The Catholic Church provides unequivocal teaching that IVF presents an immoral use of human ingenuity in the arena of reproduction, that the embryos created by means of artificial reproductive technology are to be respected as persons from the first moment of their existence, and that any intervention not immediately beneficial to the development of the embryo, such as stem cell research, offends respect due and is morally illicit.¹ The logic of this teaching compels, for the most part, but does not cover every case. The concern of this essay is not with that logic or the teaching of Donum vitae, but with the disposition of embryos that are no longer intended for implantation and about which, except for the prohibition against research on them, the teaching is silent.

Just a little over a year to the day that President George W. Bush announced his decision regarding federal funding for stem cell research (August 9, 2001) comes news (August 20, 2002) of an administrative push to subsidize “The Development and Delivery of Public Awareness Campaigns on Embryo Adoption.”² Stem cell research and embryo adoption may not be immediately recognizable as related concerns; however, they are related materially because the embryo is the source of stem cells for research and formally because of politics and the ethics of research on human subjects and reproductive technologies.

¹The clearest example of this teaching is contained in Congregation for the Doctrine of the Faith, Donum vitae (1987).
The Office of Public Health and Science of the Department of Health and Human Services (OPHS) expects to award three to four one-year grants totaling nine hundred thousand dollars for embryo adoption awareness campaigns. Applications to OPHS were due August 26, one month after the announcement of funding availability in the Federal Register. Legislative and public debate over the decision to fund awareness programs occurred prior to the passage of Public Law 107-116, Fiscal Year 2002 Departments of Labor, Health and Human Services, Education and Related Agencies Appropriations Act (January 10, 2002). The legislative support for these grants arose from Senate “hearings devoted to Stem Cell research, [during which] the Committee became aware of approximately 100,000 spare frozen embryos stored at in vitro fertilization clinics throughout the United States.”

Perhaps alarmed over the number of such embryos and the problems that embryonic stem cell research occasions, the Senate was moved to consider the value of embryo adoption and to support federal funding.

That the Federal Government should promote a public awareness program in support of embryo adoption demonstrates once again the ambivalence lawmakers and politicians have over human embryonic and fetal life and the rights and privileges that are properly accorded to them. To speak of embryos that are available for adoption is to place embryos in a category of being that is denied to them by abortion laws or the destructive harvesting of stem cells; adoption of this sort implicitly recognizes embryos as human beings. But our government allocates spending for both prenatal care and abortion services; and our legal system will try a woman for child endangerment while pregnant and yet will grant late term or partial birth abortions without a charge of murder. This ambivalence suggests that recognizing the human embryo as an individual identity unnerves pro-choice advocates and provides a glimmer of hope for those who wish to see limits placed on the flagrant disregard for these most vulnerable lives. Thus, given that adoption is a term reserved to children in need of families, “for the purposes of this [funding] announcement, embryo adoption is defined as the donation of frozen embryo(s) from one party to a recipient who wishes to bear and raise a child,” federal funding support for advertising embryo adoption programs implicitly recognizes that the embryo is an entity whose existence will be actualized as a child—an indisputable recognizable human being.

3Senate Report 107-84, at 244.

4For example, Senator Arlen Specter, R-PA, inserted into the appropriations bill authorizing funding, “The Committee is also aware of many infertile couples who, if educated about the possibility, may choose to implant such embryos into the woman and, potentially, bear children.” Senate Report 107-84, 244. Curiously, Specter is one of the leading congressional proponents of embryonic stem cell research and abortion rights. His comments in Senate Committee suggest a “political tactic of being on both sides of an issue at once.” Ronald Bailey, “Federal Embryo Adoption: The Feds Solve Another Nonproblem,” reasononline, March 27, 2002, available at reason.com/rb/rb032702.shtml, last visited September 30, 2002.


6In Aristotelian terms, “essential potentiality is what makes it [the embryo] an actual human being.” Christopher Megone, “Potentiality and Persons: An Aristotelian Perspec-
How then do we respond to the possibility of widespread embryo adoption that might result from this awareness campaign? What insights can the official teaching of the Church offer? Can prudence overcome the initial challenges that reproductive technologies present over the disposition of some one hundred thousand supernumerary frozen embryos?

**Origin of the Problem**

Before the last quarter of the twentieth century couples who were childless as a result of infertility either remained childless or sought to adopt a child or children to give and to make of themselves a family. With the successful birth of Louise Brown in 1978, the first “test tube baby,” the rules of infertility changed. As of 1999 in the United States some 399 fertility clinics were conducting reproductive services including IVF/ET, GIFT, and ZIFT; of 86,822 fertilization attempts in 1999, 30,285 babies were born. As impressive as these numbers are, childless couples and single women who pursue the services of assisted reproductive technologies represent only a fraction of the approximately six million pregnancies and four million live births in the United States in 1999. Nevertheless, the rules of infertility hinge on the availability of reproductive services, the ability to pay (either through savings or health insurance), and the readiness to undergo the technological demands of clinical treatment.

On average more ova than are needed for an initial attempt at fertilization are retrieved through hyperovulation therapy from the woman who is challenging infertility. Ideally, sperm is collected, without clinical or medical intervention, on the day of ova retrieval. Both ova and sperm are subjected to screening for quality before being introduced for fertilization, cellular development and division. Between three and six embryos of those that have been developed will be transferred to the woman in the hopes that at least one will successfully implant, signaling a pregnancy. The unused embryos are then frozen for future implantation attempts, for possible adoption, for research (experimental use against disease or dissected for their stem cells and cultivated), or they are disposed as “waste.”

Without the advances in reproductive technologies witnessed over the last twenty-five years, no one would be concerned today over either embryonic stem cell research or the one hundred thousand cryopreserved embryos awaiting disposition. But this technology is not going away: almost two million couples/single women seek infertility treatments annually, which treatments will likely result in more un-

---

7Centers for Disease Control, Society for Assisted Reproductive Technology, and RESOLVE, 1999 ART Fertility Clinic Report (Atlanta: Centers for Disease Control, 2002).

8Centers for Disease Control, National Center for Health Statistics, 1999. Almost two million pregnancies failed as a result of induced abortion or fetal miscarriage.

9Between five and twelve ova are retrieved per treatment cycle. See Genetics and IVF Institute, “Human Embryo Cryopreservation (Embryo Freezing) and Frozen Embryo Transfer Cycles,” at www.givf.com/embryov.cfm, last visited September 30, 2002.
used/supernumerary embryos (perhaps as many as ten thousand per year\textsuperscript{10}). The Church is enjoined to develop clear guidelines that continue to protect these embryos from the destruction that results from stem cell research, as well as protective guidelines that attend to the uncertain limbo of the deep freeze.\textsuperscript{11}

### Cooperation, Tolerance, and Prudence

Genetically unique individuals of the human species are held captive by a technology that has three ends: to exploit them for research purposes, to offer an opportunity for them to be actualized through transfer to the womb of an adopting mother, or to dispose of them as waste. The time has come to stand prophetically for the right to life of these most vulnerable lives, a right that can only be realized for these lives through embryo transfer. To obstruct that transfer on which the possibility of birth depends, because it is so technologically complicated as a means of adoption or problematic from the perspective of their creation, frustrates the potential these embryos possess \textit{in se}. Further, the potential of coming to birth (which is their right) is curtailed until such time as these embryos are so transferred. Is it right to remain indifferent to their plight?

These technologies challenge our commitment to the life of the most vulnerable. Although these vulnerable ones exist at the instigation of an intention that no longer exists, a new intention can save them: an intention “to bring good news to the oppressed, to bind up the brokenhearted, to proclaim liberty to the captives and release to the prisoners; to proclaim the year of the Lord’s favor.”\textsuperscript{12} Embryo transfer respects their potential to be born, relieves the burdens of humanity’s concern over the exploitation of their vulnerability, removes the technological fetters that prevent their development, and spares their very lives from the oblivion of the margins as they are nestled in the womb of a mother.

Without a doubt, reproductive technologies present serious challenges to classical (or traditional) understandings of the sacred character of procreation. Since Augustine, the classical position has held that reproductive activities belong properly to married couples and that procreation is a defining purpose of sexual union.\textsuperscript{13} With the present state of reproductive technology in general use, procreation is separated

\textsuperscript{10}Given the likelihood of three attempts with three to six embryos transferred at a time, I am guessing at this number based on the number of births reported by the CDC, et al., for 1999 in the \textit{ART Fertility Clinic Report}.

\textsuperscript{11}One author suggests that these embryos are held captive in “concentration cans.” See Jerome Lejeune, \textit{The Concentration Can} (San Francisco: Ignatius Press, 1992).

\textsuperscript{12}Isa 61:1–2.

\textsuperscript{13}Augustine proposes three goods of marriage: sexual continence, children, and the sacramental union. See his “On the Good of Marriage.” Paul VI extends the tradition to project not only the indissolubility of marriage per Augustine but to hold indissoluble the unitive and procreative dimensions of each conjugal act: “This particular doctrine, often expounded by the magisterium of the Church, is based on the inseparable connection, established by God, which man on his own initiative may not break, between the unitive significance and the procreative significance which are both inherent in the marital act.
from the conjugal union of spouses. The first challenge to acceptance and endorse-
ment of embryo adoption is to overcome this separation of the unitive from the
procreative dimensions of conjugal intimacy. I propose recourse to prudence, the
principle of cooperation, and the principle of toleration to sift through the moral
terrain of what to do with supernumerary embryos.

The principles of cooperation and of toleration may be invoked when an illicit
activity is being considered or has been engaged already. The question of coopera-
tion considers the degree of participation an agent may share with an immoral activ-
ity and remain within the limits of liceity. The question of toleration considers inter-
vention/nonintervention for a class of institutionalized activity. Thus initially, while
the Church would prefer that clinics and medical facilities providing reproductive
services not be available, intolerance of this availability would not serve practically or
realistically to close clinic doors; secondly, while some 100,000 supernumerary em-
broys await disposition, to be intolerant toward their existence would require their
immediate destruction—a position akin to the abominable crime of abortion. The
stance that makes most logical sense (in the face of the diversity of reasonable
opinions, the pluralism of contemporary western societies, and the near two million
in the United States who, finding little convincing argumentation against the technol-
gy, solicit these services) is to tolerate—not necessarily morally condone—the use
of reproductive technologies and the embryos that ensue from that use. Given that
these centers are granted license to operate and with that license some one hundred
thousand embryos still await disposition, the parameters of concern over licit action

The reason is that the fundamental nature of the marriage act, while uniting husband
and wife in the closest intimacy, also renders them capable of generating new life—and
this as a result of laws written into the actual nature of man and of woman. And if each of
these essential qualities, the unitive and the procreative, is preserved, the use of marriage
fully retains its sense of true mutual love and its ordination to the supreme responsibility of
parenthood to which man is called.” Paul VI, *Humanae vitae* (1968), n. 12.

I do not explore the question of the licit/illicit use of this technology. For present
purposes I follow the official teaching found in *Donum vitae* (1987), II.A.1, which finds any
use of IVF illicit because it is contrary to the right of children to be conceived through the
conjugal act in marriage.

Toleration presupposes that tolerant persons could effect a change, were they not
tolerant. This point is illustrated by Augustine’s toleration of the houses of prostitution.
Augustine could have blocked the establishment of houses of prostitution. Given, how-
ever, that mankind was not going to change certain regrettable proclivities that endangered
the common good, Augustine was tolerant of the houses. He withdrew opposition and
allowed, in a detached way, the existence of these houses.” James F. Keenan, “Prophylac-
tics, Toleration, and Cooperation: Contemporary Problems and Traditional Principles,”
*International Philosophical Quarterly* 29 (1989), 206.

See *Donum vitae* I.1 on the respect that is due to the human embryo and the re-
spect it is owed even *in vitro*.

Aquinas similarly argues for toleration with the insight provided by Augustine:
“Now although God is all-powerful and supremely good, nevertheless, [God] allows cer-
tain evils to take place in the universe which [God] might prevent, lest, without them, greater
shift from the toleration of the institutionalized realities of their existence to personal activity over what can be done. Personal activity must be governed by prudence. In this case, prudence must determine whether cooperation with the production of embryos developed through the illicit means of IVF is legitimate.

A Difference in Intention

Prudence—right reason about what needs to be done—assembles the relevant features of the subject under consideration to determine the context and potential of a proposal that has piqued the imagination. In this case, the imagination runs with thoughts of infants, changing diapers, breastfeeding, baby breath, sleep, first smiles, words and steps, intimate and wholly dependent love—as well as thoughts of frozen captivity, destruction by the harvesting of stem cells, and death by dehydration after the thaw. The proposal is to adopt embryos from and through the services of reproductive centers with the hope that pregnancy and childbirth will follow. The potential is parenthood, the rescue of embryos otherwise doomed to destruction, research, or a frozen limbo, and the birth of thirty-five thousand or more children.18 The context is framed by both the respect for human life and the availability of supernumerary embryos. What then to do? The principle of cooperation provides an initial insight into the content of the act, which attends earnestly to the demands of justice that regulate our encounters with others.

Fearing that an action may be perceived as cooperating in the wrong of another, does embryo adoption constitute either formal or material cooperation? Formal cooperation involves a direct or proximate intention that is identified with the intention of another. Thus, the medical/health care team cooperates with the couple who undergo treatments to procure gametes and develop embryos in vitro for the purposes of fertilization, embryo transfer, and implantation. If this purpose is in and of itself illicit, then those who work to accomplish the purpose are guilty of formal cooperation in an illicit act. Material cooperation involves an intention other than the act of the primary agent but which is related in either a proximate or remote manner to the intention; the more remote the manner, the less involved and culpable the cooperation. The supporting health care team and clinical technicians (those who are responsible for screening gametes and introducing them for fertilization) cooperate materially with the primary agents to ensure safety and support the success of the purpose of the procedure. The degree of participation per the intention to support the success of IVF procedures thus points to proximate material cooperation in an illicit act.

Embryo adoption, however, places the primary agent in a different relation to the intention of the original decision to use IVF. A new couple intends to rescue,

18This figure is estimated by the success rate of the 86,822 reported attempts in 1999.

Goods might be forfeited [pregnancy and childbirth resulting from the transfer and successful implantation of these embryos], or greater evils ensue [permanent cryopreservation or destruction by research scalpel or as waste]. Accordingly, in human government also, those who are in authority, rightly tolerate certain evils, lest certain goods be lost, or certain greater evils be incurred (emphasis mine)." Summa theologiae II-II, 10.11.
through adoption, an embryo that would be otherwise left to uncertainty—as noble an intention as any adoption. Unless it is the case that a couple had contracted with the original couple to create more embryos than they knew they would need, the adopting couple is not cooperating formally or materially with the illicit act.

Consider again the parameters of the case: an uncertain future for supernumerary embryos and recognition of an opportunity to respect nascent human life. If these embryos were transferred, successfully implanted, and brought to term they would be children. Let us say that these children could not be cared for by their parents and that they would be placed in the care of an adoption agency until such time as others would welcome them into their homes. Surely, adoption of these children serves their interests better than life in state custody, foster care, or worse. And just as surely, justice requires the utmost care of their lives and their physical, social, and spiritual needs. If, on the other hand, these embryos are not adopted they will be consigned to research interests or disposed as waste material, not entirely unlike the worse scenario imaginable for unadopted children but in this case absolutely destined for death. Justice requires something other for these embryos, a particular measure of care for them that indefinite cryopreservation, disposal, or the research scalpel contradicts. However much it may be complicated by the embryo transfer procedures, that a couple would be willing to undergo embryo transfer does not confound the legitimacy of the adoption. Embryo adoption satisfies the respect of human life, albeit nascent human life, and relieves concerns over the disposition of supernumerary embryos to an uncertain fate.

Revisiting Donum Vitae

If then “human embryos obtained in vitro are human beings and subjects with rights[,] their dignity and right to life must be respected from the first moment of their existence.” Unfortunately, the present teaching of the Church goes no further than this statement on respect for the life of these embryos. Embryo adoption however may be the most compelling expression of this respect and definitively advances the right to life belonging to them as human beings. Donum vitae does not take into consideration the disposition of the growing numbers of supernumerary embryos at clinics throughout the world. The Church must be careful when condemning the methods whereby these embryos were created that it does not find itself unable to look beyond its determination of the immorality of their production to see another issue demanding attention. How respectful is a stance that ignores their plight? Except for the teaching that likewise condemns the destruction of these embryos for research purposes, their future is presently characterized by a frozen captivity since “those embryos which are not transferred into the body of the mother and are

19Donum vitae I.5.

20Approximately one hundred thousand embryos are held in cryopreservation in the United States, statistics from other countries are not immediately available (however, web sites dedicated to reproductive centers suggest perhaps as many embryos worldwide).

21See the Declaration on the Production and the Scientific and Therapeutic Use of Human Embryonic Stem Cell, Pontifical Academy for Life (Vatican City: Vatican Press, 2000).
called ‘spare’ are exposed to an absurd fate, with no possibility of their being offered safe means of survival which can be licitly pursued.”22

Do the conditions under which these adoptions would come about constitute a similarly prohibited act? Clearly, pregnancy is an intensely intimate experience and one that ordinarily results as the expression of the love between spouses. In the case of embryo adoption, pregnancy would result from the extraordinary clinical intervention of embryo transfer. The Church is concerned that this extraordinary means violates the sanctity of the conjugal fidelity between spouses in the manner of surrogacy. However, the adopting couple does not accept the gametes of another, they do not introduce an adulterous liaison into their marriage, and their conjugal fidelity remains intact. Further and insofar as the adopting couple has in no way cooperated with the creating couple or entered into any contract with them, they do not stand in the substitute place of the creating couple rather (and perhaps heroically), they recover the place of the creating couple who has abandoned their progeny so as to rescue them from an “absurd fate.” The distinction between ordinary and extraordinary may be instructive: ordinary is morally obligatory, extraordinary is optional.23

The extraordinary means whereby the adopting couple accepts the gift of a child in this pregnancy points to the unusual conditions of the existence of embryos genetically unrelated to them and, like any adoption, belongs to the arena of licit, albeit generous and superogatory, personal choice. Considering the physical demands of pregnancy and the promise of care involved in childrearing, the spouses who present themselves as adoptive parents witness fidelity to the strength of their own marital bond and to the future—embodied even in the abandoned—the grossly marginalized supernumerary embryos.

If the interests of the human embryo are to be taken seriously, then the Church must provide a teaching on the disposition of the supernumerary embryos in cryopreservation. Concerns that these embryos will be treated as biological waste offends the very purpose of their creation—to be transferred to their mothers’ wombs, successfully implant, develop to term, and be born. Concerns that they will be dissected and thereby destroyed for their stem cells likewise offends their dignity as genetically unique individuals of the human species who ought not to become the objects of another’s research machinations.24 The time has come for a strong statement in support of the adoption of these embryos by other couples willing to welcome a stranger into the intimacy of their families.

I have argued that embryo adoption is a licit activity since it falls into a category of action distinct from IVF with regard to creation and to surrogacy, and

22Donum vitae I.5.

23This distinction is normally referred to in cases of life-sustaining treatment of the dying. It seems potentially applicable to the case at hand.

24“Respect for the dignity of the human being excludes all experimental manipulation or exploitation of the human embryo.” The practice of keeping alive human embryos in vivo or in vitro [through cryopreservation] for experimental or commercial purposes is totally opposed to human dignity.” Donum vitae I.4.
poses no evidence of either formal or material cooperation in that illicit act. I have argued also that the principle of toleration recognizes both the unlikely end of IVF procedures and the existence of frozen embryos awaiting disposition other than transfer to the creating couple/woman. I believe that no clearer defense of the integrity owed to supernumerary embryos is available, that adoption through embryo transfer does not betray conjugal fidelity, and that embryo transfer is a licit medical intervention.