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Now that is possibly a rather primitive way of putting the matter, which is perhaps appropriate, because death is certainly a primitive factor in our lives. I believe that the position can be stated in more sophisticated and less theological terms, just as Cahill's can.\

There is a related empirical matter which I mention with some diffidence because it involves technical problems in which I have no competence. A great deal of the suffering and especially the degradation of the terminally ill which so rightly troubles Cahill, comes from the particular stage in the development of medical technique. By drawing out final agony, we create problems. Whatever difficulties exist in practice for applying the rule of thumb about not having to take extraordinary means to prolong life, that distinction too would seem to depend on the state of medicine rather than the problem of life or death itself. On the other hand, one may clearly withhold or reject a treatment which holds no hopes of cure. To call this "passive euthanasia" seems to me to confuse two significantly different situations. Even the blurred distinction between ordinary and extraordinary means, and the clearer but harsher distinction between means with and without probability of success, save us, in principle (at least), from taking positive action to end life, which is not licit, and both in principle and in practice save us from asking which human life is meaningful, which in this context is not licit either.

REFERENCES
2. Ibid., p. 81.
3. Ibid., p. 60.
4. Ibid., p. 60-61.
7. Ibid., note 45, p. 63. Incidentally, Grotius in The Law of War and Peace, Bk. II, ch. XXI, 11 and 14 likewise argues against the right of anyone to take his own life or to yield the right to do so to another, because the right of dominion over life and death is God's alone. Grotius is only secondarily interested in suicide here, but the principle is the same as that of Aquinas.

Developmental-Genetic and Psycho-Social Positions Regarding the Ontological Status of the Fetus
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Sparked by the recent and continuing controversy over the abortion issue, debate over the nature of that which is aborted has intensified. There seems to be general agreement that what is being controverted are the answers to the following questions: 1) what are the ontological characteristics and requirements of individual, human personhood? 2) are such ontological characteristics and requirements an endowment or an achievement? 3) if an achievement, when during development does it occur? The questions express the concept of "hominization," the process by which a fertilized egg (zygote, conceptus) becomes an individual, personal human (man).

Historically, a separate concept, "ensoulment" has either been an essential component (or requirement) of hominization or synonymous with it. While ensoulment may invoke in some the notion of religious ties—indeed, ensoulment is a theological concept—it can be easily translated into humanistic language, as suggested by Noonan, by substituting "human" for "rational soul." As Noonan cogently states:"The problem of knowing when man is a man is common to theology and humanism."\

Wasserstrom describes, for different ethical views which seem to prevail concerning the status of the fetus, that the fetus is, in most if not all morally relevant respects, like 1) a fully developed, adult human being; 2) a piece of tissue or a discrete human organ; 3) an animal, or 4) a status which is close to but not identical with that of a typical adult.2 Wasserstrom's ethical categories emphasize a very important aspect of the fetus, that is, its moral relevance, the value that a fetus has during its development. Moral judgments as to the value of lives within the chronological age spectrum—infant, adult, aged—are usually not required of us; they are held to be morally equivalent, of equal value. But the fetus has presented a new and ambiguous case whose value has not been generally recognized as equal to other humans of different chronological age. And, if the fetus is not automatically granted a value equal to other humans, what value is it granted, and when, and how does its value change with time?

In attempting to find answers for the types of questions indicated...
above, people have been turning more and more toward medical
science for assistance. Yet, as Hellegers has indicated, description
of fetal development and condition are limited by prevailing technology,
will change with time, and certainly cannot give meaning to the events
which occur during development. Hellegers feels that medical science
is being asked to provide answers to questions which it cannot properly
address, and that "...Terms like 'personhood' ... have no meaning in
biology." 3 Rather, as the editors of The Month have stated: "...the
judgment about personhood is a philosophical one, made in terms of
values." 4

The ontological and moral distinctions made between develop-
mental stages are often made for practical and utilitarian reasons or
made on the basis of one's historical, religious and cultural back-
ground as much as on the basis of strict guidelines of any discipline.

Pope provides an example of this type of attitudinal variation
when he indicates that destruction of the fetus may occur at any time,
for any reason, at least during the first two trimesters, yet, experi-
mentation on fetuses of the same age, which may provide extensive
benefit and offer only minimal risk, is severely limited or forbidden.
Further, similar research is permitted on postnatal persons. Pope con-
cludes: "...When killing is the issue, the fetus seems to belong to
the mother; when experimentation is the issue, the fetus belongs to
itself." 5

In order to try to better understand and perhaps clarify some parts
of the debate as to the ontological status of the embryo and fetus
during development, I wish to provide some of the more recent pos-
tions taken by a variety of authors on this subject, who reflect a
variety of backgrounds and approaches. If clarification of better
understanding is not achieved, perhaps a better perspective of the
issues will be.

There has been a proliferation of terms used to describe the entity
which is, or is becoming, an individual human person; terms such as
"human life," "human being," "humanliness," "fullness of humanity,
"life," "animated life," "man," "individual," "human individual,
"person," have all been used, often interchangeably, to describe the
human embryo or fetus at different stages of development, with
respect to different qualitative characteristics. It is therefore difficult
and sometimes impossible to know exactly what an author wishes
to imply by his use of a term unless specifically defined for his context.
Thus, I wish to apologize in advance for any errors in interpretation I
may make in this regard.

Recent Positions Regarding the Ontological Status of the Fetus
A. The Developmental-Genetic Status of the Fetus
1. Fertilization
   The basic argument that hominization occurs at fertilization is by

reason of genetics: the product of fertilization by humans must be
human. Noonan has suggested that the genetic code established at
fertilization makes the zygote a "self-evolving being," and "...A
being with a human genetic code is man." 6

On the beginning of an individual human life, Ramsey says:

"In a remarkable way modern genetics seem to teach — with greater precision
and assurance than theology could ever muster — that there are 'formal causes,'
immanent principles or constitutive elements long before there is any shape or
motion of discernible size or subjective consciousness or rationality in a human
being — not merely potency for these things that later supervene, but in some
sense the present, operative actuality of these powers and characteristics. These
minute formed elements are already determining the organic life to be not only
generally 'human' but also the unique individual human being it is to be. It is
not now unreasonable to assert, for the first time in the history of scientific
speculation upon this question, that who one is and is ever going to be came
about at the moment an ovum was impregnated." 7

Wertheimer points out a similar view:

"But people call the zygote a human life not just because it contains the DNA
blueprint which determines the physical development of the organism from
there on, and not just because of the potential inherent in it, but also because it
and it alone can claim to be the beginning of the spatio-temporal-causal chain
of the physical object that is a human body." 8

Rahner, in his book Hominisation, seems to speak again to this
point, that ensoulment and hominization are accomplished with the
establishment of the zygote, when he states:

"Because spirit as a genuine and indivisible mode of being is a primordial
datum in transcendental experience in which man knows himself as one single
spiritual and corporeal being, man has an derivative nature which is present
either totally or not at all. This nature therefore is either necessary and eternal
or it comes into existence by being posited transcendentally through creation by
the absolute cause. It cannot do so by combining previously existing inde-
dependent elementary parts, whatever form these may be imagined to take." 9

These arguments support the position that the genetic code, estab-
lished at fertilization, serves as the informing agent or formal cause, of
the human organism, the "soul" of this human organism who then,
consequently becomes hominized.

2. Potentiality

Not all are unable to accept this view of the zygote as an individual
human person; many regard what is established as fertilization as a
genetic human but an individual human person only in potential.

Engelhardt states:

"But that (fertilization) is the beginning of human diplaid life, it is not the
beginning of personal life, nor of individual life which precedes the zygote in
the haploid form (i.e., as sperm and ova). Further, since genetic continuity
extends into the period beyond human personal life, as well as there being
somatic mutations during personal life, genetic continuity is of no use in
deciding the beginning of personhood. Genetic continuity is neither a necessary
or sufficient condition of personal continuity, or of substantial identity." 10

Donceel sets forth an argument on behalf of those who would favor
immediate hominization which states that the early embryo enjoy an ontological status compatible with possession of a human soul, and hence enjoys the status of a human person because it will grow and develop into an organism "endowed with sense organs, a nervous system and a brain, which will enable it to perform conscious and intellectual activities ... The embryo is potentially, virtually a human person ... That is why the embryo may possess a human soul and be a human person ..." 11 Donceel adds, as he begins to turn his argument:

"The trouble is that, if this is true, every single cell of the zygote, of the morula or the blastula, is a human person; for at the earliest stages of embryony each cell resulting from the division of the fecundated ovum possesses such a power and virtuality." 12

Such a "power and virtuality" may now have to be extended to any cell, even the adult differentiated cell. Gurdon has shown that under appropriate conditions, single nuclei from adult, differentiated cells of the amphibian Xenopus, can support complete, normal development, to adult stages, of an unfertilized, enucleated egg. As a result, a large number of organisms, identical twins of the original donor nuclei are produced. 13, 14 Donceel also calls attention to the case of parthenogenesis, whereby an unfertilized egg may, under certain conditions, undergo embryony without having been fertilized by sperm. 15 Thus, the unfertilized egg would be potentially a human being as much as a zygote and would have to possess a human soul in the same way a zygote would.

Donceel concludes: "Thus we see that neither the possession of the genetic capital nor the virtuality or power of developing into an adult person is proof that the zygote is already a human person." 16

Another consideration of probabilities has led to a viewpoint favoring immediate hominization: Noonan suggests that if moral distinctions are not to appear arbitrary they must show a real difference in probabilities. 17 He then considers sperm and ova, either of which show only a very low probability of development. However, once a sperm fertilizes an egg the probability of the zygote developing is at least 50% and perhaps as high as 80%. Noonan continues:

"The argument from probabilities is not aimed at establishing humanity but at establishing an objective discontinuity which may be taken into account in moral discourse. As life itself is a matter of probabilities, as most moral reasoning is an estimate of probabilities, so it seems in accord with the structure of reality and the nature of moral thought to found a moral judgment on the change in probabilities at conception." 18

Noonan does not suggest that the argument from probability proves the humanity of the embryo, but it is a "buttressing" consideration, showing the plausibility of the standard adopted. 19

Siegel in his article "A Bias for Life," states that: "... It would seem that the weight of common sense is on the side of those who wish to distinguish ontologically and ethically between a born infant and a fetus." 20 Siegel after describing the status of the fetus as "potential human life," continues: "... it is clear that successive stages of human ontogeny contain within themselves the future stages. That is to say, that all 'higher' stages are present in potential in the lower stages." 21 In a footnote he adds:

"Potentiality has an ontological status. That is, what I am to become is present in what I am, for the simple reason, it seems to me, that I cannot become what I will become unless I am what I am now. Therefore, there is an organic relationship between what I am now and what I will be later." 22

This kind of argument has been extended by DeMarco to the concept of a "right" of the fetus. DeMarco, examining the relationship between the word "human" and the way in which the term applies to the fetus, uses Aristotle's four causes to develop his relationship and concludes:

"The foetus as an active human form tends toward his perfection as a more complete human being; the empirical human who is tends, by his own natural weight, to become the normative human who ought to be. Because of this natural, active tendency in humans, from form to finality, we say that everyone has a right to become what he ought to be. The claim to be more perfect, to become what one ought to become, is recognized in the very fact of that dynamic tendency which expresses itself in the development of the human foetus. The foetus, from its incipience, is involved in its finality. The rights of the foetus, therefore are his natural claims to preserve and develop the dynamic tendency which is the intrinsic expression of his human form, so that he is able to participate more fully in that finality which is perfection of his being." 23

3. Implantation

A second stage of development which has been given ontological significance is implantation. Implantation begins 5 to 7 days following fertilization. The embryo, at this stage called a blastocyst, has, by repeated divisions, cellular movements and migrations, reorganized into an inner cell mass (embryoblast) which will become the embryo proper and an outer cell mass (trophoblast) which will become the fetal component of the placenta. By the time this reorganization has been completed, the embryo has reached the upper region of the uterus which has become prepared to receive the blastocyst. Reacting to some stimulus or induction, the trophoblast cells which make contact with the lining of the uterus (endometrium) begin to secrete enzymes which destroy some endometrial cells and intercellular matrix, and invade the cellular layers. Proliferation and migration of trophoblast cells then occur among the destroyed and/or separated endometrial cells. Within a few days, some trophoblast cells begin to secrete the hormone HCG (human chorionic gonadotropin) which prevents the initiation of a new menstrual cycle and assures a maternal hormone balance required to maintain the endometrial lining upon which placentation depends. 24

By about 13 days post-fertilization, trophoblast cells have formed lacunae (interstitial spaces) within the endometrial tissues which become filled with maternal blood as the digestive enzymes secreted
by the trophoblast cells digest maternal blood vessels in these areas. By 18 days, the forerunners of fetal blood vessels appear; by 21 days, true chorionic villi with fetal blood vessels are present and functional fetal-maternal circulation is established. 25

Implantation and the initiation of placentation is a crucial process, for without establishing this relationship with the maternal blood supply, further development beyond several days would be unlikely. Also, the quality of the placenta which is established is, in many ways, directly or indirectly responsible for the quality of the infant which emerges at birth. It is no wonder then, that the time of implantation has been considered by some to represent a shift of ontological significance and hence a time when hominization may occur.

Indeed, some would equate conception with implantation. Diamond considers the term ‘conception’ a misnomer, the result of using a shortened term for ‘contraception’. 26 He continues:

"... on the basis of biological data, I submit that we can identify the 'contraceptive' technique as being more precisely 'anti-fertilization' and identify anti-implantational acts as being 'contraceptive.' This distinction has its basis in the identification of 'conception' with 'implantation.'" 27

Perhaps conception, stemming from 'concepirere' — 'to catch or take to one's self,' more accurately refers to the taking of the blastogast to the maternal uterine lining (although the actual mechanism of implantation seems to indicate taking of the uterine lining by the blastocyst).

And with respect to the identification of conception with fertilization by the Church, Diamond states:

"In short, we simply do not know what 'conception' was meant to mean by the unbiological Fathers. Again if hominization occurs factually at conception (implantation) no flawing of the content of the Immaculate Conception ensues." 28

Haring has expressed a related point of view:

"But the moment of ensoulment, or the moment of 'conception' in the fullest sense as the beginning of a human person, does not belong to the date of the revelation. A certain fact this comes through in the Constitution on the Church in the Modern World of Vatican II. The Commission responds to the amendment or modi that the expression 'from the moment of its conception life must be guarded' is not meant to determine the time of animation." 29

Ramsey has suggested that the trophoblast cells and embryoblast cells, although genetically identical, represent distinct developmental pathways of ontological significance, and, only after their pathways have sufficiently diverged, during the process of implantation, can the embryo "come to be" a human being. However, recent work has shown (at least in mice) that the embryoblast cells (inner cell mass) are probably determined, that is, already committed to becoming embryoblast, before the process of implantation begins. Likewise, outer mass cells (trophoblast) are similarly determined before the actual implantation process and at least some of them are induced by inner cell mass cells to become those trophoblast cells which will be most involved in establishing the placenta. 30 Strictly speaking then, the pathways of embryoblast and trophoblast may be said to have diverged before implantation proper begins.


While implantation and placentation are proceeding, the inner cell mass undergoes extensive changes which signal the initiation of development of the embryo proper: During the second week post-fertilization, cells on the floor of the inner cell mass detach (delaminate) and/or segregate to become a new layer (endoderm) which spreads to line the entire cavity of the blastocyst, the primary yolk sac. This marks the start of gastrulation, that period during which cell changes and cell movements occur resulting in the elaboration of the basic body plan of the embryo. Reorganization of the inner cell mass continues with the formation of the amniotic sac, leaving the embryonic disk — those cells which will become the embryo proper. 31

Beginning at about 15 or 16 days, a period of cellular migration by embryonic disk epiblast cells results in the formation of the primitive streak. Some epiblast cells become motile and move in nonrandom directions from their original location toward the midline of the disk where they then migrate beneath the epiblast, then between the epiblast and hypoblast, forming a third layer, the mesoderm. At the cephalic end of the embryo this layer becomes the notochordal process, the forerunner of the notochord, which will induce the formation of the neural tube, the forerunner of the brain and spinal cord. By virtue of these gastrulation movements the primary axes of the embryo are established and elaboration of some of its major organ systems is initiated. 32

Thus, the second and third weeks of gestation are times of extreme activity and change on the part of the trophoblast cells and embryoblast cells, leading to the intimate, life-supporting connection with the maternal blood supply in the uterus which will support the embryo, rapidly being elaborated by gastrulation activities. These extensive, developmentally significant changes which begin to occur at about two weeks, mark the end of the possibility of identical twinning and probably also of the formation of chimeras.

Identical twinning may occur as a result of separation of cleavage products into two (or more) groups of cells, each of which then undergoes separate complete development, or as a result of the formation of two (or more) "primary organizer" regions in a simple embryoblast leading to the formation of two primitive streaks. As the primitive streak establishes the axis of the single embryo, reflecting changes in cell determination and differentiation, it is doubtful that successful
twinning could occur after its appearance.\textsuperscript{33}

Chimeras represent the combination of some or all of the cells which may result from cleavage of separately fertilized eggs, the products of multiple ovulation. While the embryo which results from identical twinning will have cells of identical genotype, the embryo which is a chimera will contain cells of variable genotype, depending on the specific combinations of sperm and eggs.\textsuperscript{34}

The phenomena of twinning and formation of chimeras have been used as serious challenges to those who would argue immediate hominization (at fertilization) or delayed hominization, but prior to gastrulation (including the earliest stages of implantation).

Ramsey has commented on the possibility of twinning:

"It might be asserted that it is at the time of segmentation (twinning not earlier, that life comes to be the individual human being it is ever thereafter to be. The religious word for that process would be to say that the germinating matter becomes 'animate,' or is informed by, or constituted, a unique human soul."\textsuperscript{35}

And, specifically referring to the presence of chimeras, Hellenger states:

"Modern genetic studies therefore suggest that, in old standard Catholic language one could say: 'If by means of two fertilizations two souls are united, and if a single body contains only one soul, then we are beginning to see cases in which one of the two souls must have disappeared without having any fertilized egg having died.'"\textsuperscript{36}

Diamond stresses the crucial nature of the process of gastrulation whereby the basic body plan is elaborated by the movements of newly differentiated cells.\textsuperscript{37} The fact that this process establishes the irreversible unity of the individual, is paramount to his argument for hominization. He bolsters his argument by elaborating the notion that the embryo, up to about three weeks, is primarily using preformed molecules ("intrinsics") of the egg for sustenance, and is essentially like a tissue culture. Not until about three weeks, when the "cardiovascular" system becomes functional, does the embryo begin to use "extrinsics."\textsuperscript{38} However, there is a growing body of data which indicates that the embryo, from the 2-cell stage and possibly conception, has an active genome and is interacting with, and probably being regulated by, its maternal environment in a variety of ways.\textsuperscript{39}

5. The Development of the Circulatory and Nervous Systems

After gastrulation, two new indicators of fetal development have been presented as being possible determinants of hominization: 1) the development of the heart and its independent beat signaling the establishment of the embryonic cardiovascular system and 2) the initial development of the brain and spinal cord with the concomitant establishment of neurological electrical activity.

The presence of spontaneous heartbeat has long been used as a diagnostic indicator of "livingness" although the designation "spon-

taneous" has recently been a subject of controversy. The trend is to utilize the presence or absence of brain electrical activity, the EEG, as the critical factor in diagnosis of "livingness."\textsuperscript{40} In the absence of brain activity a heartbeat would not be spontaneous. While it may seem reasonable to use similar diagnostic indicators as criteria for making judgments concerning the presence or absence of a "living person" in fetuses as well as those already born, the comparison is not without problems.

Hellengers has pointed out some difficulties in trying to find an analogous situation in the fetus to compare with the adult. One difficulty is that the fetus has no spontaneous respiration. Exchange of oxygen and carbon dioxide, as well as other exchanges which involve the circulatory system occur through the placenta. The question then arises as to whether or not the placenta should be considered an artificial respirator.\textsuperscript{41} It seems difficult to call such a complex and efficient organ system such as the placenta, elaborated by and under the control of the fetus, an artificial system. It seems much easier to call it what it is: a complex, efficient organ system which has evolved to perform a series of functions for the fetus over a certain period of time due to the fact that selective advantage has been placed on intrauterine development of the fetus. The interaction and interrelation between the respiratory and circulatory systems in the fetus are not easily made analogous to the same relationships in the newborn or adult.

A similar kind of analogy has, and is being used in the case of brain activity. Since the cessation of brain activity, or more precisely, the irreversible cessation of brain activity, is being used more and more in determining the death of a human person, might the appearance of brain activity at the other end of the life spectrum signify the coming to life of a human fetal person?

Hellengers has stated the difficulty of this approach:

"The absence of brain waves and chest movements five minutes after death has great accuracy in predicting that the body will shortly disintegrate, will never develop thought or memory again, will never have further use for money, or engage in financial or other contractual obligations... On the other hand, the finding of a flat EEG and the absence of chest expansion in a seven-week-old fetus can be significantly correlated with a totally different future. Bodily disintegration rarely occurs, thought and memory will appear, contract-making ability does lie in the future, and there will be a distinct use for money... In brief, one should not confuse the clinical or laboratory findings with their prognostic significance for society. The findings are properly in the realm of science; the significance cannot be determined by the scientific method."\textsuperscript{42}

Bok has also commented on the use of similar criteria to determine the beginning and end of a person's life:

"Such an analogy would seem to possess a symmetry of sorts, but it is only superficially plausible. For the lack of brain response at the end of life has to be shown to be irreversible in order to support a conclusion that life is absent.
The lack of response from the embryo’s brain, on the other hand, is temporary and precisely not irreversible.”

Two points seem to emerge here: 1) that what seem to be similar biological criteria are in many cases applied differently to human organisms at opposite ends of the developmental continuum primarily because of the value given those organisms; that is, there is not moral parity; and 2) that what seem to be similar or identical biological criteria may not be such, for purely biological reasons, i.e., (irreversible) brain activity. Again, we are considering opposite ends of the developmental continuum: in the one case, that of the fetus, biological progress is being made toward increasing brain function (more synaptic connections between numbers of nerve cells, elaboration of enzyme systems for synthesis and degradation of neurotransmitters, etc.) while in the other case, that of the dying, biological decay is occurring, leading to decreasing, and perhaps irreversible, inactivity of the brain (loss of nerve cells and/or synaptic connections, inability of synthesis to keep pace with degradation, etc.).

At any given time the level of performance between fetus and dying patient (although he may recover) may be equivalent: the dying patient’s EEG may go flat and may or may not return while the fetus’ flat EEG (during that same time) may begin to show pattern soon thereafter as development proceeds. Yet, during the time of equivalent function (or nonfunction, or at least nonmeasurable function) the dying patient is still considered a person who has rights (at least for a specified length of time, through changes of equipment and monitoring teams) while the fetus during that same time is not considered a person with rights.

6. Quickening — Detection of Movement of the Fetus by the Mother

Quickening has historically represented a significant change in the ontological status of the fetus during development but is now held with much less regard. Its variability in time of occurrence, its dependence on maternal factors as much as on fetal development, and the fact that the fetus “moves” from fertilization on, makes it of no real value in discussions of homization.

7. Viability

A currently popular view of distinguishing between a human person and one who is not yet such a person is that of viability. Viability refers to the probability of a pre-term fetus surviving outside the uterus, disconnected from the placenta, with or without the assistance of medical technology.

Hegel points out a certain artificiality to the term “viability”:

“The term ‘viability,’ often erroneously confused with ‘being alive,’ predicts the future, rather than describing the present. The fetus in utero is of course perfectly viable providing he is left alone.”

And, Noonan has summarized:

“... There is considerable elasticity to the idea of viability. Mere length of life is not an exact measure. The viability of the fetus depends on the extent of its anatomical and functional development. The weight and length of the fetus are better guides to the state of its development than age, but weight and length vary. Moreover, different racial groups have different ages at which their fetuses are viable.

... dependence is not ended by viability. The fetus is still absolutely dependent on someone’s care in order to continue existence. . . . uncerared for, the older fetus or the younger child will die as surely as the early fetus detached from the mother. The unsubstantial lessening in dependence at viability does not seem to signify any special acquisition of humanity.”

It is important to emphasize that viability is really a function of medical technology: as artificial placentas and related methods of treatment (fetal medicine) become more sophisticated, the age of viability will continually be pushed back to earlier stages of fetal development, ultimately to complete in vitro development, from the fertilized egg.

Thus, if homization is equated with viability of the fetus, as the definition now stands, one will necessarily have to move from a position favoring delayed homization to a position of immediate homization at fertilization as medical technology progresses.

8. Birth

The birth process has long been held to have special significance especially with regard to the entrance of a new “person” into the world.

A strong Jewish belief is that birth confers personhood on the individual regardless of the time of ensoulment. However, as pointed out by Feldman, there is no widespread agreement among the Jewish community as to when personhood is attained:

“Despite Rabbi’s view that the soul enters at conception, a variety of answers are proposed in the Talmud for when the ‘child’ (katen) can come to Olam Haba: he is ready to do so according to these various views either at (a) conception, (b) birth, (c) circumcision, or when he is (d) able to speak or (e) to respond ‘amen.’”

The birth process, or perhaps it is better to say the typical or traditional birth process, as an event of significant ontological status has been continuously lessened “due to the rapid advances of fetal medicine,” as summarized by Ramsey:

“The rapid advancements in medical practice in caring for the unborn, and present and future possible ways to render him ‘born alive’ long before the normal time of human birth are depriving us of ‘birth’ as a seemingly significant distinction in our moral reflections upon the care to be extended to new life. . . . Future developments in this regard, and in the medical care that can be extended to the fetus in utero, are going to obliterate the distinction between the pre- and the post-natal period.”

These considerations serve to indicate that the ontological status and moral relevance of stages of fetal development as well as the value
attached those stages may be as varied as the number of individuals who choose to address the issue, even while arguing from the same or similar disciplines.

B. The Psycho-Social Status of the Fetus

While recent advances in genetics and molecular biology, as applied to development of the fetus, have for some firmly established the genetic-embryological definition of the hominized fetus from fertilization or some time later, there have emerged new criteria with different emphasis for hominization. This emphasis is on the human personality.

Williams argues that because physiology and medicine, for all their advances, cannot provide a distinctive "nodal point" (for persons) for any stage of development from implantation to birth, a new "conception of person and personality as a consequence of socialization" has gained credence. 48

Dupre, in seeking to sharpen the distinction between humanity and personhood, has dealt with the primitiveness of the concept of "person." He believes that the biological sciences can resolve the question of when human life begins but that personhood, although dependent on the presence of human life, cannot be scientifically determined. Dupre indicates that the notion of personhood is original and not a derived or acquired reality and cites Strawson's proof that the notion of a person logically precedes the predicates usually attributed to it, such as consciousness and corporeal characteristics. 49

Strawson has included in his description of the concept of person:

"... The concept of a person is logically prior to that of an individual consciousness. The concept of a person is not to be analyzed as that of an animated body or of an embodied animal... a necessary condition of states of consciousness being ascribed at all is that they should be ascribed to the very same things as certain corporeal characteristics, a certain physical situation, etc. ..." 50

Dupre concludes:

"Thus, personhood, as undetermined, must begin with the beginning of life; though personhood never be realized fully, must be present at a minimum at the beginning of life." 51

He hastens to add, however, that since a dynamic entity (personhood) can only gradually be realized, "the degree of actualization enters into the very essence of personhood." 52

The question may be, then, not when the embryo or fetus becomes a person, but when does the embryo or fetus become a person of value?

Engelhardt has elaborated requirements for personhood which confer "rights" as well:

"By what achievement is man singled out as the sole animal, so far encountered, with the rights of a person? ... Self-awareness and rationality would seem to be crucial... That is, being a person involves the possibility of autonomous action, self-awareness and self-determination..." 53

In considering the role that brain death cases have played in sharpening the distinction between human personal and human biological life, Engelhardt continues:

"... An important philosophical decision is involved, namely, that a certain level of knowing, willing, and sensing as a necessary condition being absent (i.e., its embodiment: the brain), one can judge that there is no person present. ... Even if one were to hold that the concept of person is in essence a primitive and undeфинible notion, one would just as surely need to concede that there were certain necessary conditions for the presence of a person. " 54

It would seem then, that the body, specifically the brain in this case, is a necessary, though not sufficient condition for personhood. Rather, it is the proper functioning of the brain which is required, the actualization of the potential displayed in the development of the brain and nervous system.

Engelhardt continues his philosophical treatment of the beginning of personhood:

"The distinction between human biological and human personal life is a distinction between levels of being and of value. The question is then, what distinctions can be made with regard to human ontology?" 55

Engelhardt dismisses the value of sperm and ovum; he finds trouble with treating the zygote as a person since many fail to implant. Also, the zygote for a time may twin, and any value placed on the zygote would be a derived one (a couple wants a child) and not intrinsic to the zygote itself. He further points out that if strict criteria, such as the functioning embodiment of self-conscious rationality, were seriously proposed for personhood, the fetus would not qualify at any point in its development. 56 To those who would propose that the fetus is already a person because he will be one (a potentiality argument) Engelhardt answers and expresses an important distinction: "An important difference between rights and values must be noted. Potential persons have no rights though they may possess value." 57

To the argument for personhood on the basis of substantiality, whose proponents assert "that only that which was already in the present a person could in the future become one," Engelhardt replies:

"Substantial changes are involved, though they do not occur abruptly. Rather the qualitative developments proceed by the accrretion of quantitative change. The search for a simple decisive development overlooks the complexity of the substance of personhood which is more a category of measure than one of quality or quantity. The category of person is rather a qualitative quantity where no particular quantity is decisive, yet where there are qualitatively distinct alternatives." 58

Engelhardt extends the discussion to the infant:

"Not only is the fetus not in a strict sense a person, neither is the child until a certain level of consciousness is attained. Is there a basis for distinguishing between the value of a fetus and of a child? If nothing else, the infant plays the role of person in the mother-child relationship... It necessarily plays an explicitly social role and is valued by its place in this role. The value we acknowledge in children suggests that there must be a second concept of per-

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son used to identify deficient cases of personhood, in addition to the
strict concept used to identify actual self-conscious moral agents... 'person' is also a
social role or office which claims the intrinsic values of actual persons.

In order to play the social role 'person' the minimal interaction of
which the infant is capable is required. For Engelhardt, this requires
the fetus to be brought ex utero in a condition which would be called
viable.

Engelhardt concludes:

"There is no univocal concept of human life or of person. One is forced, other,
to acknowledge two concepts of human life and two concepts of person,
biological versus personal human life, and a strict versus social concept of
personhood." 60

However, there still remains the task of being able to determine
when a child becomes a truly self-conscious moral agent. Also, it may
be argued that fetuses are able to play a social role for some persons.

Tooley treats the concept of person as "a purely moral concept,
free of all descriptive content." Person is equivalent to having a "seri-
ous moral right to life." 61

Tooley's requirements in order that an organism possess a serious
right to life — be a person — are as follows:

(1) it must possess, or have previously possessed, the capacity to envision a
future for itself and to have desires about its own future states; (2) it must
either possess, or have previously possessed, the capacity to have the concept
of a continuing subject of experiences and other mental states; (3) it must
either be, or have been, a continuing subject of experiences and other mental
states; (4) it must either possess, or have possessed, self-consciousness; (5) it
must possess, or have possessed, the capacity for self-consciousness." 62

Tooley's argument for these five requirements:

... rests on the claim that there is some conceptual connection between on
the one hand, the rights an individual can have, and on the other, the existence
in life of the corresponding desires." 63

Tooley expresses two concerns with respect to making practical
moral decisions: one is the problem of setting the time during on-
togeny when personhood is reached, necessarily arbitrary until
psychologists (and others) have adequately established the point at
which a human organism satisfies the requirements agreed on. The
other problem involves the question of whether other organisms
belonging to other species may also possess a serious right to life — be
persons. This is especially relevant since we do not yet know how to
adequately describe, physiologically or otherwise, the requirements
for personhood proposed, let alone detect their presence or emergence
for the purpose of making moral judgments.

Fletcher called for a concerted effort to define in operational terms
the concepts expressed in the words "human," "man," and "person,"
and to find the key hominizing trait in order that normative decisions
could become possible. 64

Fletcher provided a list of criteria or indicators as a "Tentative

Profile of Man" which he hoped would elicit debate from many
quarters toward a more definitive profile of man. 65

Two years later Fletcher submitted four indicators of humanhood
which evolved from those submitted in 1972: (1) subjectivity, self-
awareness, self-consciousness as Tooley asserted; (2) human rela-
tionships, "the relational potential" favored by Richard McCormick;
(3) happiness, included by Fletcher "more in a light than a heavy
vein"; (4) neo-cortical function which Fletcher maintains is "... the
key to humanness, the essential ... Only this trait or capability is
necessary to all of the other traits which go into the fullness of
humanness." 66 The four traits were generally agreed to represent the
essence of humanness, but Fletcher added:

"It should be noted at the onset that of the four discrete cardinal criteria thus
entered, none of them is mutually exclusive of any of the others. The
decisive question therefore appears to be about precondition. Which of these
traits, if any, is required for the presence of the others? To answer this is to
find the criterion among the criteria." 67

He concludes:

"The key trait must be one that covers all cases, no matter how infrequently
they are seen clinically. Incidentally but not unimportantly, the neo-cortical
indicator is medically determinable whereas Tooley's and McCormick's are
not." 68

The question still remains: what does measure of neo-cortical func-
tion really measure?

According to the "relational indicator" discussed by McCormick,
the time during fetal development (or post partum) that recognition of,
or relating to, the organism occurred, would determine when per-
sonhood would be achieved (or granted). However, it says nothing of
recognition or relation on the part of the fetus or newborn or child.

"Relational potential" implies that the necessary prerequisites for
interpersonal and social relationships be at least minimally present.
This requirement would forestall personhood until it could be deter-
mined whether or not the brain and nervous system were developed,
structurally and functionally, to such an extent that the operations
characteristic of "relationships" could be carried out.

It is interesting to cite here the words of Pope Paul VI with refer-
ence to the relation between fetus and mother:

"In such a vocation (motherhood) there is implicit and called to concretization
the first and most fundamental of the relations constitutive of the personal-
ity — the relation between this determined new human being and this deter-
mined woman, as its mother. ... he who says fundamental human relationship
says a universal human value, worthy of protection as pertaining to the univer-
sal common good, since every individual is born at all else and constitutively
born of a woman." 70

The concept expressed above seems to imply that significant rela-
tionships may occur at different levels, that the purely biological rela-
tionship between the fertilized egg and the ovudct, then the endo-
metrium, may be as meaningful a relationship, with respect to

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ontology, as one which occurs between newborn and parents.

Outler rejects approaches such as Engelhardt’s, Tooley and Fletcher’s as being unable to settle the argument regarding attainment of personhood except on arbitrary grounds. Outler feels that much of the problem is traceable to the body-soul dualism that has been a historical as well as present-day component in the debate over humanity or personhood:

"... all its versions involve some kind of invidious comparison between lower and 'higher' levels in the humanum, and it commits one to some sort of 'magic moment theory' as to when and how animal tissue becomes 'ensouled' or 'animated' — and hence to some 'magic moment' along the human lifeline when the defenseless finally deserves to be defended. Now the difficulty here is that every decision about such a moment is arbitrary, despite all arguments for or against it."71

Outler states that, in fact:

"... some fetuses do, in some ways, suggest 'personal life' to some people; and that the 'magic moment' approach entails unmanageable ambiguities."72

Outler continues:

"'Personhood' is not part of the human organism, nor is it inserted into a process of organic development at some magic moment. It is the human organism oriented toward its transcendent matrix, in which it lives and moves and has its human being. The self is 'there' long before self-consciousness or any self-conscious acceptance or rejection of the primal intention which represents... Our personhood is our identity, and this is always experienced as preexistent."73

Outler concludes:

"Instead of searching for magic moments when the subpersonal becomes personal, we would do better to envisage each individual human process as a unique slice of being, in which 'personhood' is its 'longitudinal axis' each with its own divine intention and destiny."74

Bok has expressed the opinion that the diverse views and definitions of humanity (personhood) have arisen because they "have been sought for such different purposes." They have been used to promote or defend a given position on birth control, abortion, etc., "with little concern for the other consequences flowing from the particular view."75

Bok presents three purposes for seeking to distinguish human and non-human:

1. "... the urge to know about the human species and to trace the biological or divine origins and the essential characteristics of mankind... This consciousness of oneself and wonder at one's condition has often been thought one of the essential distinctions between man and animal;

2. "... to define what a good human being is - to delineate human aspirations;

3. "... to try to set limits to the protection of life."76

The latter two, normative purposes for establishing humanity, seek to provide guidelines for action, and are used coincidentally with the first purpose, a descriptive one.

Bok continues:

"It is crucial to ask at this point why the descriptive and the normative definitions have been thought to coincide; why it has been taken for granted that the line between human and non-human or not-yet-human is identical with that distinguishing those who may be killed from those who are to be protected.

One or both of two fundamental assumptions are made by those who base the protection of life upon the possession of humanity. 'The first is that all human beings are not only different from, but superior to, all other living matter... The second assumption holds that the superiority of human beings somehow justifies their using what is non-human as they see fit, dominating it, even killing it when they wish to... Neither of these assumptions is self-evident... The very enterprise of basing normative conclusions on such assumptions and distinctions can no longer be taken for granted."77

Bok’s final comments concerning this aspect of the search to distinguish human from non-human seem particularly significant:

"We must abandon, therefore, this quest for a definition of humanity capable of showing us who has a right to life. To do so must not, however, mean any abandonment of concern with the human condition - with the quest for knowledge about human origins and characteristics and with aspirations for human goodness. It is only the use of the concept of 'humanity' as a criterion of exclusion which I deplore."78

Have any of the issues been clarified, any of the questions answered more significantly? Probably not; and why not? The most obvious reason seems to be illustrated in the way in which Wasserstrom posed his ethical views concerning the status of the fetus which we cited earlier: "That the fetus is in... morally relevant respects like..."79

Additionally and perhaps more importantly, we should ask: morally relevant to whom? The status of the fetus often, if not always, revolves around individual cases; how one approaches the issue depends on past experience with inputs from culture, religion, family, education, etc. Engelhardt has said:

"Until one decides philosophically what will count as a human person, it is useless to expect that empirical science can devise operational criteria for the identification of instances... No amount of empirical data can demonstrate the existence or presence of a person until one has decided what a person is."80

What seems to happen, is that every one does decide, philosophically, "what will count as a human person," to him, and finds, if he feels it is needed, empirical scientific data which demonstrate the presence of that person, at least to him.

Morally relevant to whom? To each in his own way, for his own reasons.

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