

The Determination of Embryonic Status: Merging Context and Whim

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The collapse of moral arbiters in American society has led to the theoretical and practical resolution of familial matters in courts of law. In recent years, assisted reproductive technology has aided many individuals in delaying and achieving parenthood through cryopreservation of embryos. A conservative estimate suggests that there are presently well over hundreds of thousands—probably over one million—cryopreserved embryos in the United States. While embryos are generally not accorded an ontological status of personhood, the abortion debate has implicitly shaped legal discourse. Cryopreserved embryos are genetic extensions of procreating persons who desire parenthood at some point in time. The complexity of societal and cultural norms of parenthood creates complex indecisions regarding the use, donation, and/or disposal of cryopreserved embryos. Legal decisions, occasioned by disputes about the disposition of cryopreserved embryos, illustrate the apparent need to determine embryonic status. This article focuses on legal cases that have entertained the uncertainty of embryonic status in society and highlights the protections afforded to individuals in their pursuit of life, liberty and parenthood.

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The ontological status of cryopreserved embryos is at issue in an increasingly wide set of contexts. While embryos are generally accorded a lesser ontological status than fetuses, the abortion debate has implicitly shaped discourse about embryonic status. Efforts to determine embryonic status have played a key role in a variety of legal disputes. These include disputes between maternal and paternal procreators of the embryo (progenitors) and disputes between a progenitor or progenitors and embryo storage facilities, fertility clinics, and clinicians.

That courts are being asked to settle disputes about the status—and thus, often the fate—of cryopreserved embryos reflects widespread social uncertainty and disagreement about the status of embryos (and of fetuses). Various positions—that embryos are persons, that they are property, that they enjoy an intermediate position between the two, that they are merely a form of human tissue, or that they enjoy a status not yet, or only recently, determined—suggest the depth of social confusion about the status of embryos, as well as confusion about the status of fetuses and persons. This article reviews a set of determinations about embryonic status, mostly by courts of law, since that is the setting to which disputes about embryos are often brought for resolution. In examining these decisions, it is important to note that judicial decisions about embryonic status generally reflect context (the character of the dispute itself) and the ideological perspective of particular judges—the decision makers. The phenomenon is not unfamiliar, particularly within the context of the debate about abortion in the United States. As a result of the collapse of American values that supported a host of community-based moral arbiters (from the ‘priest,’ to the school principal, to the doctor), disputants now seek alternative venues for resolving disputes. Courts of law have offered an alternative. Yet, the notion that embryonic (or fetal) status can be assessed and clarified through judicial decision-making is discomfiting. Parenthood is a deeply personal choice complicated by cultural norms and, at least in part, protected by the Fourteenth Amendment to the U.S. Constitution. The significance of that protection for progenitors of frozen embryos is less clear.

That courts of law are acting as moral arbiters in disputes about the disposition of embryos no longer wanted by the progenitors for reproduction occasions practical and theoretical consequences. A wide swath of legal decisions, aimed at resolving disputes about the disposition of frozen embryos, illustrates the apparent need to determine embryonic status in the course of settling such disputes.

This article focuses, as well, on a set of practical questions not often entertained in court. These questions follow from the continuing obligation of cryopreservation facilities to store embryos apparently no longer needed

for reproductive purposes. Such facilities face significant confusion in considering how best to handle cryopreserved embryos frozen in the context of caring for the reproductive needs of intending parents who cannot be located and who stopped paying storage fees, sometimes years earlier.

BACKGROUND

In vitro fertilization (IVF) first resulted in a successful human pregnancy and birth in 1978 [1]. Since that time, reliance on assisted reproductive technology has become increasingly common among individuals and couples facing infertility or medical conditions that make natural reproduction unlikely or impossible. Since 1978, millions of babies conceived in vitro have been born throughout the world [2]. Over 300,000 reproductive technology attempts—most of which included IVF—occurred in the United States in 2018 alone [3].

Ontological assumptions about the beginning of life are complicated by discourse about the definition of terms used in reproductive medicine. Human beings have 23 diploid (paired) sets of genetic material, commonly referred to as 46 chromosomes. A gamete is one of two paired haploid reproductive cells, male (spermatozoon) and female (oocyte), whose union is necessary to initiate the development of a new human being. When the female gamete (oocyte) is fertilized by the male (spermatozoon), cell division occurs. An embryo represents the early stage of development from the fourth day of fertilization through the eighth week when sexual organs form. Individual gametes or an embryo may be cryopreserved (frozen) and stored in liquid nitrogen at a temperature of -196 degrees Celsius [4]. Embryos are usually cryopreserved during the first week of fertilization. Cryopreserved embryos are successfully thawed 90% of the time and lead to successful implantation about as often as implantation with fresh embryos [5]. This article will focus on cryopreserved embryos within the first week of human development and on individual gametes.

The process of creating embryos through IVF has often resulted in more embryos than can reasonably be implanted in one woman during any reproductive cycle [6]. By the 1980s, it had become possible to cryopreserve embryos not used in a particular reproductive cycle [7]. Cryopreserving and storing extra embryos have eased the cost and burden of infertility treatments and limited the risk to women of undergoing multiple cycles of drug-induced superovulation and ova extraction [5]. The first successful pregnancies using embryos that had been cryopreserved and thawed occurred in the early 1980s [8]. Increasingly, fertility clinics have offered patients the opportunity to have embryos not used in a particular treatment cycle frozen for future use [5].

However, patients often do not use all of their cryopreserved embryos (frequently referred to as pre-embryos)¹ for reproductive purposes even over significant periods of time [9]. Sometimes they accomplish their reproductive goals. Sometimes they decide to refrain from further infertility treatment for other reasons. Many who defer parenthood often grapple for years with indecision regarding disposal, donation, or use of their cryopreserved embryos [10]. Intending parents with extra embryos may not be able to decide easily how to dispose of embryos no longer wanted for their own reproductive use.² This essay uses the term “intending parent(s)” to refer both to progenitors and to those intending to become parents through use of embryos produced by others. Either group may decide to store frozen embryos (whether created through their own gametes or donated gametes).

For intending parents no longer interested in becoming parents through the use of cryopreserved embryos, choices include donation to others for reproduction, donation to research (stem cell research or other sorts of research) [11],³ embryo destruction, and delaying the decision about how to dispose of extra frozen embryos through continued storage [12]. These choices, often grounded—implicitly or explicitly—on assumptions about embryonic status, can be daunting, leading to significant uncertainty. In the face of this uncertainty, the default position for people with cryopreserved embryos has often been continued storage. As a result, embryos may remain in storage long after couples have lost any interest in using them for reproductive purposes and even after couples have stopped paying storage fees for the continued cryopreservation of the embryos [9]. This presents a dilemma for cryopreservation storage facilities, especially in cases in which the facilities have lost contact with the intending parents [9]. Some directors of cryopreservation facilities have expressed uncertainty about their legal and ethical obligations regarding unclaimed embryos. Medical research has suggested including disposition options during the informed consent process. It is not clear whether or not implementation of that suggestion will be beneficial [10]. This article will proceed to examine, respectively, uncertainty among cryopreservation facilities faced with unclaimed embryos about what

¹ Language choices can play a strong part in determining visions of embryos and fetuses. A number of courts have used the term “pre-embryo” (or “preembryo”) in resolving disputes about the fate of frozen embryos. In part at least, that term suggests that the cells whose fate is at issue enjoy a status below that of “embryos.” This article, aimed at examining diverse perspectives about embryonic status, will use the term “embryos” which seems the more neutral of the two terms.

² The word “dispose,” as used here, refers to any method of providing for the embryos’ future (e.g., use in research, donation to another party or couple; continuing storage; discard with no future use).

³ A couple of studies found that patients undergoing fertility treatment are more positive about donating extra embryos for infertility research than for stem-cell research.



e Biagio e Cesare Arrigo, Antonio/Azienda Ospedaliera SS. (2019). *Cryopreservation of stem cells in liquid nitrogen* (edited). Photograph. Retrieved from https://commons.wikimedia.org/wiki/File:Antonio_e_Biagio_e_Cesare_Arrigo_Cryopreservation.jpg.

to do with those embryos, uncertainty among intending parents about the fate and status of their stored embryos, and uncertainty among judges about how best to resolve disputes about the disposition of stored embryos. Judicial examination of the uncertainty of embryonic status reflects social perspectives of the time. In effect, court decisions provide a historical passport for an anthropological excursion.

UNCERTAINTY AMONG CRYOPRESERVATION FACILITIES

Experts have estimated that at least hundreds of thousands of embryos are cryopreserved in the United States [13]. Others estimate that the number is in the millions [5]. (These numbers include, but are not limited to, unclaimed embryos.) Potential fees owed by intending parents for storage per cryopreserved embryo cycle usually range from \$500 to \$1,000 each year but can be more than that [9]. One owner of a fertility clinic in Florida that provides patients with the opportunity to cryopreserve and store embryos reported that over one-fifth of the embryos stored at his clinic had been “abandoned”⁴ [9]. Embryos are generally not considered to be unclaimed until the intending parents fail to pay annual storage fees for several years and cannot

⁴ In general, embryos are said to be “abandoned” if storage fees have not been paid for at least five years and the patients does not respond to communication from the clinic that has stored the embryos [9]. The term in application to unclaimed embryos seems to have been used first in 1983 in reference to the embryos of Elsa and Mario Rios. The couple had had embryos cryopreserved at a medical facility in Australia before they were both killed in a plane crash. Cattapan, A. & Baylis, F. (2015). Frozen in perpetuity: ‘Abandoned embryos’ in Canada. *Reproductive Biomedicine and Society Online*, 1(2), 104-112. <https://doi.org/10.1016/j.rbms.2016.04.002>.

be reached for guidance about their preferences.

In general, the uncertainty and ambivalence of embryo storage facilities would seem to rest on concerns about legal liability (sometimes connected to unresolved questions about embryonic status) and concern for intending parents who have stopped paying for embryo storage but who may preserve an emotional connection to their frozen embryos. Fertility clinic directors have expressed concern about the moral status of unclaimed embryos in light of guidance from the American Society for Reproductive Medicine, which has asserted that embryos deserve “respect” [9]. It has not, however, been clear how that respect should be expressed.

Regulation of embryo storage, and of reproductive assistance, has been minimal in the United States. That may reflect multiple challenges inherent in the debate about abortion that make many regulatory rules controversial. In 1992, Congress enacted the Fertility Clinic Success Rate and Certification Act (FCSRCA) to mandate that fertility clinics report and publish data for all performed procedures and clinic-specific success rates to the Centers for Disease Control and Prevention (CDC). Approximately 1.7% of all infants born in the United States every year are conceived using ART. In 2017, 87,535 cryopreserved oocytes or embryos were stored with the intent of future use. In the absence of broad legal regulation, however, cryopreservation facilities are left without legal protection should they place a time limit on the storage of unclaimed embryos [14].

The Society for Assisted Reproductive Technology recommends the use of mental health counselors and support organizations to assist parents in navigating the emotions that accompany infertility treatment as well as the many decisions that arise during the process [15]. The fertility clinic is not just performing a single service but facilitating a journey that may or may not lead to parenthood. This journey reflects the inability of the fertility clinic to predict the subjective value of the emotional connection of the progenitor with a one-week-old cryopreserved embryo.



Metzler, L. (2015). *Hand in hand with dad*. Photograph. Retrieved from <https://unsplash.com/photos/B32qg6Ua34Y>.

UNCERTAINTY AMONG INTENDING PARENTS

The uncertainty of intending parents about the status of their embryos reflects the complicated strands of an encompassing social debate. It also reflects changes in perspective as intending parents’ plans for the use of frozen embryos shift over time. For many intending parents beset by conflicting views of how best to dispose of embryos no longer wanted for reproductive purposes, perspectives about embryonic status can become murky. This reflects shifting desires for parenthood and often confusion about their relationship to these embryos.

Several studies have explored responses of intending parents to cryopreserved embryos created for reproductive purposes, including intending parents who no longer want to use their frozen embryos for reproductive purposes but who are conflicted about what should be done with those embryos. On the whole, the relationship of intending parents to their frozen embryos, including those no longer needed or wanted for reproduction, is personal and may be shaped by a series of familial emotions, including expectation, anxiety, lost promise, and commitment.

Intending parents with cryopreserved embryos in the United States often have significant difficulty determining how to deal with extra embryos (the so-called “disposition decision”) [16]. Some couples feel uncomfortable affecting any disposition option.

[C]ouples are initially focused on the immediate goal of achieving a pregnancy... and do not anticipate that having the ability to store surplus embryos will present a challenge in the future. During this initial reassurance stage, the ability to store surplus embryos is viewed as a bonus because at this point the couples do not know how many attempts they will need to achieve their first (and subsequent) pregnancies. Yet, once pregnancy had been successfully achieved and their childbearing completed, the second-stage reaction of most couples was characterized by avoidance of the issue, most commonly by just keeping the embryos frozen, often with the implied assumption that the decision could be postponed, perhaps indefinitely. [16]

In short, initial determinations by intending parents about how to dispose of their cryopreserved embryos may be re-shaped as they experience changes in their responses to the frozen embryos. Research conducted by Susan Klock et al. supports this suggestion. Klock et al. reported that over one-quarter of couples who stored frozen embryos at Klock’s U.S. fertility clinic had embryos still in storage at the end of the facility’s initial three-year storage limitation period. Researchers surveyed 41 couples about disposition choices both at the beginning of treatment and after a period of embryo storage. Significantly, a large majority (71%) of these couples expressed dif-

ferent choices at the start of treatment and at the end of the initial three-year storage period [17].⁵

Lyerly et al. reported that intending parents reject most disposition options made available to them. In a mixed method study of 1,020 fertility couples with cryopreserved embryos from nine geographically diverse clinics, the authors reported that reasoning regarding embryo disposition evolves with reproductive intent. Reluctance among intending parents to select among disposition options was high regardless of desire for future pregnancy. The authors suggested that intending parents who ascribed personhood or high importance to the embryo, fetus, or future child were more likely to make a disposition decision than others. Yet, generally, intending parents included in the study found that the options offered for disposing of cryopreserved embryos no longer wanted for reproductive purposes were unattractive [10].

Still other studies echo similar findings and suggest that intending parents' disposal determinations about cryopreserved embryos are difficult at all stages of reproductive treatment, both in the United States and in other countries. A U.S. study involving 58 couples who had successfully relied on a donor egg to conceive and who had one or more additional embryos cryopreserved in storage found that almost three-quarters of those interviewed (58 women and 37 men) had difficulty deciding what to do with their cryopreserved embryos [16].⁶ On average, this group of intending parents had had embryos in storage for more than four years. The struggles faced by intending parents with stored cryopreserved embryos in the U.S. about embryo disposition seem to track "the complex nature of the couples' conceptualization of their embryos." This may reflect some sense—even among pro-choice intending parents—that embryos are "virtual' children" [16].

⁵ On this, the authors explain:

"Thirteen of 22 couples who had initially opted for disposal now wanted either to use or to donate the embryos. Nine of 11 couples who had initially opted for donation to an infertile couple no longer chose that option: 2 couples now decided to use the embryos, 2 chose to thaw them, 3 continued storage, and 2 donated the embryos to research. Seven of eight couples who had initially planned to donate the embryos to research now chose either to use the embryos or to dispose of them." [17]

⁶ Nachtigall et al. found that the "disposition decision process" involved four states: 1. reassurance (provided by having excess embryos during the period of IVF care); 2. avoidance (after a couple's "childbearing [was] completed"); 3. confrontation (facing "discomfort and uncertainty when actually confront[ing] the disposition decision"); and 4. resolution (experienced by only some of the couples and leading to a "sense of completeness and resolution"). Conceptualizations of these embryos included viewing them as children, as members of the parent or parents' family, as a "kind of genetic or psychological insurance policy," and as providing future medical benefit to existing children. More confounding still, couples sometimes view cryopreserved embryos as "symbols of the infertility" they endured [16].

This is important and suggests that ideological positions in the debate about abortion may not always harmonize with personal decisions about one's embryos or one's fetus.

Intending parents who imagined their cryopreserved embryos as open to suffering were less likely than others to decide to have their embryos destroyed [16]. And those who thought of the embryos as "virtual' children" worried about losing any control over the embryos' welfare. The researchers concluded that this concern explained the reluctance of these intending parents to donate extra embryos to others for reproductive purposes [16]. This supports the researchers' findings that these intending parents were more comfortable with the destruction of their embryos than with a decision that would hand those embryos over to others' control (whether in reproductive or research settings).

Difficulty determining the fate of extra cryopreserved embryos is not a challenge unique to infertility patients in the United States, although decisions about embryo disposition sometimes differ from one geographic setting to another. In a number of European countries, a significant majority of people with cryopreserved embryos no longer wanted for reproductive purposes agreed to donate the embryos for research. Seventy-three percent of patients treated with IVF in Switzerland have made that choice, as have between 57 and 60% in Denmark [18]. This pattern differs from that in the United States.

In some European countries, the law limits options. In Poland, for instance, couples cryopreserving embryos have very limited options regarding the disposition of stored embryos. Polish law precludes both destroying surplus embryos and donating them for research [19, 20]. As a practical matter, those with stored embryos in Poland must use them for reproductive purposes or the embryos will remain in storage indefinitely [19].

A prospective study of patients in France who relied on both IVF and intracytoplasmic sperm injection (ICSI) (direct injection of spermatozoon into the oocyte) examined the relevance of "specific pre-embryo representations" to couples' decisions about how to dispose of extra cryopreserved embryos [6]. In Bruno et al., couples were asked to select among six representations of embryos: "a mere thing, a potential person, a child, a project, a cluster of cells or life itself." Two of these representations may be confusing: "project" implies a "parental project" aimed at reproducing, and "life itself" suggests that the embryos are alive but do not enjoy personhood. Furthermore, there is some overlap among many of these representations. Very few (1.2% of the respondents) described embryos as mere things. Among those who did not view the embryo as a "child," the majority decided to donate extra embryos to research. Those viewing extra embryos as potential people or as human life were more likely than others to want their embryos donat-



Machnitzki, T. R. (2013). *Tennessee Supreme Court building in Nashville, Tennessee*. Photograph. Retrieved from https://commons.wikimedia.org/wiki/File:Tennessee_Supreme_Court_building_Nashville_TN_2013-07-20_004.jpg

ed to an infertile couple for reproductive purposes. But surprisingly, this group was also more likely than other groups of patients to “stop cryopreservation.” In contrast, Nachtigall et al. reported that intending parents who believed their pre-embryos could suffer generally opted against destruction of the pre-embryos [16]. Bruno et al. explain this decision by referring to “the commitment and emotional investment of these persons to their ‘children-embryos’ as probably too strong to accept donating them. They prefer discontinuing the storage of their embryos rather than abandoning them to another future that they will not witness.” That intending parents with frozen embryos created from donated gametes (ova or sperm) rather than from their own gametes were ten times more likely to provide for embryo donation than other intending parents [6], suggests that people attributed significance to a genetic link between themselves and their cryopreserved embryos.

The same French study further suggests that about a quarter of patients with cryopreserved embryos viewed those embryos as having more than one status [6]. A secondary analysis, which contained only four of the six possible embryo representations (“potential person, cluster of cells, project, or child”), revealed that about three-quarters of the respondents selected one description of their frozen embryos, 17.7% selected two, 4.5% selected three, and 0.9% selected all four [6]. This is an important finding because it suggests that people may simultaneously hold diverse—sometimes even conflicting—images of their frozen pre-embryos. Legal cases brought by intending parents alleging harm due to the loss of or damage to their embryos

often reflect similarly inconsistent representations of embryos.⁷ A case of this sort is considered below.

UNCERTAINTY AMONG JUDGES

Courts have entertained questions about embryonic status within the context of particular disputes. To some extent, judicial conclusions about embryonic status reflect the specific issues at stake in individual cases. In addition, judicial conclusions sometimes reflect judges’ own perspectives and beliefs about the status of embryos. One legal case, entertained by three Tennessee courts—a trial court (1989), an intermediate appellate court (1990), and the state’s highest court (1993)—encompasses a broad panoply of judicial responses and suggests three discrete visions of embryonic status [22]. The case, *Davis v. Davis* (“*Davis*”), was occasioned by a dispute between Junior and Mary Sue Davis, a divorcing couple, about the fate of seven cryopreserved embryos. Further, the decision of Tennessee’s highest court in *Davis v. Davis* [23] created a framework for responding to such disputes that has often been applied by courts throughout the United States as they have faced disputes between intending parents about the fate of frozen embryos.

Davis is worth considering in some detail, particularly because each of the three state courts that rendered decisions in the case relied on a different understanding of embryonic status than that assumed by the other two. However, each court’s vision of embryos did not necessarily harmonize with its determination regarding the fate of the couple’s embryos. This is especially true of the decision of Tennessee’s highest court in *Davis*.

In short, a continuum of views about the ontological status of embryos is reflected in the three Tennessee court decisions in this case. The dispute involved a divorced couple named Mary Sue and Junior Davis. Each party’s specific preferences regarding seven cryopreserved embryos, created for reproductive purposes from Mary Sue’s ova and Junior’s sperm, shifted over time. However, Junior Davis consistently contended that parenthood should not be forced on him, moving over time from a preference for continued cryopreservation to one for embryo destruction. Mary Sue, in contrast, wanted to use the embryos for reproductive purposes—at first, for herself,

⁷ As a general matter, state laws that characterize embryonic or fetal status are not always consistent with other laws—for instance, those involving wrongful life claims or homicide. Those inconsistencies are rarely justified or even discussed. Roxland and Caplan note that a state “legislature [may] believe[] that there are sufficient deterrent effects of allowing a prosecution for wrongful death of a fetus in order to protect the life and safety of pregnant women, but does not believe that a pre-implantation embryo should be accorded all of the rights of a person” [21].

and later, through embryo donation to others.⁸

A state trial court concluded that the frozen embryos were “human beings, *in vitro*, to be known as the Davises’ child or children” [22]. That court’s summary of the essential issue at stake in the Davises’ dispute directed its conclusion: “What then is the legal status to be accorded a human being existing as an embryo, *in vitro*, in a divorce case in the state of Tennessee?” [22]. The trial court’s decision reflected what would seem to have been the only reasonable response in light of that court’s understanding of the central issue to be decided—the fate of seven “human beings.” The court wrote:

[I]t is to the manifest best interest of the children, *in vitro*, that they be made available for implantation to assure their opportunity for live birth; implantation is their sole and only hope for survival. The Court respectfully finds and concludes that it further serves the best interest of these children for Mrs. Davis to be permitted the opportunity to bring these children to term through implantation. [24]

Further, the trial court concluded that “temporary custody” of the “human embryos” should be “vested in Mrs. Davis... and that all matters concerning support, visitation, final custody and related issues be reserved to the Court for further consideration and disposition at such time as one or more of the seven cryogenically preserved human embryos are the product of life birth” [22]. The trial court’s vision of embryonic status as that of personhood harmonized with its holding in the case. In effect, the court conceptualized the dispute as a custody dispute between divorcing parents.

In sharp contrast to the trial court’s vision of embryonic status as full personhood, a Tennessee intermediate appellate court seemed to view the Davises’ embryos as property. In 1990, this court sent the case back to the trial court, directing the trial court to “vest[] Mary Sue and Junior with joint control of the fertilized ova and with equal voice over their disposition” [24]. This conclusion followed the court’s summary of “scientific distinctions between fertilized ova that have not been implanted and an embryo in the mother’s womb” [24]. The court stressed that the Davises’ embryos had not yet begun to develop nervous, circulatory, or pulmonary systems and that, as a general matter, “*in vitro* fertilization results in a low success rate” [24]. In effect, the court dismissed any claim that the embryos enjoyed personhood, treating them far more like property than children or potential children.

Finally, Tennessee’s supreme court, the state’s highest court, heard the case. That court interpreted the decision of the intermediate appellate court

⁸ Over time, the parties’ preferences changed. Later, Mary Sue, who had remarried, sought the right to donate the embryos to a couple without children. Junior opposed donation but asked that the embryos be discarded [23].

to suggest that the “interest” of Mary Sue and Junior in the frozen embryos was “in the nature of a property interest” [24]. The state supreme court expressly considered the status of the embryos, referring to the subject of that inquiry as “the ‘person’ vs. ‘property’ dichotomy” [24]. However, the court did not accept the trial court’s understanding of the embryos as children or the intermediate appellate court’s suggestion that they should be treated as property.

The state supreme court looked to the ethical guidelines of The American Fertility Society (“Society”) for direction [24]. The Society’s Ethics Committee opined:

[T]he preembryo deserves respect greater than that accorded to human tissue but not the respect accorded to actual persons. The preembryo is due greater respect than other human tissue because of its potential to become a person and because of its symbolic meaning for many people. Yet, it should not be treated as a person, because it has not yet developed the features of personhood, is not yet established as developmentally individual, and may never realize its biologic potential. [25]

Following the Society’s guidance, the *Davis* court concluded that “pre-embryos are not, strictly speaking, either ‘persons’ or ‘property,’ but occupy an interim category that entitles them to special respect because of their potential for human life” [24]. Yet, the court also declared its readiness in future cases⁹ to look to a contract entered into by intending parents and fertility clinics to resolve disputes such as that between Mary Sue and Junior Davis [24]. It is hard to discern how the special respect extended to embryos would necessarily be actualized through such contractual agreements. Contractual arrangements might be expected to safeguard the autonomous choices of the intending parents but would be far less likely to ensure protection for their embryos or affect the “special respect” presumptively owed to them.

Even more, the court explained that “[i]n the absence of... agreed modification,” the progenitors’ “prior agreements should be considered binding” [24]. In fact, the court resolved the dispute about the Davises’ embryos by weighing “the relative interests” of Mary Sue and Junior [23]. This involved assessing Mary Sue’s “right to procreate” against Junior’s “right to avoid procreation” [23, 26]. The embryos were eventually thawed and given to Junior Davis for disposition. This resolution would seem to have accorded respect to the progenitors’ balanced interests but not, in particular, to the embryos. In effect, the decision appropriated a frame that focused on one type of familial relationship—that between divorcing spouses. That frame displaced

⁹ The Davises had not entered into agreements with each other or with the fertility clinic where they received care.

and substituted for concern with embryonic status and the “special respect” the court had accorded embryos. The court seemed not to notice the shift from its apparent focus on embryonic status to a determination that took account of the intending parents’ preferences and that submerged concern for any “respect” that—according to the court’s own vision—might be owed to the embryos.

Even more, only one of the three *Davis* courts’ presumptions about embryonic status—that embryos enjoy personhood (the presumption of the trial court)—would seem to place strict limits on the terms of their disposition. As in any custody case, the trial court’s specific holding depended on its analysis of the embryos’ “best interests.” It would have been almost impossible for the trial court, having characterized the embryos as children, to have ordered their disposal as waste. The other courts that rendered decisions in *Davis* variously characterized the embryos as something like property (the intermediate appellate court) and as neither property nor persons but owed special respect because of their potential for personhood (the state supreme court). The intermediate appellate court’s decision harmonized with its characterization of the embryos, but that decision did not resolve the dispute between Junior and Mary Sue.¹⁰ The decision of the state supreme court did not reflect its presumptions about embryonic status.

As noted, the state’s highest court granted Junior Davis the right to dispose of the embryos [23]—a decision which would not seem to have paid deference to its own conclusion that cryopreserved embryos enjoy an intermediate status between persons and property and, as such, are owed special respect. In short, courts have felt compelled to characterize cryopreserved embryos in responding to disputes about their disposition but have not always harmonized their holdings with those characterizations. This suggests a need to discern what embryos “are” along with minimal commitment to various formations of embryonic status. There is, in short, a noteworthy disconnect between presumptions about embryonic status and determinations about the disposition of cryopreserved embryos. That disconnect suggests that assertions about the status of embryos are often not grounded in deeply embedded assumptions and, as a result, often do not affect rulings.

Despite the disconnect between the Tennessee Supreme Court’s characterization of the embryos’ status and its disposition of the case, the deliberations of the state’s supreme court in *Davis* about embryonic status have been invoked often in subsequent cases involving disputes about cryopreserved embryos. The court’s view of embryos as intermediate between people

¹⁰ The intermediate appellate court granted “joint custody” of the embryos to Junior and Mary Sue, explaining that they “share[d] an interest in the seven fertilized ova” [23]. This decision may have rested on the presumption—correct, as it turned out—that the court’s decision would be appealed to the state’s highest court.



Bolovtsova, E. (2020). *Man and woman holding hands figurine*. Photograph. Retrieved from <https://www.pexels.com/photo/man-people-woman-adult-6077476>.

and property has been echoed by other courts in their attempts to resolve disputes between intending parents about the disposition of frozen embryos [27].

The narrative attending disputes about cryopreserved embryos also seems to affect judges’ presumptions about embryonic status. Although not a definitive pattern, there is a tendency for courts to view embryos as property in cases occasioned by non-familial disputes more often than they do in the context of familial disputes, such as that between the Davises.

The *Davis v. Davis* Tennessee supreme court ruling cited a bailment contract case decided in an earlier Virginia case, *York v. Jones* (“York”). *York* was decided by a federal district court in Virginia in 1989 (four years before the Tennessee supreme court’s ruling in *Davis*) and is illustrative of a dispute involving frozen embryos that was not grounded on a dispute between the intending parents. The case was initiated by a couple, the intending parents and progenitors of the embryo at issue against a fertility clinic at which they had received reproductive treatment. The court in this case presumed that embryos should be categorized as property. On that presumption, it ruled in favor of the intending parents against the fertility clinic that stored the couple’s cryopreserved embryo [28].

Steven York and Risa Adler-York had been treated for infertility at the Jones Institute for Reproductive Medicine (“Jones Institute”) in Norfolk, Virginia. Six embryos had been created from the couple’s gametes. Five were inserted in Risa’s uterus, but a pregnancy did not follow [29]. A sixth embryo was frozen for future reproductive use. A year later, the couple asked the Jones Institute to transfer that embryo to the Institute for Reproductive Research, a hospital in Los Angeles. After the Jones Institute refused the request, the couple sued. Judge Clarke, writing for the federal court in Vir-

ginia, largely side-stepped considerations of familial relationships and presumptions common to the resolution of familial disputes and concluded that the cryopreservation agreement between the couple and the Jones Institute had created a bailor-bailee relationship.¹¹ (Said simply, a bailment involves one party, the bailee, holding and promising to safeguard for the duration of the bailment, property owned by another party, the bailor). In the context of the York case, the court's invocation of the bailor-bailee relationship suggested that the intending parents (the bailors) had given their embryos to the fertility clinic (the bailee) for safe-keeping and that the embryos, because they were owned by the couple, could be retrieved by them at a future point in time.

[T]he Cryopreservation Agreement created a bailor-bailee relationship between the plaintiffs and the defendants. While the parties in this case expressed no intent to create bailment, under Virginia law, no formal contract or actual meeting of the minds is necessary. Rather, all that is needed "is the element of lawful possession however created, and duty to account for the thing as the property of another that creates the bailment." The essential nature of a bailment relationship imposes on the bailee, when the purpose of the bailment has terminated, an absolute obligation to return the subject matter of the bailment to the bailor. The obligation to return the property is implied from the fact of lawful possession of the personal property of another. [28]

In designating the relationship between the progenitors and the reproductive technology clinic as a bailment, the court in *York* presumed—apparently without pondering the matter—that the couple's frozen embryo (referred to as a "pre-zygote" by the court) was property and that it belonged to the progenitors. Thus, in the court's view, the Yorks were presumed to be the bailors in the arrangement between the parties; The Jones Institute was the bailee. The court's description of the Cryopreservation Agreement between the

¹¹At the start of its rendition of the "facts" of the case, the court did note that the Yorks sought fertility care with the hope that they would "become the parents of their own genetic child" [28]. That is virtually the only language referring to family relationships in the opinion. Further the court considered the defendants' motion to discuss plaintiff's count IV which alleged that defendant's control over the embryos interfered with plaintiff's "constitutional right to reproductive privacy in violation of the first, fourth, ninth and fourteenth amendments." The court did not consider the substance of the allegation. It denied the defendant's motion to discuss this count, countering the defendant's Eleventh Amendment claim with the conclusion that the clinic was "deemed a governmental and public instrumentality" but that it had "a high degree of autonomy over both its internal operations and in the discharge of the statutory powers and duties conferred upon it. The Court is satisfied that the plaintiffs' judgment, if any, will not be paid from the state treasury" [28].

Yorks and the Institute buttressed the court's conclusion that the embryo was property. That contract provided that the fate of the York's frozen embryo, should the couple separate and disagree about its use, would be decided in a property settlement.¹²

Other courts facing disputes between intending parents and third parties (usually fertility clinics and physicians providing reproductive care) have viewed embryos through two or more discrete lenses [30]. This readiness resembles that of some intending parents with frozen embryos (as indicated by the study in France, noted above) to view their frozen embryos through discrete lenses—a small number even claiming to see their embryos, at once, as potential people, cells, part of a project, and as a child.

A case brought by Belinda and William Jeter against the Mayo Clinic Arizona ("Mayo") illustrates this possibility. The couple sued the Clinic after they learned that Mayo had lost or misplaced five of their cryopreserved embryos [30]. The couple, largely following the demands of the law with regard to various claims against the clinic, asserted—inconsistently, it would seem—that their embryos were potential children (to support a wrongful death claim), that they were "potentially viable human beings" (in support of a "breach of fiduciary claim"), and that, implicitly, they were property (to support a claim for "loss of irreplaceable property" and in support of a claim that Mayo Clinic Arizona had breached a bailment agreement with the couple). The inconsistency may appear to be paradoxical—allowing claims based on different assumptions of the embryos' status—but is permitted by the law.

A state appellate court declined to opine regarding the Jeters' assertion that the embryos were people—a claim needed to succeed on a wrongful death claim. The court found the question best left to the state legislature. The court then concluded that the Jeters had a potential ground for moving forward with their case pursuant to an Arizona law that someone who agrees to serve another with regard to the protection of "the other's person or things" can be liable if harm befalls that person or thing [30]. Here, the court agreed expressly to presume the embryos "things" for which the Mayo

¹² The court quoted part of a consent form signed by the Yorks:

We may withdraw our consent and discontinue participation at any time without prejudice and we understand our pre-zygotes will be stored only as long as we are active IVF patients at The Howard and Georgeanna Jones Institute for Reproductive Medicine or until the end of our normal reproductive years. We have the principle [sic] responsibility to decide the disposition of our pre-zygotes. Our frozen pre-zygotes will not be released from storage for the purpose of intrauterine transfer without the written consents of us both. In the event of divorce, we understand legal ownership of any stored pre-zygotes must be determined in a property settlement and will be released as directed by the order of a court of competent jurisdiction. ... [28]

Clinic Arizona had accepted responsibility. At the same time, the court accepted the possibility that the Jetters might succeed on the basis of a “claim for breach of fiduciary duty,” which presumed the couples’ embryos to be potential human beings. Finally, the appellate court concluded that the Jetters could move forward with their claim that the Clinic had breached a bailment agreement with them. That agreement rested on the premise that the Jetters’ lost embryos were property.

BEYOND FAMILIAL OR CONTRACT METAPHORS

So far, this paper has focused on disputes about embryos between divorcing spouses and on non-familial disputes between intending parents and third parties. There are a set of challenging issues about embryonic status and disposition that comprise a third domain. This domain is distinct from the other two, although it often involves family relationships. Each of the examples considered in earlier sections of this essay depended for resolution on the presumptions of autonomous individuality by relevant decision makers. Cases in this third domain do not and, indeed, cannot depend on that presumption.

This third domain involves decisions about embryos or gametes that cannot be resolved through recourse to the decisions of autonomous individuals because the presumptive decision maker does not enjoy capacity or is deceased and left no relevant instructions. Decisions about the preservation of posthumously donated sperm, or even ova, fall into this category as do cases about cryopreserved embryos or gametes created for reproductive use by intending parents who die, often accidentally, before their embryos or gametes have been used for the intended purpose.

The *Estate of Desta* raised this issue in a probate court in Texas [31]. In the course of fertility treatment, Yenenesh Desta and her husband, Yeyehyirad Lemma, had eleven embryos cryopreserved. The couple (referred to by the Texas probate court as the Lemma-Destas) were killed by a gunman in the summer of 2012. They died without wills. Further, their agreements with the facility that was storing their frozen embryos did not provide for the situation that had arisen—the death of both intending parents. The couple had one intestate heir, a two-year old child named Kedus Desta.

A Texas probate was asked to determine what should be done with the deceased couple’s frozen embryos in light of the absence of directions from them and the absence of defined law regarding disposal. The court looked to *Davis v. Davis* [22, 24], decided in Tennessee over a decade earlier, and to two California cases involving the disposition of frozen sperm that had been cryopreserved by men who died before disposition of the sperm [32, 33]. Each of the latter two cases included statements of intention from the men about their preferences regarding disposition of their frozen sperm. In the

Desta case, no relevant intentions had been voiced by either gamete donor.

While echoing the conclusion of Tennessee’s highest court in *Davis* that embryos are owed “special respect” [24, 31], the Texas court treated the embryos as property to be distributed as part of the Lemma-Desta estate. The court noted that the embryos had “a value under Texas law,” a conclusion suggested by the readiness of Texas law to allow frozen embryos to be “the subject of an enforceable contract” (a conclusion the court identified on the basis of Texas precedent—a decision reached by a Texas court in 2006 in a case involving a dispute about frozen embryos) [31]. The court opined that the absence of a relevant agreement indicating the Lemma-Destas’ intentions regarding the embryos precluded the court from authorizing their implantation, donation or destruction. Accordingly, the court characterized the eleven frozen embryos as part of the property that would pass to the Lemma-Destas’ toddler son. The court ordered that the embryos remain cryopreserved until that child reaches majority.

In short, the *Lemma-Desta* court was ready to treat the embryos as property. Yet, as if to hedge society’s moral bets, it followed the *Davis* court in presuming to owe a “special respect” to the Lemma-Destas’ frozen embryos. But it responded to the absence of any statement about the intending parents’ preferences should they both die before disposing of the embryos by treating those embryos as part of the couple’s property, to be inherited by their only intestate heir.

CONCLUSION

The several cases reviewed here show that courts (in all likelihood reflecting the society within which they function) are able to reach a *modus vivendi* in cases occasioned by disputes between divorcing parents about the fate of cryopreserved embryos. In such cases, courts often presume cryopreserved embryos to have an intermediate status between property and persons—thereby suggesting their potential personhood—but then allow agreements between intending parents to govern the disposition of their embryos. In effect, these courts displace concern for the embryos with a more familiar challenge—respecting the various interests and needs of each party to a divorce.

In disputes occasioned by the loss of or harm to embryos, courts are often stymied because they are generally reluctant to categorize embryos as property—a characterization required for the success of available legal claims through which intending parents can seek redress. Even more, in these cases, judicial determinations of embryonic status seem to be incidental as often as they are intentional. More specifically—and more disconcerting—courts seem ready to allow embryonic status to be defined almost arbitrarily. Differing decisions can perhaps be viewed through the lens of the

parties bringing the case versus the court arbitrating the case.

Finally, particular conundrums face courts asked to determine the fate of embryos in cases in which the progenitors have died without leaving instructions regarding their intentions for the embryos. Such cases are important because they show that the firm regard for the decisions of autonomous individuals that guides most court decisions about the fate of cryopreserved embryos can be displaced and replaced by other presumptions.

Many of the concerns considered here attach as well to discussions of gamete or fetal status. Yet, there are differences that render gametes, embryos, and fetuses distinct, each from the other two. Gametes (sperm and ova) do not carry the full complement of human chromosomes, and have thus often been viewed as enjoying a lesser ontological status than embryos, even by people ready to attach personhood to embryos. Fetuses, on the other hand—the central subject of abortion discourse—cannot be safeguarded through cryopreservation. In effect, options for fetal survival are fewer than those providing for embryonic survival. Still, it remains difficult, if not impossible, to definitively identify the moment at which a gamete, an embryo, or a fetus becomes a person.

Facilities storing cryopreserved embryos generally assume that intending parents commit themselves through consent agreements to lifelong reproductive decisions regarding their cryopreserved embryos. In contrast, the law more readily recognizes that parental intentions change over time, and autonomous individuals can choose to govern their own genetic material. The law's readiness in certain cases to treat embryos as akin to property can result in disposition decisions that may belie the intentions of the intending parents. This is particularly clear in *Estate of Desta*, discussed above. By including the Lemma-Desta embryos in the couple's estate, a disposition decision was left (years hence) to the couple's toddler son. There was no evidence that this option harmonized with the couple's preferences.

Continued uncertainty and debate, sometimes acrimonious, surround understandings of embryonic status. The debate is less vituperative than that surrounding abortion. Still, decisions about the disposition of frozen embryos no longer wanted for reproduction by the intending parents are often fraught with anxiety for fertility clinics and other embryo storage facilities, for intending parents, and even, from time to time, for judges faced with resolving disputes about the disposition of embryos. Those anxieties are unlikely to be assuaged soon and require a practical legal and moral solution. As long as the debate about abortion continues to play a prominent, often divisive, role in American social discourse, a less contentious debate about embryonic status and the disposition of cryopreserved embryos will survive at its margins.

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