

THE NEW FRONTIER OF ADVANCED REPRODUCTIVE TECHNOLOGY: REEVALUATING MODERN LEGAL PARENTHOOD

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Assisted reproductive technologies (ARTs) have challenged our deepest conceptions of what it means to be a parent by fragmenting traditional aspects of parenthood. The law has been slow to respond to this challenge, and numerous academic articles have proposed models for adapting parentage laws to ARTs. In the coming years, however, scientific advancements in reproductive technologies, such as somatic cell nuclear transfer and stem cell technology, will challenge traditional parentage models in new and fascinating ways. For instance, these advanced technologies could allow two women to create a child without any male genetic contribution, or six parents to all contribute genetically to the creation of a child. This Article explores the relationship between advanced reproductive technologies and current paradigms for establishing parentage, and, depending on the specific technology, argues that these technologies either reinforce traditional biological parental paradigms or demand greater reliance on intentional parenthood to determine legal parentage.

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INTRODUCTION

Over the past century, scientific innovations in assisted reproductive technologies (ARTs) have made great strides in treating infertility and allowing individuals to achieve parenthood in ways unimaginable to previous generations. These technologies are ever-evolving, forcing a constant reevaluation of the legal, social, and ethical implications of the interaction between science and one of the most deeply guarded aspects of the human experience: the creation of a child.

ARTs have been referred to as a “revolution,”¹ and their purveyors have been accused of operating in the “‘Wild West’ of American medicine.”² These terms connote both a hope for a more promising future, and a deep underlying anxiety concerning what that future might hold. Indeed, the encroachment of science into a realm historically embedded in socio-religious notions of sanctity and divinity raises the age-old specter of playing god, and implicates the fear that Dr. Frankenstein is at society’s helm.³ Unsurprisingly, therefore, ARTs have been the subject of fierce social debate and legal analysis. This debate has touched on numerous topics such as ethics and the role of women in society.⁴ In the backdrop of this debate is

¹ E.g., PETER SINGER & DEANE WELLS, *THE REPRODUCTION REVOLUTION: NEW WAYS OF MAKING BABIES passim* (1984).

² See Marsha Garrison, *Regulating Reproduction*, 76 GEO. WASH. L. REV. 1623, 1623 (2008) (quoting Karen Wright, *Human in the Age of Mechanical Reproduction*, DISCOVER, May 1998, at 74, 76).

³ See Judith F. Daar, *The Prospect of Human Cloning: Improving Nature or Dooming the Species?*, 33 SETON HALL L. REV. 511, 514 (2003) (noting that “[o]pponents of cloning warn of playing God”); Isabel Karpin & David Ellison, *Reproduction Without Women: Frankenstein and the Legal Prohibition Against Human Modification*, in FEMINISM AND THE BODY: INTERDISCIPLINARY PERSPECTIVES 29–48 (Catherine Kevin ed., 2009) (discussing the use of Mary Shelley’s *Frankenstein* as a rhetorical device in discussions about scientific technologies, including embryonic stem cell research).

⁴ See, e.g., GENA COREA, *THE MOTHER MACHINE: REPRODUCTIVE TECHNOLOGIES FROM ARTIFICIAL INSEMINATION TO ARTIFICIAL WOMBES* 1–9 (1985) (arguing that ARTs have been created in the interests of the patriarchy and serve to exploit women); REPRODUCTIVE TECHNOLOGIES: GENDER, MOTHERHOOD AND MEDICINE (Michelle Stanworth ed., 1987) (discussing the impacts of ARTs on women’s lives); ROSEMARIE TONG, *FEMINIST APPROACHES TO BIOETHICS: THEORETICAL REFLECTIONS AND PRACTICAL APPLICATIONS* 162–86 (1997) (considering feminist perspectives on the bioethics of artificial insemination); Judith Lorber, *Choice, Gift, or Patriarchal Bargain? Women’s Consent to*

the fact that over the past several decades the traditional bionormative family structure has undergone a dramatic transformation.⁵ While in the past, the classic family was defined sociologically as a pair of heterosexual parents living together under one roof along with their children, different legal, technological, and sociological developments have led to a rapid and extreme change in the definitions of family and parenthood.⁶ Indeed, traditional ARTs, such as sperm donation, ova donation, and gestational surrogacy, have enabled one, two, or even several individuals to contribute to the creation of a child.⁷

In addition to implicating complex ethical and social considerations, ARTs raise questions about the legal status of various participants in the creation and subsequent care of a child. In addressing these questions, scholars and the courts have viewed legal parenthood in the context of ARTs in terms of five paradigms—genetics, intent, gestation, the marital presumption, and functionalism.⁸ Underlying these paradigms is the recognition that parenthood is not a monolithic concept. Genetic contributors, the woman who gestates an embryo to birth, individuals who provide shelter and physical nourishment, and various role models or educational figures who foster intellectual and emotional development can all constitute parental figures.⁹

Each of the five parental paradigms assigns legal parenthood in a different way. The intent paradigm assigns legal parenthood to those individuals

In Vitro Fertilization in Male Infertility, in FEMINIST PERSPECTIVES IN MEDICAL ETHICS 176–77 (Helen B. Holmes & Laura M. Purdy eds., 1992) (arguing that the decision to undergo IVF is a “patriarchal bargain” rather than a freely made choice); Pamela Laufer-Ukeles, *Mothering for Money: Regulating Commercial Intimacy*, 88 IND. L.J. 1223 (2013) (discussing the complex social implications of commercial surrogacy).

⁵ See Jason M. Merrill, *Two Steps Behind: The Law’s Struggle to Keep Pace with the Changing Dynamics of the American Family*, 11 J.L. & FAM. STUD. 509, 510–12 (2009). For a discussion of the bionormative parental framework, see generally Katharine K. Baker, *Bionormativity and the Construction of Parenthood*, 42 GA. L. REV. 649 (2008).

⁶ See Developments in the Law, *Changing Realities of Parenthood: The Law’s Response to the Evolving American Family and Emerging Reproductive Technologies*, 116 HARV. L. REV. 2052, 2052 (2003) (“The law has long rooted its conception of parenthood in the nuclear family: a child is raised by a married man and woman who share exclusive parental rights in the child.”) [hereinafter *Changing Realities of Parenthood*]; Deborah H. Wald, *The Parentage Puzzle: The Interplay Between Genetics, Procreative Intent, and Parental Conduct in Determining Legal Parentage*, 15 AM. U. J. GENDER SOC. POL’Y & L. 379, 383 (2007).

⁷ We use the term “traditional ARTs” to refer to those ARTs which are commonly in use today, such as in vitro fertilization, and which do not require somatic cell nuclear transfer, stem cell technology, or other advanced techniques. Somatic cell nuclear transfer and stem cell technology will be explained in greater detail in Part II *infra*.

⁸ See Dara E. Purvis, *Intended Parents and the Problem of Perspective*, 24 YALE J.L. & FEMINISM 210, 223–30 (2012) (discussing existing parental paradigms); Ilana Hurwitz, *Collaborative Reproduction: Finding the Child in the Maze of Legal Motherhood*, 33 CONN. L. REV. 127, 130 (2000) (stating that courts consider genetics, intent and gestation in making parentage determinations); *Oleski v. Hynes*, No. KNLFA084008415, 2008 WL 2930518, at *9 (Conn. Super. Ct. July 10, 2008) (determining parentage under the gestational paradigm); see, e.g., UNIF. PARENTAGE ACT arts. 3, 6 (Unif. Law Ctr. 2000) (amended 2002) (codifying the marital presumption).

⁹ See *Changing Realities of Parenthood*, *supra* note 6, at 2059.

who intend to care for and raise the child. Under the gestational paradigm, legal parenthood arises from the act of gestating the child. The genetic paradigm determines legal parenthood based on the genetic relationship between the child and the parties asserting claims of parenthood. Under the presumptive paradigm, a husband of a married woman is presumed to be the father of a child the woman gives birth to during the marriage. Lastly, the functional paradigm grants rights to individuals who are not necessarily biologically related to the child. This paradigm may recognize them as legal parents of the child, or may vest in them certain visitation or custodial rights based on the role they have played in the life of the child and/or gestational mother.

In practice, the historical model of two heterosexual parents creating a child through natural procreation relies simultaneously on the genetic, gestational, intentional, and presumptive paradigms, with the genetic, gestational, and presumptive elements taking primacy. Adoption, on the other hand, relies solely on the intentional paradigm: the intent of the adopting parents is given legal efficacy and overrides the presumptive, genetic, and gestational claim of the natural mother and father. Traditional ARTs, by contrast, complicate this historical framework by unbundling the presumptive, gestational, genetic, functional, and intentional paradigms and assigning the resulting roles to different individuals. For example, in a common surrogacy arrangement involving a same-sex couple, a female gestational mother and female egg donor contract to relinquish their parental rights over the resultant child to the genetic-intentional father and an adoptive-intentional-functional father.¹⁰ If the gestational mother then changes her mind, a legal conflict can arise between the biological claim of the gestational mother, the intentional claim of the putative/adoptive father, the biological and intentional claim of the genetic father, and the biological claim of the egg donor. As a consequence, in order to effectuate the intent of the parties in the context of traditional ARTs, academic literature in recent years has advocated for increased legal recognition of intentional parenthood through contract law, typically in the form of surrogacy contracts or, most recently, pre-conception parentage orders.¹¹

¹⁰ See, e.g., *Oleski*, 2008 WL 2930518, at *2.

¹¹ See, e.g., John L. 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, 413–20 (1991); Alexa E. King, *Solomon Revisited: Assigning Parenthood in the Context of Collaborative Reproduction*, 5 UCLA WOMEN'S L.J. 329, 367–99 (1995); Perri Koll, *The Use of the Intent Doctrine to Expand the Rights of Intended Homosexual Male Parents in Surrogacy Custody Disputes*, 18 CARDOZO J.L. & GENDER 199, 223–24 (2011); Jesse M. Nix, "You Only Donated Sperm": Using Intent to Uphold Paternity Agreements, 11 J.L. & FAM. STUD. 487, 494 (2009); Jason Oller, *Can I Get That in Writing?: Established and Emerging Protections of Paternity Rights* [In re K.M.H., 169 P.3d 1025 (Kan. 2007)], 48 WASHBURN L.J. 209, 220–23, 235–37 (2008); Purvis, *supra* note 8, at 227–53; Marjorie Maguire Shultz, *Reproductive Technology and Intent-Based Parenthood: An Opportunity for Gender Neutrality*, 1990 WIS. L. REV. 297, 321–98 (1990); Andrea E. Stumpf, *Redeeming Mother: A Legal Matrix for New Reproductive Technologies*, 96 YALE L.J. 187, 192–208 (1986); Katherine M. Swift, *Paternity Agreements, the Potential Power of Con-*

Modern innovations in ARTs such as somatic cell nuclear transfer (“SCNT”) and artificial wombs, however, demand a different approach to how we view legal parenthood. While academic articles have addressed these new technologies in terms of their social impact, ethical dimensions, and possible constitutional implications,¹² there has been little focus on the manner in which these technologies might interact with the existing paradigms of legal parenthood and the existing landscape of parentage law.

Instead of an inexorable shift toward increased recognition of intentional parenthood in the context of all ARTs, these innovations require a more nuanced view of the roles of biology and intent in determining parentage. For example, where a child is created by way of complex genetic engineering, resulting in a child who possesses genetic material from several individuals, there is little guidance in the law as to whether biology should trump intent, which of the genetic contributors should be deemed parents, and how to delineate the various rights and obligations of the parties. Further, these new technologies can actually reinforce the genetic component by allowing two men or two women to contribute genetically to a child, thereby undermining the need to rely on an intent-based approach in certain circumstances.

This Article proceeds in three parts. Part I offers a historical perspective on the manner in which ARTs have fragmented parental paradigms, necessitating greater reliance on intentional/contractual parenthood. Part I also discusses changing notions of family that have affected those paradigms. Part II describes modern innovations in ARTs that would allow two women to create a child without any male genetic contribution, or two men to create a child with only a minimal genetic contribution from a female egg donor. Part II will argue that these scenarios reinforce the genetic paradigm and reduce the need for relying on intentional parenthood to determine parentage. Part III discusses the ability to create a child from the genetic contribution of multiple donors, the limitations of applying various parental paradigms to that technology, and the need for reliance on intentional parenthood to delineate the rights and obligations of the parties. Viewing these technological innovations as a whole, this Article concludes that given the current state of parentage laws and the benefits and limitations of various parental paradigms, intentional parentage is the ideal paradigm for determining parenthood in the context of advanced ARTs.

tract, and the Limits of Family Law, 34 FLA. ST. U. L. REV. 913, 930–57 (2007); Wald, *supra* note 6, at 388–89.

¹² See, e.g., Erez Aloni, *Cloning and the LGBTI Family: Cautious Optimism*, 35 N.Y.U. REV. L. & SOC. CHANGE 1, 3–7 (2011); David Orentlicher, *Beyond Cloning: Expanding Reproductive Options for Same-Sex Couples*, 66 BROOK. L. REV. 651, 653 (2001).

I. PARENTAL PARADIGMS IN THE CONTEXT OF TRADITIONAL ARTs

The use of ARTs over the past few decades has coincided with a dramatic change in the legal conception of the family. While the law originally conceptualized legal parenthood by reflexive reference to the opposite-sex nuclear family, modern laws of parenthood have been forced to adapt to changing family structures, societal norms, and continuous technological advances. In confronting this changing landscape, courts and legislatures across the United States and around the world have attempted to apply various legal frameworks to the use of traditional ARTs. These attempts have had varying degrees of success and have led to the creation of an erratic and inconsistent national tapestry of parentage laws.

A. *ARTs and the Historical Bionormative Family*

Parental paradigms such as genetics, intent, gestation, presumption, and functionalism and the relative legal obligations and rights they entail are deeply rooted in a historical and cultural view of the nuclear family. Traditional parenthood, defined as two heterosexual adults creating and raising a child, much like traditional (i.e., heterosexual, monogamous) marriage, rests on a highly structured view of the family unit that found purchase and voice in constitutional jurisprudence in the United States.¹³ Indeed, both the right to marriage between individuals of opposite sexes and the right to natural procreation have been deemed fundamental by the Supreme Court.¹⁴ By contrast, ARTs often involve more than two parties and do not implicate fundamental rights. These characteristics have, in large part, shaped the way courts approach the issue of parentage in the context of ARTs.

Contrary to intentional parenthood, which relies on a robust view of human agency, the fundamental legal right to procreation was established in part because it was “basic to the perpetuation of [the] race.”¹⁵ The conceptualization of the right to procreate as fundamental to the perpetuation of humanity essentially means that a heterosexual couple is legally entitled to have a child and possess a legal claim to that child, not because they should, but simply because they can. There are no socioeconomic, racial, educational, or political requirements that must be met before the law permits

¹³ See Katharine T. Bartlett, *Rethinking Parenthood as an Exclusive Status: The Need for Legal Alternatives When the Premise of the Nuclear Family Has Failed*, 70 VA. L. REV. 879, 897 n.30 (1984) (“The Supreme Court in dicta in *Quillon v. Walcott* suggested that breaking up a nuclear family without a showing of parental unfitness could be unconstitutional.”).

¹⁴ See *Skinner v. Oklahoma*, 316 U.S. 535, 541 (1942) (discussing the right to procreation); *Loving v. Virginia*, 388 U.S. 1, 12 (1967) (discussing the fundamental right to marriage).

¹⁵ *Skinner*, 316 U.S. at 536; see also *id.* at 541.

heterosexuals to produce a child or pursuant to which the law may automatically sever the legal claim of a parent to a child.

This view of procreation serves as the bedrock of legal parentage and is closely tied to a longstanding view of the traditional family structure. For example, at the oral argument before the Supreme Court in the case of *Hollingsworth v. Perry*, Charles J. Cooper, arguing in favor of upholding marriage as an institution between one man and one woman, stated:

The concern is that redefining marriage as a genderless institution will sever its abiding connection to its historic traditional procreative purposes and it will refocus, refocus the purpose of marriage and the definition of marriage away from the raising of children and to the emotional needs and desires of adults—of adult couples.¹⁶

Thus, one argument marshaled before the Supreme Court against same sex marriage was that the purpose of marriage is to facilitate and encourage procreation.¹⁷ Furthermore, over the course of the past century, in defining the scope of the right to marriage, the Supreme Court has repeatedly linked marriage, traditional family structure, and procreation. As noted in *Zablocki v. Redhail*:

Long ago . . . the Court characterized marriage as “the most important relation in life,” and as “the foundation of the family and of society, without which there would be neither civilization nor progress.” In *Meyer v. Nebraska* . . . the Court recognized that the right “to marry, establish a home and bring up children” is a central part of the liberty protected by the Due Process Clause . . . and in *Skinner v. Oklahoma ex rel. Williamson* . . . marriage was described as “fundamental to the very existence and survival of the race.”¹⁸

As a result of this historical, bionormative legal framework, the modern basis for awarding legal parenthood is biological kinship and the marital presumption. In other words, an opposite sex couple who creates a child through sexual intercourse has a presumptive right to legal parenthood because of their genetic/gestational link to the child, and because of the nature of the marital relationship. This link is of the highest order of legal enforceability—severable only in extreme circumstances such as parental physical

¹⁶ Transcript of Oral Argument at 23–24, *Hollingsworth v. Perry*, 559 U.S. 1118 (2013) (No. 12-144).

¹⁷ Notably, the Supreme Court’s decision in *United States v. Windsor*, 133 S. Ct. 2675 (2013), deeming the Defense of Marriage Act unconstitutional, calls the continued legal viability of this argument into question.

¹⁸ *Zablocki v. Redhail*, 434 U.S. 374, 384 (1978) (citing *Maynard v. Hill*, 125 U.S. 190 (1888) (citations omitted), *Meyer v. Nebraska*, 262 U.S. 390 (1923), and *Skinner*, 316 U.S. at 535).

abuse, death of one of the parties, or voluntary relinquishment.¹⁹ When courts consider parenthood in any other context but natural procreation, it loses its constitutional legal imperative. There is no fundamental right to adopt,²⁰ and there is certainly no fundamental right to legal parenthood based on notions of intentional parenthood in the absence of a genetic relationship.²¹ Accordingly, many individuals seeking to procreate through ARTs, such as same-sex couples, have lacked access to this seemingly inviolate legal framework. Instead, these individuals have had to rely on contract law and equitable principles to validate their parental claims. Indeed, the modern notion of intentional parenthood is not grounded in any overarching constitutional legal framework. When two individuals of opposite sexes exercise their fundamental right to have a child, the law is not concerned with whether the creation of that life is in the best interest of the child. That is because the propagation of the species does not require a happy or well-adjusted child—it just requires a genetic receptacle capable of further procreation. In the context of natural procreation, life furthers its own interest. When parenthood is acquired by ARTs, by contrast, no fundamental right is implicated, opening the door to significant judicial oversight. In conducting this oversight function, courts look at various factors including genetics, gestation, intent, contract law, and the best interest of the child.²²

Viewing traditional ARTs against the backdrop of the historical bionormative family structure helps crystallize the analytical distinction between the various parental paradigms. The traditional fundamental right to procreate is implicated when the genetic, gestational, presumptive, and intentional parents are the same two people (e.g., a married heterosexual couple that creates a child through natural procreation). Thus, an essential characteristic of determining legal parentage in the context of the bionormative family structure is that there is no third party capable of asserting a

¹⁹ See Purvis, *supra* note 8, at 214 n.8 (noting the rigorous protections afforded to parents in the context of a termination proceeding).

²⁰ See Talia Cohen, *Protecting or Dismantling the Family: A Look at Foster Families and Homosexual Parents*, 13 TEMP. POL. & CIV. RTS. L. REV. 227, 227–29 (2003) (noting that foster parents have no fundamental right to adopt).

²¹ *But see* Aloni, *supra* note 12, at 69 n.322 (citing Elizabeth Price Foley, *The Constitutional Implications of Human Cloning*, 42 ARIZ. L. REV. 647, 695 (2000) (“Because cloning is merely an asexual form of procreation, it is arguably as much a fundamental constitutional right as our right to procreate by either passion or the petri dish.”)); John A. Robertson, *Human Cloning and the Challenge of Regulation*, 339 NEW ENG. J. MED. 119, 120 (1998) (“Whether described as ‘replication’ or as ‘reproduction,’ the resort to cloning is similar enough in purpose and effects to other reproduction and genetic-selection practices that it should be treated similarly.”); Pratheep Sevanthinathan, *Heavy Regulation of Human Cloning as an Alternative to a Complete Ban*, 10 QUINNIPIAC HEALTH L.J. 219, 242 (2007) (“[I]n light of *Skinner*, *Lifchez*, and the abortion cases, there seems to be a constitutionally protected right to procreate and therefore there may be a right to reproductive cloning.”).

²² See Carla Spivack, *The Law of Surrogate Motherhood in the United States*, 58 AM. J. COMP. L. 97, 101–09 (2010) (discussing various theories courts rely on in evaluating surrogacy contracts).

claim to the child. ARTs, however, fragment the intentional, gestational, and genetic paradigms, and potentially permit a third party to assert a claim of parenthood.

B. ARTs and the Fragmentation of Legal Parenthood

Prior to the use of ARTs, the parental paradigms contended with two basic scenarios. The first was where two heterosexual parents produced a child the “old fashioned way.” As stated, the parents had a legal claim to the resultant child based on genetics, gestation, intent, and the marital relationship. The second scenario was traditional adoption, a method of acquiring parental rights that is driven entirely by the post-conception intent of the parties and in which presumptive, gestational, and genetic links are expressly overridden. These two longstanding and well-established categories represent the traditional baseline for determining parenthood.

But ARTs such as ova donation, sperm donation, and gestational surrogacy, typically involving between three and four parties, present a more complicated landscape because they fragment the roles of the presumptive, genetic, gestational, and intentional parents. For instance, in a surrogacy arrangement between a same-sex male couple and a female gestational mother, the gestational surrogate would have a gestational claim to the child, the egg donor (who is not necessarily the gestational surrogate), would have a genetic claim to the child, the male genetic contributor would have a genetic and intentional claim to the child, the putative adoptive father would have an intentional claim to the child, and the gestational surrogate’s husband might have a presumptive claim to the child. As a result, ARTs implicate varying and often conflicting sources of legal parenthood claims and have produced opposing legal approaches.

For instance, courts in California have repeatedly used intentional parenthood to validate surrogacy agreements while courts in New Jersey have expressly declined to do so. In the seminal case of *Matter of Baby M*, the Supreme Court of New Jersey invalidated a surrogacy agreement in which a woman contracted to gestate a child for a natural father and his wife, who would have legal rights over the child, on the ground that it was against public policy, even where the gestational surrogate did not share a genetic link to the child.²³ While this case was purportedly based partially on public policy concerns about the potential harms of surrogacy, the fact that gestation was sufficient to create a default claim of parenthood on the part of the gestating woman, even though the woman had no genetic link to the child, demonstrated the court’s adherence to biological notions of parenthood.²⁴

²³ See *In re Baby M*, 537 A.2d 1227, 1264 (N.J. 1988).

²⁴ *Id.*

By contrast, in 1993, a California court, applying the intentional parenthood paradigm, upheld a surrogacy agreement between a heterosexual couple and a surrogate, stating:

We conclude that although the Act recognizes both genetic consanguinity and giving birth as means of establishing a mother and child relationship, when the two means do not coincide in one woman, she who intended to procreate the child—that is, she who intended to bring about the birth of a child that she intended to raise as her own—is the natural mother under California law.²⁵

Subsequent cases have further reinforced the intent paradigm by applying it to instances where the intended parents have no genetic connection to the child at all.²⁶

As evidenced by the approach taken in New Jersey, unlike adoption, where the parental rights to a child who has already been conceived are transferred by the courts from one party to another, the pre-conception, intent-based approach continues to be controversial and has been met with resistance by certain courts. In part, this is because the intent-based approach transfers the source of parental designation from the auspices of biology and the traditional marital presumption to the realm of freedom of contract and market principles. Nevertheless, intentional parenthood, determined by contract law or by notions of *de facto* and social parentage, has been increasingly advocated in academic literature as the appropriate way to determine parentage in the context of ARTs. One reason for this trend is that contract law is necessary in the context of traditional ARTs in order to allow an intentional parent to override the rights of a genetic, gestational, or presumptive third party, thereby furthering various normative benefits such as familial stability and legal certainty. Moreover, in the absence of contract principles, the expectations and intentions of the parties are thrown to the wayside in favor of formalistic, rigid, state-imposed parental designations.

II. SOMATIC CELL NUCLEAR TRANSFER AND STEM CELL TECHNOLOGY IN THE CONTEXT OF TWO-PARENT FAMILIES

While both caselaw and academic literature have increasingly relied on intentional parenthood as the preferred model to determine parentage in the context of ARTs, advances in ARTs in the future may require a more nuanced view of the parental paradigms, particularly with respect to same-sex couples. New technologies may in the future allow two women to create

²⁵ See *Johnson v. Calvert*, 851 P.2d 776, 782 (Cal. 1993).

²⁶ See *In re Marriage of Buzzanca*, 72 Cal. Rptr. 2d 280, 293 (Cal. Ct. App. 1998); see also *In re Nicholas H.*, 46 P.3d 932, 941 (Cal. 2002) (holding that a man who meets the statutory criteria for a presumed father can be considered the legal parent even if he has no biological relationship to a child).

a child with whom they both share an equal genetic link, without requiring any male genetic contribution, or two men to create a child with only a minimal female genetic contribution. By eliminating the potential parental claim of a third biological parent, this technology would bolster the utility of the genetic and gestational paradigms. On the other hand, this technology could allow multiple parties to contribute genetically to a child, necessitating reliance on intentional parenthood.

The ability to create a child from two women, two men, or multiple parents emerges from two developing technologies, somatic cell nuclear transfer (“SCNT”) and stem cell technology. While a comprehensive discussion of the science of these technologies is beyond the scope of this Article, the basic process is as follows: SCNT entails removing the original nucleus from an egg (which is then known as an “enucleated egg”) and replacing the nucleus with nuclear material from one or more individuals and sources.²⁷ After being induced to divide in a laboratory, the embryo, also known as a blastocyst, is then implanted into a uterus and allowed to gestate to form a complete organism.²⁸

While there is no documented case of this method resulting in a human child, SCNT has led to the birth of various animals, such as a cow, sheep, and dog.²⁹ Since 1997, significant efforts have been made to apply SCNT to generate human embryonic stem cells, without success.³⁰ In May of 2013, however, an international team led by Dr. Shoukhrat Mitalipov, from the Oregon Health and Science University, utilized a variation of SCNT to create human embryonic stem cells from skin cells, an incredible breakthrough in stem cell research.³¹

²⁷ See Aloni, *supra* note 12, at 19–20; Gail H. Javitt & Kathy Hudson, *Regulating (for the Benefit of) Future Persons: A Different Perspective on the FDA’s Jurisdiction to Regulate Human Reproductive Cloning*, 2003 UTAH L. REV. 1201, 1203 (2003); N. Rodriguez-Osorio et al., *Reprogramming Mammalian Somatic Cells*, 78 THERIOGENOLOGY 1869, 1870 (2012).

²⁸ See Aloni, *supra* note 12, at 20.

²⁹ *Id.* at 22. For a short description of generating a mouse from two males, see Gautam Naik, *Mice Are Created from Two Males*, WALL ST. J., Dec. 10, 2010, archived at <http://perma.cc/0tabaahcSGo>.

³⁰ We recognize that SCNT as a method to produce a human child is highly controversial and raises numerous ethical considerations. The focus of this article, however, is not whether these technologies should be utilized as a matter of ethics and public policy. The focus of the article is solely on how these technologies would interact with the various parental legal paradigms in the event they were utilized. We are not discussing the use of this technology in reproductive cloning.

³¹ See Press Release, Oregon Health & Science University, OHSU Research Team Successfully Converts Human Skin Cells into Embryonic Stem Cells (May 15, 2013), archived at <http://perma.cc/0dkDXmVu5H8> (“The breakthrough marks the first time human stem cells have been produced via nuclear transfer.”). See also Oregon Health & Science Univ., *Stem Cell Breakthrough Summarized by OHSU’s Dr. Shoukhrat Mitalipov*, YOUTUBE (May 15, 2013), <http://www.youtube.com/watch?v=neD-mGLurFU>, archived at <http://perma.cc/0A1Pmx2QWPi> (describing the process of SCNT and how this technology has the potential to treat diseases).

In light of these advancements, it is important to understand how these technologies would interact with existing paradigms of legal parenthood. Even if these technologies are never utilized to create human children, exploring their interaction with current legal parental paradigms offers guidance concerning the limitations of those paradigms. The next two subsections will examine SCNT and stem cell technologies in two categories. The first is where two women create a child without any genetic contribution from a man. The second is where two men create a child with the assistance of a gestational surrogate, who supplies the enucleated egg and carries the embryo to term.

A. *Two Female Genetic Contributors*

To create a child with two female genetic contributors, without the need for a male genetic contribution, one gamete-like cell would be taken from each of the two women. Each cell would contain one-half of the forty-six chromosomes possessed by each woman. The nucleus of each gamete-like cell would be inserted in a laboratory into an enucleated egg from one of the women to mimic a fertilization event. The resulting fertilized egg would then be implanted into one of the women to create a child with whom both women would share an equal genetic link.³² This process would not require a male genetic contributor.

The use of SCNT and stem cell technology to allow two women to create a child without any male genetic contribution would be legally groundbreaking. Traditional ARTs and surrogacy arrangements typically require contractual agreements, statutory protection, second-parent adoption, or reliance on equitable principles in order to recognize the parental claim of the same-sex partner of a biological mother. Arguably, however, if two women each share an equal and significant genetic link with a child, and no third party exists to assert a claim of legal parenthood on the basis of genetics, gestation, or presumption, the two women would have a seemingly ironclad biological legal claim of parenthood to the child indistinguishable from the biological claim of a heterosexual couple. Moreover, if the women are legally married, they would not only have an equal biological connection, but the non-gestational mother would also benefit from the marital presumption. Essentially, SCNT and stem cell technologies would recreate the traditional heterosexual framework in which the intentional, presumptive, and biological paradigms exist in the same two people, to the exclusion of all others.³³

³² See Aloni, *supra* note 12, at 21; David Orentlicher, *Beyond Cloning: Expanding Reproductive Options for Same-Sex Couples*, 66 BROOK. L. REV. 651, 655–56 (2000).

³³ Notably, the ability of two women to create a child also strikes at the heart of the legal movement against gay marriage. Heterosexual procreation has been repeatedly cited as a central basis for upholding the constitutionality of laws prohibiting gay marriage. See, e.g., *Zablocki v. Redhail*, 434 U.S. 374, 384 (1978); *Skinner v. Oklahoma ex rel.*

The significance of this technology is particularly acute in light of the challenging and inconsistent legal framework faced by women in same sex relationships attempting to assert claims of legal parenthood. In the context of traditional ARTs, two women who want to have a child together require a male sperm donor. Commonly, once a sperm donor is procured, one of the women is artificially inseminated with donor sperm and gestates the child. Alternatively, one of the women may donate an egg to the other woman who then gestates the child. These scenarios are legally complex because they implicate the potential rights of up to three distinct parties. They are further complicated by various factors such as whether the donor is known to the parties; the relative parental contribution of the two women in terms of child care, presence in the child's life, and financial support; and whether the two women are in a domestic partnership, civil union, committed relationship, or are married.³⁴

In the first scenario, in which one of the women gestates the child and is the sole female genetic contributor to the child, a question arises as to the legal status of the second woman, who intends to be a parent but has no biological link to the child. This question has yielded conflicting and unsatisfying answers. For example, in several states, if two women are married or in a civil union or domestic partnership, one of the women is presumptively the legal mother of any child born to the other woman during the pendency of the legally cognizable relationship.³⁵ Nevertheless, even this seemingly strong presumption has significant flaws. There is no guarantee that it will be credited by states that do not have such a presumption.³⁶ Further, the law is unclear as to the circumstances that might rebut the presumption,³⁷ and significant confusion remains regarding the legal status of the sperm donor.³⁸

Some courts have established the legal parenthood of the non-genetic/gestational mother by using equitable and statutory notions of *de facto* parentage. Under this framework, the visitation rights (and even custodial rights in certain instances) of the non-genetic/gestational mother will be upheld if that mother meets certain criteria, including active participation in the decision to create the child and the establishment of a parent-like relationship with the child.³⁹ Nevertheless, this approach has been rejected in certain ju-

Williamson, 316 U.S. 535, 541 (1942). If two women are able to procreate, this argument is weakened.

³⁴ See generally Nancy D. Polikoff, *A Mother Should Not Have to Adopt Her Own Child: Parentage Laws for Children of Lesbian Couples in the Twenty-First Century*, 5 STAN. J. C.R. & C.L. 201 (2009) (discussing contemporary parentage laws in the context of lesbian couples).

³⁵ *Id.* at 215.

³⁶ *Id.* at 216.

³⁷ *Id.* at 217.

³⁸ See Harvey L. Fiser & Paula K. Garrett, *It Takes Three, Baby: The Lack of Standard, Legal Definitions of "Best Interest of the Child" and the Right to Contract for Lesbian Potential Parents*, 15 CARDOZO J.L. & GENDER 1, 14 (2008).

³⁹ See *In re Parentage of L.B.*, 122 P.3d 161, 166–77 (Wash. 2005) (discussing various cases that relied on *de facto* parenthood and equitable parenthood to establish visita-

risdictions⁴⁰ and still requires invasive after-the-fact court involvement that can lead to legal uncertainty. Moreover, the non-gestational de facto mother might still want to formally adopt the child in order to further validate her legal status, a burdensome and expensive process. Lastly, this scenario could result in a deeply inequitable situation: if the gestational mother agreed to create the child with the understanding that the non-gestational mother would contribute fully as a parent, and then the non-gestational mother declined to act as a parent, the gestational mother would be left with the full parental burden since, under notions of functional parenthood, the non-gestational mother would have no parental obligations.

The second scenario, in which one woman gestates the fertilized egg of a second woman, raises many of the same concerns as the first scenario. However, unlike the first scenario, both women could assert biological claims of parenthood that might be recognized by courts. This result has already occurred in some jurisdictions. For instance, in one California case, both the gestational mother and the genetic mother were deemed to be the legal mother of the child based solely on biology.⁴¹ Various other cases have arrived at the same conclusion.⁴²

However, some jurisdictions may not be amenable to such claims, including those that are antagonistic to same-sex adoption and marriage. In these jurisdictions, the non-gestational mother might still want to obtain a second-parent adoption in the event that the parental claim of the non-gestational mother is rejected based on public policy grounds. For instance, in the New York case *Matter of Adoption of Sebastian*, the ova donor (the genetic contributor) petitioned to adopt a child gestated by her same-sex partner in order to ensure her parentage would be recognized by other states.⁴³ The court granted the adoption because it was the only way to provide the woman with parental rights in all contexts and on a national scale, even though the woman's genetic contribution and marriage to the gestational mother were sufficient to establish parentage and the woman could establish parentage in New York by other means.⁴⁴ This case demonstrates that even where the genetic and gestational mother can both assert a legal claim, they may still need to resort to the courts to fully validate that claim by way of a second-parent adoption. Moreover, this second scenario is further compli-

tion rights); Polikoff, *supra* note 34, at 223 (discussing a Delaware statute that grants "legal parentage to the male or female partner of a woman who gives birth to or adopts a child" under various circumstances, DEL. CODE ANN. tit. 13, § 8-201(a)(4), (b)(6), (c) (2009)).

⁴⁰ See *In re Thompson*, 11 S.W.3d 913, 920–23 (Tenn. Ct. App. 1999) (declining to grant visitation rights to a de facto parent who was the former lesbian partner of the biological mother, and surveying cases holding similarly).

⁴¹ Ryah Lillith, *The G.I.F.T. of Two Biological and Legal Mothers*, 9 AM. U. J. GENDER SOC. POL'Y & L. 207, 215 n.52 (2001).

⁴² See *T.M.H. v. D.M.T.*, 79 So. 3d 787, 802–03 (Fla. Dist. Ct. App. 2011); see also Polikoff, *supra* note 34, at 221.

⁴³ *In re Adoption of Sebastian*, 879 N.Y.S.2d 677, 691 (Sur. Ct. N.Y. County 2009).

⁴⁴ *Id.* at 692.

cated by the potential claim of the sperm donor. Given the historical bias in favor of a heterosexual, two-parent family structure, if the sperm donor were known to the parties or asserts a claim of parenthood, it may make it more difficult for both women to obtain legal parenthood.

In contrast to these two traditional ART scenarios, in the context of advanced ARTs each woman would contribute one half of the genetic material via SCNT and one of the women would gestate the embryo. Thus, the two women would each have a biological claim to the child and there would be no biological contribution from a third party. The legal implications of this scenario are astounding. If both women contribute genetically to the child, it would eliminate the confusion posed by the legal status of a sperm donor and create a claim of genetic legal parenthood on the part of the two women that would seemingly require no judicial or legislative recognition in order to be valid. Unlike traditional ARTs, the intent of the parties would be irrelevant—there would be no need for a contract, a parentage order from the court, reliance on *de facto* parentage, or second-parent adoption. The two women would be the sole biological parents of their child to the same degree as an opposite-sex couple, and there would be no additional third party to assert a biological claim of parenthood.⁴⁵

Nevertheless, in states that deny couples of the same biological sex the right to marry and adopt, the genetic claim of the two women might be insufficient to establish dual maternity because the legal parental claim of a heterosexual couple in these states is not based on genetics alone but on genetics in the context of a historical or cultural opposite-sex family structure. Moreover, much like traditional ARTs, even if SCNT technology were to be used to produce children, it would likely take many years before it gained widespread social and legal recognition. Therefore, for the foreseeable future, two women utilizing advanced ARTs in this manner should enter into a judicially pre-authorized contract or pre-birth parentage order memorializing their intent to serve as the parents of the resultant child, particularly in jurisdictions that have been historically antagonistic to the rights of same-sex couples.

⁴⁵ Notably, the use of this technology would have far-reaching social implications beyond the issue of parentage. For instance, if two women could create a child without any male genetic contribution, the human species could be propagated without men. Furthermore, in certain Jewish denominations, the religion of the child is determined by reference to the religion of the mother. *Cf. Schwarzman v. Schwarzman*, 388 N.Y.S.2d 993, 996 (N.Y. Sup. Ct. 1976) (“As a first principle, Jewish law determines that the religious identification of children is determined by the faith of the mother.”). If two women conceive a child and only one of the women is Jewish, or if two men conceive a child in the absence of a female genetic contributor, how would clerical authorities determine the religion of the child? While these social and ethical questions are beyond the scope of this paper, they demonstrate the complexities and challenges of these new technologies.

B. *Two Male Genetic Contributors*

As with two women, in the case of two male genetic contributors, each man would contribute about one half of the genetic material to an enucleated egg contributed by a female donor.⁴⁶ A woman, either the egg donor or another person, would have to gestate the child. The majority of the egg's DNA (i.e., the nuclear DNA) would be removed, though the egg would retain the woman's mitochondria DNA (mt-DNA), a minimal genetic contribution.⁴⁷ It is important to emphasize that although mt-DNA is a minimal genetic contribution, the genes encoded in mt-DNA are extremely important. Individuals with mutations in mt-DNA can develop significant neuromuscular health problems.⁴⁸

From a legal perspective, this technology is revolutionary in that unlike traditional ARTs, it reinforces the biological paradigm. Both men would have an equal genetic relationship to the child, and thus, neither man could simply be excluded from parenthood on the ground that he does not possess a biological connection to the child. Therefore, generally speaking, in the absence of a contract, each man would have a viable claim of paternity based on purely biological factors. Nevertheless, unlike the situation where two women are the only genetic contributors to the child and can rely solely on the genetic paradigm, the situation of two male genetic contributors is more complicated. The two men still need to contend with the potential genetic claim of the egg donor based on her contribution of the enucleated egg, mt-DNA, and with the potential claim of the gestational surrogate. Thus, notwithstanding the dramatic social implications of two men contributing genetically to the creation of a child and the legal significance of each man having a genetic connection to the child, intentional/contractual parenthood would likely still be necessary to establish the two men as the sole legal parents in many jurisdictions.

1. *Contending with the Egg Donor and Gestational Mother*

Current cases dealing with surrogacy agreements offer some guidance as to how courts might approach a situation where two men provide the genetic material necessary for the creation of a child, and the primary female role is to gestate the child. In *Griffiths v. Taylor*, the Superior Court of Connecticut upheld a surrogacy agreement and validated the parental claim of a same-sex male couple.⁴⁹ The Court noted:

⁴⁶ See Orentlicher, *supra* note 32, at 656; Aloni, *supra* note 12, at 21.

⁴⁷ See Aloni, *supra* note 12, at 21.

⁴⁸ See Eric A. Schon, Salvatore DiMauro & Michio Hurano, *Human Mitochondrial DNA: Roles of Inherited and Somatic Mutations*, NAT'L REV. GENETICS 878, 890 (2012).

⁴⁹ See *Griffiths v. Taylor*, No. FA084015629, 2008 WL 2745130, at *7 (Conn. Super. Ct. June 13, 2008).

The instant case is not about the establishment of genetic, or biological parents, but rather the establishment of legal or intentional parents. Names on a birth certificate are not necessarily just an acknowledgment of paternity but can also establish legal responsibilities to a child. In this era of evolving reproductive technology and intent based parenthood, our laws must acknowledge these realities and not simply cling to genetic connections as preconditions to being placed on a birth certificate.⁵⁰

Similarly, in 2011 in another Connecticut case, *Raftopol v. Ramey*, the intended parents, a genetic father and an adoptive father, brought an action for a declaratory judgment regarding the validity of a gestational agreement pursuant to which the surrogate mother would terminate her putative parental rights and the non-genetic father would adopt the child.⁵¹ The Superior Court of Connecticut upheld the gestational agreement and found the intended parents to be the legal parents.⁵²

These cases demonstrate that in certain jurisdictions, surrogacy agreements are empowered to separate gestational motherhood from legal parenthood. Specifically, in these cases, the egg donor, the gestational mother, and the genetic father all had claims to the child based on various parental paradigms, and yet the court validated the original intent of the parties to allow only the genetic father and the adoptive father to serve as legal parents.⁵³

In jurisdictions where surrogacy agreements allow a genetic father and an adoptive father to override the presumptive legal claim of a gestational mother, it is reasonable to conclude that surrogacy agreements would be upheld in the case of two men contributing genetic material. Both men would have a strong genetic claim to the child and the only function of the agreement would be to sever the claim of the gestational mother (and per-

⁵⁰ *Id.* See also *Cassidy v. Williams*, No.FA084006951S, 2008 WL 2930591 at *3 (Conn. Super. Ct. July 9, 2008) (holding that surrogate agreement was enforceable and the intended parents should be listed on an updated birth certificate); *Cunningham v. Tardiff*, No. FA084009629, 2008 WL 4779641 at *5 (Conn. Super. Ct. Oct. 8, 2008) (a replacement birth certificate was issued to biological father from a surrogate gestation).

⁵¹ See *Raftopol v. Ramey*, 12 A.3d 783, 786–87 (Conn. 2011). For a discussion of this ruling and for the endorsement of defining parents by intentional parenthood, see Koll, *supra* note 11, at 217–18.

⁵² *Raftopol*, 12 A.3d at 788.

⁵³ There are additional cases in which two fathers were determined to be the legal parents of a child without reference to the best interest of the child. See *Vogel v. Kirkbridge*, No. FA 02-024718505, 2002 WL 34119315 at *1 (Conn. Super. Ct. Dec. 19, 2002) (holding that two fathers were the legal parents of a child); *Davis v. Kania*, 836 A.2d 480, 483–84 (Conn. Super. Ct. 2003) (upholding California law establishing male domestic partners as fathers of a child). However, not all jurisdictions take this approach. See *Purvis*, *supra* note 8, at 233–34 (discussing variations in state enforcement of surrogacy contracts). Thus, in some states, if a surrogacy contract is deemed contrary to public policy or otherwise invalid, the gestational surrogate might retain a legal parental claim to the child.

haps the female egg donor who made a minimal genetic contribution).⁵⁴ Accordingly, there is ample room in the pre-existing models of intentional parenthood to validate the legal parenthood of two men who contribute genetically to a child. Moreover, even if the biological mother has a valid legal claim to the child, neither of the fathers could simply be excluded on the ground that they do not share a genetic link with the child.

A more complicated question arises in jurisdictions where surrogacy contracts are not valid, such as New Jersey. For instance, in *A.H.W. v. G.H.B.*, a husband, wife, and the wife's sister entered into a surrogacy agreement whereby the sister would gestate an embryo created by combining the wife's egg and the husband's sperm.⁵⁵ Though both the husband and wife were biologically related to the child, the court refused to grant a pre-birth parentage order since, according to a New Jersey statute, a birth mother may not surrender her parental rights until seventy-two hours after the child is born.⁵⁶ Since a birth certificate can be issued up to five days after a child's birth, the court ordered that the birth certificate be issued on the fourth day.⁵⁷ This disposition would allow the gestational surrogate to surrender her rights after the seventy-two hour period with enough time remaining to place the names of the husband and wife on the birth certificate.⁵⁸ The court, however, left open the question of what would happen if the gestational surrogate did not surrender her rights after the seventy-two hour period.⁵⁹

This case indicates that a pair of same-sex parents, like a heterosexual couple, would not be able to obtain a pre-birth parentage order in New Jersey declaring them the parents. In order to be deemed the parents on the child's birth certificate, they would have to wait for the seventy-two hour period to expire and for the gestational mother to relinquish her parental rights.

It is unclear what would happen if the woman refused to relinquish her parental rights. Ordinarily, if the woman refuses to give up her rights and the parties decline to litigate the issue, the clerk would likely place the gestational mother and the genetic father on the birth certificate. But if the parties include two male partners who are both genetically connected to the child,

⁵⁴ While the mt-DNA contribution of the egg donor might be minimal, in the absence of a contract (and even with a contract), there remains uncertainty concerning whether the egg donor could assert a claim of parental rights and whether the egg donor could be ordered to assume parental obligations. See Sarah Terman, *Marketing Motherhood: Rights and Responsibilities of Egg Donors in Assisted Reproductive Technology Agreements*, 3 Nw. J.L. & Soc. POL'Y 167, 172-79 (2008) (discussing the ways different jurisdictions handle the parental rights of egg donors); J. Brad Reich & Dawn Swink, *You Can't Put the Genie Back in the Bottle: Potential Rights and Obligations of Egg Donors in the Cyberprocreation Era*, 20 ALB. L.J. SCI. & TECH. 1, 34-37 (2010) (reviewing surrogacy cases to clarify the parental rights of egg donors).

⁵⁵ *A.H.W. v. G.H.B.*, 772 A.2d 948, 949 (N.J. Super. Ct. Ch. Div. 2000).

⁵⁶ *Id.* at 954.

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Id.*

there would be no reason to place one of the men on the birth certificate as opposed to the other. While New Jersey occasionally permits a third person to be on the birth certificate to grant visitation rights, no authority supports the proposition that it would simply allow three parents with shared rights and obligations. Moreover, various emotional and pragmatic problems could arise if a male same-sex couple is forced to share parental rights with a female surrogate who the couple never envisioned would be involved in the child's life. It is evident, therefore, that the current legal framework in states like New Jersey that are reluctant to validate surrogacy contracts is ill-equipped to address the implications of these new technologies.

2. Uterine Transplantation and Artificial Wombs—Eliminating the Gestational Paradigm

Advances in reproductive medicine, such as uterine transplantation,⁶⁰ animal-human chimeric technology, and artificial wombs, may obviate the need for a female gestational mother in the future. The elimination of the need for a female gestational mother would have profound legal implications because gestation is a pivotal aspect of determining legal parenthood. In the absence of a gestational mother, two male genetic contributors would not have to contend with the claim of the gestational mother, bolstering their own parental claim.

The success of uterine transplantation in sheep, dogs, and mice,⁶¹ the initiation of human uterine transplantation scheduled in the United Kingdom and Sweden,⁶² and various other planned attempts to pursue human uterine transplantation⁶³ raise the possibility that one day a uterus could be transplanted into a man.⁶⁴ Early in 2013, Turkey's Akdeniz University announced

⁶⁰ See Valarie K. Blake, *Ovaries, Testicles, and Uteruses, Oh My! Regulating Reproductive Tissue Transplants*, 19 WM. & MARY J. WOMEN & L. 353, 354 (2013) (discussing reproductive tissue transplants, including uterine transplantation, and their legal, ethical, and regulatory implications).

⁶¹ *Id.* at 359; see Mats Brännström, Caiza A. Wranning & Albert Altchek, *Experimental Uterus Transplantation*, 16 HUMAN REPROD. UPDATE 330, 335–37 (2010) (explaining that uterine transplants have also been attempted in mice, rabbits, sheep, and non-human primates with varying degrees of success).

⁶² See Ashley Hayes, *First Mother-Daughter Womb Transplants Performed in Sweden*, CNN.COM (Sept. 20, 2012), <http://www.cnn.com/2012/09/19/health/uterine-transplant/index.html>, archived at <http://perma.cc/0rHdwFmrasA>; Sophie Borland, *Doctors Perform World's First Uterus Transplant Between a Mother and her Daughter*, MAILONLINE (Sept. 18, 2012), <http://www.dailymail.co.uk/health/article-2205025/Doctors-perform-worlds-uterus-transplant-MOTHER-DAUGHTER.html>, archived at <http://perma.cc/0x1LHCXnG6E>.

⁶³ See Blake, *supra* note 60, at 360 (discussing various attempts at uterine transplantation).

⁶⁴ For discussions of male impregnation, see Sam Dylan More, *The Pregnant Man—An Oxymoron?*, 7 J. GENDER STUD. 319 (1998); Paisley Currah, *Expecting Bodies: The Pregnant Man and Transgender Exclusion from the Employment Non-Discrimination Act*, 36 WOMEN'S STUD. Q. 330, 330–35 (2008).

that Derya Sert, the first female to have successfully received a uterine transplant, was pregnant, though the baby was not carried to term.⁶⁵

Another method that could obviate the need for a female gestational mother is human-animal chimeric technology. This process entails injecting specialized human stem cells into the fetus of a cow to generate an adult cow with a human uterus.⁶⁶ Because the gestational period of a cow is nine months, this uterus could hypothetically support human embryonic gestation.⁶⁷ Currently, stem cell technology has been able to reconstitute a human circulatory system in mice and sheep, and progress is being made to reconstitute a human liver in sheep. However, it is not yet possible to create an adult cow with a human uterus.

In addition to human-animal chimeric technology, artificial wombs may also eliminate the need for a female gestational mother. British scientist J. B. S. Haldane first contemplated the prospect of gestating a child completely outside of its mother's uterus in the early twentieth century.⁶⁸ He referred to this phenomenon as "ectogenesis," and predicted that by the year 1951, science would be able to produce the first ectogenetic child.⁶⁹ By the year 2074, he imagined, less than thirty percent of children would be gestated by a woman.⁷⁰ While an artificial human uterus has not yet been created, progress has been made in the realm of artificial uteruses in animals. In the 1980s, Japanese researchers in Tokyo achieved promising results in creating artificial uteruses for goats. In 1997, Dr. Yoshinori Kuwabara of Juntendo University announced that a seventeen-week-old goat fetus was removed successfully from its mother's uterus and survived for three weeks in an artificial uterus.⁷¹ Creating an artificial uterus for human beings is far more complicated, and it is unclear whether the procedures being utilized in animals could be used to create an artificial human uterus.⁷²

⁶⁵ See Ece Toksabay, *Turkish Womb Transplant Patient Loses Baby*, REUTERS, May 14, 2013, available at <http://www.reuters.com/article/2013/05/14/us-turkey-transplant-idUSBRE94D0P720130514>, archived at <http://perma.cc/OrNFMWVxQX4>.

⁶⁶ See John Loike, *The Evolving Bioethical Landscape of Human-Animal Chimeras*, in HUMAN DIGNITY IN BIOETHICS 282, 283–84 (Stephen Dilley & Nathan J. Palpant eds., 2013).

⁶⁷ *Id.* at 284.

⁶⁸ See J. B. S. HALDANE, DAEDALUS OR SCIENCE AND THE FUTURE: A PAPER READ TO THE HERETICS, CAMBRIDGE, ON FEBRUARY 4TH, 1923 63–67 (1924).

⁶⁹ *Id.* at 56–57, 63.

⁷⁰ *Id.* at 56–57, 65.

⁷¹ See P. Chavatte-Palmer, R. Lévy & P. Boileau, *Reproduction Without a Uterus? The State of Ectogenesis*, 40 GYNECOLOGIE, OBSTETRIQUE & FERTILITE 695, 696 (2012).

⁷² Ethicists and jurists have long speculated over the ramifications of artificial human wombs. Proponents maintain that in a range of circumstances, artificial wombs could be safer for both the fetus and the mother than natural gestation. The practice of using artificial human wombs for gestation may also assist women who were born without a uterus, have suffered multiple miscarriages due to problems with embryo implantation, or have had hysterectomies due to uterine cancer. Cf. PETER SINGER & DEANE WELLS, MAKING BABIES: THE NEW SCIENCE AND ETHICS OF CONCEPTION 118 (1985) (discussing medical and social arguments in favor of and against gestating a child outside a woman's body). Further, it could provide women carrying triplets (or more) temporary quarters for one or

Eliminating the gestational mother from the parental equation would have a profound effect on the law of parentage. In the case of two male genetic contributors, the only person who might have a claim to the child other than the two men is the woman who contributed the enucleated egg. Notwithstanding the fact that mt-DNA plays a significant role in the health

two fetuses toward the end of gestation, when a woman's uterus becomes more crowded and the risk of complications to herself or to her children is greater. See Christine Rosen, *Why Not Artificial Wombs?*, THE NEW ATLANTIS: A JOURNAL OF TECHNOLOGY AND SOCIETY 67, 71 (2003), <http://www.thenewatlantis.com/docLib/TNA03-Rosen.pdf>, archived at perma.cc/GK2P-4SGA. In addition, for women unable to carry their own children, an artificial uterus could provide a better alternative to surrogacy. Lastly, even healthy women might prefer to utilize this process for various reasons. Because motherhood has already been dramatically altered by social and scientific developments, an artificial uterus could be viewed as merely another expansion of the methods to produce a child. See, e.g., Gregory Pence, *What's So Good About Natural Motherhood? (In Praise of Unnatural Gestation)*, in ECTOGENESIS: ARTIFICIAL WOMB TECHNOLOGY AND THE FUTURE OF HUMAN REPRODUCTION 77, 77–88 (Scott Gelfand & John R. Shook eds., 2006). Opponents argue that an artificial human uterus could lead to a commodification of the process of pregnancy, challenge the social status of women, and disrupt the unique mother-child bond. See, e.g., Norma J. Wikler, *Society's Response to the New Reproductive Technologies: The Feminist Perspectives*, 59 S. CAL. L. REV. 1043, 1048–53 (1986) (describing feminist ambivalence and disagreement to reproductive technologies and government regulation of those technologies); Joan Woolfrey, *Ectogenesis: Liberation, Technological Tyranny, or Just More of the Same?*, in ECTOGENESIS: ARTIFICIAL WOMB TECHNOLOGY AND THE FUTURE OF HUMAN REPRODUCTION, *supra* at 129, 130–33 (contending that ectogenesis will “reinforce the oppressive structures in our society which serve to converge into a focus on the reproductive capacities of women to the exclusion of all else”); Jennifer S. Hendricks, *Not of Woman Born: A Scientific Fantasy*, 62 CASE W. RES. L. REV. 399, 436–45 (2011). An artificial human uterus would also pose complex questions in the context of abortion. Indeed, the right to an abortion has been conceptualized in terms of a woman's constitutional right to privacy, liberty, and bodily integrity. See *Roe v. Wade*, 410 U.S. 113 (1973); see also, I. Glenn Cohen, *The Constitution and the Rights Not to Procreate*, 60 STAN. L. REV. 1135, 1155 (2008) (observing that the Supreme Court's abortion jurisprudence centers on notions of privacy and bodily integrity). Should artificial gestation become an option, some have suggested, it would call into question a woman's right to destroy a fetus via abortion. See LAURENCE H. TRIBE, *ABORTION: THE CLASH OF ABSOLUTES* 225 (1990) (suggesting that “a woman's moral claim that she has a right to choose a fetus-destroying abortion would be weakened if the fetus could be saved without the sustained imposition on liberty that is involved whenever a woman is forced to carry a pregnancy to term”); CHRISTINE OVERALL, *ETHICS AND HUMAN REPRODUCTION: A FEMINIST ANALYSIS* 68–87 (1987) (arguing that abortion may be defined as two acts—expelling the fetus from the uterus and causing the death of the fetus—and that women should have the right to the former but not the latter when there are alternatives); see also Laurence H. Tribe, *The Supreme Court 1972 Term: Foreword: Toward a Model of Roles in the Due Process of Life and Law*, 87 HARV. L. REV. 1, 27 (1973); Judith Jarvis Thomson, *A Defense of Abortion*, 1 PHIL. & PUB. AFF. 47, 66 (1971) (noting the right to abort a fetus is separate from the right to kill that fetus). These implications of artificial wombs on the abortion debate have been well documented by the academic literature. See, e.g., STEPHEN COLEMAN, *THE ETHICS OF ARTIFICIAL UTERUSES: IMPLICATIONS FOR REPRODUCTION AND ABORTION* 57–149 (2004); Vernellia R. Randall & Tshaka C. Randall, *Built in Obsolescence: The Coming End to the Abortion Debate*, 4 J. HEALTH & BIOMED. L. 291, 308–10 (2008); Jessica H. Schultz, *Development of Ectogenesis: How Will Artificial Wombs Affect the Legal Status of a Fetus or Embryo?* 84 CHI.-KENT L. REV. 877 (2010); Hyun Jee Son, *Artificial Wombs, Frozen Embryos, and Abortion: Reconciling Viability's Doctrinal Ambiguity*, 14 UCLA WOMEN'S L.J. 213, 217–18 (2005). Lastly, artificial wombs raise the same concerns of playing god as other ARTs—perhaps to an even greater degree.

of the child,⁷³ the woman's genetic contribution of mt-DNA would likely be deemed insufficient to establish a legal claim of parenthood in most, if not all, jurisdictions.⁷⁴ For instance, under the 2000 Uniform Parentage Act (hereinafter "UPA") (amended in 2002 and adopted by nine states), absent a contract, sperm and egg donors have no rights to a child born from the use of the sperm or egg.⁷⁵ Moreover, even in the rare instance where a court might uphold the legal claim of an egg donor in an ordinary surrogacy situation, the contribution of mt-DNA might be so minimal with respect to DNA content that it is possible it would be deemed legally irrelevant and the two genetic contributors would be the only presumptive legal parents. Thus, in that situation, the two men would not need a contract to validate their sole legal claim of parenthood.

However, while the caselaw dealing with the rights of egg donors is very limited, the technology is ever-evolving, and societal norms are continually shifting. Accordingly, two men, though genetically linked to a child, might want to memorialize their agreement with an egg donor in a contract to insure their parental claim against the vagaries of an unstable legal landscape.⁷⁶ Courts in the future may be unwilling to invalidate the legal claim of an egg donor simply because her genetic contribution is minimal (especially if the egg donor is known to the parties) or because the parties failed to adhere to certain formalistic statutory requirements. Moreover, the court might feel that it is in the best interest of the child for the egg donor to have parental rights. Thus, until laws addressing these situations become more stable and consistent, the two genetic male contributors should prophylactically protect their legal claim by entering into a contract with the egg donor. Moreover, if the two genetic contributors want to voluntarily assign certain

⁷³ Currently, clinics in the United States and United Kingdom are beginning human trials to transfer healthy mt-DNA into an egg obtained from a woman containing mutated mt-DNA fertilized in the laboratory with sperm from her husband. See Yehezkel Margalit, Michiko Hirano & John Loike, *Three-Way Parenthood*, SCIENTIST, Oct. 1 2013, available at <http://www.the-scientist.com/?articles.view/articleNo/37594/title/Three-Way-Parenthood>, archived at <http://perma.cc/0TqCTJwRtQy> (detailing the logistics of three-parent IVF technologies that avoid the transmission of mitochondrial disease).

⁷⁴ See Reich & Swink, *supra* note 54, at 36 ("The end result, should other courts continue to follow the lead of *Johnson and McDonald*, is that egg donors likely will have no common law rights of custody or visitation over children conceived from their eggs.").

⁷⁵ See UNIF. PARENTAGE ACT § 702 cmt. (Unif. Law Ctr. 2000) (amended 2002) ("If a child is conceived as the result of assisted reproduction, this section clarifies that a donor (whether of sperm or egg) is not a parent of the resulting child."). For a criticism of the current Uniform Parentage Act's approach—which does not recognize a real freedom of contract to opt in or opt out of legal fatherhood in the case of sperm donation—see Yehezkel Margalit, *Artificial Insemination from Donor (AID)—From Status to Contract and Back Again?*, B.U. J. SCI. & TECH. L. (forthcoming 2014).

⁷⁶ See Erik W. Johnson, *Frozen Embryos: Determining Disposition Through Contract*, 55 RUTGERS L. REV. 793, 818–20 (2003) (proposing that courts give deference to "consent agreements when determining pre-embryo disposition"); Yehezkel Margalit, *To Be or Not to Be (A Parent)?—Not Precisely the Question: The Frozen Embryo Dispute*, 18 CARDOZO J.L. & GENDER 355, 367–69, 386–89 (2012).

parental rights to a third party in order to create a three-parent family (whether with the female egg donor or another party), they would need to form a contract as well.

It is evident that SCNT and stem cell technologies may, in the future, have a profound effect on the laws of parentage, particularly with respect to the rights of same-sex couples. By eliminating potential third-party parental claimants to a child, such as a sperm donor or gestational mother, these technologies reinforce the utility of biological parentage paradigms. These technologies, however, could also allow multiple parents to share a genetic link to a child, thereby reducing the utility of the biological paradigm and necessitating reliance on intentional parenthood. This application of SCNT and stem cell technologies will be discussed in the following section.

III. MULTIPLE PARENTAGE AND ADVANCED ARTS

Discussions of multiple parentage in academic literature typically seek to address two general questions. The first question is whether multiple parentage, as a substantive matter, warrants legal recognition.⁷⁷ This question implicates sociology, ethics, political ideology, gender identity, and various other disciplines.⁷⁸ Then, to the extent that the law might recognize multiple parentage, the second question concerns what form that legal recognition should take. In addressing this second question, academic articles have advanced various proposals. One such proposal contemplates legal recognition of a third social parent who has played a significant role in the life of the child or in support of the birth mother either before or after the birth.⁷⁹ Another proposal takes a more holistic approach whereby various parties, both biological and contractual, could be deemed legal parents.⁸⁰ Lastly, recent articles advocating the use of pre-birth parentage orders or alternative preauthorized judicial measures could easily be applied to the context of multiple parents.⁸¹ Notably, in the context of surrogacy agreements,

⁷⁷ See Laura T. Kessler, *Community Parenting*, 24 WASH. U. J.L. & POL'Y 47, 74–77 (2007) (advocating for legal recognition of community parenting).

⁷⁸ *Id.*

⁷⁹ See, e.g., Laura Nicole Althouse, *Three's Company? How American Law Can Recognize a Third Social Parent in Same-Sex Headed Families*, 19 HASTINGS WOMEN'S L.J. 171, 191–208 (2008).

⁸⁰ See R. Alta Charo, *And Baby Makes Three—or Four, or Five, or Six: Redefining the Family After the Reprotech Revolution*, 15 WIS. WOMEN'S L.J. 231, 250–53 (2000) (arguing that the preference for two opposite-sex parents is unwarranted, and that single persons, gay and lesbian couples, and larger groups of adults may serve equally well as parents).

⁸¹ See Purvis, *supra* note 8, at 244–48 (advocating for states to permit pre-birth parentage orders); Yehezkel Margalit, *In Defense of Surrogacy Agreements: A Modern Contract Law Perspective*, 20 WM. & MARY J. WOMEN & L. (forthcoming Feb. 2014) (discussing judicial preauthorization of surrogacy agreements).

preauthorization is not required in Texas and Illinois,⁸² while preauthorization is mandatory in Virginia and New Hampshire.⁸³ Moreover, the notion of preauthorization can be found in prominent legislative proposals and Uniform Acts, such as the Uniform Status of Children of Assisted Conception Act (hereinafter USCACA), the UPA, and, recently, the Model Act Governing Assisted Reproduction Technology (hereinafter Model Act).⁸⁴

This section seeks to position the multiple parentage discussion in the context of SCNT and stem cell technology. While SCNT and stem cell technologies might increase the utility of the biological paradigms by potentially excluding a male donor and allowing both individuals in a same-sex couple to share a genetic link to a child, these technologies could also allow multiple individuals to be biologically related to a child. The use of these technologies to achieve multiple genetic parents requires a determination as to which of the genetic contributors are the legal parents of the child, a determination not easily addressed by reliance on biology alone. This section does not advocate, as a normative matter, the use of SCNT and stem cell technology to create a child with numerous genetic parents. Similarly, we take no position with respect to the significant ethical questions this possibility raises, such as the creation of “designer” babies, or the possible administrative and policy-based concerns associated with assigning parental obligations and benefits to numerous individuals.⁸⁵ Rather, we argue that, to the extent that this technology is used in humans in the future, and multiple parentage gains greater legal acceptance, the law should address the resulting novel family structures in a specific way. Namely, individuals seeking to engage in multiple-parent family structures should be required to contractually delineate the rights and obligations of the various parties, and the resultant contract should be preauthorized by a court to ensure that certain basic criteria, such as financial support for the child, are satisfied.⁸⁶

⁸² See 750 ILL. COMP. STAT. 47/25 (2005); see also TEX. FAM. CODE ANN. § 160.751-63 (Vernon 2002 & Supp. 2005) (permitting surrogacy contracts without requiring preauthorization).

⁸³ See VA. CODE ANN. §§ 20-159–20-160 (2008); see also N.H. REV. STAT. ANN. §§ 168-B:20–168-B:24 (1991) (requiring preauthorization of surrogacy agreements).

⁸⁴ For a legislative proposal requiring judicial preauthorization of a surrogacy agreement, see USCACA §§ 5–9. For a discussion of UPA §§ 801(a), 803, see Richard F. Storrow, *Parenthood by Pure Intention: Assisted Reproduction and the Functional Approach to Parentage*, 53 HASTINGS L.J. 597, 660–64 (2002). For the importance of judicial preauthorization of surrogacy agreements, see Robert E. Rains, *What the Erie “Surrogate Triplets” Can Teach State Legislatures About the Need to Enact Article 8 of the Uniform Parentage Act (2000)*, 56 CLEV. ST. L. REV. 1, 33–35 (2008). For a modern legislative proposal, see American Bar Association Model Act Governing Assisted Reproductive Technology § 703 (Feb. 2008), available at <http://www.abanet.org/family/committees/artmodelact.pdf>, archived at <http://perma.cc/0n5FVXDKfEA>.

⁸⁵ Cf. Judy Norsigian, *Stem Cell Research and Embryo Cloning: Involving Laypersons in the Public Debates*, 39 NEW ENG. L. REV. 527, 529 (2005) (calling SCNT the “gateway” to the possibility of “designer babies” and suggesting that SCNT might lead to a “resurgence of the eugenics movement”).

⁸⁶ See Yehezkel Margalit, *Intentional Parenthood: A Solution to the Plight of Same-Sex Partners Striving for Legal Recognition as Parents*, 12 WHITTIER J. OF CHILD AND

Notably, this contractual method could be employed to establish multiple legal parents even where one or more of the parties are not biologically related to the child. For instance, just as surrogacy contracts may establish a genetic father and a putative adoptive father as legal parents to the exclusion of a third-party gestational mother, such contracts could also establish both men and the gestational mother as legal parents.

A. Utilizing SCNT and Stem Cell Technology to Achieve Multiple Parentage and the Growing Acceptance of Multiple Parentage

In the future, SCNT and stem cell technologies could allow multiple individuals to contribute genetically to a child.⁸⁷ This process was successfully used in 2010 in monkeys,⁸⁸ and similar technologies have been used to create human embryos, though no human babies were produced.⁸⁹ To create a child with genetic material from up to three men and three women, two early stage embryos are injected into the inner mass of a more mature, seven-day-old pre-implanted embryo. That embryo then contains genetic information from six parents (two parents from each of the early embryos and two from the mature embryo).⁹⁰ There are various reasons why an individual or couple would seek to utilize this technology, such as the health benefits of genetic diversity or the perceived aesthetic benefits of ethnic diversity.

The use of SCNT and stem cell technologies to produce a child with multiple parents, such as a child with the genetic material of three men and three women, raises a unique quandary—how to determine which of these individuals should be deemed the child’s legal parents when no one party has a superior genetic claim to any other and there are no simple gradations of parental paradigms for the court to rely on. This technology also poses a challenge to the bionormative family structure. When a claim based on genetic consanguinity comes into conflict with the bionormative conception of the family, the bionormative model traditionally takes precedence. For instance, in *Michael H. v. Gerald D.*, the Supreme Court held that a state may deny a biological father parental rights to a child he fathered with the wife of another man and uphold the presumptive parental rights of the wife’s hus-

FAMILY ADVOCACY 39, 59–66 (2013) (advocating the use of contract law to delineate the rights and obligations of various parties to a surrogacy agreement).

⁸⁷ Various scenarios in which a person might want to utilize this technology will be discussed in Part III.B.

⁸⁸ Masahito Tachibana and his team have managed to successfully generate monkeys containing DNA from six distinct lineages. See Ben Gruber, *World’s First Chimeric Monkeys Are Born*, REUTERS, Jun. 7, 2012, available at <http://www.reuters.com/video/2012/06/07/worlds-first-chimeric-monkeys-are-orn?videoId=228031877&videoChannel=2602>, archived at <http://perma.cc/OLVqrBtTQup>.

⁸⁹ See Nicky Phillips, *Scientists Grow Embryos from Three Adults*, THE SYDNEY MORNING HERALD, Oct. 25, 2012, <http://www.smh.com.au/technology/sci-tech/scientists-grow-embryos-from-three-adults-20121025-286fv.html>, archived at <http://perma.cc/0gewnFdXs2d>.

⁹⁰ See *supra* note 88.

band.⁹¹ Where, however, there are numerous and equal genetic contributors, none of whom are married to the gestational mother, the bionormative model is of little help in determining parentage.

In light of the long history of the bionormative family structure, it is not surprising that courts have been hesitant to validate the legal claim of a third parent, let alone a fourth or fifth parent. Indeed, no state legislature or court has authorized more than three individuals to serve as legal parents with full and equal legal rights and obligations.⁹² However, as stated, several cases have granted legal parent status to a third person, either to permit the collection of child support from a third party where the mother has divorced and remarried, or to establish two primary legal parents and one parent with visitation rights where the third parent has had a significant relationship with the child.⁹³ Further, a small number of courts have recognized three-parent family structures in a more holistic manner.⁹⁴ The caselaw in this area, however, is quite sparse. There has also been a call in the academic literature for greater legal recognition of multiple parentage. These articles note the growing prevalence of nontraditional family structures and, generally speaking, argue for the legal recognition of a third parent (or even more parties in some cases).⁹⁵ One scholar has even observed that:

⁹¹ 491 U.S. 110, 113–32 (1989).

⁹² See ELIZABETH MARQUARDT, *ONE PARENT OR FIVE? A GLOBAL LOOK AT TODAY'S NEW INTENTIONAL FAMILIES* 47–48 (2011) (discussing and criticizing the possibility of a child having four parents).

⁹³ See, e.g., *Smith v. Cole*, 553 So.2d 847, 854–55 (La. 1989); *State ex rel. J.R. v. Mendoza*, 481 N.W.2d 165, 174–76 (Neb. 1992); *Geen v. Geen*, 666 So.2d 1192, 1197 (La. 1995); *Jacob v. Schultz-Jacob*, 923 A.2d 473, 482 (Pa. Super. Ct. 2007); *Thomas S. v. Robin Y.*, 618 N.Y.S.2d 356, 362 (N.Y. App. Div. 1994).

⁹⁴ See Nancy D. Polikoff, *This Child Does Have Two Mothers: Redefining Parenthood to Meet the Needs of Children in Lesbian-Mother and Other Nontraditional Families*, 78 GEO. L.J. 459, 522–23 (1990) (discussing *In re Adoption of A.O.L.*, No. 1JV-85-25-PIA (Alaska Super. Ct. July 23, 1985), in which an adoption order explicitly left the child with three legal parents: two mothers, who primarily raised her, and a father, who had some limited contact with her); *LaChappelle v. Mitten*, 607 N.W.2d 151, 160 (Minn. Ct. App. 2000); *Jacob*, 923 A.2d at 481–82; *A.A. v. B.B.* (2007), 83 O.R. 3d 561, 563, 575 (Can. Ont. C.A.) (an Ontario court establishing three legal parents).

⁹⁵ See Althouse, *supra* note 79, at 191–208 (calling for recognition of third social parents in same-sex headed families); Elizabeth Bartholet, *Guiding Principles for Picking Parents*, 27 HARV. WOMEN'S L.J. 323, 337–44 (2004) (contending that the best interest of the child is the primary consideration in assigning parentage); Naomi Cahn, *The New Kinship*, 100 GEO L.J. 367, 382–86 (2012) (explaining how children of donors may feel kinship bonds with their extended genetic families); Nancy E. Dowd, *Multiple Parents/Multiple Fathers*, 9 J.L. & FAM. STUD. 231, 243–63 (2007) (arguing for a model of parenthood in which primary parents coparent with secondary parents); Charo, *supra* note 80, at 251 (asking courts to “toss out the legal fictions and acknowledge . . . what has already happened in the physical world” by recognizing multiple types of parents); Melanie B. Jacobs, *Why Just Two? Disaggregating Traditional Parental Rights and Responsibilities to Recognize Multiple Parents*, 9 J. L. FAM. STUD. 309, 325–39 (2007) [hereinafter Jacobs, *Why Just Two?*] (making the case for recognizing more than two parents in families who use ARTs); Melanie B. Jacobs, *My Two Dads: Disaggregating Biological and Social Paternity*, 38 ARIZ. ST. L.J. 809, 851–56 (2006) (proposing a scheme of “relative rights” that would allow multiple men to serve as fathers to preserve the best interests of the child); Alison H. Young, *Reconceiving the Family: Challenging*

[L]aw does not presently conceptualize parenthood as a comprehensive and indivisible monolith, but rather as a mosaic capable of division and subdivision even in the ordinary case. And with so many discrete elements of “parenting” listed, a plan could easily accommodate two, three, or more parents.⁹⁶

Model laws and certain state statutes also appear to permit legal recognition of multiple parents in certain circumstances. As noted by Melanie Jacobs, the American Law Institute’s suggestion of multiple categories of parents: legal parents, parents by estoppel, and de facto parents, “opens the door to multiple parents.”⁹⁷ Similarly, Nancy Polikoff has argued that Washington, D.C.’s recognition of de facto parents “could result in three parents for a child.”⁹⁸

It is evident, therefore, that there has been both a growing movement for legal recognition of multiple parentage and limited acceptance of multiple parentage under a narrow range of circumstances.⁹⁹ If this movement is successful in achieving greater legal recognition of the parental claim of three or even four parties, the law would possess the necessary tools to recognize the claims of a larger number of parents. Put differently, if the law recognized the parental claim of a gestational mother, an egg donor, and a sperm donor, the law could also recognize an additional sperm donor and egg donor. At the very least, these additional parties could be viewed as social parents with a narrower set of rights and obligations. Nevertheless, even if the law recognizes these individuals as parents, there remains the question of how the law should recognize them—should it be based on a model of de facto parentage determined after the child is born (i.e. social parentage based on the actions taken by the various parties during the pregnancy or after the birth of the child), a post-birth enforcement of a surrogacy contract, a pre-birth parentage order or judicially preauthorized surrogacy contract based on the intention of the parties, or some combination of these factors?

B. The Limitations of Non-Contractual Models of Multiple Parentage

SCNT and stem cell technology could be used to achieve multiple parentage in various scenarios. Some such scenarios pose simple parentage questions, because they involve anonymous, disinterested and/or a more limited number of parties. One such scenario would be where a woman (or a

the Paradigm of the Exclusive Family, 6 AM. U. J. GENDER & L. 505, 515–18, 539–54 (1998) (arguing that though core parents should be specifically recognized, supplementary family members should be legally recognized).

⁹⁶ Susan Frelich Appleton, *Parents by the Numbers*, 37 HOFSTRA L. REV. 11, 25 (2008).

⁹⁷ Jacobs, *Why Just Two?*, *supra* note 95, at 323.

⁹⁸ Polikoff, *supra* note 34, at 245.

⁹⁹ *See id.*

couple) utilizes anonymous sperm and egg donors to create a child with multiple genetic contributors. The rationale behind this scenario could be that the woman (or couple) would like to create a genetically or ethnically diverse child. As the law currently stands, in most states, the anonymous donors would likely have no parental rights to the resulting child.¹⁰⁰ Another possibility is that a woman (or couple) might want a child to possess the preserved genetic material of a deceased spouse or a relative who is unable to procreate. Producing a child with multiple genetic contributors under these circumstances would not pose a particularly difficult multiple parentage question. Where the donors are anonymous, they would likely have no legal rights, and where there is only one other donor such as a relative, the only legally cognizable parent would be the gestational mother and perhaps her husband or another third party based on the marital presumption or functional notions of *de facto* parentage.

In a more complicated scenario, a group of people would jointly decide to create a child with whom they all share a genetic link and where all the parties intend to raise the child together in a communal setting.¹⁰¹ All the donors would be known to each other and would possess the intent to act as parents. This scenario presents a fascinating iteration of multiple parentage because it raises a series of pragmatic challenges. As the number of parties grows, establishing the parental responsibilities and benefits of the various parties necessarily becomes more difficult—with a concomitant increase in the likelihood of litigation. The parties might live in different homes, make different amounts of money, be of different ages, or have different educational, social, and religious values, potentially rendering parental decision-making a laborious process fraught with dispute. A large number of parents also presents a problem if one of the parents decides he or she no longer wishes to be a communal parent and simply stops contributing financially and otherwise to the well-being of the child. What rights would one party have against another party? Additionally, it is possible that only four (or some other number) of the parents would actually intend to serve as parents and the other two would intend simply to act as donors. How could the four parents ensure that the two donors could not later assert parental claims based on their biological connection to the child?

Traditional parental paradigms, such as biology and the bionormative marital presumption, fail to address these challenges. If a court were to rely simply on biology, then six parties would have equal parental rights and

¹⁰⁰ See Fiser & Garrett, *supra* note 38, at 14 n.66 (listing states whose laws dictate that sperm donors have no legal rights or duties with respect to children born through artificial insemination); UNIF. PARENTAGE ACT § 702 (Unif. Law Ctr. 2000) (amended 2002) (stating that a reproductive donor is not a legal parent).

¹⁰¹ For seminal articles that argue for recognition of multiple parentage in different communal settings, see, for example, Matthew M. Kavanagh, *Rewriting the Legal Family: Beyond Exclusivity to a Care-Based Standard*, 16 YALE J.L. & FEMINISM 83, 115–43 (2004); King, *supra* note 11; Young, *supra* note 95, at 515–18, 539–54.

obligations with respect to a child, even if the parties did not necessarily intend that consequence. The parties may have intended for two of the biological parents to be primary parents, undertaking the bulk of the obligations and enjoying most of the benefits, while the other four parents would serve as secondary parents in a more limited social capacity. A reliance on biology alone would preclude this possibility. Moreover, as stated, there are various practical reasons why the law should not simply accord equal parental rights to six individuals based solely on biological connection.

Furthermore, a reliance on functionalism and notions of *de facto* parentage might create uncertainty and instability. Until one of the parties either asserted a parental claim or contested the claim of another party, there would be no way to formally delineate the rights and obligations of the parties, increasing the likelihood of future litigation and disagreement. Even more problematic is the fact that establishing legal parenthood in this way would require courts to delve into the roles, relationships, and intentions of the various parties—an invasive process that might ultimately result in a family structure that is far different than what was originally contemplated by the parties and lead to years of litigation and uncertainty.

Relying on notions of *de facto* parenthood can also lead to contentious litigation and requires courts to delve inappropriately into the hearts and minds of the parties. For instance, in a 2006 Massachusetts case, *A.H. v. M.P.*, a lesbian couple decided that one of the women would bear a child through *in vitro* fertilization, with sperm from an anonymous donor.¹⁰² The plaintiff, who was not biologically related to the child and did not gestate the child, held herself out as one of the child's parents; she listed herself as a parent on the fertility clinic forms, attended prenatal appointments, attended parenting classes, and planned to be called "mama" by the child. After the child's birth, the plaintiff took two months of maternity leave, supported her partner and the child, and was involved in various caretaking activities. Further, the trial court found that the parties had agreed to parent jointly. Thereafter, the couple separated and the plaintiff sought joint legal and physical custody, resulting in:

more than three years of legal proceedings, including, among other things, the filing of more than fifty motions, most substantive; dozens of motions hearings; two interlocutory appeals; the filing of a complaint for contempt; the imposition of sanctions; an eleven-day trial; and an appeal to a single justice of this court.¹⁰³

After examining in detail the trial court's factual findings concerning the parental contributions of each party, the court affirmed the trial court's determination that the plaintiff could not establish herself as a *de facto* par-

¹⁰² 857 N.E.2d 1061, 1065 (Mass. 2006).

¹⁰³ *Id.* at 1068.

ent, in part because she did not engage in sufficient caretaking activities.¹⁰⁴ Similarly, the court found that the plaintiff could not rely on parenthood by estoppel, noting that “the parent by estoppel principle is a most dramatic intrusion into the rights of fit parents to care for their child as they see fit.”¹⁰⁵ Lastly, the court found that the parties’ agreement to serve as joint parents was suggestive of their intent, but not dispositive.¹⁰⁶

As this case shows, there are a number of reasons why this model of parentage may be impractical from a legal standpoint. For one, *de facto* parentage has typically been advocated for in the context of establishing a third social parent. Where six parties are all vying for parental rights it would be pragmatically difficult for the court to identify the role of each party with respect to the child and to craft a family structure that takes into account the interests of such a large number of individuals. In addition, relying on fact-driven notions of *de facto* and social parenthood is unnecessary and inefficient when the parties can simply state in advance what family structure they would like to create. In the same vein, for the sake of the best interest of the child, the state might want to prospectively ensure that the child experiences a measure of stability in this unconventional and historically untested living situation. If the parents decide that the child should sleep in a different home every night and each parent teaches a conflicting moral, cultural, or religious ideology, for instance, it might be detrimental to the child’s development. The functional approach makes it difficult for the state to prospectively ensure that a child is born into a stable environment.¹⁰⁷

In the next section we suggest that intentional parenthood is a viable solution to many of the challenges presented by multiple parentage generally, and specifically where there are larger numbers of parents. We begin with a discussion of the general normative benefits of intentional parenthood and then discuss the specific application of intentional parenthood to multiple parentage in the context of SCNT and stem cell technology.

C. Intentional Parenthood as a Normative Basis for Determining Legal Parenthood

While multiple parentage in the context of ARTs raises various pragmatic concerns and presents a challenge to traditional models of legal parentage, it also creates an increased opportunity to prospectively delineate the rights and obligations of the parties through intentional parenthood. Numerous articles have been written addressing the normative benefits of utilizing intentional parenthood in the context of ARTs and non-bionormative family

¹⁰⁴ *Id.* at 1073.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 1074.

¹⁰⁷ For an argument for and discussion of the general superiority of intentional parenthood over the functional model, see generally Storrow, *supra* note 84.

structures.¹⁰⁸ The paradigm of intentional parenthood is largely premised on incorporating contract law and its principles of agency and self-determination into family law. These principles have particular cross-appeal in the context of multiple parentage because when a child is born by way of in vitro fertilization with multiple genetic contributors, the choice to create that child is clear, bargained-for, and deliberate, thereby permitting the memorialization of that intent in a contract.¹⁰⁹ A group of individuals seeking collectively to create and co-parent a child could not do so accidentally or spontaneously. Instead, it would require a series of decisions and intentional actions. The individuals would have to decide that they wanted to create and parent a child collectively, a decision likely requiring significant thought and discussion. They would then have to decide whether one of the women who intended to parent the child would also gestate the baby or whether they would use a gestational surrogate. Creating a child through this complex medical procedure would require the investment of significant emotional and financial resources. At each step of this process there are distinct manifestations of the intent of the parties, which can be harnessed to address some of the concerns and difficulties raised by multiple parentage.

Moreover, much as in the context of traditional ARTs, the use of intent in determining parenthood for users of advanced ARTs addresses many of the problems left unsolved by traditional parental paradigms. If the potential parents entered into a judicially pre-authorized contract contemplating their rights and obligations, a court could prospectively ensure that the agreement contemplated certain basic issues, such as financial support for the child. It would also force the parties to grapple with difficult issues in advance, including shared custody, decision-making authority, and financial support, instead of litigating these issues after the fact, thereby preventing significant emotional turmoil for the child.¹¹⁰ Furthermore, the contract could contemplate varying levels of parental rights. For instance, two of the parties could contract to be the primary legal parents with full financial obligations and decision-making authority while four of the parties could contract for reduced parental rights such as limited visitation.

Lastly, intentional parenthood would obviate the need for the court to determine, after the fact, the rights and obligations of the parties based on imprecise and fluid notions of *de facto* parentage. For instance, in the case of *A.H. v. M.P.*, discussed in Part III.B, had the parties been required to delineate their intent in a contract, and negotiate and discuss their rights and obligations prospectively, the court could have relied on that contract as

¹⁰⁸ See sources cited *supra* note 11.

¹⁰⁹ See, e.g., Purvis, *supra* note 8, at 227; Shultz, *supra* note 11, at 323.

¹¹⁰ The exact scope and contours of judicial review of a multiple-parentage contract is beyond the scope of this article. Instead we argue, broadly, that such a contract would achieve valuable normative goals. Nevertheless, a court tasked with preauthorizing such a contract should certainly be required to take into account notions such as proper caregiving and financial support.

evidence of their intent, instead of making an ex post factual determination.¹¹¹ Accordingly, we propose that the law require that individuals seeking to use ARTs to create multiple parent family structures, particularly in the case of family structures that contemplate four or more parents, enter into a preauthorized surrogacy contract in which they delineate the rights and obligations of the various parties.

CONCLUSION

SCNT and stem cell technologies are still in their infancy and, due to ethical and public policy concerns, may not be used in humans to create children for many years, if ever. Nevertheless, exploring the future trajectory of reproductive technology helps paint a fuller picture of how parentage law should interact with ARTs. Examining the crucial role of intent where a child has multiple biological parents demonstrates that validating the intent of the parties should play a larger role in the more common surrogacy context of three biological parents. Conversely, the possibility that, in the future, a same-sex couple could create a child with whom they both share a biological connection without a third party, demonstrates that parentage law in the context of ARTs is not on an inexorable path toward a pure model of intentional parenthood. It can still incorporate biological considerations.

If, however, these technologies are used to create children in the future, we argue that, where the biological paradigm is insufficient to validate the claim of a same-sex couple utilizing SCNT and stem cell technology, or where multiple individuals intend to be the parents of a child, the parties enter into a pre-authorized surrogacy contract expressing their intent to be parents as well as the rights and obligations of the parties. The benefits of using contractual/intentional parenthood in traditional ARTs are also present in the context of advanced ARTs. Intentional parenthood and contractual ordering conform to liberal notions of human agency and procreative rights.¹¹² Thus, intentional parenthood in the context of ARTs conforms to modern principles of equality and would permit a larger number of people to serve as legal parents.¹¹³ Moreover, if parties delineated their rights and obli-

¹¹¹ 857 N.E.2d 1061 (Mass. 2006).

¹¹² See, e.g., Christine L. Kerian, *Surrogacy: A Last Resort Alternative for Infertile Women or a Commodification of Women's Bodies and Children?*, 12 WIS. WOMEN'S L.J. 113, 158 (1997) ("Liberal feminists support reproductive choice and freedom to contract. Women should be able to choose among the various reproductive alternatives, provided they do not harm anyone in the process.").

¹¹³ For variants of this argument, see Katharine K. Baker, *Bargaining or Biology? The History and Future of Paternity Law and Parental Status*, 14 CORNELL J.L. & PUB. POL'Y 1, 41-43 (2004) ("[C]ontract theory and doctrine provide a superior framework for determining parental status than the current regime."); King, *supra* note 11, at 331-33, 346-47, 358; Storow, *supra* note 84 (arguing that in the context of collaborative reproduction, parental status should be assigned by written agreement to the intentional parents); Swift, *supra* note 11, at 954-57 (proposing a system in which courts determine parentage with reference to the best interests of the child, but grant the same status to

gations and established in advance who would be a parent's child, it would reduce the possibility of future acrimony and litigation. Indeed, if the primary legal challenge of ARTs is the existence of a third-party parental claimant, a prospective contract soundly addresses that challenge before it materializes.

Furthermore, a greater reliance on freedom of contract in this arena furthers various societal interests, such as increasing individual autonomy, fostering personal responsibility, encouraging feelings of self-fulfillment, and promoting responsible and purposeful parenting.¹¹⁴

An individual who intends to be a parent and contributes emotionally and financially to the creation of a child will likely be a better parent to that child than a biologically related parent who has no interest in creating or raising a child.¹¹⁵ Accordingly, while advanced ARTs may, in the future, permit greater reliance on the biological paradigm, for the foreseeable future, intentional parenthood remains the best model for determining parenthood with respect to both two-parent and multiple parent families.

contractual parents as to biological parents in the inquiry); *but see* Sanja Zgonjanin, *What Does It Take to be a (Lesbian) Parent? On Intent and Genetics*, 16 HASTINGS WOMEN'S L.J. 251, 270–76 (2005) (criticizing as “heterosexist” a California court’s use of an intent-based standard to deny parental rights to a lesbian egg donor who separated from her partner, who gestated the child).

¹¹⁴ See Shultz, *supra* note 11, at 303, 323.

¹¹⁵ See Susan Frelich Appleton, “Planned Parenthood”: *Adoption, Assisted Reproduction, and the New Ideal Family*, 1 WASH. U. J.L. & POL’Y 85, 88 (1999) (describing how “planned parenthood” has come to be an emerging ideal in law and policy); Susan Golombok, Rachel Cook, Alison Bish & Clare Murray, *Families Created by the New Reproductive Technologies: Quality of Parenting and Social and Emotional Development of the Children*, 64 CHILD DEV. 285, 296 (1995) (study finding that a strong desire for parenthood is more relevant to good family functioning than genetic ties); Anne Reichman Schiff, *Solomonic Decisions in Egg Donation: Unscrambling the Conundrum of Legal Maternity*, 80 IOWA L. REV. 265, 281 (1995). For discussion about how freedom to contract interacts with preserving the best interests of the child and his parents, see generally Susan B. Apel, *Cryopreserved Embryos: A Response to “Forced Parenthood” and the Role of Intent*, 39 FAM. L.Q. 663, 663, 680 (2005) (arguing that although intent should play a role in parentage determinations, the doctrine should not be used to deny a child a father on the basis that he—a sperm donor—contracted his parental rights away); Brian Bix, *Domestic Agreements*, 35 HOFSTRA L. REV. 1753, 1771 (2007) (arguing that the state should make more room in family law for enforceable agreements).

