The Legal and Ethical Debate Surrounding the Storage and Destruction of Frozen Human Embryos: A Reaction to the Mass Disposal in Britain and the Lack of Law in the United States

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RECENT DEVELOPMENT

THE LEGAL AND ETHICAL DEBATE SURROUNDING THE STORAGE AND DESTRUCTION OF FROZEN HUMAN EMBRYOS: A REACTION TO THE MASS DISPOSAL IN BRITAIN AND THE LACK OF LAW IN THE UNITED STATES

In the summer of 1996, workers at fertility clinics in Britain were legally required to take vials of frozen human embryos out of their liquid-nitrogen storage containers. Workers removed the four-cell embryos left over from in-vitro fertilization ("IVF") from the freezers, checked the dates and names of donors, and left the embryos to defrost and die. About 3300 fertilized human eggs and potential lives were destroyed. The embryos belonged to about 900 couples who had lost touch with the fertility clinics and could not be traced. The government-ordered mass disposal of the frozen embryos stirred tremendous controversy around the world. Several countries are currently struggling with the ethical and legal disputes created by both the storage and the disposal of frozen embryos.

This Recent Development will address the current issues involved with the disposition of frozen human embryos. Part I analyzes the current situation in the United States and other countries regarding embryo storage and disposal. Part II addresses the ethical issues involved with the destruction of

2. See id. A typical embryo may consist of one to eight cells. See James Walsh, A Bitter Embryo Imbroglio Amid Dramatic Protests and Universal Unease, Britain Begins Destroying 3,300 Human Embryos, TIME INT'L, Aug. 12, 1996, at 10. The cluster of cells is about the size of the period at the end of this sentence. See id. Frozen embryos are so tiny they measure less than a fifth of a millimeter across and may be likened to any routinely shed flake of skin. See id.
3. See Catholic Ranks Split Over Embryos' Fate: Let Them Die, Leading British Cleric Says, SACRAMENTO BEE, Aug. 1, 1996, at A11, [hereinafter Catholic Ranks Split]; see also Paul Raeburn, A Delicate Issue Frozen in Time, BUS. Wk., July 22, 1996, at 42 (stating that at the Bourn Hall Clinic, after removal from the nitrogen, the embryos were placed in warm water to thaw); Lemonick, supra note 1 (claiming that besides simple thawing, some embryos were doused with rubbing alcohol or salt water); Great Britain—Frozen Embryos Destroyed, FACTS ON FILE WORLD NEWS DIG., Aug. 8, 1996 (stating that at some clinics, the glass tubes that contained the embryos were broken and the embryos incinerated) [hereinafter Frozen Embryos Destroyed].
4. See Lemonick, supra note 1.
5. See Catholic Ranks Split, supra note 3 (citing the British government's Human Fertilization Embryology Authority for this number); see also Catholic Leader Defies Vatican, Backs Destruction of Embryos, OTTAWA CITIZEN, Aug. 1, 1996, at A12 (explaining that the couples included foreigners, Britons with changed addresses, and some couples who refused to answer registered letters).
6. See infra notes 43-51 and accompanying text.

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potential human life. Part III assesses relevant case law. Part IV analyzes the frozen human embryo debate and offers suggestions for future legislation and guidance for courts regarding embryo disposition. 7

I. THE CURRENT SITUATION IN THE UNITED STATES AND OTHER COUNTRIES

Abandoned or unclaimed stored embryos are the genetic material from couples who previously donated their eggs and sperm in an attempt at in-vitro fertilization. 8 IVF involves the fertilization of an egg with a sperm in a petri dish and the implantation of the resulting embryo in a woman’s womb to achieve pregnancy. 9 The procedure is not guaranteed to be successful. Clinics routinely create extra embryos and freeze them 10 for later use if the initial implantation is unsuccessful or if the couple wants more children. 11 These extra embryos are the cause of recent controversy. There is no consensus as to whether the frozen cells should be destroyed after a certain length of time or cryopreserved indefinitely.

What do fertility clinics generally do with the leftover embryos? The choice is almost always left to the donors. 12 Couples have a few basic options: (1) they can donate the embryos for research, (2) they can have the embryos destroyed, (3) they can keep the embryos frozen, or (4) they can give the embryos anonymously to another couple. 13 Often, donors do not sign preprocedural agreements regarding disposition of the embryos and

7. See infra notes 99-128 and accompanying text.
11. The ability to freeze human eggs could solve the problem. Moysa, supra note 9. According to Margaret Somerville, the director of the Center for Ethics in Law and Medicine at McGill University in Montreal, “That way, human eggs and sperm could be frozen separately for future use and there would be no question of their status as a human being.” Id.
12. See Trounson & Dawson, supra note 10; see also Stephanie J. Owen, Note, Davis v. Davis: Establishing Guidelines for Resolving Disputes Over Frozen Embryos, 10 J. CONTEMP. HEALTH L. & POL’LY 493, 495 (1994). Fertilization of multiple eggs allows implantation of more than one fertilized egg in the womb at a time to increase the chance of pregnancy. Furthermore, the additional embryos may be frozen and stored for future use, eliminating the need for additional surgery to remove the eggs from the woman. See id.
13. See Lemonick, supra note 1. Right-to-life groups do not condone the first or second option. See id.
subsequently disappear without leaving clear indications of their wishes or funds to pay for storage. 14 Fertility clinics have no legal right to donate the embryos to childless couples or to release them for scientific research without donor consent. 15 However, with or without express parental interest, there may be no legitimate reason to keep the embryos frozen indefinitely or for extended periods of time. 16

Countries have adopted different approaches to deal with leftover frozen embryos. In Britain, unclaimed embryos must be destroyed within five years after creation absent instruction from parent donors. 17 Britain enacted this law to prevent the "endless, expensive storage of abandoned embryos." 18 After the five-year time period, donors can request that their embryos be kept frozen for an additional five years, 19 provided that both donors consent. 20 The additional storage period is the maximum time the embryos may be kept frozen, and the storage period will not be extended or continued after the woman donor reaches the age of fifty-five. 21

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14. See id.
15. See id.
16. See id. Frozen embryos are left in "a bizarre limbo hovering between life and death." Id.
17. See Human Fertilization and Embryology Act, 1990, ch. 37 (Eng.); see also Alison Boulton, Britain Poised to Extend Storage of Frozen Embryos, BRIT. MED. J., Jan. 6, 1996, at 10.

This law was based on a report of the Warnock Committee, a group consisting of members from Scotland, Wales, Ireland, and Great Britain, representing the medical and health care professions and religious and ethical groups. Elizabeth Ann Pitrolo, Comment, The Birds, The Bees, and the Deep Freeze: Is There International Consensus in the Debate Over Assisted Reproductive Technologies?, 19 Hous. J. INT'L L. 147, 173 (1996). This group was convened to comment on the ethical, social, and legal implications of new reproductive technology. See id. at 173-75.

19. See Raeburn, supra note 3 (discussing Britain's statute); see also Trounson & Dawson, supra note 10. Trounson & Dawson argue that the ten-year time limit is arbitrary:

[A] 10 year time limit for the storage of frozen embryos bears little relation to the reproductive lifespan of a woman: for those women who undergo in vitro fertilization towards the end of their reproductive life span 10 years is too long, while for much younger women it is too short.

Id. Similarly Peter Brinsden, the medical director of Bourn Hall Clinic has noted that the five-year extension "only postpones the problem. It would have been preferable to extend the storage to a woman's natural reproductive life—say to fifty years old." Boulton, supra note 17, at 10.

20. See Walsh, supra note 2 (discussing Britain's statute). The law allows an extension of storage terms up to ten years if both parents in every case provided "written and informed consent." Id. Joint consent of both the mother and father is required. The first legal intervention in the destruction of over 3000 embryos occurred when a British court granted a temporary, three-week injunction postponing the destruction of a woman's frozen embryos. See Court Grants Protection of Frozen Embryo to Wife, Fla. Today, Aug. 4, 1996, at 20A. The reprieve allowed the woman the opportunity to persuade her estranged husband to agree to implantation. See id.; see also Unless Donors Come Forward, Embryos Will be Destroyed Today, Fla. Today, Aug. 1, 1996, at 8A (noting that one distraught woman was unable to save her three embryos because they were fertilized by an anonymous student who could not be found [hereinafter Unless Donors Come Forward]). Another woman whose husband was declared mentally incompetent and therefore not allowed to sign a consent form could not save her embryos. She chose not to attempt to obtain a court-ordered extension. See Walsh, supra note 2.

21. See Boulton, supra note 17.
The British law was implemented on August 1, 1991.22 Five years to the
day later, thousands of embryos were destroyed and controversy surrounding
this mass destruction of potential life escalated.23 As the initial five-year
deadline approached, British fertility clinics attempted to contact donor
couples to determine the fate of their frozen embryos.24 Many parents were
unreachable or did not respond, and the embryos were destroyed.25 Frozen
embryos have been routinely destroyed in fertility clinics in small batches
every week since the 1980s.26 However, because the destruction was carried
out by government order and reached an unprecedented scale, the public’s
attention became focused on the ethical implications of frozen embryo
disposal.27

Other countries approach the problem of embryo disposition in different
ways.28 In Australia, the Victorian Parliament passed legislation to deal with

22. See Raeburn, supra note 3.
23. See id.
24. See id. At Bourn Hall, the largest clinic, 250 couples with 1000 embryos in storage were
unable to be contacted. See id. Susan Avery, Bourn Hall’s scientific director, worries that some people,
with the mistaken belief that their embryos would be stored indefinitely, will later turn up to demand
them. See id. The fertility clinics notified both parents that the five-year frozen storage limit was
approaching. See Frozen Embryos Destroyed, supra note 3. Those who responded to the notice could
extend their embryos’ storage time, or could donate their embryos to other couples or to science. See
id.; British Clinics Destroy Abandoned Embryos, FLA. TODAY, Aug. 2, 1996, at 6A (noting that there
were even a few last-minute reprieves for the embryos of two married women, a British soldier
stationed in Germany and an American, who called their clinics hours before the destruction program
began and saved their embryos for an additional five years); see also Unless Donors Come Forward,
supra note 20 (stating that most couples who replied wanted storage continued for the maximum five-
year extension rather than offering the embryos for research or adoption). See British Clinics Destroy
Abandoned Embryos, supra.
25. See Lemonick, supra note 1.
26. See id.; see also British Clinics Destroy Abandoned Embryos, supra note 24 (claiming that
“frozen embryos are regularly destroyed in small numbers at clinics at the request of donor couples or
because they are faulty”).
27. See Lemonick, supra note 1.
28. See id. Germany avoids the problem entirely by prohibiting the freezing of embryos. See id.
In France there is a forced destruction law, but it has yet to be implemented. See id. The 1994 law
requires the destruction of embryos to begin in 1999. The law is currently being reviewed. See Walsh,
supra note 2. In Canada, currently there is no federal law to force the destruction of stored frozen
Recently, however, the Canadian federal government sent out an opinion poll and asked for citizen
input for upcoming legislation. See id. Canadians had until September 30, 1996, to offer their views to
influence proposed legislation to regulate and license infertility clinics. See id. The Canadian
government has “proposed forming a national agency to develop standards and regulations on how
fertility clinics should store human sperm, eggs, and embryos.” Moysa, supra note 9. The new
legislation will regulate and license infertility clinics. See id. See generally Marilyn Moysa, Ottawa
at A12 (stating Canadian law is expected in 1997). In Argentina, a proposed law allows widows or
partners of deceased men to implant embryos created with his sperm for only thirty days following his
death. See Fitrolo, supra note 17, at 181.
their growing frozen embryo problem. The Infertility Treatment Act of 1984 has time restrictions similar to that of Britain, with the possibility of extension for reasonable grounds. However, the Act adds an additional controversial component. The Act requires that when implantation in the woman donor is not possible, the embryo should be made available to another woman with donor consent. The embryos can be destroyed if donors do not consent or withdraw their consent in writing. However, if the donors cannot be contacted, the government has the authority to order the hospital where the embryo is stored to implant the embryo into another woman.

In the early 1980s, embryo disposition became a matter of concern to the general public. In Australia, in 1984, a Los Angeles couple died in a plane crash and left their frozen embryos behind. When the IVF procedure was initially developed, Australian officials had considered the problems associated with orphaned embryos. Following the authority of the Australian law, the couples’ two frozen embryos were placed in a donor pool and made available to another couple by government order.

In the United States, there is no national policy regarding abandoned embryos, and it is estimated that about 30,000 embryos are currently in storage. Fertility clinics generally set their own guidelines for the

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31. See Fabricant, supra note 29.

32. See id.

33. See id. The forced implantation provision could be deemed unethical. The birth of one’s child by another woman without consent of the gamete providers may violate one’s right not to procreate. See discussion infra notes 123-28 and accompanying text.


36. See Julia T. Bielawski, Note, Custody of the Cryopreserved In Vitro Fertilized Embryo: The Minnesota Perspective, 12 HAMLINE J. PUB. L. & POL’Y 259, 266 (1991). “It is unknown whether the embryos survived thawing and implantation as they were placed in a donor pool before implantation.” Id.

37. See Raeburn, supra note 3. The United States has no regulations to cover the disposition of embryos. See id. According to Arthur Caplan, director of the Center for Bioethics at the University of Pennsylvania, the United States has attempted “to solve the moral dilemma by doing nothing.” Id. Caplan thinks Britain’s approach is “a sound one.” Id. Nevertheless, problems in the United States arise where the question of unclaimed embryos gets caught up in the emotional abortion debate. See id.

38. See Traci Watson, Outlook: Medical Ethics: Excess Embryos, U.S. NEWS & WORLD REP.,
disposition of extra frozen embryos. Clinics usually have couples sign preprocedural agreements to determine the fate of their unused embryos. Written agreements between couples and clinics usually state the intent of couples with regard to embryo disposition, including consent for freezing and storage of the embryos, the duration the embryos should remain frozen, and contingency instructions for instances such as death, divorce or incompetence. Although these agreements provide for some contingencies, unforeseen contingencies may arise, and lawsuits may ensue.

These countries have divergent policies and are struggling with how to create effective embryo disposition legislation because of the complicated ethical and moral issues involved. It is undecided and unknown whether mandatory disposal, indefinite storage, forced implantation into other women, public opinion, or clinic agreements should be used to solve the current divergence of thought.

II. ETHICAL AND MORAL IMPLICATIONS OF EMBRYO DISPOSAL

A. Many Believe Disposal Is Tantamount to Murder

The current debate over embryo storage and disposal stems from the belief that the destruction of potential human life is unethical and immoral. That belief fueled much of the opposition to the destruction of the frozen embryos in Britain. Because the Roman Catholic Church believes life begins at the moment of conception, it considers the disposal of embryos to be murder. The Vatican newspaper, L’Osservatore Romano, denounced the
embryo destruction in Britain as a "prenatal massacre." Protesters held vigils outside Westminster Cathedral prior to the destruction and memorial services afterwards. An anti-abortion group, Life Campaigns, appealed for a six-month delay of the disposal, but the Prime Minister denied the appeal. In addition, people throughout Europe offered to "adopt" the frozen cells. An Italian Fertility Clinic even offered to buy the 904 embryos destroyed at Bourn Hall, Britain's pioneer fertility clinic. Lastly, some fertility clinic workers even contemplated jail time rather than enforce the ranks with the Vatican, Cardinal Basil Hume, the leader of England's Catholics, supported the destruction of the embryos. See Maureen Johnson, Cardinal Backs Embryo Disposal, British Law Has Anti-Abortion Groups in Lather, NEW ORLEANS TIMES-PICAYUNE, Aug. 1, 1996, at A14. The Cardinal argued there was no duty to use "extreme means" to keep the embryos alive. Id. Recognizing the ethical dilemma the embryos posed, Cardinal Hume stated:

I believe these frozen embryos are frozen human life, but I believe they should be . . . allowed to die and then disposed of in a dignified manner. What else can you do with them? ... [I]t is one thing to actually kill somebody. It is another to prevent that person dying.

Catholic Ranks Split, supra note 3; see also Lemonick, supra note 1. Conversely, under Jewish Law, embryos are property because they are not considered human beings until born. See Pitrolo, supra note 17, at 196. The Conservative Jewish rabbinitic organization discussed embryo disposition and "concluded that it is permissible under Jewish law to thaw and discard embryos that a couple does not want to use"; and notes that it is alternatively "acceptable to freeze the embryos indefinitely out of respect for human life." NEW YORK STATE TASK FORCE ON LIFE AND THE LAW, ASSISTED REPRODUCTIVE TECHNOLOGIES: ANALYSIS AND RECOMMENDATIONS FOR PUBLIC POLICY (1998) [hereinafter NYS TASK FORCE] (citing A.L. Mackler, In Vitro Fertilization, paper approved by the Rabbinical Assembly Committee on Jewish Law and Standards, Dec. 13, 1995, at 15). In addition, the Committee on Medical Ethics of the Federation of Jewish Philanthropies of New York endorses the use of excess embryos for the advancement of scientific knowledge. See NYS TASK FORCE, supra, (citing F. ROSNER, MODERN MEDICINE AND JEWISH ETHICS 118 (1986)).

45. Lemonick, supra note 1. The Vatican radio stated, "The embryos are human beings. Once they have been produced, they have a right to grow. Killing them would add a crime against the life of a human being to the illegitimacy of their production." Fertility Clinics Begin to Destroy Over 3,000 Unclaimed Embryos, IR. TIMES, Aug. 2, 1996, at 9.

46. See Lemonick, supra note 1. The protesters lit candles, sang hymns, and said prayers before what they called "the mass destruction of human life" began. Fertility Clinics Begin to Destroy Over 3,000 Unclaimed Embryos, supra note 45.

47. See Catholic Ranks Split, supra note 3 (According to spokesman John Scarisbrick, "A society which tolerates such wanton destructiveness of human life is a profoundly sick one.").

48. Maureen Johnson, Catholic Leader Backs Imminent Mass Destruction of Embryos, Associated Press, July 31, 1996, available in 1996 WL 4433977. Prime Minister John Major rejected the appeal because the destruction represented the will of Parliament. See id. But see Moysa, supra note 9 (stating that Life Campaigns appealed to the Official Solicitor to postpone the destruction and "come to the protection of human beings" and that a spokesperson for the Solicitor replied that he could intervene only if asked by a court and "only to support a live child, a life in being").

49. Lemonick, supra note 1. Childless couples claimed they would gladly have taken the embryos for themselves. See id. About twenty-five British couples asked to adopt an embryo. See Johnson, supra note 44, at 24.

50. See Catholic Ranks Split, supra note 3. Bourn Hall medical director Peter Brinsden stated in response to the offer, "How would people react if they found out two or three of their children were running around in Italy in a few years' time?" Id.
law, though they eventually yielded and destroyed the embryos.\(^{51}\)

Those who claim human "life begins at conception recognize the embryo's legal status as a person."\(^{52}\) If an embryo is considered a human being when fertilized, it is entitled to the same legal protection afforded all persons.\(^{53}\) The legal ramifications of considering an embryo a "person" are clear: "any procedure allowing or causing the destruction of an embryo ... [would be] an unacceptable violation of the embryo's liberty, and may be considered murder."\(^{54}\) Embryo research would not be allowed. Doctors would be required to handle embryos with extreme care and could even be liable for any incidental harm.\(^{55}\) To view the frozen embryo as life and afford it all the protections available to persons, however, is unlikely to become the prevailing view in the United States.\(^{56}\)

**B. Others Claim Disposal Should Be Allowed**

Are laws requiring mandatory disposal appropriate? "Ethicists and health officials agree that the embryos cannot stay frozen forever."\(^{57}\) As years pass, and the stockpile of frozen embryos grows, decisions about the disposition of embryos must be addressed. The American Medical Association ("AMA") has offered a broad statement regarding the disposal of frozen embryos.\(^{58}\) The AMA guidelines state that frozen embryos may be allowed to thaw and deteriorate.\(^{59}\) The AMA bases this recommendation on the "cultural and legal

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51. See Lemonick, supra note 1. Dr. Peter Bromwich, medical director of an infertility clinic, said "I have been told that if I make a stand and refuse to destroy them, then I will be sent to prison and someone else will come in and do it anyway." Johnson, supra note 44.
52. Owen, supra note 11, at 497.
53. See id.
54. Id. at 498.
56. See infra notes 118-28 and accompanying text.
57. Lemonick, supra note 1.
59. See id. The AMA opinion states:

The practice of freezing extra pre-embryos harvested during the in vitro fertilization process has enhanced the ability of infertile couples to preserve embryos for future implantation. This practice has also posed a number of ethical and legal dilemmas, including questions regarding decision-making authority over the pre-embryos and appropriate uses of pre-embryos.

This country's cultural and legal traditions indicate that the logical persons to exercise control over a frozen pre-embryo are the woman and the man who provided the gametes (the ovum and the sperm). The gamete providers have a fundamental interest at stake, their potential for procreation. In addition, the gamete providers are the parties most concerned with the interests of a frozen pre-embryo and most likely to protect those interests.

Gamete providers should be able to use the pre-embryos themselves or donate them for use
Advocates of disposal claim that a twenty-four-hour-old embryo "is not yet at a stage of development where it is capable of potential personhood or moral attributes." Although a fertilized egg contains all the information necessary to develop into a person, until eleven to fourteen days after conception, the cells are undifferentiated. Disposal advocates argue that the undifferentiation of the frozen cells lends support to the idea that the embryo is not yet a person.

Believers of "life at conception" claim the cells of an embryo derive their human status from the existence of the requisite number of human chromosomes. These chromosomes, however, are present in all human cells, including shed skin cells, hair cells, and fingernail cells. Therefore, something beyond the right number of chromosomes is needed to transform an embryo into a human being. An embryo will only become life if implanted and allowed to develop in a woman's uterus. Without a woman's assistance, the embryo is essentially no different from any other human cell. Therefore frozen embryos are not human life, and their destruction is

by other parties, but not sell them. In addition, research on pre-embryos should be permitted as long as the pre-embryos are not destined for transfer to a woman for implantation and as long as the research is conducted in accordance with the Council's guidelines on fetal research. Frozen pre-embryos may also be allowed to thaw and deteriorate.

The gamete providers should have an equal say in the use of their pre-embryos and, therefore, the pre-embryos should not be available for use by either provider or changed from their frozen state without the consent of both providers. The man and woman each has contributed half of the pre-embryo's genetic code. In addition, whether a person chooses to become a parent and assume all of the accompanying obligations is a particularly personal and fundamental decision. Even if the individual could be absolved of any parental obligations, he or she may have a strong desire not to have offspring. The absence of a legal duty does not eliminate the moral duty many would feel toward any genetic offspring.

Advance agreements are recommended for deciding the disposition of frozen pre-embryos in the event of divorce or other changes in circumstances. Advance agreements can help ensure that the gamete providers undergo IVF and pre-embryo freezing after a full contemplation of the consequences but should not be mandatory.

Id.

60. Id.
61. Moysa, supra note 9. Although many proponents believe the embryo should receive "special status and protection because it is human," people are not quite sure at what stage of development to draw the line. Id.
62. See Bielawski, supra note 36, at 262. There are no organs or nervous system at this stage. See id.
63. Jean Voutsinas, In Vitro Fertilization, 12 PROB. L.J. 47, 51 (1994). Voutsinas distinguishes between a "pre-embryo" and an "embryo." Id. at 50. In his view, "pre-embryo" is the proper term to refer to a fertilized egg which is not implanted in a woman's uterus. Id.
64. See id.
65. See id. at 51-52.
66. See id.
67. See id.; cf. infra notes 85 and 115.
not akin to murder. 68

Next, it is argued that the embryo should not be considered a person because it is unlikely to develop into a living infant. 69 For every 100 frozen embryos, only sixty-five will survive thawing, only ten will successfully implant in a woman's uterus, and only five to eight will produce live births. 70 In addition, how long human embryos can remain frozen without developing abnormalities is unknown. 71 The longest known period of successful cryogenic storage for human embryos is two years. 72 Besides potential storage problems and the expense of storage, 73 another reason to limit the length of time that embryos are frozen is to prevent children from being born in another century or without their true parents' consent. 74 What would be the point of keeping human embryos frozen for perhaps 100 years?

This dispute about when life begins is intertwined with the discussion about what should be done when arguing husbands and wives sue each other for custody, and therefore the right to choose the fate of their embryos. Courts are forced to decide the fate of embryos when couples argue about whether to destroy, implant, donate, or store their embryos. Judges interpret common law and constitutional law to resolve this ethical dilemma.

### III. OVERVIEW OF CASE LAW

The cryopreservation of embryos presents raises many issues regarding

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68. See Voutsinas, supra note 63. But see Michelle F. Sublett, Note, Frozen Embryos: What Are They and How Should the Law Treat Them, 38 CLEV. ST. L. REV. 585 (1990) (stating that "there is no right answer to whether embryos are life"). A loose analogy can be made to the abortion debate. In the abortion context although implantation of the embryo in the womb has occurred, there is a right to terminate pregnancy. Even though the right to an abortion is limited, the right to terminate before viability, as long as the health of the mother is not affected, is absolute. See id. at 594. Frozen embryos are only a few undifferentiated cells, certainly well before viability. The health of the mother is not a concern because the embryo is outside the woman's body. See id.

69. See Sublett, supra note 68, at 593 ("there is less than a ten percent chance of creating a live birth from a frozen embryo").

70. See Wendy Dullea Bowie, Comment, Multiplication and Division—New Math for the Courts: New Reproductive Technologies Create Potential Legal Time Bombs, 95 DICK. L. REV. 155, 177 (1990). "The mortality rate of embryos conceived in a Petri dish is very high: in Britain, six perish for every successful pregnancy from freshly fertilized eggs and nine for every one from frozen embryos." Walsh, supra note 2.

71. See Moysa, supra note 9.

72. See Bielawski, supra note 36, at 261. While it is unknown what happens to a human embryo after years of cryopreservation, it is doubtful additional deterioration or risk would occur if the embryo was properly maintained. See id.

73. See British Clinics Destroy Abandoned Embryos, supra note 24 (stating that it costs approximately $155 a year per couple to cryopreserve embryos).

74. See Moysa, supra note 9; see also infra notes 124-29 and accompanying text.
the legal status of embryos and the rights and responsibilities of donors.  

There is little legal instruction, in the form of caselaw or statutes, to guide parties or courts in resolving disputes over cryopreserved embryos. IVF is still a relatively new technique, and legislatures and courts have yet to catch up with the ethical issues involved.

In the United States, legal disputes regarding frozen embryos generally arise when couples separate or divorce, or when one or both partners die. There are no federal cases which address the issue of embryo disposition, and only two state decisions are directly on point. To confuse matters even more, these courts reach contrary conclusions on both the issue of when life begins and the issue of which parent should control embryo disposition.

First, in *Davis v. Davis*, the Tennessee Supreme Court decided whether a divorced woman could use the frozen embryos that she and her husband created either to become pregnant or to donate to another couple. The court

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77. See infra note 101 and accompanying text.

78. See Walsh, *supra* note 2. This article suggests that much of the current in vitro fertilization debate has focused on cases where women donated their eggs to childless couples and then claimed parental rights.


81. Although beyond the scope of this note, one unanswered question is whether frozen embryos are a form of property. For a discussion of this issue, see Bowie, *supra* note 70, at 164-72, and Joel N. Ephross, *Technote, In Vitro Fertilization: Perspectives on Current Issues*, 32 Jurimetrics J. 447, 458-61 (1992).

82. 842 S.W.2d 588 (Tenn. 1992).

83. See id. at 595. Mary Sue and Junior Lewis Davis had participated in an in-vitro fertilization program and cryogenically preserved seven embryos for future implantation. The couple did not sign an agreement regarding the disposition of their embryos in the event of a contingency, such as divorce. See id. at 589-590; see also Durant, *supra* note 75, at 709.

held that embryos are not "persons" under Tennessee or federal law.\textsuperscript{84} However, the court determined embryos are entitled to special respect because of their potential for human life.\textsuperscript{85}

Furthermore, the court stated that previous agreements regarding the disposition of any untransferred embryos in the event of contingencies, such as death of one or more of the parents, divorce, financial reversals, or abandonment of the program, should be presumed valid and enforceable.\textsuperscript{86} Absent such an agreement, as in this case, the court looked to an individual's constitutional privacy rights.\textsuperscript{87} The court explained that the right of procreative autonomy is comprised of two rights: the right to bear and the right not to bear children.\textsuperscript{88} The court further asserted that the decision of what to do with the embryos rests in the donors alone.\textsuperscript{89}

The Tennessee Supreme Court held that the husband who sought custody of the cryogenically preserved embryos in order to destroy them has a greater interest in the embryos than his wife.\textsuperscript{90} He was therefore entitled to their custody.\textsuperscript{91} He was vehemently opposed to fathering a child who would not live with both of its natural parents.\textsuperscript{92} The Tennessee Court then set forth a

\textsuperscript{84.} Davis, 842 S.W.2d at 595.
\textsuperscript{85.} See id. The court stated that embryos are a hybrid of property and person:

\textit{We conclude that preembryos are not, strictly speaking, either "persons" or "property," but occupy an interim category that entitles them to special respect because of their potential for human life. It follows that any interest that Mary Sue Davis and Junior Davis have in the preembryos in this case is not a true property interest. However, they do have an interest in the nature of ownership, to the extent that they have decision-making authority concerning disposition of the preembryos, within the scope of policy set by law.}

\textit{Id. at 597.}
\textsuperscript{86.} See id. at 597-98.
\textsuperscript{87.} See id. at 600. For a discussion of the constitutional right to privacy, see generally Luongo, \textit{supra} note 83, at 1024-26; Brown, \textit{supra} note 76, at 200-16; Ahnen, \textit{supra} note 83, at 1306 (asserting that fundamental constitutional rights status should be extended to noncoital reproduction).
\textsuperscript{88.} See Davis, 842 S.W.2d at 601. These two rights conflict in disputes over embryos and the court should balance the competing interests of the parties. See Owen, \textit{supra} note 11, at 508.
\textsuperscript{89.} See Davis, 842 S.W.2d at 602. The decision rests with the donors to the extent that their decisions have an impact upon their individual reproductive status. See id.; see also Ingram, \textit{supra} note 55, at 75. The idea that donors should decide what to do with the embryos seems to be the prevailing view. See id.

"[G]ametes and concepti are the property of the donors [who have the] right to decide at their sole discretion the disposition of these items, provided such disposition is within the [Society's] medical and ethical guidelines." \textit{ETHICS COMM., AMERICAN FERTILITY SOC'Y, ETHICAL CONSIDERATIONS OF THE NEW REPRODUCTIVE TECHNOLOGIES} (1990) [hereinafter \textit{AMERICAN FERTILITY SOC'Y}]; see also \textit{AMA} opinion, \textit{supra} note 55.
\textsuperscript{90.} See Davis, 842 S.W.2d at 604.
\textsuperscript{91.} See id.
\textsuperscript{92.} See id.
five-step formula to follow when deciding disputes involving the disposition of embryos consistent with their holding.93

In Kass v. Kass,94 a New York trial court ruled differently. In Kass, a divorcing couple could not agree on whom should possess and control their five frozen embryos.95 The court first explained that a husband’s rights and control over the procreative process end with ejaculation.96 Because the woman physically bears the child and is more directly and immediately affected by the pregnancy, the balance of their competing interests weighs in her favor.97 The court concluded that there is no constitutional right to avoid procreation and that a woman has the exclusive right to determine the fate of the embryos.98

The divergent holdings and reasoning from these two state courts exemplify the division in thought regarding the rights of gamete providers and the issue of when life begins. While the Tennessee court focused on the

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93. See id. First, a court should look to the preferences of the progenitors. “If their wishes cannot be ascertained or if there is a dispute, then their prior agreement concerning disposition should be carried out.” Id. If no prior agreement exists between the progenitors as to disposition of the pre-embryos, the relative interests of parties in using or not using the embryos must be weighed, with the party wishing to avoid procreation usually prevailing. If the party wishing to use the embryos has no reasonable possibility of achieving parenthood by means other than use of the embryos, then the argument in favor of using the embryos should prevail. If the party seeking custody of the embryos intends to donate them to another couple, the objecting party “obviously has the greater interest and should prevail.” Id.

The court suggested that, “ordinarily, a party wishing to avoid procreation should prevail” if there is a dispute as to custody of pre-embryos. This suggestion assumes that

the other party has a reasonable possibility of achieving parenthood by means other than the use of the pre-embryos in question. If no other reasonable alternatives exist, then the argument in favor of using the pre-embryos to achieve pregnancy should be considered. However, if the party seeking control of the pre-embryos intends merely to donate them to another couple, the objecting party has a greater interest and should prevail.

Id. If one party is sterile, that party has the primary right to use the embryos. See Bowie, supra note 70, at 178-79. If the sterile partner does not wish to use the embryos, the other partner may. See id. at 179. If neither party is sterile, the woman should be given the first option to use the embryos because of her physical risk during the IVF process. See id. However, if only one party wants to donate to another couple, the embryo should not be donated. See id.

95. See id. at *1. The wife sought to recover the embryos for purposes of implantation in herself. The husband wished the embryos be turned over to a hospital for use in embryo research. See id. When discussing the property status of embryos the court stated, “Unlike ordinary property, possession of the zygotes is secondary to the right to control their destiny.” Id. at *2.
96. See id. The court refutes the constitutional analysis in Davis, by concluding that the male’s “right to avoid procreation” ceases after the initial fertilization of the egg. Id. at *3. Just as the husband “cannot force conception,” or “compel or prevent an abortion,” he also cannot prevent implantation of an embryo. Id. The court explained that the husband should have known that technology is such that the possibility and probability of a delayed implantation are real. See id.
97. See id. The court then explains that “there is no legal, ethical, or logical reason why an in vitro fertilization should give rise to additional rights on the part of the husband.” Id.
98. See id. at *4.
right not to bear children, the New York court focused on the beginning of life and a woman’s heightened rights in the procreative process.

IV. ANALYSIS AND SUGGESTIONS FOR THE FUTURE

A. Embryo Disposition

Considering the divergence between the only two cases on the subject, the lack of appropriate legislation, and the international controversy, should the disposition of frozen embryos in the United States be regulated? Only twenty years have passed since the development of IVF, and already the number of embryos stored in the United States has grown exponentially. It is unclear whether the fertility clinics, the states, or the federal government should regulate the issue. Perhaps some form of public debate or citizen survey should be employed to ascertain public opinion or to help legislatures enact appropriate statutes.

It is apparent that the issue of embryo destruction involves many legal,
ethical, and social problems. Absent any legislation, parties involved often make private agreements with their fertility clinic. Yet some clinics do not have such agreements, courts may not enforce the agreements, or the agreements may not cover circumstances which arise. The law must keep pace with advances in reproductive technology. Legislation could provide guidelines for preprocedural agreements and therefore help to eliminate contingencies and to resolve court cases.

The Tennessee Supreme Court's suggestion that pre-agreements should be honored is a sound instruction. When couples are in love, planning their lives together, and making decisions about bearing children, it is difficult to imagine or foresee a divorce battle over embryos. It is important to force couples to consider situations which may arise and to plan accordingly. It is equally important for couples to have the ability to make binding agreements for the future disposition of their embryos. Such agreements, if adhered to, can diminish any disputes which occur.

Legislation in the form of mandatory pre-agreements should be passed to solve the problem of embryo disposition. A statute must be drafted which allows for the destruction of frozen embryos and which attempts to anticipate the contingencies which may arise. There are a number of suggestions to assist legislatures in drafting an effective pre-agreement statute. First, such a statute should require couples to sign an agreement before cryopreserving...
The agreement should mandate the fate of the embryos in the event any of a number of contingencies develop, including the option of destruction, and should contain a waiting period for the couple to contemplate the contract before the procedure. Second, the statute should prohibit the sale of embryos in order to respect their status as potential human life. Third, the statute should limit the number of embryos which may be frozen. Finally, the statute should relieve the donors from all parental responsibilities if the embryo is transferred to another couple and brought to term. With these safeguards, the government could ensure effective legal and ethical embryo disposition and reduce potential lawsuits.

B. Embryo Destruction and the Right Not to Procreate

In the United States, the destruction of frozen human embryos most likely will remain a legal practice. As long as abortion is legal, the destruction of

114. See id.
115. See id. at 413-14. Embryos are potential human life and should be treated with a standard of respect, higher than mere human tissue but less than the rights of a developed person. However, this status does not preclude allowing one’s embryo to thaw and therefore be destroyed. It would not be desirable to create a “market” for frozen embryos. The sale of embryos may cause couples to fertilize just for that purpose, and the moral status of the embryo would be deteriorated. See id.

There are three major positions over the moral status of the embryo. Natalie K. Young, Frozen Embryos: New Technology Meets Family Law, 21 GOLDEN GATE U. L. REV. 559 (1991). First, “the embryo is a person that exists from the point of conception . . . and is entitled to the rights of a person.” Id. at 564-65. Alternatively, the embryo is viewed as “a living human entity that should be accorded special respect, although not the same respect accorded to persons.” Id. at 565. Last, “the embryo is neither a person nor even a rights-bearing entity.” Id.

The Tennessee Supreme Court considered the suggestions of the American Fertility Society.

The preembryo deserves respect greater than that accorded to human tissue but not the respect accorded to actual persons. The preembryo is due greater respect than other human tissue because of its potential to become a person and because of its symbolic meaning for many people. Yet, it should not be treated as a person, because it has not yet developed the features of personhood, is not yet established as developmentally individual, and may never realize biological potential.

Davis v. Davis, 842 S.W.2d 588, 596 (Tenn. 1992) (quoting AMERICAN FERTILITY SOC’Y, supra note 89, at 345-55); see also Owen, supra note 11, at 497-99. The 1979 Ethics Advisory Board of the United States Department of Health, Education and Human Welfare “recognizes that the human embryo is entitled to ‘profound respect,’ but not necessarily to the legal and moral rights inherent to personhood.” Id. at 499.

116. See Cuva, supra note 113, at 414. Not only will disputes be reduced with fewer excess embryos, but the number of embryos kept in storage will be kept to a minimum. See id. Although, clinics attempt to freeze several fertilized eggs in part because they are not all equal in terms of quality.
117. See id. If the parents donate the embryo to another couple or if they agree one party is to have control over the embryo, the parents or non-controlling party should not bear any financial or parental burdens. See id.
118. For a discussion of why embryos are not considered persons and destruction is ethically
a few cells of genetic material on a slide must remain legal. Furthermore, the current strength of the principle of personal autonomy and individual choice suggests that donors will themselves choose how to dispose of their excess embryos. Both the AMA’s guidelines and guidelines from the American Fertility Society state that donors should decide the fate of their own embryos.

As long as the principle of personal autonomy is paramount, one should not be forced to procreate against his or her will. In fact, the rights of women and men who have donated their eggs or sperm for IVF should be equal. As long as the embryo is outside a woman’s womb, her rights are identical to the man’s rights. Furthermore, the donor who does not want to become a parent should not be forced to have his or her genetic material implanted in someone else. No one should be forced to have children or be forced to allow others to raise their genetic offspring against their will or without their knowledge. The fundamental choice of whether to procreate is too crucial to allow implantation of one’s genetic material without consent. The decision to implant embryos using IVF must be made by two consenting donors. The unilateral use of frozen embryos should not be allowed.

There is just something inherently unethical about children being born to non-biological parents without joint donor consent. When people donate sperm or blood, they intend for its use in other people. Frozen embryos, on the other hand, are created with personal use in mind. Furthermore, any sort of mandatory donation to other couples will create the psychological burden of knowing one’s genetic child exists without any connection to the child.

appropriate, see supra notes 61-74.

119. For a discussion of the legality of abortion and the “paradox” which would be created by considering an embryo a person, see Bowie, supra note 70, at 175.

120. Medical ethical and legal dilemmas are frequently decided in favor of personal autonomy. For example, people now have the right to withdraw life-sustaining treatment, to decide whether to consent to procedures, and to sign advance directives to direct their medical treatment when no longer capable of meaningful communication.

121. See supra note 59.

122. See AMERICAN FERTILITY SOC’Y, supra note 89, at 36S (quoted in Davis v. Davis, 842 S.W.2d 588, 597 (Tenn. 1992)).

123. See Ingram, supra note 55, at 76 (stating that “the woman’s bodily integrity is not at issue, and both [men and women] have an equal genetic link to the embryo.” (citations omitted)).


125. See Davis court analysis supra notes 83-93 and accompanying text.

126. See Bowie, supra note 70, at 179.

127. See id.

128. See Brown, supra note 76, at 225. States do not have a compelling interest in prohibiting embryo discard. Moreover, prohibiting embryo discard would violate the gamete providers’
In response to these problems, legislation should be passed mandating embryo disposal after a certain length of time. If a donor couple die or the woman reaches menopausal age and the couple had indicated in their preprocedural agreement their wishes to dispose of the embryo, destruction should occur. If the couple had wished to donate to another couple or to science, donation should occur. If the couple had wished to freeze the embryos indefinitely, they should have arranged for payment for storage. If payment arrangements were not made, the embryos should be destroyed. If the couple has lost contact with the clinic and cannot be reached, the embryos should be destroyed.

V. CONCLUSION

Due to the unique ethical issues involved and the potential disputes likely to arise, the government should draft legislation regulating the disposition of frozen human embryos. Statutes should allow for (1) mandatory embryo disposal or donation upon death of both donors, menopause of the female donor, or without storage funds, and (2) mandatory pre-agreements to determine the fate of the embryos should contingencies arise. Courts deciding cases where no pre-agreements exist or where an odd contingency arises, should (1) strive to honor the donors wishes, and (2) give the right of embryo control to the donor who does not wish to procreate. These general considerations will ensure legal and ethical fairness in the controversial arena of embryo disposition.

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ADDENDUM: EMBRYO DISPOSITION

Since I authored this Article in the winter of 1996-1997, there have been some exciting developments in embryo disposition. In addition, I would like to take this opportunity to expand or highlight some additional related issues.

First and foremost, *Kass v. Kass* was heard by the New York Court of Appeals, New York’s highest court, and an opinion was rendered on May 7, 1998. The court of appeals affirmed the two-Justice plurality at the appellate division in overturning the trial court ruling. The court of appeals concluded that the parties’ agreement providing for donation to the IVF program controls the issue.

The couple had signed consent forms before the cryopreservation which stated:

> Our frozen pre-zygotes will not be released from storage for any purpose without the written consent of both of us... In the event that we no longer wish to initiate a pregnancy or are unable to make a decision regarding the disposition of our stored, frozen pre-zygotes, we now indicate our desire for the disposition of our pre-zygotes and direct the IVF program to (choose one): [choice B was selected] Our frozen pre-zygotes may be examined by the IVF Program for biological studies and be disposed of by the IVF Program for approved research investigation as determined by the IVF Program.

Furthermore, the couple’s divorce agreement stated the “disposition of the frozen pre-zygotes at Mather Hospital is that they should be disposed of [in] the manner outlined in our consent form.” The court of appeals determined that the parties had clearly expressed their intent to donate the...

2. Kass v. Kass, 663 N.Y.S.2d 581 (N.Y. App. Div. 1997). A divided appellate division reversed the trial court decision, however, all five justices agreed on two propositions according to the court of appeals decision. First, they concluded that woman’s right to privacy and bodily integrity are not implicated before implantation occurs. Second, they recognized that when parties to an IVF procedure have themselves determined the disposition of any unused fertilized eggs, their agreement should control. The justices were divided on the question whether the agreement at issue was sufficiently clear to control the disposition of the pre-zygotes. The two-justice plurality found that the agreement unambiguously indicated the parties’ desire to donate pre-zygotes for research purposes if the couple could not reach a joint decision regarding disposition.
4. See id.
5. *Id.* at 176.
6. *Id.* at 177.
pre-zygotes to the IVF program for research purposes in the event of a disagreement.\textsuperscript{7}

The court of appeals further concluded that "disposition of these pre-zygotes does not implicate a woman's right of privacy or bodily integrity in the area of reproductive choice; nor are the pre-zygotes recognized as 'persons' for constitutional purposes."\textsuperscript{8} Because the court of appeals decided the case based on contract law, the issues related to male and female procreative rights on which the trial court had focused, were not further discussed or addressed.

The \textit{Kass} case was decided correctly by the court of appeals. Due to the couple's present inability to agree on disposition of the embryos, the couple's prior preprocedural agreement was followed. In fact, the court of appeals ruling was consistent with the \textit{Davis v. Davis}\textsuperscript{9} court formula.\textsuperscript{10} In the absence of a preprocedural agreement, however, the court of appeals may have discussed the difficult constitutional rights arguments addressed in \textit{Davis}.

Second, I indicated that Florida was the only state which had a statute requiring pre-agreement contracts.\textsuperscript{11} In addition, there is a bill pending in the 1997-1998 New York Senate\textsuperscript{12} which would require that couples specify in writing how embryos are to be disposed of before a facility can accept the embryos for storage.

I also highlighted the Louisiana statute which declares pre-zygotes as "juridical persons" and prohibits their intentional destruction.\textsuperscript{13} In addition, Kentucky law states that public facilities may only be used for IVF if "such procedures do not result in the intentional destruction of a human embryo."\textsuperscript{14} New Hampshire has a statute which permits non-therapeutic embryo research but restricts the handling of the embryos.\textsuperscript{15} The statute includes a fourteen-day limit for maintenance of ex utero pre-zygotes after fertilization, unless the embryos are cryopreserved. In addition, embryos donated for research purposes may not be transferred for implantation under the statute.\textsuperscript{16}

Third, the American Bar Association ("ABA"), at its 1998 Spring

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\textsuperscript{7} See id. at 182.
\textsuperscript{8} Id. at 179.
\textsuperscript{9} 842 S.W.2d 588 (Tenn. 1992).
\textsuperscript{10} See supra note 93.
\textsuperscript{11} See supra note 99.
\textsuperscript{13} See supra note 99.
\textsuperscript{14} KY. REV. STAT. ANN. § 311.715 (Banks-Baldwin 1997).
\textsuperscript{16} See id.
Meeting in Nashville, Tennessee, considered adopting a policy statement, proposed by the Section of Family Law, about frozen embryo disposition.17 The ABA indefinitely postponed the policy. The proposed ABA policy states that it is intended for use “in cases of marriage dissolution where the couple has previously stored frozen embryos with the intent to procreate.”18 The policy suggests that if the marriage has dissolved, the couple is in disagreement about the fate of the embryos, and there is no preprocedural agreement, “the party wishing to proceed in good faith and in a reasonable time, with gestation to term, and to assume parental rights and responsibilities should have possession and control of all the frozen embryos.”19

In light of the Davis case, and my analysis and suggestions in the text, I find the ABA’s proposed policy allowing unilateral use of the embryos to be seriously problematic. A more ethically grounded instruction would balance the interests in favor of the party wishing to avoid procreation.

Fourth, I would like to include a professional society statement not mentioned in the text. The American Society for Reproductive Medicine (“ASRM”) recommends that all Assisted Reproductive Technology programs “require each couple contemplating embryo storage to give written instruction concerning disposition of embryos in the case of death, divorce, separation, failure to pay storage charges, inability to agree on disposition in the future, or lack of contact with the program.”20 In addition, ASRM states:

As an ethical matter, a program should be free to dispose of embryos after a passage of time that reasonably suggests that the couple has abandoned the embryos. . . . A couple that has not given written instruction for disposition, has not been in contact with the program for a substantial period of time, and has not provided a current address and telephone number cannot reasonably claim injury if the program treats the embryos as abandoned and disposes of them.21

In addition, the influential New York Task Force on Life and the Law this

18. Id.
19. Id.
20. Ethics Committee of the American Society for Reproductive Medicine, Ethical Considerations, at 15. See also Z. Rosenwaks & O.K. Davis, On the Disposition of Cryopreserved Human Embryos: An Opinion, 12 HUMAN REPRODUCTION 1121 (1997) (arguing that no embryos should be frozen unless the IVF program has obtained “explicit informed consent vis a vis future disposition”).
Spring issued a report titled “Assisted Reproductive Technologies: Analysis and Recommendations for Public Policy.”22 The report indicates that while gamete bank regulations should require specific instructions regarding disposition,23 no embryo should be implanted, destroyed or used in research over the objection of an individual with decision-making authority.24 This standard means, “that when two people have joint decision-making authority over a frozen embryo, one person’s objection to transferring the embryo for implantation, destroying it, or using it for research should take precedence over the other person’s consent.”25 Absent a preprocedural agreement, I agree with the suggestion that no embryo should be implanted or used in research over the objection of one party. I do not agree that embryos should not eventually be destroyed over the objection of one party. There is no sound reason to keep embryos frozen indefinitely even when disagreement between the parties arises. Absent prior agreement, if one party chooses to avoid procreation and control of the embryos is given to that party, destruction without consent of one gamete donor should be an appropriate, acceptable option.

A sound instruction in the report states that the Task Force rejects “the argument that when two people with decision-making authority over a frozen embryo disagree about its use, the person who wants to transfer the embryo for implantation should prevail.”26 Individuals should not be forced to become a genetic parent against their will. The report also correctly states that women do not have greater rights than men over embryos outside the womb.27

22. See NYS TASK FORCE, supra note 45.
23. See id. at 318 (stating that at the time embryos are created, individuals with decision-making authority should “indicate their instructions for the disposition of any excess embryos in the event of death, permanent loss of decision-making capacity, divorce, termination of the facility's storage period, or loss of contact with the storage facility”).
24. Id. at 317-20.
25. Id. at 317.
26. Id. at 318; cf. ABA’s Proposed Policy, supra addendum note 17.
27. See id.