Moral Analysis:

A Cooperation Analysis of Embryonic Stem Cell Research

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This essay will provide an analysis of the following two issues related to President Bush’s policy on federal funding for embryonic stem cell research (ESCR) in light of the principle of cooperation: 1) federally funded research using the stem cell lines that meet the eligibility criteria established by the Bush policy (see the “Verbatim” section in this issue); and 2) the clinical application of embryonic stem cells (ES cells) in therapies. In his announcement of the policy the President explained that “As a result of private research, more than sixty genetically diverse stem cell lines already exist. They were created from embryos that have already been destroyed, and they have the ability to regenerate themselves indefinitely, creating ongoing opportunities for research.” On the basis of this description of the existing stem cell lines, Mr. Bush stated his policy: “I have concluded that we should allow federal funds to be used for research on these existing stem cell lines, where the life and death decision has already been made.”1 Thus, his policy presumes that more than sixty cell lines exist and that they are sufficient to supply continuing research.

Research, Therapies, and Cooperation

Does a researcher using a federally funded grant under the Bush policy immorally cooperate in the morally evil act(s) of destroying human embryos?2 Cooperation


2This analysis is restricted to acts of research funded under the Bush policy, whether or not the same individual researcher is also engaged in privately funded research which involves him or her in the destruction of human embryos. The analysis will prescind from the question of one and the same researcher committing illicit acts in privately funded research. The analysis also pertains to any federally funded research under Catholic auspices.
in moral evil is any physical or moral assistance knowingly given by an individual or an organization to the commission of a morally evil act principally performed by another (the principal agent). The cooperator may or may not be morally culpable depending upon the type of cooperation.

Cooperation should not be confused with the theological notion of scandal. Scandal is conduct that is evil or at least has the appearance of evil and provides an occasion for another to commit an immoral act. Cooperation and scandal are different in two essential respects. First, the moral disposition of the principal agent is different from that of the person who is scandalized. The principal agent has already chosen to do wrong, but the one who is scandalized has not. Second, the cooperator provides assistance that helps or enables the principal agent in some specific way to carry out his or her act. As an act of assistance, cooperation is specifically related to the execution of the principal agent’s act (this is true even for “negative cooperation” which is an act of omission of what one ought to do). This is why, traditionally, cooperation was described as a “concurrence” or “participation” in a particular act of the principal agent. For this reason, cooperation in a completed, past act is not possible. Cooperation is possible only in contemporaneous or future acts of a principal agent. The scandalizer, on the other hand, provides an occasion or opportunity for someone to be led or drawn into wrongdoing. In general the principle of cooperation is a guide that may be used either to prevent good or indifferent acts from becoming immoral through cooperation, or to identify acts of cooperation which by their very nature are immoral.

Although the principle of cooperation has traditionally been applied to individuals, it is appropriate to include organizations in the definition of cooperation because the actions of corporate persons bear the same sort of relationships to the immoral activity of a principal agent.


To interpret the principle expansively as a positive, enabling principle in and through which particular good acts are formulated and accomplished does not seem legitimate; see, for example, James F. Keenan, S.J., “Applying the Seventeenth-Century Casuistry of Accommodation to HIV Prevention,” *Theological Studies* 60 (1999): 492–512; “Institutional Cooperation and the Ethical and Religious Directives,” *Linacre Quarterly* 64.3
There are two major types of cooperation: formal and material. Cooperation is formal if the cooperator intends the morally evil act of the principal agent. Formal cooperation is explicit if the morally evil act of the principal agent is the directly intended end of the cooperator’s assistance. Formal cooperation is implicit if the cooperator believes that he or she intends a morally good end, but achieves that end only by endeavoring to help the principal agent achieve his or her act.7

Formal Cooperation

Who are the principal agent and potential cooperator, and what are their actions in the issue under consideration? The principal agent is the researcher who performs the extraction of stem cells from a live human embryo, which action necessarily kills the embryo. The federally funded researcher is a potential cooperator who, among other types of research, studies and publishes findings about the regenerative capacities of the ES cell using any of the more than sixty cell lines derived in compliance with President Bush’s policy.8 Does the federally funded researcher commit formal cooperation in the destructive act of the principal agent by working with the cell lines derived as a result of that act?

Given the nature of cooperation, the federally funded researcher cannot cooperate in the past destructive acts from which the cell lines he or she uses were derived. If his or her work is not directly intended as assistance to the contemporaneous or future destruction of human embryos, it is not explicit formal cooperation. Does the work of the federally funded researcher constitute implicit formal cooperation? It would not seem to be the case. In order for implicit formal cooperation to occur the researcher would have to secure his or her end (knowledge about the regenerative properties and other aspects of the ES cell) by means of the principal agent’s acts of destroying human embryos. However, these circumstances do not obtain. The work of studying the capacities of ES cells and contributing to the scientific body of knowledge on this and related subjects is independent of, and does not contribute to, any contemporaneous or future acts of killing human embryos by a principal agent. Achievement of the federally funded researcher’s goal is not contingent upon the continuing acts of the principal agent. Therefore, if the work of the researcher cannot assist the principal agent in the way required by the notion of cooperation, much less can he or she implicitly intend the acts of the principal agent.

Does the fact that the embryos were destroyed for no other reason than to begin embryonic stem cell lines make formal cooperation inescapable on the part of the federally funded researcher who uses the approved cell lines? The researcher, it may be argued by some, necessarily shares in the intention of the principal agent to destroy human embryos because the federally funded researcher’s work would not

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7See Pope John Paul II, Evangelium vitae, n. 74; McHugh and Callan, Moral Theology, 618–619; Häring, Law of Christ, 496; Grisetz, Living a Christian Life, 440–441.

be possible were it not for the fact that embryos were destroyed for the sole purpose of establishing cell lines. There was only one purpose for destroying the embryos, therefore, to work with the cell lines is to accept that purpose and to engage in implicit formal cooperation.

I disagree with such an assessment for two reasons. Formal cooperation, as with any type of cooperation in moral evil, must provide specific assistance identifiable with the commission of an act and, additionally, must be intended as such by the cooperator. However, because federally funded research on the approved ES cell lines occurs subsequent to the destructive acts, it cannot qualify as assistance to the commission of those acts. Moreover, even if a federally funded researcher agrees with the past destructive acts, his or her work would still not involve formal cooperation because the destructive acts occurred in the past. Second, to claim that work with these cell lines is necessarily linked to the destructive intention of the principal agent erroneously assumes that work with the same material ipso facto means that the agent of destruction and the researcher share the same intention of destruction. The physical material of the cell lines cannot cause an intention. Moreover, knowledge that the cell lines were derived from destroyed embryos cannot of itself cause the same intention with which they were destroyed, because to know an act with the intellect is not necessarily to intend that same act with the will as a good. There does not appear to be anything about the actual work of federally funded research that constitutes intended assistance specific to the destruction of embryos performed either contemporaneous with the research or in the future.

**Material Cooperation**

Does the federally funded researcher engage in material cooperation? Cooperation is material if the cooperator does not intend the morally evil act of the principal agent. Material cooperation is subdivided into immediate and mediate. Immediate material cooperation shares in, or is essential to, the morally evil act itself of the principal agent. Immediate material cooperation in the past destruction of embryos is not possible, given the nature of cooperation. Acts of destruction in privately funded research which are contemporaneous with federally funded research, or in the future, are also beyond immediate material cooperation by the federally funded researcher working on the sixty lines designated by the President. The knowledge gained by the research cannot qualify as a circumstance essential to the execution of particular contemporaneous or future acts of killing embryos.

If some of the original cells from the destroyed embryo are still present in the material used by the federally funded researcher, does working with that material constitute immediate material cooperation? An affirmative answer relies on the premise that the act of destruction is not complete until each of the embryo’s separated cells

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9See St. Thomas Aquinas, *Summa Theologiae* I-II, q. 12. It is on the basis of this distinction that the claim that there is no moral difference between withdrawal or withholding of life-sustaining means and physician-assisted suicide is in part refuted.

10The Catholic manualists did not exclusively identify these categories, or the categories of “remote,” “proximate,” “necessary,” and “contingent” with material cooperation.
have been destroyed following their extraction. However, the embryo qua embryo is
death at the moment its unity as an individual organism ceases. The same holds true
of death at any other stage of life. Individual cells continue to live even after death
has been determined by either cardiopulmonary or neurological criteria. Physical
contact with the physical effects of an act of killing does not of itself create an
identity with the moral act of the principal agent. Thus, neither the presence of
original cells nor the occurrence of cell passages in a cell line are factors that have
moral relevance for the determination of cooperation.

Is federally funded research mediate material cooperation in the destruction of
human embryos? Cooperation is considered mediate material if the cooperator’s act
contributes to nonessential circumstances that precede, accompany, or follow upon
the act of the principal agent. Mediate material cooperation is primarily subdivided
into proximate and remote. Proximate and remote mediate material cooperation are
distinguished on the basis of the causal ordering of acts contributing to the principal
agent’s act. Proximate mediate material cooperation makes a causal contribution to
the principal agent's act which is directly ordered to the act. Remote mediate material
cooperation makes a causal contribution to the principal agent’s act which is indi­
rectly ordered to it.

Federally funded research would seem to constitute neither proximate material
nor remote material cooperation in the destruction of human embryos. The work of
the federally funded researcher contributes to the general body of scientific knowl­
dge about the regenerative properties and other aspects of ES cells. His or her work
does not represent a morally significant influence on the act of destroying an embryo.
But could it be that the work of the federally funded researcher assists in the act of
extracting a stem cell from an embryo because the therapeutic promise of ES cells
shown by the federally funded research could become a reason why embryos are
destroyed in private research. The scientific demonstration of this promise, however,
is simply the apprehension of a fact or facts about ES cells, and as such is not an act
assisting the destruction of an embryo. To study and investigate what ES cells are
and can do has no essential relation to how they are obtained. The act of destroying
an embryo has an intelligibility which is independent of the work of federally funded
researchers using the sixty or more approved cell lines. Scientific knowledge about
the capacities of ES cells has no intelligible causal bearing upon the death-dealing act
of extracting a stem cell from an embryo.

The knowledge produced by federally funded research does not assist the
acts of destruction committed in private research in the way that preoperative prepa­
raration of a patient for an immoral procedure assists that procedure (remote mediate
material), or handing instruments to a physician who uses the instruments to perform
the procedure assists it (proximate mediate material). In each of the latter two cases
the cooperator’s act, good in itself, is distinctly incorporated into the act of the
principal agent. However, in the case of the federally funded researcher, his or her

11See the testimony of Micheline M. Mathews-Roth, M.D., for the Special Over­
sight Hearing of the Joint Committee on Health Care on Stem Cell Research and Human
Cloning (October 18, 2001), General Court, Commonwealth of Massachusetts.
acts of research are not used in the extraction of a stem cell in private research by the principal agent. The circumstances of federally funded research under the Bush policy are also different from the privately funded researcher who might place orders for a continuing supply of ES cells necessitating the continuing destruction of embryos. The actions of the researcher placing the orders would have a significant causal influence on the destruction of embryos and would certainly constitute illicit cooperation.12

All of the reasons why federally funded research does not constitute an act of cooperation also apply to the clinical use of cells or tissues derived from the approved cell lines by patients and health professionals.13 This clinical use cannot assist in the commission of a past completed act of destroying a human embryo. Treating a disease by a therapy using cells or tissues derived from the approved cell lines is not an act which causally assists in the contemporaneous or future destruction of an embryo in private research. As in the case of the federally funded researcher, a basis for cooperation—formal or material—does not exist. Moreover, the fact that a therapy uses cells or tissues from a cell line which has gone through many cell passages has no moral relevance, because the physical effects of the destructive act cannot in any way be a cause of that act.

Research, Therapies, and Scandal

If the work of the federally funded researcher and the clinical use of the sixty or more approved ES cell lines do not involve cooperation in evil, do these actions cause scandal sufficient to prohibit Catholic sponsorship? First, it must be determined whether these actions are by nature evil or at least are evil in appearance. Neither the study of the ES cell and discovering its capacities, nor the use of ES cell lines in the cure and amelioration of disease is in itself evil. However, the actions of the federally funded researcher, patient, or clinician might appear to be evil from the circumstances. How their actions appear depends upon who perceives them. To the peers of the federally funded researchers and clinicians (and to many others) it is unlikely that their actions would have the appearance of evil, because their peers know that these acts are not in themselves evil. To others who are ignorant of the facts, it might appear that the federally funded researchers and clinicians are killing embryos due to public knowledge that stem cells are obtained by an act that directly takes the life of a human being, or that they might be indifferent to the gravity of the moral evil of killing embryos. Thus, the actions of the federally funded researcher, patient, or clinician using the approved cell lines could scandalize only those who are ignorant of the facts. Individuals in this category might be led to take directly the lives of human embryos and fetuses, or support such acts.

12These circumstances seem to be what the Pontifical Academy for Life envisioned in the third of three ethical problems raised in its “Declaration on the Production and the Scientific and Therapeutic Use of Human Embryonic Stem Cells,” Vatican City, August 25, 2000.

13The analysis applies to Catholic sponsorship of the clinical use of the approved ES cell lines as it did for Catholic sponsorship of the federally funded researcher.
If these individuals are scandalized, what sort of scandal would it be? It would seem to be “passive scandal” which is “taken” because the scandalized would misinterpret the good or at least morally indifferent actions of the federally funded researcher, patient, or clinician as an occasion to do evil. Would the federally funded researcher, patient, or clinician engage in either direct or indirect active scandal? Direct active scandal would mean that the federally funded researchers, patients, or clinicians would deliberately use their actions to scandalize those for whom the actions appear to be evil. This would not seem to be likely because there would be nothing to gain from such scandal. Indirect active scandal would occur if the federally funded researchers, patients, or clinicians were aware that their actions have the appearance of evil to some but do not intend that these individuals be scandalized. This type of scandal is also possible.

Are these risks of scandal sufficient to prohibit Catholic sponsorship of federally funded research under the Bush policy and the clinical use of the approved ES cell lines? From the point of view of the ordinary citizen who might be scandalized by the work of a federally funded researcher or clinician using ES therapies under Catholic auspices, the risk of that person supporting abortion, or engendering embryos in IVF with the intention of having them used in private ESCR seems remote, especially if appropriate education is provided.14 Does the moral authority of the Catholic Church in the eyes of the world make a difference to the risk of scandal? Would the involvement of the Church seeming to side with evil demoralize the good and encourage the wrongdoers?15 Those who destroy embryos are already driven by the technological imperative, and those who might be scandalized need not be if it can be shown that no illicit cooperation exists. Finally, a point to be balanced in the equation is that others might be equally scandalized by the fact that the Church has abandoned an important potential good for health care in order to avoid a risk of a doubtful scandal.

14The risk of scandal with human fetal tissue transplantation using aborted tissue (were it successful) is more acute because of the continuous need for tissue from abortions.

15See McHugh and Callan, Moral Theology, 593.