THE MORALITY OF USING "SURPLUS" HUMAN EMBRYOS IN STEM CELL RESEARCH

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Abstract

The greater moral good will be served by providing adequate federal funding for human embryonic stem cell research. The discovery of promising new treatments for disorders such as juvenile diabetes, Parkinson's Disease, Alzheimer's Disease, spinal cord injuries, genetic birth defects, heart disease, and certain cancers, depends also on the availability of new and unadulterated embryonic stem cell lines.

Opponents of embryonic stem cell research argue that to destroy a human embryo in this worthwhile effort is tantamount to killing a human being: murder. This judgment rests on the presupposition of a particular metaphysic, an essentialist theory of the nature of things. However, on the basis of this view of reality, opponents are unable to make the case that an embryo, especially a surplus embryo destined never to be implanted in a uterus, has the same right to life as a human person. According to this adopted philosophic framework, the embryo cannot be shown to possess the essential nature and capacities of a human being, among them reason, obligation, and the ability to fulfill obligations.

Possessing the claim to a right to life depends upon complex moral/social facts and valuations. Embryos do not manifest the necessary and sufficient conditions to justify this claim. However, all human embryos have great value. The value of an implanted embryo, potentially developing into a human being, is intrinsic and implies, if not a right to life, at least the importance of its viability. The value of a surplus embryo, a logically possible but not reasonably potential human being, can only be extrinsic. But its extrinsic value as a resource for research and therapy is beyond question.

Introduction

Whether the federal government should provide funding for medical research using stem cells from human embryos has rapidly become a topic of intense public discussion. The issue of embryonic stem cell research (ESCR) deserves serious attention and thoughtful consideration. Weighty values have been brought into conflict. Chief among them are the recognition of the intrinsic value of some human embryos and the urgent need to explore promising new avenues for the successful treatment of dreadful human diseases and disorders.

I confess at the outset that I have a personal interest in the success of ESCR.

I suffer from Parkinson's Disease and recently have been diagnosed as having Non-Hodgkin's Lymphoma. Critics of federal funding are correct that ESCR is in initial stages and scientists do not know exactly what benefits can be attained over the long term through well funded studies. Even if the most optimistic results are achieved, they will not likely aid in the treatment of my

own diseases. However, knowledgeable members of the scientific community have argued in technical journals and in Congressional testimony that it will be possible, perhaps within a decade, if adequate funding is available, to utilize the potential of these stem cells to reverse some of the worst effects of such maladies as juvenile diabetes, Parkinson's, Alzheimer's, spinal cord injuries, genetic birth defects, arthritis, heart disease, and certain cancers.[i]

Because the resolution of this dilemma concerning the use of human embryos in

this vital research is so urgent, it merits the most acute moral sensitivity and the best intellectual resources the American people, the scientific community, and our political and religious leaders can muster. Unfortunately, however, to this point the political polemics and the media discussions have not been graced with the qualities of sound reasoning and cooperative good will that the issue warrants. Pejorative language and fallacious arguments have aroused antipathy and exacerbated confusion.

In what follows, after briefly outlining the process by which human embryos are produced in *in vitro* fertilization and the promise of the therapeutic benefit of certain excess embryos thus produced, I will defend their employment as I address some problems with the ethical position taken by opponents of their use in stem-cell research.

Embryonic stem cell research

The most promising stem cell research according to published opinions by scientists working in the field is made possible when couples, unable to conceive naturally and who seek therapy in fertility clinics, give informed consent "with substantial understanding and without controlling influences"[ii] for the use of any excess or surplus embryos for research purposes.

The process usually involves the woman contributing a number of her eggs to be fertilized *in vitro*. The fertilized egg forms a single cell, the zygote. Located in the culture of a petri dish, which serves as a substitute for the uterine wall, the zygote begins to divide. An approximately four- or five-day old embryo, called a blastocyst, may be composed of as many as two-hundred cells. About forty or so of the cells located near the center of the embryo are stem cells which, according to the report of the American Association for the Advancement of Science, "have particular promise for a wide range of therapeutic applications because, according to our present knowledge, they are capable of giving rise to virtually any cell type."[iii] Animal studies have shown that embryonic stem cells have the capacity to receive sophisticated biogenetic instructions to evolve into one or another of the many cell types which make up the organs of the body and can be implanted in defective organs to produce healthy tissue.

Ordinarily, more embryos are "fabricated"[iv] in the effort to achieve *in vitro* fertilization than will be implanted in the womb of the egg-donor. More than one embryo is usually implanted in the woman's womb in the hope and expectation that at least one will develop into a viable human fetus which will, at full term, be born a human infant. Excess or spare blastocysts are frozen and can be implanted should the first effort at pregnancy fail or should another child later be desired. A surplus embryo can also be placed in the uterus of a woman other than the egg-donor, in which case, upon permission of the donor couple, the embryo is said to be

"adopted" by the non-biological mother. Some of the embryos produced may be determined to be of less than ideal quality for implantation.

Couples sometimes give consent for the destruction of spare or defective embryos. But scientists can employ some of these extra embryos which otherwise are likely to be destroyed in therapeutic research. In the laboratory, scientists can extract stem cells from the embryos and produce new "stem cell lines" which are colonies of cells capable of dividing an indeterminate number of times. Stem cells from these colonies can be implanted in defective human organs where they will grow to replace damaged material, from brain and spinal cord tissue to bone and cartilage.

There is much debate about whether there now exist a sufficient number of diverse stem cell lines to make possible the kind of research that is badly needed. According to many of the most distinguished researchers in the field, the number and quality of existing cell lines from already destroyed embryos are inadequate for the essential studies that must be done.

Opponents of ESCR maintain that researchers can avoid destroying embryos by using adult stem cells for this research and therapy. In support of this claim is the report that in some cases adult stem cells have been injected into damaged knee joints where they have produced new cartilage. Other scientific opinion holds, however, that adult stem cells do not have the capacity to develop into as many types of cells as can embryonic stem cells. "Adult stem cells, obtained from mature tissues, differentiate into a narrower range of cell types. As a result, many cells of medical interest cannot currently be obtained from adult-derived cells."[v] Adult stem cells also proliferate more slowly than do embryonic stem cells. Therefore, "It is less feasible to develop large-scale cultures from adult stem cells."[vi]

Other stem cells are available from the placenta and umbilical cord blood. But these cells require as much study to determine their therapeutic potential as do embryonic stem cells. Presently, the most promising source of therapeutic stem cells is the human embryo.

Perhaps it is regrettable, but the reality is that most of the embryos fabricated in fertility clinics are not implanted in wombs and will never develop into human beings.[vii] Instead they are frozen and stored. These surplus embryos will be destroyed after about five years when they are judged to be no longer suitable for implantation or for research. They will be destroyed, having served no useful purpose whatever. If ESCR is to be carried forward as rapidly and with as much effective benefit as possible, additional embryos must be utilized to establish new and unadulterated stem cell lines. Legal strictures against their utilization should be lifted and federal fiscal support is vital.

Some "pro-life" advocates, however, oppose not only the use of public funds for ESCR but the research itself. Their opposition is based on the proposition that the cluster of cells which make up the human embryo is actually a human being. And it is here that we encounter the philosophical problems they face.

The philosophical basis of opposition to ESCR

Opponents of ESCR insist that human embryos are human beings. This is not a scientific finding. The humanity of an organism is not a description of its biological composition. No method of empirical science can determine the "humanity" of a blastocyst of approximately two-hundred cells. Being a human being must entail something different from an organism simply having human DNA.

Many opponents base their conviction on religious dogma instead of on scientific discovery or philosophical reasoning. They see no need to provide rational justification for their belief about the essential nature of the human embryo. They are likely to say that they "believe" their conviction is true rather than that they have arrived at their conclusion as the culmination of a process of sound reasoning. Unable or unwilling to bring forth sufficiently good reasons to convince a thoughtful inquirer, some critics of ESCR take a sort of intuitionist stance to the effect that it ought to be self-evident to everyone that embryos are *essentially* human beings. Patrick Lee and Robert P. George undoubtedly speak for many opponents of ESCR when they write, "People of every religious persuasion, or none at all, ought to be able to see that . . . the things that we are, are human physical organisms. Human physical organisms come to be at conception, whether by a natural process or by lab technology. Therefore, the things that are intrinsically valuable—and so can rightly be called 'persons'—come to be at conception."[viii] "See" in this rhetorical usage is equivalent to "believe." And "belief" here appears to mean willful assent to a proposition for which sound rational justification is either not available or not desired.[ix] In the face of this sort of will-driven belief, no counter-argument is likely to change the believer's mind. Therefore, without ethical argumentation, these opponents (and many others) claim that to destroy an embryo, even though its use in research may lead to breakthroughs in the treatment of dreadful diseases, is tantamount to murdering an innocent human being. Lee and George write, "It is wrong to kill and dismember them [embryonic human 'persons']—at any stage of their existence—in the hope of benefiting others." [x]

Despite their claim that anyone should be able to "see" that embryos are human persons and that it is wrong to kill an embryo, in the same article Lee and George write that both scientific evidence and philosophical reasoning lead to the view that "Human embryos are in fact nothing less than individual human beings in the earliest stages of their lives."[xi] Science, they write, demonstrates that "Human embryos have the epigenetic primordia for internally directed maturation as distinct, complete, self-integrating human individuals. An embryo—whether brought into being by sexual union or cloning—is already a human being." Sound philosophical thinking, they assert, also supports the conclusion that embryonic human beings "come to be at conception, whether by a natural process or by lab technology" and "can rightly be called 'persons'."[xii] However, in this article Lee and George only make this claim but offer no scientific or philosophical reasons to support their opposition to ESCR.

Creditable, although not necessarily convincing, arguments can be made that at some later point in fetal development—at the beginning of brain activity, at viability, or at some other distinguishable point—a human fetus has become a human being. But, as we have seen, that is not good enough for the radical "pro-lifer." According to their extreme opinion, a human embryo *does not become* a human being; it *is* a human being from the very moment of conception or fertilization *in vitro*. For many this is a tenet which must be seen or believed on

faith.

Michael Novak is a distinguished American philosopher and one of the most articulate opponents of ESCR. His opposition, he declares in a recent article, is "principled," that is, philosophical. The "ground" of his opposition is, he says, "a philosophical one, not a theological one, a ground born of reason rather than of faith."[xiii] Ramesh Ponnuru, senior editor of the *National Review*, agrees with Novak that opposition to ESCR should not be based on sentiment, but on a sound philosophical foundation. "The pro-life position . . . must ultimately be rooted in rigorous logic. A pro-life position that is merely sentimental is a weak and unsustainable thing—as demonstrated, most recently, in the controversy over embryonic stem cell research."[xiv] These opponents of ESCR understand that they have adopted or presupposed a philosophical framework which they hope will provide coherence and experientially uphold their ethical opposition to this sort of research. Most opponents employ or assume the same general philosophical outlook.

What is this particular philosophical outlook? It is a basic *metaphysical* view of the nature of reality. Metaphysics is "the search for unconditional or eternal truths about existence."[xv] Metaphysical theories are basic to all sorts of intellectual systems— epistemological, ethical, aesthetic, social-political, and theological. They provide the principles of the systems' internal consistency and their external applicability. The metaphysical foundation of a theory (such as a "pro-life" theory) need not be made explicit. It can be inferred from an examination of the contents of the system, provide the system is at all consistent with ordinary experience and internally coherent.

Whether or not they recognize and acknowledge it, Novak, Lee, George, Ponnuru, and other opponents of ESCR construct their ethical views about ESCR on the theory that that which is most real about every existing entity is a natural or God-given *essence*. The essence is something's "what-ness," its definition, or its classification within the order of entities to which it belongs. The essence of anything is distinguishable in thought from its bare *existence*, its "that-ness." Its essence is also the ground of an entity's value and rights (if value and rights it can be shown to have.) This theory of the nature of all realities might be called—among other names—essentialism.

To grasp what is meant by essentialism, we might look at the diametrically opposing theory, materialism. The essentialist distinguishes a thing's essence from its material composition. Materialism is, of course, the view that everything is *just* the physical stuff of which it is composed; there are no such realities as substantive essences. A materialist would say that so-called essences of things are nothing more than convenient labels which we have invented and attached to groups of things and have chosen to lump together for one reason or another. (This is, as persons familiar with the history of ideas will recognize, the late medieval theory and early modern theory of "nominalism.")

Essentialist metaphysical theories—as well as materialistic theories—have a long and distinguished history, reaching back to the outlooks of some of the famous philosophers of ancient Greece. One of the pioneers of this outlook, whose form of idealism seems to be the clearest basis of the current essentialist opposition to ESCR, was Aristotle. According to

Aristotle, the *essence* of every real entity (every individual "substance," Aristotle called them) is an intelligible "form," which is somehow "embodied" in the individual thing itself.

This theory might be called "idea-ism" because, according to it, you and I are "idea-ly" human beings. Humanity is our essence or we are "in-formed" by the form or idea of human-ness. The essence of humanity is not a physical quality or combination of sensible (that is, able to be sensed) features. According to Aristotle, all existents are material and occupy space, with shapes, dimensions, colors, odors, etc. Sensible features are, however, non-essential. They are an entity's "accidents." Aristotle said that material accidents distinguish or "individuate" one individual member of a class from the other members of that same class. Your physical body makes you "you," and my body makes me "me." But the non-physical form of our whole selves, the *essence* of our shared humanity, is more real and unchanging than contingent accidents.[xvi]

A simple illustration might help clarify the essentialist way of looking at reality. The object on which I am sitting is essentially a chair belonging to the class of objects which we identify as chairs. My desk chair is constructed of metal, plastic, and other synthetic materials. Across the room there is another object which does not look much like my desk chair. It is made entirely of wood, save for a few metal screws, and rests on bent wooden slats rather than on metal wheels as does my desk chair. I know that although it possesses different accidental features from those of my desk chair, the rocker is also essentially a chair. Regardless of the differences among their accidental aspects, chairs are defined by their essential function: they are pieces of furniture meant to be sat in. The purpose, function, or activity of anything constitutes its essence.

A far most sophisticated illustration of this essentialist philosophy is the Roman Catholic doctrine of "transubstantiation" in the sacrament of the Mass. In the celebration

of the Eucharist the essences or "substances" of the mundane physical elements of bread and wine are mystically transformed into the substances of Jesus Christ's crucified body and shed blood. The accidents of the bread and wine remain those of bread and wine. That is, the elements continue to look like, smell like, and taste like bread and wine; but they now are completely different essences. They are now due the respect and honor owed to the body and blood of Christ.

Presupposing this basic understanding of the nature of things—that everything from desk chairs to the elements of bread and wine in the Eucharist has a rational aspect and a material aspect, an essence and accidents—opponents of ESCR[xvii] believe that, although the biological characteristics, the accidents, of the human embryo are those of a tiny multicellular organism, its essence is that of a human being. And to destroy the life of an innocent human being is murder. Therefore, their logic follows this syllogistic pattern:

Premise 1: Whatever possesses human biological components is essentially a human being.

Premise 2: All human embryos, even those excess embryos fabricated in clinical fertility

efforts, possess human biological components.

Conclusion and Premise 1a: All human embryos are essentially innocent human beings.

Premise 2a: To kill any innocent human being is murder.

Conclusion: To kill a human embryo is murder.

There are difficulties with essentialism as an adequate metaphysical theory but this paper is not the context in which to discuss this broader philosophical issue.[xviii] The narrower purpose of this essay is to show that the adoption of an essentialist view of reality leads opponents of ESCR to made some mistaken judgments about the morality of human embryonic stem cell research.

Mistaken judgments concerning human embryos:

(1) The human embryo is a human being.

Assuming an essentialist outlook, ESCR opponents conclude that, despite all the empirical differences between them, the five-day-old embryo is different from the adult human being only in degree or quantity but not in essence, that is, not in nature, quality, or kind. Andrew Sullivan, writing in *The New Republic* (July 30, 2001), makes this point in answering the question, "What, after all, makes a human being a human being?"

Scientists would say a human is defined by its DNA—the genetic coding that makes our species different from any others. Stem cell research enthusiasts say we are defined by our DNA *and* our stage of development. They say a blastocyst is so unformed that it cannot be equated with a fetus, let alone with an adult. But it remains a fact—indeed one of the marvels of creation—that the embryo contains exactly the same amount of genetic information as you or I do. We aren't different from it in kind, only different in degree: in age, size, weight, gender, and on and on. In fact, in some sense, a blastocyst is the purest form of human being—genderless, indistinguishable to the naked eye from any other, unencumbered with the accoutrements of society and experience—and yet as unique as any human being who has ever lived or ever will. To extinguish it is surely not to extinguish something other than us. It is to extinguish us.[xix]

Sullivan's answer to his question of what makes a human being a human being is that a human being is merely an older, larger, male or female, and socially "encumbered" blastocyst. The way Sullivan has stated his case leads Sullivan to hold not only that a human embryo is essentially a human being but also to imply that *a human being is essentially an embryo*. "We aren't different in kind, only different in degree, in size, weight, gender, and on and on." No amount or type of change in degree, size, weight, etc., can possibly amount to a change in the essence of an entity?

Aristotle, a pioneer of the metaphysics of essentialism, avoided Sullivan's conclusion that a fully developed human person is actually an embryo. Aristotle, more empirical in outlook than his mentor Plato, knew that sufficient accidental changes through which an organism goes amount to a change in its essence. Aristotle spoke about these changes in terms of the process of actualizing the organism's natural potentialities. Aristotle explained this universal process of

actualization of potentiality as the operation of four "causes": the material, formal, efficient, and final causes. A simple illustration might be the change of acorns into oak trees. Acorns are potential oak trees. Acorns *become* oak trees if environmental circumstances favor their development and, among a lot of other material factors, acquire needed nourishment, water, sunlight, etc. The formal cause of the acorn is the goal (*entelechy*) of its natural course of development, the oak tree. And the efficient cause is, of course, the "parent" oak tree. The acorn's final cause rests at the top of the "great chain of being" and has to do with the "attraction" of *actus purus*, pure actuality or God.

It is clear that Aristotle knew that acorns are *not* oak trees. Oak trees are oak trees. Surely, Sullivan and other opponents of ESCR can see that some human embryos are potential human beings. But those human embryos are not human beings. And human beings are certainly not embryos!

Lee and George give the appearance of agreeing with this more reasonable understanding of essential development when they use the term "develop" in the processes of embryonic and fetal change. But, despite using that word "develop," they actually still maintain the position that there is no change of essence as the embryo "develops itself." They write, "That human being [the embryo], given nothing more than an hospitable environment, will actually *develop itself* [emphasis added] from the embryonic through the fetal, infant, and adolescent stages of his or her life and into adulthood with his or her unity and identity intact."[xx] The embryo doesn't *develop* essentially from an embryo *into* a human being; it "develop[s] itself." This seems to lead to the same astonishing conclusion: the adult human is essentially the (developed) embryo.

Lee and George ask a rhetorical question, "But the question is were we people *when we were embryos*?" The answer they want is an unequivocal "Yes." But the answer their logic requires is, "When we were embryos we were people and *when we are people we are embryos.*" It is a bit more than strange to think that, despite how an adult person looks and behaves, his or her accidental characteristics, he or she is actually—essentially—a big clump of living cells, an embryo.

And what is to be made of Sullivan's remarkable assertion that not only is the blastocyst a human being (and a human being is a blastocyst), but the blastocyst is also "the *purest* form of human being"? It is not at all clear what Sullivan means by "the purest form of human being." Purest usually suggests ideal or best. If Sullivan means what is usually meant, then he believes the five-day-old embryo is the ideal human being. But one cannot take seriously the idea that a blastocyst—featureless, indistinguishable from others except by DNA testing, sexless, asocial, and an experiential *tabula rasa*—is the *ideal* human being. All the skills, intellectual and moral virtues, and achievements and qualities of social behavior which we praise as befitting a "real" or "good" human being have no place in this conception of "the purest form of human being." Yet this is the conclusion to which their logic leads these ESCR opponents.

Bioscience enables us to be fairly clear about what makes an embryo an embryo. But we need to return to Sullivan's question, "What makes a human being a human being?" Our species has long classified itself as Aristotle did: we are *homo sapiens*, the rational animal. Accidentally, of course, our empirical features can be extraordinarily different. I happen to be male, six feet tall,

and quite bald (a consequence of age and gender compounded by chemotherapy). You, the reader, may be female, twenty-nine years of age, five-feet two, have eyes of blue and long blonde hair. Whatever your accidental physical characteristics, if you are reading this and able to comprehend whatever is comprehensible about it, you satisfy at least one necessary test for consideration as a human person. And provided there is anything reasonable about this essay, its writer may also be thought to be essentially human. Of course, by experience we recognize that different persons display different actual levels of rationality. But unless a creature shows itself—presently, in the past, or in the future—to have been, to be, or to be able to become in the least rational, most of us are cautious about thinking of it as human. It does not seem unreasonable to expect that the capacity or the *potential* capacity to use one's mind is a necessary condition, although certainly not a sufficient condition, to satisfy in order to be regarded as a human being. The difference between *possibility* and *potentiality* will receive consideration in the next part of this paper. But here let us acknowledge that the embryo which has the potential to become a human being has a different value than does the "excess" embryo which, although biologically possible to become a human being, cannot be considered a potential human being.

According to "pro-lifers," however, to restrict attributing the essence "human being" only to conscious, thinking, self-directing adults, is wrong. Lee and George write,

Clearly, when an adult human being is asleep or in a coma, or suffering from dementia, he still is a person, even though he cannot immediately exercise mental functions, and even if he will never exercise such functions again. But so too with infants, fetuses, and embryos. Because they are human beings they have radical natural capacities to exercise mental functions. It will take them some time to actualize those capacities, but they are identical to the entities that (unless prevented by natural calamity or deliberate human action) actively develop themselves to the stage of maturity where they exercise rational faculties and make free choices.[xxi]

Their claim would have been stronger if Lee and George had proposed that infants, fetuses, and some embryos have the potential to develop "radical natural capacities to exercise mental functions." There can be no justification for the proposition that the frozen microscopic five-day-old cluster of cells, fabricated in fertilization therapy, located in a petri dish, and which—because it is excess, surplus, or spare—will never be implanted in a human uterus, is nonetheless essentially a rational human being in the very same sense that you and I are human persons.

No argument is being made here that those embryos which have the potential to become human beings should be destroyed in stem cell research. Nor, certainly, does the writer of this piece maintain or hold the horrendous view that healthy fetuses, infants, or individuals with extensively diminished rational mental capacity be neglected, abused, harmed, or euthanized. However, there is no need to strain to make a case for rights to protect these individuals. A person's humane sensitivity "con-science" should give him or her the incentive to identify, to empathize with these fragile individuals, and treat them benevolently and beneficently. This last comment is not a statement about moral duties or rights.

But can we in good conscience refuse to take the steps necessary potentially to bring healing and freedom from disabilities to millions of people on the basis of a view for which good reasons cannot be provided, the view that embryos which will never become human beings have a right not to be destroyed?

(2) All human embryos, even those destined to be destroyed, are "potential" human beings.

Because they identify all human embryos as human beings, some opponents of ESCR cannot make the necessary distinction between that embryo which has the *potential* to develop into a rational human being and the embryo which, although biologically a *possible* human being, lacks that potentiality.[xxii] Other ESCR opponents, those who might not take the extreme position that the human embryo is actually in the fullest sense a human being, nevertheless often contend that human embryos are potential human beings.

The meanings of the words possible and potential are not synonymous. To be possible in the strictest sense means only not to be impossible. A "squircle," a square circle, is impossible because the term expresses a self-contradiction. Anything which is conceivable without self-contradiction is logically possible. Little green men on Mars are possible. But they cannot be reasonably considered potential realities. They lack that potentiality on several grounds, among them the fact that the environment of the planet Mars is incompatible with such possible life forms.

That which can correctly be said to be potentially something else not only must be possible in the broadest sense (that is, not self-contradictory) but also must possess the necessary and sufficient properties, and be adequately situated, to be able to actualize its potentiality. In the case of humans, the embryo which has been implanted in a woman's uterus and is developing normally is a *potential* human being. But a surplus human embryo which will never be implanted in a womb and will be destroyed, either wastefully or in the service of benefiting living persons, can be characterized only as a *possible* human being, not also as a potential human being.

Ramesh Ponnuru exacerbates the confusion between a potential human being and a possible human being when he charges supporters of ESCR with stepping onto a "slippery slope." He writes, "During the stem cell debate, people have said that it's okay to use embryos for research because we already 'discard' plenty of embryos as a byproduct of *in vitro* fertilization; they could with equal validity say that we should allow research on five-month old fetuses because we allow them to be aborted."[xxiii] Careful supporters of ESCR can successfully avoid this particular slippery slope. Ponnuru has failed to appreciate that there is a qualitative moral difference between the appropriate treatment of the healthy fetus which is growing in its mother's womb and the embryo in the petri dish which will be discarded. Ponnuru is guilty of confusing possibility and potentiality. The five-month old fetus is definitely a *potential* human being, whereas the ill-fated spare embryo is only *possibly* a human being because of its biological make up. It will never be a potential human being because of the circumstances which determine its destiny. The fact that one embryo has the potential to become a human being and the other has only the theoretical (but not the practical) possibility to become a human being dictates that they have different values and should, from an ethical perspective, be treated differently.

Opponents of ESCR are not likely to concede that their arguments that all human embryos are in essence human beings, or at least potentially human beings, are flawed. But, if pressed, some of

them adopt a fall-back position in the effort to defend the unqualified right to life of every human embryo. "Granted," they may admit, "there are manifest differences between the characteristics of human persons and human embryos. But every human embryo, while perhaps not properly characterized as a human being or even as a potential person, is nevertheless, as President Bush has said, 'human *life*.' And as human life, every embryo has the same right to life as a human being. To destroy it, for whatever utilitarian advantage, is to take human life."

The phrase "human life" as used in this argument is ambiguous. It could mean a reasoning, choosing human person, or a human embryo, or even any microscopic bit of living tissue possessing human DNA. If the last can reasonably be a referent of the expression "human life," then each of the somatic cells which compose the skin on my fingertips now striking the computer keys can also be regarded as "human life" and accorded whatever rights a living human being possesses. Let us grant, for the sake of argument, that the term "human life" has the broadest possible meaning and can refer even to each of the millions of living cells which form the remarkable organic society which is the human body. What are we actually intending if we extend a claim of human rights to all such instances of "human life"?

It can be argued persuasively, although it should not have to be, that the lives of human embryos, regardless of their ultimate disposition either in a womb or in stem-cell therapy, are more valuable than the "human life" of skin cells or even of nonessential bodily appendages such as tonsils and appendices. Calling them "human life" does not help us to determine the real values and moral rights of human embryos.

(3) The values and rights of human embryos and human beings are identical. Among the human rights possessed by the human embryo is the right to life.

Those who oppose ESCR maintain that human embryos fabricated in fertility clinics, even surplus embryos under their destiny of ultimate destruction, possess precisely the same intrinsic values and the same moral rights as do rational and cooperatively interacting persons. Let us for the moment grant what many contemporary philosophers will not grant, namely, that an essentialist metaphysics has sound explanatory value. Let us grant, that is, that every real entity has an intelligible essence which we can discover. If there is such an essence possessed by both human embryos and human beings, does that essence alone confer certain rights on its possessors?

According to Aristotle's version of the essentialist theory, the essences of animate beings are defined by their distinctive *activities*—by the manner in which it is their nature to behave. Aristotle held that the essences of animate beings can be understood as their "souls,"[xxiv] by which he meant the organism's innate motivation to act in such a way as to actualize its natural potentiality, its *entelechy*. (*Telos* is the Greek word for purpose, goal, or appropriate aim and end).[xxv]

Plants, animals, and humans are "ensouled," according to Aristotle's metaphysics. It is the essential nature (soul) of plants to attain nourishment and to propagate their species. Roots extend to water and nutrients in the soil; leaves turn toward the sun to effect photosynthesis; and flowers produce, dispatch, and receive pollen. Aristotle classified the vegetable soul as

nutritive/reproductive. Animals share this vegetative soul with plants: they have the capacity and innate drive to nourish themselves and to procreate. But animals have a second soul, an inborn sense and drive to move actively to seek nourishment and sex partners as well as to avoid certain kinds of dangers. So the animal souls are nutritive/reproductive and sensitive/locomotive.

Human beings, Aristotle concluded, possess the same nutritive/reproductive and sensitive/locomotive capacities as plants and other animals. But we humans have additional soul, the rational soul, the possession of which distinguishes us and constitutes our essence. The first sentence of Aristotle's *Metaphysics*, Book A (I), is "All men by nature desire to know." Unlike plants and the other animals, human beings can reason about and determine what is in their own and others' best interest—what is good—and will to act to achieve these goods. A being, therefore, can be understood to be a human being regardless of her accidental features, if and only if she has reflected, does reflect, or will reflect about what is good and direct her activities according to her rational prudential and ethical judgments. This rational ability to act on one's choice is, it is virtually universally agreed, a necessary condition for conferring rights on human moral agents.

No human embryonic activity, not even the activity of the potentially rational embryo in the womb, can be understood to be motivated by the embryo's rational will. Every embryo has but one definitive activity, an *automatic* biological activity, namely, cell differentiation in the requisite ways to form a human fetus. Therefore, when deciding whether they have a stronger or weaker ethical claim to continued existence, it is important to keep in mind the difference between the two conditions or classes of human embryos. The implanted embryo is potentially (and likely) able to make reasoned decisions in the future and on that basis has a much stronger claim, if not a right—strictly speaking—not to be destroyed even for powerful utilitarian ends. The embryo, possibly human only because it has human biological components, which will not be implanted but will be destroyed or used in research, has a much weaker claim to continued existence.

Most Americans agree that human beings possess a value not shared by other animals. And they are persuaded that this distinction somehow confers on human beings certain moral rights, including centrally the right to life.[xxvi] The ESCR opponents' view that *all* human embryos have potential *value* is quite correct. But their understanding of that value is incorrect. The embryo implanted in a woman's womb and developing into a healthy fetus has intrinsic value. That is, it has value in and of itself. However, the not-to-be-implanted embryo, the biological make-up of which makes it only possibly a human person, does not have that same intrinsic value.[xxvii] Excess embryos are, however, extrinsically very valuable because some of them can be used to establish new and unadulterated stem cell lines for ESCR.

Human beings also understand themselves to be valuable rational-moral "ends in themselves."[xxviii] Michael Novak argues that human beings, because they are intrinsically valuable, must never be used as means to the welfare or satisfaction of others. He writes,

One of its [the view that persons are ends in themselves] classic articulators was Immanuel Kant. . . . You must never use a human being as a means. You must treat them only as ends. To use

stem cells obtained by killing living human beings in their embryonic stage is using them as a means.[xxix]

It is surprising to discover as capable a philosopher as Michael Novak making an error in reference to the point of view of Immanuel Kant. Kant does not argue, as Novak says, that human beings—while instrinsically valuable "citizens of a kingdom of rational ends"—may not also be of extrinsic value as means to good ends. Kant presents two formulations of his famous "categorical imperative of moral duty." The first is the classic principle of universalizability: "Act only on that maxim through which you can at the same time will that it should become a universal law."[xxx] In the second formulation of the imperative we find Kant's admission that the human being can also have extrinsic value as a means to a good end: "Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means, but always at the same time as an end."[xxxi] [Emphasis added] Kant's clear position is that human beings should not be treated as means only ("never simply as a means ... always at the same time as an end") but always as ends *also*. In Kant's view, a rational moral agent has the duty to treat the person who delivers his mail, repairs his automobile, or treats his illness as an intrinsically valuable end-in-him/herself. But at the same time one is permitted to "use" the mail carrier, the mechanic, or the physician as the valuable means for receiving one's mail, being able to drive one's car, or recovering one's health.

Depending on how the claim of intrinsic value is understood with reference to persons, and *provided all other necessary conditions are satisfied*, human beings can also be persuasively argued to possess certain moral rights. However, there is a critical difference between the claim that an entity is valuable and the assertion that that being has rights. Being valuable, even in the sense of being intrinsically valuable, does not by itself imply that humans or other types of organisms should be regarded as having rights. A right is a complex moral/social concept related to only certain kinds of facts and valuations. One of the necessary fact-conditions for having rights is the organism's ability to function as a zoon politicon, Aristotle's term for a "political animal." Aristotle understood humans to be in essence social/political creatures. A person must live as a citizen of a commonwealth, the purpose of which is the achievement of the highest good for all citizens. The person who chooses not to live, or is unable to live, as a participating member of a family, tribe, and *polis*, is not, Aristotle says, a "bad" person. Such an asocial, solitary individual is not a human being at all. That is, he does not possess the essence of a human personhood. And, failing to qualify as a human being, this individual cannot be said to possess any rights. Rights are social phenomena, and if an individual has no deliberate, responsible, interactive social relationships, he can have no rights.

"Pro-life" opponents of ESCR must disagree with this view of one of the principal essentialist philosophers and avow that all human embryos have rights, at least the right to life. But their claim to rights for embryos cannot be sustained. One of the necessary conditions which a person who makes a rights-claim must satisfy is his demonstrated ability and willingness to accept some type and measure of responsibility. This is the case because rights impose or presuppose duties. If I claim a particular right for myself, I must grant that same right to every other being who is relevantly like myself, to everyone, that is, who possesses whatever qualifies me to claim that particular right. To say that an implanted embryo upon maturity as a human being has the potential to assume responsibilities is a very different claim from the argument that every human embryo qua embryo has rights.

Risking considerable confusion, people commonly say that an individual must have "free will" in order to have moral or legal duties. What is meant, of course, is that in order to have a duty, one must be able to choose to and to fulfill it or not to choose and not to fulfill it. One simply does not have a responsibility to perform that action which, because of physical or emotional necessity, one cannot do or must do. The classic statement, "Ought implies or presupposes can," is true. And it is also true that necessity eliminates freedom to choose and to act. Only if one can be assessed duties can he be accorded rights. And if an organism must act in one and only one way, it cannot be said to be "free" to act in other ways. Thus to impose duties or grant rights to an embryo is meaningless. ESCR opponents cannot justify an exception to this essential condition and show that human embryos, even those which will never develop into human being, have both duties and rights.

Conclusion

Ramesh Ponnuru closes his essay with this stark alternative, "Either conception [or *in vitro* fertilization] results in a new human being deserving of legal protection or it doesn't. No amount of sophisticated hairsplitting over bioethics is going to work if it ignores that awkward, obvious question."[xxxii] Ponnuru opened this same essay with the warning, "The pro-life position . . . must ultimately be rooted in rigorous logic."[xxxiii] There are actually two sets of alternatives here. The first is, either human embryos are "new human beings" whose lives should have "legal protection" (he means rights) or they are not human beings and need no legal protection (rights). The second, incompletely stated set of alternatives is either we engage in "sophisticated [bioethical] hairsplitting" or we—what? Simply "see" that the first alternative is true? What then are we to make of his assertion that we should engage in rigorous reasoning?

Concerning Ponnuru's principal alternative: in our society legal protection in the sense of legal rights consistent with the principles of the United States Constitution should be provided only to the activities of those persons who are qualified by their capacities to assume responsibility for the choice and consequences of their actions and the utilization of their property. Rights protected actions include, of course, the activity of continuing to live. Embryos are clearly not human beings in this fundamental sense and thus it is illogical to claim that they have rights which require legal protection.

To question, as we must, the logic of the claim that all human embryos have a moral right not to be destroyed is not to imply that human embryos have no value. All human embryos are valuable! The intrinsic value of the embryo which is successfully implanted in the mother's womb is of such a nature that we should exercise the utmost care to insure its viability.[xxxiv] However, it is not necessary to try to justify a claim to a moral and legal right to life for this embryo. Its intrinsic value as a potential human person is alone sufficient reason, without the imposition of legal prescriptions, to warrant the protection of its life.

Surplus embryos from fertility clinics which will not develop into human persons, although not having a right to life, are also extremely valuable. Their value is extrinsic rather than intrinsic. And the greater moral good will be served by utilizing these embryos as resources for federally

funded research directed toward discovering effective means for relieving millions of people of suffering and disability.

Notes

[i]See the report on embryonic stem-cell research of the American Association for the Advancement of Science, aaas.org/spp/dspp/sfrl/projects/stem/findings.htm

[ii] AAAS report, 7.

[iii] AAAS report, 5.

[iv] I am not happy with the word "fabricated" here, but it is more appropriate than the word "created."

v AAAS report, 5.

[vi] AAAS report, 5.

[vii] Some state legislatures have outlawed the practice of fabricating more embryos than are expected to be implanted in someone's womb.

[viii] "The Stubborn Facts of Science: Human Embryos are Human Beings," *National Review Online*, July 39, 2001, 7, http://www.nationalreview.com/comment/comment-george073001.shtml.

[ix] The Queen in Lewis Carroll's *Through the Looking Glass* remarked, "Why, sometimes I've believed as many as six impossible things before breakfast."

[x] Lee and George, 4.

[xi] Lee and George, 1.

[xii] Lee and George, 7.

[xiii] "The Principle's the Thing," *National Review Online*, August 10, 2001, 2, http://www.nationalreview.com/contributors/novakprint081001.html.

[xiv] "Cells, Fetuses, and Logic," *National Review Online*, July 2001 Issue, 1, http://www.nationalreview.com/23jul01/ponnuruprint072301.html.

[xv] This is one of the twelve views of metaphysics discussed by Charles Hartshorne in *Creative Synthesis and Philosophic method* (London: SCM Press), 1970, 42. It's as clear as any other

explanation of metaphysics.

[xvi] Students of philosophy will recognize the position of the "Realist" in the medieval debate over "the status of universals." They will be familiar with the evolution of this outlook from the classical metaphysics of Plato and Aristotle. They will be aware of its "moderate" form in Aristotle's and Thomas Aquinas' philosophies. And they will be aware that few contemporary philosophers find this view of reality to be the best framework for comprehending and explaining human experience.

[xvii] A large number of whom are not Roman Catholics and do not share the "transubstantiation" theory of the Lord's Supper. Some opponents of ESCR, such as Linda Bevington of the "Center for Bioethics and Human Dignity," hold the view, not shared by most Roman Catholic theologians, that the Bible must be interpreted literally and cite biblical passages they believe support opposition to destroying embryos in stem cell research. Some of these passages are Job 31:15; Psa. 139:13-16; Isa. 49:1; Jer. 1:5; Gal.1:15; and Eph. 1:3-4. See "Stem Cells and the Human Embryo"

http://www.bioethix.org/resources/overviews/stemcell.html.

[xviii] For much of the twentieth century Anglo-American philosophers have suspected all metaphysical thought of being a speculative attempt to achieve the impossible. The fact that no previous attempt at explaining the essential nature of everything has won widespread approval and the growing awareness of the subjectivity of all thinking have supported this adverse attitude toward metaphysics. If a good case can be made for any metaphysical theory, it would have to be a **process** metaphysics, the defining principle of which is that to be actual is to be in process, constantly changing constituents in the universal process. If there is anything like the essences of essentialist metaphysics, they would be the <u>sequences</u> of momentary actualities which "inherit" information from the past and "anticipate" determinations of possible events in the future. Alfred North Whitehead has been the principal developer of a process metaphysics in the twentieth century. See his *Process and Reality: an Essay in Cosmology* (New York: The Free Press), 1978.

[xix] "Only Human," 2, http://www.thenewrepppublic.com/073001/trb073001.html.

[xx] Lee and George, 2.

[xxi] Lee and George, 5.

[xxii] Aristotle said that every organism has as its "formal cause" an actuality to which it "tends" naturally.

That is, the organism has a natural potentiality which it will realize if all the environing circumstances are favorable.

[xxiii] Ponnuru, 3.

[xxiv] Or "intelligible Forms," to use the expression employed by Aristotle's teacher, Plato.

Plato held that their essences "transcend" earthly beings and objects. Plato's Forms have their reality in a sort of "heaven" of Ideals. Spatial/temporal entities are allegorically imperfect "shadows" of these perfect essences. Aristotle, on the other hand, argued that intelligible forms exist "within" individual substances themselves. So chairness in-forms this desk chair in which I'm sitting.

[xxv] Aristotle thought that even inanimate objects possess such an *entelechy* or natural end. It is the *telos* of rocks, for example, to fall or roll to the lowest level they can reach.

[xxvi] The <u>causes</u> for people holding these opinions—not the reasons they give—either biological necessity, anthropomorphism, speciesism, divine revelation, or something else, are topics for another discussion in the fields of anthropology or social psychology.

I am uncertain as to whether or not, in order to qualify for recognition as fully human and being accorded specifically human rights, an individual must not only have the capacity to reason but must also possess and demonstrate a minimal ability to communicate with other persons and to live somewhat cooperatively in human society. I've been fascinated by the philosophical problems raised by the ape in Franz Kafka's "A Report to an Academy." The captive ape learned, in self-defense, to speak with his human tormentors and he eventually became a scientific lecturer. Was he essentially ape or human? He said, "And so I learned things, gentlemen. Ah, one learns when one has to; one learns when one needs a way out; one learns at all costs My ape nature fled out of me. . . . " 258, *Kafka: The Complete Stories*, ed. Nahum N. Glatzer (New York: Schoken Books, 1971)

[xxvii] An argument can be made that intrinsic values should rarely be sacrificed to actualize extrinsic values. The lives of animals have intrinsic value. Yet the intrinsically valuable life of an animal may be sacrificed to provide the extrinsic value of food for another animal.

[xxviii] Immanuel Kant considered that judgments concerning human rights and duties pertain to rational persons belonging to a "kingdom of rational ends." Autonomous persons discover the moral law through reason alone and recognize both their rational duty and rights under the "categorical imperative" of moral duty. See *Groundwork of the Metaphysic of Morals*, 3rd ed., translated and edited by H. J. Paton (New York: Harper and Row, 1956), esp. 35-36.

[xxix] Novak, 2.

[xxx] Groundwork of the Metaphysic of Morals, 88.

[xxxi] Groundwork . . ., 96.

[xxxii] Ponnuru, 4.

[xxxiii] Ponnuru, 1.

[xxxiv] Obviously, there are implications here as to how we should reason about the morality of

elective and therapeutic abortions.

Biographical Sketch

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