The Custody Battle over Cryogenically Preserved Embryos after Divorce:

Advocating for Infertile Women’s Rights

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Abstract

This paper focuses on the struggles that infertile women face to achieve motherhood because their rights are underrepresented in the American court system. It specifically centers on how the process of in vitro fertilization (IVF) helps infertile women conceive children, but then details the problems that increasing technology now causes for these women after they freeze embryos and then divorce. Because the courts of only four states have determined who gets custody of these embryos after a divorce, and because the divorce rate and the number of couples utilizing IVF are increasing, future states will likely be forced to answer the same question in the future. Until now, the rights of female participants wishing to utilize the frozen embryos have not been adequately protected or recognized.

This paper argues that the female participant deserves full custody of IVF produced cryogenically preserved embryos after a divorce, because it is the only feasible way for her to overcome her disability of infertility and conceive children who are genetically related to her. Part I of this paper explains the detailed process and technique of IVF that helps women overcome their disability of infertility, including the various benefits and risks that the women face. Next, Part II analyzes the case law on this topic and explains the holdings and reasonings of the courts that have already tackled this issue and have failed to protect the infertile women’s rights. Lastly, Part III explains why future decisions should grant custody of the cryogenically preserved embryos to women because of their “sweat equity” in the process and because these embryos provide the best chance for these infertile women to become mothers.
Introduction

Over the past two decades, tens of thousands of children have been born through in vitro fertilization ("IVF"), "the best known of several methods of assisted reproduction," making it possible for otherwise infertile women and their husbands to conceive children who are genetically related to them. Because technology enables these couples to cryogenically preserve any unused embryos for future use, tens of thousands of embryos are frozen each year. Unfortunately, the current divorce rate in the United States exceeds 50 percent, and infertile couples are as prone to divorce as the rest of the population. Problems therefore arise as to the disposition of the cryogenically preserved embryos after a couple divorces and the propensity for divorce means that more and more couples each year end up in custody disputes over their frozen embryos. The issue of which individual should get custody of frozen embryos after divorce is significant because, "while such scientific advances promise extra opportunities for pregnancy, and thus increased hope for infertile [women], they also push the boundaries of law and ethics." While some state courts have begun to tackle this issue, they failed to give adequate deference to the "sweat equity" of the female participant and misunderstood the role that these frozen embryos play in the infertile women’s ability to have a family, making it imperative that someone advocate on behalf of these women’s rights so that they can achieve motherhood.

2 Cryopreservation is the “cooling of material, usually organisms or cells, to near or considerably below freezing temperatures.” J.L. Hall & D. Engel, Applications of Cryopreservation in IVF/ET, in FOUNDATIONS OF IN VITRO FERTILIZATION: REPRODUCTIVE HEALTH TECHNOLOGY 292 (Christopher M. Fredericks, John D. Paulson & Alan H. DeCherney eds., 1987).
3 Id.
4 Susan B. Apel, Esq., Disposition of Frozen Embryos: Are Contracts the Solution? 27 VER. B.J. & L. DIG. 29, 29 (2001). Infertile couples may be more prone to divorce because of the life stresses of trying to get pregnant.
5 Id.
7 See infra Part II (discussing the courts that have attempted to settle the custody issues over frozen eggs).
8 See infra Part III (arguing that courts should grant custody to the female IVF participant because of her sweat equity, and because the frozen embryos may present the only reasonable opportunity for her to have children).
This paper focuses on the struggles that infertile women face to achieve motherhood because their rights are underrepresented in the American court system. It argues that the female participant deserves full custody of IVF produced cryogenically preserved embryos after a divorce, because it is the only feasible way for her to overcome her disability of infertility and conceive children who are genetically related to her. Part I first explains the detailed process and technique of IVF that helps women overcome their disability of infertility, including the various benefits and risks that the women face. Next, Part II analyzes the case law on this topic and explains the holdings and reasonings of the courts that have already tackled this issue and have failed to protect the infertile women’s rights. Lastly, Part III explains why future decisions should grant custody of the cryogenically preserved embryos to women because of their “sweat equity” in the process and because these embryos provide the best chance for these infertile women to become mothers.

I. The Process and Risks of IVF

Until recently, sexual intercourse caused all human reproduction. However, advances in reproductive technology now enable women who otherwise could not conceive children to do so. Since 1978, when the first child conceived in a laboratory was born, researchers developed various techniques to help infertile couples create families. IVF, however, has been “by far the most visible, dramatic, and important assisted reproductive technique.” While physicians initially utilized IVF as a method of bypassing blocked fallopian tubes, it now represents “the

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9 See infra Part III.A; See also John Robertson, Resolving Disputes over Frozen Embryos, 19 HASTINGS CTR. REP. 7 (1989) (first applying the “sweat equity” theory to the IVF process).
10 See infra Part III.B.
12 Id.
13 Id. at 4.
14 Id. at 8.
final common path for the treatment of infertility.”¹⁵ This Part details the steps that occur during the IVF process, and describes the various risks that female participants face when participating in the IVF process.

A. An Overview of IVF

The IVF process takes approximately two weeks and consists of four stages: ovulation induction, egg retrieval, fertilization, and egg transfer.¹⁶ During the first stage, ovulation induction, the female takes a grouping of different hormones that stimulate her ovaries to produce ‘two, three, four or more eggs’ and physicians closely monitor her to ensure that her body reacts correctly to the hormone induction.¹⁷ Physicians or IVF centers normally only perform surgery to remove the follicles if the female produces two or three follicles of at least three centimeters in diameter.¹⁸ A technician views these follicles via an ultrasound machine for the days preceding the female’s expected surgery.¹⁹ In order to enable the technician to see the ovaries, the female must drink thirty ounces of liquid forty-five minutes before the ultrasound to create a full bladder, which pushes the bowels out of the line of sight.²⁰ The technician then coats the female’s stomach with a cool, blue liquid and moves a transducer across this liquid to locate the follicles on a screen.²¹ If the technician locates two to three follicles of proper diameter, he then injects a hormone called human chorionic gonadotrophin into the female, which stimulates ovulation to occur approximately thirty-six hours later.²² The injection is timed

¹⁵ Sam Thatcher & Alan DeCherney, Pregnancy-Inducing Technologies: Biological and Medical Implications, in WOMEN & NEW REPRODUCTIVE TECHNOLOGIES 27 (Judith Rodin & Aila Collins eds., 1991).
¹⁷ Id. at 147.
¹⁸ Id.
¹⁹ Id.
²⁰ Id.
²¹ Id.
²² Id.
so that the next surgery takes place after the female’s eggs have ripened to a stage of maturation that signals their readiness for fertilization, but before the female’s eggs are released.23

During the second phase, egg retrieval, the physician retrieves the female’s matured eggs through a surgical procedure called laparoscopy, which physicians can perform after giving the woman only a light general anesthetic to protect the eggs.24 During laparoscopy, a surgeon makes three one-half inch incisions in the abdomen of the female.25 In one incision, he inserts a forceps to locate the ovaries, holds the ovaries steady, and moves anything aside that blocks the ovaries.26 In the second incision, he inserts a hollow needle, approximately 0.9 millimeters in diameter, “through which the follicular fluid will be suctioned.”27 Next, the physician pumps carbon dioxide gas into the female’s abdomen to increase visibility and make more room for the surgeon to work.28 In the third incision, the surgeon inserts the laparoscope, a thin instrument “‘about as big as a fountain pen and twice as long’ [which] literally translates from the Greek to mean ‘look into the abdomen.’”29 The laparoscope is equipped with a light, has a lens at the end, and acts like a telescope for the surgeon.30 The surgeon then locates the follicles, suctions them out with a foot-controlled vacuum pump, aspirates the follicle’s fluid, and places it directly into a

23 *Id.* at 148. This stage of maturation is known as metaphase II. *Id.*
24 *Id.* It has become increasingly more common to replace the laparoscopy procedure with an aspiration procedure that a physician conducts in his office and monitors through ultrasound. *Id.* The physician can place the suctioning needle into the abdomen, the bladder, or through the female’s vagina. *Id.* at 149. This process does not require general anesthesia and is less expensive than laparoscopy. *Thatcher, supra* note 15 at 31. Some patients require laparoscopy because of the position of the uterus, while others require transvaginal capture because laparoscopy is impossible due to inaccessibility of ovaries with adhesions. *Id.*
25 BONNIKSEN, supra note 16 at 148.
26 *Id.*
27 *Id.* This needle has a Teflon lining to ensure that neither the fluid nor the eggs will attach to the needle during the suctioning process. *Id.*
28 *Id.*
29 *Id.*
30 *Id.*
test tube. The surgeon then repeats the procedure several times to ensure that he has retrieved all of the eggs.

Next, the physician takes the test tubes to the laboratory where technicians examine the fluid for eggs. If the technician finds eggs in the fluid, the male must produce a sperm sample through the process of masturbation. After the male produces the semen, the technician separates the sperm from the seminal fluid, while the female’s eggs are maturing. The technician uses approximately 50,000 to 100,000 sperm for the fertilization procedure.

During the fertilization procedure, the third stage, the technician places each of the female’s eggs in a glass dish and combines them with some of the male’s sperm. The technicians carefully monitor the process to ensure that the type of dish reacts well with the sperm. If a negative reaction occurs, the technician must use a different type of dish. The technicians then place the filled dishes into an incubator with a temperature and moisture level similar to that of the woman’s fallopian tubes. If a sperm enters the egg, the egg forms a barrier that prevents the entry of another sperm. The egg then begins to change in composition, and starts to divide eighteen hours after fertilization. Most IVF centers transfer the embryos to the woman’s uterus after the embryos have divided into two to eight cells.

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31 Id. at 148-49.
32 Id. at 149.
33 Id.
34 Id. Because sperm can lose potency with repeated ejaculations, the male is asked to resist ejaculation in the days preceding a laparoscope procedure.
35 Id. at 150.
36 Id.
37 Id. The egg stays at the bottom of the dish where the sperm are drawn to it by gravity. Id.
38 Id.
39 Id.
40 Id.
41 Id.
42 Id.
43 There are several terms used in the literature, including “embryo,” “pre-embryo,” “zygote,” and “pre-zygote” to describe the product that occurs when the sperm fertilizes the egg during the third stage of IVF. However, this paper
Technically, the transfer procedure, the fourth stage, represents the easiest step in the IVF process.\textsuperscript{45} In order to transfer the embryos, the woman lies on a table either on her back or facing down with her knees pulled into her chest, depending upon the tilt of her uterus.\textsuperscript{46} The embryologist loads the embryos and a small amount of medium into a catheter, and the physician then inserts the catheter into the woman’s vagina, through her cervix, and releases the embryos.\textsuperscript{47} He then examines the catheter under a microscope to make sure that he released all of the embryos.\textsuperscript{48} If he did not release all of the embryos, then he repeats the procedure. This procedure is generally painless for the woman and therefore does not require anesthesia.\textsuperscript{49} The woman then rests in a recovery room for approximately six to eight hours and later goes home for two to three days of strict bed rest.\textsuperscript{50} A physician or laboratory technician tests her blood two weeks after the procedure to determine if she is pregnant.\textsuperscript{51} This procedure determines whether she is chemically pregnant, and if a fetus appears on an ultrasound twelve weeks after the transfer procedure, she is considered clinically pregnant.\textsuperscript{52} While the process usually takes a total of two weeks, only the female participant must be present for appointments and procedures for that length of time.\textsuperscript{53} The female must visit the center or physician’s office for blood tests, injections, and repeat ultrasounds for the period of days or weeks before the anticipated egg collection procedure.\textsuperscript{54} In addition, for the procedures to occur, the female must be present for

\textsuperscript{44} THATCHER, supra note 15 at 32.
\textsuperscript{45} Id.
\textsuperscript{46} BONNIKSEN, supra note 16 at 151.
\textsuperscript{47} Id.
\textsuperscript{48} Id.
\textsuperscript{49} THATCHER, supra note 15 at 33.
\textsuperscript{50} BONNIKSEN, supra note 16 at 151
\textsuperscript{51} Id. The physicians will only do so if the woman has not menstruated. Id.
\textsuperscript{52} Id.
\textsuperscript{53} IVF website, Risks of Treatment, at http://www.ivf.com/overview.html.
\textsuperscript{54} Id.
the egg collection and embryo transfer. However, the male participant must only be present at the time of his expected sperm donation.

Because couples gain no advantage when a physician transfers more than four embryos during a single cycle, couples who produced four or more embryos must decide what to do with the remaining embryos. Couples choose from several options. First, they may choose to freeze the remaining embryos so that they may use them in future IVF cycles, if necessary. Recent advances have made the cryopreservation of embryos both feasible and practical. Second, the couple can anonymously donate the embryos for use by another infertile couple. Lastly, the couple may allow the embryos to develop in the laboratory until they perish, which usually takes about six to eight days, at which point the laboratory disposes of them.

B. Potential Risks that the Female Participant Faces During the IVF Procedure

While IVF has the benefit of allowing an infertile individual or infertile couple to conceive, it also carries many serious risks for the female. For example, the combination of hormones that a woman takes to stimulate ovary production in the first stage can result in allergic reactions or hyperstimulation of the ovaries, and she can experience bruising, swelling, tenderness, or infections at the injection site. One to two percent of women who undergo ovary hyperstimulation suffer from ovarian hyperstimulation syndrome, which is a severe condition

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55 Id.
56 Id. Men can certainly accompany the women throughout the process for support if they choose to do so.
57 THATCHER, supra note 15 at 34. Because the process carries risks and is costly, women want to minimize the amount of aspirations. As a result, physicians remove many eggs during the aspiration process and release them into the women’s vagina in subsequent transfer procedures.
59 THATCHER, supra 15 at 34.
60 IVF website, overview, at http://www.ivf.com/overview.html.
61 Id.
62 IVF also carries serious risks for the baby. However, these risks are not within the scope of this paper.
63 IVF website, Risks of Treatment, at http://www.ivf.com/overview.html. While lesser impositions, because the hormones cause the female’s estrogen levels to become elevated, they may also experience side effects including, but not limited to, fluid retention with slight weight gain, nausea, diarrhea, pelvic discomfort, breast tenderness, mood swings, headache, and fatigue. Id.
that can lead to breathing difficulties, temporary cessation of kidney function, and arterial and venous thrombosis.\textsuperscript{64} Additionally, a woman receiving the human chorionic gonadatrophin hormone can experience several serious complications including: excessive fluid retention leading to fluid in the abdomen and/or chest cavity, thrombosis (formation of blood clots) of her arteries and/or veins which may lead to a stroke, embolism, or potentially fatal complications, or abnormally enlarged ovaries, which can rupture or twist causing a surgical emergency.\textsuperscript{65} Any of these problems would likely require a prolonged hospitalization stay.\textsuperscript{66} Lastly, exposure to these hormones may also lead to slightly increased risks of breast cancer.\textsuperscript{67}

During the egg retrieval stage, the female also subjects herself to possible risks. These risks include potential reactions from the drugs and procedures used to administer the anesthesia, reactions from the anesthesia itself, which includes death, and the risks associated with the laparoscope procedure of the passage of the needle through the vagina into the ovaries.\textsuperscript{68} These risks can include infection, bleeding, inadvertent damage to the structures near the ovaries including the bowel, bladder, blood vessels, ureter, uterus, ovaries, or stomach, and/or internal scarring following the procedure.\textsuperscript{69} While rare, some infections may become severe enough to require that the woman undergo a hysterectomy and/or removal of one or both of her ovaries.\textsuperscript{70}

Conversely, no serious risks exist during the egg fertilization stage because, aside from the production of sperm, the remainder of this process occurs in a laboratory.\textsuperscript{71} However, because the female remains on progesterone and other hormones to prepare her body for

\textsuperscript{65} IVF website, Risks of Treatment, \textit{at} http://www.ivf.com/overview.html.
\textsuperscript{66} \textit{Id}.
\textsuperscript{67} Waldman, \textit{supra} note 64 at 1053.
\textsuperscript{68} IVF website, Risks of Treatment, \textit{at} http://www.ivf.com/overview.html.
\textsuperscript{69} \textit{Id}.
\textsuperscript{70} \textit{Id}.
\textsuperscript{71} \textit{Id}.
implantation, she may experience side effects including vaginal dryness, breast tenderness, mood swings, bloating, and depression.\textsuperscript{72}

Lastly, embryo transfer is usually a painless procedure but can also result in some side effects and risks. For example, the embryo transfer may cause the female to experience some mild cramping, bleeding, or infection.\textsuperscript{73} While unlikely, during the embryo transfer the eggs may be displaced in the cervix, resulting in the loss of the embryo, or within the fallopian tubes, resulting in a tubal pregnancy.\textsuperscript{74}

As this Part demonstrates, IVF is an advanced scientific procedure that takes about two weeks and ultimately enables infertile couples to reproduce. While IVF has proved to be miraculous for thousands of couples, it also involves many serious risks for the female. Because couples choose to cryogenically preserve their unused embryos, issues arise as to whom these embryos belong after a divorce. Some courts have attempted to solve this issue, as explained below.

\section*{II. Current Standards for Settling Custody Disputes over Cryogenically Preserved Embryos}

Couples participating in the IVF process must often decide what to do with their remaining embryos. Couples often choose to cryogenically preserve their embryos for their own future use since IVF is a very expensive, involved scientific procedure, and does not always result in pregnancy. Because these embryos exist, conflicts often arise over them after a couple divorces. Since 1992, four state courts have grappled to decide which parent should get custody

\textsuperscript{72} Id.
\textsuperscript{73} Id.
\textsuperscript{74} IVF website, Risks of Treatment, at http://www.ivf.com/overview.html.
over the frozen embryos after unforeseen circumstances occur, such as divorce. This Part analyzes the existing holdings and reasonings of the limited existing case law on this topic.

A. Protecting the Rights of the Party Wishing to Avoid Procreation

In 1992, in Davis v. Davis, the Tennessee Supreme Court became the first court to decide the disposition of a divorcing couple’s cryogenically preserved embryos. In Davis, Mary Sue Davis and Junior Davis married and attempted to start a family. Unfortunately, Mary Sue Davis suffered five tubal pregnancies, resulting in the removal of her right fallopian tube and ligation of her left, eliminating the possibility of her naturally conceiving a child. After unsuccessful attempts at adoption, the Davises determined that IVF was their only option for becoming parents. After several failed attempts, the Davises decided to wait until their clinic offered them cryogenic preservation so that they could freeze their remaining embryos and implant them into Mary Sue during later rounds of IVF. Once the clinic had the capability of freezing embryos, the Davises underwent another round of IVF and Mary Sue’s gynecologist was able to retrieve nine ova for fertilization, which were then fertilized in a Petri dish. The physician implanted two of these embryos into Mary Sue and cryogenically preserved the other seven. Unfortunately, neither of the two embryos implanted and Junior Davis filed for divorce before the Davises could undergo another round of IVF using the cryogenically preserved

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75 These courts include the Supreme Court of Tennessee, the Court of Appeals of New York, the Supreme Judicial Court of Massachusetts, and the Supreme Court of New Jersey. While the Court of Appeals of Washington heard a similar case involving the disposition of pre-embryos after divorce, Litowitz v. Litowitz, 10 P.3d 1086 (Wash. 2000), this case will not be discussed as it also involves a surrogate mother, which does not fall within the realm of analysis that this paper intends to cover.
76 842 S.W.2d 588 (Tenn. 1992).
77 Id. at 589-90.
78 Id. at 591.
79 Id.
80 Id. at 591.
81 Id. at 592.
82 Id.
83 Id.
embryos. Initially upon divorce, Mary Sue wanted custody of the embryos for use in future rounds of IVF, while Junior wanted the embryos destroyed. However, by the time the case reached the Tennessee Supreme Court, Mary Sue decided instead that she wanted to donate the embryos to another infertile couple.

Because this case was one of first impression, the court determined that it must address several important issues regarding IVF. In its analysis, the court examined whether the embryos were to be considered “persons” or “property” under Tennessee and Federal law. The court adopted an intermediate view and determined that “[embryos] are not…either ‘persons’ or ‘property,’ but occupy an interim category that entitles them to special respect because of their potential for human life.” The court next examined whether the Davises could have decided the fate of the embryos by contract at the time of the procedures and decided that such an agreement should “be presumed valid and should be enforced as between the progenitors” when unexpected circumstances arise.

The court determined that in order to establish the disposition of the embryos, it must balance the rights of Mary Sue and Junior Davis against each other, reasoning that under federal law “the right of procreation is a vital part of an individual’s right to privacy… and that however far the protection of procreational autonomy extends, the existence of the right itself

84 Id.
85 Id. at 601-02.
86 Id. at 602.
87 Id. The court examined the state’s Wrongful Death Statute, TENN. CODE. ANN., § 20-5-106, and cited Roe v. Wade, 410 U.S. 113 (1973) to come to its conclusion that the embryos could not be considered persons. The court heard expert testimony to decide whether to call the fertilized products of IVF, “pre-embryos” or “embryos,” and decided that they were pre-embryos since that term applied until fourteen days after fertilization. Id. at 593.
88 Id. at 597.
89 Id. The court determined that such circumstances include death of one or more of the parties, divorce, financial reversals, or abandonment of the program. Id.
90 Id. at 602.
dictates that decisional authority rests in the gamete-providers alone...”91 It further stated that since the state’s interests do not become sufficiently compelling until after the first trimester has passed, there is no state interest that could possibly exist to overcome the interest of the gamete-providers in the IVF context.92 As a result, the court determined that Junior’s interest in not becoming a father outweighed Mary Sue’s interest in donating the embryos to another couple so that her participation in the IVF procedures were not futile, and therefore determined that the embryos should be destroyed.93 The court did add, however, that the case would be much closer if Mary Sue had wanted to use the embryos for herself, but only if she could not “achieve parenthood by any other reasonable means.”94 The court stated that if that were the case, then the argument in favor of using the embryos in order for the mother to get pregnant should be considered.95

Similarly, *J.B. v. M.B.*96 involved a divorced couple who disagreed about the disposition of seven embryos that were cryogenically preserved after the couple underwent IVF procedures.97 In *J.B.*, a married couple could not conceive naturally because the woman was infertile, and therefore attempted IVF treatments.98 Before undergoing IVF, the couple signed numerous consent forms, one of which stated that the couple agreed to relinquish all “control, direction, and ownership of our tissues under the following circumstances [including] a dissolution of our marriage by court order, unless the court specifies who takes control and direction of the tissues…”99 The IVF procedure produced eleven embryos; the physicians

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91 *Id.* at 600-01.
92 *Id.* at 602.
93 *Id.*
94 *Id.*
95 *Id.*
97 *Id.*
98 *Id.* at 709.
99 *Id.* at 710.
implanted four into J.B., and cryogenically froze the remaining seven. J.B. conceived and subsequently gave birth to a daughter. Six months later, the couple separated and J.B. told M.B. that she wanted to have the remaining embryos discarded. M.B. disagreed. J.B. subsequently filed for divorce and sought a court order over the cryogenically preserved embryos, to which her husband filed a counterclaim compelling his wife to allow the embryos to be implanted or donated to other infertile couples.

In its analysis, the highest court of New Jersey, the Supreme Court, examined the couple’s consent forms and determined that they did not manifest a clear intent by either party regarding the disposition of the frozen embryos in the event of ‘dissolution of their marriage,’ since it allowed for an exception that permitted them to obtain a court order to direct the embryos’ disposition. The court stated that because J.B. and M.B. did not enter into a contract regarding the disposition of their cryogenically preserved embryos, it would have to consider each of the parties’ interests regarding procreation. It then explicitly agreed with the Davis court and stated that “ordinarily, the party wishing to avoid procreation should prevail.” The court determined that M.B.’s right to procreate is not denied if he is unable to use or donate the embryos since he is fertile and can procreate naturally. On the contrary, it stated that J.B.’s right not to procreate would be violated if she was forced to implant the embryos or allow someone else to use them. The court added that it would not force J.B. to become a parent against her will and concluded that the embryos were to be destroyed, unless J.B. did not object
to their continued storage at M.B.’s expense. Both the *Davis* and *J.B.* courts therefore protected the rights of the party wishing to avoid procreation so as to not compel a party to parent a child against his will.

**B. Upholding Agreements Entered into during the IVF Procedure**

Six years after *Davis* in *Kass v. Kass*, the Court of Appeals of New York similarly attempted to determine the proper disposition of five embryos frozen by a couple while they were married, but who had since divorced. In *Kass*, Maureen and Steven Kass were married and tried to conceive children, but were unable to do so naturally because of Maureen’s prenatal exposure to diethylstilbestrol (DES). After artificial insemination procedures proved unsuccessful, the couple decided to enroll in a hospital’s IVF program. Over the course of five rounds of IVF, Maureen became pregnant twice; one resulted in a miscarriage, and the other resulted in an ectopic pregnancy that required surgical termination. Before their final procedure and before they chose to cryogenically preserve the remaining embryos, both Maureen and Steven signed consent forms detailing the manner in which they would use any remaining embryos. The forms, in part, stated that in the event of a divorce, the couple agreed that legal ownership of the cryogenically preserved embryos had to be determined in a property settlement in a court of proper jurisdiction. In addition, the couple signed a form that stated, “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 [embryos], we now indicate [that]…our frozen [embryos] may

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110 Id. at 720.
112 The Court of Appeals of New York referred to the fertilized eggs as “pre-zygotes,” defined in the record as “eggs which have been penetrated by sperm but have not yet joined genetic material.” *Id.* at 175.
113 *Id.*
114 *Id.*
115 *Id.*
116 *Id.*
117 *Id.* at 176.
118 *Id.*
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.” 119 Three weeks later, after preserving five embryos, the couples signed a divorce agreement that also included the following statement: “the disposition of the frozen [five embryos] at Mather Hospital is that they should be disposed of in the manner outlined in our consent form and that neither Maureen Kass, Steve Kass or anyone else will lay claim to custody of these [embryos].” 120 However, three weeks after signing the divorce decree, Maureen wrote a letter to the hospital and her IVF physician informing them that she and Steven were divorcing, but that she was in opposition to the destruction or release of her embryos since she wanted to use them in future rounds of IVF. 121

In its analysis, the trial court, the Supreme Court of New York, granted custody of the embryos to Maureen and directed her to “exercise her right to implant them within a medically reasonable time.” 122 The court reasoned that the female IVF participant has exclusive decision making power over the embryos, in the same manner as a pregnant woman has the exclusive control over the nonviable fetus inside of her. 123 The court also added that Maureen did not waive this right in any of the agreements that she signed. 124 The appellate court reversed, reasoning that women’s rights to privacy and bodily integrity are not implicated prior to the implantation of the embryos, and that when the couple has agreed to the disposition of the embryos, that agreement should control. 125 The court could not determine, however, whether the current agreement was dispositive of Maureen and Steven’s intentions, such that it should

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119 Id. at 176-77.  
120 Id. at 177.  
121 Id.  
122 Id.  
123 Id.  
124 Id.  
125 Id.
control. Affirming, New York’s highest court, the Court of Appeals of New York, concluded that the parties clearly expressed their intent to have the embryos donated to the IVF program in the event of a divorce. Drawing upon *Davis*, the court stated that “agreements between progenitors, or gamete donors, regarding disposition of their [embryos] should generally be presumed valid and binding, and enforced in any dispute between them.” The court also stated that agreements made before the fact would be futile if courts enforced them only to the extent that the contracting parties continued to agree. As such, the court concluded that the parties manifested their intent when they signed the consent forms and that the embryos would therefore be donated to the IVF program as they had originally agreed.

C. Refusing to Uphold an IVF Agreement since it would Compel a Party to become a Parent against His Will

In *A.Z. v. B.Z.*, the highest court of Massachusetts, the Supreme Judicial Court, attempted to answer the same question as the courts in *Davis* and *Kass*. As in the above cases, *A.Z.* involved a couple who suffered complications when trying to conceive naturally and therefore decided to undergo IVF treatment. Unlike the other cases, the wife in *A.Z.* successfully became pregnant via IVF and gave birth to twin daughters in 1992. Before this conception, the couple cryogenically froze two vials of embryos for future implantation. Before each round of IVF, the couple signed several consent forms. On each form, the wife specified that the embryos were to be returned to her for implantation in the event that she and

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126 Id.
127 Id. at 178.
128 Id. at 180.
129 Id.
130 Id. at 181.
131 725 N.E.2d 1051 (Mass. 2000).
132 Id. at 1053.
133 Id.
134 Id.
135 Id. at 1054.
her husband separated.\textsuperscript{136} In 1995, the wife desired more children and had a lab implant one embryo from the frozen vials, without informing her husband.\textsuperscript{137} No pregnancy resulted from this implantation and relations between the husband and wife deteriorated.\textsuperscript{138} The wife received a protective order against her husband, after which the couple separated and ultimately divorced.\textsuperscript{139}

In its analysis, the court determined that the consent forms in which the wife specified that the embryos should be returned to her upon a separation from her husband were unenforceable for several reasons.\textsuperscript{140} First, the court decided that the form was only intended to define the donors’ relationship as a unit with the clinic and not as a binding agreement in the event that the couple later disagreed as to the disposition of the embryos, and nor did the couple intend it to.\textsuperscript{141} Second, because the consent form did not specify an expiration date, the court could not infer that the couples intended the agreement to govern four years after its execution.\textsuperscript{142} Third, the court decided that since the form used the words “should we become separated” without defining “become separated,” it could not conclude that the form governed in the event of a divorce since separation and divorce have significantly different legal meanings.\textsuperscript{143} Thus, the court determined that it could not enforce the couple’s agreement and noted that the agreement violated public policy by compelling a donor to become a parent against his will.\textsuperscript{144} As such, the

\textsuperscript{136} Id.
\textsuperscript{137} Id. at 1053. One vial was still frozen at the time of this case. Id.
\textsuperscript{138} Id.
\textsuperscript{139} Id.
\textsuperscript{140} Id. at 1056.
\textsuperscript{141} Id.
\textsuperscript{142} Id.
\textsuperscript{143} Id.
\textsuperscript{144} Id. at 1057.
court did not uphold the agreement, and did not award custody of the embryos to the wife, in
order to prevent the husband from fathering a child against his will.145

The holdings of these cases have been very similar. All of the courts stated that a
couple’s agreement, made before a divorce, but with regards to the event of divorce, should be
upheld, so long as it does not compel one of the parties to become a parent against his or her will.
In the absence of such an agreement, and if the parties cannot agree, the courts agreed that the
right of the party who desires not to procreate should supercede the right of the party who wishes
to use the embryos for procreation, so long as the party wishing to procreate can do so by other
reasonable means. Because IVF is becoming increasingly popular, the courts of the forty-six
other states will likely answer similar questions in the future.

III. The Decisions Fail to Accord Adequate Weight to the Infertile Women’s Rights

While the highest courts of only four states attempted to determine which party should
have custody of cryogenically preserved embryos after they divorce, all four of those courts
failed to adequately account for the female IVF participant’s rights.146 Instead, the courts
examined whether the parties signed a contract, and then either ignored the contractual terms that
favored procreation because of public policy, or “contort[ed] existing language to dictate embryo
destruction.”147 If no contract existed, the courts paid “lip service to an individual’s interest in
procreation,” but consistently held that the interest was superceded by the right not to
procreate.148 As such, the courts did not give adequate defeference to the process and risks that the
female was subjected to as a participant in the IVF process, her “sweat equity,” and in balancing
the rights of the parties, failed to recognize the substantial investments that female participants

145 Id.
146 See supra Part II (discussing the holding and reasoning of the existing cases where two parties were vying for
custody over cryogenically preserved eggs after they divorced).
147 Waldman, supra note 64 at 1052.
148 Id.
have in the existing embryos. This Part explains why the courts should have granted custody of
the frozen embryos to the female IVF participants and demonstrates the importance of
representing these rights in future decisions.

A. Courts Should Give More Deference to the “Sweat Equity” Theory

The first reason that courts should favor the female IVF participant’s rights over the male
participant’s rights is grounded in the “sweat equity” theory. When applied to the IVF context,
the “sweat equity” theory stands for the proposition that the female gamete provider should
always retain custody of the cryogenically preserved embryos after a divorce because of her
greater physical contribution during the process of IVF.149

While the IVF process requires a contribution from both the male and female participant,
the female’s contribution involves far more “sweat equity than the male’s contribution.”150 For
the female participant, IVF treatment is an incredibly onerous and invasive process that threatens
her health. 151 The female participant reports to an IVF center or physician’s office for blood
tests, injections, and repeat ultrasounds for the period of days or weeks before the anticipated egg
collection procedure and she is both physically and emotionally involved for the entire two week
period. 152 During that period, she submits to hormone injections, ultrasounds, laparoscopic
surgery or transvaginal aspiration, the embryo transfer procedure, bed rest, and intense
monitoring.153 In addition, by participating in the IVF process, the woman faces several risks that
include bleeding, infection, temporary kidney non-function, breathing difficulties, stroke,
embolism, arterial thrombosis, increased risk of breast cancer, and even death.154 While less

149 John Robertson, Resolving Disputes over Frozen Embryos, 19 HASTINGS CTR. REP. 7 (1989).
150 Waldman, supra note 64 at 1052.
151 Apel, supra note 5 at 31.
152 See supra notes 11-61 and accompanying text (describing the process of IVF).
153 Id.
154 See supra notes 63-Error! Bookmark not defined. and accompanying text (detailing the risks of the IVF
procedure).
severe, women also experience vaginal dryness, breast tenderness, mood swings, bloating, depression, weight gain, nausea, diarrhea, pelvic discomfort, headaches, and fatigue.\textsuperscript{155}

On the contrary, the IVF process for the male participant does not threaten his health, is easy and not invasive, and only requires that he be present for the short amount of time that it takes for him to produce a semen sample.\textsuperscript{156} This semen sample is the male participant’s only requirement and can be achieved without any highly technical interventions.\textsuperscript{157} To make his contribution to the IVF process, the male participant simply needs “a private room, an empty jar and, perhaps, a Playboy magazine or video.”\textsuperscript{158} This process also does not subject the male participant to any risks.\textsuperscript{159}

Under the “sweat equity” theory, the female should always prevail, regardless of whether she seeks the right to procreate or the right to not procreate.\textsuperscript{160} As a result of the great disparity between the genders as to the amount of work and risk involved in the IVF process, the female should have the right to determine the fate of the embryos that resulted from the physical pain that she endured and risks that she took in order to undergo IVF.\textsuperscript{161} While the male participants may argue that they are equally as emotionally involved in the process as the female participants, the male participants do not endure any physical pain or subject themselves to any risks and therefore should not prevail.\textsuperscript{162}

While the female’s “sweat equity” is incredibly important and should be considered when weighing the rights of each party, only one court mentioned the “sweat equity” theory when

\begin{footnotes}
\footnote{155}{Id.}
\footnote{156}{Apel, supra note 5 at 31.}
\footnote{157}{Waldman, supra note 64 at 1052-53.}
\footnote{158}{Id. at 1053.}
\footnote{159}{Id.}
\footnote{160}{Shana Kaplan, Note, \textit{From A to Z: Analysis of Massachusetts’ Approach to the Enforceability of Cryopreserved Pre-Embryo Dispositional Agreements}, 81 B.U.L. REV 1093, 1114 (2001).}
\footnote{161}{Id.}
\footnote{162}{See supra Part I (describing the pain and risks that the female IVF participant subjects herself to).}
\end{footnotes}
attempting to determine the disposition of the frozen embryos. In its analysis, the Davis court mentioned the “sweat equity” theory as one possible model for it to adopt, but then merely dismissed it without any real analysis.163 The Kass and A.Z. courts failed to even make mention of this model and therefore blatantly disregarded the female’s physical and emotional efforts, and the risks that she exposed herself to in an effort to conceive a child.164 In doing so, these courts essentially compelled the female participants to again endure the emotional, physical, and financial hardships that accompany IVF, if they decided to conceive children in the future.

As a result of the emotional and physical contribution that the female participant makes when she undergoes IVF treatment, courts should grant full power to the female to determine the disposition of the cryogenically preserved embryos, to recognize her efforts and prevent her from being subjected to the same risks again in the future. The woman makes a greater investment in creating the embryos and should therefore be afforded the right to decide their disposition.165

B. Courts should Find that the Female’s Desire to Procreate Should Supercede the Male’s Desire not to Procreate

In addition to the “sweat equity” theory, courts should especially grant custody of the cryogenically preserved embryos to the female participant when she wishes to utilize the embryos in future rounds of IVF to conceive children. Unfortunately, none of the cases acknowledged the fact that the cryogenically preserved embryos may have provided the only means for the women to conceive children, and therefore stripped the women of their ability to become mothers.

163 Davis v. Davis, 842 S.W.2d 588, 590 (Tenn. 1992).
Couples will usually only turn to IVF if they cannot conceive naturally without it.\textsuperscript{166} For example, Mary Sue Davis suffered five tubal pregnancies and ligation of both fallopian tubes before turning to IVF,\textsuperscript{167} Maureen Kass was infertile because of prenatal exposure to DES,\textsuperscript{168} B.Z. suffered an ectopic pregnancy that resulted in the removal of one of her fallopian tubes,\textsuperscript{169} and J.B. developed a condition that prevented her from conceiving.\textsuperscript{170} However, the \textit{Davis} court stated that the female’s right to procreate did not supercede the male’s right to procreate because the female could undergo another round of IVF or could adopt.\textsuperscript{171} The court based its decision on the fact that Mary Sue Davis was asking the court to allow her to donate the embryos to another infertile couple instead of implanting them herself, and noted that the “case would be closer if Mary Sue Davis were seeking to use the [embryos] herself, but only if she could not achieve parenthood by any other reasonable means.”\textsuperscript{172} However, the court then added that this was not the case since Mary Sue would have a reasonable opportunity to achieve parenthood through another attempt at IVF or through adoption.\textsuperscript{173} The \textit{Kass} appellate court also suggested that the party seeking to avoid procreation should prevail because the other spouse could achieve parenthood through reasonable alternate routes including adoption instead of embryo implantation.\textsuperscript{174}

The problem with these courts’ determinations that the female IVF participants can achieve motherhood through other means is that IVF and adoption are not always reasonable or

\begin{footnotes}
\footnote{\textit{Id.} at 824.}
\footnote{\textit{Davis} v. \textit{Davis}, 842 S.W.2d 588, 591 (Tenn. 1992).}
\footnote{\textit{A.Z.} v. \textit{B.Z.}, 752 N.E.2d 1051, 1053 (Mass. 2000).}
\footnote{\textit{J.B.} v. \textit{M.B.}, 783 A.2d 707, 707 (N.J. 2001).}
\footnote{\textit{Davis}, 842 S.W.2d at 604.}
\footnote{\textit{Id.}}
\footnote{\textit{Id.}}
\footnote{\textit{Id.}}
\footnote{\textit{Kass}, 235 A.D.2d at 167.}
\end{footnotes}
feasible options for many women. First, IVF success declines as the female’s age increases.\textsuperscript{175} For women, “age is the enemy of fertility [as] women hit their reproductive prime in their early twenties [and] each advancing year represents a slight decline in the ability to conceive and carry a child.”\textsuperscript{176} Once a woman turns thirty-five, her chances of conceiving, and her chances of miscarrying, increase exponentially each year.\textsuperscript{177} In addition, women experience a decrease in both egg number and egg quality as they become older, which lessens their chances of conceiving through IVF.\textsuperscript{178} Furthermore, a woman’s age is the most important factor affecting her chances of a live birth as women over the age of thirty-five are less likely to respond to ovary stimulation and to produce the quality of eggs needed for retrieval.\textsuperscript{179} The eggs actually retrieved from older women are then less likely to survive the processes of fertilization, egg transfer, and implantation.\textsuperscript{180} As a result, these statistics demonstrate that the already preserved embryos have a much greater chance of resulting in a live birth than any future eggs will have, and often represent the woman’s only chance of naturally conceiving and birthing a child. As a result, the courts’ determinations that the female IVF participants did not need the frozen embryos to achieve motherhood were misinformed.

The second issue with the courts’ argument that the females could achieve motherhood through other means is that adoption is not always feasible and “the courts’ cavalier inclusion of adoption as a reasonable means to embryo implantation ignores the difficulties facing older, single individuals who seek to adopt.”\textsuperscript{181} There are three ways to adopt a child – through public adoption, private adoption, or abroad, and none of them favor placing a child with a single

\begin{itemize}
\item \textsuperscript{175} Id. at 1053.
\item \textsuperscript{176} Id. at 1054.
\item \textsuperscript{177} Id.
\item \textsuperscript{178} Id.
\item \textsuperscript{179} Id.
\item \textsuperscript{180} Id.
\item \textsuperscript{181} Waldman, supra note 64 at 1059.
\end{itemize}
Public adoption becomes especially problematic for women seeking Caucasian babies since when public adoption agencies have a healthy, Caucasian baby, they first seek to place the child with a married couple, and only consider placing the child with a single parent secondarily. Unfortunately, the demand for healthy, Caucasian babies far exceeds the supply, further limiting the chances of single, infertile women adopting. Some public agencies therefore only allow single parents to adopt physically or mentally handicapped children, older children, or children with behavioral issues. While these women can seek private agency adoption, the process can cost between $10,000 and $25,000 and carries with it the same issues as public adoption. Lastly, infertile single parents can attempt to adopt a child abroad but will often be required to retrieve the child in his or her country of origin, an incredibly difficult and expensive process. In addition, the children will typically have spent several months in an orphanage receiving varying levels of quality and quantity of care, and “maternal malnutrition, drug or alcohol use, HIV status, and hepatitis all threaten the child’s long-term development.” Unfortunately, adoption, especially for single, older women, “[is] an expensive process fraught with the potential for protracted delay and ultimate disappointment… [and] it is not a comparable alternative” to IVF conception.

The courts incorrectly assumed that the female participants could achieve pregnancy through other reasonable means since “achieving parenthood through additional [IVF] efforts or adoption is not likely to be easily accomplished, especially for frozen embryo disputants who are psychologically at risk for conception difficulties and whose status as an older divorcee will

\[^{182}\text{Id. at 1056.}\]
\[^{183}\text{Id.}\]
\[^{184}\text{Id.}\]
\[^{185}\text{Id.}\]
\[^{186}\text{Id.}\]
\[^{187}\text{Id. at 1057-58.}\]
\[^{188}\text{Id. at 1058.}\]
complicate their adoption efforts.” As a result, future courts should combine the Davis court’s dicta that stated that Mary Sue’s case would be much closer if she wanted to use the embryos for future rounds of IVF and could not achieve motherhood through any other reasonable means, with the above arguments and should hold that the female’s desire to procreate supercedes the male’s desire to not procreate, since the Davis court based its dicta on the assumption that it was reasonable for Mary Sue Davis to undergo another round of IVF or to adopt.

Critics of this proposal will likely argue that it forces males to become fathers even if they have specifically stated that they would not have become fathers if they knew that divorce was imminent. For example, the Davis court determined that Junior Davis could not be compelled to procreate after he explained to the court that he grew up in a divorced household and was “vehemently opposed to fathering a child that would not live with both parents.” While the court found this interest compelling, the argument lacks sufficient merit to supercede the rights of women who wish to procreate. Junior Davis, and every other person who decides to parent a child, whether naturally, through IVF, or even through adoption, assumes the risk of that child growing up in a divorced or single child household. Married couples currently face a greater than 50% chance of divorce, and the possibility always exists that one of the parents will unexpectedly pass away, in both cases, leaving the children to grow up in a home with only one natural parent. Furthermore, Junior Davis consented to participating in the IVF process with his wife, and donated his sperm samples to fertilize the eggs in an effort to impregnate his wife, regardless of the fact that statistics showed he had a greater chance of divorcing his wife than

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189 Id. at 1054.
190 Davis v. Davis, 842 S.W.2d 588, 604 (Tenn. 1992).
191 Id.
192 See Apel, supra note 4 at 29 (stating that couples currently face a greater chance of divorcing than staying married).
193 Id.
staying married to her. If one of the eggs transferred into Mary Sue’s uterus successfully implanted, Junior Davis would have fathered a child who would not have lived with both parents, since they divorced shortly thereafter. As a result, a male participant’s argument that he desires not to father a child that will grow up in a divorced household should not have enough merit to supercede the rights of a female wishing to use the fertilized embryos to procreate.

Male participants will likely argue that it is unfair for them to financially support a child that they did not wish to father. However, in balancing the rights of each party, the courts will also have the ability to condition the grant of custody to the woman by explaining to her that the male participant will not be held responsible for support of any resulting children. In doing so, the courts can balance the rights of each party, while accounting for the woman’s “sweat equity” and potential inability for her to achieve motherhood without the frozen embryos.

IV. Conclusion

IVF fulfills the dreams of infertile women by enabling them to overcome their disability and have children to whom they are biologically related. Additional technological advancements then permit these women and their husbands to cryogenically preserve unused embryos for implantation at a later date without undergoing the entire IVF process. While these embryos help the couple conceive children, they also present a source of contention upon divorce. Because the courts of only four states determined who gets custody of these embryos after a divorce, and because the divorce rate and the number of couples utilizing IVF are increasing, future states will likely answer the same question in the future. Until now, the rights of female participants wishing to utilize the frozen embryos have not been adequately protected or recognized. As a result, it is important that when future courts hear these cases, they

\[194 \text { Id. Even if Junior did not know of the high divorce rate, he should have known that divorce was a viable option since he divorced his wife shortly thereafter.} \]
understand the effort and risks that the female participant subjects herself to during IVF, and that these embryos usually present the only chance, or at least the best chance, for these infertile women to conceive children in the future, so that they can properly give deference to the women’s rights and award custody of the embryos to the female participant.