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Cryopreservation

Be Careful When Playing with Mother Nature

by Julia Minner

In light of recent developments in reproductive technologies as *in vitro* fertilization, the development of human babies in a scientific lab is plausible. This presents many legal, medical and ethical questions concerning the rights of the unborn and the point at which life is considered to begin.

Approximately one couple in eight is classified as infertile.¹ A couple is considered infertile when they have not used contraception and have failed to conceive for at least one year.² Further, infertility, especially in women, seems to be on the rise because more women are postponing having children.³ For those women and men who are unable to have children due to afflictions such as tubal disease, endometriosis, or low sperm count, *in vitro* fertilization (IVF) is the ideal means to have children.

In vitro fertilization duplicates in the laboratory the natural process of fertilization and development in the fallopian tubes.⁴ The procedure is initiated through the use of fertility medications to stimulate the development of the egg in the female. The eggs are then retrieved from the ovary⁵ through a laparoscopy.⁶ Once the eggs are recovered, they are transported to a lab where they are placed in a fluid similar to that in the fallopian tubes. The eggs are allowed to mature for six hours at which time the sperm is introduced to the eggs. The egg and the sperm are then held in an incubator for approximately twelve hours in order for fertilization to take place. When it is determined that the egg has been fertilized, it is placed in a growth media and allowed to develop by division until it reaches a stage where its size is between two and eight cells. When it reaches this embryo stage, it is removed from the media and introduced into the uterus of the mother. Prior to the introduction of the (now) embryo, progesterone hormones are administered to the mother in order to increase development of the uterus lining, making it more receptive to the embryo.⁷

In practice, the number of eggs removed from the female seems to vary. One doctor states that he removes an average of 5.8 eggs per woman, but notes that it is possible to remove as many as seventeen eggs at one time.⁸ It has been determined that no more than three embryos should be implanted in the mother at one time in order to prevent the risks of multiple pregnancies.⁹

Cryopreservation

Due to the number of ova which are removed from the woman and subsequently combined with sperm, the IVF process usually results in embryos being "left over." Thus, once a woman becomes pregnant, the question arises of what should be done with the unused embryos. Cryopreservation, a method of freezing the eggs,¹⁰ has become a popular choice because it saves the cost, time, effort, and pain which further laparoscopies present.

However, freezing embryos opens legal, medical, and ethical questions concerning their status and rights in our society. For example, consider the situation where a couple divorces while their embryos are still in the deep freeze. Who should be granted their "custody"? This article will analyze the possible legal treatment an embryo may receive. It will present an analysis of a recent Tennessee case which deals with the issue of embryo custody and the inadequacies of its holding. This article concludes that embryos are symbolic of potential life and should be accorded respect because of that potentiality.

The Status of the Embryo

There are three main positions which are taken in the decision of what rights are to be accorded an embryo, whether frozen or not. The first argument is that embryos are too rudimentary in their formation to be accorded any interests or rights, and therefore, can be destroyed or allowed to die without restriction. The second position is the potential life argument; that is, an embryo, at the very least,

symbolizes a future human being and though it is not deserving of the rights granted to those living independently of the womb, it deserves some respect because of what it may become. The third and final position is the one adopted by a Tennessee circuit court in *Davis v. Davis*.¹¹ In *Davis*, it was held that human life begins at conception and embryos should receive all the rights of living, breathing human beings. Each of these positions is discussed below.

An Embryo Is Too Rudimentary in Its Development To Be Accorded Interests or Rights

It has been judged by the law and by the opinion of official bodies that embryos are not yet persons and do not deserve the respect accorded persons.¹² "The human preembryo [is] an entity composed of a group of undifferentiated cells which have no organs or nervous system."¹³ They are "four celled [entities]-they haven't developed into organs or anything. They are too rudimentary to have an interest in their own right; therefore, they can't be harmed, and there should be no requirement that...embryos be saved."¹⁴ This argument is the most straightforward of the views.

An Embryo Is Symbolic of Human Life and Therefore Maintains a Special Status

To some, the mere existence of an embryo does not indicate the existence of a human life. In order to develop, the embryo must be implanted in a woman's womb.¹⁵ The supporters of this second argument emphasize the underlying assumption that the embryo, though not yet a person, nevertheless has a special status because it is symbolic of human life.¹⁶ Because an embryo is symbolic of human life, the destruction of embryos may influence the attitudes and treatment of "real" people.¹⁷ Thus, in order to demonstrate commitment to human values, it is necessary to protect the embryo.¹⁸ Additionally, because the embryo is intended to be transferred to a uterus

and may eventually come to term, the processes used to achieve this result could harm it. For these reasons, the embryo is entitled to care in order to ensure healthy offspring.¹⁹

An Embryo Is A Person and Entitled To All The Rights and Interests A Person Has

The third position, that embryos should be granted all the rights and protections of one living outside the womb, results from a close analysis of doctrines concerning unborn life. The foundation of this argument lies in the rationale behind the *Roe v. Wade*²⁰ decision.

Roe v. Wade held that the right to an abortion was a constitutionally guaranteed right during the first trimester of pregnancy.²¹ This holding was based primarily on a finding that the constitutional right to privacy is "broad enough to encompass a woman's decision whether or not to terminate her pregnancy."²² During the second trimester the state has the power to regulate abortion only to the extent necessary for the preservation and protection of maternal health.²³ It is during the third trimester that the state develops a compelling interest in the protection of potential life.²⁴ The state's interest becomes compelling during this period due to the viability of the fetus. Viability is defined as the point at which the fetus is "potentially able to live outside the mother's womb, albeit with artificial aid."²⁵

Although not stated in *Roe*, the interest in protecting potential life seems to be anchored in the doctrine of *parens patriae*. *Parens patriae* is a "[t]erm [which] refers traditionally to [the] role of [the] state as sovereign and guardian of persons under legal disability...a concept of standing utilized to protect those quasi-sovereign interests such as health, comfort and welfare of the people..."²⁶ Therefore, as the fetus, which appears to be under a legal disability, reaches the point of viability, the state acquires a compelling interest in the protection of the fetus and may prohibit abortion to facilitate this protection.²⁷

Thus, until the third trimester, there is no recognition of the fetus as an individual entity because the fetus is not yet able to survive apart from the mother.²⁸ If *Roe's* viability framework were applied to the IVF procedure, the embryo "might well be analogized to a first trimester fetus and thus be subject to a decision which terminates its existence."²⁹

Upon closer analysis, this analogy provides an inadequate basis for determining the fate of an embryo for two reasons. First, the viability standard cannot logically be applied to a technology that allows an embryo to be sustained indefinitely outside the mother's body. Second, when the embryo is outside of the mother's body, its existence is no longer

in conflict with her constitutionally protected privacy interests.³⁰ Further, as Justice O'Connor stated in her dissent in *City of Akron v. Akron Center for Reproductive Health, Inc.*,³¹ "[a] medical science becomes better able to provide for the separate existence of the fetus, the point of viability is moved further back toward conception."³² Cryopreservation technology pushes the point at which a fetus is potentially able to live outside the womb, albeit with artificial aid,³³ to the moment of fertilization.³⁴

*"[C]ryopreservation
pushes the point of
viability back to the
moment of
conception."*

"*Roe's* recognition of a woman's privacy interest cannot be extended to grant a woman, who has donated an egg for [IVF], an absolute right to terminate the existence of the resulting embryo once it has been fertilized and frozen outside of her body."³⁵ Two facts support this conclusion: first, cryopreservation has theoretically pushed the point of viability back to the point of conception, thereby granting the state a compelling interest under *parens patriae*; second, since the embryo is no longer connected to the mother in any way, she can no longer claim a privacy interest in it and execute her motherly control over it.

To summarize, the argument is that the possibility that cryopreservation pushes the point of viability back to the moment of conception combined with the fact that the state has a compelling interest in protecting a viable, potential human life all but grants the embryo full personhood status. It is thereby entitled to all the rights accorded to living, breathing individuals.

The Davis Quagmire

*Davis v. Davis*³⁶ presented an interesting arena for the application of these theories. This case concerned the disposition of seven cryogenically stored embryos which were the results of the Davis' numerous attempts at pregnancy.³⁷ The couple subsequently divorced and each party sought "custody" of the embryos. Mrs. Davis sought possession of them in order to make further attempts at pregnancy. Mr. Davis, in light of their divorced status, did not wish to produce children which would grow up in a single parent environment, as he himself did.³⁸ Mr. Davis had three alter-

native requests of the court: (1) that joint custody of the embryos be granted to the parties; (2) that the court prohibit Mrs. Davis from using the embryos for implantation until it could decide about their disposition; or (3) consider only Mrs. Davis for implantation. He opposed destruction of the embryos, but preferred destruction to allowing their implantation in anyone but Mrs. Davis.

Because the *Davis* situation presented two contrary consequences for the embryos,³⁹ in order for the court to determine who should be granted their possession, it first had to determine their legal status.

In deciding what the legal status of the embryos was, the court first determined that the intent of the Davises was "to produce a human being to be known as their child."⁴⁰ The court based its custody decision on whether or not the couple accomplished this intent.⁴¹ In order to answer this, it had to answer the "most poignant question of all...[when] does human life begin?"⁴² To facilitate answering this question, it was first necessary to answer other queries such as whether the embryos were human and if there is a difference between a pre-embryo and an embryo.⁴³ In responding to these inquiries the court came to the conclusion that life begins at conception. Therefore, the court held, it was in the best interests of the *in vitro* children, under the doctrine of *parens patriae*, that their mother (Mrs. Davis) be permitted to bring them to term through implantation.⁴⁴

In reaching its conclusion that life begins at conception, the court relied upon three different arguments. First, there is no such thing as a preembryo. Second, cell differentiation had occurred, making these entities unique and specialized, thereby indicating life. Finally, there was no public policy preventing the holding.

There is No Preembryonic Stage

At the trial, three experts stated that the embryo goes through a number of stages in the development toward embryo status: (1) a one cell gamete; (2) a zygote stage (after the first cell divides); (3) a preembryo (up to 14 days after fertilization); and (4) an embryo (after 14 days and upon differentiation).⁴⁵ In contradiction to these opinions, one expert stated that each human has a unique beginning which occurs at the moment of conception.⁴⁶ He further stated:

Preembryo: there is no such word.

There is no need for subclass of the embryo to be called a preembryo, because there is nothing before the embryo; before an embryo there is only a sperm and an egg; when the egg is fertilized by the sperm the entity becomes a zygote; and when the zygote divides it is an embryo.⁴⁷

The term preembryo was coined by

the Ethics Committee of the American Fertility Society (AFS)⁴⁸ "in order to avoid confusion...."⁴⁹ It is defined as a "product of gametic union from fertilization to the appearance of the embryonic axis. The preembryonic stage is considered to last until 14 days after fertilization...."⁵⁰ The AFS committee adopted the view that the preembryo deserves respect greater than human tissue but not the respect accorded to an actual person. The respect is deserved because of the preembryo's potential to become a person and because of the symbolic meaning it has for many people.⁵¹ The court concluded that the preembryo guidelines were guidelines for professionals in fertility treatment, but held that they did not constitute authority for the court and therefore could be ignored.⁵²

The court reduced the entire pre-embryo analysis down to "much the same debate Juliet had with herself when she rationalized her strong affection for Romeo...

'Tis but thy name that is my enemy;
Thou art thyself, though not a
Montague.... What's in a name? That
which we call a rose By any other
name would smell as sweet....⁵³

The court, therefore, refused to recognize a difference between a preembryo and an embryo. It then concluded that there is no such term as preembryo, holding that the use of such terms creates a false distinction.⁵⁴

While the *Romeo and Juliet* analogy is certainly effective and brings the issue into perspective, the trial court ignored the weight of the evidence. Granted, the court was the finder of fact in this non-jury case. However it was bound to determine the facts by a preponderance of the evidence.⁵⁵ This preponderance standard is amorphous at best. It allows the court to hold any way it desires and say the holding is supported by a preponderance of the evidence.⁵⁶ It seems in the *Davis* context that the preponderance of the evidence was in the direction opposite the final holding. Mr. Davis presented three eminent expert witnesses in the field, all whose opinions were backed by the Ethics Committee of the AFS. Yet, the court followed the more emotionally evocative opinion of the minority of experts.

Cell Differentiation Occurred

The court also accepted evidence that DNA manipulation of the molecules of human chromosomes reliably proved cell differentiation.⁵⁷ The uniqueness of character,⁵⁸ demonstrated through differentiation, enables scientists to distinguish one zygote (embryo) from another.⁵⁹ Using these distinguishing characteristics, the court found that unique individuals were in existence,⁶⁰ giving further credence to the holding

that life begins at conception and that embryos are living human beings.

At trial, two experts testified that the preembryo is not a being because it has no observable organs, body parts nor nervous system.⁶¹ A third expert testified that "a man is a man; that upon fertilization, the entire constitution of the man is clearly, unequivocally spelled out [in the DNA molecules]; that upon inspection via DNA manipulation, one can see the life codes for each of these otherwise unobservable elements of the unique in-

"[U]pon
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DNA molecules.]"

dividual."⁶² This testimony stood unrebutted in the record and was accepted by the court.⁶³

In retrospect, however, the evidence of differentiation via DNA manipulation should not have been accepted by the court because it is essentially hearsay. "DNA examination is highly technical, incapable of observation by the Court and requires the Court to either accept or reject the scientist's conclusion that it can be done."⁶⁴ The court took the expert at his word and did not require any proof as to its veracity. Because this was such a controversial issue at the trial, it was all the more necessary that the court insist on proof of the validity.

Through the above reasoning, the court concluded that life begins at conception and that the Davises had accomplished their intent of producing a human being known as their child. However, after holding that life begins at conception, the court had to get around already existing laws which do not grant an embryo such an elevated status, such as the Tennessee Wrongful Death Statute⁶⁵ and the Tennessee Criminal Abortion Statute.⁶⁶ Under the wrongful death statute, an unborn child is accorded status only if it is viable⁶⁷ at the time of

death. The abortion statute essentially affords the embryo no status whatsoever during the first trimester. Faced with these hurdles, the court chose to frame the issue very specifically. It asked, "[w]hat...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?"⁶⁸

In answering the above question, the court noted that no state in the Union had established a policy which declares the rights to be accorded a human embryo, *in vitro*, in a divorce case.⁶⁹ In finding that, for domestic relations purposes, no public policy prevented the continuing development of the common law as it may specifically apply to "the seven human beings existing as embryos *in vitro*, in this domestic relations case. The court [was] of the opinion...the age old common law doctrine of *parens patriae* controls these children...."⁷⁰ The court reached this conclusion through a discussion of *Smith v. Gore*,⁷¹ a Tennessee case which discussed the great value the state places on human life. It further took careful note that it is the legislature's right to set public policy and the court's responsibility to find that no "public policy prevents the continuing development of common law."⁷²

The Problems the Davis Holding Presents and Resolution

The decision in *Davis*, as it stands, is fraught with problems. Reaching a legal determination that life begins at conception will have a great impact not only on IVF, but on society as a whole. This holding, if affirmed, could cause immediate and harmful restrictions on the IVF and cryopreservation processes. In addition, the potential effect of this decision on abortion doctrines is staggering. While this article does not support Frankenstein-like experimentation, society will feel the ripples of this decision well into the next century.

In terms of the rationale of the decision, the argument that there is no such thing as a preembryo goes against the weight of the evidence. The court's blind reliance on cell differentiation is very weak proof that the Davises created a human being. "Human" is "of, relating to, or characteristic of man, or having human form or attributes."⁷³ "Being" is defined as "existence, the qualities of an existent thing, a living thing...."⁷⁴ An embryo in the process of cryopreservation is frozen and does not show the qualities of a living thing. As seen by a layperson, not only are the embryos *not* characteristic of man, they are not in existence.

In light of the weaknesses of this opinion, there are many other avenues that could have been followed, producing the same results, which would not have been as far reaching as that taken by the *Davis* court. For example, the catch point of

the *Davis* decision seemed to be what to call these "entities": zygote, preembryo, or embryo? Once this was established, everything seemed to fall into place. However, the issue is not what to call these entities, but what their status is. These embryos (for lack of a more imaginative term) are frozen at the two, four or eight cell stage.⁷⁵ And while it is undeniable that they are of human origin, at this point the chances of their resulting in a term pregnancy are slim.⁷⁶

The *Davis* decision places severe limitations on the potential growth and development of these embryos. To hold that life begins at conception, thereby giving these cryogenically-stored embryos full personhood status, places too many constraints on science and society. If these embryos are to be granted full personhood status, this would mean that there could be no waste of the embryos and the parties responsible would be liable for any waste be it accidental or purposeful.

For example, if embryos were granted full personhood status, this would mean that all frozen embryos would have to be implanted in a woman. Usually the longevity of cryogenically stored embryos is two years.⁷⁷ Full personhood status limits science because it reduces the number of ova which can be removed from a woman for the fear of being wasteful. This, in turn, reduces the chances of successful *in vitro* reproduction, thereby increasing the number of laparoscopies necessary to be performed to obtain more eggs. These painful, repeated, unnecessary (in light of the cryopreservation technology), and costly attempts could all cause someone to be less than willing to utilize these methods.

Furthermore, if all the embryos are to be implanted, are there going to be enough women willing to undergo the process and accept children who are not theirs genetically? This is all the more difficult because the majority of women and men reproduce coitally. For those who do choose non-coital reproduction, it is only natural for them to want children with their "own" genes.

Consider also the liabilities that would be imposed on the medical profession. At this point in time, these processes are still in developmental stages. Through ignorance, mistakes are easily made. If such a strict standard is accepted, few professionals are going to be willing to undertake scientific exploration at the risk of their careers.

However, to say that an embryo is too rudimentary to be accorded any interests at all is equally unappealing because it does have the ability to grow into a human being. Our society places a very high value on life. In the *Davis* context, to permit the disposal of these embryos

where a party has no further use for them is disrespectful of their potential. The *Davis* court could have reached the same result (Mrs. Davis being granted custody of the embryos) without placing such a high burden on society. It could have decided that these embryos should be given the chance to grow, not because their life has begun, but out of respect for what they *may* become.

The best position for society to adopt would be a middle-of-the-road position that the embryos are representative of potential life and are therefore entitled to a certain measure of respect. This position would grant science and society the most flexibility while avoiding the wanton wastefulness which so many fear.

In conclusion, the cryopreservation technique presents us with a veritable quagmire of medical, legal, and ethical dilemmas, as manifested in the *Davis* opinion. To go to extremes in determining the status of the frozen embryo is either too constraining on science and society or a wanton disregard for life. For these reasons, the *Davis* embryos and others in that position should be treated with the utmost respect and care, not for what they are, but for what they could be.

[Subsequent to the writing of this paper, the Tennessee appellate court reversed the trial court's custody award of the embryos to Mrs. Davis and granted the parties joint control "of the fertilized ova...with an equal voice over their disposition."⁷⁸ An analysis of this decision shows that the court based its opinion on the potential for life which the embryos possess.⁷⁹]

Endnotes

¹Dickey, *The Medical Status of the Embryo*, 32 Loy. L. Rev. 317, 318 (1986); Robertson, *Decisional Authority Over Embryos and Control of IVF Technology*, 28 Jurimetrics J. 285, 287 (1988).

²Dickey, *supra* note 1, at 318.

³*Id.* at 317.

⁴The following text is a synopsis of the process as described by Dickey, *supra* note 1, at 324-326.

⁵See *infra* note 8 and accompanying text.

⁶This procedure is done under general anesthesia. It requires the insertion of an instrument through the woman's naval to visualize the eggs. Additional instruments are used to stabilize the ovary and withdraw the fluid containing the eggs. A second technique "utilizes a needle guided by ultrasound which is passed through the abdominal wall and the bladder in order to withdraw the fluid from the ovary." Dickey, *supra* note 1, at 326.

⁷*Id.* at 326.

⁸Wurmbbrand, *Frozen Embryos: Moral, Social and Legal Implications*, 59 S. Cal. L. Rev. 1079, 1083 (1986).

⁹*Id.*

¹⁰The embryos are frozen in liquid nitrogen.

¹¹*Davis v. Davis*, No. E-14496, 15 Fam. L. Rep. 2097 (Tenn. Cir. Ct. Blount County. 1989).

¹²Robertson, *supra* note 1, at 295.

¹³See *Davis*, 15 Fam. L. Rep. at 2100. A popular term in scientific circles which describes the stage between a zygote (which is what the entity is called after the one cell gamete divides) and a full-fledged embryo (which is what the entity is called after approximately 14 days and upon cell differentiation). It is at this stage that cryopreservation occurs.

Id.

¹⁴Curriden, *Frozen Embryos: The New Frontier*, 75 A.B.A.J. 68, 69 (Aug. 1989) (quoting University of Texas Professor John Robertson).

¹⁵Andrews, *The Legal Status of the Embryo*, 32 Loy L. Rev. 357, 362 (1986).

¹⁶*Id.* at 362-63.

¹⁷*Id.* at 363.

¹⁸Robertson, *supra* note 1, at 295.

¹⁹*Id.*

²⁰410 U.S. 113 (1973).

²¹*Id.* at 163-64.

²²*Id.* at 153.

²³*Id.* at 163.

²⁴*Id.* at 162-163.

²⁵*Id.* at 160.

²⁶*Black's Law Dictionary* (5th ed. 1979)(It is assumed for the purposes of this discussion that the embryo is, indeed, under a legal disability). See also *Roe*, 410 U.S. at 163-67.

²⁷*Roe*, 410 U.S. at 163-64 (Except where the mother's life is in danger).

²⁸*Id.* at 157-58.

²⁹Saltarelli, *Genesis Retold: Legal Issues Raised by the Cryopreservation of Pre-implantation Human Embryos*, 36 Syracuse L. Rev. 1021, 1037 (1985).

³⁰*Id.* at 1038-40.

³¹463 U.S. 416 (1983).

³²*Id.* at 454.

³³*Roe*, 410 U.S. at 160.

³⁴Saltarelli, *supra* note 31, at 1038 and n.108. The text of the note states:

If cryopreservation is considered as an artificial aid to existence, a frozen embryo may be considered viable. Once thawed, the embryo can be transferred to a woman who will carry it to term. In effect, once cryopreservation technology is perfected, there will be no point, from fertilization onwards, at which life cannot be artificially and indefinitely sustained outside the mother.

³⁵*Id.* at 1039.

³⁶15 Fam. L. Rep. 2097.

³⁷The Davises were married for nine years and desperately wanted to have children. Mrs. Davis suffered five tubal pregnancies and then underwent a surgical treatment which rendered her incapable of natural conception. IVF

provided the only option with which they could have children. The couple made six attempts to have a child through the IVF process and then temporarily stopped. In 1988, they learned of a cryopreservation program and decided to enter. On December 8, 1988, nine ova were removed from Mrs. Davis. These ova were inseminated with Mr. Davis' sperm, producing acceptable zygotes. These zygotes were permitted to mature and two of the resulting embryos were implanted in Mrs. Davis. No pregnancy resulted. The remaining seven embryos were placed in cryogenic storage for future implantation. *Id.* at 2098.

³⁸*Id.* at 2108.

³⁹If Mrs. Davis was to get possession of the embryos it is presumed that they would be implanted and would "live." If Mr. Davis was to receive custody, it is more likely that they would never be given an opportunity for implantation and would be allowed to die.

⁴⁰*Davis*, 15 Fam. L. Rep. at 2099.

⁴¹*Id.*

⁴²*Id.*

⁴³*Id.* Based on expert testimony of five witnesses, the court found that the seven cryogenically-preserved embryos were human.

⁴⁴*Id.* at 2097.

⁴⁵*Id.* at 2100.

⁴⁶*Id.*

⁴⁷*Id.*

⁴⁸This word was used in a report of the AFS entitled *Ethical Considerations of the New Reproductive Technologies*. It appears in the Sept. 1986 (vol. 46, No. 3) publication of *Fertility and Sterility*.

⁴⁹*Davis*, 15 Fam. L. Rep. at 2100.

⁵⁰*Id.*

⁵¹*Id.*

⁵²*Id.* at 2101. This finding was further bolstered by the fact that the only time the experts who supported the existence of a preembryonic stage actually used the term was in their testimony. This term was not used in their notes or scholarly articles. *Id.*

⁵³*Id.*

⁵⁴*Id.*

⁵⁵*Id.* at 2105.

⁵⁶In Appendix A to its opinion the court stated that:

[T]he court is bound to determine the facts by what the law perceives to be the "preponderance of the evidence," which means that amount of factual information presented to the Court during the course of the trial which is sufficient to cause it to believe that the matter being asserted is probably true. In order to preponderate, the evidence must have the greater convincing effect in the formation of the belief about the facts.... *Davis*, 15 Fam. L. Rep. at 2105.

⁵⁷Differentiate: to distinguish by a specific difference; develop differential characteristics or forms; to acquire a distinct character. *Davis*, 15 Fam. L. Rep. at 2101 n.36.

⁵⁸*Id.* at 2102.

⁵⁹*Id.* at 2101.

⁶⁰*Id.*

⁶¹*Id.*

⁶²*Id.*

⁶³*Id.*

⁶⁴*Id.*

⁶⁵Tenn. Code Ann. §20-5-106(b) (1989).

⁶⁶Tenn. Code Ann. §39-15-201(c) (1-3) (1989).

⁶⁷See *supra* notes 25-29 and accompanying text.

⁶⁸*Davis*, 15 Fam. L. Rep. at 2103.

⁶⁹*Id.* The court discussed the fact that *Roe v. Wade* and *Webster v. Reproductive Health Services*, 492 U.S. 490 (1989), were inapplicable to this situation.

⁷⁰*Id.*

⁷¹728 S.W.2d 738 (1987).

⁷²*Davis*, 15 Fam. L. Rep. at 2103.

⁷³*The Merriam-Webster Dictionary* (4th ed. 1976).

⁷⁴*Id.*

⁷⁵Wurmbrand, *supra* note 8, at 1083.

⁷⁶Pregnancy ratios resulting from *in vitro* fertilization:

When 1 embryo is implanted = 10%

When 2 embryos are implanted = 25%

When 3 embryos are implanted = 35-40%

Dickey, *supra* note 1, at 331.

⁷⁷*Davis*, 15 Fam. L. Rep. at 2111.

⁷⁸*Davis v. Davis*, 16 Fam. L. Rep. 1535, 1536 (Tenn. Ct. App. decided Sept. 13, 1990).

⁷⁹*Id.*

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