Medical ethicists from my Roman Catholic religious tradition face a dilemma when investigating the morality of human embryonic stem cell research. The promise is great: therapies for diseases resulting from neurodegeneration and other tissue system failures – diseases such as diabetes, cardiomyopathy, kidney failure, Parkinson's disease, Alzheimer's disease and spinal cord injuries. The cost seems to be small, experimentation with stem cells derived from “spare” embryos that are no longer needed or wanted for in vitro fertilization.

When expressed in this way, the question of ethics seems remote and the appropriate answer seems to be a resounding “go for it!” And yet, the Catholic Church seems one of the few to answer “no.” In these next several minutes I will try to explain an answer that at first look seems a counter-intuitive and oddly quaint ethical position.

The Vatican's own articulation was most succinctly formulated in the Pontifical Academy for Life's “Declaration on the Production and the Scientific and Therapeutic Use of Human Embryonic Stem Cells,” which appeared in August 2000:

“No end believed to be good, such as the use of [embryonic] stem cells for the preparation of other differentiated cells to be used in what look to be promising therapeutic procedures, can justify [the destruction of embryonic life]. A good end does not make right an action which in itself is wrong.”

This statement shows that, from a Roman Catholic point of view, the starting point for reflection on the ethics of embryonic stem cell research does not begin with stem cell research in itself nor even with the social good that comes about from the possible results of such research. Rather the major issue is the moral status of the human embryo from the time of fertilization. To understand this, it might be helpful to recall what the late Cardinal Joseph Bernardin of the Catholic Archdiocese of Chicago explained as the consistent ethic of life. He suggested that what grounded such an ethic was a profound respect for human life in all its forms and conditions. He maintained that such a respect seeks to “defend the right to life of the weakest among us” and “is visible in support of the quality of life of the powerless among
us. At its most basic level, he continued, such an ethic is a concrete vision that continuously calls the person to an ever-greater moral sensitivity. The Cardinal described such sensitivity as arising from “a growing recognition of the frailty of human life today, of its vulnerability. For the official Roman Catholic Church, as for Cardinal Bernardin, the fetus – even (one may say especially) at the earliest stage of embryonic life – is an example of “the weakest among us.” Understood in this way, the moral context of embryonic stem cell research from a Roman Catholic point of view involves the acceptance of the idea that the benefits given to so many in society come through the destruction of the weakest and most vulnerable forms of life.

Yet, if one is to be honest regarding the actual argument presented by the Catholic church, there is an added wrinkle. The argument is grounded not in the certain status of the embryo but rather in uncertainty. Technically, the Catholic tradition does not state that a human person necessarily begins at fertilization but rather that life needs to be respected from fertilization. What is the difference? In its 1974 “Declaration on Procured Abortion,” the Vatican's Congregation for the Doctrine of the Faith stated that “respect for human life is called for from the time that the process of generation begins.” It continued, however, by stating that “from a moral point of view this is certain: even if a doubt existed concerning whether the fruit of conception is already a human person, it is objectively a grave sin to dare to risk murder.” This statement is followed by a footnote, which states:

This declaration expressly leaves aside the question of the moment when the spiritual soul is infused. There is not a unanimous tradition on this point and authors are as yet in disagreement. For some it dates from the first instant; for others it could not at least precede nidation. It is not within the competence of science to decide between these views, because the existence of an immortal soul is not a question in its field. It is a philosophical problem from which our moral affirmation remains independent for two reasons: (1) supposing a belated animation, there is still nothing less than a human life, preparing for and calling for a soul in which the nature received from parents is completed, (2) on the other hand, it suffices that this presence of the soul be probable (and one can never prove the contrary) in order that the taking of life involve accepting the risk of killing a man, not only waiting for, but already in possession of his soul.

Notice the argument expressed especially in the last clause is not that one is certain that life begins at fertilization but rather it is that because we are not certain, we ought not accept the risk of possibly killing innocent human life. In a similar way, the late Pope John Paul II, in his 1995 encyclical Evangelium vitae, commented:

What is at stake is so important that, from the standpoint of moral obligation, the mere probability that a human person is involved would suffice to justify an absolutely clear prohibition of any intervention aimed at killing a human embryo. Precisely for this reason, over and above all scientific debates and those philosophical affirmations to which the Magisterium has not expressly committed itself, the Church has always taught and continues to teach that the result of human procreation, from the first moment of its existence, must be guaranteed that unconditional respect which is morally due to the human being in his or her totality and unity as body and spirit.

Because of this stance that no future benefits to human beings can justify the destruction of human embryos, even those at the very beginning of development, the Catholic church takes a second, logically related, stand by stating that to use or to experiment with already existing embryonic stem cell lines is also immoral. The reason for this is that such use would be seen as complicity with the original act either because (1) the use of these stem cells lines would have among its consequences the wider acceptance of stem cell research, which in turn would lead to the destruction of even more blastocysts or because (2) there would be at least an indirect encouragement, since such use gives the appearance of endorsing, legitimating, or
diluting the condemnation of the original destruction of human blastocysts.

If the Catholic argument is based to a great extent on uncertainty, one may properly raise a question regarding the moral status of this uncertainty itself. Within the Roman Catholic moral tradition, for example, there has been a belief that where there is doubt there is freedom. Should not one's uncertainty about the moral status of the early embryo give one a certain amount of latitude in the moral evaluation of human embryonic stem cell research? The response that the Catholic church has given to this question is akin to that of the uncertainty of a hunter in a forest. He sees something move but is uncertain whether whatever is moving is a deer or another hunter. Moralists would demand that for the hunter to shoot with this uncertainty would be immoral.

Is this argument convincing? There are those in other Christian traditions – and even within the Catholic church itself – who would answer “no.” Many Christian traditions would rather speak of the embryo in terms of potential human life. Various denominations, from more conservative to more liberal, would then articulate the meaning of “potential” in a variety of ways, with greater or lesser moral seriousness. Furthermore, there is a sort of “potentiality” description within Catholicism itself. Pope Paul VI himself described the fetus as a “human person in becoming.” Such a description is obviously open to a variety of interpretations. Interestingly, among the Catholic interpretations most open to the work of stem cell research are those of scholars of Catholicism's medieval tradition of delayed animation. The medievalist Allan Wolter, for example, has suggested that, given our contemporary understanding of embryology, “the arguments that convinced the medieval theologians that it was unreasonable, if not absurd, to believe the soul was present at the beginning of life still deserve consideration.”

The Catholic church itself has some discomfort with this notion of uncertainty, and this discomfort has led the Vatican to question whether there might be moral alternatives to the standard practice of deriving embryonic stem cell lines. As early as February of 1997, the Vatican Pontifical Academy for Life hosted a conference on “The Identity and Status of the Human Embryo,” which brought together both scientists and ethicists. One of the questions raised during the conference dealt with the possibility of retrieving several pluripotent cells from the inner cell mass of a blastocyst without in fact destroying the blastocyst itself. Although it was agreed that this was not possible, the question itself is illustrative. The condemnation of human embryonic stem cell research has also led the Catholic church to encourage of a variety of forms of adult stem cell research, including work on multipotent adult progenitor stem cells, which some researchers suggest have at least most of the pluripotent qualities of embryonic stem cells.

Finally, one may ask whether indeed this Roman Catholic concern about uncertainty, far from being oddly quaint and counter-intuitive, actually engages ethicists and scientists to admit other uncertainties inherent in human embryonic stem cell research at this time. In addition to the uncertainty regarding the moral status of the human embryo, one may think of further uncertainties: a key uncertainty concerns the as yet unfulfilled promise of this research itself compared with actual advances in the areas of drug therapies, genomic medicine and adult stem cell therapies. But there are others. One may continue with uncertainties about continuing commodification of embryos, fetuses and even children and also uncertainties about more and more expensive high tech solutions to disease when tens of millions in this country – and billions throughout the world – have minimal access to needed low tech medicines, therapies, and sometimes even basic hygiene. I do not think that pondering these uncertainties will necessarily change the direction of medicine in this country, but it might help us to raise important ethical questions and develop general ethical principles and strategies that will guide not only medicine but society in general in asking what is beneficial for our long term common good.
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