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OWNING PERSONS:
THE APPLICATION OF PROPERTY THEORY
TO EMBRYOS AND FETUSES

Jessica Berg*

“Legal thought is, in essence, the process of categorization.”

With over 400,000 embryos currently in storage and more created each day, debates about the legal status of embryos are likely to become more prevalent. If embryos are persons, then the analogy is to children, and the legal framework is one of custody, best interests, and protection of embryo rights. If embryos are property, then the analogy is to gametes, and the legal framework is one of control, contract, and protection of progenitors’ rights. Most commentators and courts assume that an entity falls under either a property framework or a person framework (or perhaps something new), but not a combined property and person framework. This Article takes a novel approach. It argues that “person” and “property” are not mutually exclusive designations, and one might recognize both property interests in, and personhood interests of, certain entities. Depending on the outcome of the personhood analysis, either property interests will control (if there are no personhood interests), the property interests will be balanced against the personhood interests, or the personhood interests will completely trump the property interests.

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This Article is the first in a two-part series. Its focus is on substantiating the argument that property law is the appropriate basis for legal analysis in this context. It is appropriate in four senses: (1) it provides a conceptually better fit than the competing procreative liberty framework; (2) it is normatively compelling, based on the application of property theories; (3) it provides a descriptively accurate explanation for many of the courts' actions in embryo disposition cases (despite some of those same courts' unwillingness to use the term “property”); and (4) it allows courts to draw on an existing framework of property law to resolve disputes. A companion article considers the application of personhood law to embryos and fetuses and explores the limitations an entity’s personhood interests place on the exercise of others’ property interests.

The approach is sure to challenge commentators on all sides of the debate. For those who argue that embryos and fetuses are persons, the theory of strong property interests will likely be unpalatable. Similarly, the implications of the combined framework for limiting those property rights as the entity develops will likely be unacceptable to advocates of extensive procreative choice during pregnancy. Nevertheless, this framework provides a more accurate understanding of the legal issues and, therefore, may facilitate the eventual resolution of the protracted battle regarding the legal status of embryos and fetuses.

In 1983, a wealthy couple died intestate, leaving behind a million-dollar estate and two frozen embryos, and the court was

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2. Although the term “embryo” is the most commonly used label, the appropriate scientific term for the conceptus (fertilized egg) at the earliest stage of development is “blastocyst.” So-called “extra-corporeal embryos”—those that are outside the womb—are actually blastocysts. A blastocyst is a multi-celled organism (a group of cells around a fluid filled cavity called the morula) that forms four days after fertilization. Fertilization is the event that begins with the sperm entering the egg and concludes when the genetic material is combined to form the zygote, or the single-celled organism, immediately after the egg and sperm have joined. The cells in question are undifferentiated. In other words, they are able to form into any of the cells in the body, and each one of the cells can be separated from the unit and divide to form another blastocyst. This process, called “twinning,” would result in two (or more) genetically identical individuals. “Embryo” is the term given to the entity at approximately two weeks after fertilization, which coincides with the formation of the primitive streak (which will eventually develop into the neural system). Occasionally, the term “preembryo” is used to refer to the developing entity during the two-week stage prior to the formation of the primitive streak. Despite the scientific definitions, the common usage of the term “embryo” has
faced with the question of whether the embryos were property to be inherited or persons to be implanted. In 1986, Louisiana passed a statute stating that embryos are “persons” and must be implanted.4 In 1989, a French geneticist testified in a Tennessee trial court that embryos are “tiny persons.”5 That same year, a federal district court in Virginia held that frozen embryos are property for which a bailment can be created.6 In 1992, the Supreme Court of Tennessee heard the appeal of the “tiny persons” case and held that frozen embryos are neither persons nor property, “but occupy an interim category that entitles them to special respect because of their potential for human life.”7 In 1998, the highest court in New York rejected the “interim category” approach and stated that progenitors hold a “bundle of rights” in their frozen embryos.8 In 1999, a Michigan court agreed, stating that frozen embryos are not “children” for whom custody and child support must be determined.9 Frustrated with the lack of consistent resolution, the Supreme Court of Washington decided a 2002 embryo dispute case asserting that “whether a preembryo is a ‘child’ is not a logical or relevant inquiry.”10 With over 400,000 embryos currently in storage and more created each day, these debates about the legal status of embryos are likely to become more prevalent.11 If persons, the analogy is to

3. See discussion of Rios case infra Part III.C.
5. Davis v. Davis, 842 S.W.2d 588, 593 (Tenn. 1992) (reporting, within the appellate case, on trial court proceedings).
7. Davis, 842 S.W.2d at 597.
8. Progenitors are the woman and man who supply the egg and the sperm cells, respectively.
12. 400,000 Embryos and Counting, N.Y. TIMES, May 15, 2003, at A34.

been extended to cover the many frozen blastocysts currently in storage, as well as those at almost all stages of development following fertilization. For simplicity, this Article refers to all of the entities in question prior to the fetal stage as embryos. A “fetus” is the label given to the entity from eight weeks after fertilization until birth, at which point it is referred to as a “baby” or “neonate.” I do not believe that the use of the terms (or of proposed different terms) necessarily alters the debate. Certainly there are misleading terms, including, for example, “developing baby,” which imply that the entity in question is closer in attributes to a child than to original gametes (that is, sperm and egg). But it does not appear to make much difference in people’s ethical analysis whether the entity is called a blastocyst, preembryo, or an embryo.
children, and the legal framework is one of custody, best interests, and protection of embryo rights. If property, the analogy is to gametes, or sperm and eggs, and the legal framework is one of control, contract, and protection of progenitors’ rights. Most commentators and courts assume that an entity falls under either a property framework or a person framework\(^\text{13}\) (or perhaps something new),\(^\text{14}\) but not a combined property and person framework.\(^\text{15}\) This Article takes a novel approach. It argues that “person” and “property” are not mutually exclusive designations, and one might recognize both property interests in, and personhood interests of, certain entities.\(^\text{16}\) Depending on the outcome of the personhood analysis, either property interests will control (if there are no personhood interests), or the property interests will be balanced against the personhood interests (and in some cases the personhood interests may completely trump the property interests). For those situations in which the property interests control, general precepts


\(^{14}\) See, e.g., Patricia A. Martin & Martin L. Lagod, *The Human Preembryo, the Progenitors, and the State: Toward a Dynamic Theory of Status, Rights, and Research Policy*, 5 *High Tech. L.J.* 257 (1990) (rejecting property law, but also acknowledging that current jurisprudence cannot support the definition of a preembryo as a person with independent rights). Martin and Lagod argue that the preembryo is unique, should be treated with “serious” and “special” respect, and warrants a unique legal status that is neither property nor person. *Id.* at 276-78.

\(^{15}\) At least one author argues that the dichotomy between persons and property is illusory with respect to embryos and that the label is less important than answering the questions: “Can rights in a person be owned, and can property own property?” Guzman, *supra* note 13, at 200. Guzman begins the debate but does not develop it fully. Although I agree with her reframing of the questions, I do not think we should be quick to discard the existing property and person categories.

\(^{16}\) *But cf. id.* at 250-51 (concluding that the issue of what to do with genetic material can be solved without deciding if the material is a person or property).
of property law should apply, including rules relating to transferability, abandonment, and inheritance. Thus, rights regarding embryo disposition should mirror legal rights to disposition of other personal property.\textsuperscript{17}

This Article is the first in a two-part series. Its focus is on substantiating the argument that property law is the appropriate basis for legal analysis in this context. It is appropriate in four senses: (1) it provides a conceptually better fit than the competing procreative liberty framework; (2) it is normatively compelling, based on the application of property theories; (3) it provides a descriptively accurate explanation for many of the courts’ actions in embryo disposition cases (despite some of those same courts’ unwillingness to use the term “property”); and (4) it allows courts to draw on an existing framework of property law to resolve disputes. A companion Article considers the application of personhood law to embryos and fetuses and explores the limitations an entity’s personhood interests place on the exercise of others’ property interests.

Part I of this Article starts with the proposition that property theory is a better framework under which to evaluate interests in embryos and fetuses than procreative liberty theory. Part II examines theories of property, concludes that there are normative grounds for recognizing property interests in embryos and later developed entities, and argues that these interests cannot be ignored regardless of the entity’s personhood status. Although the notion that embryos are property is not itself new, the analysis by courts and most commentators has been fairly superficial.\textsuperscript{18} Property is simply assumed to be the default category, once the personhood approach is rejected.\textsuperscript{19} By contrast, this Article stresses

\begin{itemize}
  \item \textsuperscript{17} See discussion infra Part III.
  \item \textsuperscript{18} There is only one law review article, a student note, which suggests that a theoretical analysis of property interests in one’s body and body parts is necessary. David A. Rameden, Note, \textit{Frozen Semen as Property in Hecht v. Superior Court: One Step Forward, Two Steps Backward}, 62 UMKC L. REV. 377 (1993).
  \item \textsuperscript{19} Once the entity is determined not to be a person, attention shifts to the entities involved in the dispute who are persons—the progenitors—and their rights and responsibilities. \textit{Nat’l Insts. of Health, 1 Report of the Human Embryo Research Panel}, at x, xii (1994) (concluding that health needs of women, children, and men must be given priority because prior to implantation, the embryo does not have the same moral status as an infant or child, a conclusion based on “the absence of developmental individuation in the preimplantation embryo, the lack of even the possibility of sentience and most other qualities considered relevant to the moral status of persons, and the very high rate of natural mortality at this stage”); \textit{cf. The Inhuman Use of Human Beings: A Statement on Embryo Research by the Ramsey Colloquium}, at
that there is a normative basis for recognizing individual property interests in this context, regardless of the answer to the personhood question. Part III considers some of the implications of a shift from a procreative liberty framework to a property framework for courts deciding cases. It argues that property theory provides a basis for evaluating “parenthood,” and thus, property theory can determine standing both to assert control over embryos and to make child custody claims. It also points out some of the basic property laws that can apply in this context. Part IV begins to describe the integrated property-personhood framework and asserts that its rudiments already exist in the case of parents and children. Part V concludes. The companion article picks up at this point to develop the integrated framework in more detail. It explores the personhood interests of embryos and fetuses, and evaluates the potential limitations those interests place on the exercise of parental property interests.

The approach outlined below and in the companion piece is sure to challenge commentators on all sides of the debate. For those who argue that embryos and fetuses are persons, the strong property interests described below will likely be unpalatable. Moreover, the implications of the combined framework for limiting those property rights as the entity develops will likely be unacceptable to advocates of extensive procreative choice during pregnancy. Nevertheless, the framework described here provides a more accurate understanding of the legal issues and, therefore, may facilitate the eventual resolution of the protracted battle regarding the legal status of embryos and fetuses.

I. MOVING FROM PROCREATIVE LIBERTY TO PROPERTY

There are a number of reasons why it is important to consider the application of property theory in this context. Most importantly, there are compelling normative reasons—a point developed in Part II. Before reaching those, however, this Part identifies some of the conceptual reasons why the current legal framework, procreative liberty, is unsatisfying. Even if procreative liberty rights have a role to play in the embryo debate, the legal analysis must also take property rights into consideration.

The concept of procreative liberty arose initially out of a series of cases in the twentieth century dealing first with forced sterilization, then access to contraception, and eventually rights of abortion. The most prominent advocate for extensive protection of


20. A full exploration of procreative liberty is beyond the scope of this
procreative liberty, John Robertson, describes the framework as encompassing two interrelated freedoms—the right to avoid reproduction and the right to procreate.\footnote{21} He argues that procreative liberty is an extremely important right “because control over whether one reproduces or not is central to personal identity, to dignity, and to the meaning of one’s life.”\footnote{22} This Article does not dispute the importance of procreative liberty, or necessarily its role in a variety of cases. Rather, it argues that using procreative liberty, alone, is not sufficient to evaluate the interests involved in disagreements over embryos (and may not be sufficient for resolving the abortion debate, although that point will have to be argued in a subsequent article). Even if there are procreative liberty interests involved in these situations, there are also property interests at issue, and focusing on these property interests provides a better basis for legal analysis.

Interestingly, even though Robertson argues that procreative liberty rights extend to the use of assisted reproduction and thus that “[n]oncoital reproduction should . . . be constitutionally protected to the same extent as is coital reproduction,” he does not analyze embryo disposition solely under procreative liberty.\footnote{23} Instead, he acknowledges that “[t]he question of decisional authority is really the question of who ‘owns’—has a ‘property’ interest in—the embryo.”\footnote{24} Although he bases his arguments in favor of strong property rights on the need to afford control over reproductive options, in the end, his analysis of issues such as rights to discard and freeze embryos is reduced to consideration of the embryos’ symbolic value, and not the procreative liberty rights of the individuals involved.\footnote{25}

\footnote{22} Id. at 24.  
\footnote{23} Id. at 39.  
\footnote{24} Id. at 104.  
\footnote{25} Id. at 109-10.
In fact, there are a number of reasons why the procreative liberty framework fails to provide a good mechanism for resolving disputes in the embryo context. First, procreative liberty arguably is strongest in situations where procreation has not yet occurred—for example, sterilization and contraception. Although the concept has been applied in the abortion context, that area may be better served by an analysis of bodily integrity than procreative liberty. Regardless of whether this proves true, when an embryo has been created through the consensual actions of the gamete providers, those providers have “procreated,” or at least begun the process of procreation since it does not appear to be a single point in time event.

Moreover, stretching the concept of procreative liberty to cover decisional authority over embryos may undermine its use in other, more appropriate, contexts. Thus, for example, opponents of extensive recognition of procreative liberty may succeed in placing limitations on its exercise when applied in the embryo context (particularly since a larger number of people believe that embryos and fetuses have greater moral significance than gametes) and those limitations may shape the use of the procreative liberty framework in other contexts such as contraception. The ultimate result could be a diminution of liberty for the progenitors. For example, legislation that limits the destruction of embryos may limit the use of the “morning after pill” and other contraceptives that work to prevent pregnancy immediately after fertilization.

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26. See, e.g., Jennifer L. Rosato, The Children of ART (Assisted Reproductive Technology): Should the Law Protect Them from Harm?, 2004 Utah L. Rev. 57, 96-98 (stating that “[t]here are a number of reasons to doubt whether the right to procreate extends far enough to encompass ART decisions,” in part because “most ART decisions are made before the pre-embryo is ever implanted”).


28. Eggs and sperm are gametes.


30. Etienne-Emile Baulieu, RU-486 as an Antiprogesterone Steroid; From Receptor to Contragestion and Beyond, 262 JAMA 1808, 1813 (1989) (suggesting that we distinguish contraception—the prevention of fertilization—from contragestion—the prevention of gestation).
use of a property framework may lead to additional protections of individual rights since the courts may accord greater deference to specific property rights of progenitors than to their general liberty rights.\textsuperscript{31} Professor Murray Rothbard suggests that in order to avoid both confusion and a weakening of the right in question, general liberty rights should always be framed in terms of specific property rights.\textsuperscript{32} In this sense, one might consider the actualization of general procreative liberty interests to be the recognition of specific property interests in the resulting embryo.

Finally, the procreative liberty framework results in problems not encountered under a property framework, as it leads courts to consider inappropriate factors in their analysis of dispositional issues. There have been few reported cases involving cryopreserved embryos. Those that do exist usually involve disagreements between divorcing progenitors regarding implantation, donation, or destruction.\textsuperscript{33} The courts in these cases have, at least superficially, accepted a procreative liberty framework of analysis,\textsuperscript{34} giving priority to the party who wishes not to reproduce. While the decisions suggest that a valid agreement might control disposition, thus far, no court has upheld an agreement to implant or donate

\begin{footnotesize}
\textsuperscript{31} See generally, e.g., Jennifer Nedelsky, Private Property and the Limits of American Constitutionalism (1990) (describing the historical protections given to property rights); Margaret Jane Radin, Reinterpreting Property 14 (1993) (“In our legal/moral culture, rights that are considered ‘property’ are taken more seriously than any general rights to ‘liberty.’”).

\textsuperscript{32} Rothbard, supra note 27, at 113-14. Rothbard uses the example of rights of free speech and argues that to understand the general liberty right one must think in terms of specific property rights. The right to free speech is really a collection of property rights, such as the right to rent a hall for a political candidate. Id.


\textsuperscript{34} See Elizabeth A. Trainor, Annotation, Right of Husband, Wife, or Other Party to Custody of Frozen Embryo, Pre-embryo, or Pre-zygote, in Event of Divorce, Death, or Other Circumstances, 87 A.L.R.5TH 253, 261-62 (2001) (discussing the balance between the Constitutional procreative liberty right of one progenitor to reproduce and the other progenitor’s right not to reproduce).
\end{footnotesize}
over the objections of one of the progenitors.\textsuperscript{35} Only in one case, \textit{Litowitz v. Litowitz}, did an appeals court explicitly state that the contractual agreement always controls disposition.\textsuperscript{36} By contrast, the New Jersey Supreme Court in \textit{J.B. v. M.B.} argued that agreements could always be changed until the actual disposition of the embryos, based on public policy concerns.\textsuperscript{37}

In contrast to the analysis used in these cases, the framework described in this Article would focus on the property interests, rather than procreative liberty interests, of the progenitors. It potentially would reach similar results in some of these cases since contractual agreements would be enforceable, but it would have some significant differences. The first is that the relative weight of the right not to reproduce as compared to that of the right to reproduce will not play a role in disposition. Under a procreative liberty framework, rights not to reproduce are given greater weight than rights to reproduce. Reasons for this may include the general preference in our society for negative rights over positive rights and the compounding issue of women’s rights of bodily integrity. But the issue of extra-corporeal embryo disposition has nothing to do with bodily integrity. Moreover, at the point of pregnancy, when bodily integrity does come into play, it can be considered, in and of itself, separate from a property analysis and should not be evaluated, via proxy, through a balancing of rights to reproduce or not.

A secondary implication of the move away from basing decisions on the right not to reproduce is that contractual agreements to implant in one of the progenitors would be enforceable, even should one of the parties later change his or her mind.\textsuperscript{38} Of course, implantation into a currently objecting woman would not be permissible, but this is an issue of bodily integrity—a topic best left for another article. Contracts to donate spare embryos, allowing

\textsuperscript{35} The court in \textit{Kass} upheld the agreement to donate the embryos for scientific experiments. 696 N.E.2d at 180-81. The court in \textit{A.Z.} refused to uphold the contractual agreement to give the embryos to the wife for implantation over the husband’s objections. 725 N.E.2d at 1058-59.

\textsuperscript{36} 10 P.3d at 1090-93.

\textsuperscript{37} 783 A.2d at 719.

\textsuperscript{38} See, e.g., Sara D. Petersen, Comment, \textit{Dealing with Cryopreserved Embryos upon Divorce: A Contractual Approach Aimed at Preserving Party Expectations}, 50 UCLA L. REV. 1065 (2003). Peterson discusses the \textit{A.Z.} case in which the court declined to follow the pre-existing agreement to give the embryos to the wife for implantation. Except for the initial version of the contract, all subsequent versions were signed by the husband while blank and later filled in by the wife. \textit{Id.} at 1092. Although the court suggested it based its decision on the determination that the parties lacked intent to create a binding contract, it seemed more concerned about enforcing these agreements over one party’s objections.
another couple to attempt implantation, should also be enforceable.\footnote{If both progenitors change their minds and decide to do something else with the embryos, this should be permissible, as would any normal change in a contract upon agreement of all parties.} Since the parties have already “procreated,” the issue is not one of forcing procreation, but of property disposition and contractual enforcement. Despite the concern some courts articulate that a “party will have been forced to become a biological parent against his or her will,”\footnote{\textit{J.B.}, 783 A.2d at 718.} there is no right to avoid biological parenthood if you have willingly\footnote{Nor can you always avoid biological parenthood even in cases of unwilling procreation, although you may be able to avoid the legal obligations of parenthood.} participated in procreative activities. In other words, the right in question is really a right protecting against unwilling procreation, not unwilling parenthood once procreation has occurred, despite the rhetoric used. Likewise, a man who finds his partner has conceived after traditional intercourse cannot claim he has a right not to be a parent.\footnote{The right not to reproduce is not given priority for a pre-viable \textit{in utero} fetus since the man’s interest in not becoming a parent does not suffice to terminate the pregnancy or even avoid his parental obligations to a later born child. Although I will not go into detail here, I would argue that a woman who finds she is pregnant also cannot claim she has a right not to be a parent—at most she can claim that her right to control what happens to her body means that she can refuse to continue the pregnancy.}

Not only should the “right not to reproduce” not play a role in the resolution of embryo disputes, but also the “availability of alternative means of reproduction” is not relevant. Thus, for example, it should not matter in the \textit{Davis v. Davis} case that the wife had alternative means of reproducing.\footnote{See \textit{Davis v. Davis}, 842 S.W.2d 588, 604 (Tenn. 1992). The \textit{Davis} case involved divorcing parties who had seven frozen embryos. Mr. Davis wanted the embryos destroyed. Mrs. Davis initially wanted to use the embryos herself, but at the time of litigation was asking to have the embryos donated. \textit{Id.} at 589. The court determined that Mr. Davis’ right not to reproduce outweighed Mrs. Davis’ right to reproduce (particularly since she was not seeking to use the embryos herself). It also implied that the case might have been decided differently if Mrs. Davis did not have alternative means to achieve parenthood. \textit{Id.} at 604.} The parties in embryo disputes are concerned with the disposition of specific embryos; they are not debating either progenitor’s right to reproduce generally. An emphasis on procreative liberty clouds the analysis and draws attention away from the true issues. In many of the cases, the parties may not even be seeking to use the embryos themselves for reproduction, but rather seeking either destruction or donation for use by others or in research. The issue is how to give adequate
weight to the property interests in the embryos, not how to effectuate either party’s procreative liberty interests.

In all, a property framework provides a more neutral basis for legal analysis, compared to the more value-laden procreative liberty framework. Moreover, it allows courts to draw on a vast array of established rules for resolving disputes. The explicit adoption of a property framework by courts will lead to greater predictability in case outcomes and, thus, should facilitate the use of assisted reproductive technologies. The remaining implications of the shift to a property framework will be explored in more detail in Part III.

Part II, below, examines different theories of property rights to show there are normative reasons for recognizing property interests in embryos.

II. PROPERTY THEORY

Before beginning, I want to stress that the issue for this Part is not whether an entity should be labeled “property,” but rather whether legally recognizable property interests exist. Thus, some people respond in horror exclaiming: “Surely an embryo is not merely a piece of property!” Likewise, the use of the term “person” when applied to a group of undifferentiated cells may seem insulting to others that lay claim to the categorization. One need not talk about status per se, but instead, the question is best framed as

44. This Part draws heavily on exiting work by property law scholars. One professor notes:

[A]nything which one writes must largely be made up of a restatement of what has already been said by others in another form. Each one of us may congratulate [her]self if [s]he has added something of value, even if that consists only in so rearranging the data which others have accumulated as to throw new light upon the subject—a light which will serve to illuminate the pathway of those who come after us and so enable them to make still further progress.


45. Professor Anita L. Allen notes that “[t]he concepts of property and ownership are elastic enough to let us buy and sell anything we want. We cannot simply look to the language of law to know where to draw the lines.” Anita L. Allen, Surrogacy, Slavery, and the Ownership of Life, 13 HARV. J.L. & PUB. POL’Y 139, 146 (1990). My argument below does not depend simply on the terms themselves; in fact, the use of the terms may be problematic. Instead, I argue that the normative theories that explain whether and when to accord private property rights can be applied to determine rights in the context of embryos and fetuses.

46. The focus on “status” is misleading since it implies that the legal label is equivalent to the entity in question. Others have stressed this distinction, particularly in the area of property, by noting that one should speak of property rights—not of a thing being property. See, e.g., JEREMY WALDRON, THE RIGHT TO
whether there are interests in the entity that can and should be defined in terms of property and, thus, basic precepts of property law applied.\textsuperscript{47}

In order to answer this question, the following subparts first consider the meaning of property and, second, apply property theories to embryos and fetuses. I conclude that there are normative grounds for recognizing property interests in these entities, and although these interests may need to be balanced against the entity’s personhood interests, personhood interests do not negate the property interests.

A. The Meaning of Property

The categorization of something as “property” under the law is different from what it was two centuries ago,\textsuperscript{48} and thus may be different from the term’s historical plain usage. Property does not refer to absolute dominion over a “thing,”\textsuperscript{49} but rather “a set of legal relations among persons” relating to things.\textsuperscript{50} As a result, ownership

\textsuperscript{47} See, e.g., Robertson, supra note 13, at 454-55 (stating that although the terms “ownership” and “property” when applied to embryos may lead to misunderstanding, “the bundle of property rights attached to one’s ownership of an embryo . . . [is a] property interest nonetheless”).

\textsuperscript{48} Vandevelde, supra note 1, at 325-26 (describing the shift from a Blackstonian conception of property to a Hohfeldian one). Vandevelde notes that the categorization of something as property is often a shorthand for recognizing individual rights and limits on state sovereignty. Id. at 328. More broadly, he notes one danger in the initial shift away from the Blackstonian requirement of a “thing” to the protection of a valuable interest was the potential for property law to swallow everything and thus no longer itself be a useful means of demarcation. Id. at 329. Although I agree with Vandevelde’s descriptive analysis of the shift in the meaning of the categorization “property,” I do not evaluate his claims regarding the problems with this shift.

\textsuperscript{49} Id. at 328.

\textsuperscript{50} Id. at 330. The essential attributes of ownership are custody, control, and disposition. Accordingly, the bundle of rights called “property rights” include (1) the right to possess the property or thing; (2) the right to use and enjoy it; (3) the right to exclude others; (4) the right to transfer ownership by gift or by sale; (5) the right to encumber it; (6) the right to dispose of it after death; and (7) the right not to have it expropriated by the government without payment of compensation. A.M. Honoré, Ownership, in Oxford Essays in Jurisprudence 107, 112-24 (A.G. Guest ed., 1961).
rights are often defined as a “bundle of rights” and include an amalgam of different types of rights, some or all of which may be exercised in a particular situation. Different types of property may give rise to different legal rights and protections. Thomas Grey expresses concern about implications of the historical shift for the usefulness of “property” as a legal concept. Other scholars have shown that property is still a definable, and functional, legal category. Evaluation of these debates is beyond the scope of this


52. See UGO MATTEI, BASIC PRINCIPLES OF PROPERTY LAW: A COMPARATIVE LEGAL AND ECONOMIC INTRODUCTION 75 (2000) (“A piece of land, a book, a water basin, an animal, a computer program, a human embryo, a television frequency, a portfolio account, a negotiable instrument, a cubic meter of clean air, and so forth are all scarce resources . . . [and] may be considered as objects of property rights. Of course, all such different objects of property rights do not and should not share the same legal regime.”); Vandevelde, supra note 1, at 330. But see generally RICHARD A. EPSTEIN, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN (1985) (arguing that once something is designated as property, all the rights of property apply).

53. Thomas C. Grey, The Disintegration of Property, in MODERN UNDERSTANDINGS OF LIBERTY AND PROPERTY 291 (Richard A. Epstein ed., 2000). Grey’s focus is on the centrality of property in political capitalist theory. Interestingly, he cites Rawls’ Theory of Justice as evidence for how unimportant property rights have become in liberal theory. Id. at 303. For a contrasting view, see ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA (1974). A full analysis of this debate is beyond the scope of this Article. See also Margaret Jane Radin, Property and Personhood, 34 STAN. L. REV. 957, 989 n.113 (1982) (arguing that the concerns that lead to the shift away from an object-ownership conception and towards a bundle-of-rights conception can be addressed by emphasizing the difference between fungible and personal property).

54. Henry Hansmann & Reinier Kraakman, Property, Contract, and Verification: The Numerus Clausus Problem and the Divisibility of Rights, 31 J. LEGAL STUD. S373 (2002); see also Guido Calabresi & A. Douglas Melamed, Property Rules, Liability Rules, and Inalienability: One View of the Cathedral, 85 HARV. L. REV. 1089 (1972) (arguing that although property law and tort law may not be exclusive categories, property rules can be clearly distinguished from liability and inalienability rules). Using a Hohfeldian framework, property rights are multital rights—rights which are comprised of many similar rights against an indefinite number of people. HOHFELD, supra note 44, at 72 (“A multital right, or claim, (right in rem), is always one of a large class of fundamentally similar yet separate rights, actual and potential, residing in a single person (or single group of persons) but availing respectively against persons constituting a very large and indefinite class of people.”) (footnotes and emphases omitted). These contrast with in personam rights, or Hohfeld’s paucital rights—rights against a specific person or set of persons. Id. (“A paucital right, or claim (right in personam), is either a unique right residing in
Article, but even though there are clearly problems with defining property now that it applies not merely to dominion over a thing, property does not cease to be a useful legal concept.\(^5\) Property law continues to provide a framework for judges deciding cases, and theories of property continue to provide normative bases for allocating public-versus-private rights of control.\(^6\)

For purposes of this Article, the phrase “property rights” refers to rights of control relating to external, rather than internal, things (that is, related to the internal self). They might be contrasted with liberty rights (which are internal and generally thought to be inalienable), tort rights (which provide remedies for violations of liberty or property interests), and contract rights (which provide a basis for individuals to exercise control over other rights).\(^7\) The strongest property interest is labeled “ownership,”\(^8\) or an individual’s legal right “to exercise the maximum degree of a person (or group of persons); . . . or else it is one of a few fundamentally similar, yet separate, rights availing respectively against a few definite persons.” (footnotes and emphases omitted).

55. Jennifer Nedelsky suggests “it is the myth of property—its rhetorical power combined with the illusory nature of the image of property—that has been crucial to our system.” NEDELSKY, supra note 31, at 224.

56. See Radin, supra note 53, at 989-90 (noting furthermore that “[i]n the real world, the categories of ordinary language and culture seem reason enough to maintain the distinction [between property and non-property rights]”); see also MATTEI, supra note 52, at 2 (stating that “[p]roperty law can thus be described as the formal or informal set of restrictions on the use of scarce resources that recognizes and permits the exercise of private decision making by the individual”).


The law of property defines the boundaries of our rightful possessions, while the law of torts seeks to make us whole against violations of those boundaries, as well as against violations of the natural boundaries of our physical person. Contract law ratifies and enforces our joint ventures beyond those boundaries.

FRIED, supra, at 1-2 (footnote omitted). Nance goes on to note that “[a]lthough such inalienable rights [of life, liberty, and the pursuit of happiness] were often included in the notion of ‘property’ by Enlightenment theorists such as John Locke, the modern tendency is to use the term property to refer paradigmatically to rights that are, at least ordinarily, alienable.” NANCE, supra, at 362.

58. Ownership may include rights to possess, use, manage, transfer, collect income or capital, or use as security. Honoré, supra note 50, at 112-24. Distinct from ownership, there are also rights of “possession” and “capture,” for example. See MATTEI, supra note 52, at 79 (defining possession as “a property right whose protection by the legal system is simply less intense than that of ownership”). Mattei also stresses that with respect to movable property, however, the distinction between possession and ownership is less clear. Id. at 88.
formalized control over a . . . resource.\textsuperscript{59}

For most things referred to as property, one need not ask whether the designation is appropriate, but merely to what extent individual rights should be recognized or given priority. In contrast, the debate about embryos and fetuses has more to do with whether the property framework is appropriately applied in the first place and only secondarily about the extent of individual rights once recognized. It is certainly conceivable to talk about embryos in terms of property—after all, the debate itself, regardless of which side one takes, has been structured in exactly those terms.\textsuperscript{60} And property law seems intuitively applicable to situations in which there is a dispute over an actual thing. Embryos, since they exist in corporeal form, are in some ways easier to analyze under property rules than intangible intellectual property—they can be considered either under a “thing-ownership” conception or a “bundle-of-rights” conception. Furthermore, even if embryos in the womb are not the kind of “thing” that is traditionally thought of as being covered by property law, advances in technology that resulted in the existence of extracorporeal embryos may have changed this.\textsuperscript{62} Prior to this development, the concept of procreative liberty may have sufficed to protect the interests of the progenitors. But the advent of new reproductive technologies, and the more recent demand for embryos as both a valuable resource in and of themselves (as a source of children for infertile couples) and a means to obtain other valuable things (as a source of stem cells,\textsuperscript{63} for example), create an impetus to

\textsuperscript{59} Mattei, supra note 52, at 77. Even ownership rights have limits. Under the American system, “the owner is always restricted by a requirement of reasonable use.” Id. at 147.

\textsuperscript{60} This is separate from the issue of whether the embryo itself can have property interests (usually framed in terms of inheritance interests), a question that has been answered by commentators in the affirmative. See, e.g., Guzman, supra note 13; Sharona Hoffman & Andrew P. Morriss, Birth After Death: Perpetuities and the New Reproductive Technologies, 38 GA. L. REV. 575 (2004).

\textsuperscript{61} But see Parsi, supra note 13, at 706 (arguing that the person or property metaphors are inappropriate and that we should think of our obligations concerning embryos under a stewardship metaphor).

\textsuperscript{62} See, e.g., Bruce Yandle & Andrew P. Morriss, The Technologies of Property Rights: Choice Among Alternative Solutions to Tragedies of the Commons, 28 ECOLOGY L.Q. 123, 128-29 (2001) (arguing that technology “can affect what rights can be placed into the bundles of sticks,” “can make it possible to subdivide property rights within a particular bundle in new ways,” and “may make different forms of property possible”).

\textsuperscript{63} Harvesting stem cells from embryos results in the destruction of the embryo in question. There is a great deal of debate about whether this is ethical and whether embryos should be created specifically for this purpose, rather than using spare embryos leftover from fertility treatments. Complicating the issue is the potential to create embryos using cloning
untangle rights in the embryo from the woman’s property right in herself (including, for example, the right to control what happens to her own body), which is a source of the procreative liberty interest. 64

B. Application of Property Theories to Embryos

There are quite a few theories explaining property rights, and each has different implications for the legal recognition of those rights. 65 Moreover, there is extensive literature evaluating the different theories, which will not be recounted here. The goal of this subpart is to show that there are property interests in embryos, but not to resolve debates about which property theory is best overall. To the extent that one favors a particular theory over another (or a variation of a theory not recognized here), that theory should be applied in this context.

The following subparts are divided into three parts, mirroring the three categories into which theories about property can be broken down: utilitarian, natural rights, and personality. 66 Others
describe the categories as utility, labor, and liberty, where "liberty" matches the prior reference to "personality." Each of these general categories of property theories is applied to embryos. I conclude that there are strong normative grounds for recognizing private property interests in embryos and, subsequently, in developed fetuses.

1. Utilitarian or Economic Theory

Utilitarian theory focuses on maximizing the greatest good for the greatest number and is often translated into economic terms as creating the most economically efficient system. Although not all utilitarian theories are economic ones—greatest good can be evaluated in non-monetary terms—the vast majority of property theorists who use such a framework draw from the law-and-economics tradition. In simplistic terms, the economic approach to property starts with the assumption that property law should be structured to maximize social wealth. It usually further postulates that individuals will act in an effort to maximize their economic self-

*supra* note 54 (describing our legal system as one in which entitlements are either protected by property rules, liability rules, or rules of inalienability).


68. JOHN STUART MILL, UTILITARIANISM 7 (George Sher ed., Hackett Pub'g Co. 1979) (1861).


70. MARGARET JANE RADIN, CONTESTED COMMODITIES 6 (1996) (noting that "Amartya Sen, a prominent economist and social theorist, defines individual and aggregate social value as welfare maximization without supposing utility to be intrinsically characterizable in money terms").

71. Economic theory is just a subset of utilitarian theory in which greatest good is defined in economic (monetary and efficiency) terms.

72. There is variation on this absolute maximization that looks at achieving pareto-optimal outcomes.

A rearrangement of resources is considered Pareto-superior to the status quo if no one is harmed by the change and at least one person is better off. . . . [The Kaldor-Hicks variation defines] a reallocation of resources as efficient if it enables the gainers to compensate the losers, whether or not they actually do so.

interests—their private wealth. Although each individual may act in a rational way to maximize his or her interests, the end result may not maximize the sum of individual interests—the collective wealth.\footnote{David Schmidtz, The Institution of Property, in THE COMMON LAW AND THE ENVIRONMENT: RETHINKING THE STATUTORY BASIS FOR MODERN ENVIRONMENTAL LAW 109 (Roger E. Meiners & Andrew P. Morriss eds., 2000).} The theory provides not only an explanation for why individuals act as they do with respect to group resources, but also a solution (including, for example, creation of private property) in situations where the actions lead to inefficient results.

Although no one has applied a utilitarian property analysis specifically to embryos, a number of law-and-economics scholars have considered the application of a law-and-economics framework to the creation of children. Gary Becker does so with respect to the creation of families and provides a complex economic analysis to explain why families choose to have children.\footnote{GARY S. BECKER, A TREATISE ON THE FAMILY (1991). His purpose is to explain differences in fertility over time and not to make normative assertions about the worth of children. As Radin points out, he uses a market metaphor to make predictions about behavior. RADIN, supra note 70, at 1.} His use of a market framework describes children in terms of their economic value. Likewise, Judge Richard Posner has framed family relationships in economic terms\footnote{RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 165-70 (5th ed. 1998).} and even suggested the creation of a free market in babies to address the current “shortage.”\footnote{Elisabeth M. Landes & Richard A. Posner, The Economics of the Baby Shortage, 7 J. LEGAL STUD. 323 (1978).} Similarly, a number of people have argued for recognition of personal property interests in organs, based on economic rationales.\footnote{See, e.g., Charles M. Jordan, Jr. & Casey J. Price, First Moore, Then Hecht: Isn’t It Time We Recognize a Property Interest in Tissues, Cells, and Gametes?, 37 REAL PROP. PROB. & TR. J. 151 (2002); Roy Hardiman, Comment, Toward the Right of Commerciality: Recognizing Property Rights in the Commercial Value of Human Tissue, 34 UCLA L. REV. 207 (1986). Some authors have tried to distinguish between property and quasi-property, possibly either because of their discomfort applying the term “property” to body parts or because they are trying to stress that the property interests in question were extremely limited. See, e.g., Jordan & Price, supra, at 165-71 (discussing first the advantages and disadvantages of recognizing property rights in tissues and cells and then the specific advantages of recognizing “right of commerciality” in tissues and cells). They define “quasi-property rights” as providing limited rights to control the disposition of objects. Their quasi-property interest in human body would include the next of kin’s right to possess a corpse for burial, the right of freedom from obstruction in exercising this possessory right, and the right to donate organs. Id.} In particular, there have been suggestions that allowing the sale of organs would solve the
transplant shortage. These authors assume that it is appropriate to speak about children (and body parts) in economic terms and attempt to show that application of an economic framework will lead to a better explanation of people's actions and to solutions for some of the existing problems.

The difficulty of such analysis lies generally in the difficulties of applying consequentialist theories such as utilitarianism—how do we measure and weigh the utility or disutility to any one individual? Even if we can figure out how to apply the theory, evaluations depend on our ability to gather and interpret empirical data—something almost always lacking in utilitarian proposals. Moreover, although it may be possible to answer the questions raised by utilitarian theory, the lack of moral language in the embryo context may be especially disconcerting, regardless of one's feelings towards utilitarianism more generally. Utilitarian theories can explain the existence of property rights and provide a basis for determining when private control should be allowed but fail to provide a satisfying analysis regarding whether certain things, like embryos, should be considered under a property framework at all. Utilitarian theories assume that property rights should always be created/recognized to the extent that the result

78. See, e.g., George J. Annas, Life, Liberty, and the Pursuit of Organ Sales, HASTINGS CENTER REP., Feb. 1984, at 22 (reviewing the arguments that allowing a market in human organs would address the current transplant shortage).
79. Cf. JENNIFER ROBACK MORSE, LOVE & ECONOMICS 13 (2001) (arguing that an economics framework cannot and should not be applied to family relationships and while advocating a libertarian approach to the relations between the state and the individual/family, she notes that there are significant obligations of the individual to the family, founded upon love and generosity, that are necessary for society to function).
80. Consequentialist theories, such as utilitarianism, determine the ethical or correct course of action by looking at the consequences of different alternatives. The alternative that leads to the best result, however defined (such as most happiness or greatest good), is the correct one. In contrast, the theories below, natural rights and liberty (personality), are not consequence driven, but deontological. Deontological theories evaluate alternative courses of action based on the importance of particular values, without regard to the consequences of promoting those values. For example, Immanuel Kant argued that determining the moral or right action in a particular circumstance depends on one's ability to universalize the rule governing the act, otherwise known as the “categorical imperative.” IMMANUEL KANT, GROUNDING FOR THE METAPHYSICS OF MORALS 26, 30 (James W. Ellington trans., Hackett Pub'l'g Co. 1981) (1785).
82. Id. at 103.
produces better overall welfare.\textsuperscript{83}

In this sense utilitarian property theories are both infinitely useful and fundamentally problematic. Applying utilitarian property theory to embryos prompts the question—\textit{should} we be considering embryos in terms of benefit maximization or efficiency? Utilitarian property theory always answers this question “yes” and then proceeds to analyze whether or not the benefits/efficiency gains support recognition of private property rights. Many people may find this result unsatisfying. As a result, some scholars combine the utilitarian approach with one of the natural rights theories described below.\textsuperscript{84} Natural rights theory provides a basis for determining the initial “should this be considered property” question, and then utilitarian theory provides a basis for evaluating specific rules. But others feel the theory does provide a sufficient basis for analysis and point to the underlying strength of the utilitarian approach. The fact that it is not dependent upon an explanation of initial acquisition of property rights means it can be applied to any existing structure of rules and laws, even if those initial rules were developed without utilitarian evaluation.

Regardless of its limitations, wealth maximization theory enables us to answer some questions of whether and what legal property protections should apply. Justifications for recognizing private property interests under an economic utilitarian approach refer to the so-called “tragedy of the commons,” which highlights the potential for multiple parties with interests in a public resource to overexploit the resource while failing to take into account potential negative outcomes.\textsuperscript{85} In economic terms, without property rights, individuals will fail appropriately to internalize externalities or social costs.\textsuperscript{86} Each individual maximizing her own interest will attempt to exploit the resource to such an extent that it will be used up, thus removing the potential for resource enjoyment from everyone, including the individual in question. A system

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\item \textsuperscript{83} The theory may not provide a basis for outlawing slavery, for example. Duxbury, \textit{supra} note 65, at 7.
\item \textsuperscript{84} Richard Epstein does this. Epstein, \textit{supra} note 52; Richard A. Epstein, \textit{Past and Future: The Temporal Dimension in the Law of Property}, 64 Wash. U. L.Q. 667 (1986); see also Schmidtz, \textit{supra} note 73. It may be that a utilitarian economic theory provides the best descriptive mechanism to understand the implications of recognizing different private property rights, and thus should be used to determine what kinds of property rights in embryos should be given legal protections once a normative justification for having such rights is established.
\item \textsuperscript{85} Garrett Hardin, \textit{The Tragedy of the Commons}, 162 Science 1243, 1244 (1968).
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recognizing private property rights enables other individuals to charge the individual seeking to exploit the resource for using their shares, thus forcing the exploiter to internalize, or consider, all applicable costs in decision making. The contrasting “tragedy of the anticommons” recognizes that allowing too many individuals control over property can also be economically inefficient—tying up the property and making it impossible for any person to make full use of it. Under this model, rules should be designed to maximize the most efficient use of the resource in question and avoid both commons and anticommons problems.

Utilitarian theories do not recognize any inherent property rights of individuals but assume that such rights can be created (or not) according to the outcome that is sought (such as maximization of benefits of the resource). Applying utilitarian property rights theory leads us to ask questions about whether there are utility harms or benefits to allowing ownership of the entity. For embryos, the question would be whether recognizing private property rights would lead to greater overall welfare. Unlike the theories discussed below, utilitarian theory does not necessarily give preference to the progenitors or others involved in the creation of embryos. The issue is what incentives will result from the creation of various private property rights. If embryos are regarded as alienable property of the progenitors, then some people will be more likely to create embryos. On the contrary, if embryos are not regarded as the private property of the progenitors, a number of couples may be disinclined to create them in the first place. Part of the issue will be determining whether encouraging the creation of embryos results in overall social utility. There are at least two bases upon which to argue that it does. The first stems from the idea that decisions about reproduction are a crucial part of self-development, following up on the procreative liberty discussions. Affording property rights over embryos will give progenitors greater control. The result will be both to encourage more progenitors to create embryos (a good for them) and to encourage progenitors’ self-development (a good for society). The second basis assumes that the creation of additional embryos has the potential to create more

87. “A primary function of property rights is that of guiding incentives to achieve a greater internalization of externalities.” Demsetz, supra note 69, at 348.

88. The “anticommons” is the flip side of the commons problem—it is the situation where restrictions on individual use become so onerous that the resource cannot be used at all efficiently. Michael A. Heller, The Tragedy of the Anticommons: Property in the Transition from Marx to Markets, 111 HARV. L. REV. 621, 624 (1998).

89. Duxbury, supra note 65, at 7.
children and to facilitate certain kinds of research, both of which are good for society.  

2. **Natural Rights or Labor-Based Theories**

Unlike utilitarian theory, natural rights theory can explain initial acquisitions of property rights and provide a moral language for answering questions regarding the application of property theory in the first place. These theories start with the assumption that property rights are not the product of government, but arise naturally out of individual actions. The most prominent of natural rights property theorists, John Locke, argues that the primary reason for the formation of society is individuals' acceptance of the need for governmental protection of inherent property rights. He includes both ownership over the self and ownership over the products of one's labor as initial aspects of property. The natural-rights-labor approach may be a more promising theory under which to evaluate embryos than utilitarianism, as it at least starts with the question of whether an individual has a right to something we might call property.

Should embryos be considered part of one's own body and, thus, property as is any other body part linked to the whole? The initial answer appears to be yes. The embryo is made up of parts of the

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90. This is not to say that application of utilitarian theory could not result in limitations on the number of embryos created. But such a rule, like a rule governing the resolution of disputes over embryos, would be subject to welfare maximization analysis, and the ultimate outcome will depend on how welfare is defined and whose welfare is counted.

91. Duxbury, supra note 65 at 7-8.

92. Natural rights theories also sometimes talk in terms of inherent rights.

93. JOHN LOCKE, TWO TREATISES ON GOVERNMENT 295 (London 1821) (1690) ("The great and chief end, therefore, of men's uniting into commonwealths, and putting themselves under government, is the preservation of their property.").

94. See BECKER, supra note 67, at 32-48 (discussing Locke's theory); Duxbury, supra note 65, at 8-9 (same). Many others have pointed out the problems with Locke's theory and offered various modifications. For example, Robert Nozick takes issue with Locke's assertion that the investment of labor always results in property rights, rather than simply the loss of the labor value, although he accepts Locke's initial proposition of self-ownership. NOZICK, supra note 53, at 174-78. Nozick, however, believes property rights are justified under the "principle of justice in acquisition." Id. at 151. Nozick's principle identifies the circumstances under which someone can acquire property rights in something, based not simply on the addition of labor value. This principle, like Locke's labor theory, provides a basis for property rights separate from their designation by the state. I will not review all of the objections or variations of Locke's labor theory here. For my purpose, it is enough to note that it (and other natural rights theories) provides a normative basis for property interests in embryos.
progenitor’s bodies—the egg and sperm. So, to the extent that one’s own body is considered property, so too can the products of one’s body be considered property.95 But it is not clear that the notion of self-ownership under natural rights theories, including Locke’s, is really meant to encompass bodily ownership, as opposed to ownership over the person or personal identity.96 If the latter, the notion seems to be more akin to a concept of liberty than property.97

Even if gametes are not considered a part of the body, the “labor” involved in the production of an embryo may be an “investment” that could be recognized via a property interest in the resulting entity.98 Others have pointed out that children would be included as property under such a theory. Lawrence Becker asserts that “if anything is clearly a product of (one’s body’s) labor, a child is,” although he then goes on to argue that this is why a labor theory of property is flawed.99 Becker’s argument raises an important point about persons and property—the property interests in the embryo will be limited by the nature of their justification. If property rights in oneself are inherent, then recognition of derivative rights from labor investment in the creation of an entity will necessarily be limited by that entity’s own property interests in him- or herself. It would be inconsistent to hold otherwise, since the result would undermine the initial justification for granting property rights. As Margaret Radin states, “[I]f Locke’s claim is that property is justified because it is a condition necessary to produce or sustain free individuals, his theory carries the inherent limitation that any form of property incompatible with free individuals is not

95. For example, Robertson appears to combine both the concept of ownership over gametes and rights of procreative liberty in order to find a property interest in the resulting embryo. Robertson, supra note 13, at 457 (“The gamete providers’ claim to ownership derives from their original ownership of their gametes and their right to decide whether to have biologic offspring.”).

96. For an analysis of the difference between the two, see WALDRON, supra note 46, at 177-83 (arguing that Locke was referring to ownership of personal identity since creation of the body (and thus ownership) belonged to God).

97. Id.

98. There is a slightly different “labor” investment in creating an embryo in vivo through copulation, rather than in vitro. And there is additional labor investment in gestating, birthing, and raising a child.

99. BECKER, supra note 67, at 38. This raises interesting questions about ownership of persons—an issue which will be explored in greater detail in a subsequent article.

100. Id. at 39. Becker argues that parents in fact have a duty to recognize the liberty interests of the child, and this duty may either override or cancel out the parents’ right. Id.
Although recognizing property interests in embryos (and possibly fetuses and children) is not per se inconsistent with the initial theory, as the personhood interests of the developing entity are recognized, they will naturally limit other individuals’ property interests in the entity.

3. Liberty or Personality Theories

Although natural rights theories are potentially applicable in this context, personality theories also provide a basis for assessing property interests in embryos. Personality theories are initially drawn from the work of Hegel, who claimed “private property is essential for the development of freedom and . . . serves as a medium through which the individual becomes a person.” More recently, Charles Reich stated that “property performs the function of maintaining independence, dignity and pluralism in society by creating zones within which the majority has to yield to the owner.” Radin further develops the personality idea in her work on property and personhood. She analyzes different theories of property in depth and concludes that the personhood perspective of property can be used normatively to determine whether and how property rights should be recognized in particular contexts.
argues that property rights fall along a continuum from personal to fungible and to the extent that they fall closer to the personal end they should not be overridden.\textsuperscript{107} Personal property is that property that is closely linked to the development of the self, and thus rights to that property should be given greater protection than rights to fungible property.\textsuperscript{108} Placing something on the continuum is, to a certain extent, subjective, and individuals may even conceive of something as personal in one context and fungible in another. Blood and hair are good examples since while in or attached to the body they are personal (and perhaps not even conceived of as separate from the self), but out of the body, they may be donated or sold.\textsuperscript{109} However, the designation of something as personal or fungible is not simply made on a case-by-case basis and “instead depends upon whether our cultural commitments surrounding property and personhood make it justifiable for persons and a particular category of thing to be treated as connected.”\textsuperscript{110}

The personality theory of property poses problems for those who believe that property is a more unitary concept and everything designated as property is entitled to an invariant core set of protections.\textsuperscript{111} Radin’s approach has also been criticized based on concerns that social consensus on a fungible-personal continuum does not actually exist.\textsuperscript{112} Furthermore, her analysis of commodification may understate its prevalence while at the same time overestimate its force.\textsuperscript{113} Stephen Schnably, for example, argues that people have the capacity to resist commodification or decommodification, regardless of the imposed legal regime\textsuperscript{114}—an argument that may have significant implications for considering embryos as property under a personality theory. If one of the

\begin{itemize}
\item property rights. That is, his theory is that some property is necessary to be a conduit of one’s will, but not necessarily that a specific thing must be regarded as property.
\item \textsuperscript{107} Radin, supra note 53, at 986.
\item \textsuperscript{108} Fungible property is property “that is perfectly replaceable with other goods of equal market value.” \textit{Id.} at 960.
\item \textsuperscript{109} RADIN, supra note 31, at 17. Radin takes the view that “personal endowments and capacities” are not severable and thus not property. \textit{Id.}
\item \textsuperscript{110} Id. at 18.
\item \textsuperscript{111} For example, Richard Epstein, who uses a combined natural-rights-theory and utilitarian/economic approach, argues that once designated as property certain rights automatically follow, and these rights are the same with respect to all things that fall under the heading of property. \textit{Epstein, supra} note 52.
\item \textsuperscript{113} \textit{Id.} at 404-05.
\item \textsuperscript{114} \textit{Id.} at 395-96.
\end{itemize}
concerns about alienability of embryos is the commodification of developing human lives (and thus, by implication, the commodification of later developed persons), showing that people can resist commodification, even while recognizing alienable property interests, should counteract many objections.

Despite problems, personality theories provide a strong basis for recognizing property interests in this context. According to procreative liberty arguments, control over procreation, in this case control over what happens to embryos created with one’s gametes, is crucial for development of the self. A personality theory of property takes this one step further stating that private property interests in the embryo are necessary to provide the liberty for the development of the self. Recognition of property rights in this context acknowledges the significant role procreation plays in the development of self-identity and is both more conceptually appropriate than procreative liberty arguments and possibly a legally stronger basis on which to rest the rights in question. Like the labor theory, personality theories carry inherent limitations. To the extent that the recognition of property interests hinders the development of self-identity or liberty, they should be restricted.

C. Summary

There are interests in embryos that are appropriately characterized as property interests and should be recognized under the law. Analysis under utilitarian theory reaches this result, although the specific rules will depend on analysis of the consequences. Moreover, application of both labor and personality theories likewise result in the conclusion that there are property interests in embryos. The next step is to consider some of the

115. MATTEI, supra note 52, at 76 (stating that “all legal systems resist the idea of considering as the object of property rights certain kinds of material things that may have a very high economic value,” including body parts and embryos under this heading, and stating that the reason is an underlying fear of commodification, despite the fact that “the notion and the language of property may offer some insights”).

116. For an interesting taxonomy of commodification, see Note, The Price of Everything, the Value of Nothing: Reframing the Commodification Debate, 117 HARV. L. REV. 689 (2003). The author argues that anti-commodification arguments divide into coercion arguments and corruption arguments, and corruption arguments can be divided again into conventionalist and essentialist positions. Id. at 689. Schnably’s argument appears to focus on the corruption harms from commodification. Schnably, supra note 112.

117. Radin may take issue with the use of her theory in this way given her discussions of incomplete (contested) commodification. RADIN, supra note 70, at 21.

118. See supra Part I.
implications of recognizing these property interests.

III. APPLICATION

Having set forth the property framework, it is useful at this point to consider its implications for actual cases. I will focus most of the discussion below on cases involving extra-corporeal embryos. These are the least complex, as they do not involve either bodily integrity interests of a pregnant woman or highly developed legal personhood interests of the entity in question. The latter point follows from the assumption that if children are not granted full legal personhood rights, then less developed entities such as fetuses and embryos should have no greater rights (and would likely have fewer). Although an entity's personhood interests may limit the application of property interests, it is worthwhile considering how the framework would function in the absence of personhood interests. In other words, I will assume for the moment that embryos do not have personhood interests and apply the property framework. The companion article develops this argument in greater detail. Even should one disagree with this point, the property framework still applies, albeit with additional limitations on the exercise of the property rights. Such limitations will also be explored in the companion article. The Subparts below consider the initial implications of the shift from a procreative liberty framework to a property framework. Specifically, they address who can assert the property interests in question, and whether and how such interests can be transferred.

Subpart A draws from property theories to identify those individuals who would have a basis for asserting a property interest in embryos and fetuses. This is a crucial issue since it will determine who has standing to bring a suit involving the embryos or subsequently born children. Subpart B considers whether the property interests are transferable (thus widening the groups of potentially “interested parties”), and Subpart C suggests some traditional property law concepts that might be used in dispositional cases. Finally, Subpart D applies the general rules to the handful of reported cases on embryo disposition.

A. Who Can Assert an Initial Property Interest?

One of the most important issues to resolve in disputes over embryos, and eventually the subsequently born children, is who can assert claims—in other words, who has standing to bring a

119. See, e.g., ROTHBARD, supra note 27, at 107-12.
lawsuit. Only “interested parties” may assert a claim for either control over embryos or custody over children. Before an individual can even assert that the best interests of the child will be served by affording him or her custody, that individual must have standing to do so. There are good reasons for this limitation since we do not want to have all parents at risk of having their children taken away simply because some other adults believe they can provide better for the children. Likewise, random individuals may not assert a claim for embryos, or request specific embryo dispositions. Even if embryos were to have personhood interests, the parties who have standing to assert a claim should be limited, as it is with children. The current legal framework restricts interested parties to individuals who can assert parentage under one of three tests—genetic, gestational, or intentional. Although the tests are helpful, they fail to solve all problems in cases of unusual reproduction. Application of property theories to identify those individuals who can assert a valid property interest both provides a theoretical basis for using the three specific tests and potentially allows other individuals who do not specifically fit one of the tests to assert a claim.

There are a variety of parties that might claim to have a property interest in the embryo that would form the basis of dispositional control, the foremost of whom will be the progenitors who provide the gametes. In those circumstances where the gamete providers include the gestating mother and the progenitors intend to rear the resulting child, the analysis remains relatively simple. But

120. Describing this issue as one of “standing” may be incorrect despite many courts’ use of that term. That is, the question may really be one about the merits of any one individual’s claim, rather than whether they have standing to assert the claim. The analysis described in this Subpart does not change even if the “standing” label is not appropriate. Personal Communication with Jonathan Entin, Professor, Case Western Reserve University School of Law (Oct. 5, 2004).

121. See, e.g., K.M. v. E.G., 13 Cal. Rptr. 3d 136, 144 (Ct. App. 2004) (holding that K.M.’s genetic connection to the children qualifies her “as an ‘interested party’ for purposes of obtaining a judicial declaration of her status as a parent”), opinion superceded by 97 P.3d 72 (Cal. 2004).

122. See, e.g., Johnson v. Calvert, 851 P.2d 776, 782-83 (Cal. 1993) (distinguishing parentage determinations from custody determinations, stating that the best-interests-of-the-child analysis only applies in the latter, and arguing that parenthood, by contrast, can only be determined by showing a genetic, gestational, or intentional link). The Johnson court adopted an intention test. The Supreme Court’s recent opinion in Troxel v. Granville, 530 U.S. 57 (2000) (considering the issue of grandparent visitation), indicates a willingness to consider visitation and possibly even custody claims of parties who do not fit one of the three “parenthood” tests.
when the gamete providers contract with an individual or couple who will rear the child, the situation becomes significantly more complicated. As stated previously, utilitarian economic theory does not necessarily give preference to any of the involved parties, but rather focuses on the incentives created by different legal rules. By contrast, application of personality or labor theories may have significant implications for the prioritization of rights. The following subparts consider (1) the claims of the progenitors; (2) the potential claims of contracting parents; (3) the claims of surrogates;¹²³ (4) the potential claims of scientists and physicians; and (5) the claims of rearing parents.

1. Progenitors

There is nothing inherent in personality theory that would result in a preference for one or the other of the progenitors. Either gamete provider can plausibly argue that embryos created with his or her genetic material are closely linked to the sense of self. One could ask each progenitor to demonstrate how the embryo is linked, but this will be an extraordinarily difficult evaluation and open to subjective bias. As a result, under a personality theory, claims of progenitors should be regarded as equal, and neither should be able to make decisions about an *ex utero* embryo without the consent of the other.¹²⁴ I will discuss the implications of this consent issue in more detail under Subpart B, below.

Labor theory, by contrast, appears to prioritize the claims of different progenitors. The investment of the egg provider is significantly greater than the investment of the sperm provider and perhaps this should translate into greater property interests.¹²⁵ But this is an artifact of biology—men cannot (even if they wanted to)

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¹²³ Resolving issues involving surrogates will necessarily entail moving beyond *ex utero* embryos and are addressed in greater detail in the companion piece. But for purposes of this Article, I include the discussion of whether a surrogate can assert an initial property interest. If so, then resolution of surrogacy disputes must consider the property interests along with the bodily integrity interests of the surrogates. In the absence of property interests, the surrogate may still have bodily integrity interests if still gestating the fetus.

¹²⁴ In other areas of property law, equal rights means that either cotenant can use the property, rather than that each has an equal veto. This would be problematic in the embryo context since one “use” of the embryo would forever preclude another use, and thus, the determination by one party would extinguish the other party’s rights.

¹²⁵ See, e.g., John A. Robertson, Resolving Disputes over Frozen Embryos, HASTINGS CENTER REP., Nov.-Dec. 1989, at 7, 7 (discussing the “sweat-equity” model to justify awarding female gamete providers greater control over the embryo because of her greater physical and emotional contribution to the IVF process).
invest more effort in the donation of their gametes. Moreover, what “investment” is at issue? Should investment be defined in terms of the physical energy necessary to create the gametes (women are born with all of their eggs, men must make sperm), or in terms of risks and discomforts in the retrieval of the gametes (harder for women than for men), or in terms of the psychological and emotional investment of either party (varied in each case)? A labor theory does not necessarily differentiate between these investments. It may be that the egg provider is owed more for her investment, but that should not necessarily translate into greater property rights in the embryo. For example, a number of commentators have argued for different compensation for egg versus sperm donation based on the unequal efforts involved. Moreover, a labor-theory approach may not give priority to one gamete provider over another if the expectation is that the parties will have equal interests in the resulting embryo (and eventual child).

In other words, labor investment need not always result in property rights—it may merely result in payment for the investment or recognition of the investment. In part, the appropriateness of granting property rights depends on whether it is a property

126. In some cases, sperm harvesting can require more than masturbation, but the efforts and risk are still greater in the egg donation context.

127. One could use utilitarian theory to differentiate between investments. Thus, the individual’s willingness to sell the property (or willingness to buy) might be used to quantify investment.

128. See, e.g., Jennifer Marigliano Dehmel, Comment, To Have or Not to Have: Whose Procreative Rights Prevail in Disputes over Disposition of Frozen Embryos?, 27 CONN. L. REV. 1377, 1378 (1995) (arguing that the woman should have greater authority because of her greater physical investment); Donna A. Katz, Note, My Egg, Your Sperm, Whose Preembryo? A Proposal for Deciding Which Party Receives Custody of Frozen Preembryos, 5 VA. J. SOC. POL’Y & L. 623, 625 (1998) (arguing that the party whose infertility resulted in the use of IVF should have a greater say in the disposition of the embryos). But see Petersen, supra note 38, at 1081 (refuting such an approach).

129. Edwin C. Hettinger, Justifying Intellectual Property, 18 PHIL. & PUB. AFF. 31, 41-42 (1989) (“Property rights . . . are not a fitting reward if the laborer does not want them . . . [or] the value of these rights is disproportional to the effort expended by the laborer.”). Becker states that the labor theory might be reformulated to state:

[L]aborers deserve something for their labor. Perhaps in some cases what they deserve is property in the thing labored on; in other cases property in some sort of fee for the labor; and in still other cases, not property at all but simply the recognition, admiration, or gratitude of other people.

BECKER, supra note 67, at 47 (emphasis omitted). This line of argument may have interesting implications for gestational surrogacy and will be explored in more detail in a subsequent piece.
interest that is sought in the first place.\textsuperscript{130} This is not to say that the individual in question need articulate her interests in such terms, but if the expectation is clearly that property interests will \textit{not} result, then granting property rights would be inappropriate. Moreover, even if there is an expectation of property interests, there may still be other reasons for denying that a great labor investment results in a greater property interest, either because the investment in question is not deserving of greater recognition, or because recognizing the property interest would interfere with another person’s property interests.

Thus, for progenitors who plan to raise the resulting children, their interests will be regarded as equal\textsuperscript{131} under personality theories (and also likely utilitarian theories) but may vary depending on how “investment” is defined under a labor theory. In most cases, both progenitors will have a say in disposition.\textsuperscript{132} I will return to this issue again under Parts III.B and III.C.

2. Contracting Parents

The analysis so far assumes that the gamete providers are also the intended parents, and certainly in that situation their claims should receive priority over anyone else’s. But what about the case where the gamete providers do not intend to interact with the embryo and resulting child? The act of donation\textsuperscript{133} may be viewed as a voluntary transfer of the progenitors’ claims to the resulting embryo. One argument in favor of strong protections around the donation process is based on the desire to make absolutely sure that the decision to donate is voluntary and informed (that is, autonomous) since the individuals will be giving up later claims to what has already been established as highly personal property.\textsuperscript{134}

But even if the gamete donors do not explicitly relinquish

\textsuperscript{130} Becker, supra note 67, at 53, 55.
\textsuperscript{131} See Robertson, supra note 13, at 457.
\textsuperscript{133} Some commentators have suggested the term “vendor” be used instead of “donor” since gamete providers are paid. See, e.g., Mary B. Mahowald, Genes, Clones, and Gender Equality, 3 DePaul J. Health Care L. 495, 523 n.172 (2000). Great care is taken to make this payment appear to cover services in providing the gametes (time, effort, risk) rather than the gametes themselves.
\textsuperscript{134} This is one reason that Coleman argues that embryos should be inalienable. Carl H. Coleman, Procreative Liberty and Contemporaneous Choice: An Inalienable Rights Approach to Frozen Embryo Disputes, 84 Minn. L. Rev. 55, 97-102 (1999).
claims, can the “contracting parents”—individuals with no genetic or gestational connection to the embryo but who intend to raise the resulting child—assert a property claim under either the labor or personality theories? With respect to labor theory, if, as suggested above, expectation of property rights plays a role in determining whether someone should be granted those rights, then one might argue that the property interests of the contracting parents should be recognized, but not that of the gamete donors (who may expect compensation, but by definition do not expect property rights). The result may dovetail with some courts’ suggested “intent” test for determining custody in surrogacy cases—the parties who intended to raise the child are considered the child’s parents.135 The use of a labor theory would provide a theoretical grounding in property law for considering intent—arguably a stronger basis for recognizing rights of different parties in this context since there is considerable resistance to the idea that one can contract away procreative liberty interests as opposed to contracting away property rights. Moreover, in familial arrangements related to embryo donation and creation, and also in some non-familial arrangements, many of the contractual elements may be missing.136 Property theory would function as a mechanism to allocate rights and interests even in the absence of a valid and enforceable contract.

With respect to personality theory, the embryos in question are,

135. Johnson v. Calvert, 851 P.2d 776 (Cal. 1993); In re Buzzanca, 72 Cal. Rptr. 2d 280 (Ct. App. 1998); Marjorie Schultz, Reproductive Technology and Intent-Based Parenthood: An Opportunity for Gender Neutrality, 1990 Wis. L. Rev. 297. No case has yet evaluated the claim between a gamete donor and a surrogate or intentional parent. The cases that have declined to follow the California courts’ reliance on intention have not evaluated the property interests of the other parties, but rather determined custody (a child at the point of dispute, not an embryo) using the “best interests” of the child analysis. See, e.g., In re Baby M, 537 A.2d 1227, 1252 (N.J. 1988). The remaining disputes that have thus far appeared in the courts are between the male and female gamete donors.

136. Consider the case of Belsito v. Clark, where Mrs. Belsito’s sister, Ms. Clark, agreed to gestate the Belsito’s genetic child. 644 N.E.2d 760, 761 (Ohio Com. Pl. 1994). In a dispute with the state (all parties agreed) over whose name should go on the birth certificate, the parties argued that there was no intention for Ms. Clark to have any parental rights or responsibilities. Id. Designating the Belsitos as the parents, the court argued in favor of genetic parentage over birth parentage. Id. at 762. It explicitly rejected the “intent” test articulated by the California court in Johnson v. Calvert. Id. at 764-66. But the genetic test would create a significant barrier to the use of donor gametes and makes less sense than recognizing the Belsitos’ property interests in the resulting child. Certainly intent alone is not sufficient; however, the intent added to the Belsitos’ existing arguments about their genetic and other investments in the child were significant. Id. at 767.
almost by definition, fungible, not personal property—the contracting parents may have chosen the donors for specific characteristics, but other donors may also meet their requirements. Nonetheless, some contracting parents may make the argument that the embryo in question is closely linked to their senses of self, and these arguments should be taken seriously. It may be, however, that in a dispute the contracting parents have stronger arguments under a labor theory than under a personality theory, and gamete providers have the stronger arguments under the reverse.

3. **Surrogates**

In some cases, the parties involved also include a surrogate, or woman who agrees to gestate the child. In traditional surrogacy, this woman also provides the egg and is artificially inseminated with the sperm of the man who intends (along with his partner, usually his wife) to raise the child. More commonly, gestational surrogates are now used—the woman has no genetic link to the resulting embryo and later born child—prompting some commentators to refer to the situation as “womb donation.” Both types of surrogates have claims under a labor theory after implantation. Prior to implantation, even if the surrogate invests labor in readying herself for implantation (for example, in some cases, hormonal shots are required to create the uterine environment most conducive to fertilization or implantation) such investment would not yield an expectation of property interests in the specific embryo/fetus and resulting child. Prior to implantation, it is hard to imagine the surrogate having any property claims, although she may have a claim to compensation for her time.

Post-implantation, the surrogate’s labor investment may be significant. Traditional surrogates have the added investment of providing the egg, although less of an investment than an egg donor who must provide the egg outside her body. There is no reason to

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137. The same argument may not apply to adoption, once the potentially adoptive child has been identified.

138. Although the focus of this Article is on disputes involving extracorporeal embryos, I include this subpart on surrogates since their property interests may eventually come into play.


140. In artificial insemination, the sperm is introduced into the woman’s vagina, and fertilization occurs inside the body, as it would with traditional intercourse. For egg donors, the eggs must be ripened and harvested for fertilization outside the body. Artificial insemination occurs according to the woman’s cycle and usually does not involve additional labor investments such
think, however, that the added investment of a traditional surrogate makes a difference under a labor theory. The real issue in any dispute is whether a gestational investment should be given greater weight than the less substantial labor investment of gamete providers. As with debates concerning the relative weights of the investments of sperm versus egg donors, it is not clear whether we would want to give greater weight to gestational investment since even in traditional reproduction the woman has a greater labor investment via pregnancy than the man who provides the sperm. Although this may have been one basis for the historical preference in favor of granting custody to mothers of young children,\textsuperscript{141} modern courts recognize the involvement of fathers-to-be in addition to mothers-to-be, even if these investments cannot be quantitatively equalized.

Even assuming that in traditional reproduction the woman’s pregnancy should not entitle her to greater property interests than the man in the resulting child, the question may be answered differently in the surrogacy context. In other words, even if a labor theory would not give preference to the investment of the mother over the investment of the father in allocating property interests, it might reach a different result when comparing the investments of a surrogate and the investments of egg or sperm donors. The time and effort involved in gestating and birthing a child is clearly more lengthy (and likely more strenuous) than that of any of the other parties involved in technological reproduction. But there are two responses to this. The first is that the investment of intentional parents may be just as significant, if not greater, than that of surrogates. As pointed out earlier, the labor theory has no mechanism to weigh qualitatively different types of investments.

The second response is that in the paid surrogacy context, the surrogate’s gestational investment is compensated, and thus, there may be no expectation of property interests in the resulting child.\textsuperscript{142} Of course, this is exactly what many people find objectionable about surrogacy arrangements.\textsuperscript{143} Another way to think about this is to

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\textsuperscript{142} Alternatively, the case may involve two “mothers”—where one provides the egg, and the other gestates the embryo/fetus, but both intend to rear the child. Whether and how these interests should be translated into parenthood and custody terms depends on the specific circumstances of the case. In essence, the evaluation should be no different than that involving a heterosexual couple where the “husband” contributes genetic material via sperm, and the “wife” uses an egg donor and gestates the resulting embryo.

\textsuperscript{143} See, \textit{e.g.}, PAUL LAURITZEN, PURSUING PARENTHOOD: ETHICAL ISSUES IN
view the surrogate as holding the embryo/fetus in trust for the individual who intends to rear the resulting child.\textsuperscript{144} For surrogacy arrangements that do not involve money, the surrogate may well have a continuing property interest that will have to be worked out with the individuals who intend to raise the child. Since most of these cases involve family members or close friends, one would assume that the surrogate plays a continuing role in the child’s life.\textsuperscript{145} As time progresses, the rearing parents gain greater interests due to their continued investment (and the child’s personhood interests also come into play).\textsuperscript{146} It would be interesting, however, to consider how a case involving a sister or relative who engaged in non-compensated surrogacy would be decided if the surrogate claimed the right to be involved in the child’s rearing or even tried to claim an exclusive right to rear the child. Exactly how disputes such as these are handled may depend on the potential transferability of the interests in question, a point I will return to below in Part III.B.

Notwithstanding the transferability of the interests in question, both traditional and gestational surrogates may also claim property interests based on personality theory. For the traditional surrogate, the embryo in question is less fungible. While she may have accepted different sperm donors, she gestates only a child created with her egg. Her claim looks similar to the claim of the natural mother in traditional reproduction. This is one reason why courts may be more wary of upholding traditional surrogacy arrangements,\textsuperscript{147} which are now less common. The gestational surrogate has a weaker argument based on a personality theory. While she may claim that her personality is closely linked to being a “surrogate,” it is not clear that it is closely linked to one particular embryo/fetus over another. Again, surrogacy arrangements between family members or friends may give rise to stronger arguments about property interests under a personality theory since in those cases, presumably, the surrogacy is only undertaken for a

\begin{footnotesize}
\begin{enumerate}
\item[144.] See Margaret S. Swain & Randy W. Marusyk, An Alternative to Property Rights in Human Tissue, in LIFE CHOICES 410, 413 (Joseph H. Howell & William Frederick Sale eds., 1995) (stating that the health care providers involved in a transplant hold the tissue in trust for the recipient).
\item[145.] This is not always true, and not all family arrangements involve free choice. See, e.g., Janice G. Raymond, Reproductive Gifts and Gift Giving: The Altruistic Woman, in LIFE CHOICES, supra note 144, at 302 (describing coercive family assisted-reproductive arrangements).
\item[146.] See discussion of rearing parents infra Part III.A.5.
\item[147.] See, e.g., In re Marriage of Moschetta, 30 Cal. Rptr. 2d 893 (Ct. App. 1994); In re Baby M, 537 A.2d 1227 (N.J. 1988).
\end{enumerate}
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specifically designated embryo. There is little to no legal evaluation of the potential claims of the different parties in so-called “gift” surrogacy, primarily because these tend to take place outside the legal forum and, thus far, have not resulted in courtroom disputes.

4. *Physicians and Scientists*

Scientists who create embryos for research purposes may attempt to claim a property interest in the resulting embryos based on their investment, as may physicians involved in reproductive services. Property rights based on investment are clearly not fitting in the case of physicians providing assisted reproductive services; instead, compensation is appropriate since that is what is expected.\(^{148}\) Compensation is a sufficient return for the labor investment and more appropriate than property rights in the embryos.\(^{149}\) Scientists who create embryos for research purposes may give rise to a slightly different situation. In cases where the progenitors transfer their interests (in either the gametes or the resulting embryo), the scientists will have property interests—although these may be limited interests in using the embryos only for research (or even a particular type of research). I return to this issue below under Part III.B.2. If the progenitors do not relinquish their property interests, could a scientist claim a property interest based on his or her investment? The answer is likely to be no, since the labor theory would not recognize the unauthorized investment. In most cases, a simple bailment is created between property interest holders and the scientists/physicians/storage institution.\(^{150}\)

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149. Becker describes this as the “labor-desert” argument and claims that property rights are only appropriate when “nothing but property in the things produced will do, and when the value of such rights meets the test of proportionality.” Becker, *supra* note 67, at 53. By contrast, when “substitutes will do every bit as well, [people] then deserve . . . an equally satisfactory substitute,” or “where property in the things produced is not what is sought at all, and cannot be an adequate substitute for what is sought, the laborers deserve something else (perhaps recognition, gratitude).” *Id.*

150. York v. Jones, 717 F. Supp. 421, 422, 425 (E.D. Va. 1989) (stating that the storage facilities failure to transfer the frozen embryos to another infertility program in compliance with the progenitors’ wishes was at issue). *But cf.* Cahill v. Cahill, 757 So. 2d 465, 467-68 (Ala. Civ. App. 2000) (upholding the trial court’s judgment that the IVF Center “appears to be the current owner of the zygotes.” (emphasis omitted)). However, Cahill involved an explicit contract stating that the progenitors “agree that all control and direction . . . will be relinquished to the [IVF Center]” in the event of divorce. *Id.* at 466. Moreover, it is questionable whether either the trial or appeals court truly meant to recognize ownership interests since the appellate court stated that “[t]he trial court’s judgment made no determination as to the zygotes, in effect leaving that
The misuse or failure to release the embryos to the true property owners could lead to a lawsuit for conversion. But what about the case where the scientist does not know that the progenitors have not transferred their interests? The doctrine of accession provides a basis for allocating property interests when an innocent party adds value to the property of another. But the doctrine may be extremely difficult to apply in the embryo situation since there is no easy standard for assigning value. Generally speaking, issues relating to disputes between physicians/researchers and progenitors/intentional parents/surrogates will be framed as issues of interference with the latter parties’ property interests. I will return to the issue of interference in Part III.C.

5. Rearing Parents

In embryo disputes, there are no rearing parents. But it is worth noting here that both the labor theory and a personality theory provide a basis for recognizing the interests of rearing or “social” parents. Some individuals who take on a parental role will have no genetic or gestational connection with the child and may not have intended to be a parent at the moment of conception, but nonetheless intend to parent and raise the child at some point after birth. These individuals’ property interests should be recognized. For example, in one recent case, a woman donated her eggs to her lesbian partner who gestated and birthed twins. The gestational mother was legally recognized as the mother on the birth certificate. When the couple split six years later, the egg donor claimed that because she had been rearing the children and they were genetically

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151. Conversion is “[a]n unauthorized assumption and exercise of the right of ownership.” BLACK'S LAW DICTIONARY 332 (6th ed. 1990). “Direct conversion” is “[t]he act of actually appropriating the property of another to his own beneficial use and enjoyment, or to that of a third person, or destroying it, or altering its nature, or wrongfully assuming title in himself.” Id.; see also Judith D. Fischer, Misappropriation of Human Eggs and Embryos and the Tort of Conversion: A Relational View, 32 L.O.Y. L.A. L. REV. 381 (1999) (arguing that suits for conversion should be allowed, but that the remedy should be damages, not replevin (that is, the return of the misappropriated property)).

152. Also referred to as the “innocent improver doctrine,” accession rules allocate property rights and award financial renumeration in situations where one party has substantially added value to property that he was unaware was owned by another. RAY ANDREWS BROWN, THE LAW OF PERSONAL PROPERTY § 6.6, at 58-62 (Walter B. Raushenbush ed., 3d ed. 1975).

related to her, she should be considered a parent.\textsuperscript{154} The court rejected her claim stating that because she had no intention to be a parent at the time of egg donation, she was thereby not a parent under the law and thus had no standing to request custody or visitation based on the best interests of the children.\textsuperscript{155} By contrast, under the property framework, the egg donor might assert property interests based on her social parenting over the first six years of the children’s life. Thus, even if her waiver of parental (property) interests based on genetics were deemed valid,\textsuperscript{156} she would have gained additional property interests due to her investment over six years of caring for the children as a parent.\textsuperscript{157} Although these interests would not determine custody—the children’s best interests would still control—they would form a sufficient basis to allow her to make a claim for parentage and, if she chose, request visitation, custody, or both.

The application of property theories does not mean that anyone with a role in rearing a child has standing. The intention of the individual at the time of the rearing makes a difference, as it does with physicians involved in assisted reproduction. Hired babysitters and nannies certainly “parent” children, yet all parties involved expect monetary compensation for the investment, not parenthood status. Once again, the informal family arrangements may prove hardest to navigate since the grandparents, aunts, or uncles who raise children may indeed expect to be considered a “parent” in some cases.\textsuperscript{158} Moreover, they may also claim property interests under a personality theory. These individuals may indeed have property interests that should translate into legal recognition of parental rights.

B. Are Property Interests in Embryos Transferable?

1. Alienability

Utilitarian theory would support transferability of embryos.

\textsuperscript{154} Id. at 141-42.

\textsuperscript{155} Id.

\textsuperscript{156} Part of the issue in the case was her intent at the time of the egg donation. She claimed she always intended to be a parent, despite her signing a standard egg donation form, which indicated that the egg donor would play no parental role. \textit{Id.} at 147. For discussion on the strict requirements for waiver or transfer of property interests in this context, see discussion \textit{infra} Part III.B.

\textsuperscript{157} This approach is similar to that used in some jurisdictions that recognize “psychological parenting.” \textit{See, e.g.}, \textit{In re Custody of C.C.R.S.}, 892 P.2d 246, 256-57 (Colo. 1995).

Transfer would allow individuals who want to use the embryos to do so and those who would wish to avoid transfer to maintain control—the end result would increase utility overall. There is nothing inherent in utilitarian theory that would prevent embryos from being marketable, although the rules in this context would depend on evaluation of utility.

By contrast, application of a labor theory may limit alienability because of limits on alienability of property interests in oneself. The easy example is slavery—an individual may not contract away his or her sovereignty over the self. Embryos, however, are neither merely a part of the self, nor body parts or organs. They are clearly severable and separate entities. In vivo embryos and fetuses may present a more difficult case as these entities are severable, but the entity would not be able to survive the separation. Even so, embryos and fetuses are not generally thought to be part of the self, but distinct entities, and thus a labor theory should not limit alienability.

Personality theories also appear initially to have implications for alienability. Radin claims that “inalienability might . . . attach to rights that are not too close to personhood to be considered property, but which are at the personal end of the metaphorical continuum running from personal to fungible.” However, she notes, such limitations on individual property rights “would require an objective moral consensus about the protected objects.” This is clearly not the case with respect to embryos—we may have societal agreement that embryos cannot be sold for money (although even this is not certain), but not that they cannot be transferred to others.

159. Alienability (or inalienability) “may mean nongivable, nonsalable, or completely nontransferable.” Radin, supra note 70, at 17. I use alienability here to mean transferable, and separate out salability, which I also refer to as marketability.

160. For additional discussion on this point, see Jessica Wilen Berg, Understanding Waiver, 40 Hous. L. Rev. 281 (2003).


162. Id. Others have argued that embryos should be inalienable under a procreative liberty analysis using reasoning that is comparable to Radin’s. See, e.g., Coleman, supra note 134, at 91-95 (arguing that the law’s characterization of certain rights as inalienable applies to decisions about the disposition of frozen embryos because inalienable rights “generally relate to deeply personal decisions that are central to most people’s identity and sense of self”); accord Litowitz v. Litowitz, 10 P.3d 1086, 1088 (Wash. Ct. App. 2000), rev’d, 48 P.3d 261 (Wash. 2002). But cf. Petersen, supra note 38 (rejecting Coleman’s approach and advocating a contractual approach to resolving disputes between divorcing progenitors); John A. Robertson, Precommitment Strategies for Disposition of Frozen Embryos, 50 Emory L.J. 989 (2001) (arguing that it is unfair not to uphold contractual agreements in this context).
In fact, there is nothing inherent in the recognition of property interests that requires that the property in question be salable.\textsuperscript{163} Concerns about alienability are often tied up with concerns about commodification, or the idea that “value can be expressed in terms of price.”\textsuperscript{164} The fear is that treating embryos as commodities that can be bought and sold will result in society devaluing human life or will alter how children will view their self-worth if they are aware they could be sold for a particular amount of money.\textsuperscript{165} But the sale of embryos does not result in the same social implications as the sale of children, given the vast differences between the undifferentiated multi-celled embryo and the resulting child. Moreover, alienability can be separated from marketability (or salability), as is currently the case with children. Parents have property interests in children, but they cannot sell the children. However, interests in children can be transferred via custody agreements (where the parents decide who will raise the children) and also via adoption.\textsuperscript{166} So, even under a personality theory, property interests in embryos should be transferable.

The bottom line is that property interests in \textit{ex utero} embryos should be alienable under any theory of property,\textsuperscript{167} although there may be certain requirements around the contract process to ensure that it is voluntary and informed. Advance agreements regarding disposition should be enforceable,\textsuperscript{168} but they may be subject to fairly rigorous documentation and oversight requirements to assure competent and autonomous decision making.\textsuperscript{169} There are numerous examples in both contract and property law in which additional

\textsuperscript{163} Alienability need not involve money transactions. See, e.g., AMARTYA SEN, INEQUALITY REEXAMINED (1992).

\textsuperscript{164} RADIN, supra note 70, at 8 (noting that “commodification worries seem to occur only in conjunction with other worries about social wrongs” and that perhaps we should focus on those issues in addition to concerns about commodification).

\textsuperscript{165} Id. at 136-40.

\textsuperscript{166} One author points out that the fact that adoption is allowed brings into question what it is about child-selling and commodification that are a problem. Note, supra note 116, at 701.

\textsuperscript{167} This is in direct contrast to the view advocated by Carl Coleman, who frames the issue in terms of the inalienability of procreative liberty rights. Coleman, supra note 134.

\textsuperscript{168} See Robertson, supra note 162, at 995 (suggesting not only the use of advance directive and contracts to control future disposition, but also requiring that the agreements be knowingly and intelligently made and that the parties have relied on them).

\textsuperscript{169} Implied contracts or enforcing unwritten agreements would not be permissible. Cf. Petersen, supra note 38, at 1085 (suggesting that contract law principles be applied even in the absence of a “precise instrument”).
protections are required in order to safeguard individual autonomy. 170 This means that individuals can transfer their interests in gametes and the subsequently created embryos to the other progenitor, another person or couple, or even to a researcher. Whether embryos can be sold may depend on whether the sale of potential persons would have a negative effect on the rights and interests of current and future natural persons—a discussion that has thus far remained theoretical. 171 The marketability of embryos may have different implications from the marketability of fetuses and children; the public policy concerns in the latter contexts are not the same as those in the former. 172 But even if the answer to the sale question turns out to be no, property interests in embryos should still be transferable.

2. What Interest Is Transferred?

If more than one person can have interests in an embryo, how can those interests be transferred? Embryos cannot be divided—one half of an embryo has no value. One way to consider the interests in the embryo is to think of them like a type of tenancy. 173 If the original parties creating the embryo specify that each would have a right to the whole embryo should the other die, the interest is a joint tenancy with rights of survivorship; if not, the interest is considered a cotenancy. In the usual case, the transfer of a property interest by one party to a joint tenancy converts the interests of both into a tenancy in common. In other contexts where division of the property is not meaningful, for example joint-ownership of artwork, the interest in question remains an interest in the whole and the legal

170. Of course, any additional safeguards may, to some extent, lessen individual autonomy since, if the safeguards are not met, the contract may not be deemed valid. See generally Berg, supra note 160 (discussing the application of safeguards in cases of waiver of constitutional or contractual rights).

171. There are other types of property that may not be sold but can be transferred (for example, through gifts). Products made from endangered species may be gifted but not sold. See Lori B. Andrews, My Body, My Property, HASTINGS CENTER REP., Oct. 1986, at 28, 28-29.

172. Children are not fungible, but embryos may be viewed as fungible. In the embryo donation context, many parents look for certain characteristics of the gamete providers, and there are likely to be a number of different embryos that would fit the description. Moreover, absent known health concerns, even progenitors may view the class of their genetic embryos as interchangeable, despite their potentially unique characteristics. This does not mean that progenitors would be willing to swap the embryos with others, but that they view the choice between them as equal.

173. Joint tenancy, a property interest where the parties own “an undivided interest in the whole,” is one such property interest. BLACK'S LAW DICTIONARY 1465 (6th ed. 1990).
fiction of a “constructive trust” is applied. Unlike artwork, however, which can be sold and the proceeds divided, embryos may have no monetary value that can be split. For example, if one of the progenitors transfers his or her interest to another party via sperm or egg donation, the transferee would then share a property interest in the whole embryo with the remaining progenitor, not just an interest in one-half the embryo, and the interests of the parties could not be disaggregated through sale and compensation. A batch of embryos should not be divided between the parties since each progenitor’s interest in each embryo cannot be disaggregated. That is to say, each progenitor has an interest in each embryo, and dividing up a group of embryos would treat the interests of each progenitor as interchangeable between the two progenitors. It may be that a progenitor would view his or her gametes as interchangeable as to his or her own use. Thus, if there are four embryos and the progenitor can choose two to implant, the choice may be random and not based on any particular characteristics of the embryos. But that does not mean that the one-half interest of each progenitor can be swapped between the progenitors, giving each gamete provider a whole interest in two embryos apiece.

An alternative to the joint tenancy is the tenancy by the entirety. Historically, this was a tool that allowed spouses to own property in the whole for their lifetimes, and upon the death of one spouse, the other would own the property in fee. Unlike the joint tenancy with rights of survivorship, “[n]either party can alienate or encumber the property without the consent of the other.” Only divorce could divide the interests into a tenancy in common. About half the states no longer recognize tenancy by the entirety. However, other states still recognize this type of tenancy, and it might prove particularly useful in the embryo context. A state

174. See, e.g., Scull v. Scull, 94 A.D.2d 29, 36-37 (N.Y. App. Div. 1983) (applying a constructive trust to jointly owned artwork in the event of the parties divorce). Four elements are needed to apply the trust: “(1) a confidential or fiduciary relationship, (2) a promise or agreement, express or implied, (3) a transfer in reliance upon said agreement, and (4) unjust enrichment.” Id. at 33. The first three elements are met in the case of embryos. The fourth is not, as embryos currently do not have any monetary value.

175. See Pat Cain, Two Sisters vs. a Father and Two Sons: The Story of Sawado v. Endo, in PROPERTY STORIES 97(Gerald Korngold & Andrew P. Morriss eds., 2004) (describing the history and current status of tenancies by the entirety).


177. Id.

178. Id.

179. Cain, supra note 175, at 113.
might, through statute, allow the parties to choose to create a tenancy by the entirety in an embryo, thus limiting the transferability of each party’s interests without the consent of the other party. Moreover, even if one party does obtain consent for transfer, the person to whom the interest is transferred would be likewise bound and could not subsequently transfer that interest without consent.\(^\text{180}\) Ideally, such a statute would allow the use of this type of tenancy in any situation where an embryo is created, not just between married partners.\(^\text{181}\)

Under a typical joint tenancy, either progenitor can choose to transfer his or her interests in the initial gametes or the resulting embryo, and the person or persons to whom the interest is transferred would have equal, but shared, interests in the whole embryo. As a result, subsequent disposition determinations would need the consent of all parties with property interests, including those who acquired the interests through transfer.\(^\text{182}\) Moreover, in a dispute between a party whose interest arises via application of an initial property theory and a party whose interest is based on a valid transfer, both parties should have equal say in disposition.\(^\text{183}\) Other transfers of property interests in embryos may entail only partial rights transfers. The recipient may have a limited property interest in the embryo, and that interest may not be subsequently transferable. The court in *Hecht v. Superior Court of the County of Los Angeles* faced a similar question when it was asked to determine the disposition of vials of sperm left by the decedent.\(^\text{184}\) The court noted that the sperm could be used by, and was of value to, only one person, a girlfriend named in the storage agreement and the will. The court recognized the transfer of property interests, but stated

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180. In other words, since the transferor did not have “unilateral alienation” rights to give, the transferee did not obtain them. *Id.* at 115.

181. Vermont currently allows partners who enter into “civil unions” to use the tenancy. Hawaii does the same for “reciprocal beneficiaries.” *Id.* at 114.

182. It is possible that under a utilitarian analysis the requirement of so many people’s consent would be deemed an anticommons problem that should be avoided by limiting recognition of private property rights. But this would depend on whether it is in society’s interest to promote the use of embryos. See discussion *supra* note 88 and accompanying text.

183. See, e.g., Litowitz v. Litowitz, 48 P.2d 261 (Wash. 2002). This case is discussed in more detail in Subpart D below.

184. 59 Cal. Rptr. 2d 222, 223-24 (Ct. App. 1996). The decedent listed his girlfriend on the donation form, named her as a beneficiary of the sperm in his will, and stated his wishes in a letter to his children. *Id.* The *Hecht* case followed a rather tortuous path after a property settlement agreement between the girlfriend and children was interpreted by a lower court to grant her use of only three of fifteen vials (corresponding to twenty percent of the estate under the settlement). *Id.* at 224.
that the girlfriend "lack[ed] the legal entitlement to give, sell, or otherwise dispose of decedent's sperm."\textsuperscript{185} In other words, she could use the sperm herself, in accordance with the decedent's intent, but that was the extent of her interest.\textsuperscript{186} In this sense, the \textit{Hecht} court treated the transfer as a life estate determinable (the remainder going back to the decedent's children). Transfers of interests in embryos can be likewise limited.

Most transfers will be either present time transfers or explicit death time transfers such as through a will.\textsuperscript{187} But in other cases, there may be an agreement about disposition that does not specifically contemplate the death of one of the property interest holders. As noted above, rights of survivorship should not be assumed unless the parties make such determination clear.\textsuperscript{188} In the case of one party's death, previous agreements allowing one party to gain complete control over the embryo should be enforced only if the intent is for the agreement to apply post-mortem. Likewise, most courts view the continued enforceability of marital property division agreements, in the event of one party's death, as resting on the parties' intent when creating the agreement.\textsuperscript{189} Using similar reasoning, the Massachusetts Supreme Judicial Court, in a recent case determining inheritance rights of children conceived after their father's death, focused on the decedent's intent to reproduce posthumously.\textsuperscript{190} If intent cannot be shown, the rules relating to

\textsuperscript{185} \textit{Id.} at 226.
\textsuperscript{186} In limiting her use of the sperm, the court relied on "the decedent's right to procreate." \textit{Id.} at 226-27. Without getting into an analysis of whether the right to procreate survives death, in this case the right does come into play since the decedent had not yet procreated as the dispute was over gametes. Although procreative liberty may limit the application of property theory in cases involving transfer of gametes, it should not play a role in embryo disputes.
\textsuperscript{187} Testamentary agreements to destroy embryos upon death should be upheld. There is no public policy concern about waste that is sufficient to counteract the individual's personal property interests in control in this context (likewise for destruction of gametes). For a discussion of the issues raised by testamentary destruction of property, see Abigail J. Sykas, Note, \textit{Waste Not, Want Not: Can the Public Policy Doctrine Prohibit the Destruction of Property by Testamentary Direction?}, 25 VT. L. REV. 911 (2001).
\textsuperscript{188} This is true for all property—there is a presumption that the property is held as tenants in common unless a joint tenancy with survivorship rights is specifically created. 20 AM. JUR. 2D Cotenency and Joint Ownership § 17 (1995).
\textsuperscript{190} Woodward v. Comm'r of Soc. Sec., 760 N.E.2d 257 (Mass. 2002); see also Gillett-Netting v. Barnhart, 371 F.3d 593, 596 (9th Cir. 2004) (holding that the posthumously conceived children were natural biological children under the
disposition in the absence of agreement, as discussed below, should apply.

C. Disposition in the Absence of Agreement

In the ideal situation, a contract will be created addressing all lifetime and postmortem issues of disposition before the embryos are produced. Even an agreement, such as a contract, will, or other advance directive, drafted after the embryos are created but while the progenitors or other interested parties are still alive, would be preferable to the absence of any advance agreements or instructions. But the reality is that many individuals fail to draft advance directives, and others do not draft wills. And some contracts will either be silent on certain disposition situations, or unenforceable for a variety of reasons. Thus, we need a mechanism to allocate rights in the absence of explicit arrangements. General precepts of property law can be extremely useful here.

As a starting point, we might specify default rules that match the majority of people’s expectations, assuming that those who do not agree will take steps (such as through a contract) to achieve a different result. Alternatively, the default rules can try to achieve some result that is better overall for society. Consider, for example, the debates about organ donation and whether the United States should adopt an “opt-in” system, as is currently the case, or an “opt-out” system. An opt-out system, one where organs are donated unless the individual specifically and explicitly opts not to do so, recognizes that a majority of people want to donate organs after death, although many fail to make provisions for this. Not only does the use of such a system respect those wishes, but it also results in more organs donated. On the other hand, some people may have extremely strong objections to donation and fail to opt-out. Moreover, it may be difficult to document everyone who wants to opt-out. Setting the default as an opt-in protects the people who do not want to have organs donated and allows those who wish to donate to do so explicitly.

To the extent that we want to encourage or discourage certain actions with respect to embryos, we may set the default rules differently. Rules that allow all embryos to be used after death unless the property interest holders leave explicit instructions will

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Social Security Act and, thus, entitled to benefits).


encourage those who feel strongly about controlling use after death to make appropriate provisions in wills, or other estate planning devices. The end result may be more embryos available for donation or research. On the other hand, it could be that the majority of the population does not want or expect to have children born post-mortem, and the better default would be to destroy (or donate to research) all embryos after death, unless other arrangements have been made. As mentioned previously, it is in this context that utilitarian theory proves most useful in deciding on rules.

Where individuals who currently hold property interests are available and cannot reach an agreement, the embryos should be stored as long as one of the parties requests (and pays for) this privilege. The continued storage respects the property interests and leaves open the possibility that the other party will change his or her mind. If both parties are unreachable, indefinite storage is not necessary. The property interest holders may relinquish their rights “without regard to any future possession by [self, or by any other person, but with an intention to abandon” the embryos.193 Such abandonment may be shown through the actions (or inaction) of the property interest holders over a period of time. Where repeated attempts at eliciting a response from the property owners fail, the facility may destroy the embryos or use them in accordance with the property interest holders’ intent. For example, in the absence of other indicators of intent, embryos given to a research institution should not be used for reproduction, and those provided to a reproductive services facility should not be used for stem cell research since presumably the intent in the former case was to donate for research and the intent in the latter was to use for reproduction.194

Finally, if a property interest holder dies without leaving any instructions or other clear evidence of intent, the embryos may be subject to the general rules of inheritance. For example, in the Rios case, the progenitors died in a plane crash with no advance agreements and left two frozen embryos in storage in Australia.195

193. BLACK’S LAW DICTIONARY 4 (6th ed. 1990); see also Lynne M. Thomas, Comment, Abandoned Frozen Embryos and Texas Law of Abandoned Personal Property: Should There Be a Connection?, 29 ST. MARY’S L.J. 255 (1997) (arguing that general Texas law applies to frozen embryos, but that the law should be amended to exclude such entities).

194. Moreover, in the reproduction case the parties may have only intended their embryos be used for specific persons’ reproduction (either their own or a specifically designated recipient).

195. See BONNIE STEINBOCK, LIFE BEFORE BIRTH: THE MORAL AND LEGAL STATUS OF EMBRYOS AND FETUSES 212-13 (1992) (describing the Rios case). The primary question for the court was not simply disposition of the embryos, but
The sole heir was Mr. Rios's son from a previous marriage. Although individuals have lifetime interests in controlling what happens to their property after death (through wills and trusts), these interests are neither unlimited, nor do they survive where the decedent has failed to exercise the control during his or her lifetime. The heirs have existing interests in the creation of additional children who may be blood relations and may be entitled to a share of the estate. A general rule that embryo control will follow inheritance rules may lead some people to make arrangements for disposition when they otherwise would have failed to do so. Moreover, the inheritance rules are well established in all jurisdictions, and courts have vast experience mediating disputes in this context.

D. Application to Previous Cases

As noted previously, there are few reported cases involving disposition of frozen embryos. To a large extent, the courts are already applying a property framework, although they have been unwilling to state the arguments in exactly those terms. Moreover, some aspects of the decisions would be different if the courts were fully to embrace the property analysis described here, rather than the traditional procreative liberty framework. The end result should be a more accurate description of the legal bases for existing decisions, as well as a more easily understood set of rules for resolving disputes. All of the cases below involve divorcing parties who created and stored embryos.

In *Davis v. Davis*, a 1992 Tennessee case, the court balanced the procreative interests of the parties, concluded that the right not to reproduce was stronger than the right to reproduce, and awarded control to Mr. Davis who wanted to destroy the embryos. By contrast, under the model described here, the embryos should have been regarded as the property of both Mrs. and Mr. Davis—with both parties having an equal say in disposition. The embryos were not an "interim category" of neither persons nor property as the court claimed, but unquestionably the progenitors' property. Since whether they should be considered heirs to the Rios' million-dollar estate. (Interestingly, it was later discovered that the embryos were created with donor sperm.) *Id.* For additional discussion of this issue, see Hoffman & Morriss, *supra* note 60.

199. *Id.* at 597.
there was no agreement between the parties, the embryos should have been stored indefinitely, as long as the party wishing to continue storage was willing to pay. In this situation, Mrs. Davis may well have preferred to pay the storage fees in the hopes that she might convince Mr. Davis to agree to donate the embryos. Storage should continue until the death of one of the parties, at which point control over disposition would fall to the heirs either explicitly through a will or via laws of intestate succession.

In *Kass v. Kass*, a 1998 case from New York, the court upheld the party’s contract, and the embryos were donated to research. The result under this Article’s framework would be the same. Unlike the court in *J.B. v. M.B.*, a 2001 case from New Jersey, I would not allow one party “to change his or her mind about disposition up to the point of use or destruction of any stored preembryos.” Both parties could certainly agree to modify the contract, but unilateral changes would not be permitted. Moreover, like the *Davis* court, the *J.B.* court also gave undue weight to the interests of the party choosing not to become the biological parent.

Since the contract in the *J.B.* case was less clear than in the *Kass* case, stating that control of the embryos went to the IVF center unless the court ordered otherwise, the court could have focused on each party’s intention at the time the embryos and contract were created. The wording of the contract implied an intention to allow the IVF center to dispose of the embryos. However, the husband provided a witness who testified that he and his wife agreed that the embryos would be either used by her or donated to another couple. Considering that the IVF center provided embryos for infertile couples, it is possible that the husband’s intention in transferring his interests was to allow this use, but no other, by the center. The court in *J.B.* refused to consider this argument stating “a formal, unambiguous memorialization of the parties’ intentions would be required to confirm their joint determination.” If the court felt that the contractual agreement was not clear on this point, then the embryos could continue to be stored, rather than destroyed.

*Litowitz v. Litowitz*, a 2002 case from Washington, is the only case in which a gamete donor was used, and the court recognized that the contract with the egg donor transferred property rights to

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202. *Id.* at 716.
203. *Id.* at 710.
204. *Id.* at 714.
205. The court noted this possibility stating, “It was represented to us at oral argument . . . that J.B. does not object to their continued storage if M.B. wishes to pay any fees associated with that storage.” *Id.* at 720.
the intentional mother. This initial step is correct under the property framework. The remaining analysis by the court, however, was less appropriate. In this case, the ex-wife wanted to use the embryos herself, while her ex-husband wanted to donate them to another couple. Like Kass and J.B., the court in Litowitz focused on the contract, which stated that the remaining embryos were to be destroyed after they have been frozen for five years. Although the court’s emphasis on contractual interpretation is correct, the result in this case is odd, as the dissent pointed out, given that neither party was seeking the destruction of the embryos and that the time delay was caused by the litigation. Under the property framework, if there were no way to resolve the issue of intent, the embryos should have remained in storage for the stipulated five years, excluding the time taken for litigation. During that time period the parties would have the opportunity to reach an agreement regarding disposition, or even agree to extend the storage beyond the five-year time limit.

Finally, A.Z. v. B.Z., a 2000 case from Massachusetts, involved a contract that stipulated that control over the embryos would go to the wife for implantation in case of separation. The court gave limited weight to the consent form, noting in particular that the current circumstances involved a divorce, not a separation. Moreover, it stated that even if the contract were applicable, it “would not enforce an agreement that would compel one donor to become a parent against his or her will.” By contrast, the framework described here recognizes that the parties have already procreated and that there is no longer any preference given to a

206. Litowitz v. Litowitz, 48 P.3d 261, 267 (Wash. 2002) (“Petitioner Becky M. Litowitz correctly asserts that the egg donor contract gives her and Respondent equal rights to the eggs even though she is not a progenitor.”).
207. Id. at 271.
208. Id. at 272. (Sanders, J., dissenting) (arguing that “the contractual time period was tolled by the timely commencement of this litigation as a matter of law”). Dissenting Judge Sanders states that rather than apply that contractual provision, the court should have considered the parties’ intent by objectively evaluating “(1) the language of the agreement; (2) the agreement as a whole; (3) the context in which the agreement was entered; (4) the parties’ conduct following entry into the agreement; and (5) the reasonableness of the interpretations advocated by the parties.” Id. at 273 (Sanders, J., dissenting). The dissent goes on to state that the trial court’s determination that the embryos should be given to the ex-husband to donate should be given deference. Id. at 274 (Sanders, J. dissenting).
210. Id. at 1057.
211. Id. The court explicitly refused to say whether it would enforce an unambiguous agreement to donate or destroy the embryos. Id. at 1058 n.22.
right not to reproduce. Thus, the appropriate course of action, if the agreement was applicable to the fact situation (separation versus divorce), would be to grant control over the embryos to the wife and allow her to implant them. One might argue that an understanding that the wife would get the embryos in case of separation should include divorce. In other words, if the husband contemplated his wife implanting the embryos after separation, it is hard to understand why he would object to implantation in case of divorce. Nonetheless, if the court determined that there was no valid agreement, the appropriate course of action would be continued storage as long as one of the parties is willing to pay.

For each of these cases, and in future cases, agreements between the progenitors should be given significant weight. Courts may require fairly explicit evidence of intent and adherence to formal contractual requirements. But in the absence of agreement, the default should generally be continued storage, not destruction or implantation. Ideally, the initial contracts should include storage time limits, after which a final disposition (destruction or donation) would occur regardless of the eventual circumstances of the parties. Creating a default where embryos can be stored indefinitely, as I have done above, should create pressure to avoid such scenarios by placing strict time limits on storage. Clinics involved in the creation of embryos should encourage such clauses in their forms and draw parties’ attention to the provision when executing the document. Moreover, the forms should be regarded as contractual agreements, not merely consents to treatment, and should have appropriate safeguards around their execution. This may include requiring the contracting parties to obtain legal representation, or at least encouraging legal review of the document before signing.

IV. AN INTEGRATED FRAMEWORK

This final Part is designed to foreshadow work that will be fully

212. See, e.g., In re O.G.M., 988 S.W.2d 473, 477-78 (Tex. Ct. App. 1999) (relying on a number of factors in granting paternity rights to a known sperm donor). The court discounted the woman’s claim that the parties had orally agreed that she would have all rights to the resulting children and stated that the parties’ intent does not control parentage in this case. Id.

213. Florida requires this by statute. Fla. Stat. Ann. § 742.17 (West 1994) (“A commissioning couple and the treating physician shall enter into a written agreement that provides for the disposition of the commissioning couple’s eggs, sperm, and preembryos in the event of a divorce, the death of a spouse, or any other unforeseen circumstance.”). Section 742.17(2) states that “[a]bsent a written agreement, decisionmaking authority regarding the disposition of preembryos shall reside jointly with the commissioning couple.”
developed in the companion article. This Article focuses primarily on the application of property theories and thus property law. But having begun the Article with the assertion that property and persons are not mutually exclusive designations, I want to say a bit about where I am going with the complete framework.

First, one might wonder why even start with the legal frameworks of “persons” and “property” rather then develop an entirely new approach that relies on neither. The simple answer is pragmatic—the current system of law has both a framework of property rights and a framework of the rights of persons. The state courts and legislatures addressing these issues need to be able to draw on a framework of analysis that can be easily applied across an array of different types of legal disputes. Although it may seem tempting to talk about these entities as if they are neither persons nor property but a new special category, such terminology does little by itself to advance the legal analysis or provide a helpful framework for evaluation. In fact, the courts that seem to choose

214. This Article uses a rights-based approach, since that is what courts and legislatures are most comfortable adopting and because they will be deciding these issues. This is not to say that other theories such as communitarianism or feminist ethics may not have significant implications for evaluating the status of embryos or resolving disputes involving embryos, but they are not the focus of this Article. See, e.g., Janet Farrell Smith, Parenting and Property, in MOTHERING: ESSAYS IN FEMINIST THEORY 199 (Joyce Trebilcot ed., 1983) (using a feminist ethics approach to criticize the framing of procreation issues in terms of property rights, since they are often thought to come out of a patriarchal system).

215. There is a long history of both property law and personhood law. See, e.g., S.J. STOLJAR, GROUPS AND ENTITIES: AN INQUIRY INTO CORPORATE THEORY (1973) (discussing, among other topics, the Roman law of persons).

216. Even if statutes are drafted, resolution of the debates in question lends itself to a case-by-case review. State courts are best suited for this task. See ROGER B. DWORKIN, LIMITS: THE ROLE OF THE LAW IN BIOETHICAL DECISION MAKING 82-84 (1996) (discussing the role of state courts and legislatures in resolving disputes about embryos).

217. See discussion supra Part III.

218. I acknowledge the possibility that new legal categories may be necessary in the future with the development or discovery of new life forms. See, e.g., Richard Lucas, Why Bother? Ethical Computers – That’s Why!, in SELECTED PAPERS FROM THE SECOND AUSTRALIAN INSTITUTE CONFERENCE ON COMPUTER ETHICS 33 (John Weckert ed., 2000). Lucas argues that computers (and other artificial intelligence) may be held to moral standards as persons because they possess the following characteristics: reason, the capacity for choice, self-awareness, nurturance, co-operation, respect for all life-forms, and moral reciprocity. “Computer-ethics” must contain, at least, computer (not human) versions of anonymity, duty, equality, intentionality, judgment, and responsibility. Id. at 38; see also Linda MacDonald Glenn, A Legal Perspective on Humanity, Personhood, and Species Boundaries, AM. J. BIOETHICS, Summer
this route merely note the embryo’s “special” status, but then revert to precepts of property law to resolve the dispute. So, although it is certainly possible that a new legal category could be developed, there are significant downsides that may outweigh the conceptual benefit of such an approach. For example, courts dealing with entities covered by a new category must have some guidelines for how to resolve disputes. There are no legal guidelines for addressing relations involving entities that are neither persons nor property. How would disputes be handled? Could persons have rights against the new category? Could the new entity hold rights against persons? Whose rights would take precedence in a dispute between persons and the new entity? We may certainly try to answer these questions, but the educational costs of assuring that the courts handling the disputes are knowledgeable are extensive.

Even assuming that using the existing frameworks is appropriate, it may seem radical to propose a combined property and personhood framework, particularly given our country’s history with slavery. However, the theories may not provide an initial basis for recognizing the property interests in the context of slavery. Blacks and women may not be regarded as products of the body (except with respect to their parents), nor are they likely to be considered “investments” appropriately recognized under a labor theory. The ownership of slaves is not necessary for the development of self-identity under a personality theory in most cases. The reasons for outlawing slavery under utilitarian theory are more difficult. It may be that slavery always results in greater harm than good and always results in a less efficient system.


219. See, e.g., Davis v. Davis, 842 S.W.2d 588 (Tenn. 1992).

220. HOFELD, supra note 44, at 75-76 (stating that all rights of persons are against other persons and that there is no such thing as a right against a thing).

221. If, however, the use of the current legal frameworks would be subject to extensive limitations or exceptions then the frameworks themselves may become meaningless. The costs of educating decision makers about the restrictions may be so great as to weigh in favor of simply developing a new legal category and providing education regarding that new category, and thus avoiding the unwanted baggage that may attach to the use of the categorization in the first place.


223. See, e.g., Berg, supra note 160 (discussing utilitarian reasons for
But even assuming that one could successfully apply one of the theories of property (for example, that one could make a claim for labor investment or personality), there may be a problem in internal consistency. As pointed out previously, both the labor theory and personality theory rest on the assumption that recognizing property rights is necessary for the functioning of free individuals. To the extent that the recognition of the property rights of one individual limits the ability of another individual to be free, it would violate the initial precept upon which either theory is based. Moreover, even if this did not prove to be a barrier (for example, it is less clear why a utilitarian theory would always restrict slavery), the personhood interests of blacks and women would necessarily limit any claimed property interests. Thus, the framework I describe here does not provide a basis for limiting the rights of blacks, women, or other disadvantaged groups of persons.

The framework does, however, have significant implications for children. If we accept that there are property interests in embryos, then those interests likewise exist in later developed fetuses and also in children. Furthermore, the categorization of parental rights as property interests appears to be descriptively accurate. Parents

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224. Of course part of the issue at the time of slavery and limitation of women's rights was the assertion that women and blacks were not full persons and, thus, not entitled to the protections of full persons. I address this issue in more detail in the companion piece, which considers the legal framework of personhood.

There is an extremely interesting case about a free-born black woman who was captured, enslaved, and bore a daughter. She escaped and then sued for “possession” of her daughter. The court gave priority to the mother's interests in the girl over the slave owner. Reporting on the case, Professor Anita Allen describes how the mother “was able to persuade the court that she was the rightful owner of her daughter.” Allen, supra note 45, at 144. Allen uses the case to point out the concerns with surrogacy arrangements and notes that it serves as an example of how “the desire to parent and to enjoy the companionship of one's children can be very strong.” Id. at 145. It is exactly these strong feelings that may form the basis for acknowledging property interests in one's children. Property in this sense is not a bad thing as it was in slavery, but an actualization of the parents' legitimate interests in their children. Nonetheless, how we choose to recognize those interests—in giving deference to parental rights of decision making—may depend on the weight we give to children's personhood interests.

225. For a historical analysis of the progression of children as property to children as individuals, see Barbara Bennett Woodhouse, “Who Owns the Child?”: Meyer and Pierce and the Child as Property, 33 WM. & MARY L. REV. 995 (1992) [hereinafter Woodhouse, Who Owns the Child?]. Woodhouse provides a historical analysis to bolster her argument that the continued categorization of children as property is problematic. According to Woodhouse,
retain significant interests in controlling the lives of their children, including deciding how, where, and under what circumstances they are raised. The protections the legal system currently affords parents under the heading of “parental rights” are more extensive than can be justified merely by the presumption that parents act in the best interests of their children and thus should be the primary decision makers. Although the concept of “objective best interests” comes into play when the child’s life or health is at risk, the vast majority of decisions that parents make on behalf of their children are never measured against this standard. This is not to say that parents do not think in terms of the child’s interests, but that those interests are inextricably entwined with the parents’ own interests. In part, this is what makes it so difficult to apply an objective best-interest standard and what has led courts to define even “best medical interests” rather broadly. A focus solely on the child’s historically children were the property of their fathers, who were entitled to treat them as “assets of estates in which fathers had a vested right. . . . Their services, earnings, and the like became the property of their paternal masters in exchange for life and maintenance.” (quoting MICHAEL GROSSBERG, GOVERNING THE HEARTH: LAW AND THE FAMILY IN NINETEENTH-CENTURY AMERICA 25 (1985)).

The parental rights of control and custody, constitutionalized by the Supreme Court in cases like Meyer v. Nebraska and Stanley v. Illinois, confer a strange liberty that consists in the right to control not one’s self or one’s goods, but another human being. Echoing the rationalizations used to support male dominance over women and masters’ control of slaves, parents’ rights are justified by assuming unity of interest between powerful and weak. Barbara Bennett Woodhouse, “Out of Children’s Needs, Children’s Rights”: The Child’s Voice in Defining the Family, 8 BYU J. PUB. L. 321, 325-26 (1994) (footnotes omitted). I do not necessarily disagree with Woodhouse that parental rights of control should be limited. In fact, I think the categorization of parental interests as property interests may lead to additional limitations as we give more weight to children’s personhood interests.


best interest would undermine the current system of parental rights and should, in many more cases than happens currently, result in significant limitations on parental decision making and some children being taken from their parents and raised by others. In other words, there must be something else driving the system of decision making for children besides a simple concern that the child’s best interest takes priority.

Decisions that a child can be home schooled or raised in a particular religious tradition are examples focused on the parents’ interests in raising a child as they see fit. These parental interests are best described as property interests, not liberty interests. The property interests stem from both the parental investment in the child (labor) and the effect of the child on the development of the parents’ own identities (personality). Thus, legal recognition of so-called “parental rights” is really recognition of parents’ property interests in children, even though the use of such terms may make (allowing a kidney transplant between siblings based on the notion that the best interests of the incompetent ward included saving his brother’s life).

229 Others have pointed out that in a few cases the best-interest analysis has been applied too broadly to limit parental rights. Rothbard, for example, cites two cases where children were removed from parental control based on concern about their religious and moral well-being. See Rothbard, supra note 27, at 105-06. Contrast this with the argument of Smith, supra note 214, that we should discard the property model in favor of one focused on the child’s interests. Although courts have begun to move away from a strong notion of children as absolute property of the parents, the limitations placed on the exercise of parental rights stem not from a failure to recognize parental property interests, but from the recent recognition of the child’s personhood interests and rights. See John Lawrence Hill, What Does It Mean to Be a “Parent”? The Claims of Biology as the Basis for Parental Rights, 66 N.Y.U. L. REV. 353, 363 (1991).

230 See, e.g., Merry Jean Chan, The Authorial Parent: An Intellectual Property Model of Parental Rights, 78 N.Y.U. L. Rev. 1186 (2003) (arguing that the liberty model is inadequate and proposing instead an intellectual property model, such as the model used for copyright law).

231 See Smith, supra note 214, at 199 (stating that “an implicit model of property relations underlies certain views about parenting”); Woodhouse, Who Owns the Child?, supra note 225, at 997 (arguing that the Supreme Court’s jurisprudence rests on “conservative attachment . . . to a parent’s private property rights in his children and their labor”). I will not address Woodhouse’s proposal that the property approach is flawed in the case of children. See also Radin, supra note 70, 141 (suggesting that in the traditional surrogacy situation there is a “covert understanding that the baby is already someone else’s property—the father’s”). Neither Smith nor Woodhouse argue in favor of recognition of parents’ property interests in their children, just the contrary. I argue that property theory explains parental interests and is a more accurate legal basis upon which to ground parental rights, although the exercise of parental property rights may be limited.
many people (parents especially!) uncomfortable. My purpose in stressing the link between property interests and parental rights is not to argue in favor of parental rights of complete control, rather to show that debates about children's rights (personhood interests) and parents' rights (property interests) may be best framed in just those terms. There may be reasons to want to avoid characterizing parental interests as property interests—including the concern that it might lead parents to act in inappropriate ways towards children or that it might minimize the complexity of the parent-child relationship. But framing the interests in this way is more accurate given the underlying legal interests. Moreover, we might be more inclined to limit parental rights in certain situations when they are not cloaked as decisions made in the best interests of children, but rather acknowledged as resting on parental property interests.

Categorizing parental interests in children as property interests does not mean that parents own their children in the same way they own their house—or that parental interests dominate in all or even most situations. In many situations, the child's personhood interests will limit or even trump parental property interests, but the result does not negate the existence of those property interests. It is not an all-or-nothing event—property interests do not simply pop out of existence and personhood interests appear in full force.

232. Guzman writes:
To say that a parent has certain property-type rights in a child neither states nor endorses that the parent owns the child or that the child is the property of the parents. The issue is how far the rights go and under what circumstances, which depends on the context and extent of control sought.


233. Rothbard states that the parental interest is not “ownership of the child in absolute fee simple,” but a parental ownership limited both in time and in type (he calls it a “trustee' or guardianship kind”). ROTHBARD, supra note 27, at 99; see also Watkins v. Nelson, 748 A.2d 558, 583 (N.J. 2000) (stating that a father has no absolute property right in custody but is better viewed as a trustee).

234. In other words, even though the description of the legal rights is accurate, there may be other reasons to label (and thus understand) the parent-child relationship differently. See, e.g., RADIN, supra note 70, at 143 (“We might make better progress . . . toward a better view of contextual personhood—by breaking down the notion that children are fathers’ (or parents') genetic property.”).

235. In fact, some of the theories provide a basis for recognizing increasing, rather than decreasing, parental interests as time progresses (for example,
Rather, limitations of the practical application of the interests arise from inherent limitations in the theories themselves as described above or are based on the developing personhood interests of the entity in question. In essence, the two reduce to the same thing. As we recognize personhood interests, we necessarily limit others’ property interests. Since personhood interests increase as the entity develops, parental rights of control decrease over time.\footnote{When children reach the age of majority, parents’ rights are no longer given any force. At this point, the child's personhood interests outweigh all manifestations of the parental property interests. Working backwards from that point we might ask a series of questions. First, when do embryos/fetuses/children develop personhood interests? Second, at what point should legal personhood protections be applied to these entities? Third, how should the protections function and what is the interplay between the personhood interests and property interests? These important issues are addressed in the companion piece to this Article.}

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V. CONCLUSION

Are embryos and fetuses properly categorized as persons, property, neither, or both? This Article answers the question by proposing and applying a novel approach combining both property and personhood law. It focuses on whether there are property interests in the embryo, and a companion piece explores how developing personhood interests limit the property interests. This Article concludes that there are normative grounds for recognizing property interests in embryos and fetuses, and these property interests are a more appropriate basis for analysis of rights in this context than procreative liberty interests. Moreover, the shift from procreative liberty to property theory has significant implications for the factors courts should consider: who can assert a property interest and whether and how those interests can be transferred. The end result should be a more descriptively accurate representation of the issues involved in embryo disputes, as well as a more appropriate normative framework under which to resolve labor theory).

\footnote{236. Locke states: [P]arents have a sort of rule and jurisdiction over [children] when they come into the world, and for some time after, but it is but a temporary one. The bonds of this subjection are like the swaddling clothes they are wrapped up in and supported by in the weakness of their infancy; age and reason, as they grow up, loosen them, till at length they drop quite off and leave a man at his own free disposal. \textit{John Locke, The Second Treatise of Government} 31-32 (Thomas P. Peardon ed., The Liberal Arts Press, Inc. 1952) (1690).}
disagreements.

Since this Article focuses on embryos and fetuses, it refrains from assertions about what other kinds of entities might operate in the combined framework of both property and person law. It may be that embryos, and by extension other offspring of one's body, are unique and no other entity fits such a paradigm. At least one author, however, has suggested that we should consider such a framework for animals—recognizing property rights in the animal, but also granting them limited personhood rights. Animals would then have their own legally cognizable interests that could be asserted against third parties. New forms of artificial intelligence might prove to be another example of an entity that would fit under a combined person/property framework.

In addition, the Article does not attempt to resolve debates between different theories of property, or even to set forth all of the possible permutations of the different theories. To the extent that one supports a certain approach over another, one's preferred theory may have slightly different implications for the resolution of actual disputes over embryos. Nonetheless, property law overall provides the appropriate framework under which to analyze embryos. As the embryo develops, however, it will develop personhood interests and these will function to limit the property interests. The implications of these limitations for a multitude of reproductive rights debates, including abortion and surrogacy, are explored in the companion article. But acknowledging the role of personhood interests in the evaluation does not take away from the importance of recognizing property interests. Perhaps fetuses and children are, from a legal perspective, most accurately described as “owned persons.”


239. Consider the science-fiction films *Blade Runner* or *A.I.*