988) 237-91.

¹⁶ See, e.g., Kathleen V. Wilkes's cautions about the usefulness of this kind of thought experiment in her *Real People: Personal Identity without Thought Experiments* (Oxford: Clarendon, 1988) 1–48. For the record, I agree with her on this point.

¹⁷ Most notably, Derek Parfit; see his *Reasons and Persons* (Oxford: Clarendon, 1984) 245–80, and compare Brennan's assessment of his position in *Conditions of Identity* 292–356.

species has the potential for rational functioning. Indeed, some members of our species certainly do not; either they are too immature (the preembryo and early embryo), or they are defective in such a way as to lack the basic biological substratum for rationality (anencephalic infants). Just because these are all individual organisms of a species which is ideally characterized by rational functioning, does it follow that they as individuals are "individual substances of a rational nature"?

Johnson argues that they are, on the grounds that we do not require actual rational functioning at any given point in order to consider an individual to be a human person. Certainly, he is right that individuals who are not actually exercising their rational capacities are persons, whether that lack of exercise is transient (sleep), or due to some temporary or permanent defect (coma, grave mental deficiency or illness). But this passes too quickly over the difference between an individual who possesses a capacity for rational functioning which has not yet been activated, or which is impeded in some way, and one who lacks the fundamental biological substratum for rational activity. Zygotes and preembryos clearly fall into the latter category, and for this reason, they cannot be brought too readily into the same category as sleepers and the sick.

Aquinas, for one, certainly did not think that the early embryo is "an individual substance of a rational nature." To the contrary, he claims that before the infusion of the rational soul, the developing fetal body is only potentially human, even though he also explicitly says that it is an independently living entity. As we have already noted, the current debate over delayed hominization does not depend on a particular theory about the infusion of the rational soul, and I do not mean to introduce considerations extraneous to this debate by appealing to Aquinas. My point is simply that it is not obvious that a human organism is ipso facto a human person, even for someone who shares Johnson's definition of a human person. Johnson may be right to insist on this point nonetheless. In my view, however, he would need to answer the philosophical difficulty raised by the possibility of twinning, and to provide further positive arguments, in order to support such a conclusion.

It is worth underscoring what many on all sides of this debate have pointed out. Our moral judgement on abortion does not stand or fall on our philosophical and theological determinations of when human personhood begins. On the one hand, we may wish to say, with the magisterium, that whatever our philosophical views may be, we are obliged to give human life at its earliest stages the "benefit of the doubt," and treat it as if it were fully equivalent to any mature human

¹⁸ Thomas Aquinas, *Summa contra Gentiles*, 2.89, trans. James F. Anderson (Notre Dame: University of Notre Dame, 1975, originally published by Doubleday, 1956) 299–308.

person.¹⁹ On the other hand, it is also possible to argue that, even if the zygote/preembryo (or the embryo/fetus at a later stage) is a human person, the distinctive situation of pregnancy makes a moral difference, in such a way that abortion might sometimes be justified.²⁰

My own experience in teaching this issue has left me sure of only one thing. The question of abortion is one of the most difficult moral issues which we face, and for that very reason, it is an issue which can only be discussed in a spirit of mutual respect for those who hold divergent views. Through his careful and courteous article, Johnson has offered us an example of the way in which this debate should be conducted, in addition to moving it forward.²¹

University of Notre Dame

JEAN PORTER

¹⁹ On this point, see the Congregation for the Doctrine of the Faith, *Donum vitae* (*Origins* 16 [1987] 697–711); or, more recently, Pope John Paul II, *Evangelium vitae* (New York: Random House, 1995) 107–8 (full text also in *Origins* 24 [1995] 689–727).

²⁰ For a well-known example of this line of argument, see Judith Jarvis Thomson, "A Defense of Abortion," in Marshall Cohen, Thomas Nagel, and Thomas Scanlon, *The Rights and Wrongs of Abortion* (Princeton: Princeton University, 1974) 3–22. Patricia Beattie Jung argues for the same point from an explicitly Christian standpoint in her "Abortion and Organ Donation: Christian Reflections on Bodily Life Support," in Patricia Beattie Jung and Thomas A. Shannon, eds., *Abortion and Catholicism: The American Debate* (New York: Crossroad, 1988) 141–71.

²¹ In preparing this response, I had the opportunity to benefit from the comments of an anonymous referee for *Theological Studies* on an earlier draft of Johnson's essay. I am also indebted to Idit Dobbs-Weinstein for helping me to clarify the issues involved in the debate over delayed hominization. During the time that I was preparing this response, I was supported by a grant from the Institute for Scholarship in the Liberal Arts in the College of Arts and Letters, the University of Notre Dame, and I wish to express my appreciation for that support.

MISSING PAST ISSUES OF T.S.?

To complete your set, order back issues from:

THEOLOGICAL STUDIES, INC. Georgetown University, Box 571136 37th and O Streets, N.W. Washington, DC 20057-1136, USA

Each issue prepaid: In the U.S.: \$6 In the U.K.: £6 Elsewhere: \$8*

* Payable by international money order or by check in U.S. dollars drawn on a bank in the USA. Visa and MasterCard also accepted.