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The Ethics of Embryonic Stem Cell Research and the Principle of “Nothing is Lost”

Gene Outka*

Hype tempts us all. It would be naive to exempt scientists from sometimes overstating the promise of their research. Early claims about what gene therapy would accomplish, for example, were arguably exaggerated and eroded public confidence. Yet claims about what stem cell research may accomplish belong in a class by themselves. The general public is now convinced that something momentous is occurring.¹ Both professional and popular publications register the excitement that scientists evidence. This research, it is routinely said, will not only expand significantly what we know about cellular life, but it will also bring dazzling clinical benefits. Those who suffer from Alzheimer’s disease, Parkinson’s disease, and others are regularly identified as eventual beneficiaries. Because these possibilities are now widely accepted as truly feasible, researchers secure vaster amounts of material support all the while.

Whether these claims too will prove exaggerated awaits research efforts that are still in their early stages.² In the case of embryonic stem cell research, consider this sobering report: “To date, no therapeutic applications of embryod-derived cells have been demonstrated, and only one preliminary human trial has been approved by the FDA (though it has yet to begin).”³ Some scientists acknowledge with an honesty I admire that they are still years away from broadly

* Ph.D., Dwight Professor of Philosophy & Christian Ethics, Yale University. Adapted from Gene Outka’s The Ethics of Human Stem Cell Research. KENNEDY INSTITUTE OF ETHICS JOURNAL 12:2 (2002), 175-213. © 2002 The Johns Hopkins University Press. Reprinted with permission of The Johns Hopkins University Press. As published in the Yale Journal of Health Policy, Law, and Ethics, this Article is only available in the hard copy publication. For permissions requests and other copyright inquiries related to this Article only, please contact The Johns Hopkins University Press directly.


applicable therapies. We long for such benefits, of course, and most of us sense a genuinely other-regarding motive at work among those who make claims about benefits. That is, the prospect such research affords for bringing concrete relief to numerous human sufferers motivates scientists to engage in it. We discern and respect this motive, although we do well to acknowledge that less altruistic considerations, such as a search for funding and profits, sometimes operate as well.

This Article takes general stock of moral judgments about embryonic stem cell research in particular and offers one specific resolution. It canvasses a spectrum of value judgments on sources, complicity, and “adult” stem cells. It proposes to extend the principle of “nothing is lost” to current debates. This extension links historic discussions of the ethics of direct killing with unprecedented possibilities that in vitro fertilization procedures yield. The creation of embryos solely for research purposes should be resisted, yet research on “excess” embryos is permissible by virtue of an appeal to the “nothing is lost” principle.

The ethical controversies surrounding this research press chiefly in two directions: 1) the other-regarding motive to benefit human sufferers, and 2) the moral status of the embryo. Even as we praise the motive, we confront complicating moral questions about according this motive utter priority. Should research that accents benefits to human sufferers trump all other considerations as it seeks to secure these benefits? What of embryos themselves? Should we, without a second thought, reduce their value totally to their importance for relieving the suffering of third parties? May a readiness to do anything that we please with and to embryos be acceptably other-regarding after all? What other moral considerations count and how much should they count? I approach these questions with lenses through which I see a more encompassing diagnosis of ourselves. Two basic generalizations about us that derive from this diagnosis influence my reflections in what follows.

First, we are morally capable creatures, accountable beings. We should assume responsibility for what we are doing, and we go wrong when we seek to deny our agency. Second, we are creatures who can exalt ourselves inordinately, in ways that flout God and manipulate others. This condition is called sin and moral evil in many religious communities. To be tempted to usurp and to do injustice is endemic to human life as we know it. In my own identity as an

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4. I mention but do not focus here on alternative sources of stem cells: adult, umbilical cord, placental, amniotic, and others. See infra note 23. To restrict attention to the embryonic is justified because this source raises distinctive moral considerations and because many still hold that – except for the practical difficulties created by ethical controversies – it is the best for research purposes among the alternatives. Further, most of the moral considerations I identify require me to distinguish between embryonic stem cells on the one hand, and adult and other alternative-source stem cells on the other.
Augustinian Christian, I take it that we are continually in danger and that everything is corruptible. If this is right, we should expect that embryonic stem cell research is itself not immune to pressures that may usurp and do injustice. In short, we are contending in the case of such research with novel opportunities and challenges, and with permanent capabilities and dangers. In what follows I characterize moral controversies that surround embryonic stem cell research in Part I; I assess them for myself in Part II; and I offer concluding remarks in closing.

I. RECURRING ETHICAL CONTROVERSIES

I focus on three points where value judgments collide: the status of the fetus and of the embryo; the question of complicity, where research depends on someone destroying a fetus or an embryo; and the alternative of concentrating on stem cells found in adults. Particular evaluations of these three issues tend to cohere internally. I review a spectrum of rival value judgments that pertain to each point.

A. Views on the Right

By views on the right, I refer mostly to Richard M. Doerflinger, who defends in lucid prose Vatican instruction on human procreation. Yet we should not suppose that only Roman Catholics reach the judgments I describe; many


evangelical Protestants and (Eastern) Orthodox Christians, for example, do as well.  

First, the status of fetuses and embryos. Doerflinger considers the moral status of the human embryo in light of the historic conviction that each human individual has basic and equal human worth. No differences in talents or other conditions, including the stage of embryonic development, should overturn this evaluation. If we take the evaluation to heart, we infer that no one should be treated, exhaustively and without remainder, as a means or instrument. “The human individual, called into existence by God and made in the divine image and likeness . . . must always be treated as an end in himself or herself, not merely as a means to other ends . . . .”  

It is cogent to infer inviolability too. To kill the innocent deliberately and directly is the prime instance of attacking such inviolability. Fetuses and embryos are assuredly innocent. Doerflinger sees both abortion and the destruction of embryos as treating fetuses and embryos merely as means to other ends, and as going against inviolability.

Second, complicity. Doerflinger assesses various arguments about complicity. Here, certain differences between abortion and the destruction of embryos do appear, but they give no comfort to the advocates of research on embryos.

1) Doerflinger grants that a researcher who uses fetal tissue is not necessarily a supporter of the decision to request or perform an abortion.

2) He refuses to say the same, however, about those who derive and use stem cells from embryos. “Here those who harvest and use the cells are necessarily complicit in the destruction of the embryo.”

3) He rejects as incoherent any claim that governmental funding of research on embryonic stem cells does not involve complicity in the destruction of embryos as long as researchers did not participate directly in such destruction.

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7. See Demetrios Demopulos, Testimony of Father Demetrios Demopulos, Ph.D., in Nat’l Bioethics Advisory Comm’n, supra note 6, at B-1; Gilbert C. Meilaender, Jr., Testimony of Gilbert C. Meilaender, Jr., Ph.D., in Nat’l Bioethics Advisory Comm’n, supra note 6, at E-1.


9. Doerflinger, supra note 8, at 141.
4) He also criticizes the argument that derivation of stem cells from “spare” embryos donated by fertility clinics differs morally from using embryos created solely for research purposes, and that only the latter uses embryos as a mere means to other peoples’ ends.

Third, the alternative of adult stem cells. Doerflinger, like many who endorse respect for human life from the earliest stages,\(^\text{10}\) accents the advances that researchers have made in their work on adult stem cells. He also stresses a major advantage on which most agree: using adult cells avoids possible tissue rejection by treating a patient with his or her own cells. In the years since his article was published, however, claims have waxed and waned about the benefits of adult stem cell research.

**B. Views in the Middle**

First, the status of fetuses and embryos. We find a more liberal argument within the Catholic tradition and elsewhere that favors embryonic stem cell research. It requires us to distinguish between conception and individuation. Margaret Farley accepts this argument. For her and a number of other Catholic moral theologians, the human embryo is not considered in its earliest stages (prior to the development of the primitive streak or to implantation) to constitute an individualized human entity with the settled inherent potential to become a human person. The moral status of the embryo is, therefore (in this view), not that of a person; and its use for certain kinds of research can be justified. (Since it is, however, a form of human life, some respect is due it—for example, it should not be bought and sold.)\(^\text{11}\)

\(^{10}\) See, e.g., Demopulos, *supra* note 7, at B-4 (discussing beliefs of the Greek Orthodox Church).

Farley commends certain safeguards: for instance, donors may not specify who is to receive stem cells for therapeutic treatment, and an “absolute barrier” should be maintained between research and reproductive cloning. In this more permissive view, not everything is thereby permitted.

Second, *complicity*. Those who occupy positions in the middle may disagree about the moral standing of fetuses. Many, however, refuse to equate the destruction of embryos who already exist (but who will either be frozen in perpetuity or discarded) with the intentional creation and destruction of embryos solely to benefit third parties. Complicity in the former instance appears to be morally less grave. The decisive role here is played by those responsible for the existence of embryos in the first place and for electing subsequently to freeze them or discard them. Rather than initiating the creation or destruction of embryos, researchers react only after the responsible parties have reached their fateful determinations. The numbers of such embryos, effectively bereft of prospects, are vast. Some estimate that approximately 400,000 frozen spare embryos now languish in *in vitro* fertilization clinics.\(^\text{12}\) The majority are no longer wanted or claimed by those who once needed them in order to have a child. Yet they retain final authority. Unless excess embryos are expressly donated, they will never be implanted. They will be *discarded*. Judging complicity should reckon with this datum accordingly.

Third, *the alternative of adult stem cells*. Those who occupy middle places across the spectrum generally accept (though sometimes reluctantly) a verdict that many scientists have reached. Stem cell therapies deriving from adults are necessary, but not yet sufficient, if we want to obtain the various cell types that clinically important areas of research require.

C. Views on the Left

First, *the status of fetuses and embryos*. Those who stand on the left side of the spectrum characteristically deny that the value accorded to pre-viable fetuses should ever override pregnant women’s choices (for whatever reason) to terminate their pregnancies. Here I refer mostly to the works of John C. Robertson.\(^\text{13}\) Robertson judges that to attribute basic and equal human worth to each human individual requires more than the presence of cells that have the potential to develop into the person. He refuses to say, however, that because embryos lack moral status in their own right we may do anything at all with them; they are not “means” to this extent. For example, we may not use them

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"for toxicology testing of cosmetics or buying and selling them."14 One should deny intrinsic value to embryos and still accord them "symbolic" value and "special respect' because of their potential, when placed in a uterus, to become fetuses and eventually to be born."15 This symbolic value should nevertheless be trumped when we pursue a good scientific or medical end that we cannot pursue by other means. The value is thus extremely thin; it does not come to much.

Second, complicity. Robertson thinks that any distinction between the derivation and the use of embryonic stem cells does not survive critical scrutiny.16 Researchers who use stem cells derived from embryos are complicit in their destruction, regardless of whether they participate directly in the destructive act. Moreover, those who support the use of cells from spare embryos from in vitro fertilization clinics should also support the creation of embryos for the purpose of research. In both cases, embryos do become a means to address the needs of others, once one decides to use them in research. Robertson displays an ironic affinity with Doerflinger on this matter. Both insist on an either/or choice, but draw the opposite normative conclusions. Either one should stop opposing the creation and destruction of embryos for research purposes only (in Robertson's view), or one should oppose not only the creation and destruction of embryos for research purposes, but also the research on spare embryos from in vitro fertilization clinics (in Doerflinger's view). On this point, both the left and right perspectives exert pressure on the middle point of view.

Third, the alternative of adult stem cells. Those who take Robertson's position can only prefer limiting research to adult stem cells if such a limit will in fact yield superior therapeutic benefits for members of society generally. They deny that the benefit of such a limit has been demonstrated.17

II. MORAL ASSESSMENTS

I commend as a normative point of departure the conviction that Doerflinger cites: "the human individual, called into existence by God and made in the divine image and likeness, . . . must always be treated as an end in himself or herself, not merely as a means to other ends . . .."18 Many hold this conviction, not only those on the right. To regard each person for his or her own sake, as one who is irreducibly valuable, authorizes a sphere of inviolability and heightens sensitivity

14. Robertson, supra note 13, at 117
15. Id. at 118.
16. Id. at 113.
17. A fourth point where controversies recur has two levels. The first concerns controversies about federal funding of stem cell research. The second level concerns controversies about the absence of coordination between research permitted in the public and private sectors. I find it disquieting that research possibilities lack any sort of society-wide oversight.
18. Doerflinger, supra note 8, at 138.
to the multiple ways we may go wrong. An approach that affirms inviolability and abjures domination captures deeply important commitments, which direct moral attention along lines I take to be permanently valid.

Many likewise draw on the language of ends and means to evaluate cases of “killing and saving.” Murder is arguably the quintessential instance of going wrong. Those who murder arrogate to themselves a position of false superiority. They usurp or perversely imitate God, who alone is the “Author of life and death.” Murderers do their victims incommensurable harm; in depriving victims of life, they reduce their victims to “mere means” to their own aims and projects. Is it coherent to claim that actions that destroy embryos, such as abortion and embryonic stem cell research, are morally indistinguishable from murder?

Posing so blunt a question concentrates our thoughts. Yet it also encourages an unfortunate tendency to restrict evaluative possibilities to a single either/or. Either we judge abortion and the destruction of embryos to be transparent instances of treating fetuses and embryos as mere means to other ends. Or we judge abortion and embryonic stem cell research as morally indifferent actions in themselves, to be evaluated solely in terms of the benefits they bring to others. I reject what I take to be this simplifying restriction.

My own view is that the most fitting place to inhabit is a particular region in the middle. Unlike that of conservatives, my view does not extend the prohibition of murder to the prohibition of abortion and embryonic stem cell research. And unlike that of liberals, my view ascribes an importance to fetuses and embryos that cannot be reduced to mere symbolism or the benefits that research on them may bring to third parties. This view can be illustrated on its own terms and in connection with formidable arguments on the right and left. The most distinctive example of the view I advocate is a simultaneous allowance of research on “excess” in vitro embryos and a rejection of the creation—for example, through research cloning—of embryos for research.

A. From the Right: Specificity and Stringency

The tradition of moral reflection that shapes conclusions on the right elevates two considerations that those in the middle should heed as well. One consideration is moral specificity. Murder is prohibited, but not all killing is murder. How shall we discriminate? We should not do so by writing morally evaluative references into the characterization of what murder is. The prohibition of killing in the Decalogue is construed more precisely to mean that we should


20. Though in the latter case I distinguish between engaging in research on cryopreserved embryos and intentionally creating and destroying embryos for research, it is the former whose meaning differs from murder. See infra note 30.
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not intentionally kill innocent human life. This construal specifies what “murder” is. It is a delimited action-kind. The judgment that murder in this sense is wrong purports to be true yet is not a tautology. It is the judgment under scrutiny, and it remains possible to dispute it. To construe more precisely the prohibition of killing introduces on the one hand a certain flexibility. It helps to make sense of society’s organized efforts to provide security for its citizens against arbitrary, unprovoked, or otherwise unjust assaults on life and limb, and to accommodate policing, courts of law, and soldiering. Yet on the other hand, this construal limits flexibility. When we meet cases that fall within its range of applicability, as we surely do, we may not then redescribe them at will. Instead, we acknowledge the moral features of the case we confront and either condemn or seek special justification or mitigation.

A second consideration is moral stringency. To reiterate an ancient question: may we (ever) do evil to achieve good?21 When we meet cases that fall within the prohibition’s range of applicability, we face two choices: the prohibition against killing as precisely construed possesses either absolute or prima facie authority in any circumstance to which it applies. Unless we understand how the prohibition against killing is construed, and that it may be accorded absolute authority, we fail to grasp where and why many on the right judge abortion and embryonic stem cell research as they do, and where and why many on the left demur.

Those on the right judge that the prohibition of murder extends to fetuses and embryos. Both are innocent, and aborting a fetus and disaggregating an embryo are direct actions that kill. Whether death is strictly intended is a more complicated question I think in the case of abortion. As for “human life,” the last part of the specified prohibition, those on the right maintain that each human entity, from the time of conception, is irreducibly valuable. Indeed, each is judged to have an equally protectable status. If embryos are currently genderless and removed from the naked eye, they differ from the rest of us in that they await implantation, growth, and subsequent entry into the world of social interaction. But they contain the requisite genetic information that renders each unique.22 And all of us began at this stage. Why then discriminate? Does our self-absorption blind us to injustices we may commit because at present we enjoy superior power? Assuredly, fetuses and embryos cannot now fight back on their own behalf. Yet none of us could at the point of our origins. To intervene and destroy fetuses and embryos palpably instrumentalizes them for the sake of those who are presently stronger. We do well to remember what our parents did, and that we are grateful for what they did, when we evaluate abortion and embryonic stem cell research.

Those on the right go next from specificity to stringency. We should make

others' ends our own, provided that these ends are morally permissible. Violating the prohibition against killing as precisely construed is an impermissible end. We may not do or approve this evil, even when it achieves good. For we should always relate any benefits we aim to secure to what we are prepared to do to obtain them. We do best to consider first what we do and forbear, and not simply what will happen, and to live within the absolute limits that the prohibition against murder sets for us.

B. In the Middle: When “Nothing is Lost”

I have identified arguments from the right that I find formidable. Indeed, I think that what constitutes a human individual, and where his or her innocence still incontestably obtains, starts at conception. That embryos possess the requisite genetic information rendering each unique suffices to regard each as irreducibly valuable. To withhold such regard until the possibility of twinning is past, and to disqualify all embryos from this regard rather than include any resultant twins within its reach as well, seems to me to fall victim to greater arbitrariness. And I worry that when we possess superior power, we are tempted toward injustices that we decry when we lack power and commit when we enjoy it. Why, then, do I not simply accept these arguments without further ado?

Two lines of further argument move me from the right to the “right of middle.” They prevent my saying that abortion and embryonic stem cell research are morally indistinguishable from murder. The first is an argument from “potentiality” that I discuss in detail elsewhere. I now propose to invoke and

23. GENE OUTKA, THE ETHICS OF LOVE AND THE PROBLEM OF ABORTION, SECOND ANNUAL JAMES C. SPALDING MEMORIAL LECTURE 8-10 (1999) (printed in booklet form by the School of Religion, University of Iowa). In brief, I identify respects in which debates about abortion and debates about stem cell research converge and diverge. I also indicate how such debates pressure those in the middle in contrary directions. For example, some are disposed to be more permissive about embryonic stem cell research than about abortion for these reasons: a) Prior to implantation, we may distinguish conception from individuation, b) after implantation, the fetus is indeed a “power underway,” who left to self-elaborating processes is likely to become “one of us.” Abortion actively intervenes to terminate “a force that is there,” and has the burden of proof, whereas an embryo must still be implanted, and until it is, we cannot describe it as now a self-elaborating power underway. Others are disposed to be less permissive about embryonic stem cell research than about abortion, reasoning that abortion may involve bona fide conflicts between two entities who are both ends in themselves, whereas embryonic stem cell research is morally simpler. It concerns only one such entity about whom we can say with certainty, here and now, that the action we take, disaggregation, causes incommensurable harm. That third parties may benefit from the research subsequently done, is an outcome for which we fervently hope. But such benefit lies in the future. It does not lend itself to similarly determinate judgment. And we cannot gainsay the possibility that it may be attained without taking any lethal step, e.g., through research on other, morally unambiguous sources of stem cells (from adults, umbilical cord blood, amniotic fluid, and
extend a second argument: the *nothing is lost* principle. I first learned of this principle from Paul Ramsey. While he was committed to an absolute prohibition against murder as the intentional killing of innocent life, he was prepared to attach two *exempting conditions* to it. One may directly kill when two conditions obtain: 1) the innocent will die in any case, and 2) other innocent life will be saved. These two conditions stipulate what *nothing is lost* means. They originally extend to parity-conflicts, where one physical life collides directly and immediately with another physical life, and we cannot save both. I will argue that it is correct to view embryos in reproductive clinics who are bound either to be discarded or frozen in perpetuity as innocent lives who will die in any case, and those third parties with Alzheimer’s, Parkinson’s, and other diseases as other innocent lives who may be saved, or at least helped, by virtue of research on such embryos. I grant that this extension stretches the *nothing is lost* principle toward the outer limits of its application. For I defend the extension as a move to the effect that 1) nothing *more* is lost, and 2) *less* is lost, or at least, *someone* may be saved, or immensely helped (when clinical applications are attained). One reason it is worth considering is that we face a particular instance of a general phenomenon, namely, that novel developments arise, for which no clear precedents suffice to guide us in a wholly straightforward way. We should seek both to extend traditional moral commitments and to incorporate new developments as cogently as we can. To labor the obvious, some of the controversies we are examining only made sense *after* the age of *in vitro* fertilization dawned. It stands behind us, amplifying questions about “end” and “means” that our forebears could not foresee. Unless we are prepared to repudiate *in vitro* fertilization as such, so that we sympathize with infertile couples but refuse them a *right* to overcome their condition by any means that science and their financial resources make available, we must take the moral measure of these new possibilities.

In the instance before us, I sympathize with the plight of infertility but am disquieted by the way *in vitro* fertilization is practiced in our culture. But rightly or wrongly, “excess” embryos are a tenacious datum, for they are a result of the practice as it currently exists. I welcome the day when such necessity vanishes, and welcome in the meantime “adopting” mothers willing to implant


25. Sondra Wheeler led me to see that the normative position I defend requires a critical assessment of *in vitro* fertilization as currently practiced in the United States, and I thank her for perceptive counsel.
embryos when the genetic couple consents. Not to welcome these things belies the claim that embryos as well as fetuses are irreducibly valuable. Nevertheless, embryos in appreciable numbers have now been discarded or frozen in perpetuity. They will die, unimplanted, in any case. Nothing more will be lost by their becoming subjects of research. Again, it is the absence of prospects of these innocents that partly extends the first exempting condition. It is the enhancement of prospects to other innocent life that partly extends the second exempting condition. Less will be lost, or at least, someone may benefit. These judgments taken together summarize the case I wish to make.

I say “partly.” I do not say “wholly” and certainly not “transparently.” The case for extension I put forward shows both continuities and discontinuities with prior judgments on the ethics of direct killing. I take the prior judgments seriously and extend them to novel possibilities as far as I can. But I acknowledge that the present debates attest to a moral space embryonic stem cell research occupies that is to a degree unprecedented. Let me give two examples of continuities and discontinuities.

First, consider this point of continuity. My extension goes so far, and no further. It includes embryos conceived to enhance fertility, but who will never be implanted. It excludes embryos created exclusively for research—as in research cloning—where we intentionally create them, and embrace their disaggregation as part of what we do. This limited extension accords with the timbre of nothing is lost in that we encounter circumstances we did not initiate and that we wish were otherwise. That we contemplate doing repellent things that we would not do for their own sake indicates that intentional killing was not “part of our plan” from the start. This timbre matters, yet a difference presents itself even here. The parity-conflict cases assume a contingent disaster that no one intends or foresees, to a degree unprecedented. Let me give two examples of continuities and discontinuities.

26. It is important to qualify any generalization that the creation of spare embryos is endemic to in vitro fertilization procedures as such. Consider the case of Germany since the passage of the 1990 Embryo Protection Act. See Gesetz zum Schutz von Embryonen [Act for Protection of Embryos], Dec. 19, 1990, BGBl. I, 69 at 2746 (F.R.G); Henning M. Beier & Jacques O. Beckman, German Embryo Protection Act (October 24, 1990), 6 HUM. REPROD. 605 (1991). Germany allows during an in vitro fertilization procedure only the number of embryos to be developed beyond the pronucleus stage that will later be transferred. And three is the maximum number of transfers permitted. The striking result is that Germany faces no “plight” of excess embryos. To be sure, there is a drawback. Success rates are lower than they are in the United States. Nevertheless, I conclude two things. First, the normative position I espouse here effectively pushes closer toward the policies that Germany follows. These would require, however, a degree of regulation that is needed but missing in the United States. Second, this same normative position requires that I attend to the large number of excess embryos that exist already in the United States and in certain other countries. Their “plight” is a fait accompli. The “nothing is lost” appeal that I invoke pertains chiefly to their plight. To ignore the existence of these excess embryos, to fail to reflect on their significance, would subtly belittle the moral quandaries they pose. I am indebted to Sabine Hermission for information about policies in Germany.
nor is it made part of any established procedure. “Excess” embryos are foreseeable and endemic to the in vitro fertilization procedure to date. At a minimum, we foresee this. Still, we intend in performing the procedure to alleviate infertility, not to create embryos for research. Thus a significant continuity holds, despite this difference.

Second, consider this point of discontinuity. The nothing is lost principle, as originally formulated, is narrower and more exact than an extension to the novel case of unimplanted embryos can be. In parity-conflict cases that goad us to articulate the nothing is lost principle in the first place, unless we directly kill one, we cannot save the other, and this allows us to claim that we would save both if we could. In cases of unimplanted embryos, we face no similar temporal and causal limits. No other party will directly and immediately die if we elect to save embryos by freezing them. Any “conflict” is much further removed and comparatively indeterminate, plainly from parity-conflict cases, and arguably from abortion decisions more generally.

C. From the Left: Derivation and Use, and Ends and Means

As argued above, Doerflinger on the right and Robertson on the left defend an either/or dichotomy that I in the middle reject. They hold respectively that either we should oppose both the creation and destruction of embryos for research purposes and the research on spare embryos from in vitro fertilization clinics, or we should stop opposing the creation and destruction of embryos for research purposes only. I develop my view further in relation to two considerations that Robertson and those on the left raise.

Derivation and use: As noted previously in the discussion of “complicity,” Robertson makes two claims that we should not conflate. He contends first that the distinction between derivation and use is chimerical. Researchers are complicit in destroying embryos when they use stem cells derived from them, whether or not they engage in the actual destroying themselves. So far, I agree. The earlier NIH Guidelines promulgated during the Clinton Administration\(^\text{27}\) split the difference, perhaps for political reasons, to promote civil peace by not ignoring conservatives’ concerns altogether, but funding research all the same. Second, Robertson contends that if one supports research on embryos obtained as “spares” from in vitro fertilization clinics, one should also support creating and destroying embryos for the purpose of research. For embryos do become a “mere means,” once we decide to use them in research. I think we may compatibly accept his first contention and reject his second. And if I am right to extend in a qualified way the nothing is lost principle, we have important reasons to reject the second.

Ends and means: Reasons based on ends and means focus on the status we ascribe to embryos, and on how we interpret the injunction to treat persons as ends in themselves. Robertson holds, along with many others, that embryos are too rudimentary to have moral status in their own right. He ascribes “symbolic” value to them (for example, they may not be bought and sold), but states that they lack “intrinsic” value. The account of potentiality I offer elsewhere and of irreducible value offered above does ascribe status to them in their own right. Potentiality is more than mere possibility. It is a power underway, and more so with fetuses than with embryos. Yet in both cases potentiality includes existent capacities to acquire in the future various characteristics typically attributed to those who “bear the human countenance”—e.g., self-awareness, personal accountability, and conscious relations with other human beings. I intend potentiality to be robust enough, in the case of both fetuses and embryos, to resist the view that fetal life and embryonic life lack any weight as soon as they conflict with other interests. Without such resistance, we reduce concern for such life to a platitude, a mere expression of good will that never has efficacy and can always be trumped.

Again, Robertson insists that once we decide to use embryos in research, they do become a “mere means.” This announces moral equivalence between two circumstances that I have argued differ relevantly. It is one thing to say that innocent life “will die” in any case, when one refers to a condition that one did not, by one’s own hands, bring about, and that in most instances one cannot alter. It is another to say that innocent life will die at one’s own hands, a condition that one plans and brings about from the beginning, and where one could have done otherwise. This latter procedure does reduce embryos to a menial status. We would distort the nothing is lost principle beyond recognition if we extended it to say that nothing is lost when we create an entity whose prospects are nil because of what we intend from the start.

Robertson’s position leads me to ask how much remains of the injunction to treat persons as ends in themselves when we allow research on frozen and eventually-to-be-discarded embryos. Some seek to bear witness to the dignity of embryos by refusing to do anything to them other than freeze them. They adhere to the norm that one does best to consider first what one does and forebears, and not simply what will happen. Although I find this norm persuasive across a range of other circumstances, I find here that such a witness threatens to idle. It is difficult to specify what interests one protects and promotes, for example, when freezing and discarding are all that one can seriously envisage. To honor potentiality where there is no hope of implantation is to honor perpetual potentiality. What one can and cannot do in treating persons as ends will be

28. See Outka, supra note 23.
29. Brian Sorrells suggested this phrase while reading an earlier draft and I gratefully appropriate it. That honoring in this case threatens to idle distinguishes it from another sort of case
affected by their prospects. Love for an embryo who will live at most in a perpetually frozen state without self-awareness, has less prospective room than love for a fetus who is a power underway and who will acquire self-awareness by virtue of his or her self-development. What we can envisage and do, now and later, has greater scope in the latter instance, which is why termination obliterates a future that the fetus now has in prospect, a future that an embryo frozen in perpetuity itself still lacks.

The injunction retains some force, however, as we disallow the intentional creation and destruction of embryos as in the case of research cloning. In so doing, we draw more closely together the moral considerations we weigh in judging the permissibility of research on fetal cadavers and certain-to-be-discarded embryos. In both cases, the genetic parents decide whether to donate them for research. Researchers play a lesser role (they lack a voice in the decision to abort or to attempt in vitro fertilization) than when they guide the intentional creation and destruction of embryos.

To extend the nothing is lost principle in the way I do sets a deontological constraint on “sources” that applies in principle to stem cell research in the public and private sectors. It draws a line between research on embryos created solely for this purpose in research cloning, and research on embryos from in vitro fertilization clinics slated to be discarded or frozen in perpetuity. It disallows the first sort of research and allows the second. This constraint makes concern about

to which I think the “nothing is lost” appeal does not apply. The latter sort of case assumes a difference between destruction of an entity for body parts because that entity will die in any event and using cells from an entity already dead. Some may worry that “nothing is lost” may allow the general “harvesting” of organs or tissues from the living who are, for example, terminally ill, permanently comatose, or condemned to die by authorities of the state as criminals. The specter of Nazi doctors may well appear: if certain people are slated for death anyway, why not experiment on them to the point of ending their lives to acquire knowledge? (Gilbert Meilaender helpfully posed this question to me in correspondence.) “Nothing is lost” does not apply to this sort of case. It is impermissible to destroy any entity for body parts who has an agential history even if he or she does not now have any considerable future, e.g., entities whose maturity deprives their genetic parents of authority to end their existence or to elect to donate them for research. Moreover, the Nazi-doctor analogy fails because even research on camp inmates allows for significant alternatives. Not only is it less than absolutely certain that the victims will die, but victims condemned may still be shown kindness and consideration. These alternatives need not and should not be lost. But we lack any way of showing human kindness to cryopreserved embryos. John Reeder observes in quoting Baruch Brody that “[t]he basic point of nothing is lost is that, as Brody puts it, the one to be killed does not suffer any significant losses . . . in unrealized potential.” REEDER, supra note 19, at 62-63 (quoting BARUCH A. BRODY, ABORTION AND THE SANCTITY OF LIFE: A PHILOSOPHICAL VIEW 151 (1975)). I claim that “unrealized potential” carries for the embryos in question distinctive finality that resists generalization. (I am indebted to John Reeder, Richard Fern, and Oliver O’Donovan for discussion of when “nothing is lost” applies and does not apply.)
embryos more than an ineffectual afterthought. We should leave the line intact and be content to derive as many scientific and medical benefits from research on “excess” embryos as we can.\footnote{Unless we attempt in practice to honor this line, we jeopardize the importance of a moral distinction that shows how research cloning does instrumentalize in a thoroughgoing way. William FitzPatrick astutely draws on the intend/foresee distinction to demonstrate this. “In the case of research cloning, the relation between what is clearly aimed at—the embryo’s being disaggregated to get stem cells—and the purported side effect—the embryo’s being destroyed or killed—is ‘too close’ to allow for an intelligible application of the intend/foresee distinction.” William FitzPatrick, Surplus Embryos, Nonreproductive Cloning, and the Intend/Foresee Distinction, HASTINGS CENTER REP., May-June 2003, at 29, 32. Yet I want to accord greater practical stringency than he does to his assessment that research cloning assumes “an intrinsically inappropriate attitude toward the beginning stages of human life” that the intend/foresee distinction brings out. Id. at 36. He judges instead that his assessment “lacks sufficient moral weight to warrant opposing cloning in the end.” Id. at 34. Although he subsequently rebuts several “slippery slope” arguments to which his allowing cloning are alleged to lead, these consequentialist considerations lack the power of his earlier deontological assessment. Id. at 35. The point at which I think we may allow room for maneuver concerns the distinct practice of in vitro fertilization and cryopreservation of embryos. To invoke the “nothing is lost” principle here means roughly this: we are given a situation (many embryos are currently frozen in perpetuity). We cannot argue about it, whether or not we lament it. We must decide in the constrained field that has resulted. “To abstain from research on cryopreserved embryos” hardly has the same meaning as “to abstain from murder.” But “intentionally to create and destroy embryos for research” has a meaning too similar to murder: something is lost, deliberately by our own hands, and we treat what is lost entirely as a means. And so I oppose two discrete kinds of idling. It is idling to refrain from attempting to honor in practice how the intend/foresee distinction applies to research cloning. It is idling to do nothing but allow cryopreserved embryos to languish unregarded and doomed, where we cannot show them positive kindness or otherwise affect their certain prospects.}

The constraint matters then as it marks the drawing of a line. It matters in a further way. It registers an attitude of ongoing mourning for a plight. We regard research even on excess embryos as something to which we only reluctantly acquiesce. This attitude begins in sympathy for those who view their own infertility as an affliction they seek to overcome. It continues in allowing unprecedented in vitro technology that sometimes triumphs over this affliction. But such technology brings one outcome we foresee and lament: namely, the presence of excess embryos to be discarded or frozen in perpetuity. The case for extension occurs, once more, in circumstances I take as lamentable. We welcome neither infertility nor excess embryos. The attitude concludes in a desire that one day we may get out and get out for good. That is, we look forward to a time when we may reprogram adult stem cells or otherwise obtain alternative sources of human pluripotent stem cells so that we no longer require embryos as a source.

Such looking forward disposes me to welcome efforts to obtain pluripotent, genetically stable, and long-lived human stem cells that do not require creating,
destroying, or harming human embryos. The President’s Council on Bioethics, in a recent white paper, has canvassed most usefully four possible approaches, and Rajesh Rao’s Article in this issue describes these and other alternatives to embryos. I cannot viably consider the ethical debates surrounding these alternative sources in this Article. But I judge that an appeal to “nothing is lost” can accommodate three of the sources. These are the following: deriving cells from organismically dead embryos; deriving cells from specially engineered biological artifacts (though confining experimentation at present to animal models); and obtaining cells by somatic cell dedifferentiation (also known as “reprogramming” or inducing pluripotency). The fourth approach, extracting blastomeres from living embryos, imposes too many risks on living embryos to satisfy the “nothing is lost” principle.

CONCLUSION

The subject of stem cell research remains volatile. We should beware of assuming here that once we turn to institutional policies, we no longer need to engage in “theoretical” debates. On this subject, we are never done with moral points of departure. These determine, in key part, what we take desirable and undesirable institutional policies to be. We make claims as I have done here, weighing arguments about where to place ourselves along a spectrum, how far judgments about abortion and stem cell research diverge, and so on. If we give these enduring moral concerns short shrift, we enter the political fray with undefended assumptions that we merely announce.

To avoid such an outcome, we must not grow weary of moral debates. They matter, and moral views exert vast influence. Between those who evaluate embryos as equally protectable human life and those who evaluate embryos as only “clumps of cells in Petri dishes,” there is no peace. I have tried to suggest why neither of these evaluations is adequate. And I for my part then must continue to attempt to address conservative and liberal objections.

31. President’s Council on Bioethics, supra note 23.
33. For a detailed review of these conclusions, I am indebted to a paper that Carolyn Brokowski kindly sent me in response to my attempt to apply the “nothing is lost” principle. For further detailed scrutiny, see Domestic Policy Council, Advancing Stem Cell Science Without Destroying Human Life (2007), available at http://www.montegen.com/Montegen/Nature_of_Business/The_Library/Genomics/Stem_cells/stemcell_010907.pdf. Special note should be taken of “induced pluripotent stem cells,” or “iPS cells.” “These techniques not only avoid any ethical concerns . . . but they offer a far cheaper and easier method of producing genetically matched or selected pluripotent stem cells, which makes them appealing to researchers. As a result, this technique has begun to overtake the use of embryos in many stem-cell labs.” Levin, supra note 3, at 17.
I object to the sort of embryonic stem cell research that creates embryos for the sake of benefits to third parties, where one embraces the disaggregation of embryos as necessarily part of what one does from the beginning. To conduct this research clashes directly with the judgment that entities conceived have irreducible value. For it is one thing to allow that we need not yet ascribe full moral standing or equal protectability to embryos. It is another thing to "instrumentalize" them through and through when what we intend in the actions we perform exhaustively concerns benefits to third parties. But the claims also indicate why I object to an ironic alliance that those on the right and left sometimes form, to the effect that we should either forbid or permit all embryonic stem cell research. There is, I believe, a more nuanced possibility, where we may distinguish creating for research and only employing for research. The latter allows us to consider the tangled aftermath of in vitro fertilization as a practice in our culture. Employment for research connects with the datum of discarded embryos, where the original creation of embryos possesses a non-instrumentalist rationale (namely, the promotion of fertility), so that what we intend does not exhaustively concern benefit to third parties. The aftermath for discarded embryos allows us to pursue benefits to third parties when we may do so without, from the start, creating embryos and where we embrace their disaggregation as necessarily part of what we do. These differences lead me to argue that the nothing is lost principle illuminates a morally significant distinction between creation for research and employment for research. That both houses of Congress have twice passed bills along these very lines, which were vetoed by President Bush, indicates that many on the left and the right consider this a cogent moral position that should be given political and legal effect. Whether or not the Congress under President Obama abandons this distinction de facto, it still retains moral force.

34. The first bill was the Stem Cell Research Enhancement Act of 2005, which the House passed in May of 2005. In July on 1996, the Senate also passed the act, but Bush vetoed it the same month. See Stem Cell Research Enhancement Act of 2005, H.R. 810, 109th Cong. (2005). The second bill was vetoed in June of 2007. See Stem Cell Research Enhancement Act of 2007, S. 5, 110th Cong. (2007). The grounds for President Bush's opposition to both bills flow from his August 9, 2001 speech on stem cell research. I note however that I developed my argument on the analytical and moral merits of the case well before these events, in an article whose substance I extend here. Gene Outka, The Ethics of Human Stem Cell Research, 12 KENNEDY INST. ETHICS J. 175-213 (2002). Christiana Peppard and Brian Sorrells have encouraged me to register these political developments, and for this and other suggestions I have incorporated, I thank them both.