Is the Human Embryo a Person?

Is the human embryo a person? The answer to this question is found in the sciences of biology and philosophy, but for practical purposes, the answer has significant implications for human rights. If the human embryo is not a person, then it would not seem to have any rights. In that case, without fear of opposition, human embryos could be subjected to research and experimentation that might result in their destruction. If the embryo is a human person, what rights does it have? Embryos, even though they are self directed, do not exist as autonomous organisms. They are subject to the care of other people. What is the responsibility of individuals who cares for a human embryo? What is the responsibility of the community to make it possible for the human embryo to survive and flourish? If the human embryo is not a person at the first stages of its existence, it seems necessary to determine when it is endowed with humanity; at what stage of its existence can we predicate personhood? In order to consider this question adequately, we shall depend upon the biology of human development and the concept of person as it has been utilized through the ages. Hence, we shall consider:

I. The meaning of the term person;
II. Whether the human embryo fits into the category of person;
III. The implications of the foregoing considerations.

Before proceeding to these considerations however, we must consider the concept of potency, because it is fundamental for our considerations.

Pre-Note on Potency

In the philosophical construct we shall be using in this presentation, all of reality is divided into act and potency. A being in act, exists here and now. Things exist in act as substances or as accidents inhering in substances.

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Thomists speak of a substance being in first or second act. That is, a
substance exists (first act) and performs actions in accord with its nature
(second act). A being in potency is not in act here and now, but has the
intrinsic capacity to be rendered into act, that is, to become what it is not
here and now. There are various modes of being in potency. Passive
potency means that an agent may be rendered into act, by another being in
act. For example, many people who are pale have the passive potency to
become tan by exposure to the sun. Before exposure to the sun, they were
not tan, but had the passive potency to acquire this quality. Active potency
implies that a being in act has the capacity to become something else, or to
act in a different manner, by reason of its own power. The agent goes from
not acting to acting, or from sitting to standing. Experience teaches that
beings act in accord with their nature. (Operatio sequitur esse). An active
potency may be remote or proximate, depending upon the stage of
development of the being with the potency. A rose bush has the potency to
bloom and produce flowers; in the winter this potency is remote, in the
spring this potency is proximate. A grain of corn has the potency to grow
into a large stalk of corn, given the proper environmental conditions; not into
an oak tree. When it is still a grain of corn, it does not look like the large
stalk it has the potency to become. The concept of potency enables us to
explain changes in a being when we know that the subject or substance
under consideration remains the same, even though appearances change.
Moreover, the concept of active potentiality is significant in the discussion
of the embryo as person. Certainly, an embryo does not look or act like the
entity that we usually refer to as an adult person. But as we shall see, it
does have the active potency to develop into a mature adult, the entity that
we usually refer to as a person.

I. What is a person?

In Catholic philosophical and theological considerations, the definition of
person is usually derived from Boethius, a philosopher/theologian who lived
in the 5th Century. Boethius defined person “as an individual substance of a
rational nature.” The two key terms are individual and rational. When
commenting upon this definition, Thomas Aquinas indicated that this
definition applies to human beings because they are separate from one
another, thus they are individuals, and because they are rational, that is, they

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2 Summa Theol. I,76,4, ad. 1; Heaney, p.36; Bracken, p. 62
4 For a discussion of passive potency using the human sperm as an example, cf. J. Eberl, p.152
5 Boethius. De duab:s naturis 3; PL 64,1343,
“have control over their own actions and are not only acted upon as are all other beings, but act of their own initiative.”6 He considered the term person a special name differentiating substances of a rational nature from other substances and it is clear that the use of the term followed upon intrinsic qualities of the agent, not upon a decision based upon social acceptance or law. As Aquinas uses the term, “the mere presence of the intellective soul is sufficient for personhood.”7 Furthermore, for him, “the name of person does not belong to the rational part of the soul, nor to the whole soul alone, but to the entire human substance”8, to body and soul as an integral unity.

As we shall see, the notions of initiative and rationality referred to by Aquinas are carried over into the concept of person as it used by most modern bioethicists and philosophers, but they use the term consciousness. Aquinas also used this definition of person when explaining the Trinity, but he stated that “the word is not used in the same sense of God as of creatures but in a higher sense than that by which we name creatures.”9 The divine persons of course, are not the topic of our study. When Aquinas uses the word person in reference to human beings, he maintains that they are creatures composed of matter and form; that is of body and soul.10 Person is simply a specific name for a human being following from the form of a human being. When the rational form is present, then the entity in question is a person. This concept will be especially important when we consider whether human being who do not possess consciousness are persons.

Moreover Aquinas maintains that the matter and form of any living being must be commensurate or conformed to one another. This concept is known as the hylomorphic theory.11 Hence, “the powers of the soul and biological capacities must correspond to each other.”12 That is, the form must be able to function in the matter that it enlivens. The form of a giraffe would not be able to function in the body of a lion. Nor would the form of a daisy be able to inform the body of a chicken. Both the concept of rational activity and the concept of matter and form being commensurate to one another will be significant when we consider the embryo at the time of fertilization. The need to have the matter commensurate to the form leads to

6 Summa Theol. I. 29,1
7 J Eberl, p.140
8 D. Irving, p.18-46
9 Summa Theol., I. 29, 2
10 Summa Theol. I, 76,1
11 For a clear explanation of the hylomorphic theory, cf. E. Sgreccia, “The Subject in a Vegetative State; A Personalistic View” Zenit News Service, April 24, 2004:3-6
12 Summa Theol., 1.90.4.1,ad 1
many of the theories which even in modern day opt for delayed hominization.

Modern Concept of Personhood

From Thomas Aquinas to the present day is quite a leap. But our consideration is not so much with the historical development of the concept of person, but rather with its connotation and denotation in our present culture. Present day thinking in regard to the concept of person is founded upon the writings of John Locke. Locke was not concerned with the ontological structure of the human person, as was Thomas Aquinas. Locke was aware of the concept of substance, and did not seem to deny its validity, but did not consider it necessary for his deliberations. Rather he concentrated upon the activities that are associated with being a person. Locke defined a person as

A conscious thinking thing (whatever substance made up of, whether spiritual or material, simple or compounded, it matters not) which is sensible, or conscious of pleasure and pain, capable of happiness or misery, and so is concerned for itself, as far as that consciousness extends.”

Following Locke, many present day philosophers, especially those interested in bioethics, concentrate exclusively upon the activities or attributes that indicate personhood. They are not concerned with the substratum or the ontological nature of the conscious subject, nor are they concerned with the concept of potency. One observer states: “Most present day authors regard consciousness as the sine qua non of personhood.” But in addition to consciousness, some bioethicists indicate other capacities or attributes that are associated with personhood. Stephen Tooley lists seventeen different capacities of personhood, beyond consciousness that have been proposed by other philosophers or bioethicists. Most of these capacities indicate a permanent basis for consciousness, that is, an on going subject, but because they are not concerned with the ontological substratum of human activity, these authors do not investigate explicitly substance or potency. Joseph Fletcher, an American famous for Situation Ethics, mentioned neocortical function, self-awareness and euphoria (as found in

14 Wade, p.247
16 B. Gordon., p. 353
retarded children), and human relationships as constituent factors of personhood.\textsuperscript{18} For our purposes, it is significant to note that these capacities, such as consciousness, are innate; not due to an extrinsic source, and that the subject develops them over time. Though not derived from law, the implications of personhood may be defined or defended in law as human rights.

By the same token, according to the Lockian teaching that associates personhood with consciousness, it is possible for one to be a human being and not be a person, if the human being has not yet acquired or loses the capacity of consciousness. One of the more famous statements of this conviction was proposed by another American pragmatist. Tristam Engelhardt.\textsuperscript{19} He maintains:

Not all humans are persons. Fetuses, infants, the profoundly mentally retarded and the hopelessly comatose provide examples of human non-persons. Such entities are members of the human species…but they do not have standing in the moral community…One speaks of persons in order to identify entities one can warrant blame or praise. For this reason, it is nonsensical to speak of respecting the autonomy of fetuses, infants, or profoundly retarded adults who have been never been rational.

Englehardt is not alone in this conviction. It is shared by many writing in the field of bioethics.\textsuperscript{20} This conviction, however, is not logical. If human beings who do not possess consciousness are not persons, why does society, (and bioethicists as well), demand that conscious persons offer proxy consent for those individuals who cannot speak for themselves. Would it not be more accurate to speak of human beings who do not possess the capacity of consciousness as impaired persons, or persons in need of help?

Pope John Paul II referred to this conviction when speaking about the care of patients in a permanent vegetative state. (PVS).\textsuperscript{21}

Faced with patients in similar clinical conditions (PVS), there are some who cast doubt on the persistence of the “human quality” itself, almost as if the adjective vegetative state which symbolically described a clinical state, could or should be applied to the sick person as such, actually demeaning their value and personal dignity….A man

\textsuperscript{18} “Four Indicators of Humanhood: the Enquiry Matures”, Hasting Center Report, 4:4-7, 1974
\textsuperscript{19} “Some Persons are Humans, some Humans are Persons, and the World is What we Persons Make it.” In Philosophical Medical Ethics, Boston: Reidel, 1977: 183-194
\textsuperscript{20} J.P. Lizza maintains…”there is a consensus among philosophers that they (PVS and other non-cognitive patients) are not persons.” “Persons and Death”, Journal of Medicine and Philosophy, 1993, 18: 351-374
\textsuperscript{21} “On the Care of PVS Patients”, Papal Allocution, 3/20/2005,n.3., National Catholic Bioethical Quarterly, 4:3;(Autumn 2004) 574-576,
even if seriously ill or disabled in the exercise of his highest functions, is and always will be a man, and he will never become a “vegetable” or an “animal.”

Bioethicists writing in the Catholic tradition do not exclude from personhood human beings who have lost permanently or never attained “consciousness”. Many in this tradition now use a more acceptable phrase coined by an Australian bioethicist, Nicolas Tonti-Phillipini, and refer to permanently unconscious patients as Post Coma Non-responsive patients. (PCNR) 22

In sum, it seems that there is a considerable gulf between the meaning of the word person in the Catholic tradition, and that of the contemporary bioethicists. Is there any way of bridging this gulf? It seems there is. Contemporary bioethics offers a very static concept of personhood. It does not recognize explicitly the concept of potency, but it does imply that the subject who acquires consciousness is the same as the subject who at one time did not possess consciousness. On the other hand, the Thomistic concept is dynamic; it envisions a developing entity, a body that changes and develops under the impetus of its own form. If one were to take the consciousness criterion for personhood literally, an adult human being with competent intellectual faculties would not be a person when asleep. Yet, contemporary bioethicists will admit that the attributes that are associated with personhood are acquired over time, that the individual who acquires consciousness is the same individual who at one time did not possess consciousness, and that “the essential powers of personhood need not be actualized for a person to be present.” 23 Thus, there is a continuity observable in the conscious person; an implicit admission of potency. The adult was at one time a child, an infant, and even a fetus, with the capacity, or active potency, to develop consciousness. Having achieved some semblance of agreement in regard to the term personhood, let us move on to consideration of the human embryo.

II. The Embryo and its Human Development

Knowledge concerning the development of the human embryo has increased over the past fifty years to the present day. 24 In our generation, this knowledge has increased exponentially, mainly as the result of improved

23 J. Eberl, p. 141; cf. Tooley and Fletcher
electronic magnifying devices and the ability to observe fertilization in the process of In Vitro Fertilization (IVF). Our purpose will not be served by presenting detailed biological information. Rather, I shall present agreed upon conclusions concerning embryology. It is true that some disparate interpretations are often presented concerning the implications of human biological development, but there is a consensus among embryologists concerning the scientific facts of early human development.  

There is agreement on the following biological findings among renowned human embryologists:

First, the process of human development begins when the sperm and ovum are united. That is, human life begins at fertilization when a one cell zygote is formed by fusion of a sperm and ovum.

Second, the zygote is not a small homonucleus, (not a preformed image of the human person) but develops in an epigenetic manner. The structure and organs of the future fetus, infant, young and mature adult are present potentially in the one cell zygote.

Third: the zygote has a genetic package (the human genome) that is the basis for future human development. In potency, it contains all the matter needed for the development of the fetus into a mature adult with consciousness. This genetic make up is the blueprint and efficient cause of human development.

From the viewpoint of hylomorphism, the matter of the zygote is commensurate with the form (the human soul). The matter of the embryo, the genome, consisting of 46 chromosomes and numerous genes, must be activated by a form that is able to enliven the matter in accord with its potential. We call this form the human soul. Thus, the zygote at the time of fertilization is not a potential human being; rather it is a human being with active potential.

The beginning of the human person with active potential for future development is present at the time of fertilization. There are no other marker events in the development of the zygote that would indicate “that it receives

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26 Epigenesis is a form of biological development the opposite of preformation. Thus, the entity develops through activation of potentiality. D. Irving states that in genetics this is called “a cascading effect”, whereby “each previous direction causes the specific formation of each succeeding direction..” p. 27.

27 Summa Theol.I, 76, 1
the capacity to develop biologically through the several stages of gestation and become an adult human person.” 28

Opinions contrary to the above statement do not question that the zygote is a living being. Rather, they question whether or not it is a human being from this initial point of its existence. There is general agreement that at the time of fusion, the zygote is a living entity. But is this living entity an individual with active potential to become an adult human being? Mainly because of three factors, there have been voices raised against the proposition that humanity or personhood, or ensoulment, begins at fertilization of sperm and ovum. 29

These factors are:
1. Most of the zygotes that are formed are never implanted. The mortality rate for zygotes before implantation is usually estimated anywhere from 20% to 60%; some estimate as high as 80%. 30 The intuition is offered that it seems ridiculous to claim that God creates a human soul for each zygote and then shortly afterward allows it to die. 31
2. Multiple births may occur after the one cell zygote has been formed. In the case of monozygotic twins for example, was there one person present, or were there two persons present, when the zygote was formed? If there was only one, what happens to this person when the second person appears? If there were two persons to begin with, were they both living in the same body? Those who present this argument prefer to delay hominization until the time when multiple births are impossible and use the term Pre-embryo to designate the zygote from the first days of its existence. 32
3. The matter must be commensurate with the form. In order to prove that the matter and form are commensurate, there should be visible some semblance of the organs which signify human consciousness. The primal streak, the beginning of the central nervous system (CNS) at least should be present in its initial stages in order to presage the compatibility between the human body and the human form, the spiritual soul. 33

Response to Objections:

28 Senate Select Committee on the Human Embryo Experimentation Bill, 1985 Commonwealth of Australia, Canberra, Commonwealth Government Printers, 1986
30 Monitoring Stem Cell Research, p. 88
These objections which seek to delay the beginning of the human person until after the time of initial animation have been answered at length by others. I shall reply to them briefly, citing sources for longer refutations.

1. In regard to the number of zygotes that are created thus predicating the existence of human souls that do not inform bodies for an extended period of time, we must admit a quandary. Clearly, many of the zygotes that do not survive are not human from the time of fusion of sperm and ovum. Often, the fusion is not successful because the requisite number of chromosomes is not present. When the fusion does result in a human zygote that is never implanted in the uterus and dies shortly after fertilization, there is no facile explanation. The Creator seems to provide “seeds” in abundance that never bear fruit. Moreover, are we to say that when more than half of the infants born died in childbirth, that they were never living human beings?

2. While the cause of multiple births is not well understood, using it as an objection challenging the time of humanization is not well founded. Multiple births, for example monozygotic twins, often occur when a pluripotent cell in the morula breaks loose and develops as another human organism, a process similar to cloning. There is one human person before twinning occurs, and that human person continues in existence after a new human person develops through parthenogenesis. Moreover, monozygotic twinning may occur well after implantation and the formation of the primitive streak. Thus, the term Pre-embryo loses any relevance and is considered to be “scientifically inaccurate and erroneous.”

3. Indeed, the matter must be commensurate with the form in order for an organism to develop to maturity. However, modern science makes abundantly clear that the sufficient matter for the development of the human person is the genome in the one celled zygote. The genome is the formal cause (the blueprint or program) for future development of the zygote, as well as the efficient cause of its future development. Thus, the theories set forth for delayed hominization, often utilizing the thought of Thomas Aquinas as proof, become quite implausible. “The zygote has its own

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34 J. Bracken, p. 52-54
37 R. O’Rahilly and Fabiola Muller, Human Embryology and Teratology, New York, John Wiley and Sons, 1994, fnote p. 55
38 Ashley, p. 17-18
molecules to start operating and starts producing its own enzymes and proteins at syngamy.\textsuperscript{39}

In addition to these specific refutations, the teaching of Pope John Paul II calls into question any attempt to defend delayed hominization;\textsuperscript{40}

Some people…claim that the result of conception, at least up to a certain number of days, cannot yet be considered a personal human life. But in fact, from the time that the ovum is fertilized… the life of a new human being with its own growth is begun. It would never be human if it were not human already. This has always been clear and modern genetic science offers clear confirmation. It has demonstrated that from the first instant there is established the program of what this living human being will be; a person, this individual person with its characteristic aspects already well determined.

III. Implications;

1. Though it seems highly probable that the human form, the soul, is infused in the matter at the time of fertilization, this has not been defined by the Church. The Second Vatican Council declared: “Life once conceived must be protected with the utmost care; abortion and infanticide are abominable crimes.”\textsuperscript{41} But after the Council, the Sacred Congregation of Doctrine and Faith, after once again condemning abortion added, “This declaration expressly leaves out the moment when the spiritual soul is infused.”\textsuperscript{42} In a more comprehensive document in 1987 however, the Congregation went a bit further, but still did not make a definitive statement in regard to the moment of ensoulment. It stated: “the conclusions of science regarding the human embryo provide a valuable indication for discerning by human reason a personal presence from the first appearance of human life: how could a living human creature not be a human being? The Magisterium has not expressly committed to this affirmation of a philosophical nature.”\textsuperscript{43}

In the encyclical Gospel of Life, Pope John Paul II strongly affirmed these statements, but once again did not define the moment when ensoulment takes place. Would it be possible for the Church to define the moment when human life begins on the basis of philosophical evidence? Other spiritual truths have been defined on the basis of philosophical evidence, for example,

\textsuperscript{39} Bracken quoting Ford, Kisher and Irving. p.. 60
\textsuperscript{40} \textit{Evangelium Vitae}, n. 60
\textsuperscript{41} \textit{Gaudium et Spes}, Church and the Modern World, n. 51
\textsuperscript{42} CDF, Declaration on Procured Abortion, 1974, footnote 19; AAS 66(1974) n.7
\textsuperscript{43} CDF. Instruction: \textit{Domum Vitae},1987 AAS, 80,,(Jan. 12, 1988) 70-102
that the rational intellectual soul is the form of the human body.\textsuperscript{44} Even though the arguments from reason “provide a valuable indication for discerning a personal presence at the moment of the first appearance of a human life”\textsuperscript{45} the reluctance on the part of the Magisterium to make a formal definition is understandable. Biological knowledge is continually developing and changing. Even though there is much that is known about human generation, and all this knowledge points to the rational form existing from fertilization, there is still much that is not known about the operation of the human form (soul) and the process of human generation.

2. Human beings who do not have the capacity to perform all the actions associated with being human are still human. They have the human form, the human soul, at least in first act. This form may not be able to activate all the human capacities because of physical disability; that is, it is incapable of second act in regard to some human functions. But there remains a passive potency, the virtual power,\textsuperscript{46} to perform these actions. Depriving retarded or debilitated human beings of moral personhood is a grave injustice. Society indicates the worth of human beings unable to speak for themselves by demanding proxy consent.

3. Because the human fetus is a person it has the right to life, the most basic of all rights. How best to protect and foster the recognition of this right by individuals and society? Surely widespread education is needed concerning the beginning of human life. In other words, our first task is to win the hearts and minds of the people through education and persuasion so that they understand when human life begins and the evil of abortion. It seems our first task is to establish that the beginning of human life is a scientific, not a religious question. Efforts to protect the life of the unborn through legislation should be coupled with this educational effort. As we seek to alert people to the evil of abortion, the words of Pope John Paul II must be kept in mind. He wrote:\textsuperscript{47}

Decisions that go against life sometimes arise from difficult or even tragic situations of profound suffering, loneliness, a total lack of economic prospects, depression and anxiety about the future. Such circumstances can mitigate even to a notable degree subjective responsibility and the consequent culpability of those who make these choices, which in themselves are evil.

\textsuperscript{44} Council of Vienne, 1312. \textit{Enchiridion Symbolorum}, ed. Denzinger et Schoenmetzer, Barcelona, Herder, 1976.n.902
\textsuperscript{45} \textit{Evangelium Vitae}, n. 60
\textsuperscript{46} \textit{Summa Theol.}, I., 77,8
\textsuperscript{47} Encyclical Gospel of Life, (Evangelium Vitae), \textit{Origins}, (April 6, 1995) 24:42:n.18
In other words, as we engage in the effort to protect the rights of the unborn, we must realize that women seeking abortions are often in need of help, and that condemning them can be counter productive. Moreover, we must avoid becoming self righteous and hard hearted ourselves as we seek to improve the mores and laws of society.

4. Maintaining that human life begins at fertilization and that society has a responsibility to protect unborn children does not imply that human life is an absolute good. Human life, even of unborn infants, need not be prolonged until prolonging life is a physical impossibility. The Catholic tradition in regard to prolonging life is well developed; if the means to prolong life do not offer hope of benefit or impose an excessive burden, a person beset with a fatal pathology, or the proxy for that person, may forego the means to prolong life, even if death would result. Applying these norms in the case of the unborn and infants is indeed a difficult proposition, but one truth of our teaching should not be over emphasized to protect another truth.

Conclusion

Is the embryo a human person? It seems there can be no equivocation; the answer is affirmative. Convincing our peers of this fact will not be easy. The appearance of the zygote and its lack of physical development in the first stages of existence are the main arguments put forward to deny this truth. The concept of potency, in one way or another, must be relied upon to show the true nature of human development. But we have made progress. I recall when the Pro-Life movement started in the U.S. in the mid 1970’s many people considered a fetus a growth within a woman’s body, similar to the appendix. Now there is a general consensus that the unborn infant in the womb, at least after one or two months, has a life of its own. Convincing the public that this life starts at fertilization is our mandate; our debt to humanity.

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48 “Why Women Have Abortions,” Perspectives on Sexual and Reproductive Health, September, 2005