

# PLENARY SESSION

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## When Do People Begin?

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“People” here does not refer to God or angels. However, it refers not only to human persons but to beings like E.T., for if such beings arrived on earth, we surely would consider them people like ourselves.

In a 1970 book on abortion, I treated three questions about people’s beginnings. When do human individuals begin? In moral reflection, which human individuals should count as persons? And, which for legal purposes? I concluded that most human individuals begin at fertilization and that both morality and law should consider all of them persons.<sup>1</sup> I still think that. But to remedy defects in my treatment and to deal with two decades of development in both embryology and the debate, the questions need fresh treatment, which this paper only sketches out. I hope it will encourage and help someone to write a book on the subject.

To those who are persons, personhood is either accidental or essential. If accidental, it is either bestowed by others or acquired naturally. If essential, persons are either nonbodily substances or bodily. If bodily, either they come to be by substantial change after the biological beginning of new human individuals or every new human individual is a person. And new human individuals come to be either after or at fertilization. Thus, there are six answers to our question.

- I. Some think that personhood is a status bestowed by others. On this notion, people begin when others accept them as persons.
- II. Others think that personhood is an attribute that some entities develop by a natural process. On this notion, people begin when nonpersonal entities become able to behave as persons.

- III. Others think that only certain nonbodily substances—for example, souls or minds—are persons. On this notion, the beginning of a bodily individual need not be the beginning of a person.
- IV. Others think that only human bodies with the organic basis for intellectual acts can receive personal souls. On this notion, prepersonal human organisms substantially change into persons.
- V. Others think that all whole, human individuals are persons, but that none of them begins until the primitive streak stage. On this notion, people begin two to three weeks after fertilization.
- VI. I think that all whole, bodily, substantial individuals of any species having a rational nature are persons, and that most human individuals begin at fertilization. On this notion, most human people begin when a human sperm and ovum fuse.

I shall first dispose of objections against the sixth position by criticizing the other five. Then I shall sketch out the proper rationale of the sixth position.

### I. Personhood: A Status Bestowed

Pierre de Loch, a Belgian theologian, having suggested that abortion involves a conflict of rights, formulated one line of argument for the notion that personhood is a status bestowed by others:

But it seems to me useful to pose a preliminary question: How is one constituted a human person? Is it by a merely biological act? It seems to me astonishing that a spiritual being be constituted by a solely biological act. Does not the fact that the parents *perceive* the fetus as a human person make any difference in its constitution as a human being, as a spiritual being? Is it not necessary that there be established a relation of person to person, a relation of generators with the fetus, for it to become a human person?<sup>2</sup>

On this proposal, parents confer personhood on a fetus by perceiving it as a *thou*, and so giving it a place in the human community.

I suggest arguments along the following lines against this view.

Suppose a pregnant woman does not perceive the fetus as a person, but her husband does. Is that fetus a person or not?

Underlying de Loch's proposal, undoubtedly, is the fact that human meaning-giving constitutes social and cultural realities. But unlike such realities, people are principles of society and culture. So, human meaning-giving presupposes rather than constitutes people.

Also underlying his proposal is the insight that persons are beings who exist only in interpersonal communion. But granting this, one can argue, even without invoking faith, that human individuals are constituted persons not by their parents' perception of them but by God's creative knowledge and love of them.<sup>3</sup>

Mary Warnock, who thinks one can handle relevant moral issues without settling the question of personhood, offers another line of argument for the notion that personhood is a status which others bestow:

The philosopher John Locke understood that, as he put it, the word 'person' (which he distinguished from the word 'man') is not a biological but a *forensic* term. That is as much as to say that whether or not someone, or some corporate body, is to be deemed a person is something that must be *decided*. To settle it, we need to know the criteria that have been established for settling such cases, or else we must establish new criteria for ourselves.<sup>4</sup>

She adds that there can be bad criteria for making such designations, and rejects as not generally applicable a criterion for personhood some apply to neonates, namely, whether they are wanted.

I suggest arguments along the following lines against this view.

Warnock is right in rejecting wantedness as a criterion for personhood. But can she reject it because of its lack of general applicability? To do so is to apply something like the Golden Rule, and to apply such a principle is to presuppose that one can pick out the *others* whom one should do unto as one would be done unto. But Warnock denies that there is any determinate class of relevant others prior to the decision about criteria.

Admittedly, biologists can do without the word "person," and the law does bestow personhood on corporations, seagoing ships, and so on, as well as on some human individuals, while denying it to others. For instance, Chief Standing Bear of the Poncas became a person in April 1879 by a court decision rejecting the U.S. district attorney's contention that the Chief was not a person "within the meaning of the law." The following month, when Standing Bear's brother, Big Snake, tried to leave the reservation, General Sherman pointed out that the decision about Standing Bear applied only to him, and Big Snake was shot to death while resisting arrest.<sup>5</sup> To those who decided criteria for his personhood, Big Snake was not a person, and so the Golden Rule did not apply to him.

The argument I shall sketch out against the second notion of personhood also tells against any version of this first one.

## II. Personhood: An Attribute Acquired by Development

Michael Tooley is the leading proponent of this notion of personhood. Like Warnock, he denies that personhood is reducible to membership in the biological species *homo sapiens*<sup>6</sup> and thinks that he can resolve relevant-moral issues without settling the definition of "person." But unlike Warnock, Tooley thinks he can settle the definition of "person" by rational inquiry.<sup>7</sup> His strategy is to begin from ethical judgments:

. . . one can first determine what properties, other than potentialities, suffice to endow an entity with a right to life. Then one can define the term 'person' as applying to all and only those things that have at least one of the relevant properties.<sup>8</sup>

To determine what properties suffice to endow an entity with the right to life, Tooley treats rights in general. He assumes that nothing which lacks desires can have rights.<sup>9</sup> On this assumption he argues:

The non-potential property that makes an individual a person—that is, that makes the destruction of something intrinsically wrong, and seriously so, and that does so independently of the individual's value—is the property of being an enduring subject of non-momentary interests.<sup>10</sup>

Tooley includes the phrase "and that does so independently of the individual's value" to distinguish people from objects such as works of art whose destruction also might be considered intrinsically and seriously wrong.<sup>11</sup> He understands "being an enduring subject of non-momentary interests" in a way that requires "possession, either now or at some time in the past, of a sense of time, of a concept of a continuing subject of mental states, and of a capacity for thought episodes."<sup>12</sup>

Thus, in specifying that personhood be defined by a "non-potential property," Tooley wishes to exclude its definition by an operative potency, such as reason. He does not justify this restriction, but simply stipulates that the defining property may not be potential.<sup>13</sup> He thus excludes not only unborn but newborn babies from personhood.

Tooley also assumes that the morality of acts which bear on others depends on how those acts affect their getting what they want. His metaethics provides no direct support for this ethics; indeed, in discussing metaethics, Tooley claims that he rests nothing important on his view of it.<sup>14</sup> Since he criticizes people who hold ethical theories at odds with his, Tooley perhaps feels that he indirectly establishes his ethical theory. But he does not, because

in many cases his criticisms do not concern his opponents' ethical theories. Thus, Tooley provides no grounds, direct or indirect, for accepting the ethical theory he presupposes.<sup>15</sup>

It follows that Tooley's affirmative argument as a whole is question begging against most who disagree with his views on abortion and infanticide.<sup>16</sup>

Against the notion that personhood is an acquired attribute, I suggest the following line of argument.

Both this notion of personhood and the previous one miss what "people" usually means in ordinary language. True, personhood has ethical implications, adult human beings are paradigmatic instances of the concept of *person*, and the word "person" does not mean the same thing as the phrase "member of the species *homo sapiens*." Still, in ordinary language "person" refers to newborn babies as well as to grown men and women.<sup>17</sup> And we can see why "person" is used in this way precisely by beginning from paradigmatic instances of the concept of *person*.

Adults regularly speak of themselves as persons—for example, when they use personal pronouns—in ways which show that they think of their personhood, not as an acquired trait, but as an aspect of their very being. When one says "I cannot remember that far back; my earliest memory is . . .," one assumes that one already existed before one had that experience; when one says "I was born at such and such a time and place," one takes the word "I" to refer to the same person one now is.

To put the point in logical language: "person" connotes a *substance sortal*. But a substance sortal is an essential property, which implies that whatever has it necessarily has it and never exists without it: individual persons come to be and become persons at the same time, and they cannot cease to be persons without ceasing to be the individuals they are.<sup>18</sup>

Now, a sound, nonstipulative definition of anything must begin by picking out what is to be defined, and this picking out must employ a concept underlying ordinary language. In forming the definition, one can refine this concept and adjust its extension. But no sound nonstipulative definition can set aside the logic of the concept from which the inquiry began insofar as that logic is evident in the use of the word to refer to the concept's paradigmatic instances. It follows that notions of personhood as a bestowed status or an acquired trait involve stipulative definitions, and that no such notion can ground a satisfactory answer to the question "When do people begin?" if that question is understood as people in general understand and wonder about it.<sup>19</sup>

### III. Personhood: Limited to Nonbodily Substances

If personhood is limited to nonbodily substances, we bodily individuals are persons only because our bodies are associated with the nonbodily en-

tities that we really are. Such a view is dualism, whether cast in terms of soul and body, mind and body, or noumenal self and phenomenal self.

Classical arguments for dualism—for example, those involving the thesis that thought and extension are incompatible properties—were based on the irreducibility to bodily functioning of acts of inquiry, free choice, and purposeful use.<sup>20</sup> Today, hardly anyone argues for dualism, but many assume it. For example, Joseph Fletcher thinks the solution to questions about abortion would be to deny that a fetus is a personal being. He holds that the body is not part of the person, and that persons are to their bodies as artists are to their materials.<sup>21</sup>

Although Tooley mainly defends the second notion of personhood, he also slips into dualism. For example, he says that if a human being irreparably loses cerebral functioning, “it seems plausible to hold that although a human organism lingers on, the conscious individual once associated with that body no longer exists.”<sup>22</sup> Again, he argues that a person would be destroyed but no biological organism would be killed if the brain of an adult human were completely reprogrammed with totally different “memories,” beliefs, attitudes, and personality traits—for instance, “The pope is reprogrammed, say, on the model of David Hume.”<sup>23</sup>

Against the notion of personhood which limits it to nonbodily substances, I know of only the following line of argument.

Every dualism sets out to be a theory of one’s personal identity as a unitary and subsisting self—a self always organically living, but only discontinuously conscious, and now and then inquiring, choice-making, and using means to achieve purposes. But every form of dualism renders inexplicable the unity in complexity which we experience in every act we consciously do. For instance, as I write this, I am the unitary subject of *my* fingers hitting the keys, the sensations *I* feel in them, the thought *I* am expressing, *my* commitment to do this paper, and *my* use of the computer to express *myself*. So, in me thought and extension (thinking and moving my fingers) coexist, and dualism starts out to explain me. But every dualism ends by denying that there is any *one* something of which to be the theory. It does not explain me; it tells me about two things, one a nonbodily person and the other a nonpersonal body, neither of which I can recognize as myself. Therefore, whatever persons are, personhood cannot be limited to nonbodily substances.<sup>24</sup>

If the views considered thus far are excluded, it follows that human persons come to be when their personal bodies come to be and cease to be when their personal bodies die.<sup>25</sup>

#### IV. Personhood: Dependent on Sense Organs and a Brain

Proponents of the theory of delayed hominization reject dualism but hold that an early embryo cannot be a personal body, since, they say, personhood depends on sense organs and a brain. Unlike Tooley, they think that per-

sonhood is an essential property. But like him, they think that personhood requires a certain level of organic development. They hold that the early embryo really is a prepersonal entity, which substantially changes into a person when the sense organs and brain develop. Joseph F. Donceel, S.J., argued for this view.<sup>26</sup>

Relying on Aristotle's biology, St. Thomas thought that an active power in semen gradually forms a new living individual out of *nonliving* matter (the menstrual blood) and that the developing body is not ready to receive a personal soul until at least forty days after conception. Donceel rejects Aristotle's biology but thinks that modern biology together with the hylemorphic theory still requires delayed hominization.

Donceel's argument for delayed hominization is that since the soul is the substantial form of the body, and a substantial form can exist only in matter able to receive it, the personal soul can exist only in a highly organized body.<sup>27</sup> Donceel notes: "Philosophically speaking, we can be certain that an organism is a human person only from its activities." But that would delay hominization until long after birth. So, he concludes:

The least we may ask before admitting the presence of a human soul is the availability of these organs: the senses, the nervous system, the brain, and especially the cortex. Since these organs are not ready during early pregnancy, I feel certain that there is no human person until several weeks have elapsed.<sup>28</sup>

In a footnote to this passage, Donceel clearly excludes personhood during the first two or three months after conception.

Against the notion that personhood is delayed until the brain and sense organs develop, I suggest the following line of argument.

Substantial changes are radical, and in typical instances—such as death, digestion of food, and chemical reactions—their occurrence is clearly marked. But nothing in the nervous system's development clearly marks any substantial change. Hence, everything depends on Donceel's interpretation of the hylemorphic theory.

Donceel plainly realizes it would be ludicrous to say that babies substantially change into persons some time after they are born. So he settles for hominization when the brain *first* begins to develop. However, this beginning of the brain's development is not the bodily basis for intellectual activities but only its precursor. Now, if this precursor satisfies the requirement of the hylemorphic theory, there is no reason why earlier precursors should fail to satisfy it. But each embryonic individual has from the outset its specific developmental tendency, which includes the epigenetic primordia of all its

organs. Therefore, the hylemorphic theory does not preclude a human zygote's having a personal soul.<sup>29</sup>

It follows that neither the facts nor the theory establishes the substantial change which delayed hominization involves.<sup>30</sup> Thus, that substantial change and the multiplication of entities it involves are unnecessary. Now, entities are not to be multiplied without necessity. Consequently, delayed hominization is to be rejected.<sup>31</sup>

Besides Donceel's argument based on hylemorphism, people sometimes offer other arguments to support a theory somewhat like his.

One is the argument that since brain death is sufficient to mark the death of the person, the onset of brain function is necessary to mark the beginning of the person.<sup>32</sup> This argument fails for two reasons.

First, "brain death" means an irreversible loss of function. But the early embryo only temporarily lacks brain functions. So, the two cases are not alike.

Second, "brain death" has two meanings. In one sense, it refers to the irreversible loss of cerebral functions; in another, it refers to the irreversible loss of all functioning of the whole brain. If the argument from brain death is based on the former, it is likely to be question begging, since those who reject delayed hominization generally also deny that a person who loses only cerebral functions is dead. But if the argument is based on the latter, the assumed correspondence between life's beginning and its end does not obtain.

For when the whole brain is dead, nothing remains to integrate the functioning of the organism, and so the organism has ceased to be, and, therefore, the person is dead. By contrast, before the brain develops—even in the zygote—something (some "primary organ" in a broad sense) integrates the whole embryo's organic functioning, and a unified, whole, human individual is developing. As the development of the whole goes on, so does the development of its integrating principles, until, finally, the mature brain integrates the mature individual's functioning.

Another sort of argument for delayed hominization is drawn from common sense. Someone indicates some clear and striking difference between the early embryo and any experientially typical person, even a newborn—for example, "The fertilized egg is much smaller than the period at the end of this sentence," or "It has no eyes, no ears, no mouth, no brain, and like a parasite draws its nourishment from the pregnant woman's blood." Pictures or drawings of very early embryos support such statements, and many people think that this evidence shows that hominization is delayed until the embryo's eighth to twelfth week of development.

Such arguments are rhetorically powerful because they use imagery and directly affect feelings. Usually, in judging whether or not to apply a pred-



icate to an experienced entity, we do not examine it to see whether it meets a set of intelligible criteria. We judge by appearances, using as our guide past experience of individuals of that sort. The early embryo, usually never experienced, falls far outside the range of sensory standards for recognizing people. Images of early embryos do not *fit*; the test of appearances indicates that these strange entities are not persons. The impression is like that of someone who never saw anyone of a different race: those strangers surely are not people.

One can answer this argument only by dealing with its instances: in each case one must point out that while the difference to which attention is called is striking because of our limited experience, entities which are different in that way can meet the intelligible criteria for personhood.<sup>33</sup>

#### V. Personal Individuals: Formed Two Weeks after Fertilization

This is the view of those who hold that all whole human individuals are persons but maintain that no human individual *ever* begins before the stage of early development after which no individual *can* begin. Norman M. Ford, S.D.B., makes the fullest case I know of for this position.

Ford grants that the zygote “shows all the signs of a single living individual since its activities are all directed from within in an orderly fashion.”<sup>34</sup> He also reports the finding of a Royal Commission, which took evidence from “eminent scientists from all over the world. None of them suggested that human life begins at any time other than at conception.” Ford adds: “Most embryologists and biologists would appear to agree.”<sup>35</sup>

Yet, Ford thinks that persons begin more than two weeks *after* fertilization.<sup>36</sup> Why? Unlike Tooley and others, Ford does not argue that the zygote is only a potential human individual. He acknowledges that the zygote is a real, biologically human individual, but maintains that it is not “ontologically” the same individual as the eventual baby. To prove this, Ford offers arguments to show that there are philosophically significant discontinuities of existence that most scientists overlook.<sup>37</sup>

Ford bases one of his arguments on the fact that, until the primitive streak stage, identical twins can develop from a single zygote. He says that this shows that the zygote has an inherent *active* potentiality to become one or more human beings. And because all the cells into which a zygote divides in the first few cell divisions could, if separated, develop into complete individuals, Ford thinks that every zygote has the capacity for twinning. This leads to a dilemma. If the zygote is a human individual because it can develop into an adult, its openness to becoming one or more adults implies the absurdity that it is at once both one individual and many.<sup>38</sup> But if the zygote *already* is a human individual in its own right, when twinning occurs, that

individual either begets its own sibling or ceases to be without dying, leaving behind two new human individuals as its remains. If the former, Ford argues, there would be nothing to determine which twin had been the zygote, since the two would be identical in every way: “Both would be identical indiscernibles, except for their separate concrete existences.”<sup>39</sup> But if the latter, both identical twins would be the grandchildren of their putative parents.<sup>40</sup>

Animal experiments also show that genetically distinct embryonic cells or groups of cells can be joined together to develop into one chimeric individual. Ford says that this fact shows that the zygote and the cells into which it divides in the very early stages are too indeterminate to constitute a real ongoing human individual.<sup>41</sup>

Moreover, the zygote’s development does not at once differentiate the cells which form the embryo proper from those which form the placenta and other accessory tissues. Ford thinks that this temporary indeterminacy shows that the zygote cannot already be the ontological human individual.<sup>42</sup> He acknowledges that some biologists say that the accessory tissues are an organ of the baby until it is born. But he argues that these tissues cannot be part of the individual: identical twins can share them, fertilization involving only male chromosomes sometimes develops into placental tissue without an embryo (hydatidiform mole), and chimeras can be formed of cells sufficiently differentiated that the embryo proper and the accessory tissues differ genetically from each other.<sup>43</sup>

In some species, ova can develop parthenogenetically—without any sperm. Such development has been induced in mice, but never goes beyond the early stages. Ford thinks that those who hold that the human individual begins before implantation also must hold that a parthenogenetic human embryo would be a human individual.<sup>44</sup>

Ford’s main argument—the one he offers for his position that the human individual begins precisely at the primitive streak stage—is that only then does a tiny individual take definite shape with recognizable boundaries, a front and back, a right and left, a head end and lower end. He considers this decisive:

The unity of the individual human organism would imply a characteristic minimal specific heterogeneity of quantitative parts arranged to provide determinate sites for the co-ordinated development of structures, tissues and organs along a primordial body axis.<sup>45</sup>

Ford supports this point by invoking the testimony of a biologist, a physician, and two theologians who agree that individuality begins at the primitive streak stage.<sup>46</sup>

Besides his direct arguments, Ford argues for his position indirectly by giving an account of the discontinuity he asserts between the zygote (which he admits is a *biologically* human, new individual) and the “ontologically” human individual which he thinks begins at the primitive streak stage. When the first cell division occurs, he says, the individual which was the zygote ceases to be. From then until the primitive streak stage, each of the multiplying cells is a distinct individual. Thus, the true human individual emerges from “a few thousand” distinct individuals.<sup>47</sup>

Against the notion that personhood never begins until about two weeks after fertilization, I suggest the following line of argument.

Despite the facts about twinning, chimeras, and so on, most unborn babies with their accessory tissues develop from a single zygote and are alone in developing from that zygote. Unless the facts support Ford’s theory that the baby is formed at the primitive streak stage from a few thousand distinct individuals (the “mass” of cells), in most cases individuality will have to be admitted *to appear* to be continuous, and there will be no reason to deny it, unless the arguments from twinning, chimeras, and so on *by themselves* plainly show that a substantial change is absolutely required—for example, at the primitive streak stage.<sup>48</sup>

Now, the evidence does not support Ford’s theory that cell division gives rise to really distinct individuals until a small army of them form the true human individual. It would be interesting to review the facts. But it is enough to notice that if they supported Ford’s theory, most biologists would not think: “Fertilization in mammals normally represents the beginning of life for a new individual.”<sup>49</sup>

Ford tries to minimize the evidence for the functional unity of the developing “mass” of cells.<sup>50</sup> He also argues that to use this evidence to establish individuality is to beg the question, because distinct individuals—the male and female, and also the sperm and ovum—likewise function toward a common end. Of course, Ford is right that groups of individuals can function toward one end, but he ignores a fact about such a group which prevents us from regarding it as an individual: it is not even a *physical* whole, undivided in itself.

Moreover, the coordinated functioning of male and female, sperm and ovum, can be explained, but Ford has trouble explaining why a few thousand distinct individuals work together in embryogenesis to make themselves into one individual. Finally, he says:

Prior to this [primitive streak] stage we do not have a living individual human body, but a mass of pre-programmed loosely organized developing cells and heterogeneous tissues until their ‘clock’ mechanisms become synchronized and triggered to harmoniously organize, differentiate and grow as heterogeneous parts of a single whole human organism.<sup>51</sup>

However, Ford's own summary of the scientific literature indicates that the synchronization and triggering essential to his account are a construct that he imposes on the data. For he says that embryologists

... suggest that the timing of early differentiation at the blastocyst stage is governed by some 'clock' mechanism inbuilt into the DNA of the chromosomes of each cell of the embryo. It seems to be set from the time of fertilization, with each cell's 'clock' running in dependence on, and in co-ordination with, what is happening in its surrounding cells.<sup>52</sup>

If so, the cells and tissues do not need to have their "clock" mechanisms synchronized and triggered, because they always are working together harmoniously, which is to be expected if they are, not a mass of distinct individuals, but integral parts of one developing *individual*.

It follows that most unborn babies with their accessory tissues appear to be individuals continuous with the biologically human, new individuals formed at fertilization. Thus, the question is: Do twinning and so on *by themselves* show that the "ontological" human individual comes to be by a substantial change at the primitive streak stage?

The phenomena of twinning and chimeras do not. Even Ford does not suggest that all zygotes have an active tendency to become parts of chimeras. If all zygotes had an active potentiality to become twins, they would do so unless some accident prevented it. Thus, contrary to what Ford asserts (without argument), in those zygotes which develop continuously as individuals, the facts do not evidence an *active* potentiality to develop otherwise. Rather, at most the facts show that all early embryos could *passively* undergo division or combination.

Nor is it evidence of substantial change that the zygote will develop not only into the embryo proper but into the accessory tissues which will be discarded as afterbirth. The accessory tissues are an organ of the unborn baby. Identical twins can share this organ until birth just as Siamese twins can share other organs at birth. Hydatidiform mole, an abnormal development, will be considered below. That chimeras can be formed with accessory tissues from one contributor and an embryo proper from another does not show that the accessory tissues are not an organ of the embryo, for chimeras also can be formed in which the embryo proper includes genetically different contributions.

Nor does the fact that the embryo proper first becomes recognizable at the primitive streak stage show that a substantial change brings the person into being at this stage. For once one sets aside Ford's hypothesis that many distinct individuals form one individual, his main argument comes down to

an appeal to common sense: all the people we know have at least a recognizable, definitely shaped body; prior to the primitive streak stage there is no recognizable embryo proper; so, prior to this stage there is no “ontological” human individual. Like all appeals to common sense, this argument is based on appearances. It does not show that a substantial change occurs at the primitive streak stage, for it does not show that either new individuals or the epigenetic primordia of a developed human person come to be only at this stage.

A hydatidiform mole is a new organic individual, genetically both human and unique, but it is not a new human being. Why not? A sperm and an ovum are two distinct organisms, each an individual cell with its own membrane. A sperm loses its membrane when it enters the ovum; the ovum quickly reacts; the two cells fuse into one, and the process of development begins.<sup>53</sup> The sperm and the ovum no longer exist as distinct entities; the activated ovum is a new, biologically human individual.<sup>54</sup> If it has in itself the epigenetic primordia of a human body normal enough to be the organic basis of at least some intellectual act, this new individual is a person. But the activated ovum lacks these epigenetic primordia if it includes *in itself* anything which predetermines it, genetically or otherwise, to develop only into accessory tissues. That is the case with the activated ovum which develops into a hydatidiform mole.<sup>55</sup>

There are no logical or biological problems if identical twins come about by the division of a previous individual and if chimeric individuals are formed from previously distinct individuals.<sup>56</sup> Ford virtually admits as much when he is reduced to saying that such an account “has little appeal” and that “it would be more plausible to argue that an ontological human individual had not yet begun to exist.”<sup>57</sup> It does offend common sense to say that a couple’s identical twins are really their grandchildren. But common sense simply cannot be trusted when the subject matter is unfamiliar. Moreover, the twins are not grandchildren in the familiar sense, but descendants mediated in an unfamiliar way.<sup>58</sup>

In sum, Ford’s supposedly inductive philosophical reasoning actually proceeds from judgments of common sense, based on appearances. None of his arguments shows that scientists overlook philosophically significant discontinuities in development.

Many, especially of a theological bent, deny the personhood of the zygote with an argument which Ford satisfactorily answers. Donceel, for example, cites a theological opinion which questions basing moral norms on the supposition that hominization occurs at conception, inasmuch as “50% of the ‘human beings’—real human beings with an ‘immortal’ soul and an eternal destiny—do not, from the very start, get beyond this first stage of a human existence.”<sup>59</sup> As Ford points out, many natural pregnancy losses are due to

severe chromosomal defects (and so as explained above are not losses of human beings). Moreover, for most of human history the infant mortality rate was very high. And, theologically, the argument is presumptuous, since we know nothing about how God provides for those who never come to the use of reason.<sup>60</sup>

#### VI. Persons: All Whole, Bodily Individuals with a Rational Nature

According to this notion, what is necessary and sufficient to be a human person is to be a whole, bodily individual with a human nature. On this notion, if a human activated ovum has in itself the epigenetic primordia of a human body normal enough to be the organic basis of some intellectual act, that activated ovum is a person. But some activated ova are too abnormal to be people, and some people, including some or all identical twins, never were activated ova. Thus, most human persons begin at fertilization, although some begin during the next two or three weeks by others' dividing and perhaps also by others' combining.

The argument that a normal human zygote is a person is *not* that it is a *potential* person, which will develop into an actual person if all goes well. The argument, rather, is that the activated ovum which has suitable epigenetic primordia is an *actual* human individual which—unless he or she ceases to be, which can happen to anyone—will remain the same individual while developing continuously into a grown man or woman. Now, whatever, remaining the same individual, will develop into a paradigmatic instance of a substantial kind already is an actual instance of that kind.

Thus, to deny that the activated ovum is a person is either to deny that any bodily human individual is a person or to posit a substantial change between the zygote and the adult. Arguments against the fourth and fifth notions of personhood exclude substantial change, and the argument against dualism excludes denying personhood to bodily individuals.

A unique, human genome is neither necessary nor sufficient to constitute a person. It is not necessary, since someone like E.T. would be a person without a human genome and identical twins are persons with the same genome. It is not sufficient, since a unique, human genome is present in tissues surviving from people who have died as well as in hydatidiform moles and other biologically human entities which lack the epigenetic primordia that make normal human zygotes persons.

Persons are whole bodily individuals. The human body is personal through and through: if others harm my body, they harm me, for my body is I. Yet persons are more than their bodies; we subsist in our bodies but transcend them. So, although I am my body, I am not my body in the *same*

*sense* that my body is I. I am the subject of my bodily properties, processes, sensations, and feelings, but I also am the subject of my nonbodily intellectual knowledge and choices, and my more-than-bodily use of things to achieve my purposes.

Tooley raises an important question: How can personhood defined in terms of *rational nature* account for the ethical significance that each individual's personhood has for others' moral responsibilities?<sup>61</sup> For instance, why should newborn babies' personhood require their parents and others not to kill them? The answer is that all moral responsibilities toward others arise, not from their desires and interests, as Tooley assumes, but from moral truth, beginning with the first principles of practical reason, which direct deliberation and freely chosen acts toward the fulfillment of persons—of the agent and of others as well—in interpersonal communion. Precisely because the goods which are objects of these principles are aspects of what unborn and newborn babies *can* be as persons, these goods generate responsibilities toward these persons, not on the basis of anything actual about them beyond their being persons, but precisely on the basis of their potentialities and needs, whose fulfillment depends as much on the love and care of their parents and others as on their own eventual desires for goods and efforts to attain them.<sup>62</sup>

Tooley's work also shows that if one defends the sixth notion of the person, one must carefully handle the metaphysical and logical concepts involved. One must explain and defend *substance, individual*, and so on.<sup>63</sup>

If the preceding lines of argument were developed fully, would there remain any room for questions about whether normal human zygotes are people? Perhaps room for theoretical questions—which always can be raised—but not for practical doubt. There is a very strong factual and theoretical ground for thinking that almost all of us once were zygotes. The counterpositions are weak. To be willing to kill what for all one knows is a person is to be willing to kill a person. Hence, in making moral judgments the unborn should be considered persons from the beginning—their lives instances of innocent human life.<sup>64</sup>

Some argue that a notion of personhood like Warnock's is sufficient at least for legal purposes. I still consider sound the case I made against that position in my book on abortion. That case is complex, but its central idea is simple:

The law with all its fictions and devices exists to serve persons, to protect them, to guide them in fulfilling their duties, to assist them in vindicating their rights. People are not for the law; the law is for people. Thus the person in a sense stands outside the legal system and above it.

Hence the law cannot dispose of persons by its own fiat, any more than action upon a stage can make non-entities of the producer, the stage crew, and the audience.<sup>65</sup>

Thus, when fundamental rights are at stake, just law may not stipulate who are persons but must recognize as persons all who really are persons.

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## NOTES

1. *Abortion: The Myths, the Realities, and the Arguments* (New York: Corpus, 1970), pp. 11-33, 273-307, 361-410.

2. Pierre de Lochet, "Discussion," in *L'Avortement: Actes du Xème Colloque International de Sexologie* (Louvain: Centre International Cardinal Suenens, 1968), 2:155 (my translation). Also see: Louis Beirnaert, S.J., "L'avortement: est-il un infanticide?" *Études* 333 (1970):520-523.

3. Stanislaw Grygiel developed this argument in a lecture, "The Identity of the Unborn Human Person," at a conference, *Marriage and Family in Modern Culture*, 17-20 March 1988, Franciscan University of Steubenville (Ohio). Dr. Grygiel's address: John Paul II Institute for Studies on Marriage and Family; Pontifical Lateran University; Piazza S. Giovanni in Laterano, 4; 00120 Vatican City.

4. "Do Human Cells Have Rights?" *Bioethics* 1 (1987):2.

5. Dee Brown, *Bury My Heart at Wounded Knee* (New York: Holt, Rinehart and Winston, 1970), pp. 351-366.

6. Tooley argues this point at length: *Abortion and Infanticide* (Oxford: Clarendon Press, 1983), pp. 50-86.

7. *Ibid.*, pp. 33-39.

8. *Ibid.*, p. 35. Tooley here states his strategy only in a provisional way; he later dispenses with "right to life" and finally holds (p. 419) "that it is being a subject of non-momentary interests that makes something a person." My criticism will not depend on the difference between his formulations.

9. See *ibid.*, pp. 95-123, where Tooley undertakes to argue for this view, but begs the question by assuming what he needs to prove (p. 101). A telling critique of this element of Tooley's position: Michael Wreen, "Whatever Happened to Baby Jane?" *Nous*, 23 (1989):690-696.

10. *Ibid.*, p. 303.

11. *Ibid.*, pp. 53-54.

12. *Ibid.*, pp. 419-420.

13. *Ibid.*, pp. 34-35. Because normal adults are paradigmatic instances of the concept of *person* and because Tooley argues at length against restricting personhood to human beings, his stipulation might seem to him reasonable. But granting those points, one can hold a principle such as Jane Beer Blumenfeld proposes: "It is morally wrong to intentionally kill an innocent individual belonging to a species whose members typically are rational beings, unless at least one



of the following conditions obtains: . . .” But Tooley also rejects (*ibid.*, pp. 69-72) this proposal, and in doing so he simply assumes that individuals who have not manifested rationality can at most have a potentiality for it (rather than have it as a capacity, which will be exercised under suitable conditions).

14. *Ibid.*, p. 24.

15. That ethical theory—which is consequentialist—is shared by many others who defend this notion of personhood. For example, Daniel Callahan, *Abortion: Law, Choice and Morality* (New York: Macmillan, 1970), embraces it (although without facing its implications for infanticide): “Abortion is an act of killing, the violent, direct destruction of potential human life, already in the process of development. That fact should not be disguised, or glossed over by euphemism and circumlocution. It is not the destruction of a human person—for at no stage of its development does the conceptus fulfill the definition of a person, which implies a developed capacity for reasoning, willing, desiring and relating to others—but it is the destruction of an important and valuable form of human life” (pp. 497-498; cf. 384-389, where he first adopts the “developmental” notion of personhood). Callahan likes this view partly for the precise reason that it “provides a way of weighing the comparative value of the lives at stake” (p. 396). As usual, the consequentialist who provides the scales determines the outcome of the weighing: the “body-life” of the potential person is easily outweighed by the “person-life” of the pregnant woman in “a huge number of situations” (p. 496; cf. pp. 398, 498). Like Tooley, Callahan gives no argument whatever for adopting the ethical theory he assumes.

16. Tooley considers some arguments involving other notions of personhood when he deals with potential persons; he also criticizes a “metaphysical” argument (which he constructs but insinuates is Thomistic) for the personhood of neonates: *op. cit.*, pp. 169-241 and 332-347. Rosalind Hursthouse, *Beginning Lives* (Oxford: Basil Blackwell/Open University, 1987), pp. 107-117, also criticizes the circularity of Tooley’s argument.

17. Both *Webster’s Third New International Dictionary* and the *Oxford English Dictionary* say that a standard use of “person” is to refer to a living, human individual.

18. To develop this argument: David Wiggins, “Locke, Butler and the Stream of Consciousness: and Men as a Natural Kind,” *Philosophy* 51 (1976):131-158, and the works Wiggins cites in his note 33; James W. Anderson, “Three Abortion Theorists: A Critical Appraisal” (Ph.D. diss., Georgetown University, 1985), pp. 176-201; Michael Lockwood, “Warnock versus Powell (and Harradine): When Does Potentiality Count?” *Bioethics* 2 (1988):187-213; “Hare on Potentiality: A Rejoinder,” *Bioethics* 2 (1988):343-352.

19. Stephen D. Schwarz, *The Moral Question of Abortion* (forthcoming), chapter seven, develops some other promising lines of argument against a position like Tooley’s. One of them is based on the implications of using for personhood criteria which are subject to degree. On this, also see Germain Grisez and Joseph M. Boyle, Jr., *Life and Death with Liberty and Justice* (Notre Dame, Ind.: University of Notre Dame, 1979), pp. 229-236. Two criticisms of the earlier version of Tooley’s argument will repay study: James G. Hanink, “Persons, Rights, and the Problem of Abortion” (Ph.D. diss., Michigan State University, 1975), pp. 42-172; Gary M. Atkinson, “Persons in the Whole Sense,” *American Journal of Jurisprudence* 22 (1977):86-117.

20. A nondualistic theory can account for the irreducibility to bodily functioning of spiritual acts: Germain Grisez, *Beyond the New Theism: A Philosophy of Religion* (Notre Dame, Ind.: University of Notre Dame Press, 1975), pp. 343-353.

21. *Morals and Medicine* (Boston: Beacon Press, 1954), pp. 152, 211-213.

22. *Op. cit.*, p. 64.

23. *Ibid.*, p. 103. Tooley often uses this notion of person-as-software (see pp. 154-155, 163-164, 175-176); he even asks (p. 130) “whether the desires before and after reprogramming belong to the same mental substance.”

24. Some articulations of this line of argument: B. A. O. Williams, "Are Persons Bodies?" in *The Philosophy of the Body: Rejections of Cartesian Dualism*, ed. Stuart F. Spicker (New York: Quadrangle/New York Times Books, 1970), pp. 137-156; Gabriel Marcel, *The Mystery of Being*, vol. 1, *Reflection and Mystery* (Chicago: Henry Regnery, 1960), pp. 127-153; Grisez and Boyle, *Life and Death with Liberty and Justice*, pp. 70-71, 375-379, 402; J. M. Cameron, "Bodily Existence," *Proceedings of the American Catholic Philosophical Association* 53 (1979):59-70. On Kant's form of dualism and some related theories: Joseph M. Boyle, Jr., Germain Grisez, and Olaf Tollefsen, *Free Choice: A Self-Referential Argument* (Notre Dame: University of Notre Dame Press, 1976), pp. 110-121. If no dualism can explain me, much less can the sorts of dualism usually assumed today explain people with amnesia and other abnormal mental states: Kathleen V. Wilkes, *Real People: Personal Identity without Thought Experiments* (Oxford: Clarendon Press, 1988), pp. 100-131.

25. When human persons die, there may be not only bodily but spiritual remains: St. Thomas, *Super primam epistolam ad Corinthios lectura*, XV, lec. ii: "We naturally desire salvation for our very selves, but since the soul is part of the human body, it is not the whole person; therefore, even if the soul attains salvation in another life, still I am not saved, nor anyone else."

26. "Immediate Animation and Delayed Hominization," *Theological Studies* 31 (1970):76-105.

27. *Ibid.*, pp. 79-83.

28. *Ibid.*, p. 101.

29. Benedict Ashley, O.P., makes a cogent case against delayed hominization: "A Critique of the Theory of Delayed Hominization," in *An Ethical Evaluation of Fetal Experimentation: An Interdisciplinary Study*, ed. Donald G. McCarthy and Albert S. Moraczewski, O.P. (St. Louis, Missouri: Pope John XXIII Medical-Moral Research and Education Center, 1976), pp. 113-133. Ashley points out that Donceel drastically understates the case when he says that St. Thomas knew well that the early embryo was not yet a fully organized body. In fact, following Aristotle, Thomas thought that life originates from the semen and the menstrual blood, that neither is alive, and that the very limited, active instrumental power in the semen only gradually organizes the blood into a body which can begin to grow and nourish itself. But Thomas also held that God's infinite power accomplished instantaneously in the conception of Jesus what the semen's power normally takes forty or eighty days to do. Thus, it seems that Thomas accepted Aristotle's theory of hominization, not because he thought that matter cannot receive a personal soul until it has the *organs* required for the sensory basis of spiritual activities, but only because he thought that the semen does not bring about the epigenetic *primordium* of the personal body until forty or eighty days.

30. Moreover, to maintain this hypothesis, Donceel is forced to add another. He stresses (*op. cit.*, p. 85) that the soul, as form, cannot be the efficient cause of the development of the embryo; rather, the soul is the term of the generative process. St. Thomas thought that the father imparted instrumental efficacy to the semen, and that it remained present as the active principle of development. Since that hypothesis plainly is mistaken, Donceel offers another: Somewhat as in evolutionary development of humans from lower forms of life, God is the proper efficient cause of embryonic development, creatively transforming the parents' contributions until the material is ready to receive a personal soul, which he then also creates.

31. Donceel also claims (*ibid.*, pp. 92-96) that historical evidence shows that delayed hominization was given up under the influence both of the erroneous biological theory of preformation and of Cartesian dualism. On this, see my *Abortion*, pp. 171-172.

32. The clearest statement of this argument I know of: Robert M. Veatch, "Definitions of Life and Death: Should There Be Consistency?" in *Defining Human Life: Medical, Legal, and Ethical Implications*, ed. Margery W. Shaw and A. Edward Doudera (Ann Arbor, Michigan: AUPHA Press, 1983), pp. 99-113.

33. Stephen D. Schwarz, *The Moral Question of Abortion* (forthcoming), chapter six, skillfully treats numerous versions of the common sense argument, and in doing so provides an excellent model for treating many others.

34. *When Did I Begin? Conception of the Human Individual in History, Philosophy and Science* (Cambridge: Cambridge University Press, 1988), p. 108.

35. *Ibid.*, p. 115.

36. *Ibid.*, pp. 168-170.

37. *Ibid.*, p. 129.

38. *Ibid.*, pp. 119-120; cf. pp. 121-122, 135, 170-172.

39. *Ibid.*, p. 122. Sentences like this make it hard to interpret Ford's argument in a way that allows it coherence and plausibility. But I have done my best.

40. *Ibid.*, p. 136.

41. *Ibid.*, pp. 139-145.

42. *Ibid.*, p. 124; cf. pp. 117-118, 133, 157.

43. *Ibid.*, pp. 133, 159. He also relies heavily on arguments based on common sense, e.g. (p. 157): "But the placenta has no nerves, is insentient and has always been regarded as extraembryonic tissue. While respect and grief have traditionally been expressed for the still-born fetus, at times giving it a burial, this has not been so for the placenta."

44. *Ibid.*, pp. 149-151; cf. pp. 107, 119, 132.

45. *Ibid.*, p. 162; cf. pp. 170-177.

46. *Ibid.*, pp. 174-177. The biologist, Anne McLaren, recounts her journey to this view ("Prelude to Embryogenesis," in *Human Embryo Research: Yes or No?* [Ciba Foundation], ed. Gregory Bock and Maeve O'Connor [London: Tavistock, 1986], pp. 14-15), acknowledging that after an initial insight: "It has taken a further ten years *and some pressure from outside the scientific community* for this distinction to result in a suggested change of terminology to eliminate the ambiguity of the term 'embryo' [emphasis added]." Already at a 1964 international biomedical conference on the IUD, Christopher Tietze urged that a consensus be developed that "pregnancy, and therefore life, begins at implantation" (see my *Abortion*, pp. 111-112).

47. *Op. cit.*, p. 175; cf. pp. 118, 137-138, 162, 170. Ford deserves credit for *trying* to give an account of the discontinuity he posits. Most who share his view simply ignore the problem: Is it an individual all along or not? If so, why not the same individual? If not, what is it until it becomes an individual?

48. Gabriel Pastrana, O.P., "Personhood and the Beginning of Human Life," *Thomist* 41 (1977):247-294, who criticizes (pp. 252-253) my attempt—which I admit was not entirely satisfactory—in *Abortion* to show that the human individual begins at fertilization, thinks hominization occurs by a substantial change at the primitive streak stage. But he does not show (pp. 274-284) that the facts require that hypothesis, and Ashley's argument against Donceel also tells against Pastrana's understanding of the implications of the hylemorphic theory.

49. The quoted sentence opens a recent, magisterial, fifty-page summary of what is currently known about mammalian fertilization: R. Yanagimachi, "Mammalian Fertilization," in *The Physiology of Reproduction*, ed. E. Knobil, J. Neill et al. (New York: Raven Press, 1988), p. 135.

50. *Op. cit.*, p. 149; cf. pp. 117, 133, where he suggests that the cells formed by early divisions are identical, whereas in reality they begin at once to differ (although at first not so much that each could not develop as a separate individual), which is why not all embryonic individuals have precisely either 2, or 4, or 8, or 16, or . . . cells; see a work that Ford himself often cites: Anne McLaren, "The Embryo," in *Reproduction in Mammals*, book 2, *Embryonic and Fetal Development*, ed. C. R. Austin and R. V. Short, 2nd ed. (Cambridge: Cambridge University Press, 1982), pp. 2-3: "Embryos with 2 and 4 cells are much more often encountered than those with 3 and 5 cells; the following day, 8-cell stages predominate, but the scatter is wider; after four or five successive cleavage divisions, little synchrony remains. The first cell to divide from the

2-cell stage mouse embryo has recently been shown by Chris Graham and his colleagues in Oxford to contribute a disproportionately larger number of progeny to the inner cell mass of the blastocyst, and fewer to the outer trophectoderm." Also, Ford, op. cit., pp. 137-138, describes the blastomeres as if they were marbles in a bag, forgetting that in this case the bag (the zona pellucida) also is an organic *part* of the reality and that the blastomeres interact; see, for example, D. J. Hill, A. J. Strain, and R. D. G. Milner, "Growth Factors in Embryogenesis," in *Oxford Reviews of Reproductive Biology* 9 (1987), ed. J. R. Clarke (Oxford: Clarendon Press, 1987), esp. pp. 403-404 and 411, for evidence that the early embryo's cells are in constant and intense interaction, and that until implantation "the early embryo is self-sufficient with regard to the expression of intercellular messengers" (p. 411).

51. Op. cit., p. 175.

52. Ibid., p. 155. Ford's note to this passage (p. 206 n. 36) refers to two works on embryology; neither supports Ford's fanciful notion (p. 175) that distinct, individual cells' "clock mechanisms become synchronized and triggered" to form them into one new individual.

53. See *ibid.*, pp. 102-108. If two or more sperm enter before the ovum reacts, the resultant individual, which may be a hydatidiform mole, cannot develop normally. A factual description of the fusion of sperm and ovum and the initial development of the new individual: R. G. Edwards, *Conception in the Human Female* (London: Academic Press, 1980), pp. 593-605.

54. For a detailed defense of the position that the new individual begins at this point, not at syngamy, see: St. Vincent's Bioethics Centre Working Party, "Identifying the Origin of a Human Life: The Search for a Marker Event for the Origin of Human Life," *St. Vincent's Bioethics Centre Newsletter* 5:1 (March 1987):4-6; T. V. Daly, S.J., "Individuals, Syngamy and the Origin of Human Life: A Reply to Buckle and Dawson," *St. Vincent's Bioethics Centre Newsletter* 6:4 (December 1988):1-7. The address of the St. Vincent's Bioethics Centre: St. Vincent's Hospital; 41 Victoria Parade; Melbourne, Victoria 3065; Australia.

55. An analogous account, presumably, can be given of an ovum developing parthenogenetically. However, if some parthenogenetically developing human ovum had in itself the necessary epigenetic primordia, it too would be a person. What about an anencephalic baby? In most cases the cause of anencephaly is unknown, and cases vary greatly: D. Alan Shewmon, "Anencephaly: Selected Medical Aspects," *Hastings Center Report* 18:5 (October/November 1988):11-19. Even if such a baby now lacks (but previously had the primordium of) the bodily basis of some intellectual act, he or she is a brain-damaged person, just as is the adult whose higher brain functions are irreparably lost.

56. The fact that individual plants remain individuals although they *could be* divided and grafted shows that there is nothing logically or biologically absurd in an organism remaining substantially the same although it could have been divided into two or more individuals of the same sort or combined with another or others. On this and other facts which Ford and others use to argue against beginning at fertilization, see Thomas V. Daly, S.J., "The Status of Embryonic Human Life: A Crucial Issue in Genetic Counseling," in *Health Care Priorities in Australia: 1985 Conference Proceedings*, ed. Nicholas Tonti-Filippini (Melbourne, Australia: St. Vincent's Bioethics Centre, 1985), pp. 45-57.

57. Op. cit., pp. 120, 136.

58. Ford offers two other arguments. First, he says (p. 118) that until the two-cell and perhaps the four-cell stage, the messenger RNA already in the ovum before fertilization controls events, and argues that the new human individual "could hardly be said to exist before the embryonic genome, including the paternal genes, is switched on. If the embryo's own genome is not activated or expressed, or if it is suppressed, no human individual or offspring results." But granting the factual supposition, the conclusion does not follow. For, since the ovum with its maternal RNA does nothing until the sperm penetrates it, and at that point a biologically new individual begins to be, the switching on of the embryonic genome is not necessary for the

zygote's individuation. (The nonexpression or suppression of the new individual's genome can be understood as resulting in his or her early death.) Second, Ford points out (p. 168) that circulation begins around the end of the third week and argues (p. 170) that this is sufficient to show that the new individual has begun, since it is now a living body with the primordium of at least one organ formed for the benefit of the whole organism. Ford does not use this argument to deny individuality at the slightly earlier primitive streak stage. In this context, however, Ford denies (p. 170) that "the DNA of the genes of the zygote could be taken as the equivalent of an organ of a human being. The genetic instructions for the formation of the whole human being and its organs must not be confused with the actual human being and its organs." His implicit conclusion is that the zygote has no organ whatsoever, and so has no vital function at all, and therefore is not an organic individual. Both the argument based on the beginning of circulation and the assumption that the zygote has no functioning organ can be answered with the same answer: once Ford's denial that there is a continuously developing biological individual is set aside, it is clear that the individual is functioning from the start in one respect: it is growing, not in the sense of gaining mass but in the sense of multiplying and differentiating its cells. *Something* in the individual (not necessarily only the DNA) controls this process; that something is the individual's functioning organ, and the individual's development is that organ's function.

59. *Op. cit.*, p. 100; the opinion is quoted from Karl Rahner, but many others propose the same argument.

60. Ford, *op. cit.*, pp. 180-181.

61. *Op. cit.*, pp. 61-77, 231-241.

62. For the most recent refinement of several elements of this theory: Germain Grisez, Joseph Boyle, and John Finnis, "Practical Principles, Moral Truth, and Ultimate Ends," *American Journal of Jurisprudence* 32 (1987):99-151. We always have talked about basic *human* goods. But the principles, having been disengaged by abstraction from the specific content of human experience, actually point to the goods of bodily persons (who are the only sort of beings whose acts can be directed by these principles), whether or not of the human species. Thus, the goodness of life for bodily persons and the wrongness of choosing to violate any basic personal good entail that it would be wrong to choose to kill E.T., but do not entail that it is wrong to slaughter steers or use chimpanzees for medical experimentation.

63. See Tooley, *op. cit.*, pp. 77-86, 146-164, 333-346. For significant help toward doing the necessary work, see Francis C. Wade, S.J., "Potentiality in the Abortion Discussion," *Review of Metaphysics* 29 (1975):239-255; John Gallagher, C.S.B., *Is the Human Embryo a Person? A Philosophical Investigation* (Toronto: Human Life Research Institute, 1985). The Human Life Research Institute's address: 240 Church Street, Toronto, Ontario M5B 1Z2.

64. While Tooley and others think otherwise, it is wrong to try to answer the question about how to treat individuals that might or might not be people before answering the question about when people begin. For if one does not answer the latter question first, one is likely to treat some individuals that should be considered persons as nonpersons—a grave injustice if they are in fact persons.

65. *Abortion*, p. 407, to be read in the context of pp. 361-429. See also, Germain Grisez and Joseph M. Boyle, Jr., *Life and Death with Liberty and Justice*, pp. 68-71, 229-241, 298-313.