Articles

THE TROUBLE WITH PUTTING ALL OF YOUR EGGS IN ONE BASKET: USING A PROPERTY RIGHTS MODEL TO RESOLVE DISPUTES OVER CRYOPRESERVED PRE-EMBRYOS

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I. INTRODUCTION

"[S]cientists were so pre-occupied with whether or not they *could*, that they didn't stop and think if they *should*." This quote highlights the all-too-common tug of war between science and morality. However, we no longer grapple with this tension between science and morality in the world of in vitro fertilization (IVF), surrogacy, and cryopreservation. Instead, we can, we do, and we will. The relevant question is, once again, how does the law play catch up to science? The practice of IVF with human embryos has expanded since the first successful live birth of a "test-tube baby" in 1978. During IVF, eggs are surgically removed from the ovary and mixed with sperm outside the body in a petri dish. Forty hours later, the eggs are examined to see if they have become fertilized by the sperm and are dividing into cells. These fertilized eggs—embryos—are then placed in the woman's uterus.

In 1983, scientists first successfully implanted a cryopreserved embryo. During cryopreservation, embryos are stored below the critical temperature of negative 130 degrees Celsius, which allows the preservation of cells and tissues for an apparently indefinite period of time without decrease in viability.

The practice of cryopreserving embryos has since grown by leaps and bounds. This industry growth has resulted in more embryos being

^{1.} JURASSIC PARK (UNIVERSAL STUDIOS 1993).

^{2.} Paul C. Redman II & Lauren Fielder Redman, Seeking a Better Solution for the Disposition of Frozen Embryos: Is Embryo Adoption the Answer?, 35 TULSA L.J. 583, 584 (2000).

^{3.} American Society for Reproductive Medicine, Frequently Asked Questions About Infertility, http://www.asrm.org/Patients/faqs.html#5 (last visited Apr. 19, 2009) [hereinafter ASRM FAQs].

^{4.} Id.

^{5.} Id.

^{6.} S.P. Leibo, Cryopreservation of Oocytes and Embryos: Optimization by Theoretical Versus Empirical Analysis, 69 THERIOGENOLOGY 43 (2008).

^{7.} G. Cotticchio, M.A. Bonu, A. Borini & C. Flamigni, *Oocyte cryopreservation: a biological perspective*, 115S EUR. J. OBSTETRICS & GYNECOLOGY & REPROD. BIOLOGY S2, S2 (2004).

created than are needed in advance of the IVF process. The latest actual data showed that as of April 11, 2002, a total of 396,526 embryos had been placed in storage in the United States.⁸ A more recent estimate is somewhere around 500,000 as of October 2008.⁹

Of the 396,526 embryos stored as of April 11, 2002, the vast majority—88.2%—were stored for family building. However, the entire 88.2% designated for family building will not necessarily be used in that manner; once families are created, or a divorce or death occurs, or feelings change, some of those embryos are left unused. What happens to the leftover embryos?

Courts have struggled with this problem, which is often exacerbated when the parties who originally came together to create cryopreserved embryos no longer agree about the embryos' fate. At the heart of the problem is a question as to the legal identity of cryopreserved embryos: Are they property? Are they people? Or are they something else? Modern legal systems have developed frameworks that apply to property, and others that apply to persons, with little overlap between the two. Until we determine the legal identity of cryopreserved embryos, application of existing law to these unique problems will remain inconsistent at best.

Only a handful of state legislatures have passed statutes dealing with the IVF process's destruction of human embryos. ¹¹ Thus, state courts across the country have been wading into this quagmire with little legislative guidance. These courts are addressing complex issues entangled in ethical and moral implications. In order to determine the nature of human embryos and how they should be treated under the law, part of what must be embraced is a non-ideal theory. ¹²

^{8.} David I. Hoffman, Gail L. Zellman & C. Christine Fair, How Many Frozen Human Embryos Are Available for Research? RAND LAW & HEALTH RESEARCH BRIEF 1 (2003), available at http://www.rand.org/pubs/research_briefs/RB9038/RB9038.pdf.

^{9.} Shari Roan, On the Cusp of Life and of Law, L.A. TIMES, Oct. 16, 2008, at A1.

^{10.} Hoffman et al., supra note 8, at 1. As for the other 11.8%, 2.8% were designated for research, 2.3% were awaiting donation to another patient, 2.2% were to be discarded, and 4.5% were held in storage for other reasons including lost contact with a patient, patient death, abandonment, and divorce. Id.

^{11.} The only states that currently have statutes addressing the IVF process and destruction of human embryos are New Hampshire, Florida, New Jersey, Massachusetts, California and Louisiana; Louisiana's is the most comprehensive of these statutes. See N.H. Rev. Stat. Ann. § 168-B:15 (2008); Fla. Stat. § 873.05 (2009); N.J. Stat. Ann. § 26:22-2 (West 2009); Mass. Gen. Laws ch. 111L, § 8 (2009); Cal. Health & Safety Code § 125315 (West 2009); La. Rev. Stat. Ann. § 9:121-33 (2009). Other states, including Kentucky, Minnesota, Arkansas, Maryland, Illinois, Hawaii, Texas, Iowa, Rhode Island, Kansas, Michigan, New York, and South Dakota have addressed IVF on more limited scales that do not directly address the destruction or handling of embryos. See Ky. Rev. Stat. Ann. § 311.715 (West 2008); Ark. Code Ann. §§ 23-86-118, 23-85-137 (2007); Md. Code Ann., Ins. § 15-810 (2008); 215 Ill. Comp. Stat. 5/356m (2008); Haw. Rev. Stat. § 431:10A-116.5 (2008); Tex. Ins. Code Ann. §§ 1366.010-7 (Vernon 2008); Tex. Fam. Code Ann. §§ 160.102, 160.706, 160.754 (Vernon 2008); Iowa Code Ann. § 598.41 (West 2009); R.I. Gen. Laws § 27-18-30 (2008); Kan. Stat. Ann. §§ 65-6701, 6702 (2007); MICH. Comp. Laws § 33.2685 (2008); Conn. Gen. Stat. Ann. §§ 19a-32d, 38a-536, 45a-771a (West 2009); N.Y. Ins. Law § 3221 (McKinney 2009) (repealed 2009); S.D. Codified Laws §§ 34-14-16, 17 (2008).

^{12.} See Radin, Margaret Jane, Contested Commodities: The Trouble With Trade in Sex, Children, Body Parts, and Other Things 63 (1996).

Section II of this article will address the medical issues surrounding IVF. Section III analyzes the history of legal disputes surrounding IVF. Section IV explains why classifying the embryo as "property with special dignity" is the best way both to promote life and to give significant autonomy to those individuals seeking to preserve their embryos. Section V will discuss the need for legislative guidance and present a proposed legislative framework for state governments to provide structure in this problematic area. Finally, Section VI will discuss how previously decided cases' outcomes would have differed had the courts applied the proposed model.

II. THE SCIENCE OF ASSISTED REPRODUCTION

Infertility, medically defined, is a disease of the reproductive system that impairs the body's ability to perform the basic function of reproduction.¹³ "Infertility affects about 7.3 million women and their partners in the U.S.—about 12% of the reproductive-age population."¹⁴ While it is reported that IVF accounts for less than 3% of infertility services, from 1985 to 2006, "almost 500,000 babies have been born in the United States as a result of reported Assisted Reproductive Technology Procedures (ART) with IVF accounting for 99% of the ART procedures."¹⁵ As of 2002, about one in every 100 babies born in the United States was conceived using some IVF procedure. ¹⁶

The IVF process begins with parents seeking to conceive their own biological child by undertaking treatment to provide their own gametes—sperm and ova or oocytes. ¹⁷ Acquiring oocytes used for IVF is more onerous, painful, and risky than acquiring sperm. ¹⁸ The oocyte source, "usually the gestational mother, undergoes a drug-induced process intended to stimulate her ovaries to produce many mature oocytes in a single cycle." ¹⁹ This process is referred to as "superovulation." ²⁰ Superovulation requires the daily injection of hormones accompanied by frequent monitoring using blood tests and

^{13.} ASRM FAQs, supra note 3.

^{14.} Id.

^{15.} Id.

^{16.} Id.

^{17.} THE PRESIDENT'S COUNCIL ON BIOETHICS, REPRODUCTION AND RESPONSIBILITY: THE REGULATION OF NEW BIOTECHNOLOGIES 24 (2004), available at www.bioethics.gov/reports/reproductionandresponsibility/chapter2.html.

^{18.} Id.

^{19.} *Id*.

^{20.} *Id.* The superovulation method is used in an attempt to obtain as many oocytes as possible to allow for a higher number to be fertilized at once compensating for "poor embryonic viability." *See* Michael Tucker, Paula Morton, & Juergen Liebermann, *Human oocyte cryopreservation: a valid alternative to embryo cryopreservation?*, 113S EUR. J. OBSTETRICS & GYNECOLOGY & REPROD. BIOLOGY S24, S24-S27 (2004).

ultrasound examinations.²¹ When the monitoring "suggests the oocytes are sufficiently mature, the clinician attempts to harvest them... [a] needle guided by ultrasound is inserted through the vaginal wall and into the mature ovarian follicles... [a]n ovum is withdrawn, along with some fluid, from each follicle."²²

Once the sperm and oocytes are collected, they are transferred into a culture medium containing the intended mother's blood serum.²³ "Once... properly prepared, the clinician attempts to induce fertilization—the union of sperm and ovum culminating in the fusion of their separate pronuclei and the initiation of a *new*, *integrated*, *self-directing organism*."²⁴ It is common practice to attempt to fertilize all available oocytes because cryopreservation of the oocyte without fertilization remains an experimental procedure.²⁵ There is currently a low success rate for the process due to the damage that may occur to the oocyte during freezing and thawing.²⁶

Once fertilized, there are surplus embryos not used in the IVF procedure because there are concerns about how many embryos may be implanted at one time.²⁷ Spare fertilized embryos are cryopreserved for future use because of the expense, emotional hardship, and potential for medical or surgical complications involved in the superovulation process and oocyte retrieval. ²⁸This is where the trouble begins. Cryopreservation is the current solution to the problem of what to do with the embryos not used in IVF or other ART procedures, but that very solution is what raises ethical and legal issues. Basically, there are five possible outcomes for the "surplus" embryo: (1) remain in cryostorage until transfer into the mother's uterus in the future; (2) donation to another person or couple seeking to have a baby; (3) donation for research; (4) remain in cryostorage indefinitely; or (5) destruction.²⁹ One of the most problematic issues is that the embryos "are co-owned by two people who may separate."30 Thus, the embryos face an uncertain fate often determined by courts of law.

As evidenced by the handful of court opinions that have addressed

^{21.} THE PRESIDENT'S COUNCIL ON BIOETHICS supra note 17, at 24.

^{22.} Id.

^{23.} Id.

^{24.} Id. (emphasis added).

^{25.} AM. SOC'Y FOR REPROD. MED., COMMITTEE REPORT BY THE PRACTICE COMMITTEE OF THE ASRM (2007) [hereinafter ASRM COMMITTEE REPORT].

^{26.} Cotticchio et al., supra note 7, at S2-S7. Studies have failed to reproduce consistently high survival and pregnancy rates, with the consequence that oocyte freezing is currently perceived as an experimental approach. Id. at S3. As of 2008, the difficulties of cryopreservation of the oocyte were still being explored. See Liebo, supra note 6, at 37. Dr. Marc Fritz, Chairman of the ASRM practice committee, stated, "Egg-freezing is still an experimental procedure." Nic Fleming, Women warned not to freeze their eggs, TELEGRAPH, Oct. 10, 2007, available at http://www.telegraph.co.uk/news/uknews/1566396/Women-warned-not-to-freeze-their-eggs.html.

^{27.} See Tucker et al., supra note 20, at S24.

^{28.} Redman et al., supra note 2, at 586.

^{29.} THE PRESIDENT'S COUNCIL ON BIOETHICS, supra note 17.

^{30.} Tucker et al., supra note 20, at S24.

the issue of the classification and treatment of the cryopreserved human embryo,³¹ there is an inconsistent use of terminology. Part of the problem with classifying this reproductive material is the ethical. scientific, philosophical, and religious question of when life begins. The word used to describe the fertilized human egg may significantly impact the perception of when life begins.³² Many scientists and ethicists posit that a fertilized human egg is not an embryo until at least uterine implantation and two weeks of development.³³ A number of ethicists and scientists have developed different names for human eggs fertilized outside the womb and not yet implanted in the womb, including "protoembryo," "pre-implantation embryo," and "pre-embryo." From this point forward, this article will use the term "pre-embryo" when discussing the embryo in the cryopreserved state prior to implantation. In addressing issues involving the legal status of the pre-embryo, this article will focus on the cryopreserved ovum fertilized up to 14 days before implantation in the uterus.³⁵

III. DISPUTES OVER DISPOSITION ARISING UNDER THE PRESENT STATE OF THE LAW

In the past two decades, several cases have focused our attention on the emotional and real problem of classifying pre-embryos. These cases arose when couples that created pre-embryos in an effort to have biological children of their own decided to divorce or end their relationships.

Courts have received little guidance from state legislatures. Accordingly, courts have created their own frameworks for analyzing these disputes. The frameworks fall into the following three categories: "the contractual approach, the contemporaneous mutual consent model, and the balancing test." Three states—New York, Tennessee, and Washington—utilize a contractual approach; in these states, "contracts entered into at the time of in vitro fertilization are enforceable so long as they do not violate public policy." The contractual approach has been

^{31.} See infra Section III.

^{32.} Louis M. Guenin, On Classifying the Developing Organism, 36 CONN. L. REV. 1115, 1121-30 (2004).

^{33.} Ann A. Kiessling, What is an Embryo?, 36 CONN. L. REV. 1051, 1088-89 (2004).

^{34.} Id

^{35.} See Davis v. Davis, 842 S.W.2d 588, 593 (Tenn. 1992) (noting that the term "preembryo" applies "up until 14 days after fertilization").

^{36.} In re Witten, 672 N.W.2d 768, 774 (Iowa 2003).

^{37.} Id. at 776. See also Davis, 842 S.W.2d at 588; Kass v. Kass, 696 N.E.2d 174 (N.Y. 1998); Litowitz v. Litowitz, 48 P.3d 261 (Wash. 2002). It appears that Texas may also utilize this contractual approach after the Roman v. Roman decision in 2007; however, that decision is from the First Court of Appeals in Houston and the petition for review to the Texas Supreme Court was denied. Roman v. Roman, 193 S.W.3d 40 (Tex. App.—Houston [1st Dist.] 2006, pet. denied), cert. denied, 128 S. Ct. 1662 (2008), and reh'g denied, 128 S. Ct. 2469 (2008). There may be another

criticized because it "insufficiently protects the individual and societal interests at stake." The first concern is that the issues involved implicate very personal, individual beliefs, and therefore individuals should be allowed to make such decisions with "their contemporaneous wishes, values and beliefs." The second concern is that "requiring couples to make binding decisions about the future use of the preembryos ignores the difficulty in predicting a person's future response to life-altering events." The third concern is that conditioning treatment on binding agreements "calls into question the authenticity" of the initial agreements as well. Tourth and finally, the binding contract approach "undermines important values about families, reproduction, and the strength of genetic ties." The concept of contemporaneous mutual consent developed as a result of these concerns with the contractual approach.

In the contemporaneous mutual consent model, decisions regarding the disposition of the pre-embryos can be made by the individuals who created them, and each party is entitled to participate in the decision of how the pre-embryos are to be disposed. While losing some of the certainty and predictability of the binding contract approach, the contemporaneous mutual consent model does not require couples to predict how they will feel about the pre-embryos years in the future. While compelled parenthood imposes burdens on an individual, mandatory destruction of a pre-embryo "can have equally profound consequences, particularly for those who believe that [pre-]embryos are persons." Therefore, the mutual consent model does not permit disposition of the pre-embryo without the contemporaneous mutual consent of both people who created the pre-embryo.

The third model is the balancing approach, which incorporates the idea of contemporaneous decision-making but not the mutual consent model. In this model, courts have focused on the principle that the better rule "is to enforce agreements entered into at the time in vitro fertilization has begun, 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 pre[-]embryos." The obvious problem with this approach is inconsistency. When parties are unable to agree in a particular case, courts would be required to weigh the specific relative interests of the

chapter to be written on this issue in Texas.

^{38.} Witten, 672 N.W.2d at 777.

^{39.} Id.

^{40.} Id.

^{41.} *Id*.

^{42.} Id.

^{43.} Id.

^{44.} *Id*.

^{45.} Id.

^{46.} Id. at 778.

^{47.} Id.

parties in deciding the disposition.⁴⁸

While the individuals who created the pre-embryos have the "primary, and equal, decision-making authority with respect to the use or disposition of their [pre-lembryos... it would be against public policy... to enforce a prior agreement between the parties in this highly personal area of reproductive choice when one of the parties has changed his or her mind concerning the disposition or use of the [pre-]embryos."49 In addition to the personal autonomy of the individuals, consideration must also be given to the fact that clinics and facilities need some guidance with respect to the desire of the parties and some framework within which to operate.⁵⁰ Therefore, even courts that have allowed the parties to change course from the original agreement have not held that the agreements between the parties and the fertility clinics have no validity.⁵¹ The agreements entered into with the clinic at the time the IVF process begins are enforceable and binding, but the parties can change their minds with respect to the disposition of the pre-embryos. A clinic is free to, and should, rely on an agreement entered into with the parties unless a party provides written notice that his or her intention has changed.52

The contemporaneous mutual consent model prohibits transfer, use, or disposition of the pre-embryos without the signed authorization of both donors. The event of a stalemate, the pre-embryos would be stored indefinitely. The party opposed to destruction would bear the storage expense. Therefore, the pre-embryos would remain in storage until some agreement could be reached. The party desiring to have a child will be prevented from doing so unless the other party changes his or her mind, but the non-consenting party will be prevented from donating or destroying them unless the other party changes his or her mind. The pre-embryos will remain in cryopreservation for some indefinite period of time.

The most recent case to shed light on this emotional battleground is that of *Roman v. Roman*.⁵⁶ Randy and Augusta Roman were married in 1997 and began trying to have children.⁵⁷ When their attempts proved unsuccessful, the Romans turned to artificial insemination as a means of conceiving a child.⁵⁸ Those efforts were also unsuccessful.⁵⁹ In 2001,

^{48.} Id.

^{49.} Id. at 781.

^{50.} Id. at 782.

^{51.} Id.

^{52.} Id. at 782-83.

^{53.} Id. at 783.

^{54.} *Id*.

^{55.} Id.

^{56. 193} S.W.3d 40 (Tex. App.—Houston [1st Dist.] 2006, pet. denied), cert. denied, 128 S. Ct. 1662 (2008), and reh'g denied, 128 S. Ct. 2469 (2008).

^{57.} Id. at 42.

^{58.} Id.

^{59.} *Id.*

the Romans sought the services of Dr. Schnell and eventually discussed IVF as their best option for a biological child.⁶⁰ Since the process of fertilizing a woman's egs for IVF typically results in more pre-embryos than needed, the Romans entered into an agreement with the clinic for cryopreservation of the pre-embryos.⁶¹

On March 27, 2002, the parties signed an "Informed Consent for Cryopreservation of Embryos" (Cryopreservation Agreement). ⁶² The document gave the clinic authority to maintain the cryopreserved preembryos until the time of transfer with consent of both the husband and wife. ⁶³ The parties also had to select an option regarding disposition of the pre-embryos in the event of divorce. ⁶⁴ The parties were allowed by the agreement to withdraw consent to the disposition of the pre-embryos and to discontinue participation in the program. ⁶⁵

On April 17, 2002, the procedures resulted in six pre-embryos, but only three were viable for cryopreservation. The night before the scheduled implantation, Randy Roman withdrew his consent to the procedure and informed Dr. Schnell. A month later, the Romans signed an agreement to thaw and implant the pre-embryos, but the agreement was contingent on counseling. Randy and Augusta never completed the counseling.

On December 10, 2002, Randy filed for divorce.⁶⁹ The parties reached an agreement regarding all issues except for the frozen preembryos.⁷⁰ Randy asked the trial court to have the pre-embryos discarded pursuant to the couples' agreement with the clinic.⁷¹ Augusta wanted to have the pre-embryos implanted so that she could have a biological child.⁷² Augusta stated that Randy would not have parental rights or responsibilities for any child born from the pre-embryos.⁷³ The trial court awarded possession of the pre-embryos to Augusta, finding that "the three frozen [pre-]embryos are community property."⁷⁴ The court also entered a second set of findings, which included a finding that

^{60.} Id.

^{61.} Id.

^{62.} *Id*.

^{63.} *Id*.

^{64.} *Id*.

^{65.} *Id*.

^{66.} Id.

^{67.} *Id*.

^{68.} Id. at 42-43.

^{69.} Id. at 42.

^{70.} Id. at 43.

^{71.} *Id*.

^{72.} *Id.* Dr. Schnell testified that Augusta had a ten percent chance of becoming pregnant if the embryos were transferred to her. *Id.* at 43 n.3. This statistic conforms to the ASRM statistics for live birth after embryo transfer for a woman Augusta's age. *See* ASRM COMMITTEE REPORT, *supra* note 25.

^{73.} Roman, 193 S.W.3d at 43.

^{74.} Id. Throughout the Roman opinion, the court referenced as "embryos" that which this paper refers to as "pre-embryos."

"the court considered all evidence and testimony in balancing the constitutional rights of both parties in making the award of the three (3) frozen [pre-]embryos to Augusta N. Roman." The court made an additional conclusion of law, stating that the award of the pre-embryos to Augusta was part of the "just and right division of the community estate"

Randy Roman appealed to the Houston Court of Appeals.⁷⁷ This was an issue of first impression in Texas.⁷⁸ The court considered the issue to be whether the award to Augusta as a just and right division of the community property was proper in light of the disposition agreement with the clinic.⁷⁹ Randy argued that the agreement clearly provided for disposal of the pre-embryos in the event of divorce and the trial court erred by not enforcing that agreement.⁸⁰ Augusta did not deny signing the agreement but argued that other jurisdictions have held similar agreements to be unenforceable.⁸¹

The agreement itself referred to the frozen pre-embryos as "joint property" of Randy and Augusta based on currently accepted principles regarding legal ownership of human sperm and oocytes. The agreement also indicated that Texas laws regarding such legal ownership could change at any time. In actuality, Texas had no statute or case law prior to the *Roman* case addressing the disposition of pre-embryos. So the court reviewed the cases from other jurisdictions before embarking into this new territory.

The court began by looking at the agreement in the context of the public policy of the State of Texas. 86 Texas had already adopted the Uniform Parentage Act, 87 which contains provisions regarding assisted reproduction, gestational agreements, and parentage issues related to such procedures. 88 Texas had also adopted a statute requiring both husband and wife consent to assisted reproduction. 89 However, that statute contains a provision acknowledging a child may be born without the husband's consent. 90 An additional section of the statute addresses paternity in the event of divorce, and indicates that if eggs, sperm, or pre-

^{75.} Id.

^{76.} Id. at 44.

^{77.} Id.

^{78.} Id.

^{79.} Id. at 45 n.7.

^{80.} *Id*

^{81.} Id. at 44-45.

^{82.} Id. at 44 n.7.

^{83.} Id.

^{84.} Id. at 45.

^{85.} Id.

^{86.} Id.

^{87.} See TEX. FAM. CODE ANN. §§ 160.001-160.763 (Vernon 2007).

^{88.} Roman, 193 S.W.3d at 48-49.

^{89.} See TEX. FAM. CODE ANN. § 160.704 (Vernon 2007).

^{90.} Roman, 193 S.W.3d at 49. See also TEX. FAM. CODE ANN. § 160.704 (Vernon 2007).

embryos are used after divorce, the former spouse does not qualify as a parent of the resulting child unless there is a record of such an agreement to the contrary. There was no legislative guidance, however, concerning the disposition of pre-embryos in the event of divorce. There is still no such legislative guidance. Looking instead to Texas statutes governing gestational agreements and enforcement of private agreements, the court concluded that state public policy allows a husband and wife to enter into an agreement governing the disposition of pre-embryos in the event of "divorce, death or changed circumstances." "92"

Ultimately, the court declared that a pre-embryo agreement in Texas "allowing the parties voluntarily to decide the disposition of frozen [pre-]embryos in advance of cryopreservation, subject to mutual change of mind, jointly expressed, best serves the existing public policy of this State and the interests of the parties." The court then reviewed the Romans' agreement in order to determine its validity under this rule.

The court began its review with a discussion of the rules of contract interpretation and the required elements of a valid and binding contract.⁹⁴ While the Romans were required to sign nine different forms, the focus of the dispute was the Cryopreservation Agreement. 95 One provision of the Cryopreservation Agreement stated that if both parties were to die, the frozen pre-embryos would be discarded.⁹⁶ Additionally, the agreement provided that in the event of a divorce, the frozen preembryos would be discarded.⁹⁷ Another provision indicated that should "other circumstances arise" in which the pre-embryos are not used for initiating a pregnancy by the wife, or if the couple was "not able to agree on disposition of remaining pre-embryos for any reason . . . the unused discarded."98 [pre-]embryos would be Cryopreservation Agreement indicated that the parties were free to withdraw consent as to the disposition of the pre-embryos and to discontinue participation in the program by asking that the pre-embryos be transferred to another facility. 99

The court's analysis and discussion of the disposition of the Romans' pre-embryos focused exclusively on contract principles and the specific wording of the consent form. There was no contemplation by the court that either person could have a change of heart after creating the original written agreement. Instead, the court stated, "the [pre-

^{91.} Roman, 193 S.W.3d at 49 (citing TEX. FAM. CODE ANN. § 160.706(a) (Vernon 2007)).

^{92.} *Id*.

^{93.} Id. at 50.

^{94.} Id. at 51.

^{95.} Id.

^{96.} Id.

^{97.} Id.

^{98.} Id.

^{99.} *Id*.

^{100.} Id. at 52.

]embryo agreement's language could not be clearer."¹⁰¹ The plain language of the provision indicated that in the event of divorce the preembryos would be destroyed. Despite the fact that Augusta Roman no longer agreed to such a disposition, the Houston Court of Appeals ordered compliance with the agreement. ¹⁰³

The final blows came in the months following the Houston Court of Appeals' ruling. The pre-embryos were eventually destroyed following the Supreme Court of Texas's denial of a petition for review and the U.S. Supreme Court's denial of the petition for writ of certiorari. 104

Cases such as this one are fraught with emotion. How should the law change to more adequately address such disputes? This is where the status of the pre-embryo and its legal classification is crucial.

IV. CLASSIFICATION OF THE PRE-EMBRYO: PRESERVING THE DIGNITY OF HUMAN LIFE WITH A PROPERTY RIGHTS MODEL

Since *Moore v. Regents of the University of California*, ¹⁰⁵ courts have exhibited apprehension when dealing with the legal status of tissues, organs, and cells that are removed from the human body. There is some moral discomfort in the notion that parts of the human body can be classified as property. The discomfort becomes more pronounced when the discussion moves from the legal status of cells from Moore's spleen, ¹⁰⁶ to sperm, eggs, or a human pre-embryo that is cryopreserved for potential future development into human life. While lawyers, judges, legal scholars, scientists, philosophers, and clergy have all called for guidance on the issue, legislatures have failed to adequately address the legal classification of the pre-embryo.

Traditional laws regarding procreative activity cannot be squarely applied to issues regarding IVF and cryopreservation. Many states have statutes addressing sperm and egg donors and the legal characterization of the sperm and egg. ¹⁰⁷ There is also a great deal of case law addressing abortion, fetal homicide, and tort causes of action involving the unborn during the period of gestation. ¹⁰⁸ However, there is little legislation and

^{101.} Id.

^{102.} Id. at 51.

^{103.} Id. at 55.

^{104.} Roman v. Roman, 193 S.W.3d 40 (Tex. App.—Houston [1st Dist.] 2006, pet. denied), cert. denied, 128 S. Ct. 1662 (2008), and reh'g denied, 128 S. Ct. 2469 (2008).

^{105. 793} P.2d 479 (Cal. 1990).

^{106.} See generally id. (discussing the legal status of Moore's spleen).

^{107.} See Cal. Health & Safety Code §§ 125350, 125118 (West 2007); Ga. Code Ann. § 16-12-160 (West 2008); Il. Comp. Stat. § 5/12-20 (2004); La. Rev. Stat. Ann. § 122 (2008); Mass. Gen. Laws Ann. ch. 111L § 8 (2005); Okla. Stat. tit. 24 § 556 (2008).

^{108.} See Roe v. Wade, 410 U.S. 113 (1973) (subjecting abortion to various levels of regulation based on the trimester framework); Hughes v. State, 868 P.2d 730 (Okla. 1994) (holding that a fetus may be considered a victim of homicide if the fetus was viable at the time of injury to the mother);

no agreement among courts regarding the period of time between fertilization and implantation of the cryopreserved pre-embryo. Additionally, some courts have gone out of their way to avoid any type of classification or detailed discussion of the status of the pre-embryo. The courts' avoidance of this issue provides little guidance as to how the law should treat the pre-embryo.

As separate gametes progress in the cycle of human development at the moment of fertilization, it becomes morally difficult to accept a pure property model for the pre-embryo, however easy and certain the property model might be from a legal standpoint. By creating a property rights model that is tailored to the uniqueness and dignity of the preembryo, the law can achieve a more balanced and appropriate approach.

A. Pre-Embryos Cannot be Classified as People Under the Law

While looking at the legal dichotomy of property and person, it is significant to consider the implications that accompany the classification of "person" under the law. Although the rights that a person receives may vary, there is a core set of rights that follows the legal classification as a "person"—the right to due process, 110 to bodily integrity, 111 and to not be owned. As proposed by one commentator, "[e]very entity whose rights fall short of this hard nucleus would not be a person, or subject, but rather an object."

The current status of the law provides a valuable context for discussion of the pre-embryo as a new classification: not a person, but more than property. The pre-embryo is more "human" than the separate sperm and egg that combined to create it because something new actually emerged from the initial stages of cell division. However, treating a pre-embryo in a petrie dish as "person" would elevate it to a status higher than that of the same pre-embryo in utero.

Pino v. U.S., 183 P.3d 1001 (Okla. 2008) (holding a wrongful death action may be maintained for a nonviable stillborn fetus). *But see* State v. Larsen, 578 P.2d 1280 (Utah 1978) (holding "person" does not include an unborn fetus for purposes of homicide); Baum v. Burrington, 79 P.3d 456 (Wash. Ct. App. 2003) (holding a mother could not maintain a wrongful death action because her "unborn child" or fetus was not a person).

^{109.} Kass v. Kass, 696 N.E.2d 174, 179 (N.Y. 1998) (refusing to decide whether pre-embryos in dispute were people or property deserving special respect).

^{110.} U.S. CONST. amend. V; U.S. CONST. amend. XIV.

^{111.} Sandin v. Conner, 515 U.S. 472, 485-86 (1995).

^{112.} See U.S. CONST. amend XIII.

^{113.} Phillipe Ducor, The Legal Status of Human Materials, 44 DRAKE L. REV. 195, 199 (1996).

^{114.} Davis v. Davis, 842 S.W.2d 588, 593 (Tenn. 1992). See Tucker et al., supra note 20, at S24-S27. See also Charles P. Kindregan & Maureen McBrien, Assisted Reproductive Technology: A Lawyer's Guide to Emerging Law & Science 77-78 (2006).

^{115.} See Roe v. Wade, 410 U.S. 113, 158 (1973) (holding "the word 'person,' as used in the Fourteenth Amendment, does not include the unborn").

The pre-embryo before cryopreservation typically develops for forty-eight hours and never beyond fourteen days, allowing the pre-embryo to reach the four-to-six cell stage. This is well before any form of viability and before any human organs and structures have developed. In naturally-occurring pregnancies, a woman can be in the very early stages of pregnancy and have a miscarriage without realizing that she was ever pregnant. Additionally, medical data shows that the rate of miscarriage following IVF is similar to that of this early stage of pregnancy in the general population, with the risk increasing with the mother's age. Miscarriage may occur, even after ultrasound identifies a pregnancy, in nearly 15% of women under the age of thirty-five, in 25% at age forty, and in 35% at age forty-two. Therefore, even if IVF is successful and a pre-embryo is formed and transferred, there is still the same risk present as in any other naturally occurring pregnancy that cell division will stop and a miscarriage will occur.

When cryopreservation is added to the mix, it presents the possibility that upon thawing, the pre-embryo will not be viable to transfer to the woman. Thus, the statistics of a fertility clinic's live birth rate are more significant than any other data, since they indicate the probability of delivering a live baby per IVF cycle started. The live birth rate in the U.S. for each IVF cycle started is approximately 30-35% for women under age thirty-five; 25% for women ages thirty-five to thirty-seven; 15-20% for women ages thirty-eight to forty; and 6-10% for women over forty. Thus, even if the pre-embryos are successfully created and transferred to a woman's body, they merely have the same chance of success as any naturally occurring pregnancy. If from that point forward the playing field is equal, why should the law create a more elevated status for the pre-embryo before that point? Would this

^{116.} See James R. Scott, et al., Danforth's Obstetrics and Gynecology 743 (7th ed. 1997).

^{117.} Five days after retrieval and fertilization, the pre-embryo is in the blastocyst stage of development, in which a fluid-filled cavity and cells begin to form the early placenta and embryo. Am. Fertility Soc'y, Report on Ethical Considerations of the New Reproductive Technologies (1990). At the eight-cell stage, the developmental singleness of one person has not been established. *Id.*

^{118. &}quot;Miscarriages occur in about 15-20% of pregnancies. Most occur in the first thirteen weeks of pregnancy. Some miscarriages take place before a woman misses a menstrual period or is even aware that she is pregnant." The American College of Obstetricians and Gynecologists, Early Pregnancy Loss: Miscarriage and Molar Pregnancy, http://www.acog.org/publications/patient education/bp090.cfm (last visited Apr. 8, 2009).

^{119.} The American Pregnancy Association (APA) provides data that while women under the age of thirty-five have about a 15% chance of miscarriage, from the ages of thirty-five to forty-five, the rate increases to 20-35%. The American Pregnancy Association, Miscarriage, www.americanpregnancy.org/pregnancycomplications/miscarriage.html (last visited Apr. 18, 2009). Women over the age of forty-five can have up to a 50% chance of miscarriage. *Id.* When compared to the miscarriage rates for IVF patients, there is also an increased likelihood of miscarriage with advancing age. Am. SOC'Y FOR REPROD. MED., ASSISTED REPRODUCTIVE TECHNOLOGIES: A GUIDE FOR PATIENTS 13 (2007).

^{120.} Am. Soc'y for Reprod. Med., supra note 118, at 13.

^{121.} Id. at 9.

^{122.} Id. at 11.

mean that if a child is created by means of ART then he or she cannot be aborted or automatic wrongful death claims would be available, but if a child is created "naturally" then no such rights exist? Such a result seems incomprehensible.

The current state of the law with respect to unborn children and wrongful death or fetal homicide cases provides even more reason why the pre-embryo does not have status as a legal "person." In the wrongful death context, for example, the purpose of a wrongful death claim is to compensate a decedent's survivors for the loss of the decedent's life. 123 While the Restatement (Second) of Torts states that if the tortious conduct and the legal causation of the harm can be satisfactorily established, there may be recovery for any injury at any time after conception, 124 the vast majority of states in addressing this issue require a viable fetus in order to support some claim of wrongful death. 125 As most state legislatures have seen fit to require some standard of viability to include an unborn child within the parameters of the statute, it seems logical to conclude that a cryopreserved pre-embryo, which is a stage of development much earlier than viability, would not have any attendant wrongful death claims and would not fall within the legal definition of "person."

Turning to fetal homicide statutes and cases, the focus shifts away from compensation for a loss and towards punishment for a person's wrongdoing. While at common law a conviction was possible only if the child was born alive and then died, statutes have changed this rule. In the fetal homicide context, there are more state statutes that include

^{123.} Thibert v. Milka, 646 N.E.2d 1025 (Mass. 1995).

^{124.} RESTATEMENT (SECOND) OF TORTS § 869 cmt. d (1979).

^{125.} Statutes in Alabama, Arizona, Arkansas, Connecticut, Delaware, the District of Columbia, Idaho, Indiana, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Washington, and Wisconsin allow recovery under the wrongful death statute only for a viable fetus. See Sheldon R. Shapiro, Right to Maintain Action or to Recover Damages for Death of Unborn Child, 84 A.L.R.3d 411 (2009). Georgia uses "quickening" (the child's ability to move in its mother's womb) as the standard required for recovery under the wrongful death statute. Id. Illinois, Louisiana, Maine, Missouri, Oklahoma, South Dakota, Texas, and West Virginia allow a wrongful death claim for a child in utero regardless of any determination of viability. Id. California, Florida, Iowa, New Jersey, New York, and Virginia statutes do not allow recovery for an unborn child under a wrongful death action. Id.

^{126.} For example, during the 2003 Regular Session of the Texas Legislature, SB 319 was debated and eventually codified in the Civil Practice & Remedies Code and Texas Penal Code, addressing both wrongful death actions and homicides involving the unborn. See SENATE COMM. ON STATE AFFAIRS, BILL ANALYSIS, Tex. S.B. 319, 78th Leg. (2003). In the Texas Bill Analysis for SB 319, the Digest states that SB 319 would allow civil and criminal penalties to be imposed for the death or injury of an unborn child, defining "individuals" to include an unborn child from every stage of gestation from fertilization until birth. See id. Supporters were on record as stating, "SB 319 would close a gap in current law by allowing criminal and civil penalties for a third party who wrongfully injured or killed an unborn child against the wishes of the mother through actions such as murder, assault or drunk driving... Texas Prosecutors have been unable to bring criminal charges because of the definition in the Penal Code." Id.

^{127.} See Alan S. Wasserstrom, Annotation, Homicide Based on Killing of Unborn Child, 64 A.L.R.5th 671 (1998).

the unborn child as "human," although there is still disagreement and inconsistency among the statutes as to when criminal liability may attach. However, due to the differing purposes of wrongful death and fetal homicide statutes, one can reconcile the desire to eliminate a non-viable fetus from recovery under the former but provide for criminal liability for the death of the same in the latter. Applying the policy distinctions of these statutes to the cryopreserved pre-embryo leaves important questions unclear. If the pre-embryo is given status as a human being, would the physician who thaws the cryopreserved pre-embryo that does not survive be guilty of murder or manslaughter? Such a result should not be intended or anticipated.

Some jurisdictions have also addressed the issue of an unborn child being placed in protective custody. This question has arisen when the mother is involved in behavior threatening the life of the child, such as drug or alcohol use, ¹²⁹ or for religious or other reasons the mother refuses medical procedures necessary for the survival of the fetus against the advice of her physician. ¹³⁰ Not all states have faced this issue, but the majority of courts addressing the issue have declined to give custody of the unborn child to the Department of Human Services. ¹³¹ These states

^{128.} See TEX. PENAL CODE § 1.07(a)(26) (2003) (defining an individual as "a human being who is alive, including an unborn child at every stage of gestation from fertilization until birth"). But see CAL. PENAL CODE § 187(a) (defining murder as the unlawful killing of a human being or a fetus with malice aforethought). This wording indicates that while a fetus is included within the parameters of the crime of murder, the fetus is viewed separately from a human being. See generally Wasserstrom, supra note 127, for additional discussion of varying fetal homicide statutes.

^{129.} See, e.g., Ark. Dept. of Human Servs. v. Collier, 95 S.W.3d 772 (Ark. 2003) (holding "juvenile" in the Arkansas Juvenile Code applied to an individual from birth to the age of eighteen where pregnant woman had not received prenatal care and tested positive for methamphetamine); State ex rel Angela M.W. v. Kruzicki, 561 N.W.2d 729 (Wisc. 1997) (declining to put unborn fetus in protective custody where pregnant woman tested positive for drugs because the word "child" in the Wisconsin Children's Code does not encompass unborn fetuses).

^{130.} See, e.g., Jefferson v. Griffin Spalding County Hosp. Auth., 274 S.E.2d 457 (Ga. 1981) (affirming the lower court's order that a mother must submit to a caesarian section and granting temporary custody of her child to the Department of Human Resources) Raleigh Fitkin-Paul Morgan Memorial Hosp. v. Anderson, 42 N.J. 421 (1964) (holding an unborn child entitled to state law protection and ordering the mother to receive blood transfusions); In re Jamaica Hosp., 491 N.Y.S.2d 898 (1985) (holding the state's interest in protecting the life of a midterm fetus overrode a mother's religious objection to blood transfusions).

^{131.} This issue has only been before the courts of fourteen jurisdictions. See Arkansas Dept. of Human Svcs, v. Collier, 95 S.W.3d 772 (Ark. 2003); People in Interest of H., 74 P.3d 494 (Colo. App. 2003); In re Unborn Child of Starks, 18 P.3d 342 (Okla. 2001); State ex rel Angela M.W. v. Kruzicki, 561 N.W.2d 729 (Wisc. 1997); In re Pima County Juvenile Severance Action No. S-120171, 905 P.2d 555 (Ariz. Ct. App. 1995); In re Baby Boy Doe, 632 N.E.2d 326 (Ill. App. Ct. 1994); In re A.C., 573 A.2d 1235 (D.C. 1990); Stallman v. Younquist, 531 N.E.2d 355 (Ill. 1988); Cox v. Court of Common Pleas, 537 N.E.2d 721 (Ohio. Ct. App. 1988); In re Jamaica Hosp., 491 N.Y.S.2d 898 (1985); Taft v. Taft, 446 N.E.2d 395 (Mass. 1983); In re Steven S., 126 Cal. App. 3d 23 (Cal. Ct. App. 1981); In re Brown, 698 N.E.2d 199 (Ill. App. Ct. 1997); Jefferson v. Spalding Co. Hosp. Auth., 274 S.E.2d 456 (Ga. 1981); In re Dittrick Infant, 263 N.W.2d 37 (Mich. Ct. App. 1977); Raleigh Fitkin-Paul Morgan Memorial Hosp. v. Anderson, 201 A.2d 537 (N.J. 1964). Of these fourteen jurisdictions, eight states-Arkansas, Wisconsin, Oklahoma, Colorado, Arizona, California, Michigan and Ohio-did not allow protective custody based on statutory interpretation of the respective state statutes dealing with "juveniles" and "children." Additionally, in the cases in Illinois and Washington, D.C., custody was not allowed on the grounds that the mother's rights outweigh the state's interest in protecting the fetus. Only four states-Georgia, New Jersey, New York and Massachusetts—allowed for protective custody of the fetus on the grounds that the state's

have done so for two reasons. One reason is statutory construction. Based on the interpretation of "child" in the context of children's, juvenile, or penal codes, the courts have concluded that a "fetus" is not within the definition of "child," leaving the courts without jurisdiction. ¹³² Three states have allowed protective custody on the grounds that the state's interest in the fetus outweighs the mother's rights, but in those instances the fetus was either viable or the mother had reached the midpoint of her pregnancy. ¹³³

Finally, looking to *Roe v. Wade*¹³⁴—where all paths on this subject usually lead—the legal framework that has been established in the discussion of abortions again supports the position that the pre-embryo is not a "person." The United States Supreme Court held in this landmark case that the Texas criminal statutes prohibiting abortions at any stage of pregnancy except to save the life of the mother were unconstitutional. ¹³⁵ Under *Roe*, prior to approximately the end of the first trimester, the abortion decision and its effectuation must be left to the medical judgment of the pregnant woman's attending physician. ¹³⁶ Subsequent to the first trimester, the state may regulate in ways reasonably related to maternal health, and at the point of viability the state may even prohibit abortions except where necessary to preserve the life of the mother. ¹³⁷ While the Court in *Roe* was balancing the individual's right to privacy against the state's interest in protecting life, ¹³⁸ in the context of the preembryo, the inquiry is rather the extent of the right to procreate. ¹³⁹

interest in the fetus outweighs the mother's rights.

^{132.} See Collier, 95 S.W.3d at 772 (holding "juvenile" in the Arkansas Juvenile Code applied to an individual from birth to the age of eighteen where pregnant woman had not received prenatal care and tested positive for methamphetamine); Angela M.W., 561 N.W.2d at 729 (declining to put unborn fetus in protective custody where pregnant woman tested positive for drugs because the word "child" in the Wisconsin Children's Code does not encompass unborn fetuses); In re Unborn Child of Starks, 18 P.3d 342 (Okla. 2001) (holding Oklahoma Legislature did not intend to include fetuses, viable or otherwise, within the definition of child under the Children's Code); In re A.C., 573 A.2d 1235, 1238 (D.C. 1990) (holding a mother's privacy rights against bodily intrusion outweighs the interests of the unborn child and state); Stallman v. Younquist, 531 N.E.2d 355 (Ill. 1988) (holding a pregnant woman owes no legally cognizable duty to her developing fetus and thus it cannot have rights superior to those of its mother); People in Interest of H., 74 P.3d 494 (Colo. App. 2003) (noting "fetus" is not specifically included in the statutory definition of "child").

^{133.} Jefferson v. Griffin Spalding County Hosp. Auth., 274 S.E.2d 457 (Ga. 1981) (ordering protective custody when the mother refused a caesarian section on religious grounds because unborn child was a viable human being); Raleigh Fitkin-Paul Morgan Memorial Hosp. v. Anderson, 42 N.J. 421 (1964) (holding protective custody of a fetus was necessary to initial medical treatment to save its life in mother's thirty-second week of pregnancy); In re Jamaica Hosp., 491 N.Y.S.2d 898 (1985) (ordering a blood transfusion over mother's objection on religious grounds due to compelling state interest although the fetus had not reached viability and the pregnancy was mid-term).

^{134. 410} U.S. 113 (1973).

^{135.} Id. at 164.

^{136.} Id.

^{137.} Id.

^{138.} Id. at 163 (recognizing the state's compelling interest in protecting potential life is at the point of viability).

^{139.} Procreative liberty confers upon citizens the freedom to conceive coitally, noncoitally, and collaboratively. Janet J. Berry, Life After Death: Preservation of the Immortal Seed, 72 TUL. L. REV. 231, 233 (1997). See also John A. Robertson, Embryos, Families and Procreative Liberty: The Legal Structure of the New Reproduction, 59 S. CAL. L. REV. 939, 1002-03 (1986).

Included therein is arguably the right to utilize assisted reproductive technology against the other party's desire to avoid procreation. The state's potential interest in protecting life is actually not implicated in the context of the pre-embryo because the courts have recognized that the state's interest in protecting life is not implicated until the stage of viability. If the pre-embryo were treated as a person, this would completely frustrate the *Roe* decision as well as elevate the status of the pre-embryo above that of the non-viable fetus at a much later stage of development inside the woman's body.

The Court's rationale in Roe, while focusing on a different battle between interests, provides the key in unlocking the distorted question that is presented with the pre-embryo today. In looking at the history of the law criminalizing abortions, the Court had to sort through the various positions taken over time. The Court explained that the common law provided that an abortion that occurred before quickening—recognizable movement of the fetus in utero, typically appearing in the sixteenth to eighteenth week of pregnancy—was not an indictable offense. 141 This viewpoint appears to have developed from philosophical, theological, civil, and cannon law concepts of when life begins. 142 The Court stated that a "loose consensus" evolved that the pre-embryo or fetus became recognizably human at some point between conception and live birth. 143 However, Christian theology ultimately fixed the point of "animation" at forty days for a male and eighty days for a female. 144 Prior to that point, the fetus was to be regarded as part of the mother, and its destruction was not homicide. 145 Even applying this Christian approach of "animation" to the pre-embryo, there is no human person as defined by that characterization.¹⁴⁶

Due to the lack of empirical basis, the animation approach was not used and the idea of quickening was adopted in the United States common law. As the Court concluded its analysis of when life begins from a legal standpoint, Justice Blackmun wrote it is thus apparent that at common law, at the time of the adoption of our Constitution, and throughout the major portion of the 19th Century, abortion was viewed with less disfavor than under most American statutes in effect at the time of the *Roe* decision. Item 148

As Justice Blackmun stated in Roe, "we need not resolve the

^{140.} Roe, 410 U.S. at 163.

^{141.} Id. at 132.

^{142.} Id. at 133.

^{143.} *Id*.

^{144.} *Id*.

^{145.} *Id.*

^{146.} By definition, the pre-embryo is at fewer than fourteen days of development, which is much younger than the forty- to eighty-day mark adopted by the Christian approach.

^{147.} Roe, 410 U.S. at 133.

^{148.} Id. at 140. As Justice Blackmun restated, "a woman enjoyed a substantially broader right to terminate a pregnancy than she does in most States today." Id.

difficult question of when life begins . . . [w]hen those trained in the respective disciplines of medicine, philosophy and theology are unable to arrive at any consensus, the judiciary, at this point in the development of man's knowledge, is not in a position to speculate as to the answer." This is still true today. The debate over when life begins is ongoing and as emotionally charged as ever. It is doubtful that we will ever reach a consensus. However, that does not change the fact that we need laws to govern society and that those laws must preserve fundamental liberties found within the words of the Constitution. It is in this light that we should embrace the fact that the pre-embryo should not be classified as a person under the law. The pre-embryo is in a much earlier state of development than the non-viable fetus, and even the fetus at the time of quickening. Refusing to recognize a pre-embryo as a full legal person does not, however, mean that as a society we have to accept the idea of potential children being sold on the market or flushed down a drain.

By moving to the middle ground we prevent a man or woman from having his or her fertility held hostage. This is more important for the woman than the man simply due to science: while the male sperm can be, and has been for years, cryogenically stored and thawed for later use, the female egg cannot be stored in the same way. While science is working towards such a possibility, it is not an option at this time. What this means is that the only solution for a woman who is faced with the emotional and physical strain of infertility is creating pre-embryos and storing them for future use. This means that she has no choice but to mix her "property" with that of a male sperm provider, whether that be her husband or a donor, in order to even hope for a child in the future. Allowing her spouse the ability to essentially veto her future use of the pre-embryo in the event of a later disagreement, again deprives her of such hope. The law of property can actually provide a win-win solution in these situations.

B. Problems with Treating Pre-Embryos as Purely Property, As Illustrated by the Sperm and Egg Markets

The Thirteenth Amendment abolished slavery.¹⁵² If a person may not own another person, then how may a person own a part of another person? The Thirteenth Amendment did not contemplate the issue; however, modern courts have grappled with it.

For example, in the tax dispute of *United States v. Garber*, the Fifth Circuit Court of Appeals addressed whether payments to Ms. Garber for

^{149.} Id. at 159.

^{150.} AM. SOC'Y FOR REPROD. MED., supra note 118, at 11.

^{151.} Tucker et al., supra note 20, at S24.

^{152.} U.S. CONST. amend. XIII.

plasma donation were payments for a service or for property. 153 The court concluded that plasma, "like any salable part of the human body," is tangible property. 154

In Moore v. Regents of the University of California, the California Supreme Court addressed whether cells that had been removed from Mr. Moore's body were his property. 155 While the majority opinion in *Moore* refused to recognize the cells as Mr. Moore's property, the dissenting opinion by Justice Mosk is a well-reasoned and rational approach that provides guidance to assist in the area of reproductive materials from the human body.

Justice Mosk stated in his dissent that the term property is comprehensive enough "to include every species of estate, real and personal, and everything which one person can own and transfer to another." 156 He promoted the notion that property is composed of a bundle of rights that may be exercised by the owner of that property, the most common of those being the rights to possess, to use, to exclude others, and to dispose of or transfer by sale or gift. 157 However, the same bundle does not attach to all property. 158 The law may limit or forbid the exercise of certain rights over specific forms of property. 159 Such a limitation or prohibition may diminish the bundle of rights; nevertheless, there still exists a property interest worthy of protection. 160 Pruning away some of these rights does not entirely destroy the bundle. 161 Justice Mosk wrote in favor of recognizing a property interest in the human body while providing limitations in response to society's concerns.

The concurring opinion in *Moore* by Justice Arabian gets to the heart of the moral issue implicated by allowing parts of the human body to be treated as property. Justice Arabian stated that the plaintiff wanted to treat "the human vessel—the single most venerated and protected subject in any civilized society—as equal with the basest commercial commodity." 162 Arabian went on to state that this would "commingle the sacred with the profane," and he greatly feared the effect on human dignity if there existed a marketplace in human body parts. 163

However, there already exists a marketplace for human body parts that are the components of reproduction: sperm, egg, and hormones. Whether sperm and egg are labeled as property or not, they are already freely bought and sold and are treated as property of individuals. As

^{153. 607} F.2d 92 (5th Cir. 1979).

^{154.} Id. at 97.

^{155. 793} P.2d 479 (Cal. 1990).

^{156.} Id. at 509.

^{157.} Id.

^{158.} Id.

^{159.} Id.

^{160.} Id.

^{161.} Id.

^{162.} Id. at 497 (Arabian, J., concurring).

^{163.} Id.

discussed by Professor Debora L. Spar of Harvard Business School, in 1986, the revenue from infertility treatments totaled \$41 million, and by 2002, the revenue approached \$3 billion. 164 The fertility industry exists because human eggs, sperm, and hormones each fetch their own market rate.

Sperm banks operate throughout the world, but those in the United States have some distinct characteristics. American sperm banks offer a host of information about the "anonymous" sperm donor. In some instances, sperm banks provide information so that the children born from the sperm may one day contact their biological fathers. 166

At the same time, these sperm banks are enjoying huge profits. According to Professor Spar, most sperm banks charge a standard fee of \$200 to \$300 per specimen vial, while paying the donors approximately \$75 per specimen. Each of those donated specimens provide three to six vials of sperm. ¹⁶⁸

While collecting donated sperm is a relatively simple technology, collecting eggs is a much more involved process. A newer frontier than the sperm market, the market for eggs emerged in the 1990s. 169 The market for eggs is also more controversial; it developed in conjunction with the IVF process.¹⁷⁰ "[F]or women who had no other way of conceiving, the combination of IVF and donor eggs was a godsend . . . [a]s one recipient reported, 'I have just given birth to a miracle child.""¹⁷¹ The egg market relies on a supply of healthy eggs and medical collection procedures. As described in Section II above, the donor will undergo a drug-induced process to overstimulate her ovaries and produce a larger quantity of eggs. 172 Those eggs are then removed through a procedure using a needle guided by ultrasound into the ovarian follicles. ¹⁷³ For the mother undergoing IVF, this rigorous process of hormone administration and medical procedures will hopefully produce an infant. However, for the egg donor, the same rigor is required without the potential future joy. Thus, compared to the supply of donor sperm in the market, the supply of donor eggs is much more limited.

Agencies have cropped up across the United States that offer fees to egg donors for their "time and inconvenience." The most shocking

^{164.} DEBORAH L. SPAR, THE BABY BUSINESS 32-33 (2006).

^{165.} Id. at 38-39.

^{166.} Id. at 39.

^{167.} Id. at 37, 39.

^{168.} Id. at 39.

^{169.} Id. at 41-42.

^{170.} SPAR, supra note 164, at 42.

^{171.} Id.

^{172.} See THE PRESIDENT'S COUNCIL ON BIOETHICS, supra note 17, at 24.

^{173.} Id

^{174.} SPAR, *supra* note 164, at 44-45. In 1990, clinics offered \$2,500 to healthy women for their time and inconvenience. *Id.* By 2004 substantially higher prices were being offered. *Id.* "Tokens of appreciation" have also been given at the time of egg retrieval in the form of chocolates, a massage, and sometimes a diamond necklace. *Id.*

evidence of the market drive is found in some advertisements soliciting egg donors. In 1999, an advertisement was posted at an Ivy League school offering \$50,000 for an egg donor who was at least 5'10" with an SAT score of 1400 and no family medical problems. Another advertisement offered \$100,000 to a Caucasian woman with college-level athletic ability. Egg donation centers provide a range of privacy, from those that are purely anonymous to those that offer an online database with names, SAT scores, and photos of the donors and their families. 177

The American Society for Reproductive Medicine (ASRM) published an Ethics Committee Report in August of 2007 discussing the very issues raised by advertisements and transactions of this nature. 178 ASRM states the "use of financial compensation raises two ethical questions: [1] do recruitment practices incorporating remuneration sufficiently protect the interests of oocyte donors, and [2] does financial compensation devalue human life by treating oocytes as property or commodities?"179 The Ethics Committee proposed a system allowing for compensation, but in a limited and calculated way in order to recognize the time and inconvenience involved in the process, as well as some potential medical and psychological risks associated with it.¹⁸⁰ As stated in the report, it was originally believed that donated oocytes would come from three different types of donors: (1) women undergoing IVF who had excess oocytes; (2) women undergoing an unrelated medical procedure that also resulted in ovarian stimulation allowing for oocytes to be retrieved during the unrelated surgery; and (3) women who specifically underwent the process to provide oocytes to others. 181 However, it was quickly revealed that the women in the second category were not a viable source due to their own medical issues, as well as a lack of desire to participate in the process. This left as potential donors the women in the remaining two categories. However, with the development of cryopreservation, most women in the first category were no longer a viable source for donation either, because they would use all collected oocytes for fertilization and creation of pre-embryos. Thus, the donor pool most likely comes from the third category of women: those

^{175.} Id. at 46.

^{176.} Id. at 45.

^{177.} SPAR, supra note 164, at 45. Genetics & IVF Institute offers information on the donors such as ethnic background, education, occupation, and interests. Id. The Center for Egg Donation is the facility that offers the online site with complete information. Id. There are numerous websites and organizations that include advertisements for egg donors with varying degrees of detail, such as www.surrogacy.com, the website of The American Surrogacy Center. There are advertisements for egg donors that include a wide range of information, and sometimes photographs of the donors. See The American Surrogacy Center homepage, http://surrogacy.com (last visited Apr. 18, 2009).

^{178.} The Ethics Committee of the American Society for Reproductive Medicine, *Financial Compensation of Oocyte Donors*, 88 FERTILITY AND STERILITY 305, 305-09 (2007) [hereinafter *Financial Compensation*].

^{179.} Id. at 305.

^{180.} See generally id. (proposing a compensation system for reproductive exchanges).

^{181.} Id. at 305.

going through the process solely to be a donor.¹⁸²

The ethics guidelines set forth by the ASRM Ethics Committee represent a well-reasoned, compromise approach to ethical problems raised by reproductive technology. The guidelines recognize society's desire to avoid commodifying the human body while embracing scientific technologies for reproductive medicine. The basic structure outlined for payment to oocyte donors would allow for the following: (1) financial compensation up to the amount of \$5,000; (2) payment between \$5,000 to \$10,000 with justification; (3) a limit of \$10,000 on compensation; (4) adoption of effective disclosure and counseling procedures to discourage inappropriate reasons for donation; (5) the same physician-patient relationship for oocyte donors as any other patient; (6) adoption of disclosure policies regarding coverage of a donor's medical costs should complications arise from the procedure; (7) provisions for a donor's withdrawal from the program at any point in time for medical or other reasons and allowing payment of a portion of the fee appropriate to the time and effort contributed; (8) no conditioning of payment on successful retrieval or the number of oocytes retrieved; and (9) compensation that does not vary according to the planned use (whether for research or implantation), the number and quality of the oocytes retrieved, or "the outcome of prior donation cycles or the donor's ethnic or personal characteristics. , 183

Market-driven practices are a source of discomfort resulting from a property label being placed on eggs, sperm, and especially pre-embryos. The proper way to legally classify pre-embryos has been a taboo topic for various courts across the United States. Yet, as discussed in Section III above, in case after case the courts have been perfectly willing to allow destruction of the pre-embryos in order to support either a contractual agreement or a desire of one party to avoid procreation. Any agreement to destroy pre-embryos would violate public policy if the pre-embryos were recognized as human beings. Therefore, with very limited exception, it appears that there is some degree of implicit agreement in the law that pre-embryos are not given legal status as human beings. So where does that leave us?

While the precursors of conception exist independently as egg and sperm, they have been treated as property of the individual provider even though the courts have been reluctant to actually label them as such. Two cases originating out of California have addressed the issue of classification of sperm and have labeled cryopreserved sperm as

^{182.} *Id*.

^{183.} Id. at 308 (emphasis added).

^{184.} See Brief for Texas Physicians Council as Amici Curae Supporting Petitioners, Roman v. Roman, 193 S.W.3d 40 (Tex. App.—Houston [1st Dist.] 2006, pet. denied), cert. denied, 128 S. Ct. 1662 (2008), and reh'g denied, 128 S. Ct. 2469 (2008), No. 06-0554 at 7.

^{185.} See TENN. CODE ANN. § 20-5-106 (2008); Roe v. Wade, 410 U.S. 113 (1973); Davis v. Davis, 842 S.W.2d 588, 594 (Tenn. 1992); Hamby v. McDaniel, 559 S.W.2d 774 (Tenn. 1977).

"property" that can pass through the decedent's will. Although the courts in both *Hecht v. Superior Court* and *In re Estate of Kievernagel* treated the sperm as property for purposes of being passed through the decedent's will, both courts observed that the sperm as reproductive material constituted a special type of "property" that would not allow application of laws relating to gifts of personal property. These courts did not, however, have to address the truly difficult legal and moral questions that arise in disputes over the pre-embryo. Whether sperm is considered property or not, the interests involved are those of only one individual: the sperm provider. Unlike in cases involving pre-embryos, no balancing tests are necessary and no tug-of-war between the right to procreate and the right to not procreate is present. Iss

Ultimately, with regard to eggs, sperm, and pre-embryos, what makes most people uncomfortable is really only one stick in the property rights bundle: transferability of the property. However, there have been limitations in some cases regarding the sale of eggs and sperm: namely, the egg and sperm donors are allowed payment for their *services*, a technical distinction from payment for the actual reproductive material. Nevertheless, whenever money changes hands, regardless of whether it is payment for the material or the services, the gametes seem just like any other commodity in the marketplace.

C. Classification of the Pre-Embryo as "Property with Special Dignity"

"Property rights serve human values. They are recognized to that end, and they are limited by it." 189

Property law is private law, concerned with facilitating interactions of individuals. Property law enables individuals to peacefully acquire, keep, transfer, or dispose of virtually every kind of thing that has value. However, part of the distasteful and taboo nature of using property rights to define the status of the human pre-embryo is the misunderstanding of what property truly is. One of the most commonly found definitions of property is that property consists of legally enforceable rights among people that relate to things. But that notion

^{186.} See In re Estate of Kievernagel, 83 Cal. Rptr. 3d 311 (Cal. Ct. App. 2008); Hecht v. Superior Court, 20 Cal. Rptr. 2d 275 (Cal. Ct. App. 1993).

^{187.} Kievernagel, 83 Cal. Rptr. 3d at 316; Hecht, 20 Cal. Rtpr. 2d at 283.

^{188.} Kievernagel, 83 Cal. Rptr. 3d at 317.

^{189.} State v. Shack, 277 A.2d 369, 372 (N.J. 1971).

^{190.} Patricia Smith, *The Nature of Property and Value of Justice*, in THE NATURE AND PROCESS OF LAW 365 (Patricia Smith ed., 1993).

^{191.} Id.

^{192.} JOHN G. SPRANKLING, RAYMOND R. COLETTA & M.C. MIROW, GLOBAL ISSUES IN

of the rights relating to "things" is inaccurate. Property is not just things: tangible items like land, cars, houses, paintings, or jewelry. Property is also discoveries, business goodwill, and ideas. The lyrics to a song, the idea for a play, and an invention are all property. So can property law be used to define the relationship of people to pre-embryos? The answer is a qualified yes.

If we accept some basic ideas, (1) that the unborn have never been recognized in the law as persons in the whole sense;¹⁹³ (2) that the buying and selling of human body parts and potential human life is unethical;¹⁹⁴ (3) that no state's highest court has chosen to treat the preembryo as a legal person;¹⁹⁵ (4) that there has been some treatment of sperm, egg and pre-embryos as property, even if they have not been labeled as such;¹⁹⁶ and (5) that an individual's procreative freedoms are implicated, then we can move forward in establishing a legal framework to deal with disputes about the disposition of cryopreserved pre-embryos.

If pre-embryos are treated similarly to organs, they could still be "property" for purposes of establishing ownership and control issues. But as Justice Mosk stated in his dissent in *Moore*, the full bundle of rights does not have to be present. The "right to transfer" stick in the bundle could be limited so that such property cannot be transferred for consideration. This would permit gifts or gratuitous transfers but prohibit sales, much like the Uniform Anatomical Gift Act does with organs. 198

The problem is that by having legally enforceable rights in the preembryos, the law cannot treat them in the exact same manner as inanimate objects of personal property such as paintings, cars, or ideas. There is a human life component to the pre-embryos—the potential for human life to develop—making them inherently special. They deserve their own classification. This classification can be somewhat defined by

PROPERTY LAW 1 (2006).

^{193.} Roe v. Wade, 410 U.S. 113, 161-62 (1973).

^{194.} See Financial Compensation, supra note 178, at 305-09 (setting forth a system where payments to donors would only be allowed to a certain maximum amount and payments could not be made to certain characteristics).

^{195.} Davis v. Davis, 842 S.W.2d 588, 597 (Tenn. 1992) (holding that pre-embryos are not persons or property but occupy an interim category); Kass v. Kass, 696 N.E.2d 174, 179 (N.Y. 1998) (holding that pre-zygotes are not "persons" for constitutional purposes but that the Court did not need to address any special status for this case); Litowitz v. Litowitz, 48 P.3d 261 (Wash. 2002) (relying on the clinic contract, which stated the pre-embryos were the property of the intended parents); In re Witten, 672 N.W.2d 768, 775 (lowa 2003) (holding embryo not a legal person); Roman v. Roman, 193 S.W.3d 40 (Tex. App.—Houston [1st Dist.] 2006, pet. denied), cert. denied, 128 S. Ct. 1662 (2008), and reh'g denied, 128 S. Ct. 2469 (2008) (treating the pre-embryos as community property at the trial level; on appeal, the court left that determination to be made by the legislature).

^{196.} UNIF. ANATOMICAL GIFT ACT § 16 (2006) (amended 2007); York v. Jones, 717 F. Supp 421, 426-27 (E.D. Va. 1989) (finding the pre-zygote was "property" of the parents); *Roman*, 193 S.W.3d at 40; *Jeter*, 121 P.3d at 1256.

^{197.} Moore v. Regents of the Univ. of Cal., 793 P.2d 479, 509 (Cal. 1990).

^{198.} UNIF. ANATOMICAL GIFT ACT § 16 (2006) (amended 2007). Remember, the provisions in the UAGA do allow for some limited compensation, which would be in agreement with the ASRM Ethics Committee report.

using a property rights model for guidance. In order to further discuss the potential use of a property rights analysis for the pre-embryo, let us first explore the traditional "bundle of rights" model.

1. Property Rights as the Traditional Bundle of Rights Model

The bundle of rights model commonly encompasses the right to include, right to exclude, right to transfer, and right to possess, but other rights may also be added to the bundle. The bundle of rights view essentially defines property as a set of legal relationships among people relating to things. However, as the "things" defined as property have expanded over time, these "things" are no longer merely tangible objects. The list now includes intangible "things" such as business goodwill, business identity, franchises, licenses, employment, government benefits and services, inventions, technological and scientific developments, expressions of ideas, and investments. These new forms of property have created new ideas about property.

However, as pointed out by Craig Arnold, judges and lawyers still care very much about the "thingness" of property, despite property's evolution.²⁰¹ If we move away from the "thingness" idea, then a property rights model can be effectively utilized to treat pre-embryos in dispute as property with special dignity, recognizing both the pre-embryos' property and human components. It has been argued that property is entirely a legal concept; without law there would be no property.²⁰² However, others suggest that property is "a moral notion that follows from certain conceptions of rights and justice." This makes property have more to do with human rights, relationships, and interactions than with "things" in and of themselves. 204 This is the heart of the debate over the disposition of pre-embryos, and why the bundle of rights model can work effectively. Although society may be reluctant to label them as such, past legal battles over pre-embryos have illustrated that the dispute boils down to perceptions of ownership.²⁰⁵ The bundle of rights model can work without having a purely tangible "thing" involved.

The right to include allows the owner to determine how the property will be used. For something like land, it is easy to see how the owner may determine how that land will be used, subject to certain

^{199.} Craig Anthony Arnold, *The Reconstitution of Property: Property as a Web of Interests*, 26 HARV. ENVIL. L. REV. 281, 285 n.20 (2002).

^{200.} Id. at 288.

^{201.} Id. at 289.

^{202.} Smith, supra note 190, at 366.

^{203.} Id.

^{204.} Id.

^{205.} SPAR, supra note 164, at 198-99.

restrictions.²⁰⁶ For intangible property, the owner also has the ability to determine how the property will be used, although in a different sense. Instead of dictating whether or not a home may be built on Blackacre, the owner of some intangible property may determine who may have permission to use a work that has been copyrighted or an invention that has been patented.

The right to exclude is the ability to prevent others from making use of that property. The owner of a work that has been copyrighted may exclude others from using that copyrighted material unless given the express permission of the copyright holder.

The right to possess, although distinct from both the right to include and to exclude, is nonetheless tied to those rights. The definition of possession differs depending on the circumstances and what type of "thing" is involved. The idea of possession of real property differs from that of personal property. It also differs within personal property depending on whether the item is tangible or intangible, and on what form the tangible item takes. However, these varied concepts of possession have two common elements: an intent to exclude others from using the property, and a degree of dominion over the property. ²⁰⁷

The right to transfer gives the holder of that right the ability to transfer their property rights to others. The law places limitations on this right. With respect to land, the owner can neither transfer his rights in order to avoid creditors' claims nor impose invalid conditions upon the transfer of the land. Some types of property cannot be transferred at all and others can only be transferred either during life or at death.

These four core rights that form the bundle of rights model are arranged differently to define the ownership interest the person has

^{206.} While an owner's right to use his land is nearly unlimited, public regulations such as zoning ordinances and private restrictions such as covenants may also limit the owner's use. With tangible personal property, the right to use may also be limited; for example, a person cannot legally use a car to run over someone or cannot use a handgun to shoot someone, since these actions are proscribed by criminal law.

^{207.} See, e.g., Popov v. Hayashi, No. 400545, 2002 WL 31833731, at * 4 (Cal. App. Dep't Super. Ct. Dec. 18, 2002) ("possession requires both physical control over the item and an intent to control or exclude others from it.").

^{208.} SPRANKLING, supra note 192, at 5.

^{209.} With respect to conditions placed on the transfer of land, the Restatement Second of Property places limits on the validity of forfeiture restraints. See RESTATEMENT (SECOND) OF PROPERTY §§ 4.2, 4.4, 4.5. As for prohibitions against transferring rights in order to avoid creditors' claims, the Uniform Fraudulent Transfer Act (UFTA) was originally drafted in 1918 and has undergone a series of updates and revisions since that time. See UNIF. FRAUDULENT TRANSFER ACT, prefatory note (1984). As of the publication date of this article, forty-three states and the District of Columbia have adopted the UFTA. Uniform Law Commissioners, A Few Facts About the Uniform Fraudulent Transfer Act, http://www.nccusl.org/Update/uniformact_factsheets/uniformacts-fs-ufta.asp (last visited Apr. 19, 2009).

^{210.} For example, property held in a life estate cannot be transferred at the death of the life tenant because by nature of what that person holds, there is nothing left to transfer upon death. There are certain future interests in property that at common law could not be transferred during the holder's life and could only be inherited by intestate succession upon the holder's death. If we look at the human body as property, the body cannot be sold. Also, a person's organs may not be sold, but may be donated. See UNIF. ANATOMICAL GIFT ACT § 16 (2006) (amended 2007). An example of nontransferable property is the right to vote.

acquired and, to an extent, take into account the "thing" that is being owned. Therefore, depending on the situation, the bundle looks different and in fact *is* different. None of these rights are absolute. So is it consistent with a modified bundle of rights theory to consider the preembryo as property, and if so, should the legislature step in and declare pre-embryos to be property?

a. The Rights to Include and Exclude

The Supreme Court of the United States has stated that the right to exclude is "one of the most essential sticks in the bundle of rights that are commonly characterized as property." The right to exclude allows the owner the ability to prevent those that do not have permission from using or accessing the property. As stated by the New Jersey Supreme Court in *State v. Shack*, "it was a maxim of the common law that one should so use his property as not to injure the rights of others." Additionally, the right to include bestows upon the owner the ability to allow others to make use of the property. These rights should be applied differently to gametes than to pre-embryos.

Assume the gametes are treated as personal property of each individual from whose body they originated. In situations where a man and woman have the available gametes but need ART to assist with the process of conception, the individual rights to include and exclude that existed when the gametes were personal property would then carry over to the newly formed pre-embryo once fertilization is complete. The man and woman, who originally owned the separate gametes and had the ability to determine how, if, and by whom the gametes would be used, would have those same rights with respect to the pre-embryos. Of course, these rights are complicated because now *two* individuals share these property interests in the created pre-embryo. This problem of co-ownership introduces increasingly challenging complications.

Several approaches have been implemented by courts to establish a moderate and balanced approach regarding who, if anyone, controls the pre-embryo's fate. As a practical matter, there should be a requirement that all couples seeking IVF fill out consent forms that give IVF clinics some guidance for the future disposition of the pre-embryos in the event of divorce, death, or withdrawal from or completion of the IVF process. However, eschewing the *Kass* court's binding contract approach and

^{211.} Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 433 (1982) (citing Kaiser Aetna v. U.S., 444 U.S. 164, 176 (1979)).

^{212.} JESSE DUKEMINIER & JAMES E. KRIER, PROPERTY 86 (Aspen Publishers 6th ed. 2006).

^{213.} State v. Shack, 277 A.2d 369, 373 (N.J. 1971). Although this case was dealing with an issue relating to real property, the idea is still applicable in the context of a non-tangible "property."

^{214.} DUKEMINIER ET AL., supra note 212, at 86.

instead following the *Witten* court's approach would be more likely to give effect to the true intent of the parties. In *Witten*, the court proposed a framework that would allow for contracts to be enforceable and provide guidance to the medical providers.²¹⁵ However, the *Witten* court also recognized that in dealing with issues of such a personal and emotional nature, the individual should be allowed to change his or her mind with respect to disposition of the pre-embryos up until the time of any such disposition.²¹⁶ In order for such a change to be valid, it must be communicated to both the medical provider and the other party in writing.²¹⁷ At that moment the clinic would be required to maintain the status quo if there is no agreement by the other party and allow for the dispute to be resolved.²¹⁸ The options for resolution are where the outcome may change from the current situation.

b. The Right to Possess

The right to possess is the right to have exclusive physical control over a thing, or to have such control as the nature of the thing permits.²¹⁹ Possession may be divided into two parts: first, the right of exclusive control, and second, the claim that others should not interfere with that control without permission.²²⁰ As long as the sperm or egg is in an individual's body, that individual has a right of exclusive control. Once the egg or sperm has been removed from the body, the individual does not necessarily lose the right to possess his or her reproductive material. Rather, there is a practical need to transfer the possession of this material to qualified physicians and clinics in order for the material to be viable for use in the future. While the right to possess may temporarily be transferred to the clinics, the individuals are not transferring any ownership or control over the material. They are simply recognizing the practical reality that they lack the ability to maintain the material in their possession if it is to be used successfully in the future.

The same thing happens when the egg and sperm are turned into pre-embryos through IVF. The individuals who provided these gametes for the fertilization process cannot maintain the pre-embryo in their possession; they need to have that possession transferred temporarily to the physician and his or her clinic until the pre-embryos are used. However, nothing is transferred to the physician or clinic other than a limited right to possession. The physician and clinic acquire no other

^{215.} In re Witten, 672 N.W.2d 768, 774 (Iowa 2003).

^{216.} Id.

^{217.} Id.

^{218.} Id.

^{219.} A. M. Honoré, Ownership, in THE NATURE AND PROCESS OF LAW 370, 371 (Patricia Smith, ed., 1993).

^{220.} Id.

rights incident to ownership.

What rights do the parties maintain to possession of the preembryos? When sperm and egg are separate, the man has the right to demand "possession" of his sperm, unless that right has been relinquished to a sperm bank or specific recipient of the sperm; the same would be true of a woman's eggs. However, the pre-embryo consists of the sperm and egg together, so when there is disagreement, who can demand possession?

Possession is one of the sticks in the bundle that must be tailored to reflect the human component of the situation. With something like land or a painting, the parties could demand a partition, physically splitting up the property, if possible, or selling it and dividing the monetary proceeds according to fractional shares of ownership. This right to partition is an absolute right of co-owners of property. 221 However, the pre-embryo cannot be physically divided, and the parties in dispute are not looking for money to split; someone is seeking the use of the pre-embryo or some disposition of it. Thus, a pure property principle is insufficient. A single pre-embryo cannot be "partitioned." The disputes have arisen not because both individuals wanted the pre-embryo for their own use, but rather have involved destruction or donation versus personal use. Moreover, the interests involved are not subject to the type of partition where the law could divide the property evenly between the two parties for each party to use as it wished. Such a result would completely frustrate the purpose of the pre-embryos.

In reality, all disputes over pre-embryos would begin with a valid and enforceable contract with the fertility clinic. However, as indicated by the court in Witten, the parties might change their minds from what was originally agreed upon in the contract.²²² There is a need to reject the binding contract view in Kass because, while contracts can easily be enforced in other areas where arms-length transactions are involved, the implications contracts involving pre-embryos are different. thing, the contracts represent agreements with the clinics with respect to actions the clinics should or should not take regarding the pre-embryos stored there. The contracts are not agreements between the parties themselves.223 Additionally, the subject matter of these agreements involves very personal and intimate decisions implicating religious and moral beliefs that may change over time. As stated by one woman considering whether or not to continue storing her remaining preembryos at the fertility clinic, "Before I became pregnant, I thought the decision [to store or destroy the remaining pre-embryos] would be easier for me... [b]ut when it actually happened, I realized these are three potential lives."224

^{221.} SPRANKLING, supra note 192, at 143-44.

^{222.} Witten, 672 N.W.2d at 782.

^{223.} A.Z. v. B.Z., 725 N.E.2d 1051, 1051 (Mass. 2000).

^{224.} Roan, supra note 9, at A1.

The enforceability of the contracts, however, allows the clinics to rely on the provisions with respect to their obligations and responsibilities unless notified in writing that there is some disagreement as to what is to be done with the disposition of the pre-embryos. This written guidance would lessen both the number of potential disputes and the clinic's potential liability, while allowing the parties an opportunity to change their minds about the very personal decision of how to act with respect to pre-embryos.

When a disagreement occurs and the clinic is notified, there are some possible options for the resolution of the dispute:

Scenario 1: In a dispute involving destruction versus personal use, the party desiring personal use could receive the possession stick and be given the ability to have the pre-embryos implanted simply to further the goal of creating life. There would be no requirement that this be the absolute, only means of having a child because adding that requirement would cause an additional burden on the party desiring to make use of the pre-embryo. This burden could further complicate and lengthen the dispute to a point where, even with the pre-embryos available for use, no pregnancy could occur without the use of a surrogate (which brings its own added layer of complications). As stated by Lee Rubin Collins, co-RESOLVE's²²⁶ chairwoman of national advocacy committee. "Reproductive medicine is about creating life, not ending it." 227 allowing the party who desires to make use of the pre-embryo to have the ability to do so even over the objection of the other party, the goal of creating life is recognized and protected. However, as contemplated by the Uniform Parentage Act, the party withdrawing consent would not be obligated to be a legal parent of any children resulting from implantation.²²⁸

Scenario 2: If the dispute is one of destruction versus donation for adoption, if the party opposing destruction opposed that option under any circumstances, the parties could maintain the status quo of continued storage until the death of the party opposing destruction. Additionally, if the party desiring donation for adoption does not oppose destruction if the donation for adoption is not allowed, then the destruction could occur. This scenario is slightly different from the first option presented because in this case neither party desires use for their own purposes of having a biological child.

If we look back to some of the contract theory brought in through the courts in the various cases, at the outset of creating the pre-embryos there was intent on the part of both parties to create the pre-embryos to

^{225.} Witten, 672 N.W.2d at 782-83.

^{226.} RESOLVE: The National Infertility Association "is a community for women and men with infertility and provides information, support, and opportunities to take action." RESOLVE.org Home Page, http://www.resolve.org/site/PageServer (last visited Apr. 14, 2009).

^{227.} Roan, supra note 9, at A1.

^{228.} UNIF. PARENTAGE ACT § 706(b) (1973) (amended 2002).

have a biological child for themselves. Admittedly, at the time it was within the confines of their marital relationship, but the intent to conceive a child was clear and unmistakable. Donation for "adoption" is beyond the realm of personal use. Donation would put the parties' biological offspring into the hands of total strangers—an idea not originally contemplated, unless specifically indicated by contract. Research suggests that many families prefer not to donate their unused pre-embryos for adoption. In a recent study by Duke University in 2007. 22% of the families questioned were somewhat or very unlikely to donate to another couple.²²⁹ Slightly more than the 22% said they would thaw and discard them. 230 Prolonged storage allows the party opposing destruction to continue through life knowing that the pre-embryos still exist, and the party who would like to donate or destroy the embryos is allowed to continue through life knowing that while nothing is being done currently, there is the potential for donation in the future or even ultimately the destruction of the pre-embryos and no use of them.

c. The Right to Transfer

The right to transfer is simply the property owner's right to transfer her property rights to others. In this market-driven world, there is great emphasis on the property owner's right to transfer his property freely; however, the law does impose restrictions on this right. The right to transfer is the stick in the bundle that garners the most concern when treating reproductive material as property. The right to transfer necessarily implicates commodification and the possibility that we will have a "baby market." However, as illustrated by Professor Spar, a baby market already exists, and it is operating virtually without regulation or constraint. As she so eloquently puts it, we "can't put the genie back in the bottle." Nor is it clear that we should. Market regulation, not market eradication, is required. While commodification of children should not be accepted by society, defining property rights in sperm, eggs, hormones, and even pre-embryos would not necessarily turn

^{229.} Roan, supra note 9, at A1.

^{230.} *Id.* The author cites to a study by Anne Drapkin Lyerly, associate professor of obstetrics and gynecology at Duke University. *Id.* Additionally, as noted in the study, almost half of the couples questioned said they would donate the unused pre-embryos to science, including use for stem cell research. *Id.*

^{231.} SPRANKLING, supra note 192, at 5.

^{232.} Id. The examples are given that O cannot transfer title to Redacre for the purpose of avoiding creditors' claims; nor is O free to impose any condition he wishes incident to the transfer and O cannot refuse to sell his rights in Redacre because of the Buyer's race, color, national origin, or gender. Id.

^{233.} SPAR, supra note 164, at 196.

^{234.} Id.

^{235.} Id. at 196-97.

^{236.} Id. at 199-200.

children into chattel.²³⁷ Professor Spar argues that "clarifying a system of property rights would not resolve the deep moral issues that surround the human [pre-]embryo"—but it could provide a framework to identify who has the right to create, dispose of, implant, and exchange [pre-]embryos.²³⁸

Since a market already exists for reproductive material, the right to transfer becomes even more complicated, especially when dealing with pre-embryos that have already been created and are not going to be used by the couple who originally owned the gametes separately but now jointly own the pre-embryo. What type of transfers, if any, should be allowed? And would a transfer of this pre-embryo to someone else be better than just allowing for its destruction?

New law must address transfers in exchange for money. Something can indeed be property, yet not freely alienable. Situations already exist where certain property is inalienable, or is only alienable in a donative transfer. For example, organs cannot be sold for transplantation purposes. If the right to transfer pre-embryos were limited or eliminated, a step would be removed from the pure property characterization. Such limitation or elimination would allow for a donative transfer, i.e. for research or adoption, but not any type of transaction for monetary gain enabling a true market for buying and selling potential children.

However, ART will likely no longer exist if eggs, sperm, hormones, and pre-embryos are transferred or exchanged without any money changing hands. The likelihood of purely gratuitous transfers occurring is slim to none, especially in the context of eggs and pre-embryos where significant medical procedures are required. However, under the ASRM's ethical guidelines, providing some compensation for the service provided would remain possible without permitting hundreds of thousands of dollars exchanging hands for reproductive material from athletes, Ivy League scholars, or people possessing other valued characteristics.²⁴⁰

2. A Property Rights Model is a Reasonable and Workable Solution that Both Promotes Life and Protects Individual Autonomy in Reproductive Matters

Classifying a pre-embryo as property with special dignity takes into

^{237.} Id. at 200.

^{238.} Id. at 202.

^{239.} UNIF. ANATOMICAL GIFT ACT § 16 (2006) (amended 2007).

^{240.} Financial Compensation, supra note 178, at 305-09 (arguing that compensation should not be based on the donor's ethnic or other personal characteristics).

account property owners' traditional rights. It also, however, makes adjustments for the unique situation created by the pre-embryo. The question, then, is why these adjustments should be made and why there should be a bundle of rights tailored for this situation that defines roles and interests in a different way than do original contracts with the fertility clinics. The answer comes down to the reliance interest in property. As Joseph William Singer articulated two decades ago, there is a reliance interest in property rights, and adjustments must be made in instances where there are competing claims over the right of access to property.²⁴¹

Blackstone's definition of property as "that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe" has never been more than partially correct. There are myriad ways property can be shared in ownership, and it is "old-fashioned, misleading and unproductive to identify a single 'owner' of valued resources when control of those resources has been divided by law or contract among several interested parties." 243

Even the most absolute ownership, whether by a single owner or multiple owners, is subject to limitations.²⁴⁴ The use of property is limited in ways that protect interests of the community, prevent substantial interference with neighbors' use and enjoyment of their property, and prevent an owner from disposing of property in such a way that would unreasonably restrain its future alienability.²⁴⁵ While two individuals may have enjoyed almost unlimited freedom to use or not use their sperm and egg, once the two have been joined and a pre-embryo has been created, the laws can and must step in to impose some limitations on the manner in which the future relationships between the individuals and the pre-embryos will continue. Taking a property approach—instead of classifying the pre-embryo as a legal person—can achieve this.

Even though both the man and woman are the "owners" of the rights and interests in the pre-embryos, their interests may no longer be equally protected. The core problem is readjusting the relationship. As the court pointed out in *State v. Shack*,

This process involves not only the accommodation between the right of the owner and the interests of the general public in his use of his property, but involves also an accommodation between the right of the owner and the right of the individuals who are parties with him in consensual transactions relating to the use of the property.... We see no profit in trying to

^{241.} See generally Joseph William Singer, The Reliance Interest in Property, 40 STAN. L. REV. 611 (1988).

^{242.} Id. at 637.

^{243.} Id.

^{244.} Id. at 641.

^{245.} Id. at 642.

decide upon a conventional category and then forcing the present subject into it. That approach would be artificial and distorting. The quest is for a fair adjustment of the competing needs of the parties, in the light of the realities of the relationship....²⁴⁶

In addressing the idea of personal property, Singer uses a social relations approach that works well in the current setting. His social relations approach takes into account power inequalities within the relationships; the focus is on the ways in which vulnerable people rely on relationships of mutual dependence.²⁴⁷ The rights at issue here are created due to a relationship of mutual dependence. The pre-embryo cannot be created without both parts: sperm and egg, male and female. Therefore, the parties are mutually dependent on one another in this process. However, due to scientific facts, the female is more dependent on the male, and from a legal standpoint more vulnerable and acting in reliance on the sperm provider or intended father.²⁴⁸ The legal system sometimes protects the more vulnerable party in a relationship by protecting their reliance interest in the property and limiting protection of the stronger party's interests.²⁴⁹ When entering legal relationships such as a business partnership or a marriage, there are mutual obligations placed on the parties in the relationship; when those relationships dissolve, the legal system requires a further sharing or shifting of property interests to protect the more vulnerable party.²⁵⁰ This adjustment happens "not because the parties have relied on specific promises to their detriment, but because the parties have relied on each other generally and on the continuation of their particular kind of relationship."251 Singer argues that this type of reliance and adjustment of interests has been expanding and is well-established in both the common law and statutes.²⁵²

Property law is replete with examples of reliance and adjustment of interests. For example, in the context of acquiring an interest in land adversely, there is a relationship between the adverse possessor and the "true owner" of the land.²⁵³ The interest of the adverse possessor grows stronger as he moves closer to the point in time when legal title will be transferred to him by virtue of his possession.²⁵⁴ Conversely, the interest of the true owner weakens as he moves closer to that same point in

^{246.} State v. Shack, 277 A.2d 369, 373-74 (N.J. 1971). This same quote in its edited form was also used by Singer in his article. Singer, *supra* note 241, at 643. This language is even more applicable when dealing with new forms of property—we cannot simply force the pre-embryo into some predetermined property mold, nor can we force it into the role of a person.

^{247.} Singer, supra note 241, at 662.

^{248.} Again, this is due to a lack of sufficient medical technology to successfully cryopreserve and thaw unfertilized eggs for future use. See Fleming, supra note 26.

^{249.} Singer, supra note 241, at 664.

^{250.} Id.

^{251.} Id.

^{252.} Id. at 664-65.

^{253.} Id. at 666.

^{254.} Id.

time.²⁵⁵ The adverse possessor is developing a legitimate expectation that he will continue having access to the property.²⁵⁶ "It is morally wrong for the true owner to allow a relationship of dependence to be established and then to cut off the dependent party."²⁵⁷ Ultimately, as the adverse possessor's reliance grows, so do his legal rights, eventually leading to a transfer of legal title to the property without any obligation to compensate the original owner.²⁵⁸

Prescriptive easement is similar, although a specific use of the property is acquired instead of the title itself. However, there is reliance similar to that of adverse possession. In both instances, the ultimate outcome is a transfer or shift of property interests from one party to another due to reliance on both access to the property and the true owner's long-standing acquiescence to the adverse use. In both examples, the party who acted in reliance is not obligated to compensate the former owner. The legal interests of the more vulnerable party are protected by the shift. Property is similar, although a specific use of the property is reliance.

Other illustrative examples include easements by estoppel and easements by necessity. In the context of easement by estoppel, permission is treated as a waiver of property rights rather than an exercise of the same. The general rule is that licenses are revocable at will. However, in easement by estoppel the license is irrevocable because it would be unfair to the non-owner. When the owner knows or should have known that the non-owner was going to expend labor and money in activity in reliance on the permission, the owner cannot come back and interfere with the non-owner's right to access. The easement by necessity, in contrast, does not arise out of any permission from the landowner at all but rather as a legal means of preventing someone from having any access to his property. Access is awarded by law even if not intended by the parties. This protects the more vulnerable party's ability to access his own land. The protects the more vulnerable party's ability to access his own land.

Examples of the reliance factor are also present in market relationships such as that of landlord-tenant and employer-employee. In the last few decades, state and federal legislatures have seen fit to impose some readjustment of interests in an effort to protect the tenant and the employee as the more vulnerable parties in those relationships. The Implied Warranty of Habitability is one of the most significant adjustments in the landlord tenant relationship—moving from a common law approach of "let the lessee beware" to a system where the landlord

^{255.} Id. at 667.

^{256.} Id.

^{257.} Id.

^{258.} Id. at 669.

^{259.} Id.

^{260.} Id. at 670.

^{261.} Id.

^{262.} Id. at 671.

^{263.} Id. at 672.

must disclose defects and warrant the habitability of the premises. Due to the importance of the issue and the unequal bargaining power of the parties, the law has seen fit to make such a provision non-waivable. This redistributes property rights in a way that protects the interests of the more vulnerable party—the tenant.²⁶⁴

The examples provided in the Singer article with respect to the role of reliance interest in law focus on ideas surrounding real property and actual physical access to that property. However, the examples still provide a helpful discussion of how reliance can fine tune the bundle of rights for the pre-embryo. Singer proposed a provision to be included in the Restatement (Third) of Property that "when people create relations of mutual dependence involving joint efforts, and the relationship ends, property rights (access to or control of valued resources) must be redistributed (shared or shifted) among the parties to protect the legitimate interests of the more vulnerable persons." The legal system recognizes affirmative obligations that grow out of relationships over time, and it does not confine such obligations to those formally agreed to by the parties."

In several cases and in commentary by legal scholars, an equitable estoppel theory has been argued to allow the woman to make use of the pre-embryo and prevent its destruction. 267 However, the reliance theory has thus far been rejected by courts. Singer's theory cuts to the heart of the medical and emotional relationship taking place between the man and woman. She needs his sperm. She needs to utilize cryopreservation, either because her eggs are about to be destroyed by chemotherapy, or because they are no longer available due to age. In reliance on the man's willingness to provide his sperm for this situation, she is vulnerable and dependent on this continued relationship. If the man withdraws his consent, she is effectively blocked from having biological children. At the very least, that prospect is significantly more difficult, whether due to additional medical risks, uncertainties, or even expense. This results from her reliance on their particular kind of relationship. Just as property is equitably divided during divorce, the pre-embryo can be as well. Concepts of equity would take this into consideration and allow for readjustment of the interests.

^{264.} Id. at 679, 682.

^{265.} Id.

^{266.} Id. at 701.

^{267.} See Brief for Augusta Roman at 35-38, Roman v. Roman, 193 S.W.3d 40 (Tex. App.—Houston [1st Dist.] 2006, pet. denied), cert. denied, 128 S. Ct. 1662 (2008), and reh'g denied, 128 S. Ct. 2469 (2008). Augusta argued that Randy Roman should be estopped from asserting rights because Augusta relied on his conduct in good faith and this caused her to change her position for the worse. See id. at 36. As set forth in Augusta Roman's Reply to Randy Roman's Responsive Brief on the Merits, the record revealed that Randy consented twice to implantation and then withdrew his consent twice. Id. at 15. Additionally, there were six fertilized embryos and had Randy not withdrawn consent ten hours before the procedure there would have been no remaining embryos cryopreserved because Dr. Schnell would have implanted all six. Id. at 16. This is a situation where Augusta relied on Randy to her detriment and equity should have caused her to prevail.

The readjustment that would allow one of the parties to use the preembryo over the objection of another is one that has already been contemplated in the Uniform Parentage Act (UPA) in its provisions dealing with paternity issues of the pre-embryo. The UPA has been codified by a number of states in its entirety and has been adopted by all states at least in part. The purpose of the 2002 Act is to revise the 1973 version of the UPA to modernize the law for determining the parents of children. The comments preceding Article 7, "Child of Assisted Reproduction," include some insight into what the UPA attempts to achieve:

If the couple later divorces, or one of them dies, absent legislation there are no clear rules for determining the parentage of a child resulting from a pre-zygote implanted after divorce or after the death of the would-be father. Disposition of such pre-zygotes, or even issues of their 'ownership,' create not only broad publicity, but also are problems in which the courts need guidance.²⁷¹

A comment following section 702, "Parental Status of a Donor," also states that issues of ownership and disposition are left to other statutes or to common law.²⁷² Only the issue of parentage falls within the UPA.²⁷³

There are two sections within Article 7 that are particularly applicable to this discussion. In section 704, the UPA addresses consent to assisted reproduction by the man and woman. The section specifically provides that consent by a woman and man who intend to be parents of a child born via ART must be in a record signed by both of them.²⁷⁴ However, the next subsection states that failure of the man to sign the consent before or after birth does not prevent a finding of paternity if he raised the child with the woman for the child's first two years.²⁷⁵ In a subsequent provision, section 706, the UPA addresses the effect of dissolution of marriage or withdrawal of consent.²⁷⁶ Section 706 provides, "If a marriage is dissolved before placement of eggs, sperm or [pre-]embryos, the former spouse is not a parent of the resulting child unless the former spouse consented in a record that if assisted reproduction were to occur after a divorce, the former spouse would be a

^{268.} UNIF. PARENTAGE ACT §§ 702-707 (1973) (amended 2002).

^{269.} See Lawyers.com, The Uniform Parentage Act of 2002, http://family-law.lawyers.com/paternity/The-Uniform-Parentage-Act-of-2002.html (last visited Apr. 18, 2009).

^{270.} Uniform Law Commissioners, supra note 209.

^{271.} UNIF. PARENTAGE ACT art. 7, prefatory note (1973) (amended 2002).

^{272.} UNIF. PARENTAGE ACT § 702, comments (1973) (amended 2002).

^{273.} Id.

^{274.} Id. at § 704(a).

^{275.} Id. at § 704(b).

^{276.} Id. at § 706.

parent of the child."²⁷⁷ The following subsection provides, "The consent of a woman or man to assisted reproduction may be withdrawn by that individual in a record at any time before placement of eggs, sperm, or [pre-]embryos.... An individual who withdraws consent under this section is not a parent of the resulting child."²⁷⁸

The comments to this section seem to have contemplated the very position of this article.²⁷⁹ This position recognizes that an enforceable agreement could be made with the clinic that still allows the individual the opportunity to change his or her mind as to disposition of the preembryos. Further, this position allows one party to use the pre-embryos without the consent of the other, and relieves the non-consenting party from legal responsibility for the child. However, the non-consenting party is not deprived of the right to be a legal parent.

Some commentators have taken issue with the provisions in the UPA regarding parentage in the context of assisted reproduction specifically, a person's ability to avoid legal parenthood by withdrawing consent to ART.²⁸⁰ However, as noted by one critic, the provisions of section 706 work as a compromise regarding the problematic issue of disposition of the pre-embryos at the time of divorce. ²⁸¹ If a system is in place as the one proposed in this article, by allowing one party to be able to use the pre-embryos over the objection of the other, the compromise position would be to allow the objecting party the chance to avoid legal parenthood of any resulting child or children. 282 This compromise is a means of reducing the validity of the argument that the objecting party's right to avoid procreation should prevail as it has been in our past case law. Although in Singer's examples there was no compensation or consideration exchanged for the more powerful party's adjustment, this compromise acknowledges to the objecting party's desire to avoid becoming a parent.

Why should parenthood be avoided in the context of ART where the parties intended at one point to create a child? This is especially questionable when, in the context of natural conception, there may not have been intent to conceive but legal responsibility cannot be avoided.²⁸³ It is, in part, a compromise due to the situation presented, but there is a rational reason behind the compromise. In the circumstance where a pregnancy occurs in the context of sexual intercourse, if the pre-

^{277.} Id. at § 706(a).

^{278.} Id. at § 706(b).

^{279.} Id. at § 706, comments. If a former wife proceeds with assisted reproduction after a divorce, the former husband is not the legal parent of the resulting child unless he had previously consented in a record to post-divorce assisted reproduction and had not withdrawn any such consent prior to the post-divorce assisted reproduction.

^{280.} See, e.g., Susan B. Apel, Cryopreserved Embryos: A Response to "Forced Parenthood" and the Role of Intent, 39 FAM. L. Q. 663 (2005).

^{281.} Id.

^{282.} See id. at 676. See also Ellen Waldman, The Parent Trap: Uncovering the Myth of "Coerced Parenthood" in Frozen Embryo Disputes, 53 Am. U. L. REV. 1021, 1062 (2004).

^{283.} See Apel, supra note 280, at 667.

embryo does indeed implant itself in the uterine wall and development begins, we are in the period of gestation, and continued development of that pre-embryo is going to occur unless there is a natural miscarriage of the pregnancy or there is an abortion that terminates the pregnancy. The man ends up being the legal father of the child regardless of whether he wanted to have a child, or even contemplated having a child.²⁸⁴ However, at that point in time, the child is going to be born, barring some unexpected circumstances, whether or not the father or mother intended be a parent. In the context of a child created by ART, however, there is a lot of choice involved even after the pre-embryo has been successfully created.

The UPA does, admittedly, provide an "out" for the man when children are born from ART. One reason may be the potentially contractual nature of this process. An alternative explanation might be that a cryopreserved pre-embryo is closer to the property end of the spectrum than the person end of the spectrum, allowing for some mixing and matching of bundled rights. Focusing on conscious choice, ART presents a situation where, initially, there was choice and intent on the part of both parties to take steps toward having a child. Both chose to create pre-embryos and to cryopreserve at least some of them. Later, when there are still pre-embryos in storage, there is another choice to be made—what should happen to them? If the pre-embryos were legal human beings, no choice would be available—every single one of them would have the right to be implanted in an attempted pregnancy.

If the pre-embryos are treated as property with special dignity because of the potential for human life, there remains a choice regarding disposition. Because this property involves the interests and desires of both parties, both parties get to make the choice. Again, if both still feel the same as they did when signing the original agreement with the clinic, the clinic proceeds with their instructions. If there is a change, the party desiring a changed outcome must notify the clinic and the other party in writing. If there are clear statutory guidelines as to what happens next, the clinic knows how to proceed. Thus, one party may make the choice to try to have a child using the cryopreserved pre-embryos, while the other party has a choice of whether or not to be responsible for and involved in the potential child's life. At this juncture, there is no gestation, and there is not yet a clear path to a child being born. Rather, these stages, which naturally take place inside the woman after sexual intercourse, have been frozen and suspended from the passage of time.

^{284.} UNIF. PARENTAGE ACT § 201(b) (1973) (amended 2002). The prefatory comments to the 2002 UPA also state that equal treatment of marital and nonmarital children was a hallmark of the 1973 UPA. The goal of treating marital and nonmarital children equally is also accomplished in article seven, addressing children of assisted reproduction. *Id.* at § 701-07. There is just a distinction made between those children and those conceived via sexual intercourse. *Id.* at § 701. Section 701, Scope of the Article, very specifically states "[t]his article does not apply to the birth of a child conceived by means of sexual intercourse." *Id.* This seems to be an acknowledgment of the different circumstances involved in those situations.

This *time* is what makes the situation different. It is not a few hours or a few days—it is years. Much can happen—and does happen—during those years. To some extent, once the man has withdrawn consent he has become a sperm donor. If he so chooses, he can fade into the background like an anonymous sperm donor, allowing the woman who still desires to have a child the opportunity to attempt to do so.

V. THE ROLE OF THE LEGISLATURE: A BALANCED APPROACH

Legal rules do not necessarily correspond perfectly with moral, religious, and philosophical ideologies: the legal rules involved in abortion, capital punishment, and birth control are just a few examples. However, at some point there must be a legal analysis conducted separately from moral, religious, and philosophical concerns in order to develop a cohesive legal structure. This structure can then be refined in compliance with society's moral, religious, and philosophical values. Courts cannot be expected to do this. The state or federal legislatures must take on this task.

"Currently we are making choices in a purely ad hoc way, depending on the state, the local court system, and the finances of the individuals involved. Surely this is not the best way to deal with such dramatic decisions."²⁸⁶ There has been much recognition of this fact. For example, the comments to article 7 of the UPA state that issues such as ownership and disposition of pre-embryos, regulation of medical procedures, and insurance coverage are left to other statutes or to the common law.²⁸⁷ Moreover, according to The President's Council on Bioethics in 2004, "the current regulatory landscape is a patchwork, with authority divided among numerous sources of oversight."288 However, the Council's report went on to state that the "objectives of current direct federal oversight of ART are consumer protection and quality assurance for [pre-]embryo laboratories While these are important goals, they states had made attempts at addressing ethical concerns of ART, there is lack of uniformity among states, with many providing little to no regulation.²⁹⁰

^{285.} UNIF. PARENTAGE ACT § 702 (1973) (amended 2002). "A donor is not a parent of a child conceived by means of assisted reproduction." *Id.* The comments indicate that this applies to donors of sperm or egg. *Id.* The donor can neither sue to establish parental rights, nor be sued and required to support the resulting child. *Id.* In sum, donors are eliminated from the parental equation.

^{286.} SPAR, supra note 164 at 225.

^{287.} UNIF. PARENTAGE ACT § 702 (1973) (amended 2002).

^{288.} THE PRESIDENT'S COUNCIL ON BIOETHICS, supra note 17, at 44.

^{289.} Id. at 45.

^{290.} Id.

In a 2003 report, The President's Council on Bioethics proposed regulations that would require reporting of creation, use, and disposition of [pre-]embryos.²⁹¹ The committee stated that requiring reporting of data on the creation, use, and disposition of the pre-embryos would signal a measure of respect for "nascent human life and would allow prospective patients, policy makers and the public to better understand the actual practice of assisted reproduction." While these considerations are important, the reporting requirement realistically only impacts the clinic; it does nothing for the parties fighting over the disposition of their pre-embryos. Disposition is inherently personal and should be left to the control of the individuals, although some legislation is needed to provide assistance to courts that are otherwise left to struggle with these issues.²⁹³

The following is a legislative scheme implementing the model proposed above. It allows for a large degree of personal autonomy by the parties, while within the realms of sound ethical judgment.

AUGUSTA'S LAW: PROTECTING AUTONOMY IN ASSISTED REPRODUCTION²⁹⁴

A BILL TO BE ENTITLED

AN ACT relating to the storage and usage of in vitro fertilized ova.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Subchapter H, Chapter 160, Subtitle B, Title 5, Texas Family Code is amended to add Sections 160.708-.719 to read as follows:

Sec. 160.708. LEGAL STATUS OF EMBRYO PRIOR TO PLACEMENT. For the purposes of this chapter an embryo prior to placement shall not be considered property nor shall it constitute a person; it shall be property with special dignity.

Sec. 160.709. RIGHT TO TRANSFER. (a) Reproductive

^{291.} THE PRESIDENT'S COUNCIL ON BIOETHICS, U.S. PUBLIC POLICY AND THE BIOTECHNOLOGIES THAT TOUCH THE BEGINNINGS OF HUMAN LIFE: DRAFT RECOMMENDATIONS 3 (2003), available at http://bioethicsprint.bioethics.gov/background/bpprecommend.html.

^{293.} LLOYD T. KELSO, 1 N.C. FAMILY LAW PRACTICE § 9:4. Kelso cites to a California Court of Appeals opinion where the court stated "we join the chorus of judicial voices pleading for Legislative attention to the increasing number of complex issues spawned by recent advances in the field of artificial reproduction. Whatever merit there may be to a fact-driven case-by-case resolution of each new issue some overall legislative guidelines would allow the participants to make informed choices and the courts to strive for uniformity in their decisions." Prato-Morrison v. Doe, 103 Cal. App. 4th 222, 232 n.10 (Cal. Ct. App. 2002).

^{294.} This proposed bill is envisioned to be adopted as part of the Texas Family Code to work along with the provisions of the Uniform Parentage Act that are already a part of the Texas Family Code. The Texas Family Code provisions that adopted the UPA use the term "embryo" for what I have referred to throughout this article as "pre-embryo." Thus, the proposed bill uses the term "embryo" for consistency with the Texas Family Code.

components still in existence as individual sperm or ovum may be donated or transferred with the individual's consent.

- (b) If a man and woman contracted for the creation of an embryo, the embryo may be donated or transferred to a third party if both the man and woman consent.
- Sec. 160.710. AGREEMENT WITH FERTILITY CLINIC. (a) A licensed physician assisting with artificial reproduction may require parties to enter into an agreement regarding disposition of sperm, eggs, and/or embryos prior to treatment.
- (b) The original agreement of the parties with the fertility clinic completed prior to creation of an embryo shall govern any embryo produced under the agreement subject to the provisions of this subchapter.
- Sec. 160.711. REQUEST FOR MODIFICATION OF AGREEMENT WITH FERTILITY CLINIC. (a) A party to an agreement with a licensed physician regarding the disposition of eggs, sperm, or embryos, may modify the agreement at anytime prior to the placement of such eggs, sperm, or embryos. Modification may include:
 - (1) A party may revoke consent to the treatment; and
- (2) A party may modify the disposition of sperm, eggs, or embryos that have not been used.
- (b) To modify the agreement the modifying party must provide written communication to the licensed physician and all parties named in the original agreement. Such communication shall include:
 - (1) changes sought; and
 - (2) reasons for such changes.
- (c) If the licensed physician, clinic, or storage facility has already acted in accordance with the terms of the original agreement with respect to disposition of the eggs, sperm, or embryos prior to receipt of the request for modification, the clinic shall not be subject to any liability or penalty.
- (d) A donor shall not be considered a party for the purposes of this subchapter.
- Sec. 160.712. ORIGINAL AGREEMENT NO LONGER EFFECTIVE. (a) Upon receipt of communication meeting standards described in Section 160.711, the original agreement shall no longer be effective and the clinic shall be required to act according to the parameters of this statute governing disposition.
- (b) If presented with a temporary court order, the clinic or licensed physician shall be obligated to continue storage of the eggs, sperm, or embryos until final resolution of the dispute.
- Sec. 160.713 DISPOSITION OF EMBRYO FOLLOWING DIVORCE. If both a man and a woman contracted for the creation of the embryo, and the parties are no longer married or never were married, the disposition of remaining embryo or embryos shall be handled in

accordance with the following:

- (1) If both parties request possession of the embryo for implantation for the party's opportunity to bear a child, the embryo shall be implanted in the woman or a surrogate mother for the purposes of conceiving a child. The man and woman will be legal parents of the child. If there are multiple embryos and both parties request possession for their own use, embryos shall not be split up for implantation in multiple women.
- (2) If one party requests possession of the embryo for implantation for that party's opportunity to bear a child, the embryo shall be transferred to that party even if the other party does not consent. If the other party does not consent to the transfer, the non-consenting party shall be treated as a donor and will not be the legal parent of a resulting child. If the party consents to the transfer on the grounds that he or she will not be the legal parent, the party shall be treated as a donor.
- (3) If one party requests that the embryo be donated for scientific research, such donation shall only occur with the express written consent of the other party to the original agreement. In no event shall an embryo donated for use in research be used for the purposes of conceiving a child.
- (4) If one party requests that the embryo be donated to another for the purposes of conception, such donation shall only occur with the express written consent of the other party to the original agreement. In the event that there is disagreement with respect to donation for embryo adoption,
- (A) If both parties desire destruction in the alternative, express written direction by both parties must be provided to the clinic so that destruction may occur.
- (B) If both parties do not agree to destruction in the alternative, the embryo shall continue to be stored in its cryopreserved state with the party objecting to destruction paying for the cost of storage. At some time in the future, either party may request possession of the embryo for his or her own personal implantation or both parties may jointly consent to embryo donation or destruction. If the embryo continues in its cryopreserved state until the death of both parties to the original agreement, the embryo will be donated to scientific research unless the parties expressly objected to such donation in a writing that had not been revoked, in which case the embryo would be destroyed.

Sec. 160.714. STORAGE OF EMBRYOS UPON REQUEST FOR MODIFICATION. Upon receipt of written communication seeking modification of the agreement, the storage facility shall maintain the embryo in storage until:

- (1) written modification is provided under the provisions of the above section and the other party has been given an opportunity to respond; or
- (2) the embryo is no longer viable and the parties have been given the option of seeking a second opinion.

Sec. 160.715. DETERMINATION THAT THE EMBRYO IS NO LONGER VIABLE. In the event the storage facility determines the embryo is no longer viable, the embryo shall only be removed from storage after all parties have been given the option to seek a second opinion regarding the viability of the embryo. The party or parties seeking the second opinion shall pay for the costs in obtaining the second opinion.

Sec. 160.716. DISPOSITION UPON DEATH OF A PARTY. (a) Upon the death of a party to the agreement, the disposition of an embryo shall be governed by the agreement or modified agreement in effect at the time of death. If at the time the first party dies that individual has not given express written consent to donation for the purpose of conception, the only remaining disposition options shall be use by the surviving party to have the embryo implanted to have a biological child of his or her own, destruction of the in vitro fertilized ovum, or donation for scientific research as long as the decedent had not expressly objected in writing during his or her lifetime to such donation for scientific research. Should the surviving party choose to make use of the embryo for the purposes of conception to have a biological child of his or her own, the parentage of any resulting child shall be treated in accordance with Section 160.707.

(b) Upon the death of both parties, if there is no mutual agreement in writing as to donation for embryo adoption or either party has expressly objected to donation for scientific research, then the in vitro fertilized ovum shall be destroyed. Destruction can only be avoided with some form of donation if there is no opposition by either party during their respective lives.

Sec. 160.717. SALE OF EMBRYO PROHIBITED; CRIMINAL PENALTY. (a) A person may not purchase, sell, or otherwise transfer for valuable consideration a human embryo.

- (b) In this section, "valuable consideration" does not include reasonable payments associated with:
 - (1) the time, medical procedures, or discomfort of the donor; or
- (2) the transportation, processing, preservation, or storage of the sperm, egg, or embryo.
- (c) At no time may compensation be based on racial, ethnic, or other genetic traits.
- (d) A person commits an offense if the person knowingly violates Subsection (a). An offense under this subsection is a felony of the first degree.

Sec. 160.718. FAILURE OF STATUTE TO RESOLVE ISSUE. Should an agreement not be able to be modified by the provisions of this subchapter, the court shall make determinations giving regard to the embryo or embryos with view to the parents having defined property rights in the embryo and shall not treat the embryo as a legal person.

Sec. 160.719. SUBCHAPTER NOT APPLICABLE. The provisions of this subchapter shall be limited in application to the

situations narrowly described. These provisions shall not be extended by analogy to other contexts without express approval by the Legislature.

VI. ANALYZING THE RESOLUTION OF PRIOR DISPUTES UNDER THE PROPOSED MODEL

Applying the proposed model to the cases discussed above causes the cases' outcomes to differ substantially. In *Davis v. Davis*, the court's decision came down to a choice between one party's desire to donate the pre-embryos to another couple and the other party's desire to have the pre-embryos discarded.²⁹⁵ Discarding won out in a test balancing the right to procreate against the right not to procreate.²⁹⁶ In applying the proposed model to the *Davis* case, the pre-embryos would still not be donated to a third party over the objection of one party, but they would not be discarded either. If Mary Sue Davis had wished to pay for storage until the time of her death, the pre-embryos could have been stored until that time, allowing her to avoid the emotional turmoil of destroying the pre-embryos.

In Kass v. Kass, the court followed the binding contract approach, requiring donation of the pre-embryos to the clinic for research. The court upheld the agreement with the clinic despite Maureen Kass's objection to having the pre-embryos donated for research and her continued desire to use the pre-embryos to have a biological child of her own. Applying the proposed model, this would be a case where one party changes her mind prior to the ultimate disposition of the pre-embryos and still desires to use the pre-embryos for her own attempts at having a biological child. Maureen Kass would have been awarded the pre-embryos for her attempts to have a child and her ex-husband would have been given the option of either consenting to the implantation and being the parent of any born child, or objecting and being relieved of any responsibilities of parenthood.

In A.Z. v. B.Z., the court faced the dilemma of a woman who desired to use stored pre-embryos to have a biological child. Her exhusband objected to the use of the stored pre-embryos and favored destruction in order to avoid procreation. The court found unenforceable an agreement that would have given the pre-embryos to the woman, $A.Z.^{301}$ This holding for the husband prevented his ex-wife

^{295. 842} S.W.2d 588, 589 (Tenn. 1992).

^{296.} See id. at 603-05.

^{297. 696} N.E.2d 174, 178 (N.Y. 1998).

^{298.} Id.

^{299. 725} N.E.2d 1051, 1051 (Mass. 2000).

^{300.} See id. at 1053.

^{301.} Id. at 1057.

from implanting the remaining pre-embryos and in effect vetoed her efforts to have more children. This is another case where one party desires to use the pre-embryos for her own personal use to have a child. The distinguishing factor here is that the circumstances for A.Z. were not as dire as those for Ms. Kass or Ms. Roman—A.Z. had the opportunity during marriage to have two biological children. However, the pre-embryos were stored for the purpose of additional attempts at pregnancy and that is what was desired by A.Z. In this circumstance, A.Z. would be allowed to use the pre-embryos for her own implantation and B.Z. would be relieved of parental responsibilities if he so chooses.

In J.B. v. M.B. the man wanted the pre-embryos donated to another couple, while the woman wanted them destroyed.³⁰³ There, the court, in an interest-balancing approach, allowed for the destruction of the pre-embryos.³⁰⁴ Under the proposed model, the destruction could be avoided and prolonged storage achieved with J.B. paying for those costs during his lifetime. However, M.B. could successfully object to any donation to a third party.

In *Litowitz v. Litowitz*, rather than completely ignoring the desire of both parties in sticking strictly to a prior agreement with the clinic, the court allowed the parties to modify their original choices.³⁰⁵ While the agreement with the clinic allowed for destruction, neither party desired that result.³⁰⁶ David Litowitz desired donation to another couple and Becky Litowitz desired to use the pre-embryos for her own personal use.³⁰⁷ A strict application of a binding agreement approach might allow for destruction. However, applying the proposed model, Becky Litowitz would have been allowed to personally use the pre-embryos and David would have had the option of either choosing to become the parent of any resulting child, or declining any such legal obligation and involvement.

In re Witten presented another dispute where the husband desired donation to another couple but no use by his wife, while the wife desired to use them herself but was willing to give her husband the option of paternal responsibility. Both parties adamantly opposed destruction, but Tamara also opposed donation to another couple. The Iowa court allowed for prolonged storage with the parties allocating the fees to the one who desired not to destroy. Under the proposed model, Tamara would be allowed to do as she desired: have implantation of the pre-

^{302.} See id. at 1052-53 (noting that after the ex-wife had her left fallopian tube removed she was only able to conceive once she underwent IVF treatment).

^{303. 783} A.2d 707, 707 (N.J. 2001).

^{304.} Id. at 714.

^{305. 48} P.3d 261, 271 (Wash. 2002).

^{306.} See id. at 264.

^{307.} Id.

^{308.} In re Witten, 672 N.W.2d 768, 772 (Iowa 2003).

^{309.} Id.

^{310.} Id.

embryos, and then give Trip the opportunity either to be a parent to any born children or to avoid such responsibility and relationship.

Finally, in the heartbreaking case of *Roman v. Roman*, the proposed model most definitely avoids destruction of the pre-embryos and provides Augusta Roman with the opportunity to try for a biological child.³¹¹ In the dispute where Augusta desired personal use of the pre-embryos and Randy desired destruction, Augusta's personal use would win out, while still affording Randy the opportunity to decide whether to be a father to any children born of such efforts or to avoid the relationship. Augusta Roman would at least have had the opportunity to do what the couple originally set out to do—make an attempt to have a biological child.

In looking back at the different results, the decisions by the various courts allowed for destruction in five of the cases, donation for clinical research in one case, and storage without use in one case. Application of the proposed model results in personal use of the pre-embryos in five of the cases, and storage without use in two cases. In no case would the pre-embryos have been destroyed immediately as a result of disagreement upon divorce. This drastically different set of results strongly favors life and dignity while retaining the guidance of a property rights model.

VII. CONCLUSION

Science advances at warp speed and the rest of us are trying to catch up. Our ideas about morality, ethics, and the law's role in these decisions are all still evolving and changing, as are the desires of the man and woman whose hopes for a biological child of their own rest in the hands of the miracle workers at fertility clinics across the country. They enter into agreements, make decisions about things that might happen many years down the road in an attempt to do something in the moment. While it is important to have enforceable agreements to provide guidance and evidence of intent, these agreements are more important to the clinics and their operational concerns than they are for the individuals involved. The people in the middle of this emotional roller coaster need the opportunity for a change of heart. The law needs to recognize that decisions change, especially when those decisions concern an individual's reproductive future. By beginning to address these issues, the law might avoid the sort of heartbreak experienced by Augusta Roman and the individuals discussed in Section VI of this article, and there might be more happy, healthy, and loved children in the world today. Does achieving this goal require that the cryopreserved pre-

^{311.} Roman v. Roman, 193 S.W.3d 40 (Tex. App.—Houston [1st Dist.] 2006, pet. denied), cert. denied, 128 S. Ct. 1662 (2008), and reh'g denied, 128 S. Ct. 2469 (2008).

embryo gain status as a legal person? No. Property rights can help us to achieve a middle ground, providing guidance for the people stuck in the middle of the vortex.