

January 1986

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E. D. Shapiro, *New Innovations in Conception and Their Effects Upon Our Law and Morality*, 31 N.Y.L. SCH. L. REV. 37 (1986).

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NEW INNOVATIONS IN CONCEPTION AND THEIR EFFECTS UPON OUR LAW AND MORALITY

E. DONALD SHAPIRO*

In his article "Health Law Comes of Age: Economics and Ethics in a Changing Industry,"¹ a review of the book *Law, Medicine & Forensic Science*,² Clifford Stromberg³ said this about the development of health law in the United States:

Health law is booming. This field of legal practice hardly existed twenty years ago; it is now becoming one of the more important legal specialties. Until recently, practice in the "medico-legal" field was largely limited to the defense of hospitals and physicians in malpractice actions and to occasional issues in criminal law. Today, "health law" is a diverse and burgeoning enterprise. . . .

These developments reflect the dynamic growth of the health industry. Health care is now the nation's third largest industry (after construction and agriculture), with national health expenditures that exceeded \$280 billion in 1981. Health costs have leaped from about 4.0 percent of our gross national product in 1960, to 5.9 percent in 1970, and to 9.8 percent in 1981. Health care constitutes about one-third of the service sector and is the fastest growing portion of this fastest growing sector of our economy.⁴

Since the time of Mr. Stromberg's excellent article, health care has

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I am especially grateful to Benedene Sonnenblick, who labored long and hard with me on the legal research for this article.

1. Stromberg, *Health Law Comes of Age: Economics and Ethics in a Changing Industry* (Book Review), 92 YALE L.J. 203 (1982).

2. W. CURRAN & E.D. SHAPIRO, *LAW, MEDICINE & FORENSIC SCIENCE* (3d ed. 1982). The book serves as a guide for both practitioners and students in the health professions and law, coordinating a useful array of materials not usually accessible to lawyers beginning work in the health field, including a description of the hospital industry, a glossary of medical terms, sample medical reports, typical hospital forms, professional codes of ethics, and medical journal writings. *Id.*

3. A partner at the firm of Hogan & Hartson in Washington, D.C., formerly Deputy Executive Secretary, U.S. Department of Health and Human Services, and consultant on health law and policy to the Federal Trade Commission.

4. Stromberg, *supra* note 1, at 203.

continued its innovative and economic pace. In 1984, the industry accounted for 10.6% of the gross national product with health costs exceeding \$387.4 billion.⁵ This rapid growth is due in large part to the rapid evolution of medical science into areas undreamed of less than a decade ago, e.g., *in vitro* fertilization, embryo transfer, artificial hearts and organs, and genetic engineering. Health law is indeed among the most exciting legal specialties because it is constantly changing to keep pace with the rapid changes in medical technology. For example, medical scientists are now revolutionizing the very techniques by which life itself is reproduced. With the help of various laboratory techniques, couples who were unable to reproduce the "old fashioned" way are now becoming parents. These new changes in scientific knowledge have created a new legal frontier, which must cause a transformation and a restructuring of our traditional rules and ethics on the subject of birth if they are to have current relevancy.

When does life begin? The Roman Catholic Church has traditionally defined the beginning of life to be at conception.⁶ The view of a great many eminent Protestant theologians apparently is that life begins at birth⁷ while many traditional Protestant theologians agree with the Roman Catholic Church. The predominant view of the Jewish faith is that human life becomes inviolable and of equal value to the life of the mother when, in birth, the "greater part of the body" (in some views, this means the head) has emerged from the birth canal.⁸

The United States judiciary has expressly declined to grapple with the life issue. In the controversial *Roe v. Wade*⁹ decision, the United States Supreme Court wrote that "[w]hen those trained in the respective disciplines of medicine, philosophy, and theology are unable to arrive at any consensus, the judiciary, at this point in the development of

5. *Growth in Spending on Health Care Slows to 9.1%*, N.Y. Times, Aug. 1, 1985, at A15, col. 1.

6. See Noonan, *Legal and Historical Perspectives*, in *THE MORALITY OF ABORTION* 51 (J. Noonan ed. 1970) (tracing the historical development of the abortion issue, thereby introducing the subsequent articles in the book, which include discussions of the Protestant ethical approach, a theological evaluation, schemes of abortion regulation, and the constitutional ramifications of the abortion issue). For a helpful synopsis of the views of the Catholic religion, see COUNCIL FOR SCIENCE AND SOCIETY, *HUMAN PROCREATION—ETHICAL ASPECTS OF THE NEW TECHNIQUES* (1984) (reviewing the abortion issue from Catholic historical, moral, and biblical perspectives) [hereinafter cited as *HUMAN PROCREATION*].

7. See *Roe v. Wade*, 410 U.S. 113, 160 (1973).

8. I. JAKOBOVITS, *JEWISH MEDICAL ETHICS: A COMPARATIVE AND HISTORICAL STUDY OF THE JEWISH RELIGIOUS ATTITUDE TO MEDICINE AND ITS PRACTICE* (1959). For a slightly more liberal view, see D. FELDMAN, *BIRTH CONTROL IN JEWISH LAW* 251-94 (1968).

9. 410 U.S. 113 (1973) (due process clause of the fourteenth amendment protects a woman's qualified right to terminate her pregnancy).

man's knowledge, is not in a position to speculate as to the answer."¹⁰

At one time, the absence of a universally accepted determination of when life begins had little effect upon the law¹¹ and our behavior because the science of reproduction remained virtually constant. From the ancient Roman *Lex caesarea*¹² after which the cesarian section¹³ was named, few scientific advancements had occurred in this area. In the past few decades, however, reproductive breakthroughs have been coming in rapid succession. Thus, the unanswered question of when life begins may present an insurmountable hurdle to the legal world in defining the rights and duties of the unborn child, its parents, and the scientists responsible for its creation.¹⁴ These procedures also command a re-evaluation of ethical and religious attitudes toward birth itself.¹⁵

10. *Id.* at 159.

11. This is not true for the law of property. In 1762, Lord Blackstone, when called upon to determine the property rights of the unborn child, wrote: "An infant . . . in the mother's womb, is supposed in law to be born for many purposes. It is capable of having a legacy . . . made to it . . . [I]t is able to have an estate . . . as if it were then actually born." 1 W. BLACKSTONE, COMMENTARIES *130; see also Shaw & Damme, *Legal Status of the Fetus*, in GENETICS AND THE LAW 3 (1976) (examination of the historical framework of legal questions involving the rights and interests of the fetus).

12. *Lex caesarea* is an ancient Roman law that required dying women to be operated on during the last weeks of pregnancy in order to save the fetus. 6 ENCYCLOPEDIA AMERICANA 204-05 (1985).

13. Contrary to popular belief, the cesarian section was not so named because it was the procedure by which Julius Caesar was born. There is no contemporary literature indicating that Caesar was born by this method. The operation itself is performed by making an incision through the abdominal and uterine walls to facilitate delivery of a fetus. DORLAND'S ILLUSTRATED MEDICAL DICTIONARY 1184 (26th ed. 1985). The procedure was included in the codification of Roman law in 715 B.C., as a means of salvaging a fetus, if living, or of providing for its separate burial, in the event of the mother's death. *Id.*

14. See HUMAN PROCREATION, *supra* note 6, at 1-11. The introduction to this lengthy and comprehensive article on the ethical, legal and social aspects of the techniques of human procreation raises a wide variety of questions surrounding the ultimate issue of whether one can put "this new knowledge to good effect in the human species without invading or eroding that high concept of human personality, its sacredness, which has been the supreme product of human self-awareness." *Id.* at 1.

15. This has been the subject of world-wide debate. See, e.g., Armstrong, *Baby-Making in the Lab: Ethics and Law Need to Catch Up with Science*, CHRISTIAN SCI. MONITOR, June 26, 1984, at 21 (raises issues involved in the debate over how far man should go in manipulating human life in the laboratory and stresses the need for society to examine the ethical and legal ramifications in light of the technological imperative); Friedman, *A Legal, Moral, Social Nightmare: Society Seeks to Define the Problems of the Birth Revolution*, TIME MAG. Sept. 10, 1984, at 54 (highlights cases that demonstrate the legal confusion precipitated by the tremendous surge of scientific technology in the area of artificial insemination and selective breeding, and examines the legal controversy surrounding legislative attempts to deal with these legal uncertainties); HUMAN PROCREATION, *supra* note 6 (deals extensively with the medical technology and the social, ethical

The procedures of artificial insemination, *in vitro* fertilization, surrogate motherhood, embryo transfer, artificial embryonation, and embryo adoption have been developed in large part to meet the insatiable demand for infants, due to the debilitating effects of the increasing unavailability of "desirable" infants for adoption¹⁶ and the recent epidemic of infertility.¹⁷ Infertility is defined as one year of unprotected coitus without conception.¹⁸ In both Great Britain and the United States, an estimated ten to fifteen percent of all married couples are infertile.¹⁹ Medical studies indicate that forty percent of infertility is attributable to male causes, fifteen percent to cervical causes, ten percent to uterine causes, thirty percent to tubal and peritoneal causes, twenty percent to ovarian causes, and five percent to miscellaneous causes.²⁰ This estimate, however, may be well below the actual percent-

and legal issues faced by children, parents, and society, and includes a summary of the major conclusions of the researchers); *Infertility: The Great Debate*, STANFORD MAG., Winter 1984, at 28 (editor-monitored debate among a panel of Stanford University professors who gathered to grapple with the dilemmas raised by alternative reproductive techniques; the discussion centers around a recommendation to put a 14-day limit on experimentation with embryos, and the editors elicit suggestions for legal and political guidance to scientists); Wadlington, *Artificial Conception: The Challenge for Family Law*, 69 VA. L. REV. 465 (1983) (examines current artificial conception practices and the problems they generate, and analyzes existing substantive law and areas of potential modification either to accommodate or to discourage artificial conception practice); Comment, *Love's Labor Lost: Legal and Ethical Implications In Artificial Human Procreation*, 58 U. DET. J. URB. L. 459 (1981) (evaluates the present state of the law of artificial insemination and *in vitro* fertilization, the scientific and religious opposition to these techniques, and presents some solutions to the problems raised by cloning).

16. According to Professor Walter Wadlington, the shortage of available infants may be due to the "legal availability of abortion and contraceptives; diminished social and legal stigma accompanying illegitimacy; recognition of constitutional limits on legal discrimination predicated on illegitimate status; greater economic opportunity and child care services for some women; and changing male attitudes about child-raising roles." Wadlington, *supra* note 15, at 466-67.

17. Kramer, *Last Chance Babies: The Wonders of In Vitro Fertilization*, N.Y. MAG., Aug. 12, 1985, at 34 ("Among women 20-24 years old, the group that delivers a third of the nation's babies, the infertility rate has nearly tripled since 1965. Smoking, over-exercise, pollution, alcohol, contraceptives, infections, drugs taken for other ailments, and drugs taken for fun—all of these and more are to blame, individually and in combination."). This article examines both the business and science of making babies, focusing in part on the Norfolk, Virginia General Hospital, where America's first *in vitro* child was born in 1981. *Id.*

18. L. SPEROFF, R. GLASS & N. KASE, *CLINICAL GYNECOLOGICAL ENDOCRINOLOGY AND INFERTILITY* 467 (1984).

19. *Id.* (estimating infertility in the United States to be ten percent); cf. L. ANDREWS, *NEW CONCEPTIONS* 2 (1984) (referring to surveys done by the National Center for Health Statistics in the United States, estimating infertility to be between ten and fifteen percent). The estimated percentage of infertile married couples in England appears in *HUMAN PROCREATION*, *supra* note 6, at 13.

20. Shane, Schiff & Wilson, *The Infertile Couple: Evaluation and Treatment*, 28

age of couples trying to conceive because it includes only those married couples who have tried unsuccessfully to conceive in the past year. It does not include those couples who have not tried to conceive and therefore do not know that they are infertile,²¹ and it does not include unmarried men and women.

The procedure (or procedures) an infertile couple may choose to undergo depends upon the cause of infertility, the couple's needs, and their resources. Of course, unmarried couples who wish to have children are equally susceptible to infertility problems and may choose to utilize one of the procreative methods, but for the purposes of this paper, and for clarity in discussion of the various techniques, I will assume that the infertile couple is a married couple and I will refer to its members as "the wife" and "the husband" and to the fertile donor of sperm, ova, or womb as "the donor."

The oldest of the "unnatural" reproductive techniques, which actually began centuries ago, is artificial insemination.²² It is said that the first successful artificial insemination occurred in the 14th century when an Arab mare was impregnated with the semen of a stallion.²³ The first recorded successful human artificial insemination was performed in England in 1790 by a surgeon named John Hunter.²⁴ This new practice was slow to be accepted in the United States. It was not until nearly a century later, in 1866, that an American physician named Marion Simms proved successful with human artificial insemination.²⁵ Instead of receiving praise worthy of his accomplishment, however, his actions were looked upon by the public with utter disdain. The community's deep-seated religious and moral scruples about the very idea of a woman becoming pregnant in such an unnatural manner forced Simms to abandon his experimentation.²⁶

Nowadays, more than 20,000 babies in the United States and 2,000 to 4,000 babies in the United Kingdom per year are born as a result of artificial insemination.²⁷ The procedure is quick and uncomplicated. A

CLIN. SYMP. 5, 8 (1976).

21. L. ANDREWS, *supra* note 19, at 2.

22. See generally *id.* at 159-96 (discussing numerous aspects of artificial insemination); *id.* at 229-302 (listing, in bibliographical form, sources dealing with artificial insemination); Wadlington, *Artificial Insemination: The Dangers of a Poorly Kept Secret*, 64 NW. U.L. REV. 777 (1970) (discussing legal aspects of artificial insemination); W. FINEGOLD, *ARTIFICIAL INSEMINATION* (1976) (discussing many aspects of artificial insemination).

23. S. KLING, *SEXUAL BEHAVIOR AND THE LAW* 59-60 (1965).

24. W. FINEGOLD, *supra* note 22, at 6.

25. S. KLING, *supra* note 23, at 60.

26. *Id.*

27. See Andrews, *The Stork Market: The Law of the New Reproduction Technologies*, A.B.A. J., Aug. 1984, at 50. Between 2,000 and 4,000 births resulting from artificial insemination take place annually in the United Kingdom. See HUMAN PROCREATION,

donor sperm is inserted into a woman's vagina near her uterus by means of a syringe. Artificial insemination can be provided in one of three ways: one, with the sperm of the husband as donor ("AIH"); two, with the sperm of a third party donor ("AID"); and three, with a mixture of sperm from both the husband and the third party donor ("AIC"—which stands for "confused" or "combined" artificial insemination). The third method, which was more popular about ten years ago²⁸ than it is now, resolves some emotional and legal questions since there is no way to determine the identity of the sperm.²⁹ It gives the husband some emotional satisfaction in the belief that he may be the natural father of the child. It also eases the physician's fear of committing perjury by listing the husband as the father on the birth certificate. Last, it strengthens the already almost irrebuttable judicial presumption that the husband is the natural father of a child born during his marriage.³⁰

Until the mid 1960's, no state had legislation on artificial insemination. Currently, twenty-seven states have statutes dealing with the issue,³¹ which generally require the written consent of both the "husband" and "wife" and provide that the "husband" will be considered the legal father. Two states expressly deny any paternity rights to a third party donor.³² Records must generally be kept confidential and must be filed with the state department of health. In many instances,

supra note 6, at 14.

28. See Wadlington, *supra* note 15, at 469 (citing Curie-Cohen, Lutrell & Shapiro, *Current Practice in Artificial Insemination by Donor in the United States*, 300 NEW ENG. J. MED. 585, 587 (1979)).

29. W. CURRAN & E.D. SHAPIRO, *supra* note 2, at 932.

30. See Wadlington, *supra* note 15, at 469.

31. ALA. CODE § 26-17-21 (1985); ALASKA STAT. § 26.20.045 (1983); ARK. STAT. ANN. § 61-141(C) (1971); CAL. CIV. CODE § 7005 (West 1983); COLO. REV. STAT. § 19-6-106 (1978); CONN. GEN. STAT. ANN. § 45-69f to -69n (West 1981); FLA. STAT. ANN. § 742.11 (West Supp. 1985); GA. CODE ANN. §§ 19-7-21 (1982), 43-34-42 (1984); IDAHO CODE § 39-5401 to -5407 (1985); ILL. ANN. STAT. ch. 40, § 1451-53 (Smith-Hurd Supp. 1985); KAN. STAT. ANN. § 23-128 to -130 (1981); LA. CIV. CODE ANN. art. 188 (West Supp. 1985); MD. EST. & TRUSTS CODE ANN. § 1-206(6) (1974); MD. HEALTH-GEN. CODE ANN. § 20-214 (1982); MASS. GEN. LAWS ANN. ch. 46, § 4B (West Supp. 1985); MICH. COMP. LAWS §§ 700-111(2), 333.2824(6) (1980); MINN. STAT. § 257.56 (1982); MONT. CODE ANN. § 40-6-106 (1983); NEV. REV. STAT. § 126.061 (1983); N.J. STAT. ANN. §§ 9:17-44 (West Supp. 1985); N.Y. DOM. REL. LAW § 73 (McKinney 1977); N.C. GEN. STAT. § 49A-1 (1984); OKLA. STAT. ANN. tit. 10, §§ 551-553 (West Supp. 1984); OR. REV. STAT. §§ 109.239, .243, .247 and 677.355, .360, .365, .370 (1983); TENN. CODE ANN. § 68-3-306 (1985); TEX. FAM. CODE ANN. § 12.03(a) (Vernon 1975); VA. CODE § 64.1-7.1 (1985); WASH. REV. CODE ANN. § 26.26.050 (Supp. 1986); WIS. STAT. ANN. § 891.40 (West Supp. 1985); WYO. STAT. § 14-2-103 (1978). See generally Andrews, *supra* note 27, at 54-55.

32. OR. REV. STAT. § 109.239 (1983); TEX. FAM. CODE ANN. § 12.03(b) (Vernon 1975). Other states imply that a donor has no rights or obligations. For the statutes of those states, see *supra* note 31. See also Andrews, *supra* note 27, at 54.

the physician must certify that he performed the procedure.³³

The statutes of at least fifteen states appear to prohibit artificial insemination of unmarried women.³⁴ Only one case thus far in the United States has addressed the issue. In *C.M. v. C.C.*,³⁵ an unmarried couple who had been dating wanted a child, but allegedly did not want to conceive by sexual intercourse before their marriage.³⁶ A physician refused their request for artificial insemination, but by speaking with the physician they learned the basics of the procedure and tried it themselves in C.M.'s apartment. After a few attempts, they were successful.³⁷ While C.C. was pregnant, the two broke off the relationship, but C.M. still wanted to be known as the child's father and sued for visitation rights. He claimed that it was the couple's intention that he

33. See, e.g., ILL. ANN. STAT. ch. 40, ¶ 1435, § 3(a) (Smith-Hurd Supp. 1985). For a detailed overview of the various statutes on artificial insemination, see Note, *Artificial Conception: A Legislative Proposal*, 5 CARDOZO L. REV. 713 (1984).

34. At least 24 states use the word "married" when defining the rights of women, donors, and the born child. For the relevant state statutes, see *supra* note 31. The Oregon statute specifically contemplates unmarried women being artificially inseminated, by requiring a woman's written request and consent, and "if she is married," her husband's also. Or. Rev. Stat. § 677.365 (1983). In addition, four states arguably recognize the right of unmarried women to be artificially inseminated. See Kritchevsky, *The Unmarried Woman's Right to Artificial Insemination: A Call for an Expanded Definition of Family*, 4 HARV. WOMEN'S L.J. 1, 18-19 (1981). Four state statutes "omit the word 'married' from [their adoption of the Uniform Parentage Act's] provision that '[t]he donor of semen . . . for use in artificial insemination of a married woman other than the donor's wife is treated in law as if he were not the natural father of a child thereby conceived.'" *Id.* at 19. Compare *id.* at 19, 21 (author's conclusion that the fact that these statutes only mention married women does not mean that artificial insemination is illegal for unmarried women) with Shaman, *Legal Aspects of Artificial Insemination*, 18 J. FAM. L. 331, 344-45 (1979-1980) ("some nineteen states prohibit [artificial insemination of single women] by statute").

At least three commentators have questioned the constitutionality of denying an unmarried woman the right to procreate by artificial insemination. See Shaman, *supra*, at 344-46 (Supreme Court decisions striking down state prohibitions on abortion and the use of contraceptives, holding that both unmarried and married women have a fundamental interest in the decision whether or not to procreate, are strong support for the belief that the right to be artificially inseminated is within a single woman's right to privacy); Kritchevsky, *supra*, at 27-37 (discussing an unmarried woman's fundamental right to procreate and the state interests that might be asserted as compelling enough to justify legislation infringing on this right); Note, *Reproductive Technology and Procreation Rights of the Unmarried*, 98 HARV. L. REV. 669, 681-85 (1985) (Supreme Court has explicitly recognized the right to procreation, and state interests asserted, though significant, do not justify making artificial insemination for unmarried women illegal).

35. 152 N.J. Super. 160, 377 A.2d 821 (Juv. & Dom. Rel. Ct. 1977).

36. *Id.* at 161, 377 A.2d at 821.

37. One cannot help but be skeptical about the allegations that the method of conception was by artificial insemination and not sexual intercourse, considering that the estimated success rate of artificial insemination, even under ideal laboratory conditions, can be as low as 20%. L. ANDREWS, *supra* note 19, at 181.

would act as father.³⁸

In deciding in favor of C.M. (the "donor-father"), the court found the facts of the case to be more analogous to AIH than to AID.³⁹ Artificial insemination by donor, by its terms, involves an anonymous donor who waives all paternity rights to any child conceived by his sperm. In *C.M. v. C.C.*, however, the child was conceived by the sperm of a known donor (with whom the woman was even considering marriage), whose intentions to act as the child's father were known to the woman. The court declined to comment on the propriety of artificial insemination between unmarried persons and instead focused on the interest of the child in having two parents if possible.⁴⁰

None of the statutes on artificial insemination by donor expressly indicate who owns the sperm "donation,"⁴¹ but sperm banks generally require the donor to sign a written waiver of any rights to the deposit and any paternity claims to children born by it.⁴² In return, the sperm bank guarantees the donor's anonymity.⁴³

Some men use sperm banks to store their sperm for their own future use. For example, in the 1960's the Apollo astronauts banked their sperm before their missions. Therefore, even if space travel were to affect their reproductive systems, they could still father healthy children using the stored sperm.⁴⁴

Today, sperm banking is a common practice for men whose occupation exposes them to toxic substances and men who are undergoing radiation therapy. In these instances, the sperm belongs to the donor, who pays for the maintenance and later withdrawal of the deposit.⁴⁵

38. 152 N.J. Super. at 161, 377 A.2d at 822.

39. *Id.* at 167, 377 A.2d at 825.

40. *Id.*

41. The term "donation" is a misnomer. "Donors" are actually paid for depositing semen in most sperm banks. See Wadlington, *supra* note 15, at 471 (citing W. FINEGOLD, *ARTIFICIAL INSEMINATION* 34 (2d ed. 1976); A. GUTTMACHER, W. BEST & F. JAFFE, *BIRTH CONTROL AND LOVE: THE COMPLETE GUIDE TO CONTRACEPTION AND FERTILITY* 279 (2d rev. ed. 1969)). The more meticulous commentator may refer to the deposits of semen as "venditions," to the men who produced the deposits as "vendors" and to the procedure that utilizes them as "artificial insemination by vendor" ("AIV"). *Law Conference 1984—Discussion on Bioethics*, 1984 N.Z.L.J. 237, 239.

42. Idant Corporation, the world's largest sperm bank, located in New York City, requires each donor to sign an agreement whereby the donor agrees to "waive any and all rights I might have in any child that might result from use of my sperm." *IDANT LABORATORY, IDANT SPERM BANKING HANDBOOK* 14 (undated).

43. Idant Corporation's sperm donor agreement reads: "I understand and agree that records of my sperm donations will be kept by the clinic in coded and confidential files for the protection of IDANT or anyone else." *Id.* at 13.

44. Leach, *Perpetuities in the Atomic Age: The Sperm Bank and the Fertile Decedent*, 48 A.B.A. J. 942, 943 (1962).

45. In these circumstances, Idant Corporation requires the individual to execute a contract agreeing to pay in advance the "Annual Storage Fee," which in 1985 cost \$45.00

Upon notice of the death of the donor, however, many storage agreements authorize the sperm bank to dispose of the deposit.⁴⁶ Requests from the widow of the donor to be inseminated with the sperm are denied as a matter of practice, absent express instructions in the donor's will or a court order.⁴⁷

Although such requests are apparently commonplace, there has been to date only one judicial pronouncement on the issue of sperm deposit ownership after the death of a donor who had not left instructions for the use of his sperm. In the internationally publicized case of *Parpalaix v. CECOS*,⁴⁸ a French court found that the widow of a young man who died of testicular cancer was entitled to the use of the sperm he had deposited more than two years prior to his death, despite the sperm bank's claim to ownership.⁴⁹

Although the widow's cause of action and the sperm bank's defense lay in contract law,⁵⁰ the court determined that the widow's entitlement to the deposit was based on "the fundamental right of a human being to conceive or not to conceive."⁵¹ Testimony by the widow and the deceased's parents convinced the court of "the formal will of [the widow's] husband to make his wife the mother of a common child."⁵²

While the *Parpalaix* decision has been generally acclaimed as emi-

per specimen per year. When the client wishes to withdraw the specimen, the client may do so upon payment of a \$30.00 "withdrawal fee" and upon not less than 45 days' prior written notice. IDANT LABORATORY, *supra* note 42, at 16.

46. According to Idant's Agreement:

Upon the termination of Idant's obligations under this Agreement for any reason whatsoever, Idant may dispose of the Specimen by thawing and/or discarding or by use in scientific research or in any other practicable manner, except that no Specimen will be used, without the Client's written consent, for the purpose of causing pregnancy by means of artificial insemination.

Id. at 14-15.

47. Idant's agreement provides that "[i]n no event shall Idant be required to release any portion of the Specimen to any person other than the Client's physician or, after the Client's death, to any person, except in either case as directed by an order of a court of competent jurisdiction." *Id.* at 14.

48. Judgment of Aug. 1, 1984, Trib. gr. inst., Fr., Gazette du Palais, Sept. 18, 1984, at 11, col. 1.

49. It is not clear from the text of the opinion or news sources what the exact terms of the storage agreement were.

50. Gazette du Palais, *supra* note 48, at 12.

51. *Id.*

52. *Id.* at 13. The court found this to be the husband's intention even though at the time of the sperm deposit he was only engaged to Mrs. Parpalaix. *Id.*

Although Mrs. Parpalaix triumphed in court, the medical difficulties of the artificial insemination procedure proved too great to overcome. The procedure failed due to the small quantity and poor quality of Alain Parpalaix's sperm. *Woman Fails to Conceive from Dead Husband's Sperm*, Reuters N. Eur. Serv., Jan. 11, 1985 (available on NEXIS, Wires file).

nently humane, it has also been criticized by doctors and lawyers alike.⁵³ In France, at least, a child born "post-mortem"⁵⁴ could suffer legally.⁵⁵ It has even been suggested that a child so born would suffer psychologically from being conceived by a dead man.⁵⁶

The development of artificial insemination and the subsequent reproductive technologies has permitted the creation of "surrogate motherhood."⁵⁷ Women who suffer from blocked or non-existent fallopian tubes (the largest cause of female infertility),⁵⁸ or those who suffer from medical problems that make pregnancy extremely dangerous or undesirable can become mothers simply by contracting with another woman, or "surrogate mother," to carry and give birth to her husband's child. Thus, the husband is the biological father and the wife is the "social" or adoptive mother.

53. For a discussion of the *Parpalaix* decision, see *Widow Wins Paris Case for Husband's Sperm*, N.Y. Times, Aug. 2, 1984, at A9, col. 1; *Life After Death; French Woman Wins Sperm Bank Decision*, Wash. Post, Aug. 2, 1984, at B1, col. 1; *Dead Man's Sperm Case Forces Experts to Step Into the Unknown*, Reuters N. Eur. Serv., Aug. 2, 1984 (available on NEXIS, Wires file).

54. The term "post-mortem insemination" was coined by the French attorney Xavier Labbee. See Labbee, *L'Insemination Artificielle Pratiquee Apres La Mort Du Donneur*, Gazette du Palais, Sept. 18, 1984, at 2, col. 1. American commentators have referred to children so born as "posthumous sperm bank children" or more amusingly, because of the deep freeze technique used to preserve the sperm, as children "en ventre sa frigidaire," which is a variation of the legal term "en ventre sa mere" commonly used to describe unborn children. See Leach, *supra* note 44, at 942.

55. See Gazette du Palais, *supra* note 48, at 12.

The *Parpalaix* court noted the difficulty of obtaining legal recognition of the legitimacy of a child born to the plaintiff through "post-mortem" artificial insemination. Article 315 of the Civil Code deems illegitimate any child born more than 300 days after the putative father's death. *Id.* (discussing CODE CIVIL [C. civ.] art. 315 (2e ed. Petits Codes Dalloz 1976)). Moreover, article 725 provides that for a child to inherit through his or her father, the child must exist at the time of the father's death and explicitly disqualifies "he who is not yet conceived." *Id.* (quoting C. civ. art. 725 (2e ed. Petits Codes Dalloz 1976)).

56. Nau, *L'enfant posthume*, LE MONDE, Aug. 3, 1984, at 12, col. 5.

57. See generally L. ANDREWS, *supra* note 19, at 302-04 (bibliography of selected readings on surrogate motherhood); Keane, *Legal Problems of Surrogate Motherhood*, 1980 S. ILL. U.L.J. 147 (discussing legal issues raised by surrogate motherhood including breach of surrogate motherhood contract and statutory impediments to surrogate motherhood); Smith, *The Razor's Edge of Human Bonding: Artificial Fathers and Surrogate Mothers*, 5 W. NEW ENG. L. REV. 639, 664 (1983) (concluding that "legitimization" of the status of surrogate mothers, if adequately regulated, presents "no insuperable problems to society"); see also FURROW, *Surrogate Motherhood: A New Option for Parenting*, 12 LAW, MED. & HEALTH CARE 106 (1984); Holder, *Surrogate Motherhood, Babies for Fun and Profit*, 12 LAW, MED. & HEALTH CARE 115 (1984); Note, *Contracts to Bear a Child*, 66 CALIF. L. REV. 611 (1978); Note, *Surrogate Motherhood: The Outer Limits of Protected Conduct*, 1981 DET. C.L. REV. 1131; Note, *Surrogate Motherhood: Contractual Issues and Remedies under Legislative Proposals*, 23 WASHBURN L.J. 601 (1984).

58. Shane, Schiff & Wilson, *supra* note 20, at 8.

The principle behind surrogate motherhood is quite simple. The surrogate becomes pregnant by the husband. Although the means of impregnation is usually by artificial insemination, it can occur by any other of the new reproductive technologies as well.⁵⁹ The surrogate carries the fetus and gives birth. Because laws generally provide that the woman who gives birth to a child is its natural mother, the couple must adopt the child, usually through a private adoption, in order to obtain legal custody.

Although the medical aspect of surrogate motherhood can be as simple as the artificial insemination procedure, the legal, practical, and emotional aspects are complex and problematic.⁶⁰ Surrogate mother contracts can be cost prohibitive to many couples: The fee is from \$5,000 to \$25,000 in the United States,⁶¹ and £6500 in England.⁶² Surrogate mother programs are available in only a few centers in the United States. Even if the couple has found a center in their state, they may not be able to find a suitable surrogate. The successful candidate would ideally have approximately the same physical characteristics as the wife.⁶³ She must pass various IQ and aptitude tests, and must be in good physical as well as emotional health. Perhaps most importantly, she must understand what her future relationship, if any, with the child or couple will be.⁶⁴ The couple, or screening counselor, will want to know what motivates the candidate to become a surrogate in an attempt to ascertain her reliability. Many consider it crucial that the candidate be married with children of her own, the theory being that she will be more aware of the implications of the relationship into which she is entering.⁶⁵ The adopting couple's greatest fear is that the surrogate will become attached to the child growing inside her, and decide not to honor her contract with the couple to give it up for adoption. In such cases, it is highly probable that the law will allow the surrogate to keep the child, because the child was genetically hers, and she undertook the biological risk of pregnancy.⁶⁶

59. L. ANDREWS, *supra* note 19, at 254-56 (discussing *in vitro* fertilization with a surrogate carrier).

60. *See id.* at 197-242 (discussing, *inter alia*, surrogate motherhood legislation, social aspects of the surrogate process, choosing a surrogate, and the emotional aspects of the surrogate process).

61. *Id.* at 203 ("Because of the difficulty in locating a surrogate, and the potential cost of \$5,000 to \$25,000 for paying one, some couples turn to women they know.").

62. *See Wrong Mothers, wrong Babies*, *ECONOMIST*, Apr. 20, 1985, at 63 (reporting on legislative attempts to curtail the activities of surrogate mother placement agencies).

63. *See* L. ANDREWS, *supra* note 19, at 2. Couples select surrogates based upon varying selection criteria, including IQ, height, and physical characteristics similar to those of the parents. *See id.* at 209.

64. *Id.* at 203-11.

65. *Id.* at 212.

66. *Id.* at 236.

For example, in California, a couple who had contracted with a surrogate dropped a suit to compel the surrogate to honor her contract.⁶⁷ Although the husband was listed on the birth certificate as the baby's father, he had no visitation rights and the baby was given the surrogate's surname.⁶⁸ The presiding judge apparently believed that surrogates should be free to dishonor contracts to give up a child that is biologically theirs, because he viewed such contracts as void for public policy reasons.⁶⁹ Such was the view of an English court in *A v. C*,⁷⁰ the only reported English case involving surrogate motherhood. As in the California case, the surrogate mother, here a nineteen-year-old girl, who was paid £500 for her services, became attached to the child she bore and refused to give it up.⁷¹ The court severely admonished the couple (who were unmarried at the time of contracting) for their behavior in having made "this extraordinary and irresponsible arrangement," calling it a "sordid commercial bargain."⁷²

Many state laws prohibit surrogate mother contracts, equating them with "baby-buying."⁷³ Others have no statutes directly on the subject; thus the state's family laws and artificial insemination laws would appear to govern.⁷⁴ Even in those states where surrogate motherhood is not prohibited, the couple may be forced to go through a public adoption agency rather than proceed by private adoption.⁷⁵ There may even be a waiting period after the child's birth before the couple may obtain legal custody.⁷⁶

67. Wash. Post, Apr. 7, 1981, at A7, col. 1; Wash. Post, June 5, 1981, at A6, col. 1; TIME MAG., June 22, 1981, at 71; see also Smith, *supra* note 57, at 661.

68. Wash. Post, Apr. 7, 1981, at A7, col. 1; Wash. Post, June 5, 1981, at A6, col. 1; TIME MAG., June 22, 1981, at 71.

69. Wash. Post, Apr. 7, 1981, at A7, col. 1; Wash. Post, June 5, 1981, at A6, col. 1; TIME MAG., June 22, 1981, at 71.

70. 1985 Fam. 445.

71. *Id.* at 446. Lord Justice Ormond, writing for the Court of Appeals (Civil Division), upheld the judgment of the trial court barring a contractual relationship between the mother and father. *Id.*

72. See, e.g., CAL. PENAL CODE § 273 (West 1970). It is a violation to pay a parent for the placement of his child for adoption, or his consent to, or cooperation with the child's adoption. *Id.* For a further analysis of other state black market baby laws and their relationship to surrogate motherhood, see Note, *supra* note 33, at 730-35; Andrews, *supra* note 27, at 54-55; Keane, *supra* note 57, at 152-61.

73. Keane, *supra* note 57, at 154.

74. See Note, *supra* note 33, at 730.

75. Keane, *supra* note 57, at 148. It should be noted that in the United States the adoption procedure is generally much quicker and easier in private adoption agencies. See Note, *Independent Adoption: Regulating the Middleman*, 24 WASHBURN L.J. 327, 328 (1985); Charney, *The Rebirth of Private Adoptions*, A.B.A. J., June 1985, at 53, 55.

76. L. ANDREWS, *supra* note 19, at 227-28. The significance of this seems to be that the biological mother then has a period during which she may become attached to the child before she surrenders it. In most successful programs, the baby is taken from the

Currently, in England, it appears that one surrogate motherhood "agency" is or at least has been in operation⁷⁷ and has apparently caused national turmoil. A bill that would permit a surrogate mother to be paid for services, but that would prohibit, under criminal penalty, the involvement of any intermediary⁷⁸ or agency, has been proposed by Enoch Powell, M.P.⁷⁹ It appears to be fashioned after the recommendations of the Warnock Committee, which was organized in 1983 to investigate and assess the moral, ethical and legal aspects of human fertilization and embryology.⁸⁰

Another even more startling breakthrough in the new reproductive techniques has been *in vitro* fertilization, referred to as IVF.⁸¹ This results in so-called "test-tube" babies. The idea of *in vitro* fertilization of human eggs, or oocytes, was articulated as early as 1937 by an unknown physician writing to the *New England Journal of Medicine*.⁸² The first well-documented experimentation was begun in 1970⁸³ by British physicians Edwards, Steptoe and Purdy, who treated Mrs. Leslie Brown and were responsible for the birth of the first "test-tube" baby, Louise Brown, in 1978.⁸⁴

The *in vitro* fertilization procedure involves laboratory combinations of sperm and ovum from the biological parents. An ovum is removed from a woman's ovary⁸⁵ and united with sperm in a medium of

surrogate before she ever sees it. *Id.* at 222-23.

77. *Wrong Mothers, wrong Babies*, *supra* note 62, at 63.

78. *Id.* This would include any paid advisor, including a lawyer. *Id.*

79. This bill has been the subject of criticism by both doctors and the media. The *Economist* has called the bill "the embryo of some extraordinarily bad law." *Id.* The bill would also prohibit the possession of a human embryo for any reason except to help a specific individual. The *Economist* points to four different types of important research this bill would preclude: research to improve the *in vitro* fertilization technique; testing new contraceptives that would prevent sperm from joining with the egg; tests using eggs to examine the sperm of infertile men; and tests related to the embryo freezing technique. *Embryo Research: Prohibited in Britain?*, *ECONOMIST*, May 4, 1985, at 91.

80. For a summary of the recommendations made by the Warnock Committee, see *Family Law Developments: An Update*, 14 *FAM. L.* 217 (1984).

81. For a general discussion of *in vitro* fertilization, see *HUMAN PROCREATION*, *supra* note 6; L. ANDREWS, *supra* note 19, at 120-58.

82. *Conception in a Watchglass*, 217 *NEW ENG. J. MED.* 678 (1937).

83. Edwards, Steptoe & Purdy, *Fertilization and Cleavage In Vitro of Preovular Human Oocytes*, 227 *NATURE* 1307 (1970) (documenting a series of successful *in vitro* fertilization experiments); Edwards, Steptoe & Purdy, *Establishing Full-term Human Pregnancies Using Cleaving Embryos Grown In Vitro*, 87 *BRIT. J. OBSTET. & GYNECOL.* 737 (1980) (documenting a series of *in vitro* fertilizations that led to full-term human pregnancies).

84. P. STEPTOE & R. EDWARDS, *A MATTER OF LIFE, A STORY OF MEDICAL BREAKTHROUGHS* (1980).

85. This procedure, performed under a general anesthetic, is called a laparoscopy. A needle is surgically passed through a woman's navel and collects ova. See *DORLAND'S ILLUSTRATED MEDICAL DICTIONARY* 713 (26th ed. 1985).

nutrients in a petrie dish. The fertilized egg is then transferred to another medium, where it develops into a "blastocyst"⁸⁶ or "conceptus."⁸⁷ Next, the blastocyst is implanted into the womb at the appropriate stage of the woman's menstrual cycle, and normal gestation takes place.

In vitro fertilization is especially attractive to those couples in which the wife is capable of producing normal ova that, due to obstructed or non-existent fallopian tubes, are unable to travel to the uterus. The ovum is extracted, united with the husband's sperm *in vitro*, and replaced in the wife, thus eliminating the stage of reproduction that normally occurs in the fallopian tubes.⁸⁸

In vitro fertilization is a much more complicated procedure than artificial insemination and, given its still-experimental nature, the attendant risks are greater both to the wife⁸⁹ and to the developing fetus.⁹⁰ The treating physician would thus be well advised to obtain informed consent at each stage of the procedure.

An interesting case arising from the development of *in vitro* fertilization is *Del Zio v. Presbyterian Hospital*.⁹¹ The plaintiff, Mrs. Del Zio, who suffered from blocked fallopian tubes, chose to undergo *in vitro* fertilization using her husband's sperm. After a successful "practice fertilization"⁹² and nearly a year of closely monitoring her ovulatory pattern, Mrs. Del Zio's ova were collected and successfully united with her husband's sperm. A blastocyst was developing *in vitro* when the Del Zios' treating physician's supervisor caused its destruction. The supervising physician told the Del Zios' physician that he was unqualified to perform the procedure, and that *in vitro* fertiliza-

86. See *id.* at 173.

87. See *id.* at 296.

88. For further discussion of the *in vitro* fertilization process and its appeal to couples, see Kramer, *Last Chance Babies*, N.Y. MAG., Aug. 12, 1985, at 34.

89. See Bernholz & Herman, *Legal Implications of Human In Vitro Fertilization for the Practicing Physician in North Carolina*, 6 CAMPBELL L. REV. 5, 8 (1984) (citing *Ethics Advisory Board of the Department of Health, Education, and Welfare, Report and Conclusions: HEW Support of Research Involving Human In Vitro Fertilization and Embryo Transfer*, 44 Fed. Reg. 35,034 (1979)). The risks to the blastocyst recipient include: (1) ovarian hyperstimulation or ovarian cysts resulting from the injection of hormones necessary to the procedure; (2) the side effects of repeated laparoscopies; (3) the need for conducting amniocentesis; and (4) spontaneous abortion. *Id.*

90. Bernholz & Herman, *supra* note 89, at 8. Injury to the developing fetus, such as by mutation or genetic abnormalities, may stem from superovulation, polyploid embryo, use of low quality sperm in fertilization, or preservation techniques. *Id.* See generally Schlesselman, *How Does One Assess the Risk of Abnormalities from Human In Vitro Fertilization?*, 135 AM. J. OBSTET. & GYNECOL. 135 (1979) (discussing risks of *in vitro* fertilization).

91. No. 74 Civ. 3855 (S.D.N.Y. Nov. 9, 1978) (available on LEXIS, Genfed Library, Dist file).

92. *Id.*, slip op. at 2-3.

tion was unethical, immoral, and not permitted by either the National Institute of Health or the hospital in which it was being performed.⁹³

Besides having had numerous unsuccessful operations to cure her defective fallopian tubes, Mrs. Del Zio suffered many medical complications during the *in vitro* fertilization procedure. She had been informed by her doctor that the fertilization was successful, but soon had all hopes for overcoming her infertility dashed by the destruction of the blastocyst. She and her husband brought suit against the hospital for unlawful destruction of property and for emotional distress. The jury ruled in favor of the hospital on the issue of unlawful destruction of property and for the Del Zios on the issue of emotional distress, for which a verdict was returned for \$50,000 in compensatory damages.⁹⁴

In vitro fertilization research and practice is regulated in the United States on the federal level by the Department of Health and Human Services.⁹⁵ There are currently no statutes expressly governing *in vitro* fertilization, but some state fetal research laws that define "fetus" as any product of conception would seem to apply.⁹⁶ It has been suggested that the provisions of either the Uniform Anatomical Gift Act or those of the current artificial insemination statutes be applied to *in vitro* fertilization.⁹⁷ Because the legal parents are also the biological parents, the *in vitro* situation is analogous to homologous artificial insemination and easily comes under the ambit of most artificial insemination statutes.⁹⁸

On February 3, 1984, at the University of California at Los Angeles Medical School, the first infant to undergo embryo transfer ("ET") was born.⁹⁹ In this procedure, which is a variation of *in vitro* fertilization, an already developing embryo conceived *in vitro* is implanted into the wife's uterus in the one-to-sixteen cell stage.¹⁰⁰ The developing em-

93. *Id.* at 3. For a more detailed medical discussion of the *Del Zio* case, see Sweeney & Goldsmith, *Test Tube Babies: Medical and Legal Considerations*, 2 J. LEGAL MED. 1, 2 (1980).

94. *Del Zio v. Presbyterian Hosp.*, No. 74 Civ. 3855, slip op. at 7-8 (S.D.N.Y. Nov. 9, 1978) (available on LEXIS, Genfed Library, Dist file). For a detailed discussion of the case, see Palm, *Legal Implications of Artificial Conception: Making Babies Makes Law*, 1982 MED. TRIAL TECH. Q. 404, 421; Note, *In Vitro Fertilization: Hope for Childless Couples Breeds Legal Exposure for Physicians*, 17 U. RICH. L. REV. 311, 321 (1983).

95. 45 C.F.R. §§ 46.101-.211 (1982). For a detailed discussion of these regulations, see Bernholz & Herman, *supra* note 89, at 9-13.

96. For a synopsis of these state statutes, see L. ANDREWS, *supra* note 19, at 147-57.

97. Note, *supra* note 34, at 735.

98. *Id.* at 718 n.37.

99. *Id.* at 718; see also L. ANDREWS, *supra* note 19, at 50-52.

100. Leeton, Trounson & Wood, *In Vitro Fertilization and Embryo Transfer: What It Is And How It Works*, in TEST-TUBE BABIES 7 (W. Walters & P. Singer eds. 1982). Older embryos are not used because they do not develop beyond sixteen cells in the fallopian tube under normal circumstances. *Id.*

bryo may be the product of the wife's egg and donor sperm. This might occur, for example, when the wife, due to blocked fallopian tubes, is unable to conceive by her husband or by artificial insemination by donor, and traditional *in vitro* fertilization has failed because the husband's sperm count is too low. Or, the embryo may be the product of a donated egg and the husband's sperm, which is then transferred to the wife. This might occur in the case of a wife whose ovaries are inaccessible, or who suffers from a genetic disease she does not want to pass on, or where *in vitro* fertilization has failed. The donated egg is often obtained from the excess unused eggs of a woman who has undergone *in vitro* fertilization.¹⁰¹

The newest areas in reproductive technology are in artificial embryonation ("AE") and embryo adoption ("EA"),¹⁰² the pioneers of which were Chicago physician Randolph Seed and his brother, embryologist Richard Seed.¹⁰³ Prompted by the difficulty of transferring a blastocyst created *in vitro* to a recipient uterus, artificial embryonation is an attempt to use a donor woman as a "human petrie dish."¹⁰⁴ A fertile donor is artificially inseminated with the husband's sperm (fertilization *in vivo*). Four to five days after fertilization, the embryo is flushed out of the donor's uterus via a plastic tube and implanted into the wife's uterus, where it is carried to term. No surgery or anesthesia is needed. It is desirable that the donor and wife be matched closely in physical characteristics, blood grouping, and menstrual cycle timing.¹⁰⁵ The Seed's screen the potential donors themselves.¹⁰⁶ They prefer women between the ages of twenty-one and thirty-five who are free from genetic diseases and are emotionally stable.¹⁰⁷

It would appear that AE creates a significant psychological advantage for the wife, who actually carries and gives birth to the child, even though it is not genetically hers. Perhaps the most significant reason for preferring this method lies in the concept of the wife giving more of herself in this procedure than she would in, for example, the surrogate mother method. First, the wife carries the embryo from the time it is

101. L. ANDREWS, *supra* note 19, at 247. For more information on the medical procedure itself, see Biggers, *In Vitro Fertilization and Embryo Transfer in Human Beings*, 304 NEW ENG. J. MED. 336 (1981).

102. L. ANDREWS, *supra* note 19, at 243-55 (providing an overview of these new methods).

103. *Id.* at 251. The Seeds direct the Reproduction and Fertility Clinic in Chicago. *Id.*

104. *Id.* Usually, the childless couple pay a fee, which covers the insemination of the fertile woman with the husband's sperm. *Id.*

105. *Id.* The matching of menstrual cycles is very important. Artificial insemination occurs immediately prior to ovulation. *Id.*

106. *Id.* at 253. The Seeds do not have psychologists or psychiatrists interview the women. *Id.*

107. *Id.*

comprised of only a few cells to the time of its birth. The wife will experience the joys of pregnancy and delivery, and she will be able to nurse her baby. Legally, she is the "biological" mother of the child since it is born of her womb.¹⁰⁸ She should have little or no worry about facing a legal battle should the ovum donor attempt to claim parental rights to the child. Obviously, the donor has considerably less emotional attachment to an egg than to an infant.

Embryo adoption is virtually the same procedure as artificial embryonation, that is, fertilization *in vivo*; except that donor semen is used instead of the husband's semen. Thus, the resulting child is not genetically related to either the husband or the wife, even though the wife carries the child and gives birth. In this sense, adopting an embryo is somewhat analagous psychologically (although not legally) to adopting a child; the adoption simply occurs at a much earlier stage of the child's development.¹⁰⁹

The pioneers of AE and EA believe that these procedures will soon become more popular than *in vitro* fertilization or surrogate motherhood.¹¹⁰ These procedures are far cheaper,¹¹¹ they are safer because no

108. For a discussion of the legal presumption that a woman who carries a child to term is the "natural mother," see *supra* notes 59-66 and accompanying text.

109. In April 1983, an American couple who had enrolled in an *in vitro* fertilization program in Melbourne, Australia died tragically in a plane crash before their two already fertilized and developing blastocysts could be implanted in the wife. The development of the two embryos was halted by storing them in steel tanks containing liquid nitrogen at minus 328 degrees Fahrenheit, where they remained "orphaned" for over a year. Upon hearing of their existence, the Victoria state legislature issued a report recommending the destruction of all frozen embryos absent the genetic parents' specific instructions to the contrary. However, after considerable protest and political pressure by, among others, Australia's Right to Life groups and the Roman Catholic Church of Australia, legislation was passed enabling the orphan embryos to be "adopted" anonymously by one of the more than one hundred women who had volunteered to become surrogates. Said Victoria State Attorney General Jim Keenan about the legislative pronouncements, "[i]t didn't seem unreasonable to allow them to be adopted . . . I'm quite happy with it." *Scientists Promise Every Effort to Revive Embryos*, Assoc. Press, Oct. 24, 1984 (available on NEXIS, Wires file); see also *Women Ask to Adopt Frozen Orphan Embryos*, Assoc. Press, Oct. 24, 1984 (available on NEXIS, Wires file) (reporting that more than ninety women volunteered to be implanted with the "orphan" embryos); *Strong Opposition to Recommendation to Destroy Orphan Embryos*, Assoc. Press, Sept. 4, 1984 (available on NEXIS, Wires file) (reporting that anti-abortion group wished to stop Australian officials from destroying the frozen embryos); *Report Recommends Destruction of Test-Tube 'Orphans'*, Reuters N. Eur. Serv., Sept. 3, 1984 (available on NEXIS, Wires file) (report from Australian officials recommending destruction of the embryos in three months' time); *Orphan Embryos Stir Debate*, United Press Int'l, June 24, 1984 (available on NEXIS, Wires file) (description of the parents' deaths and existence of two frozen embryos).

110. L. ANDREWS, *supra* note 19, at 262 (citing conclusions reached by the Seed brothers, based upon research conducted at their Reproduction and Fertility Clinic in Chicago).

111. *Id.* The cost per menstrual cycle monitored or per insemination is approximately \$250. *Id.* at 252-53.

drugs, anesthesia, or surgical procedures are used, and they can be used by more women. The problem with artificial embryonation and with embryo adoption is that these practices may be technically considered "fetal research" and therefore prohibited in eighteen states.¹¹² The flushing of the embryo from the donor's uterus is, according to the definitional terms of the statutes, analogous to the abortion procedure.¹¹³

These new technologies, which have long been in the experimental stages, are now coming into a much more general use, enabling more and more infertile couples to reproduce, or at least participate in the reproductive process. But the new solutions to infertility raise profound problems of their own. An excellent article in the *Stanford Magazine* entitled "Infertility: The Great Debate," canvasses some of these problems.¹¹⁴

It is conceivable for a child born through the new techniques to have any combination of up to five parents: an egg donor, a sperm donor, a woman who provides a womb for all or part of gestation, and the couple who rears the child.¹¹⁵

Consider the following legal problems. Does the child have the right to know the identity of the sperm donor, egg donor, or womb donor who contributed to his or her existence?¹¹⁶ Should any of the donors have visitation rights? Who should be considered the mother of the child: The ovum donor? The womb donor? The woman who will rear the child?¹¹⁷ What is the legitimacy of the child born as a result of

112. *Id.* at 253.

113. Consider, for example, the government's definition of "fetus": "'Fetus' means the product of conception from the time of implantation (as evidenced by any of the presumptive signs of pregnancy, such as missed menses, or a medically acceptable pregnancy test), until a determination is made, following expulsion or extraction of the fetus, that it is viable." 45 C.F.R. § 46.203(c) (1984) (emphasis added).

114. *Infertility: The Great Debate*, STANFORD MAG., Winter 1984, at 28-35 (six professors from various fields discuss when life begins, touching on abortion, destruction of frozen embryos, surrogate parenthood and *in vitro* fertilization).

115. Andrews, *supra* note 27, at 53.

116. The present practice is, generally, to keep the identity of the donor secret "even though the information is stored in confidential medical records for many years." HUMAN PROCREATION, *supra* note 6, at 37; cf. Smith, *supra* note 57, at 644-49 (discussing the competing interests of the donor's privacy and the offspring's "right to know," and arguing for a balancing of interests in those cases where there are health considerations or other exigent circumstances).

117. In July 1984, the British Committee of Inquiry into Human Fertilization and Embryology issued a report recommending legislation that would recognize "that when a child is born to a woman following donation of another's egg, the woman giving birth should, for all purposes, be regarded in law as the mother of that child, and that the egg donor should have no rights or obligations in respect of the child." *New Reproduction*

artificial insemination by donor?¹¹⁸ Can a physician be held liable for a defective child conceived by artificial insemination by donor?¹¹⁹ What are the inheritance rights of the "posthumously conceived" child?¹²⁰ What are the unmarried woman's rights to new procreative techniques?¹²¹ What are a widow's rights with respect to her deceased husband's sperm?¹²²

In the case of *in vitro* fertilization, can the physician be held liable for injury caused by the negligent handling or destruction of the blastocyst while it is in the petrie dish?¹²³ Can the physician be held accountable for the birth of a defective child on the theories of wrongful birth or wrongful life?¹²⁴

Techniques Redefine Parenthood, N.Y. Times, Nov. 16, 1984, at 21, col. 1. Dr. George Annas, the Edward R. Utley Professor of Health Law at the Boston University School of Medicine, stated in testimony before a congressional committee in August 1984 that "[t]he current legal presumption is that the woman who carries the baby to birth is the legal mother." *Id.*

118. Compare Shaman, *supra* note 34, at 334-36 ("the modern trend is clearly in favor of legitimacy") with Wadlington, *supra* note 22, at 786-87 ("to the extent that any consensus is appearing; the general rule seems to be that, in the absence of a conclusive presumption of legitimacy of a child born during wedlock, the AID child is illegitimate").

119. The doctor may be held strictly liable when he fails to test adequately the donor for genetic defects that may be passed on to the child. Shaman, *supra* note 34, at 347-48.

120. See, e.g., Leach, *supra* note 44, at 944 (arguing for judicial recognition of legitimacy and a rule that would define the duration of a male "life in being, under the Rule against Perpetuities . . . as the period of [the male's] reproductive capacity, including any post-mortem period during which his sperm remains fertile"); Thies, *A Look to the Future: Property Rights and the Posthumously Conceived Child*, 110 Tr. & Est. 922, 922 (1971) (proposing a "Uniform Rights of the Posthumously Conceived Child Act").

121. For a discussion of the historical disapproval by courts and legislatures of procreation rights of the unmarried, specifically artificial insemination, *in vitro* fertilization, and embryo transfer, see Note, *supra* note 34. See also Shaman, *supra* note 34; Kritchevsky, *supra* note 34 (discussing the unmarried woman's rights, both statutory and constitutional, to procreate).

122. For a discussion of the leading judicial pronouncement on a widow's rights in the context of new procreative techniques, see *supra* notes 48-56 and accompanying text.

123. See Palm, *supra* note 94, at 422. "The *Del Zio*'s alternate theory, conversion of property, did not fare well. While the suit was brought for the loss of a potential child, under property conversion theories the jury was limited to assessing the monetary value of conceptus as conceptus." *Id.* For further discussion of the *Del Zio* case, see *supra* notes 91-94 and accompanying text.

124. In a wrongful birth or wrongful life action the parents of an unplanned child seek to shift to the defendant various costs, including the medical expenses of pregnancy and delivery, pain and suffering, and the more formidable costs of rearing and educating a child. BLACKS LAW DICTIONARY 1446 (5th ed. 1979). Suits are often brought against physicians who fail to diagnose fetal defects during pregnancy in time to abort. Prior to 1982 the majority of appellate courts rejected wrongful life causes of action. See, e.g., *Speck v. Finegold*, 497 Pa. 77, 439 A.2d 110 (1981); *Gildner v. Thomas Jefferson Mem. Hosp.*, 451 F. Supp. 692 (E.D. Pa. 1978). In 1982 the California Supreme Court recognized, for the first time, a wrongful life cause of action. *Turpin v. Sortini*, 31 Cal. 2d 220, 182 Cal. Rptr. 337, 643 P.2d 954 (1982). Accord *Harbeson v. Parke-Davis, Inc.*, 98 Wash.

Should the physician and parents, under such circumstances, be held jointly liable under a strict liability theory?¹²⁵

The range of legal problems created by surrogate motherhood is equally vast. Should a womb donor have visitation rights? What if the surrogate mother decides to keep the child she contracted to carry for another couple?¹²⁶ For what prenatal injuries to the child should the surrogate mother be held accountable? What is the extent of the physician's and the couple's responsibility in the choice of a surrogate mother?

Religious attitudes also pose threats to new reproductive technologies. The Roman Catholic Church views reproduction to be only a conditional right, and that any interference with the natural process, from artificial insemination by husband to embryo transfer, is morally unacceptable.¹²⁷ The liberal Protestant view is that procreative methods are to be judged by the extent to which the couple's mutual love may be expressed through them.¹²⁸

While the orthodox rabbinical views based on Talmudic interpretations are as unyieldingly strict as those of the Roman Catholics, some of the modern Jewish views are becoming more liberal.¹²⁹ Orthodox Jews oppose artificial insemination by donor¹³⁰ but in rare instances

2d 460, 656 P.2d 483 (1983) (following California's lead in recognizing a wrongful life cause of action). For further discussion of the historical development of the wrongful birth and life causes of action, see *Torts: Wrongful Birth and Wrongful Life Causes of Action*, 1983 ANN. SURV. AM. L. 675-92.

125. See generally Bernholz & Herman, *supra* note 89, at 18-32; Palm, *supra* note 94, at 417-18 (discussing the standards of care required of the *in vitro* fertilization practitioner, and the corresponding measures of civil liability).

126. For a discussion of both surrogate motherhood contracts and state statutes that equate such contracts with "baby selling," see *supra* notes 67-76 and accompanying text.

127. E.g., G. SMITH, *GENETICS, ETHICS, AND THE LAW* 155-56 (1981); Comment, *Love's Labor Lost: Legal and Ethical Implications In Artificial Human Procreation*, 58 U. DET. J. URB. L. 459, 462-64 (1981); Note, *In Vitro Fertilization: Hope for Childless Couples Breeds Legal Exposure for Physicians*, 17 U. RICH. L. REV. 311, 319 (1983); see also Reilly, *In Vitro Fertilization—A Legal Perspective*, in *GENETICS AND THE LAW* 359 (G. Annas & A. Mulunsky eds. 1975) (discussing legal and moral issues relating to artificial insemination).

128. G. SMITH, *supra* note 127, at 156. For a contrary view, see Ramsey, *Shall We Reproduce? The Medical Ethics of In Vitro Fertilization*, 220 J. A.M.A. 1346 (1972) (contending that even analyzed solely in terms of medical ethics, *in vitro* fertilization is unsupportable).

129. The majority of Rabbinic opinion views artificial insemination by donor as an "abomination." See Comment, *supra* note 127, at 461; see also Rosner, *Artificial Insemination in Jewish Law*, in *JEWISH BIOETHICS* 107 (1979). For a more modern view, see G. SMITH, *supra* note 127, at 157 (artificial insemination does not constitute adultery under Jewish law).

130. The concept of artificial insemination is present even in the ancient teachings of Jewish religion. Consider the following three examples:

(1) It was argued from the fifth century Babylonian Talmud that the Sages recog-

will allow it if the couple has obtained permission from their Rabbi.¹³¹ In these instances, it is mandatory that the donor not be Jewish, in order to prevent the possibility of the resulting child later marrying a half-brother or a half-sister.¹³² Some modern rabbinic opinion still views artificial insemination by donor as an abhorrent practice that destroys the family unit by separating marriage from its important function of reproduction, allowing the woman to reproduce independently.¹³³ Other Jewish scholars take a more practical view of artificial insemination by donor: They would not consider a woman who undergoes the procedure as an adultress, nor the child as a "mamzer" (bastard), and they dismiss the Orthodox fear of incestuous marriage as "highly unlikely."¹³⁴

One modern rabbinic opinion on *in vitro* fertilization is that it is an acceptable means of fulfilling the commandment to have children. Rabbi Seymour Siegel of Manhattan's Jewish Theological Seminary admits that "[w]hen nature does not permit conception, it is desirable

nized that it was possible for a woman to become pregnant *sine concubito* while bathing in water into which a man has discharged semen. See Rosner, *supra* note 129, at 107.

- (2) In his work, *Haggohot Semak*, Rabbi Perez ben Elijah of Corbeil warns women against lying on the sheets upon which a man, not her husband, has slept lest she conceive by his sperm. *Id.*
- (3) In the oft-quoted Midrashic legend, Ben Sira was conceived by the prophet Jeremiah's daughter while she bathed in water into which her father, coerced by evil men, had discharged semen. *Id.* at 108.

Some Jewish scholars hold steadfast to the view that artificial insemination by donor constitutes adultery. *Id.* at 108-10. Whereas the incidents of impregnation described in the ancient sources occurred accidentally, the modern procedure of artificial insemination by donor entails the intentional participation of the wife, the donor, and the physician, and is therefore unacceptable. Accordingly, the husband may divorce his wife on grounds of artificial insemination by donor. *Id.* at 110. Other Jewish scholars, interpreting the phrase "to be a God unto thee and to thy seed after thee," *Genesis* 17:7, would prohibit artificial insemination by donor because this phrase means that God disfavors those whose paternity is not known. Rosner, *supra* note 129, at 110. Still others would prohibit artificial insemination by donor because it leaves the possibility that the resulting child may grow up to unknowingly marry his or her half-sibling. *Id.*

131. L. ANDREWS, *supra* note 19, at 188.

132. *Id.*

133. Comment, *supra* note 127, at 461 (quoting I. JAKOBOVITS, *JEWISH MEDICAL ETHICS: A COMPARATIVE AND HISTORICAL STORY OF THE JEWISH RELIGIOUS ATTITUDE TO MEDICINE AND ITS PRACTICE* 248-49 (1959)). In *Jewish Medical Ethics*, the author's attitude towards AID is so negative that he equates it to "stud-farming." I. JAKOBOVITS, *supra*, at 249.

134. Comment, *supra* note 127, at 462 (quoting Rachman, *Morality in Medico-Legal Problems: A Jewish View*, 31 N.Y.U. L. REV. 205, 208 (1956)); see also Friedman, *The Religious View Points—Jewish*, 7 SYRACUSE L. REV. 104, 104 (1955) ("the possibility of the child marrying one of his own blood kin is far-fetched . . . artificial insemination should be permitted").

to outwit nature."¹³⁵ Rabbi David Bleich of Yeshiva University is optimistic about the future of *in vitro* fertilization, but has some reservations about the procedure in its present experimental stage for three reasons.¹³⁶ First, a defective child born by *in vitro* fertilization is forced by scientific experimentation to suffer his abnormalities. Until the technique is perfected to the point that there would be very little or no risk to the fetus, *in vitro* fertilization cannot be approved. Second, because *in vitro* fertilization entails the extraction and fertilization of three or four ova to ensure success, it very often leads to the destruction of excess developing embryos. Many "halakhic" authorities¹³⁷ maintain that the destruction of an embryo, at any time immediately following its conception, is feticide.¹³⁸ Other authorities maintain that feticide cannot occur until after the first forty days of gestation.¹³⁹ If *in vitro* fertilization were limited to the fertilization of a single ovum, this problem would be avoided. Third, the method of procuring the semen for fertilization *in vitro* may be considered "destruction of the seed" and therefore forbidden under strictly traditional Jewish law.¹⁴⁰

The legitimacy of children born through these new techniques is another problem in Jewish traditional law. Most authorities consider a child born by artificial insemination by donor to be legitimate, but considerable opinion maintains that it is the donor who must be considered the father in some or all respects.¹⁴¹ Whether the child born by artificial insemination or *in vitro* fertilization should inherit the husband's estate and what filial relationship exists between the husband and child are, as yet, unresolved questions. More importantly, the child's status as a Jew may be in question when the surrogate mother is not Jewish. It is also debatable whether the husband has fulfilled his obligation to procreate. Consider too whether the wife has fulfilled her obligation by allowing an egg donor or a womb donor to participate in the production of the children she will raise. If the egg or womb donor is not Jewish, should this deny the child its status as a Jew?

The acceptance of these new techniques would be of great significance in a time of shrinking Jewish population world-wide, especially in Western Europe and the United States. A recent *Wall Street Journal* article noted that "Jews in the United States are not bearing

135. Note, *supra* note 127, at 320.

136. Bleich, *Test-Tube Babies*, in *JEWISH BIOETHICS* 80 (1979).

137. "Halakhic" refers to the Halakhah. "[T]he term *halakhah* comprises all the normative rules of Judaism, both the laws applicable between man and man and the precepts concerning man and God." M. ELON, *THE PRINCIPLES OF JEWISH LAW* (1975); see also 5 *NEW ENCYCLOPEDIA BRITANNICA* 627 (15th ed. 1985).

138. See Bleich, *supra* note 136, at 84, and authorities cited therein.

139. Bleich, *supra* note 136, at 84.

140. *Id.*

141. Rosner, *supra* note 129, at 110-11, 115.

enough children to replace themselves."¹⁴² Demographics at Hebrew University in Jerusalem estimate that the Jewish population in the United States will fall by five to seventeen percent by the turn of the century. Elihu Bergman, a Washington, D.C. lobbyist and long-time student of Jewish population trends, holds steadfast to the controversial projections he made while at the Harvard Center for Population Studies in 1977.¹⁴³ If present trends continue, he estimates, the nation's Jewish population will decline to 420,000, or less than a tenth of its present size, by the year 2076.¹⁴⁴

We have considered the various new techniques for conception available through modern medical technology. We have also considered the legal and moral ramifications of conception through these new techniques. We have traveled further in the last decade in conception techniques for humans than in the previous thousand years. Since law is often considered the societal response to societal needs, the law will undoubtedly have to change and give guidance in the many areas discussed in this article.¹⁴⁵ These problems are not only of concern to the couples involved, but also to medical, legal, philosophical, and religious authorities. We can no longer delay dealing with new techniques of conception. They are upon us and are being widely used by couples who otherwise would be frustrated in their efforts to reproduce. We must provide answers in a comprehensive manner, rather than the "hit and miss" technique that has been the response thus far of both law and religion.

142. Putka, *American Judaism: As Jewish Population Falls in U.S., Leaders Seek to Reverse Trend*, Wall St. J., Apr. 13, 1984, at 1, col. 1.

143. *Id.*

144. For a summary of the talmudic view of the Jewish demographic problem and a discussion of the implications of programs to reduce the birth rate, see Tendler, *Population Control—The Jewish View*, in JEWISH BIOETHICS 97-104 (1979).

145. See *Surrogate Parenting Assocs. v. Commonwealth ex rel. Armstrong*, 704 S.W.2d 209 (Ky. 1986) (corporation's surrogate parenting procedure held not violative of statutory proscriptions against "baby brokering"); see also *Surrogate Has Baby Conceived in Laboratory*, N.Y. Times, Apr. 17, 1986, at A26, col. 4 (advance judicial declaration of parenthood for couple whose child was first "baby conceived in a glass dish using the parents' sperm and egg [and] carried [to term] by someone other than the biological mother"). But cf. *Sherwyn & Handel v. California State Dep't of Social Servs.*, 173 Cal. App. 3d 52, 218 Cal. Rptr. 778 (Ct. App. 1985) (court examined statutes that presumed parenthood in married women and fertile husbands and that denied natural father status to semen donors, thereby creating legal barriers to those wishing to employ artificial insemination techniques).

