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Article

***273** FROZEN EMBRYOS AND GAMETE PROVIDERS' RIGHTS: A SUGGESTED MODEL FOR EMBRYO DISPOSITION

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ABSTRACT: Procreational autonomy is one's ability to choose when to have a child. Because advances in human reproduction technology allow one to create embryos with donated sperm and egg and freeze them for future use, it is important to analyze the resulting legal implications. This Article proposes a complete disposition model in cases where the egg and sperm donors disagree about the embryo's ultimate fate. While embryos should be accorded a level of respect as a potential life, referring to an embryo's legal status as "chattel" is useful because it gives an embryo its deserved respect while bringing clarity to the law. This Article distills the policies alluded to in the scant case law dealing with the disposition of frozen embryos and argues that the right to avoid procreation is the stronger interest when attempting to resolve an embryo disposition dispute.

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In today's society both individuals in a relationship frequently pursue careers and as a result often delay starting a family. As couples delay having children, the human body deteriorates making in coitus conception more difficult. To alleviate the problems associated with conception by older couples, In Vitro Fertilization (IVF) has become increasingly popular. Advances in reproductive technology and the use of IVF enable a physician to harvest additional embryos that are ***274** subsequently frozen and used in future conceptions. With these medical advances comes the need for developments in the law to deal with the ensuing legal issues.

Legal minds need to define a person's right not to procreate and balance it against a person's right to procreate [FN1] when a couple's relationship fails and the parties disagree on how to dispose of their frozen embryos. The United States Supreme Court has found the right to privacy buried in the constitution. [FN2] It has also held that a woman's right to privacy allows her to seek an abortion. [FN3] These fundamental liberty rights do not exist without restrictions. A woman's right to an abortion is

eclipsed by a state's interest in life once the fetus becomes viable. [FN4] It is now time for courts to define one's right not to procreate. More specifically, privacy rights and abortion rights are rarely bargained for in contract; however, the disposition of frozen embryos and its associated procreation are often contemplated contractually.

While courts have used various methods to address the disposition of frozen embryos, ultimately the gamete providers' desires carry the greatest weight, and embryos are essentially treated as chattel. Part I of this Article introduces and explains the need for and nature of IVF. Because the disposition of embryos relates to procreational autonomy, and arguably a fundamental right protected by the Constitution, Part II will explore what role, if any, the Constitution plays in governing the final disposition of embryos. Part III will discuss the legal issues surrounding frozen embryos. Part IV will survey the current landscape of state case law and articulate the common trends that emerge. Finally, Part V will propose a uniform model for the disposition of frozen embryos to be used when gamete providers disagree on the disposition. The proposed model draws support from underlying principles and guidelines developed in case law, based in the United States Constitution, and examined by commentators.

I. SOCIAL OBSTACLES TO NATURAL CONCEPTION AND THE PROCESS OF IVF

Assume that a married couple decides to forgo having children until after both have established their careers. Consequently, they attempt to have children later in their lives. Because of problems with conception associated with age, the couple finds that it is not possible to conceive in coitus. [FN5]

***275** There are many reasons why couples cannot conceive. [FN6] A man's sperm may be unable to break through and fertilize a woman's egg. [FN7] Some women are unable to produce ova. [FN8] Other women have problems with their fallopian tubes that do not allow ova to be fertilized or do not let fertilized ova travel to the uterus. [FN9] In some cases, the egg is successfully fertilized, but the uterus is not fit for the implantation or for the maintenance of the embryo through gestation. [FN10] Other problems include endometriosis, cervical mucous problems, unexplained infertility, and oligospermia (low sperm count). [FN11]

The couple may choose to undergo IVF, which can increase the chances of a woman carrying a fetus to term, as a way to avoid the problems associated with in coitus conception by bypassing the natural place of fertilization--the fallopian tube. [FN12] During the extraction of the egg from the woman, extra eggs can be retrieved. These extra eggs can be fertilized through IVF and then frozen for later implantation. [FN13]

There are five central steps in the IVF and cryogenics process: (1) induction and timing of ovulation, (2) oocyte retrieval, (3) fertilization, (4) embryo transfer, and (5) cryogenic freezing of the embryo. [FN14] Eggs must be retrieved immediately prior to ovulation. In the natural ovulation cycle only one egg develops. Medications are used to promote the simultaneous maturation and ovulation of a number of eggs at a particular time of the day. Next, the eggs are harvested from small fluid collections in the ovaries called follicle cysts. An ultrasound probe is placed in the vagina, and a needle is inserted through the vagina into the ovary. Each follicle is then aspirated to retrieve the eggs.

The male is asked to produce a semen specimen by masturbation the day before or shortly after the scheduled egg retrieval. Occasionally he will be asked to produce on both days. The semen, or liquid

portion of the ejaculate which surrounds the sperm, is separated from the sperm. Some of the sperm are then placed together with the eggs in a culture medium and allowed to incubate for approximately 18 hours. If fertilization is successful, the fertilized egg is transferred to a second culture medium and incubated for an additional 22 to 46 hours.

After successfully harvesting and fertilizing the eggs, they can be implanted into the woman's uterus [FN15] or, alternatively, frozen and stored. The freezing ***276** requires the use of cryoprotectants that shield the embryo from being damaged in the process. [FN16] Once frozen, the embryos can be thawed at a later time and used for implantation.

In 1996, over 300IVF programs operated in the United States, and there were over 40,000 IVF cycles administered. [FN17] Since its first success in Great Britain, over 30,000 children have been conceived through IVF. [FN18] Also, the trend of freezing embryos is on the rise. [FN19]

II. PROCREATIONAL AUTONOMY AND ITS CONSTITUTIONAL BOUNDARIES

Procreational autonomy arguably encompasses both the right to procreate and the right not to procreate. Under the current constitutional landscape, the United States Supreme Court has addressed only the former. Yet the Court has phrased the right to procreate as the liberty to be free from governmental interference with procreational decisions. [FN20]

In striking down an Oklahoma statute requiring the sterilization of specified criminals, Justice Douglas stated that "[m]arriage and procreation are fundamental to the very existence and survival of the race." [FN21] The court held in both Eisenstadt and Griswold that a state cannot restrict the use of and access to contraceptive devices by married or unmarried couples. [FN22] The most telling of those rights was enunciated in Eisenstadt, where the Court stated, "If the right of privacy means anything, it is the right of the individual, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child ...." [FN23] Because the right incorporates the decision to beget a child, the decision ultimately encompasses whether a person wants to be a parent. Thus, as a person has a right to be a parent, he or she also has the right to avoid being a parent and, accordingly, the right to avoid being forced to procreate.

This privacy right can be traced back to when the Court found that the Fourteenth Amendment protected:

***277** the right of the individual to contract, to engage in any of the common occupations of life, to acquire useful knowledge, to marry, establish a home and bring up children, to worship God according to the dictates of his own conscience, and generally to enjoy those privileges long recognized at common law as essential to the orderly pursuit of happiness by free men. [FN24]

The Court has also found that minors have a right of privacy encapsulated in decisions affecting procreation. [FN25] Under the protections of substantive due process, persons have enjoyed Fourteenth Amendment protection of matters relating to marriage, family, procreation, and bodily integrity. [FN26]

The right of privacy has also paved the road to creating a constitutional right to procreational autonomy. [FN27] Curiously, the Constitution does not explicitly mention any right of privacy; however, the Court has recognized that one liberty shielded by the Due Process Clause of the Fourteenth Amendment is "a right of personal privacy, or a guarantee of certain areas or zones of privacy." [FN28]

The Court vaguely defined the right of privacy as including "the interest in independence in making certain kinds of important decisions." [FN29] The Court has never enunciated a complete list of what privacy entails; nevertheless, it has concluded that procreation does fall within its ambit. [FN30] Additionally, contraception [FN31] and family relationships [FN32] have been added to the rights protected under the umbrella term of "privacy."

Decisions relating to the birth and the care of children are at the very heart of constitutionally protected privacy issues. [FN33] The Court has found that central to privacy is the idea of protecting decisions relating to the most intimate of human activities--procreation. Logically then, it can be inferred that because the right to avoid procreation ranks high among privacy concerns, so does the right to procreate. [FN34] However, it must be noted that because procreation implicates two ***278** rights that are diametrically opposed to one another--the right to procreate and the right to avoid procreation--they will inevitably come into conflict. When the conflict between protecting one's right to procreate clashes with one's right to avoid procreation, the court must necessarily find that one right defeats the other. It is therefore important to analyze these rights with respect to each other in deciding which one is stronger.

Generally, the right to avoid procreation should be given greater protection. The party wishing to avoid a genetic link to offspring is irreversibly harmed if an egg is transferred and birth occurs; at that point one cannot avoid the unwanted burdens of parenthood. [FN35] The central purpose of procreation is having and raising children. The root is having the child, as raising a child is dependent upon first having one. One can have a child in many ways. People can conceive naturally or with technological help. Adoption is an alternative arrangement that allows a person to raise a child. Thus, as there are many ways in which a person can bear and beget a child and because procreation is irreversible, [FN36] the right to avoid procreation should be the more closely guarded right.

It may be argued that adoption does not equate to procreation. However, there is no biological guarantee that one will be able to be a gamete provider for a child, and, thus, the Constitution cannot isolate that right outside of sociological factors such as adoption. Indeed, the true protection provided by the Constitution is the power to decide whether to bear and beget children, not necessarily the right to procreate. The power to decide whether to bear a child is limited by an individual's ability to procreate. A person suffering from infertility does not have the power to make that choice--infertility commands that the individual will not procreate. Therefore, when nature is preventing one from giving birth naturally, the state should not interfere.

***279** The Constitution generally only protects one from state actors. [FN37] However, as between private parties, the Constitution is less relevant. A state may not force one to procreate or hinder procreation; however, parties may agree to engage in or abstain from procreation where fundamental public policy is not concerned. Accordingly, a state may not enact a statute that forces one to have children. However, it is possible for a court to enforce a contract to do the same without implicating the Constitution. [FN38] Although a court's construction of a local contract under local law does not provide the necessary state action to implicate the United States Constitution, [FN39] the Constitution's guiding principles can be used in deciding how to enforce a contract in light of the fundamental rights associated with one's personal liberty. It is therefore suggested that when looking at a contract that involves procreational rights, the Court look to the Constitutional framework in analyzing the public policies and validity of the contract. The Constitution provides an appropriate and useful framework of public policy to guide those interpreting a contract regarding the disposition of frozen embryos.

III. LEGAL ISSUES AND FROZEN EMBRYOS

The legal issues stemming from IVF and cryogenic embryo freezing are ripe for exploration. The law must define what an embryo is and what rights are invested within the embryo to guide physicians, couples, and courts in decisions relating to the implantation, donation, and destruction of frozen embryos.

A. The Rights of the Embryo

An embryo is an eight- to sixteen-celled organism with a unique DNA structure that is yet to form the primitive streak [FN40] made from the combination of a human sperm and egg. [FN41] There have been three major schools of thought relating to the classification of an embryo as life. First is the view that an embryo is "not life at all but merely human tissue." [FN42] Second is the view supported by some ***280** scholars that an embryo is human life. [FN43] This view requires that embryos be given the opportunity to develop through implantation and bans any nontherapeutic action that might harm the embryo. [FN44] The third, and majority view, takes an intermediate position: an embryo deserves greater respect than human tissue because of its potential for life, but its status does not rise to the level of human life. [FN45] The United States Supreme Court's rulings in Roe and Casey demonstrate acceptance of this middle ground rule for fetuses. Under Casey, the carrying mother can abort a fetus for any reason until viability, and after viability only for the health or to save the life of the mother. [FN46] This scheme indicates that as an embryo develops and gains increased potential for human life, it is accorded more respect. Moreover, at viability a state has a compelling interest in that potential life. [FN47]

Historically, the common law only protected fetuses after quickening. [FN48] Although no frozen embryos existed at that time, an embryo and a fetus in the ***281** woman's womb are similar in that they exist early in the "life continuum." [FN49] Additionally, some states have recognized a wrongful death case of action for the death of a fetus indicating greater respect to biological beings with the potential for human life. [FN50] Finally, the Supreme Court has never interpreted the Constitution to suggest that a fetus is a person with the rights and protections of the Fourteenth Amendment. [FN51]

B. The Right to the Embryo

While the rights pertaining to an embryo may be more circumscribed than other property rights, the embryo has a property interest. The persons who provide the biological material to the embryos, the gamete providers, have the strongest claim in deciding the embryo's disposition. [FN52] State courts are in accord with this presumption. They have recognized that frozen embryos are a potential life, but still place the gamete providers' interests above that of the embryo. [FN53] The Uniform Anatomical Gift Act (UAGA) supports the view, though not expressly, that embryos would be subject to the right of survivorship. [FN54] Section 3 of the Uniform Anatomical Gift Act allows the spouse, adult child, parent, adult sibling, grandparent, or guardian of a decedent to make an anatomical gift on behalf of the decedent. Thus, if an embryo could be read as an "anatomical gift," which "means a donation of all or part of a human body," UAGA ¶ 1(1), then it could be gifted by a qualified survivor of the decedent. However, the UAGA refers to human tissues and organs that have no potential for autonomous human life. [FN55] Unwarranted destruction of an embryo can lead to liability in tort. [FN56] Furthermore, one ***282** court has recognized that the owner of the embryos and the holder of the embryos have a bailor-bailee relationship. [FN57]

Tennessee law specifically denies a frozen embryo the status of "person." [FN58] Nonetheless, the Tennessee Supreme Court concluded that embryos were not "property" but occupy an interim category that carries the characteristics of property. [FN59]

Under federal law, an unborn embryo is not a person. [FN60] In York v. Jones, [FN61] a federal district court determined that frozen embryos were "property" when the gamete owners wanted the frozen embryos transferred across state lines from one clinic to another.

While a host of labels can be attached to embryos, they should maintain property characteristics in the eyes of the law. While the idea of human life as property is morally repulsive, an embryo, which has yet to develop a primitive streak, is not a human life by any current definition. Additionally, the relative infrequency with which an embryo fully develops upon implantation weakens the argument that an embryo should enjoy the status of a person. [FN62] There are no limitations on the use of sperm and eggs. They can be sold, donated, devised, or used in research and are commonly treated as chattel. An embryo is simply a culmination of the two and without a uterus can never develop into life. Just as the sperm and egg's potential to reach an embryonic stage are dependent on each other, an embryo's potential for life lies in its ability to successfully implant into a uterus. Thus, an embryo shares a key characteristic of sperm and egg in that the pieces necessary to put together human life are not all present. Because an embryo is not life in a legal sense and is missing an essential element to truly be potential life, as a matter of principle, an embryo is chattel.

It is conceded that an embryo as potential for human life deserves respect. An embryo is closer to becoming life than either an egg or sperm individually. Relying on the notion that potential life gains respect as it gets closer to actual life, the embryo deserves greater respect than that of the egg or sperm individually. This idea has been crystallized by John Robertson, among others. Robertson advocates that for purposes of decisional authority, the embryo should be treated ***283** as property, even if embryos are not treated like property in all other respects. [FN63] Lori Andrews coined the phrase "quasi-property" in advocating that allowing gamete providers to treat embryos as property but not allowing others to do the same could "guard against the appearance that people are commodities" or becoming "objects." [FN64] Clearly these commentators are searching for a way to give embryos a heightened level of respect. Nonetheless, the outcome remains static in that barring any unique factual case specifically drawing on public policy, an embryo is chattel with an enhanced name. [FN65] In fact, many commentators endorse this proposition specifically, and others do the same effectively. For example, Andrea Bonnicksen has found that for daily legal issues, embryos are merely property. [FN66] Additionally, Kimberly Diamond has found that for reasons of public policy, it is best to treat embryos as purely property. [FN67] As opposed to applying a sugar-coated name to embryos, the same respect can be better given by placing boundaries on embryonic chattel like those that have been placed on other chattel. For example, just as law and society have placed boundaries on the use of human tissue through public policy and consequently afforded the tissue and persons greater protection and heightened respect, the law can similarly constrain the use of embryos as chattel, giving them their due respect while maintaining a sense of legal clarity.

C. Disposition

Once embryos have been defined in the law as having property characteristics, the law must define a

person's property interest in the embryo. For example, the law must decide if research on the embryo is lawful and not violative of public policy. Additionally, the right to sell and pass on rights in embryos needs definition. Still another issue is determining whether, as property, embryos can be treated as abandoned if left in storage too long.

One specific issue relating to the disposition of frozen embryos occurs when parties divorce, separate, or when one spouse dies. After divorce, separation, or the death of a spouse, interested parties may disagree on what to do with the embryos. One party may want to have one of the frozen embryos implanted into a surrogate. A party may want to donate the embryo to science. A party may want to sell the embryo or release it to an embryo adoption agency. A party may wish ***284** to have the embryos destroyed. Or a party may want to leave the option of what to do with the embryo to a professional or other third party. Complicating the issue, the parties may have agreed to a disposition method prior to the divorce, separation, or death, and now one or both have had a change of mind. The governing issue essentially becomes a balance between a person's right to procreate and a person's right not to procreate.

Under these circumstances the constitutional right to a pre-viability abortion is separate and distinct from the right to destroy an embryo. The right to an abortion is governed by Roe v. Wade as modified by Casey v. Planned Parenthood. In those cases, the Supreme Court weighed a woman's personal privacy liberty right against the state's interest in life. [FN68] The Court found that prior to viability a woman had a personal privacy right so strong that it outweighed the state's interest in the potentiality of life. [FN69] However, these decisions were based on a woman's privacy interest and not on procreative autonomy. The Supreme Court has invalidated the requirement of written consent from a spouse as a prerequisite to abortion due to the extensive rights a woman has in the privacy of her body, not procreational autonomy, and thus, Roe and Casey are not controlling. [FN70] The rights relating to an extracorporeal embryo and its respective owners are better characterized as questions of procreative autonomy.

The constitutional issue then becomes whether the state's recognized interest in life outweighs a person's right not to procreate so as to allow the state to forbid the destruction of embryos. The Court has not specifically held that a person has a right not to procreate, but it is implicit in the other established liberty rights. [FN71] In fact, the Tennessee Supreme Court stated that an individual is entitled to procreational autonomy under the United States Constitution. [FN72] It has been held that the state's interest in life arises after viability of a fetus in the context of an abortion. [FN73] Additionally, in asserting one's right to refuse medical treatment, the Court held that states have a legitimate interest in the protection and preservation of human life whereby they are not "required to remain neutral in the face of an informed and voluntary decision by a physically able adult to starve to death." [FN74] Justice Stevens, dissenting and citing to the Supreme Court of Missouri, stated that "[t]he state's interest in life embraces two separate concerns: an interest in the prolongation of the life of the individual patient and an interest in the sanctity of life itself." [FN75]

***285** In the context of embryos, obviously "the prolongation of the individual patient" is not a concern where an embryo is not life and certainly is not a patient. Thus, the true nature of the state's interest in life in the embryo context is in the "sanctity of life itself." At best, the state has an ill-defined interest in morality as it relates to the preservation of life. An embryo is merely a potential for human life. [FN76] As the potential for life is minimal, the state's interest in protecting that potential life is also minimal. On the other hand, a person has a constitutionally protected right to avoid procreation. [FN77] That right is

irrevocably destroyed if the implantation of an embryo leads to a successful birth against the will of a gamete provider. Thus, because the state has minimal interest in potential life and a gamete provider has a constitutionally protected interest in avoiding procreation, the gamete provider's interest should outweigh that of the state's interest.

IV. SURVEY OF CURRENT CASE LAW DEALING WITH THE DISPOSITION OF FROZEN EMBRYOS

Few cases have dealt with the issue of frozen embryo disposition. The state courts that have addressed the issue have come to different conclusions. The individual holdings have been fact intensive and have not involved pure questions of law. The following section will outline how the courts ruled under the facts presented. The differing outcomes will then be reconciled using the right to avoid procreation as a foundation.

A. Davis v. Davis--Tennessee: No Contract and a Balancing Test Favoring the Right to Avoid Procreation

In Davis v. Davis, [FN78] the Tennessee Supreme Court became the first state high court to deal with the disposition of frozen embryos. The dispute began in a divorce action where all the terms of the divorce were agreeable except for the issue of custody of seven frozen embryos stored during a "happier period" in their relationship. [FN79] Mary Sue Davis, the wife, wanted to implant the frozen embryos into her uterus after the divorce. Junior Davis, the husband, wanted the right to decide if he should become a biological father out of wedlock. After her remarriage, Mary Sue sought the right to donate the frozen embryos to a childless couple. Junior opposed such a donation and wanted the embryos discarded.

Mary Sue had several tubal pregnancies during her marriage to Junior Davis, one resulting in the loss of her right fallopian tube, and was unable to carry a child to term. Subsequently, Mary Sue chose to have her left fallopian tube ligated, leaving her unable to conceive naturally. Mary Sue and Junior tried to adopt but ***286** found it to be prohibitively expensive. IVF became the only way for them to become biological parents.

After six unsuccessful IVF cycles, a seventh attempt allowed the physician to retrieve nine ova for fertilization. One pair was implanted into Mary Sue. Unfortunately, she did not become pregnant. Junior subsequently filed for divorce.

No agreement or contract existed between the parties prior to the extraction and in vitro fertilization of Mary Sue's egg with Junior's sperm. Additionally, there was no indication that the Davises ever considered the implications of long-term storage of the embryos. Divorce and the disposition of the embryos were apparently never contemplated.

The court sought guidance from various legal scholars who proposed a diverse selection of bright-line tests and concluded that a bright-line test, although clear and predictable, would not be appropriate. [FN80] Instead, the court found that each party's interests must be weighed to determine the outcome for the embryos. [FN81] In weighing the Davises' interests, the court found that unless no other reasonable possibility of achieving parenthood by the gamete providers existed, the right to avoid procreation would prevail. [FN82] However, the court determined that if no reasonable alterative existed, including

adoption, then the use of embryos to achieve pregnancy should be considered. [FN83] The court explained that because Mary Sue could make another attempt at IVF and was open to adoption as a form of parenthood, her plea to have the embryos implanted against Junior's will was unavailing.

In reaching its conclusion, the court found that an embryo is neither a "person" nor "property"; rather, embryos occupy an interim category and, thus, the Davises had some ownership interest. [FN84] Furthermore, the court concluded that the destiny of the embryos was inherently tied to the parties' constitutional right to privacy. [FN85] The court restated one's federal liberty right in privacy but based its decision solely on the text of the state constitution. [FN86] It stated, "We hold that the right of procreation is a vital part of an individual's right to privacy. Federal law is to the same effect." [FN87] Thus, a person has both a right to procreate and a right not to procreate. [FN88] Moreover, a state's right in potential life is outweighed by the gamete provider's personal autonomy. [FN89]

***287** Although no agreement had been entered into between the parties before the Tennessee court, the court found the issue of an enforceable contract to be crucial to the case's underpinnings and valuable to inform future parties of a contract's consequences. [FN90] The court found that in the event of death of one or more of the parties, divorce, financial reversal, or abandonment of the frozen embryos, a contract between the two progenitor parties should be presumed valid and enforceable. [FN91] The court went on to suggest that because the emotional ties to an embryo cannot be anticipated, an embryo disposition contract should be written in a manner that allows for it to be modified by the parties at a later time. [FN92] Additionally, the court found that Mary Sue could not use an implied contract to dispose of the embryos in a manner aimed at reproduction. [FN93]

Ultimately, the Davis court relied on policy supporting one's right to avoid procreation. The court impliedly understood that the right to avoid procreation was so strong that an irrevocable contract forcing procreation would not be enforced. Other state cases have carried forth these policies.

B. Kass v. Kass--New York: A Contract Favoring the Right to Avoid Procreation Enforced

The New York Court of Appeals was the second state high court to confront the issue of disposition of frozen embryos. The Kass v. Kass [FN94] analysis continues where Davis left off. Maureen and Steven Kass underwent IVF in order to alleviate problems with in coitus pregnancy and artificial insemination. Maureen attempted several IVF cycles, two of which resulted in unsuccessful pregnancies. The couple then decided to have embryos frozen and signed consent forms before the process. The terms of the consent form stated that the parties agreed to store the embryos for a maximum of five years, not release the embryos without consent of both parties, and, in the event of disagreement between the parties, the embryos would be used for biological studies.

After the cryopreservation of the embryos, Steve and Maureen divorced. They agreed in the divorce decree to dispose of the embryos in the manner prescribed in the consent form and agreed that neither party should have a stake in the embryos. One month later, Maureen petitioned the court to allow her to use the embryos for her own implantation, and Steve opposed, wishing for the embryos to be used in biological studies in accord with the consent form.

The court looked to Davis and not just Davis's commentators and concluded that the disposition of the embryos does not implicate a woman's right of privacy or autonomy. [FN95] Additionally, the court

found that embryos are not persons and relegated the issue to deciding which party had dispositional authority over the ***288** embryos. [FN96] The court followed Davis and stated that agreements between progenitors should generally be presumed valid. [FN97] The court found that written agreements maximized parties' procreative liberty and provided certainty in IVF. [FN98] However, the court noted the unique circumstances in gamete cryopreservation and the difficulty in understanding and contemplating the vast uncertainties inherent in the IVF process. [FN99] The court concluded that while uncertainties exist, the gamete providers, not the state, should decide how to dispose of the embryos and that applying contract law is appropriate where it underscores the seriousness and integrity of the IVF consent process. [FN100] The court applied general contract principles to the consent forms and held that the agreement to dispose of the embryos by donating them for biological testing was valid and enforceable. [FN101]

Like Davis, the Kass court delivered an opinion favoring one's right to avoid procreation. The court found that contracts would generally be enforceable; however, the court did not state what circumstances would trigger an unenforceable contract. Because the Kass court relied in part on Davis, it is fair to assume that the New York court would be persuaded by the same policy in protecting one's right to avoid procreation that influenced the Tennessee court.

C. A.Z. v. B.Z.--Massachusetts: A Contract Favoring the Right to Procreate Found Unenforceable

The facts of A.Z. v. B.Z. are similar to those in Kass and involved a dispute in a divorce action over the disposition of frozen embryos after a contract was entered into. [FN102] The couple had trouble achieving natural pregnancy. The wife experienced an ectopic pregnancy resulting in a miscarriage and consequently had her left fallopian tube removed. The couple underwent additional fertility treatment in an effort to have children. [FN103] The treatment was unsuccessful and resulted in another ectopic pregnancy in the remaining fallopian tube requiring its removal. The couple opted for IVF as a last effort. IVF was successful, and the couple had a set of twins on the first implantation. [FN104] The IVF procedure resulted in extra embryos that the couple decided to have cryogenically frozen for use in future implantations. The wife, without the husband's knowledge, later had half the frozen embryos thawed and unsuccessfully implanted. Subsequently, the ***289** couple divorced, and the husband sought a permanent injunction to prohibit his former wife from using the remaining embryos.

The couple, as required by the physician, signed a consent form relating to the cryopreservation of the embryos. [FN105] The couple signed a required consent form before each cryopreservation procedure; a total of seven consent forms were signed. [FN106] The consent form addressed the disposition of the embryos under a variety of circumstances, including separation of the parties. [FN107] The first form stated that in the case of separation, the wife was to have control of the embryos for use in implantation. The husband signed a completed form for the first procedure and thereafter signed blank forms. The blank signed forms were completed with substantially similar language as the first consent form and signed by the wife.

The court looked to Davis and Kass and concluded that while those cases would enforce the contract at issue, under these circumstances, the A.Z. court would not. [FN108] The court found the consent form legally insufficient to be an enforceable contract. [FN109] In invalidating the apparent agreement, the court found that the contracts did not represent the intent of the husband and were really intended as a form to assist the reproductive clinic. [FN110] The court found that the consent's primary purpose was

to inform the client about cryopreservation and to assist the clinic when the donors no longer wished to use the embryos. [FN111] Moreover, the form defined the couple's relationship with the clinic and was not contemplated to control a dispute between the donors themselves. [FN112] The court also found that because the form lacked a temporal element, it was not dispositive four years later and under a fundamental change in the parties' relationship--divorce. [FN113] The court also drew a distinction in the form's references to "separation," but not "divorce," and concluded that the contract did not govern. [FN114] The court also found that the conduct of the parties in executing the contract was vague and doubtfully represented the intentions of the parties. [FN115] As a matter of law, the court held that the agreement could not be binding in divorce because it did not provide for custody, support, and maintenance in the event a child was born from the embryos. [FN116]

The court went one step further and concluded that a properly executed contract that would force procreation and compel one gamete provider to become ***290** a parent against his or her will violates public policy and is always unenforceable as between the gamete providers. [FN117] The court looked to various unenforceable familial agreements as support to invalidate the disposition of contract and in support of the "freedom of personal choice in matters of marriage and family life." [FN118]

The A.Z. court relied on the intent of the parties in finding that the contract at issue was unenforceable. However, the court found that, at a fundamental level, it is against public policy to force parenthood. Like the Tennessee Supreme Court and the New York Court of Appeals, the Massachusetts Supreme Judicial Court found that the right to avoid procreation was truly the governing principle in deciding the disposition of embryos.

D. Litowitz v. Litowitz--Washington: A Contract Giving Power to the Court Interpreted in Favor of the Right to Avoid Procreation

Litowitz v. Litowitz involved a married couple, Becky and David, who underwent IVF, however, only David provided a gamete, and a paid donor provided the other gamete. [FN119] The Litowitzes had five donated eggs fertilized and used three in a successful implantation through a surrogate. [FN120] The remaining two embryos were cryopreserved. [FN121] After the successful birth, the couple divorced. In the divorce, Becky wanted the embryos so that she could have them implanted in a surrogate and take on the role of the primary residential parent if the implantation was successful. [FN122]

Becky had given birth to three children before having a hysterectomy that left her unable to give birth naturally or to provide eggs. Becky and David later wanted to have a child together and decided to use an egg donor, IVF, and a surrogate. The contract with the egg donor provided that while David and Becky had the sole right to determine the disposition of the embryos, they could use the eggs only for themselves unless the donor gave express written permission. A cryopreservation contract signed by the couple stated that if a mutual decision as to the disposition of the embryos could not be reached, court instructions gathered under petition would control. [FN123] In addition, the cryopreservation contract provided that the cryopreservation center was to thaw the embryos and not allow ***291** their further development after five years unless the Litowitzes requested the embryos to be frozen longer. [FN124]

During the divorce, Becky wanted to use the embryos herself while David wanted them put up for adoption. [FN125] Relying on Davis, the Washington Court of Appeals concluded that the parties did not contemplate reproduction outside the bonds of marriage and thus no implied contract could be

found. [FN126] Additionally, the court found that because Becky was not a gamete provider, she did not maintain her constitutional right to procreate with the embryos, and because David was a gamete provider, he retained his constitutional right to avoid procreation. [FN127] Thus, the court held that since David was the only progenitor of the embryos, he had complete control of their destiny. [FN128]

The Litowitz case is unique in the bundle of cases dealing with the disposition of frozen embryos because only one party to the action was a gamete provider. Despite this fundamental difference, the Washington intermediate appellate court still relied on Davis for guidance on the issue. Again, like its predecessor cases, the court focused on the right to avoid procreation and crafted a disposition that favored that right. [FN129]

E. J.B. v. M.B.--New Jersey: A Contract Giving Authority to the IVF Clinic Found Subject to the Balancing Test Favoring the Right to Avoid Procreation

J. B. v. M.B. involved a dispute as to the disposition of frozen embryos stored during marriage and sought for use after divorce. [FN130] J.B. was infertile and suffered a miscarriage before the couple decided to undergo IVF. [FN131] Similar to the Kass's form, the consent form used by the IVF clinic to inform the gamete donors gave control, direction, and ownership of the couple's "tissues" to the IVF clinic in cases of divorce unless a court stated otherwise. [FN132]

***292** The IVF procedure was successful, producing eleven embryos. Four were immediately implanted in J.B., leading to the birth of the couple's daughter. The remaining seven embryos were cryogenically frozen. After their daughter's birth, the couple divorced. J.B. sought to have the embryos destroyed, while M.B. sought to have the embryos donated to infertile couples. [FN133]

The court found that the consent form did not evince a clear intention of the parties in the event of divorce and thus was not a separate binding contract. [FN134] The court looked to both the federal and state constitutional right to procreational autonomy and agreed with the Tennessee court in Davis that in the event of disagreement, the couple's respective procreational interests should be weighed and that the interest of the party wishing to avoid procreation should generally prevail. [FN135]

In weighing the interests, the court found that M.B. was already a father and completely fertile. [FN136] Thus, the destruction of the embryos would not hinder his ability to procreate. [FN137] In contrast, the court found that donation of the embryos would irrevocably extinguish J.B.'s fundamental right to avoid procreation if a child was born of the embryos. [FN138] The court thus held that while contracts governing the disposition of frozen embryos are generally enforceable, either gamete provider could "change his or her mind ... up to the point of use or destruction." [FN139] Furthermore, the court found that a party changing his or her mind about the disposition of the embryos is required to affirmatively notify the clinic in writing of the changed intention. [FN140] However, such notification is not an absolute veto power; rather, in the instance of subsequent disagreement, a balancing test weighing each party's interests would be used. [FN141] Reiterating the presumption that the party choosing to avoid procreation would usually prevail, the court indicated that in a case where an infertile party seeks to personally implant the embryo, the presumption is not as strong. [FN142] In supporting the view of a valid contract backed by intent, the court denounced the practice of one party signing the contract in blank and suggested that the parties review the contract terms with a competent third party. [FN143]

Like the courts before it, the New Jersey Supreme Court found the fundamental issue to be the right to avoid procreation. The court also laid the groundwork for evaluating the trumping ability of that right and correctly found that it is rebuttable. Thus, the decision will be based on a balancing test whereby, ***293** under the facts and circumstances of a case, one person's right to procreate will be weighed against the other person's right to avoid procreation.

F. In re Marriage of Witten--Iowa: All Contracts Between Couples Subject to the Mutual Consent of Both Parties

The Supreme Court of Iowa is the most recent state to struggle with resolving a couple's dispute about the disposition of frozen embryos in In re Witten. [FN144] That case also involved a dispute arising out of a divorce proceeding. [FN145] During their marriage, Arthur Witten and Tamera Witten underwent IVF treatment using Tamera's eggs and Arthur's sperm. Prior to treatment, the couple executed an "Embryo Storage Agreement" providing that the embryos would "be used for transfer, release or disposition only with the signed approval of both Client Depositors." [FN146] Several embryos were created, but implantation in Tamera was unsuccessful. At the time of their divorce proceedings, seventeen embryos remained cryogenically frozen. [FN147]

During the divorce proceedings, Tamera sought control over the seventeen embryos to be implanted in a surrogate mother. Tamera stated that she wanted to be genetically linked with her child. [FN148] "She adamantly opposed the destruction of the embryos" or use by another couple. [FN149] Arthur opposed destruction of the embryos, but he also opposed granting control to Tamera and requested that disposition of the embryos be subject to the mutual consent of him and Tamera. [FN150]

The Supreme Court of Iowa held that "agreements entered into at the time in vitro fertilization is commenced are enforceable and binding on the parties 'subject to the right of either party to change his or her mind about disposition up to the point of use or destruction of any stored embryo.'" [FN151] In crafting the opinion, the court examined the case law of other jurisdictions on the disposition of embryos and commentators' reactions to the teachings from the various courts. [FN152]

The Iowa appellate court noted its generalized "reluctance to become involved in intimate questions inherent in personal relationships." [FN153] Nonetheless, the court distinguished embryos from chattel, real estate, and money that are generally associated with disagreements during divorce proceedings. [FN154] The court explained that agreements made in the context of forming embryos are not always consistent with the parties' desires after their formation and that the formation of ***294** embryos through IVF is a highly emotional decision. [FN155] Because of the greater emotional distance that likely exists when couples enter into such agreements, the court reasoned that judicial enforcement of that agreement regarding family and reproductive choices would violate public policy. [FN156] Accordingly, the court adopted a standard requiring mutual consent and explained that embryos will be stored until an agreement between the couple is reached. [FN157]

Iowa followed New Jersey's lead in adopting a mutual consent requirement. In so doing, the court inherently recognized the right to avoid procreation. Each party is essentially given the right to avoid procreation by simply refusing to consent to any disposition other than destruction. To that extent, the Iowa court has distinguished itself from the prior case law by merely fashioning a new vehicle reaching the same end.

G. Drawing Together the Case Law

The courts have disagreed on the enforceability of contracts relating to the disposition of frozen embryos. [FN158] However, they all are driven by the case facts, and the courts' conclusions appear to be result oriented. Where a person's desire to avoid procreation would be achieved by enforcing the contract, contracts are respected and enforced. In a similar fashion, when a person's desire to avoid procreation would be advanced by invalidating the contract, it is invalidated. The golden thread of commonality can be found in the courts' emphasis on a person's right to avoid procreation in determining the fate of the embryo. However, the opinions taken together note that the right to avoid procreation is not absolute. Moreover, there are other rights and policies, such as the right to procreate and the policy supporting scientific research, which must be considered. Therefore, it is prudent and ripe to examine the policies behind the various dispositions and develop principles to guide courts, thereby creating certainty in the law governing the disposition of embryos.

V. A SUGGESTED UNIFORM APPROACH TO THE DISPOSITION OF FROZEN EMBRYOS

There are several approaches available for the dispositional control of embryos. [FN159] Authority can be vested in the gamete providers, an implied contract can be found, an express contract can control, or a test balancing each progenitor's bundle of rights can be used. [FN160] Vesting authority in gamete providers ***295** removes the issue from the powers of the legislature or judiciary. [FN161] The implied contract theory assumes that by undergoing IVF treatment, the parties impliedly consent and commit to reproduction. [FN162] Finding that an express contract is completely enforceable creates certainty and produces an incentive for parties to seriously consider their actions. However, because of the unique nature of this contract, parties do not fully understand the breadth of their decision while caught in the moment of trying to reproduce. Thus, the contract is tantamount to an involuntary adhesion contract. [FN163] Lastly, as a bundle of rights, each party's right to procreate is weighed against the other party's right not to procreate. [FN164]

Applying the above principles, the following guidelines are extracted. First, as a general rule, the progenitors of the embryo should be vested with the decisional authority in the disposition of embryos. [FN165] Second, while the Constitution may not apply to a contractual dispute regarding the disposition of frozen embryos, [FN166] procreational autonomy should be the overriding policy when parties disagree. [FN167] However, the right of procreational autonomy can be waived or overcome in extraordinary circumstances. Third, because there is societal value in embryonic research, [FN168] it should be favored over destruction.

There are generally five possible theoretical dispositions of frozen embryos: (1) personal use, (2) adoptive use, (3) scientific use, (4) destruction, and (5) continued storage.

Personal use allows the gamete provider to have an embryo implanted with the intent to raise the child or children resulting from a live birth. Adoptive use gives the embryo to a nonrelated third party to use for implantation. Scientific use involves the donation of the embryo to a research facility. Destruction requires thawing and disposal of the frozen embryo. Lastly, continued storage permits a ***296** clinic to store the embryos for a limited time or until the gamete providers agree on disposition.

Applying the above principles to the five possible dispositions, the following chart will yield a favored

disposition of the embryo: [FN169]

Disagreement	Prevailing Use	Reason
Personal Use v. Personal Use	Divide evenly or continued storage	Waive or invoke procreational autonomy
Personal Use v. Adoptive Use	Divide evenly or continued storage	Waive or invoke procreational autonomy
Personal Use v. Scientific Use	Scientific use	Procreational autonomy
Personal Use v. Destruction	Destruction	Procreational autonomy
Personal Use v. Continued Storage	Continued storage	Procreational autonomy
Adoptive Use v. Scientific Use	Scientific use	Procreational autonomy
Adoptive Use v. Destruction	Destruction	Procreational autonomy
Adoptive Use v. Continued Storage	Continued storage	Procreational autonomy
Scientific Use v. Destruction	Scientific use	Public policy supporting medical research
Scientific Use v. Continued Storage	Continued storage	Public policy in not destroying potential human life
		Public policy in not

Destruction v. Continued Storage	Continued storage	destroying potential human life

The first theoretical disagreement occurs when both parties want the frozen embryos for their own personal and individual use. Under this scenario neither party is fully relying on procreational autonomy; both parties want to have ***297** children from their gametes. The suggested disposition in this case is to split the number of frozen embryos evenly for each individual's personal use. However, if one of the gamete providers objects to this compromise, then the embryos should remain in storage. Splitting the frozen embryos is supported by an implied contract theory, while continued storage upon dispute respects mutual consent. Under implied contract, as both parties intend to use the embryos, they are also estopped from interfering with each other's right to procreate. [FN170] Each party's desire to use the embryos is a commitment to the possibility of becoming a genetic parent. Furthermore, by using the IVF process, both parties have relied to their detriment in thinking that they will be able to use the embryos, and, as a result, should be estopped from denying the other party's use. [FN171]

The next disagreement scenario is similar to the first, but here, one party wishes to use the embryos for his or her personal use and the other wants to donate the embryos for adoption. Again, the gamete providers are not relying on a right of procreational autonomy; they both want children to be born from their gametes but under different conditions. Thus, the gamete providers have essentially waived their right to procreational autonomy through an implied contract, and both parties should be allowed their favored disposition. Therefore, the embryos should be evenly divided between the gamete providers. However, if one of the gamete providers objects to this compromise, then an implied contract no longer exists, and the embryos should remain stored.

In some situations one gamete provider might want to use the embryos personally while the other wishes to donate them for scientific use. If one party were allowed to implant the embryos for personal use against the will of the other, the fundamental right of procreational autonomy would be abrogated. Additionally, society generally supports scientific advancement. [FN172] Thus, it is suggested that the embryos be donated to science in lieu of implantation, as this will avoid the trampling of one's procreational right and support society's interest in scientific advancement.

The veto power should be abided by when one party wishes to use the embryos for his or her own individual and personal use and the other wishes to have them destroyed. [FN173] Some commentators argue that the woman's right to the embryo is stronger based on the protection provided to women in Roe v. Wade. [FN174] However, it has been noted that Roe "did not purport to vest greater or lesser rights in either of the putative biological parents." [FN175] Still others argue that a ***298** woman's interest in the embryo is greater because of "sweat equity." [FN176] However, while a woman may have put in greater "sweat equity," the emotional investment attached to having a genetic link in a child is equal between men and women. Some commentators have noted that in addition to sweat equity, women have a limited time to procreate whereas men have a much longer time to procreate. [FN177] Nonetheless, it is nature that has created these biological differences, and a man should not be given less protection to a fundamental liberty right because of his chromosomal make-up. Other commentators have suggested that the party with a greater level of infertility should have superior rights to the embryos. [FN178] These arguments fail to consider the genetic link created by allowing implantation over objection. The relevant issue is one's fundamental right to procreational autonomy, and thus one

party must have the right to avoid procreation. Employing the theory that each progenitor has a bundle of rights in the embryos, the party objecting to parenthood will generally have a stronger interest. [FN179] Recall that there are numerous ways, including adoption, in which a party can become a parent, yet there is only one way for a person in this situation to avoid a genetic link to a child. The birth of a child and the emotional baggage that attaches with it is irreversible. Additionally, as a matter of policy, one should never be forced into parenthood because of substantial detrimental effects. [FN180] Thus, barring inequitable circumstances, [FN181] each party should be afforded a veto power to protect his or her procreational autonomy right. [FN182]

A situation may also arise where one party wishes to use the embryos for his or her own personal use and the other party wishes to continue storing the embryos. In this case, procreational autonomy must be respected along with the parties' joint wishes. It is clear that neither party is prepared to have the embryos destroyed; therefore, a court should not order destruction in contravention to the wishes of those involved. Instead, the embryos should be stored until the parties ***299** can come to some agreement or one party seeks to have the embryos destroyed or used for scientific research.

Under the above circumstances, a common thread emerges where at least one party wishes to use the embryos for his or her own individual use. The right of procreational autonomy will generally suggest not allowing implantation against one party's will. However, there may be instances where the right to procreational autonomy does warrant implantation against one party's will. If one gamete provider detrimentally relies on the other gamete provider's overt statements guaranteeing that the embryos will be available for implantation, equity would demand that the guaranteeing party waive his or her right to avoid use of the embryos. Some commentators have supported another exception in deferring to the party seeking to avoid procreation. Relying on both the positive and negative constitutional rights of procreative autonomy, it has been argued that deference should be given to the right which, once lost, can never be regained. [FN183] For example, if a man tells a woman that their embryos would be available for implantation and she should have her fallopian tubes removed to avoid the chance of in coitus reproduction, then her claim to use of the embryos for her personal implantation would trump his right to procreational autonomy. Because the removal of women's fallopian tubes is irreversible, a man must accept the irreversible consequences of this under an implied or express contract theory.

In a situation where the parties disagree between adoptive and scientific use, scientific use should prevail. Two policies support this preference. First, by avoiding adoptive implantation procreational rights are protected. Second, by allowing embryos to be used for scientific research, we support the advancement of science. When parties disagree and destruction is pitted against adoptive implantation, a similar rationale applies, and the embryos should be destroyed. Likewise, when continued storage is sought against adoptive implantation, respecting procreational rights mandates that the embryos remain stored.

A precarious situation arises when one party wants the embryos used for science and the other party wants the embryos destroyed. In this instance no procreational right need be protected, and the embryo will ultimately be destroyed. This situation does, however, present a question where deontological reasoning and utilitarian reasoning might yield different results. Deontological reasoning requires a finding of morality. The moral dilemma spawned from destroying an embryo for scientific purposes (that is, whether it is socially appropriate to perform scientific testing on potential life) is irresolvable using a deontological framework, so we are forced to turn to utilitarian foundations as a guidepost. As

already noted, society at large benefits from science, and because both parties have an equal interest in the disposition of the embryos, the interest that better suits society should triumph over an individual's preference. Thus, it is suggested that embryos be donated for scientific use when one party seeks to aid science and the other favors simple destruction.

***300** Another precarious situation in which procreational rights are not involved occurs when one party seeks to donate the embryos to science and the other seeks continued storage of the embryos. In this situation, it is suggested that the embryos be stored indefinitely. After being frozen for five years, scientific authorities find that while the percentage of successful implantation is minimal, scientific potential is viable. There remains a possibility that the gamete providers will alter their agreement on the disposition and, thus, the potential for life, while minimal, remains. In this instance, the potential for life outweighs the interest in science.

Lastly, a situation may arise where continued storage must be weighed against destruction. Because there is potential for human life in a frozen embryo, continued storage weighs heavier than destruction. It is also possible that the gamete providers will later come to an agreement to allow for implantation, and, thus, storing the embryos has a stronger interest than destruction.

Regardless of the existence of a contract, courts appear to decide issues of frozen embryo disposition on policy grounds, giving great weight to the right to avoid procreation. Courts recognize that embryos are not just chattel. Rather, embryos deserve special respect. According special respect to embryos is a judicial path that courts have trodden because the disposition of embryos implicates important public policy concerns. Clearly, the potential for human life bound up in a frozen embryo is entitled a level of respect greater than ordinary chattel. Nonetheless, gamete providers clearly have some property interest in the embryos, but a court will not allow a contract to govern where it is violative of public policy.

Where public policy and the right of a person to avoid procreation is the true concern, it is possible to evaluate the guiding principles and develop a decisional model for disposition. Application of the suggested chart will accord deserved respect to frozen embryos while maintaining an individual's right to procreational autonomy. Legal theories constantly try to adjust to scientific advancement, so it is important to establish a discourse on the legal basis for embryonic disposition. [FN184] Evaluating the policy and defining the legal boundaries for the disposition of embryos are timely and fitting because they will bring needed clarity and certainty to physicians, patients, lawyers, and the courts.

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[FN1]. See infra Part IV on procreational autonomy.

[FN2]. See Griswold v. Connecticut, 381 U.S. 479, 484 (1965).

[FN3]. Roe v. Wade, 410 U.S. 113, 153 (1973); Planned Parenthood of Southeastern Pa. v. Casey, 505 U.S. 833, 846 (1992).

[FN4]. Planned Parenthood, 505 U.S. at 846.

[FN5]. Older women generally have higher infertility rates than younger women. One reason for these increased rates is the biological effects associated with age. See ARTHUR L. WISOT, M.D. & DAVID R. MEDRUM, M.D., CONCEPTIONS AND MISCONCEPTIONS 58-60 (2d ed. 2004). Fourteen percent of married couples where the wife is between 30-34 years of age are naturally infertile. JOHN A. ROBERTSON, CHILDREN OF CHOICE 97-98 (1994) [hereinafter CHILDREN OF CHOICE]. The infertility rate increases to 25 percent for women aged 35-39. Id. It is important to note that infertility in other age groups is on the rise. For example, the infertility rate of women of aged 20-24 has increased from 4 to 11 percent from 1965 to 1982. Id.

[FN6]. Estimates show that at least 10% of American couples are infertile. BARRY R. FURROW ET AL., BIOETHICS: HEALTH CARE LAW AND ETHICS 106 (5th ed. 2001).

[FN7]. Id.

[FN8]. Id.

[FN9]. Id.

[FN10]. Id.

[FN11]. CHILDREN OF CHOICE, supra note 5, at 98.

[FN12]. Id.

[FN13]. Id. at 99.

[FN14]. The IVF process explained below was adapted from Abington Reprod. Med., Our Services: In Vitro Fertilization, at http://www.abington-repromed.com/our_services/content_layout2.cfm?pid=2 (last visited Apr. 15, 2005).

[FN15]. After fertilizing the eggs in vitro, they are placed into the woman's uterus 48 to 72 hours later so they can implant and develop to term in the womb. CHILDREN OF CHOICE, supra note 5, at 8-9, 98. After placement in the uterus, it normally takes six to nine days for the embryo to implant in the uteral lining. Id. at 101.

[FN16]. See Advanced Fertility Center of Chicago, Embryo Freezing: Cryopreservation, at http://www.advancedfertility.com/cryo.htm (last visited Apr. 15, 2005).

[FN17]. See CENTERS FOR DISEASE CONTROL AND PREVENTION ET AL., 1996 ASSISTED REPRODUCTIVE TECHNOLOGY SUCCESS RATES 1, 6 (1998), available at http://www.cdc.gov/reproductivehealth/ART/ArchivedARTPDFs/art96_1.pdf. The year 1996 is the most recent year for national data about IVF.

[FN18]. CHILDREN OF CHOICE, supra note 5, at 98-99.

[FN19]. Id. at 109.

[FN20]. See Eisenstadt v. Baird, 405 U.S. 438, 453 (1972); Griswold v. Connecticut, 381 U.S. 479, 485-86 (1965); Skinner v. Oklahoma, 316 U.S. 535, 541 (1942).

[FN21]. Id.

[FN22]. See Eisenstadt, 405 U.S. at 453; Griswold, 381 U.S. at 485-86.

[FN23]. Eisenstadt, 405 U.S. at 453.

[FN24]. Meyer v. Nebraska, 262 U.S. 390, 399 (1923) (citing Slaughter-House Cases, 16 Wall. 36, 21 L. Ed. 394 (1872); Butchers' Union Co. v. Crescent City Co., 111 U.S. 746 (1884); Yick Wo v. Hopkins, 118 U.S. 356 (1886); Minnesota v. Barber, 136 U.S. 313 (1890); Allgeyer v. Louisiana, 165 U.S. 578 (1897); Lochner v. New York, 198 U.S. 45 (1905); Twining v. New Jersey, 211 U.S. 78 (1908); Chicago, Burlington & Quincy R.R. v. McGuire, 219 U.S. 549 (1911); Truax v. Raich, 239 U.S. 33 (1915); Adams v. Tanner, 44 U.S. 590 (1917); New York Life Ins. Co. v. Dodge, 246 U.S. 357 (1918); Truax v. Corrigan, 257 U.S. 312 (1921); Adkins v. Children's Hospital, 261 U.S. 525 (1923); Wyeth v. Thomas, 200 Mass. 474, 86 N.E. 925 (1909)).

[FN25]. See Carey v. Population Services Int'l, 431 U.S. 678, 693 (1977).

[FN26]. See, e.g., Planned Parenthood of Southeastern Pa. v. Casey, 505 U.S. 833, 847-849 (1992).

[FN27]. See Carey, 431 U.S. at 678.

[FN28]. Roe v. Wade, 410 U.S. 113, 152 (1973).

[FN29]. Whalen v. Roe, 429 U.S. 589, 599-600 (1977).

[FN30]. See Skinner v. Oklahoma, 316 U.S. 535, 541-42 (1942).

[FN31]. See Eisenstadt v. Baird, 405 U.S. 438, 453 (1972).

[FN32]. See Prince v. Massachusetts, 321 U.S. 158, 166 (1944).

[FN33]. Carey v. Population Services Int'l, 431 U.S. 678 (1977) ("[T]he Constitution protects individual decisions in matters of childbearing from unjustified intrusion by the state.").

[FN34]. Elisa Poole stated that the "Supreme Court should extend the fundamental procreative right to include control over one's genetic material." See Elisa K. Poole, Allocation of Decision-Making Rights to Frozen Embryos, 4 AM. J. FAM. L. 67, 82 (1990). Additionally, Lori Andrews, referring to Roe and its progeny, stated "[T]he Supreme Court's rhetoric can be interpreted to cover all procreative decisions." Lori Andrews, My Body, My Property, 16 HASTINGS CTR. REP. 28, 75 (Oct. 1986). Another

commentator has stated that the Due Process clause of the Fourteenth Amendment supports the idea that one has the right to make autonomous decisions regarding their personal and family lives. See Donna M. Sheinbach, Comment, Examining Disputes Over Ownership Rights to Frozen Embryos: Will Prior Consent Documents Survive If Challenged by State Law and/or Constitutional Principles?, 48 CATH. U. L. REV. 989, 996 (1999). Indeed, even the Tennessee Supreme Court suggested that the right not to procreate was a negative constitutional right; that is, a right that protects individuals from the unwanted interference of others. See Davis v. Davis, 842 S.W.2d 588 (Tenn. 1992).

[FN35]. John A. Robertson, Resolving Disputes Over Frozen Embryos, HASTINGS CTR. REP., Nov.-Dec. 1989, at 7-8.

[FN36]. In Kass v. Kass, 663 N.Y.S.2d 581, 593 (N.Y.A.D. 1997), the court stated, "once lost, the right not to procreate can never be regained." Implantation of an embryo after IVF must be distinguished from adoption. By the time a child is adopted, the immutable genetic link between child and parent has been established. Thus, adoption does not implicate procreational autonomy. IVF, on the other hand, creates the genetic tie of a child and parent. IVF is unique in this sense that it is physically impossible to establish a child-parent link without implantation. The American Bar Association has proposed an opt-out provision that would allow a gamete provider to take on donor status and relinquish parental rights or responsibilities. See Assisted Reproductive Technologies Model Act, Assisted Reproduction and Genetic Technologies Committee, Family Law Section, American Bar Association, Dec. 1999, available at http://www.abanet.org/ftp/pub/family/art_monograph.doc) (last visited Jan. 24, 2005). Like adoption, however, the opt-out provision fails to consider the genetic link unique to IVF coupled with a dispute between gamete providers.

[FN37]. Flagg Bros. Inc. v. Brooks, 436 U.S. 149, 156 (1978) ("most rights secured by the Constitution are protected only against infringement by governments").

[FN38]. It must be noted that the judiciary's enforcement of a contract may constitute state action, although the boundaries of this doctrine are unclear. See Edwards v. Habib, 397 F.2d 687, 691 (D.C. Cir. 1968) (discussing Shelley v. Kraemer, 334 U.S. 1 (1948), where the Court ruled that judicial enforcement of private agreements containing restrictive covenants against selling to Negroes violated the Fourteenth Amendment).

[FN39]. See Black v. Cutter Laboratories, 351 U.S. 292, 299 (1956).

[FN40]. The primitive streak is the neurological axis that eventually forms the spinal cord and defines the location of head, back, and belly.

[FN41]. Other commentators and authorities use various terms such as "pre-embryo" or "zygote" to define the organism; however, for ease of reading, this paper will refer to the organisms frozen during IVF as "embryos."

[FN42]. ANDREA L. BONNICKSEN, IN VITRO FERTILIZATION, BUILDING POLICY FROM LABORATORIES TO LEGISLATURES 40 (1989); see Kimberley E. Diamond, Cryogenics, Frozen Embryos and the Need for New Means of Regulation; Why the U.S. Is Frozen in Its Current Approach, 11 N.Y. INT'L L. REV. 77, 87 (1998).

[FN43]. See Colleen M. Brown & Brian J. Hynes, The Legal Status of Frozen Embryos: Analysis and Proposed Guidelines for a Uniform Law, 17 J. LEGIS. 97, 113 (1990); David G. Dickman, Symposium, Social Values in a Brave New World: Toward a Public Policy Regarding Embryo Status and In Vitro Fertilization, 29 ST. LOUIS U. L.J. 817 (1985). See also John A. Robertson, In the Beginning: The Status of Early Embryos, 76 VA. L. REV. 437 (1990). Florida, Kentucky, Louisiana, New Hampshire, and Pennsylvania all have statutes that attempt to resolve IVF disposition problems. See Fla. Stat. ch. 742.17 (1993) (prescribing disposal methods and establishing inheritance rights in embryos); Ky. Rev. Stat. Ann. § 311.715 (Michie 1995) (prohibiting use of public funds for IVF research or procedures); La. Rev. Stat. Ann. § § 9:122-33 (West 1991) (detailing legal status, ownership, inheritance rights, of embryos and giving them the status of a juridical person); N.H. Rev. Stat. Ann. § § 168-B:13-15 (1994 & Supp. 1996) (defining eligibility, limiting donors, and restricting usage of embryos); Pa. Stat. Ann. § § 3213(e), 3216(c) (West 1983 & Supp. 1998) (giving reporting requirements for IVF). The statutes of Illinois, Massachusetts, and Michigan indicate consequences of experimental research and disposition of embryos outside of IVF. See 720 Ill. Comp. Stat. 510/6 (West 1996) (stating that IVF is outside the scope of prohibitions against fetal experimentation); Mass. Gen. Laws ch. 112, § 12J(a) (1996) (prohibiting experimentation on human fetuses and not citing IVF); Mich. Comp. Laws § 333.2685 (1979) (prohibiting experimentation on human fetuses and not citing IVF). Virginia requires that IVF patients execute a disclosure form, but the form only relates to HIV and success rates. See Va. Code Ann., § 54.1-2971.1 (1998). See also Sheinbach, supra note 34, at 989 n.80. Minnesota, Louisiana, and Illinois have altered homicide laws that now arguably forbid the intentional destruction of extracorporeal embryos. Minn. Stat. Ann. § § 609.2661-63, 609.2665 (West 1987 and Supp. 1990) (establishing punishment for the murder of an unborn); La. Rev. Stat. Ann. § § 9:122-33 (West 1991) (giving an embryo the rights of a person); Ill. Ann. Stat. ch. 38, para. 9-1.2(3)(b) (Smith-Hurd Supp. 1989) (making it a crime to kill an unborn child and defining an unborn child at fertilization).

[FN44]. Ethics Committee of The American Fertility Society, Ethical Considerations of the New Reproductive Technologies, 53 J. AM. FERTILITY SOC'Y 34 (Supp. 1999).

[FN45]. See HEW Support of Research Involving Human In Vitro Fertilization and Embryo Transfer, 44 Fed. Reg. 35,033, 35,056 (June 18, 1979) ("[T]he human preembryo is entitled to profound respect; but this respect does not necessarily encompass the full legal and moral rights attributed to person(s).").

[FN46]. 505 U.S. 833, 879 (1992).

[FN47]. Webster v. Reproductive Health Services, 492 U.S. 490 (1989).

[FN48]. Roe v. Wade, 410 U.S 113, 132 (1973) ("It is undisputed that at common law, abortion performed before 'quickening'--the first recognizable movement of the fetus in utero, appearing usually from the 16th to the 18th week of pregnancy--was not an indictable offense.")

[FN49]. The author refers to the "life continuum" as the process of life. Life cannot be said to start at any defined point; rather it is a process, and thus early in the process are embryos and fetuses.

[FN50]. In a recent survey, the Arkansas Supreme Court noted that, "Thirty-two jurisdictions permit a wrongful-death action on behalf of a viable fetus (of those thirty-two jurisdictions, four permit an action

for an unviable fetus (Connecticut, Missouri, South Dakota, and West Virginia)). Four jurisdictions permit an action, even for unviable fetuses, but have a live birth or stillbirth requirement (Louisiana, Maryland, Oklahoma, and Pennsylvania). One jurisdiction permits an alternative remedy by allowing an action for damages resulting in stillbirth caused by negligence (Florida). One jurisdiction noted in dicta that a wrongful-death action might be permitted but declined to reach the merits on procedural grounds (Utah). Three jurisdictions prohibit an action for an unborn nonviable fetus but have not reached the issue of whether a viable fetus may maintain an action (Alaska, Oregon, and Rhode Island). Four jurisdictions have no case law on the issue (Colorado, Guam, Puerto Rico, and Wyoming). Only nine jurisdictions reject a wrongful-death action for a viable fetus." See AKA v. Jefferson Hosp. Ass'n, Inc., 42 S.W.3d 508, 515 n.2 (Ark. 2001); see also Dena M. Marks, Person v. Potential: Judicial Struggles to Decide Claims Arising from the Death of an Embryo or Fetus and Michigan's Struggle to Settle the Question, 37 AKRON L. REV. 41 (2004) (surveying the states' approach to a fetal wrongful death claim).

[FN51]. Thornburgh v. Am. C. of Obstetricians and Gynecologists, 476 U.S. 747, 779 n.8 (1986) (Stevens, J., concurring).

[FN52]. CHILDREN OF CHOICE, supra note 5, at 104-05.

[FN53]. Sheinbach, supra note 34, at 1007.

[FN54]. See Unif. Anatomical Gift Act § 3 (1987).

[FN55]. Id. § 1(7).

[FN56]. See Del Zio v. Columbia Presbyterian Hospital, No. 71-3588 (S.D.N.Y. 1978) (doctor destroyed incubating pre-embryo and cause of action for intentional infliction of emotional distress was recognized). Negligent or inadvertent destruction of embryos would also be actionable. See CHILDREN OF CHOICE, supra note 5, at 105.

[FN57]. See York v. Jones, 717 F. Supp. 421, 424-25 (E.D. Va. 1989).

[FN58]. Davis v. Davis, 842 S.W.2d 588, 594 (Tenn. 1992); see also Hamby v. McDaniel, 559 S.W.2d 774 (Tenn. 1977) (holding that a viable fetus which is stillborn is not a "person" under wrongful death statute); Durrett v. Owens, 371 S.W.2d 433 (Tenn. 1963); cf. Shousha v. Matthews Drivurself Service, 358 S.W.2d 471 (Tenn. 1962) (holding that viable child receiving prenatal injuries has a cause of action conditioned upon being born alive).

[FN59]. Davis, 482 S.W.2d at 597.

[FN60]. Roe v. Wade, 410 U.S. 113, 162 (1973).

[FN61]. 717 F. Supp. 421, 425 (E.D. Va. 1989).

[FN62]. See Daniel I. Steinberg, Note, Divergent Conceptions: Procreational Rights and Disputes Over the Fate of Frozen Embryos, 7 B.U. PUB. INT. L. J. 315, 318 (1998). Only one in ten embryos implant

to result in a true pregnancy. After implantation in the uterine wall, 60 to 70 percent of pregnancies result in a live birth. Robertson, supra note 43, at 443.

[FN63]. Id. at 454-55.

[FN64]. Andrews, supra note 34, at 36.

[FN65]. In advocating application of the chattel label to the embryo, the author is merely trying to clear muddied waters. It is understood that, like the sale of organs, the law may find it violative of public policy to have a free market in embryos. However, it should then be noted that organs are chattel and owners have circumscribed rights and an embryo arguably is no different. More pointedly stated, call it decisional-property, quasi-property, or something else for purposes of paying respect, but understand that, absent a contrary public policy, an embryo is simply chattel. See Patricia A. Martin & Martin L. Lagod, The Human Preembryo, The Progenitors, and the State: Toward a Dynamic Theory of Status, Rights, and Research Policy, 5 HIGH TECH. L. J. 257 (1990) (discussing giving pre-embryos respect but advocating the use of embryos for research).

[FN66]. See BONNICKSEN, supra note 42, at 40.

[FN67]. See Diamond, supra note 42, at 87.

[FN68]. Roe v. Wade, 410 U.S. 113, 154 (1973); Planned Parenthood of Southeastern Pa. v. Casey, 505 U.S. 833, 871 (1992).

[FN69]. See supra note 68; see also Planned Parenthood v. Danforth, 428 U.S. 52, 71 (1976) ("Inasmuch as it is the woman who physically bears the child and who is the more directly and immediately affected by the pregnancy, as between the two, the balance weighs in her favor.")

[FN70]. See Planned Parenthood, 428 U.S. at 52.

[FN71]. See supra Part II regarding the constitutional basis of procreational autonomy.

[FN72]. Davis v. Davis, 842 S.W.2d 588, 601 (Tenn. 1992) ("[A] right to procreational autonomy is inherent in our most basic concepts of liberty.").

[FN73]. See generally Planned Parenthood of Southeastern Pa., 505 U.S. at 869-70.

[FN74]. Cruzan v. Director, Missouri Dept. of Health, 497 U.S. 261, 280 (1990).

[FN75]. Id. at 335 (Stevens, J., dissenting) (citing Cruzan v. Harmon, 760 S.W.2d 408, 419 (Mo. 1988)).

[FN76]. See supra notes 52-67 and accompanying text for discussion of embryos as a potential for life.

[FN77]. See supra Part II explaining that the right to avoid procreation is grounded in the Constitution.

[FN78]. 842 S.W.2d 588 (Tenn. 1992), cert. denied, 507 U.S. 911 (1993).

[FN79]. Id. at 589.

[FN80]. Id. at 591.

[FN81]. Id.

[FN82]. Id. at 604. The court held that one gamete provider's right to avoid procreation would always outweigh the right to donate the embryos to a surrogate couple. Id.

[FN83]. Id.

[FN84]. Id. at 597.

[FN85]. Id. at 598.

[FN86]. Id. at 598-600.

[FN87]. Id. at 600.

[FN88]. Id. at 601.

[FN89]. Id. at 602. The court found that although an embryo could be implanted and cared for only by gestationally linked parents, the gamete providers still become genetic parents and thus maintain a procreational right that gives the gamete providers sole decisional authority relating to the embryo's disposition. Id. at 603.

[FN90]. Id. at 597.

[FN91]. Id. at 597.

[FN92]. Id.

[FN93]. Id. at 598.

[FN94]. 696 N.E.2d 174 (N.Y. 1998).

[FN95]. Id. at 178-79.

[FN96]. Id. at 180.

[FN97]. Id.

[FN98]. Id.

[FN99]. Id.

[FN100]. Id.

[FN101]. Id. at 180-82.

[FN102]. A.Z. v. B.Z., 725 N.E.2d 1051, 1052-54 (Mass. 2000).

[FN103]. Id. at 1052. The couple used gamete intrafallopian transfer (GIFT), which involves the surgical placement of retrieved eggs and sperm into a woman's fallopian tubes through a needle inserted near the navel. See Abington Reproductive Medicine, Our Services: In Vitro Fertilization, at http://www.abington-repromed.com/our_services/conten_layout2.cfm?pid =2 (last visited Apr. 15, 2005).

[FN104]. A.Z., 725 N.E.2d at 1053.

[FN105]. Id.

[FN106]. Id. at 1054.

[FN107]. Id. It is important to note here that the form was deficient because it listed contingencies and only provided what would happen "should [the couple] become separated," and not what would happen should the couple become "divorced." Id.

[FN108]. Id. at 1056.

[FN109]. Id. at 1057.

[FN110]. Id. at 1056.

[FN111]. Id.

[FN112]. Id.

[FN113]. Id. at 1057.

[FN114]. Id.

[FN115]. Id.

[FN116]. Id.

[FN117]. Id. While the court squarely states that a contract forcing procreation is unenforceable, that statement is narrowed where the holding does not necessarily apply to forced procreation through implantation in a surrogate. Id. at 1058 n.22.

[FN118]. Id. at 1058-59 (citing Moore v. East Cleveland, 431 U.S. 494, 499 (1977)). The Court also

notes the unenforceability of a promise to marry, promise not to marry, contract binding individuals to future familial relations, and surrogacy without a reasonable waiting period. Id.

[FN119]. Litowitz v. Litowitz, 10 P.3d 1086 (Wash. Ct. App. 2000) [hereinafter Litowitz I], overruled by Litowitz v. Litowitz, 48 P.3d 261 (Wash. 2002) [hereinafter Litowitz II], cert. denied, 537 U.S. 1191 (2003).

[FN120]. Litowitz I, 10 P.3d at 1087-88.

[FN121]. Id. at 1088.

[FN122]. Id.

[FN123]. Id. at 1088-89.

[FN124]. Litowitz II, at 528-29.

[FN125]. Litowitz I, at 1089.

[FN126]. Id. at 1091.

[FN127]. Id. at 1092.

[FN128]. Id. at 1088. The court drew a distinction in the contract that provided the use of the eggs was only for David and Becky and found that David may not need permission to use the embryos because they were no longer "eggs" governed by the contract. Id. at 1093. The concurring opinion analogized Becky to seeking to control David's reproductive function and found that, as a constitutional matter, David maintained a privacy interest in the reproductive function and a fundamental right to procreative choice. Id. at 1093-95 (Bridgewater, J., concurring).

[FN129]. In overruling the Washington Court of Appeals, the Supreme Court of Washington focused on a provision of the cryopreservation contract that called for the thawing of the embryos after five years. Litowitz II, 48 P.3d at 261. The Washington Supreme Court acknowledged that if the embryos had not been thawed, the court could properly consider their disposition under the cryoperservation contract. Id. at 269. However, the court then noted that if the embryos had been thawed, the issue would be moot. Id. Thus, the supreme court reversed the court of appeals based on an insufficient record--a mere technicality. Id. Accordingly, the reasoning found in the court of appeals' decision is still instructive when considering the issue of embryo disposition.

[FN130]. J.B. v. M.B., 783 A.2d 707 (N.J. 2001).

[FN131]. Id. at 709.

[FN132]. Id. at 709-10.

[FN133]. Id. at 710.

[FN134]. Id. at 713-14.

[FN135]. Id. at 714-16.

[FN136]. Id. at 717.

[FN137]. Id.

[FN138]. Id.

[FN139]. Id.

[FN140]. Id.

[FN141]. Id.

[FN142]. Id. at 720. In concurrence, two justices suggested that an infertile party's interest would outweigh a party's right to avoid procreation absent "countervailing factors of greater weight." Id. (Verniero, J., concurring).

[FN143]. Id. at 719.

[FN144]. In re Marriage of Witten, 672 N.W.2d 768 (Iowa 2003).

[FN145]. Id. at 772.

[FN146]. Id.

[FN147]. Id.

[FN148]. Id. at 772.

[FN149]. Id. at 772-73.

[FN150]. Id. at 773.

[FN151]. Id. at 782 (quoting J.B. v. M.B., 783 A.2d 707, 719 (2001)).

[FN152]. Marriage of Witten, 672 N.W.2d at 782.

[FN153]. Id. at 781.

[FN154]. Id.

[FN155]. Id. at 782.

[FN156]. Id.

[FN157]. Id. at 783. The court was careful to note that its holding did not affect the obligation of the party storing the embryos and that "party or parties who oppose destruction shall be responsible for any storage fees." Id.

[FN158]. Compare Kass v. Kass, 696 N.E.2d 174, 182 (N.Y. 1998) (enforcing a contract), with A.Z. v. B.Z., 725 N.E.2d 1051, 1059 (Mass. 2000) (invalidating a contract).

[FN159]. Paula Walter, His, Hers, or Theirs--Custody, Control, and Contracts: Allocating Decisional Authority Over Frozen Embryos, 29 SETON HALL L. REV. 937, 959-68 (1999).

[FN160]. Id.

[FN161]. Id. at 959-60.

[FN162]. See Tanya Feliciano, Note, Davis v. Davis: What About Future Disputes?, 26 CONN. L. REV. 305, 346 (1993).

[FN163]. See Walter, supra note 159, at 965; Kass, 696 N.E. 2d at 180 (indicating that the voluntary aspect of the contract could be an issue); see also In Re Witten, 672 N.W.2d 768 (2003) (requiring mutual consent of both gamete providers).

[FN164]. See Robertson, supra note 43, at 476-81.

[FN165]. State decisions are in accord with granting the power to the progenitors; states have recognized the potential for human life but placed the interests of the gamete providers above those of the embryo. See Sheinbach, supra note 34, at 1007.

[FN166]. See supra notes 37-39 arguing that the Constitution may not govern private contract agreements.

[FN167]. It is generally good public policy to respect procreational autonomy where the adverse affects of unwanted parenthood can be devastating. See Sheinbach, supra note 34, at 1027. In this sense, the right to procreational autonomy can be equated to the right to avoid procreation. See supra Part IV, arguing that the right to avoid procreation is superior to the right to procreate, which is limited by nature.

[FN168]. See Martin & Lagod, supra note 65; see also George J. Annas et al., The Politics of Human-Embryo Research--Avoiding Ethical Gridlock, 334 NEW ENG. J. MED. 1329, 1330 (1996) (The symbolic value of the embryos should not preclude important advances in medicine.); BONNIE STEINBOCK, LIFE BEFORE BIRTH: THE MORAL AND LEGAL STATUS OF EMBRYOS AND FETUSES 197, 209 (1992). The idea that society benefits from scientific advancement is not limited to embryonic disposition.

[FN169]. One commentator has developed a similar theory based on inalienable rights and mutual

consent. However, under that theory embryos are required to be stored indefinitely until the gamete providers can come to a mutual agreement. See generally Carl H. Coleman, Procreative Liberty and Contemporaneous Choice: An Inalienable Rights Approach to Frozen Embryo Disputes, 84 MINN. L. REV. 55 (1999); see also In re Marriage of Witten, 672 N.W.2d 768, 783 (Iowa 2003) (requiring mutual consent of both gamete providers).

[FN170]. See Feliciano, supra note 162, at 346.

[FN171]. See Walter, supra note 159, at 963.

[FN172]. See supra note 168 and accompanying text.

[FN173]. The veto power is supported by Elisa Poole who stated that "[b]oth donors should have the same basic rights to make procreative decisions" and that "each donor must be able to veto the implantation of any embryo ... in order for the individual to avoid the burdens of unwanted parenthood." See Poole, supra note 34, at 81, 90.

[FN174]. See, e.g., Lori B. Andrews, Legal Status of the Embryo, 32 LOY. L. REV. 357, 406 (1986).

[FN175]. Walter, supra note 159, at 962.

[FN176]. John A. Robertson addressed the issue of "sweat equity." While concluding that the woman suffers greater physical hardship in the IVF process, Robertson concludes that the difference in the bodily burdens is not so great that it should automatically determine decisional authority. Robertson, supra note 35, at 7. See also Davis v. Davis, 842 S.W.2d 590 n.4, 601 (Tenn. 1992) (noting the issue of "sweat equity").

[FN177]. Sheinbach, supra note 34, at 989 n.225.

[FN178]. See Carol H. Coleman, Procreative Liberty and Contemporaneous Choice: An Inalienable Rights Approach to Frozen Embryo Disputes, 84 MINN. L. REV. 55, 64 (1998).

[FN179]. See Robertson, supra note 35, at 8 (noting the irreversible harm of allowing one to give birth against a gamete provider's wishes); Davis v. Davis, 842 S.W.2d 588, 604 (Tenn. 1993) ("Ordinarily, the party wishing to avoid procreation should prevail assuming that the other party has a reasonable possibility of achieving parenthood by means other than use of the preembryos in question.").

[FN180]. Sheinbach, supra note 34, at 1025-27 (emotional burdens on parent and child when parent does not desire the child; strain accompanying unwilling parenthood, including psychological harm, ability to provide care for the child, guilt, attachment, and the responsibility associated with not knowing about a biological child).

[FN181]. See text accompanying infra note 177 for a discussion of detrimental reliance.

[FN182]. It should be noted that the veto trump card is very powerful and thus under appropriate circumstances the veto power can be obviated. Id.

[FN183]. See Lee M. Silver & Susan Remis Silver, Confused Heritage and the Absurdity of Genetic Ownership, 11 HARV. J.L. & TECH. 593, 614 (1998).

[FN184]. See, e.g., When Science Outruns Law, WASH. POST, Op-Ed, July 13, 1990, at A 20, col. 1 ("California's Supreme Court has just offered a compelling reminder of the promise of biotechnology--and of the obsolescence of the law that now governs it.") (referencing Moore v. Regents of the Univ. of Cal., 793 P.2d 479 (Cal. 1990), cert. denied, 449 U.S. 936 (1991)).

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