

1985

New Methods of Conception and their Legal Status

Harriet F. Pilpel

Follow this and additional works at: https://digitalcommons.nyls.edu/journal_of_human_rights

Part of the [Law Commons](#)

Recommended Citation

Pilpel, Harriet F. (1985) "New Methods of Conception and their Legal Status," *NYLS Journal of Human Rights*: Vol. 3 : Iss. 1 , Article 5.
Available at: https://digitalcommons.nyls.edu/journal_of_human_rights/vol3/iss1/5

This Article is brought to you for free and open access by DigitalCommons@NYLS. It has been accepted for inclusion in NYLS Journal of Human Rights by an authorized editor of DigitalCommons@NYLS.

NEW METHODS OF CONCEPTION AND THEIR LEGAL STATUS*

HARRIET F. PILPEL**

I. INTRODUCTION

Most people still make babies the old-fashioned way—they have sexual intercourse. Some years ago, I addressed a meeting in Chicago where a questioner in the audience stated that, in her opinion, men were totally irrelevant to the process of human reproduction. When I suggested, somewhat timidly, that the sperm still played an important part, she replied: “Oh that, we’ll soon find a way to get around that.”

Today there are several technologies by which women can have children without having sexual relations. Although this may seem regrettable to many of us, once a technological breakthrough has occurred, “you can’t put the genie back into the bottle.”¹ Therefore, it seems like a good idea to examine the various methods other than sexual intercourse through which conception can occur and then review the law’s response, if any, to those methods.

I shall briefly discuss each of these new methods of conception starting with artificial insemination and going on to surrogate motherhood, *in vitro* fertilization and embryo transfer.² I will conclude with a few words on the simultaneous development of new legal grounds for action arising out of the new knowledge about, and the greater liberality toward, the process of human reproduction such as wrongful birth, wrongful life, and wrongful conception.³

* This is an expanded version of a speech delivered on March 31, 1984 at Columbia University School of Law. The preparation of this speech was aided by a book entitled *New Conceptions* by lawyer-journalist Lori B. Andrews.

** Of Counsel to Weil, Gotshal & Manges.

1. “As John F. Kennedy once said about nuclear physics, there is no way to return the genie to the bottle. Even if the new methods [of conception] were banned in one country, they would be used and research would be undertaken elsewhere.” LORI B. ANDREWS, *NEW CONCEPTIONS*, at 263 (1984) [hereinafter cited as ANDREWS].

2. See generally ANDREWS, *supra* note 1.

3. See *infra* notes 105-10 and accompanying text.

II. NEW METHODS OF CONCEPTION

A. *Artificial Insemination*

There are three types of artificial insemination. Artificial insemination by husband (AIH) involves a procedure by which a married woman is inseminated with her husband's sperm. Artificial insemination by donor (AID) is insemination of a woman with the sperm of an anonymous donor. The third type is "confused" or "combined" artificial insemination, in which the husband's sperm is mixed with that of an anonymous donor. The legality of artificial insemination by donor was, at one time, questionable.⁴ No statutes explicitly dealt with it, but a few courts had indicated that a woman who allowed sperm from someone other than her husband to be injected into her womb would be guilty of adultery. In effect, the courts which so stated based their decisions on the ground that a woman had no right to allow her reproductive apparatus to make a home for sperm not of her husband.⁵ These opinions also intimated that the child could very well be illegitimate.⁶ Today, approximately twenty-six states have statutes that specifically validate artificial insemination.⁷ Eight or nine of these statutes contain specific rules governing the procedures related to artificial insemination.⁸ Although only one state expressly permits single mothers to be inseminated,⁹ about ten percent of the doctors in the field will inseminate a single woman,¹⁰ even though a doctor's right to do so may be questioned.¹¹

Most statutes require that a physician, or someone under a

4. ANDREWS, *supra* note 1, at 189.

5. *Id.* See also *Doornbos v. Doornbos*, 12 Ill. App.2d 473 (1954), *aff'd*, 139 N.E.2d 844 (1956); *Orford v. Orford*, 49 Ont. L.R. 15, 58 D.L.R. 251 (1921).

6. *Id.* See also *Gursky v. Gursky*, 39 Misc.2d 1083, 242 N.Y.S.2d 406 (Sup. Ct. 1963).

7. Andrews, *The Stork Market: The Law of the New Reproductive Technologies*, 70 A.B.A.J. 50, 53 (1984) [hereinafter cited as *Stork Market Law*].

8. *Id.*

9. OR. REV. STAT. §§ 109.239, .243, .247, 667.355, .360, .365, .370 (1981); see also ANDREWS, *supra* note 1, at 191-92.

10. ANDREWS, *supra* note 1, at 194; see also Wadlington, *Artificial Conception, The Challenge for Family Law*, 69 VA. L. REV. 465, 471 (1983) [hereinafter cited as *Wadlington*].

11. ANDREWS, *supra* note 1, at 194; see also Kritchevsky, *The Unmarried Woman's Right to Artificial Insemination: A Call for an Expanded Definition of Family*, 4 HARV. WOMEN'S L.J. 1 (1981); Note, *Reproductive Technology and Procreation Rights of the Unmarried*, 98 HARV. L. REV. 669 (1985).

physician's supervision, perform the procedure. Eleven states require that artificial insemination records be filed with a state agency but also provide that such records are to be kept confidential. In virtually all states, when the husband and wife consent in writing, the resultant offspring will be considered the legitimate child of the husband and wife. The sperm donor will have no legal rights with reference to the child.¹² Although the law is not entirely clear in this area, there appear to be no laws that specifically forbid the artificial insemination of single women.¹³

Sperm banks have also become commonplace.¹⁴ The evidence indicates that sperm which has been frozen is not as active and must be utilized for insemination within twenty-four hours of its thawing whereas non-frozen semen can be utilized for up to forty-eight hours of its collection.¹⁵ It has been estimated that approximately 10,000 children a year are born as a result of AID.¹⁶ Most doctors will use the sperm of a donor for up to six pregnancies.¹⁷ However, one doctor has actually used the sperm of one donor for fifty pregnancies.¹⁸ It is claimed to be biologically possible for a single donor's sperm to be used to father as many as 20,000 children in one year.¹⁹

Even today, AID is not without its legal problems. Among these problems is the potential for incest. For example, if the same donor is used for inseminating many women, the resultant brothers and sisters may, ignorant of the blood relationship, attract each other and eventually marry.²⁰ At least as far as sperm banks are concerned, state regulation should be made stringent enough to prevent such a possibility.²¹ A number of state statutes have now begun to deal with such problems.

Various guidelines have been suggested for the performance

12. ANDREWS, *supra* note 1, at 191-92.

13. *Id.* at 194.

14. *Id.* at 176; *see also* Reproductive Council Guidelines, 4 AM. A. TISSUE BANKS NEWSLETTER 37 (Nov. 1980).

15. ANDREWS, *supra* note 1, at 178.

16. *Id.* at 160.

17. *Id.* at 174; *see also* Wadlington, *supra* note 10, at 471

18. ANDREWS, *supra* note 1, at 174.

19. *Id.*; *see also* Curie-Cohen, Lutrell & Shapiro, *Current Practice of Artificial Insemination by Donor in the United States*, 300 NEW ENG. J. MED. 585 (1979).

20. ANDREWS, *supra* note 1, at 174.

21. *Id.* at 192.

of artificial insemination with a donor's sperm.²² In the past, it has been found, however, that most of the practitioners in the field do not follow the suggested guidelines.²³ In 1977, when 379 doctors were responsible for 3,576 AID births,²⁴ the screening for genetic disease was found to be generally inadequate.²⁵ One writer has pointed out that much more stringent screening has been done by those who artificially inseminate cows with the sperm of bulls.²⁶

It is not surprising to note that the suggestion has been made recently by a doctor from the Federal Centers for Disease Control that guidelines be established for screening potential sperm donors more carefully.²⁷ In a letter to the *New England Journal of Medicine*, the doctor-author pointed out that there are anecdotal reports of alleged transmission of sexually transmitted diseases in semen by AID.²⁸ While the letter to the *Journal* clearly suggests the need for better methods of genetic screening of donors, the author stopped short of suggesting actual legal requirements.²⁹ Even with respect to sperm banks, there are also very few legal requirements.³⁰

Obviously, even doctors who rigorously screen sperm donors cannot warrant that every AID child will be free of genetic defects.³¹ Generally, however, children who are the result of artificial insemination are probably less likely to be plagued by genetic defects than other children.³² One reason for this may be that the people involved are so very anxious to have a healthy baby that they take extra precautions.³³

22. *Id.* at 168; see also AMERICAN FERTILITY SOCIETY, REPORT OF THE AD HOC COMMITTEE ON ARTIFICIAL INSEMINATION (1980); *Reproductive Council Guidelines*, 4 AM. A. TISSUE BANKS NEWSLETTER 37 (Nov. 1980).

23. ANDREWS, *supra* note 1, at 168.

24. *Id.* at 169.

25. *Id.*

26. *Id.* at 172.

27. 309 NEW ENG. J. MED. 1058 (1983).

28. *Id.*

29. *Id.*

30. See ANDREWS, *supra* note 1, at 196.

31. *Id.* at 193.

32. *Id.* at 271.

33. *Id.* at 267.

B. Surrogate Motherhood

Another new method of conception is surrogate motherhood. This procedure is more complicated both legally and factually than is artificial insemination with a donor's sperm.³⁴ Thus far, no state statutes explicitly regulate surrogate motherhood, but laws have been introduced in Alabama, Alaska, California and Tennessee to do so.³⁵ And in only three or four states have there been court decisions which appear to regard surrogate mother contracts as valid in certain limited circumstances.³⁶

A surrogate mother is ordinarily sought when a woman who is infertile and/or cannot carry a fetus to term decides with her husband to utilize the services of another woman willing to be artificially inseminated with the husband's sperm.³⁷ When the baby is born, it is intended to be the legitimate child of the husband and wife and not the legitimate child of the surrogate mother. This is the subjective intent of the parties involved. Since there are no clarifying laws on the subject, however, it is not clear that this would be the legal result of a surrogate mother arrangement.³⁸ Some of those who have arranged for surrogate mother procedures have had to prepare elaborate contracts delineating the rights of all the parties involved.³⁹

I have been approached from time to time by couples who wanted help in locating a surrogate mother. It is well known that

34. It has been suggested that the surrogate mother arrangement may implicate the adoption statutes of many states which prohibit private adoptions. The arrangement may also implicate existing legal presumptions of paternity, statutes governing artificial insemination, and even antislavery laws. ANDREWS, *supra* note 1, at 226-29.

35. The legislatures of Connecticut, Hawaii, Kansas, Michigan and South Carolina have also been presented with proposed legislation. ANDREWS, *supra* note 1, at 237.

36. See, e.g., *Noyes v. Thrane*, No. CF7614 (Cal. Super. Ct., L.A. Co., filed Feb. 20, 1981); *In re Baby Girl*, No. 83 AD (Jefferson Co., Ky., Cir. Ct., 6th Div., filed Mar. 8, 1983).

37. ANDREWS, *supra* note 1, at 6. It is obvious that by definition a surrogate mother arrangement may be entered into by single individuals, homosexual couples or unmarried, infertile heterosexual couples who desire a child but who are biologically incapable of conceiving.

38. According to the common law, the child would be illegitimate. See BLACK'S LAW DICTIONARY 673 (5th ed. 1979).

39. These contracts attempt, *inter alia*, to define the legal rights, responsibilities, and status of the individuals involved in the surrogate mother arrangement. See Brophy, *A Surrogate Mother Contract to Bear a Child*, 20 J. FAM. L. 263 (1981-82); Comment, *Contracts to Bear a Child*, 66 CALIF. L. REV. 611 (1978); Note, *The Surrogate Mother Contract in Indiana*, 15 IND. L. REV. 807 (1982).

there are agencies in California,⁴⁰ Michigan and Kentucky which try to find surrogate mothers. At the present time, Noel P. Keane, the lawyer who has been most active in this field, and who handled a case in Michigan concerning a surrogate arrangement that ended inconclusively, has opened a facility in New York City to find surrogate mothers for couples who want them.⁴¹ There is also one such facility in Pennsylvania.⁴²

In the opinion of many lawyers and legislators, the surrogate mother procedure may be illegal.⁴³ Thus far, a bill barring surrogate motherhood has been proposed in Michigan.⁴⁴ Its constitutionality may be questionable.⁴⁵ However, if the proper safeguards are devised, the surrogate mother procedure can enhance a freedom of reproductive choice for the couple involved for whom it can be seen as an appropriate exercise of their constitutional right to privacy.⁴⁶

Achieving conception by artificial insemination can, as a practical matter, be kept confidential. Using surrogate motherhood, however, can lead to problems concerning anonymity. Very often the couple does meet the surrogate mother and there is a great deal of confusion as to the extent to which payments

40. Dr. William Karow formed one of the initial surrogate parenting centers in Los Angeles. ANDREWS, *supra* note 1, at 205.

41. Noel P. Keane, an attorney from Dearborn, Michigan, founded the Infertility Center of New York in Fall, 1983.

42. Burton Satzberg is the contact person for Surrogate Mothering Limited which is located at 42 South 15th Street in Philadelphia, Pennsylvania.

43. Surrogate mother arrangements may be viewed as violating certain state adoption statutes prohibiting private adoptions, or those prohibiting payment in connection with an adoption, or those mandating a waiting period during which a biological mother may not consent to terminate parental rights. ANDREWS, *supra* note 1, at 227.

44. The bill was proposed by Representative Connie Binsfield, a former Michigan "Mother of the Year." ANDREWS, *supra* note 1, at 241.

45. Some legal scholars have argued that both the infertile couple and the surrogate mother have certain constitutionally protected fundamental rights—most notably the right to privacy. Among the zones of privacy protected and implicated by the surrogate mother arrangement are the right to be free from state interference with procreation, the right of marital privacy and the right to decide whether to bear or beget a child. Note, *In Defense of Surrogate Parenting: A Critical Analysis of the Recent Kentucky Experience*, 69 Ky. L. J. 877, 919 (1980-81). See also, Keane, *Legal Problems of Surrogate Motherhood*, 1980 So. Ill. U. L.J. 147, 161-62 (1980) [hereinafter cited as Keane].

46. The right to marital privacy has been recognized by the Supreme Court on a number of occasions. *E.g.*, *Smith v. Organization of Foster Families*, 431 U.S. 816, 842 (1977); *Loving v. Virginia*, 388 U.S. 1 (1967); *Griswold v. Connecticut*, 381 U.S. 479 (1965); *Prince v. Massachusetts*, 321 U.S. 158 (1944); *Pierce v. Society of Sisters*, 268 U.S. 510 (1952).

may come from the would-be parents to the surrogate mother, to the doctors, and to the lawyers who are involved in the procedure.⁴⁷ The American College of Obstetricians and Gynecologists (ACOG) has formally recognized the widespread interest in the surrogate motherhood procedure and has urged that any physician who participates in such arrangement should see to it that fertility services, obstetric services and counselling services are provided and should examine all relevant issues with great care. These include the legal, psychological, societal, medical and ethical aspects.⁴⁸ The ACOG cautions that simple clear solutions on these subjects cannot be anticipated and further states:

Significant ethical concerns exist even in the most uncomplicated situation involving an infertile married couple and no financial transactions. Additional concerns which result in the payment of fees and from special circumstances such as surrogate use for convenience or single parenting magnify the ethical complication.⁴⁹

In New York City, there is an Infertility Center⁵⁰ which provides alternatives for childless couples, including surrogate parenting. Its circular points out that today one out of every six couples of childbearing age is unable to have a child.⁵¹ The Center's brochure goes on to state that, "The Infertility Center offers childless couples a practical alternative—surrogate parenting. The advantages are clear: the husband is the biological father, the couple is involved in selecting the surrogate mother together, and there is no prolonged waiting period."⁵² The Infertility Center of New York was founded in 1983 by Michigan attorney Noel P. Keane who, according to the circular, in 1976 pioneered the surrogate mother concept and has spent the nine

47. Indeed, to some, any compensation paid in connection with surrogate mothering is "heinous." ANDREWS, *supra* note 1, at 225.

48. ACOG Statement of Policy, Approved by the Executive Board May, 1983 (available from the American College of Obstetricians and Gynecologists, 600 Maryland Ave., S.W., Suite 300 E., Washington, D.C. 20024-2588).

49. *Id.*

50. The Infertility Center of New York, 14 East 60th Street, Suite 1204, New York, New York 10022.

51. Alternatives for Childless Couples (brochure available from The Infertility Center of New York).

52. *Id.*

years since then assisting over 120 infertile couples who wanted to become parents. The introduction to the brochure claims that Keane's program "was the first and is still the largest and most successful." The circular ends by offering: "We are anxious to help you. Please contact us."⁵³

When I have been in touch with couples that want to use surrogate motherhood, I have checked with facilities in California, Michigan, Kentucky, Pennsylvania and New York and have decided that an attorney practicing in this field should tread very lightly and carefully.⁵⁴ The experience with surrogate motherhood has been limited but serious problems have arisen. These problems stem in part from the refusal of one of the parties involved to honor the agreement initially entered into. In one instance, a baby was born with defects and neither party wanted the child.⁵⁵ In another situation, the child borne by the surrogate mother was not the baby of the father of the couple that wanted to use the surrogate mother procedure. Although the surrogate did not have intercourse with her husband after she was artificially inseminated with the donor's sperm, she did have intercourse with her husband prior to insemination.⁵⁶

In the state of Kentucky there has been a great deal of unrest about the surrogate mother method and the Attorney General has brought an action to have the procedure declared illegal.⁵⁷ It is interesting to note that thus far he has been

53. *Id.*

54. Presently, in this area, attorneys encounter many legal, moral, and ethical difficulties. See Comment, *Surrogate Motherhood: The Attorney's Legal and Ethical Dilemma*, 11 *CAP. U. L. REV.* 593 (1982).

55. Surrogate mother Judy Stiver of Lansing, Michigan gave birth in January, 1983 to a child afflicted with microcephaly, a disorder indicating possible mental retardation. Alexander Malahoff, who had contracted for the child, decided he no longer wanted it and Mrs. Stiver said she felt no maternal bond towards the baby. The state of Michigan was therefore compelled to become the guardian of the child. *Stork Market Law*, *supra* note 7, at 56.

56. This incident emphasizes the minimal amount of medical screening which the surrogate mother and the biological father may receive. One author recommends that a contracting couple make certain that the proposed surrogate mother undergo psychological screening as well as physical examination to determine her ability to bear and relinquish the child. *ANDREWS*, *supra* note 1, at 216-17.

57. *Commonwealth v. Surrogate Parenting Association, Inc.*, Civ. No. 81-CI-0121 (Franklin Co., Ky. Cir. Ct., filed Jan. 27, 1981). The filing of this action was reported in Castillo, *Kentucky Attorney General Calls Surrogate Motherhood Illegal*, *N.Y. Times*, Jan. 28, 1981, at C9, col. 1.

unsuccessful in that action.⁵⁸

For the practicing attorney, the best advice I can give is to read everything and talk to as many people as possible. Or, see whether or not the matter can be turned over to an "expert," if you can satisfy yourself as to who qualifies for that title.⁵⁹ Given the current status of surrogate motherhood, certain legal steps must be taken after the biological steps are taken.⁶⁰ The actual surrogate mother must first give up her parental rights. This means that the biological father is left with his parental rights. The wife of the father may then adopt the child.⁶¹ Oddly enough, in this situation, the statutes on artificial insemination can be a problem since they typically provide that the donor of sperm is *not* the legal father of the child.⁶²

C. *In Vitro Fertilization*

In vitro fertilization may be considered "simpler" than artificial insemination and surrogate motherhood because only a husband and a wife are necessary for the procedure.⁶³ The technique entails the surgical removal of an egg from a woman.⁶⁴ A physician then fertilizes the egg in a petri dish using the husband's sperm and then implants the embryo in the wife's womb

58. The action was dismissed on jurisdictional grounds. Order Dismissing, Commonwealth v. Surrogate Parenting Association, Inc., Civ. No. 81-CI-0121 (Franklin Co., Ky. Cir. Ct., filed Jan. 27, 1981).

59. This is an area in which expertise in a variety of fields (obstetrics, psychology, constitutional, family and contractual law) is highly desirable.

60. Given the uncertain legal status, however, it is questionable whether such steps may be legally taken as the constitutionality of the surrogate mother arrangement has yet to be established.

61. For the difficulties encountered in this procedure, see Keane, *supra* note 45.

62. See Comment, *New Reproductive Technologies: The Legal Problem and a Solution*, 49 TENN. L. REV. 303 (1982) [hereinafter cited as Comment, *New Reproductive Technologies*], which proposes a comprehensive Modified Uniform Parentage Act to eradicate this difficulty.

63. *In vitro* fertilization, though, need not be confined to husbands and wives. Indeed, any governmental restriction limiting the procedure to married couples may abridge an unmarried couple's right to privacy in the decision to bear a child. See Note, *In Vitro Fertilization: Hope for Childless Couples Breeds Legal Exposure for Physicians*, 17 U. RICH. L. REV. 311, 329-32 (1983) [hereinafter cited as Note, *In Vitro Fertilization*]; and Quigley & Andrews, *Human In Vitro Fertilization and the Law*, 42 FERTILITY AND STERILITY 348, 353 (1984) [hereinafter cited as Quigley & Andrews].

64. See ANDREWS, *supra* note 1, at 121, 127-34 for an in-depth discussion of the procedure.

with the hope and intention she will then carry the fetus to term.⁶⁵

It seems quite clear that the woman faces minimal risk of harm from this procedure.⁶⁶ Studies have also shown that there is virtually no risk to the implanted fetus.⁶⁷ Some doctors, though, do believe that more research on animals should be undertaken.⁶⁸

In 1978, Louise Brown became the first baby born as the result of *in vitro* fertilization.⁶⁹ Since her birth, other children have been conceived through successful *in vitro* procedures.⁷⁰ And the technology involved is advancing. For example, in India an egg was removed from a woman and fertilized *in vitro*. After it had been frozen for fifty-three days, it was successfully implanted in the woman's womb.⁷¹

65. *Id.*

66. Risks which the woman still faces are: (1) the development of ovarian cysts resulting from hormone treatments given to induce ovulation of several eggs at once; and (2) problems from the general anesthetic administered to the patient when the physician removes the eggs. Lorio, *In Vitro Fertilization and Embryo Transfer: Fertile Areas for Litigation*, 35 S.W. L.J. 973, 982 (1982) [hereinafter cited as Lorio]. The dangers involved in using general anesthetic for *in vitro* fertilization would not be greater than those for other types of surgery. Physicians have even developed a procedure for removing eggs with a local anesthetic and without surgery. Scott, *Bioethics: Experimental Medicine*, 1984 N.Z.L.J. 228, 229 (1984) [hereinafter cited as Scott]. That procedure entails the use of ultrasound to view the ovaries and a needle to remove the ova. *Id.* See also Henahan, *Fertilization, Embryo Transfer Procedures Raise Many Questions*, 252 J. A.M.A. 878, 877 (1984) [hereinafter cited as Henahan].

67. An international survey of two hundred service providers using *in vitro* fertilization showed that this technique does not cause an increase in fetal abnormalities. Henahan, *supra* note 66. See also Wadlington, *supra* note 10, at 474. It should be remembered, though, that between forty and fifty percent of the embryos fertilized the "old fashioned way" are spontaneously aborted because of such deformities. *Id.*

68. Lorio, *supra* note 66. The Ethical Advisory Board also recommended further animal studies. Note, *In Vitro Fertilization*, *supra* note 63, at 326. The federal regulations concerning fetal research specify that no research should be undertaken unless "appropriate studies on animals and nonpregnant individuals have been completed" 45 C.F.R. § 46.206 (1984).

69. Henahan, *supra* note 66.

70. There are about one thousand babies which were conceived *in vitro*. Capron, *The New Reproductive Possibilities: Seeking a Moral Basis for Concerted Action in a Pluralistic Society*, 12 L., MED. & HEALTH CARE 192, 195 (1984) (This article is based on the author's testimony before the Subcommittee on Investigations and Oversight of the Committee on Science and Technology of the United States House of Representatives, Aug. 8, 1984).

71. In March, 1984, the first baby resulting from a frozen embryo was born. Henahan, *supra* note 66, at 878. For a technical discussion of the procedure, see *id.* at 878-79.

Approximately 120 centers in the United States perform *in vitro* fertilization.⁷² And, although few clinics have had regular success,⁷³ there is a great demand for the procedure. Each clinic has at least a two year waiting period⁷⁴ and one clinic in Norfolk, Virginia has a backlog of ten thousand women applying for the procedure.⁷⁵

Many legal and ethical questions have arisen concerning *in vitro* fertilization. A doctor, typically, removes and fertilizes more than one egg and inserts several of them into the uterus of the woman.⁷⁶ In some instances multiple births are the result.⁷⁷ In other instances not all of the fertilized eggs need to be used, thus creating the problem of what should be done with "extra" embryos.⁷⁸ For those who believe that a human life begins at the

In the summer of 1984, an American couple who had been participating in an *in vitro* fertilization program in Melbourne, Australia were killed in a plane crash. Their two fertilized frozen embryo, however, remained. It was unsuccessfully argued in court that the embryos were the "heirs" to the couple's estate. *Id.* at 879.

For a discussion of the legal and social issues raised by the storage of frozen embryos, see Brahams, *The Legal and Social Problems of In Vitro Fertilisation: Why Parliament Must Legislate - I*, 133 New L. J. 859, 859-60 (1983) [hereinafter cited as Brahams, *Problems of IVF-I*].

72. It was estimated that there would be between 200 and 250 clinics offering *in vitro* fertilization in America by the end of 1984. Scott, *supra* note 66.

The best known clinic is run by Drs. Howard and Georgeanna Jones in Norfolk, Virginia. *In vitro* fertilization is performed there only with husbands and wives. However, the clinic will eventually extend the procedure to single people.

73. The American Fertility Society and medical journals report the success rate for the procedure is ten to twenty percent. ANDREWS, *supra* note 1, at 137. *In vitro* fertilization will not be successful if the physician cannot remove an egg from the woman, if the fertilized embryo does not divide properly, or if the embryo does not implant in the womb. *Id.* Moreover, ectopic pregnancies, spontaneous abortions or stillbirths might result. *Id.*

74. In Melbourne, Australia, there is also a two year waiting list. ANDREWS, *supra* note 1, at 137.

75. *Id.* at 151.

76. Henahan, *supra* note 66, at 878. A woman's chances of a successful pregnancy increase with the number of eggs placed into her uterus. *Id.* "[T]he overall success rate was 9.7% for one embryo replacement, 14.7% for two replaced embryos, 19.4% for three embryos, and 23.8% for four." *Id.*

77. A recent international study of two hundred service providers, inducing 517 pregnancies by *in vitro* fertilization, concluded that "[m]ost of the pregnancies resulted in single births, but there were also fifty-six sets of twins, seven sets of triplets, and two sets of quadruplets." *Id.* at 877.

78. They can be discarded, used for research, or frozen for future implantation. France, *In Vitro Fertilization: A Brave New World?* 1984 N.Z.L.J. 234, 235 (1984) [hereinafter cited as France].

Any research conducted on fertilized eggs would be subject to relevant state law and,

moment of conception, the disposal of these fertilized eggs presents a serious and as yet unresolved problem.⁷⁹

The eggs may be implanted in another woman's womb.⁸⁰ As Lori Andrews points out,⁸¹ it is possible for the resulting child to have five parents: the donor of the egg, the donor of the sperm, the woman who provides her womb for the fertilized egg for nine months, and the couple who rears the child.⁸²

if the research were federally funded, then it would also be subject to federal regulation. 45 C.F.R. § 46 (1984). The federal regulations state that an institutional review board must determine that the subjects are appropriately selected and give informed consent. 45 C.F.R. § 46.205 (1984). Moreover, no research may be done without appropriate preliminary studies on animals and non-pregnant women. 45 C.F.R. § 46.206(a)(1) (1984). The risks involved must be minimized. 45 C.F.R. § 46.206(a)(2) (1984). Those engaged in the research may not determine whether to terminate the pregnancy and they may not enhance the risks of the procedure or offer an economic inducement to terminate the pregnancy. 45 C.F.R. § 46.206(a)(3)-(4) (1984).

The Ethical Advisory Board of the Department of Health and Human Services has recommended that research on *in vitro* fertilization be supported with federal funds. Note, *In Vitro Fertilization*, *supra* note 63, at 326. The Board conditioned any funding on the following: (1) embryos must be implanted within fourteen days after fertilization; and (2) only married couples be the participants. *Id.*

For a discussion of how other countries are approaching such research, see Quigley & Andrews, *supra* note 63, at 351.

For a discussion of freezing embryos, see Henahan, *supra* note 66, at 878-79 and Brahams, *Problems of IVF-I*, *supra* note 71.

To avoid the issue of what to do with the embryos which have not been replaced immediately, physicians in different countries have selected various alternatives. In the United States, all fertilized embryos are replaced into the donor. Note, *In Vitro Fertilization*, *supra* note 63, at 317. In New Zealand, only three eggs can be removed from the woman and all are replaced into her womb. France, *supra*. In Australia, more eggs can be removed, but only three of them may be implanted into the woman's womb at one time. *Legal Aspects of New Reproductive Technologies - A Panel Discussion*, 6 WHITTIER L. REV. 781, 804 (1984). The woman then signs a contract which specifies either that she will have the other embryos implanted in her at some other time or that she will donate them to another woman. *Id.*

79. See ANDREWS, *supra* note 1; and Lorio, *supra* note 66, at 981.

80. In Australia, doctors have implanted donors' eggs fertilized *in vitro* into the wombs of other women and successful births have resulted. Henahan, *supra* note 66, at 878.

81. Stork Market Law, *supra* note 7.

82. Andrews, *The Stork Market: Legal Regulation of the New Reproductive Technologies*, 6 WHITTIER L. REV. 789, 791 (1984). "Since the law currently recognizes the woman who gives birth as the child's legal mother, the woman who gives birth after embryo transfer or *in vitro* fertilization using a donor egg would presumptively have parental rights to the child." *Id.* at 797. But see Wadlington, *supra* note 10, at 488-514. Wadlington accepts the view that biology is the "test of maternity"; therefore, an ovum donor would be considered the child's mother. *Id.* at 495. He adds, though, that the courts could develop a presumption that the mother is the woman who delivers the baby.

Another question which has been raised in connection with *in vitro* fertilization is, should the technique be available only when conception in the "old-fashioned" way is impossible.⁸³ At present, clinics limit access to the procedure to married couples in situations in which the wife cannot conceive but can carry to term, and situations in which the husband has a low sperm count.⁸⁴

There are legal obstacles to *in vitro* fertilization as well. These include state laws which place a generalized ban on fetal research.⁸⁵ However, the District Attorney of Boston considered *in vitro* fertilization in light of the state fetal research statute and determined that the technique would be legal as long as the physician implants all the fertilized eggs into the woman.⁸⁶

Only two states have passed laws specifically addressing *in vitro* fertilization. The Pennsylvania statute requires anyone conducting or experimenting in *in vitro* fertilization to file quarterly reports.⁸⁷ The State of Illinois passed a peculiar law which

Id. For a discussion of possible combinations of parents, the issues involved, and suggestions for legal reform, see Comment, *New Reproductive Technologies*, *supra* note 62.

One British commentator aptly surmized, "surrogate motherhood by *in vitro* fertilization of donated embryos lays open a potential legal minefield." Brahams, *The Legal and Social Problems of In Vitro Fertilisation: Why Parliament Must Legislate-II*, 133 New L.J. 881, 881 (1983).

83. One bioethicist named Joseph Fletcher considers *in vitro* fertilization a better means of procreation than the "old-fashioned way," which is less controlled and deliberative. Lorio, *supra* note 66, at 980.

Others fear that the family unit will be eroded if single individuals have access to *in vitro* fertilization. Note, *In Vitro Fertilization*, *supra* note 63, at 319. "We're on a slippery slope. Western society is built around the family; once you divorce sex from procreation, what happens to the family?" *Id.*

84. ANDREWS, *supra* note 1, at 122-23. Conception is generally impossible when the fallopian tubes are scarred or blocked because of infection, a sexually transmissible disease, an ectopic pregnancy, a congenital problem or a tubal ligation. *Id.* at 123. Programs have rejected couples with unexplained fertility problems. Quigley & Andrews, *supra* note 63.

85. *E.g.*, MICH. STAT. ANN. § 14.15 (2682) (Callaghan 1980), which reads in pertinent part:

(1) A person shall not use a live human embryo, fetus, or neonate for non-therapeutic research if, in the best judgment of the person conducting the research, based upon the available knowledge or information at the approximate time of the research, the research substantially jeopardizes the life or health of the embryo, fetus, or neonate.

See also Quigley & Andrews, *supra* note 63, at 349.

86. *Id.*

87. 18 PA. CONS. STAT. ANN. § 3213(e) (Purdon 1983):

provides that a doctor who fertilizes an egg becomes the custodian of the resulting child within the meaning of an 1877 child abuse law.⁸⁸ There is no provision for the custody to return to the parents.⁸⁹

In vitro fertilization.—All persons conducting, or experimenting in, *in vitro* fertilization shall file quarterly reports with the department, which shall be available for public inspection and copying, containing the following information:

- (1) Names of all persons conducting or assisting in the fertilization or experimentation process.
- (2) Locations where the fertilization or experimentation is conducted.
- (3) Name and address of any person, facility, agency or organization sponsoring the fertilization or experimentation except that names of any persons who are donors or recipients of sperm or eggs shall not be disclosed.
- (4) Number of eggs fertilized.
- (5) Number of fertilized eggs destroyed or discarded.
- (6) Number of women implanted with a fertilized egg.

Any person required under this subsection to file a report, keep records or supply information, who willfully fails to file such report, keep records or supply such information or who submits a false report shall be assessed a fine by the department in the amount of \$50 for each day in which that person is in violation hereof.

88. 38 ILL. ANN. STAT. ch. 38, § 81-26(7) (Smith-Hurd Supp. 1984-85):

(7) Any person who intentionally causes the fertilization of a human ovum by a human sperm outside the body of a living human female shall, with regard to the human being thereby produced, be deemed to have the care and custody of a child for the purposes of Section 4 of the Act to Prevent and Punish Wrongs to Children, approved May 17, 1877, as amended, except that nothing in that Section shall be construed to attach any penalty to participation in the performance of a lawful pregnancy termination.

Two cases have challenged the constitutionality of the statute. In *Charles v. Carey*, 579 F. Supp. 377 (E.D. Ill. 1983), *rev'd in part*, 579 F. Supp. 464 (E.D. Ill. 1983), a doctor and an abortion clinic sought an injunction against the enforcement of the state abortion statute which includes the subsection concerning *in vitro* fertilization. The court granted a preliminary injunction of § 81-26(7), stating that "the thrust of this section may be permissible," but that it could not include the phrase "human being," which the court found unconstitutional. *Id.* at 380 n.5. The injunction was lifted, however, in the final hearing. *Id.* at 471. The court there recognized that the plaintiffs lacked standing to challenge this section. *Id.*

In *Smith v. Hartigan*, 556 F. Supp. 157 (N.D. Ill. 1983), an infertile couple and a doctor who wanted to undertake *in vitro* fertilization brought suit against the Attorney General and the State's Attorney on the grounds that the Illinois statute prohibited *in vitro* fertilization and thus invaded the couple's fundamental right to privacy. The defendants successfully contended that the law did not prohibit the medical procedure and that they had no intention of prosecuting anyone under the statutory provision. *Id.* at 162, 164. Therefore, the court dismissed the case as it failed to present a "case or controversy." *Id.* at 164.

89. 38 ILL. ANN. STAT. ch. 38, § 81-26(7) (Smith-Hurd Supp. 1984-85).

The first court case concerning *in vitro* fertilization arose in New York when the chairman of the relevant hospital department destroyed a fertilized embryo in a petri dish.⁹⁰ The parents, who were understandably distraught, ended up with a \$50,000 judgment for anguish, pain and suffering.⁹¹

Thus, we can see that the procedure is not without danger from a legal point of view, although it seems relatively safe from a medical point of view.

D. Embryo Transfer

The newest reproductive technique available is embryo transfer. The *Washington Post* of February 4, 1984 reported that a medical team had announced the first birth of a baby by a woman who had received a fertilized egg from the womb of another woman. Embryo transfer, also known as artificial embryonation, "is the transfer, four to five days after fertilization, of a human embryo from the uterus of a fertile donor to the uterus of an infertile recipient, who will then carry the embryo to term."⁹² One possible scenario is that a woman becomes pregnant when an egg has been fertilized by the sperm the "old-fashioned" way. She and the father do not want the baby. There is, however, a couple standing by that has not been able to conceive and they want the baby. These are usually cases when the wife can maintain a pregnancy but for various medical reasons cannot conceive.⁹³ The fertilized egg is removed from the womb of the original woman and is inserted into the womb of the woman who desires to have the child.⁹⁴ It has been suggested that this procedure might be a partial solution to the "abortion problem."

90. *Del Zio v. Manhattan's Columbia Presbyterian Medical Center*, No. 74-3558 (S.D.N.Y., filed April 12, 1978). See ANDREWS, *supra* note 1, at 155-58.

91. *Id.*

92. ANDREWS, *supra* note 1, at 251. The embryo to be transferred may be obtained from a woman who has become pregnant the "old fashioned way" and does not want to have the child, or from a woman who has been artificially inseminated, or by *in vitro* fertilization, and implanted into [another] woman's uterus for gestation. *Id.* at 246-47.

93. Blocked or absent Fallopian tubes are two possible reasons that conception may be impossible, but gestation possible. ANDREWS, *supra* note 1, at 246.

94. The embryo is flushed out of the donor's uterus, and implanted in a recipient's uterus, whose menstrual cycle must be synchronized exactly to the donor's, so that the uterus is ready for the embryo's implantation. ANDREWS, *supra* note 1, at 248-51.

The embryo transfer is medically simpler than *in vitro* fertilization.⁹⁵ It requires that the infertile woman accept an egg from a donor which has been fertilized with the sperm of either the infertile woman's husband or someone else. The child the woman bears, therefore, is in the unique position of not being genetically related to the woman who bears it, even though the woman has actually carried the child for the full pregnancy period.⁹⁶ Because the cost of an embryo transfer is quite high,⁹⁷ this is not a process which is widely used. There are efforts being made, however, to make the process more available.⁹⁸ With reference to this technique, it also should be borne in mind that there may be extensive destruction of fertilized eggs.⁹⁹

Federal law requires that all institutions receiving research funds from the Department of Health and Human Services (HHS) must establish an institutional review board to review biomedical and behavior research.¹⁰⁰ HHS, in implementing this

95. Embryo transfer is simpler because it can rely on nature to provide the embryo, instead of requiring *in vitro* (medically manipulated) fertilization of egg and sperm outside a woman's body. ANDREWS, *supra* note 1, at 251.

96. The child's genetic parents would be the egg and sperm donors, in cases where a couple donate an unwanted embryo to an infertile woman for gestation. In cases where the egg donor is artificially inseminated with the infertile woman's husband's sperm, the child's genetic parents would be the egg donor, and the infertile woman's husband. The only case in which the child's genetic parents are the woman who bears it and her husband would be when the infertile woman donates an egg which is fertilized *in vitro* by her husband's sperm, and reimplanted in her body for gestation. ANDREWS, *supra* note 1, at 240-53.

97. Costs range between \$4,000 and \$7,000 for each attempted embryo transfer.

98. A team in Chicago is hoping to expand its present list of twelve ovum donors, who are paid \$250 each month they undergo tests or ovum transfers, to about fifty women. This would make it easier to match blood type, hair and eye color, and menstrual cycles. It is essential that the menstrual cycle of the recipient and donor coincide within about twelve hours of each other. ANDREWS, *supra* note 1, at 250-53.

99. In cases where the embryo is obtained by *in vitro* fertilization, more than one egg is fertilized and up to three are implanted into the recipient's uterus, to increase the chances of successful implantation. When extra eggs are obtained, "the patient has to decide what to do with the excess." ANDREWS, *supra* note 1, at 247, *see also supra* notes 70 & 74 and accompanying text.

100. 42 U.S.C. § 2891-3 (1982) provides in pertinent part:

(a) The Secretary shall by regulation require that each entity which applies for a grant or contract under this chapter which involves the conduct of biomedical or behavioral research involving human subjects submit . . . assurances satisfactory to the Secretary that it has established . . . a board to review biomedical and behavioral research involving human subjects conducted at or sponsored by such entity in order to protect the rights of the human subjects of such research.

law, requires that all such research be conducted at an institution and reviewed by its institutional review board, whether or not the particular research is supported by HHS.¹⁰¹ The HHS Advisory Board has said that it "is concerned about the ambiguity regarding the legal status of children born following artificial insemination and a similar ambiguity that may surround the legal status of children born following *in vitro* fertilization and embryo transfer."¹⁰² They recommend that a "uniform law be drafted that would establish with clarity the rights and responsibilities of donors and of recipient 'parents' of offspring, and of those who participate in the process of reproduction through new technologies."¹⁰³ They also urge that such uniform or model laws "be drafted by the National Conference of Commissioners on Uniform State Laws, the American Law Institute, or some other qualified body."¹⁰⁴

Others have claimed that none of these new reproductive processes, except artificial insemination, have reached the point where an intelligent law could be constructed.

III. NEW FORMS OF LEGAL ACTIONS ARISING FROM INCREASED KNOWLEDGE AND CONTROL OF HUMAN REPRODUCTION

Several new causes of legal action have developed with the growth of understanding and technology in the areas of human reproduction, fertilization and surrogate motherhood. We now have actions for wrongful conception brought by parents who, assured by their physicians that they would not conceive, have nevertheless conceived despite sterilization of a partner, or de-

Id.

101. 45 C.F.R. § 46.114 provides in pertinent part:

Cooperative research projects are those projects, normally supported through grants, contracts, or similar arrangements, which involve institutions in addition to the grantee or prime contractor . . . [W]hen cooperating institutions conduct some or all of the research involving some or all of these subjects, each cooperating institution shall comply with these regulations *as though it received funds for its participation in the project directly from the Department*

. . . .
Id. (emphasis added).

102. Report and Conclusions: HEW Support of Research Involving Human *In Vitro* Fertilization and Embryo Transfer, at 113, Department of Health, Education and Welfare, Ethics Advisory Board, 4 May, 1979.

103. *Id.* at 113-14.

104. *Id.* at 114.

spite a partner's diagnosis as infertile.¹⁰⁵ Generally speaking, the courts have held that there can be no recovery for the costs of rearing a normal, but unwanted and unexpected, child.¹⁰⁶ Most courts have considered that just having a normal child is a blessing in and of itself. Some courts do allow judgments covering the cost of pregnancy and childbirth, and limit the recovery to just that.¹⁰⁷ On the other hand, six states have held that parents can recover the normal costs for bringing up a normal child which was not supposed to have been conceivable.¹⁰⁸

The most poignant cases are those which involve the birth of children who, while not necessarily unwanted or unaccepted, do suffer from birth defects of varying degrees of severity. These cases result in actions for wrongful life¹⁰⁹ and actions for wrong-

105. "Wrongful conception," also termed "wrongful pregnancy," is a cause of action exclusively available to the parents. The injury occurs at the point of conception and occurs as a result of a negligently performed sterilization or a failure of a sterilization procedure. (In *Troppe v. Scarf*, 31 Mich. App. 240, 187 N.W.2d 511 (1971), recovery was allowed for maintenance and support of a child conceived after the mother's birth control pill prescription was negligently filled.) In a female, the sterilization procedure is called bilateral tubal ligation or a salpingectomy. This is a surgical procedure done under general anesthesia whereby the fallopian tubes are severed. An inadequately severed tube will be ineffective in preventing conception. A vasectomy is the male counterpart to the female sterilization procedure. This involves the cutting of the vas deferens, the tube connecting the testes with the urinary canal. Failure in these instances involves the recanalization of the vas deferens or inadequate lapse of time between surgery and intercourse when the ejaculate still contains sperm. Note, *Effective Sterilization*, 113 U. PA. L. REV. 415, 416-17 (1965); 5 *TRAUMATIC MEDICINE AND SURGERY FOR THE ATTORNEY* at 69 (unnumbered footnote), 590 (P.D. Cantor ed. 1964).

106. This is a minority position that denies all recovery for damages as a matter of law. See *Terrell v. Garcia*, 496 S.W.2d 124 (Tex. Civ. App. 1973), *cert. denied*, 415 U.S. 927 (1973); *Rieck v. Med. Protective Co. of Fort Wayne, Ind.*, 64 Wis.2d 514, 219 N.W.2d 485 (1974).

107. This includes all expenses incident to the pregnancy including medical expenses, damages for the mother's pain and suffering, and for loss of consortium. *Coleman v. Garrison*, 349 A.2d 8 (Del. Supr., 1975).

108. Courts are allowing damages for the normal costs of raising and rearing a child, not as damages for the new life but to offset the diminution of the family wealth that necessarily resulted in the hardship to the other family members. *Custodio v. Bauer*, 251 Cal. App. 2d 303, 59 Cal. Rptr. 463, 27 A.L.R.3d 884 (1967). And, even though damages are allowed in these instances, the amount of the award is offset by the benefits the parents receive as a result of the birth of this child. This is known as the "Benefits Rule," *RESTATEMENT OF TORTS* § 920, as applied in *Troppe v. Scarf*, 31 Mich. App. 240, 187 N.W.2d 511 (1971); *Sherlock v. Stillwater Clinic*, 260 N.W.2d 169 (1977).

109. One of the earliest cases to coin an action on behalf of a child as "wrongful life" was *Zepeda v. Zepeda*, 41 Ill. App. 2d 240, 190 N.E.2d 849 (1963). In this case, a healthy boy sued his father for his illegitimate status in this world. His claim was that had his father not made a promise of marriage to his mother she would never have consented to

ful birth.¹¹⁰ Generally, the plaintiffs in these actions, whether they are brought on behalf of the parents or the child, are able to recover not only the costs of pregnancy and childbirth, but also any extraordinary costs inherent in raising a child with birth defects.¹¹¹

IV. POSSIBLE FUTURE METHODS

We now come to processes which are, on the whole, only being thought about. Perhaps the less that is thought about them, the better. First, I want to address cross breeding of humans with other species. According to Ms. Andrews' book¹¹² there is a Chinese scientist working on the possibility of per-

having intimate relations with him and he would never have been born. This suit was not allowed to stand on the grounds that it would have the effect of sanctioning litigation for any child who may have had the misfortune of being born into adverse circumstances, which was seen as against public policy.

As case law progressed in this area, however, the class of plaintiffs born were no longer healthy but rather were suffering from birth defects. The term "wrongful life" has come to mean an action made on behalf of the child whereby the child claims that had the doctor fully informed his/her mother of the availability of diagnostic tests, the mother would have had the option to terminate the pregnancy. In effect, this plaintiff would not have been born to suffer from these disabling defects.

Courts have been reluctant to recognize relief for this cause of action based on the difficulty of calculating damages as measured by the difference in being born with defects and nonexistence. *Gleitman v. Cosgrove*, 49 N.J. 22, 227 A.2d 689 (1967).

In the past few years, however, the courts have reevaluated their position on this issue and currently there are three jurisdictions that have allowed recovery on a "wrongful life" claim. See *Curlender v. Bio-Science*, 106 Cal. App.3d 811, 165 Cal. Rptr. 477 (1983); *Harbeson v. Parke-Davis*, 98 Wash.2d 460, 656 P.2d 483 (1983); *Procanik v. Procanik*, 97 N.J. 339, 478 A.2d 755 (1984).

110. "Wrongful birth" is the parental counterpart of the "wrongful life" cause of action. In these cases, the parents, rather than the child, claim the failure of the doctor to properly inform them of the availability of amniocentesis or other diagnostic tests deprived them of their right to decide whether to carry the pregnancy to term or to discontinue the pregnancy. Courts have been more willing to uphold a cause of action in these cases than in the "wrongful life" cases. See *Turpin v. Sortini*, 31 Cal.3d 220, 643 P.2d 954, 182 Cal. Rptr. 337 (1982); *Phillips v. U.S.*, 508 F.Supp. 522 (1981); *Berman v. Allan*, 80 N.J. 421, 404 A.2d 8 (1979); *Becker v. Schwartz*, 46 N.Y.2d 401, 386 N.E.2d 807, 413 N.Y.S.2d 895 (1978).

111. Damages for these actions have been categorized as general damages or special damages. General damages are for the pain and suffering the child will have to endure being born with his/her affliction. On the other hand, special damages are for the extraordinary expenses for specialized training, extraordinary medical costs, and specialized equipment that the child will incur during his/her lifetime as a result of his/her impairment. *Turpin v. Sortini*, 31 Cal.3d 220, 643 P.2d 954, 182 Cal. Rptr. 337 (1982).

112. ANDREWS, *supra* note 1, at 144.

forming the process of fertilization with a human and a chimpanzee.¹¹³ It has been suggested that the resulting offspring, whatever you would call it, might result in animal-human hybrids which could be raised to perform simple tasks.¹¹⁴ Such "para-humans" might legitimately be fashioned to do dangerous and demeaning jobs.¹¹⁵ I find the prospect absolutely repulsive and trust that most people will agree with me.

An interesting article in *International Wildlife Magazine* entitled "Building the Perfect Beast"¹¹⁶ explores the practice around the world of cross-breeding animals. It states that recent scientific breakthroughs may soon produce an exciting new menagerie of hybrid animals, then goes on at great length to say that:

[O]ne reason for creating such new beasts is that they often exceed their parents in qualities such as docility, hardiness, strength, growth rate and productivity. This superior performance is known as "hybrid vigor" and is the genetic result of matching the parents' unlike genes. The mule—half-horse, half-ass—is this genetic doctrine's best known example. Compared with the horse, its working life is almost double, it pulls more in proportion to its weight, it needs shoeing less frequently, and can be worked in large teams with less difficulty.¹¹⁷

The article then goes on to discuss the emergence of beefaloes, which are three-quarter bison and one-quarter cow, and other cross fertilization attempts.

The potential for harm to the human race from the development of sub-human species may be at least as great as the danger of nuclear destruction. Nevertheless, it will probably happen. Once again, you can only remark that you cannot put the genie back into the bottle. However, you can, and in my opinion should, keep it from developing outside the bottle.

113. *Id.*

114. *Id.*

115. *Id.* at 265.

116. Vietmeyer, *Building the Perfect Beast*, 13 INT'L WILDLIFE MAG. 36 (Dec., 1983).

117. *Id.* at 38.

V. CONCLUSION

I would like to end with a question: "Where does this leave all of us? Are these various matters that I have discussed public or private?" Certainly, the right of privacy is guaranteed by the Constitution and perhaps all of these new methods of conception and causes of action fall under the right of privacy. In any case, we will be hearing more rather than less about all of these. Many of the new techniques are a blessing and a boon to couples who otherwise would not be able to have children. Now that physicians and scientists have developed these new methods of conception and lawyers have come up with new kinds of law suits, surely our legislators and our judges should, indeed must, come up with the kinds of regulations and safeguards that will at one and the same time serve the best interests of the participants in the new processes, and of the government which guarantees the constitutional rights of everyone involved.

