

September 1982

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Recommended Citation

George P. Smith II, *Intrusions of a Parvenu: Science, Religion, and the New Biology*, 3 Pace L. Rev. 63 (1982)

DOI: <https://doi.org/10.58948/2331-3528.1630>

Available at: <https://digitalcommons.pace.edu/plr/vol3/iss1/4>

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Commentary

Intrusions of a Parvenu: Science, Religion, and The New Biology

GEORGE P. SMITH II*

I. Introduction

If, as Toynbee suggests, Man is again fundamentally where he was 20,000 years ago—at the precipice of total extinction¹—what can be done to arrest this situation? Geneticists, physicists, physicians, and authors, such as Huxley² and Orwell,³ have pondered this dilemma and have concluded that the development and use of sperm banks would be a logical resolution. Human sperm would be refrigerated, treated with glycerol, and made available to inseminate females artificially when appropriate.

The processes of artificial insemination are classified as either *homologous insemination* (A.I.H.), where semen is secured from a wife's husband and injected by instrument into her reproductive tract to induce pregnancy, or *heterologous insemination* (A.I.D.), which uses the same routine but the semen is from a third party, usually because of the husband's sterility. Today there are no legal problems when A.I.H. is effected.⁴ Where

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The author wishes to acknowledge gratefully the support of the research and writing of this article by the Rockefeller Foundation. During December, 1980, the author was a Residential Scholar at its Bellagio Study in Italy.

1. See generally A. TOYNBEE, *THE PROSPECTS OF WESTERN CIVILIZATION* (1949); A. TOYNBEE, *SURVIVING THE FUTURE* (1971).

2. A. HUXLEY, *BRAVE NEW WORLD* 1-19 (1932). See generally R. BLANK, *THE POLITICAL IMPLICATIONS OF HUMAN GENETIC TECHNOLOGY* (1981).

3. G. ORWELL, *NINETEEN EIGHTY-FOUR* 66 (1949).

4. See Smith, *Through a Test Tube Darkly: Artificial Insemination and The Law*, 67 MICH. L. REV. 127, 128 (1968) [hereinafter referred to as "Smith"].

A.I.D. is used, however, there is a wide discrepancy in how states treat the process. A number of states, led principally by California and New York, have enacted legislation to minimize problems associated with administering A.I.D., declaring such an act of artificial insemination as non-adulterous; therefore, the issue born of such a process is legitimate, if the husband's prior written consent was obtained.⁵ In the absence of approval, however, heterologous insemination has been held to constitute an act of adultery, so that any child born of this process is illegitimate even though there is no sexual penetration of the female organ by a male, which is classically required for an act of adultery.⁶

5. CAL. CIV. CODE § 7005 (West Supp. 1981); CAL. PENAL CODE ANN. § 270 (West 1970); MICH. COMP. LAWS ANN. §§ 333.2824(6), 700.111(2) (1980); NEV. REV. STAT. § 126.061 (1979); N.Y. DOM. REL. LAW § 73 (McKinney 1977). Cf. ALASKA STAT. § 20.20.010 (1975); ARK. STAT. ANN. § 61-141(c) (1971) (A.I.D. child is an intestate taker of the husband); COLO. REV. STAT. § 19-6-106(1) (1978); CONN. GEN. STAT. § 45-69f (1975); FLA. STAT. ANN. § 742.11 (West Supp. 1981); GA. CODE ANN. § 74-101.1 (1981); KAN. STAT. ANN. § 23-129 (1974); LA. CIV. CODE ANN. art. 188 (West Supp. 1981); MD. EST. & TRUSTS CODE ANN. § 1-206(b) (1974); MONT. CODE ANN. § 40-6-106(1) (1979); N.C. GEN. STAT. § 49A-1 (1976); OKLA. STAT. tit. 10, § 552 (1981); OR. REV. STAT. §§ 109.239(2), 109.243, 109.247, 677.355, 677.360, 677.365, 677.370 (1979); TEX. FAM. CODE ANN. § 12.03(a) (Vernon 1975); VA. CODE § 64.1-7.1 (1980); WASH. REV. CODE ANN § 26.26.050(1) (1981); WISC. STAT. ANN. §§ 767.47(9), 891.40(1) (Spec. Pam. 1980 & West Supp. 1980); WYO. STAT. § 14-2-103(a) (1978).

The Uniform Parentage Act of 1973, Section 5(b) states: "[t]he donor of semen provided to a licensed physician for use in an 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" UNIF. LAWS ANN., MATRIMONIAL, FAMILY AND HEALTH LAWS 587 (1979).

6. See *Gursky v. Gursky*, 39 Misc. 2d 1083, 242 N.Y.S.2d 406 (Sur. Ct. 1963) (decision predates New York's statutory enactment concerning heterologous insemination).

More enlightened and humane decisions are to be found, however, in *In re Adoption of Anonymous*, 74 Misc. 2d 99, 345 N.Y.S.2d 430 (Sup. Ct. 1973); *People v. Sorenson*, 68 Cal. 2d 280, 437 P.2d 495, 66 Cal. Rptr. 7 (1968). See *Smith, For Unto Us a Child Is Born—Legally!* 56 A.B.A. J. 143 (1970). In the following jurisdictions it has been ruled that an A.I.D. donor is under no obligation to support his issue, and, furthermore, such issue born of his donation has no claim on his estate. CAL. CIV. CODE § 7005 (West Supp. 1981); COLO. REV. STAT. § 19-6-106(2) (1978); CONN. GEN. STAT. § 45-69e (1981); MONT. CODE ANN. § 40-6-106(2) (1979); OR. REV. STAT. § 109.239 (1979); TEX. FAM. CODE ANN. § 12.03(b) (Vernon 1975); WASH. REV. CODE ANN § 26.26.050(2) (1981); WYO. STAT. § 14-2-103(b) (1978).

Even where a single, unmarried woman seeks to use artificial insemination, one New Jersey court has found the interests of the child paramount to all others and found paternity. *C.M. v. V.V.*, 152 N.J. Super. 160, 377 A.2d 821 (1977). See *Smith, A Close Encounter of the First Kind: Artificial Insemination and An Enlightened Judiciary*, 17

The suggestion of the use of sperm banks initially focused more on the preservation of the population and the survival of the human race than on strengthening marital relationships by satisfying parental desires to bear children. Today, however, equal emphasis is placed on cryobanking (sperm banks) as a vital tool in assuring the growth, development, and maintenance of the family unit.⁷

Sperm banks could also serve certain other practical functions. Medical science has shown that subjecting the human body to radiation may induce gene mutations or have adverse effects upon one's reproductive capacity. Scientists and members of the armed forces are frequently subjected to vast amounts of radiation in the course of their duties, and many civilians require radiation therapy for the treatment of disease. The availability of sperm banks would allow a person soon to be exposed to radiation to donate his sperm for use at a later time to impregnate his wife, thus assuring the conception of a child within *their* marriage. This person could also become an A.I.D. donor. Men with few or weak sperm or men about to undergo surgery which might destroy their reproductive capacity would also be able to procreate through the use of these banks.

J. FAM. L. 41 (1978); Kritchevsky, *The Unmarried Woman's Right to Artificial Insemination: A Call for an Expanded Definition of Family*, 4 HARV. WOMEN'S L.J. 26 (1981); Dullea, *Artificial Insemination of Single Women Poses Difficult Questions*, N.Y. Times, Mar. 9, 1979, at A18, col. 1.

A recent survey of current procedures utilized in A.I.D. present a very real and serious concern about the potential for incest, for it was found that sperm from one donor has been used to produce fifty children. Curie-Cohen, Luttrell & Shapiro, *Current Practice of Artificial Insemination by Donor in the United States*, 300 NEW ENG. J. MED. 585 (1979). Obviously, there exists a very real possibility of accidental incest among offspring who unknowingly have the same genetic father. *Id.* This study also revealed a surprising degree of overall sloppiness in record keeping by the participating physicians. *Id.* In order for the procedures of artificial insemination to continue with the necessary degree of efficacy and professionalism, so important here, the medical profession must either approach the whole process with a strict standard of ethics and responsibility, or find itself open to state intervention designed to impose harsh licensing standards for the supervision of these medical interventions. See *The Uniform Parentage Act of 1973*, § 5, which provides that all records involving A.I.D. interventions are to be kept confidential and in a sealed file. UNIF. LAWS ANN., MATRIMONIAL, FAMILY AND HEALTH LAWS 587 (1979). Inspection of such records is allowed only when "good cause" is demonstrated to a court. *Id.* The need of an A.I.D. offspring to safeguard his health by verifying his genetic history would probably constitute such "good cause."

7. Smith, *Manipulating the Genetic Code: Jurisprudential Conundrums*, 64 GEO. L.J. 697, 698 (1976).

Given the growing interest and need for a process which can accomplish these various goals enumerated above, both religion and the law must seriously consider artificial insemination so that dogma and laws are formed to incorporate the process. Science has brought the procedure to a society unequipped to deal with the religious and legal implications of birth through artificial insemination in any of its forms. Not all religions or jurisdictions can be expected to treat the process exactly alike, but there must be an effort on the part of each organization to react to the situation facing them so that their citizens will have some guidance.

Section II of this article illuminates the path science is on and the possible ultimate result. Section III explores the interaction between the worlds of science and religion. Section IV presents the current religious reactions of Catholic, Protestant and Jewish hierarchies to the steps science has already taken. This article concludes that religion must provide a belief relating to the widening use of artificial insemination so that the law may codify that belief and present some direction for man seeking to ensure his survival.

II. The Goal of the New Biology

The concept of eugenics has been urged as a way to improve the human race through controlled breeding. It is premised on the assumption that the highly endowed have a genetic duty to bear large families in order to perpetuate a "better man." Eugenic insemination by deliberately preferred donors (E.I.D.) is thus encouraged.

The eugenics proposal was championed by the late Professor Herman J. Muller of Indiana University. It was later distorted in the 1930's by Adolf Hitler, thus turning world opinion against it. Adverse opinion was and is due to the eugenicists' basic assumption: the higher socio-economic, cultured, and intellectual classes must keep humanity from sinking "into a universal slum."⁸ The theory contains elements of both "positive

8. Smith, *supra* note 4, at 147. See generally GENETIC COUNSELING, CHURCH AND THE LAW (G. Atkinson, A. Moraczewski, eds. 1979); Friedman, *Interference with Human Life: Some Jurisprudential Reflections*, 70 COLUM. L. REV. 1058 (1970).

eugenics" and "negative eugenics."⁹ The concept of positive eugenics encourages the most worthy persons to have more children; for instance, "unfit" women would receive A.I.D. semen from exceptional male donors, thereby enhancing the resultant offspring. The concept of negative eugenics seeks to increase the death rate of those carrying "unfit" genes by encouraging the less fit and those with inheritable diseases to remain childless. Sir Francis Galton is rightfully recognized as the father of negative eugenics.¹⁰ Negative eugenics was tied to a very early effort to stamp out all inferior stocks "polluting" mankind. The ultimate goal of eugenicists is to assure euteleogenesis, that is, mass insemination using superior human sperm through wholesale application of positive eugenics.

Eugenics, if properly controlled as a scientific experiment, has merit. Regrettably, it is all too often the subject of science-fiction novels, movies, and television dramas, which tend to distort the positive effects of its study and application. While some horrified critics point to Hitler's experimentation and plead "Never again!", other more sophisticated observers acknowledge Hitler's psychological imbalance and note that when pursued on a scientifically mature level, eugenics offers advantages to future generations such as freedom from disease, longer and more productive lives, and more advanced levels of intellectual understanding.¹¹ Currently, eugenics is largely discussed only on a theoretical level, but practical applications will begin to emerge, and their direction may well determine the future of the entire human race.

Not the least of the problems which must be solved before practical application of eugenics will be feasible is the ethical one of determining which human characteristics are worthy of preservation, by what criteria this will be ascertained, and who is to make the crucial decisions. Are creativity, wisdom, perceptivity, vigor, and fortitude the primary qualities one should attempt to breed on a selective basis? Should efforts be made to

9. Smith, *supra* note 4, at 147.

10. *Id.* at 147-48.

11. *Id.* at 148. See Leach, *Perpetuities in the Atomic Age: The Sperm Bank and the Fertile Decedent*, 48 A.B.A. J. 942 (1962). See generally Note, *Eugenic Artificial Insemination: A Cure for Mediocrity?* 94 HARV. L. REV. 1850 (1981).

breed more scientists with exploratory curiosity, better artists with disciplined creative imagination and men who are brotherly, loving and kind? Who will decide the answers to these pressing questions? A government agency, with a Director of Hatcheries and Conditioning as Huxley predicted in *Brave New World*?

The use of A.I.D. to accomplish positive eugenics is at best a novel approach with broad implications for the future, but currently with little impact. A.I.D. is not currently undertaken to effect a eugenic goal, such as the preservation and multiplication of the highly endowed, but simply to permit childbearing where it would otherwise be impossible.¹² Lawyers should, however, begin to anticipate the legal problems which will develop when eugenics and genetic programming of cells are commonly practiced.

Controlled breeding is not far behind the legalization of artificial insemination.¹³ Man is the last to breed selectively; rather than allow variant experimentation in this sensitive realm, he must devise appropriate procedures by which to isolate and perpetuate the most desirable human characteristics. Not only will private and public experimentation in eugenics continue, but studies in ways to better living conditions in order to secure more efficient human beings, euthenics, will also be undertaken. The study of the relationship between population control and population quality is, admittedly, in its infancy. But, it is not long before an infant grows into maturity. Perhaps determining the size and quality of a family is a human right, inextricably related to human dignity. Perhaps attempting to interfere with the natural process of procreation would ruin the very fiber of our culture. One fact does remain: population forecasts indicate that ours will soon be an overpopulated world if appropriate steps are not taken, and the challenge of the brave new world will remain unanswered.¹⁴

12. Smith, *supra* note 4, at 148-49.

13. See *id.* at 149-50.

14. See Smith, *Medicolegal Challenge of Preparing for a Brave Yet Somewhat Frightening New World*, 5 J. LEGAL MED. (April 1977).

III. Science and Religion: Compatibilities and Conflicts

Science has been defined as, "intelligence in action with no holds barred."¹⁵ It began as the simple pursuit of truth but today is fast becoming incompatible with veracity, quite simply because complete veracity leads to a form of complete scientific skepticism.¹⁶ Science was originally recognized, and indeed valued, as a method to know and understand the world.¹⁷ Ever since the time of the Arabs, "science has had but two simple functions: to enable us to know and learn about things and to thereby assist us in doing things."¹⁸ Now, as a consequence of the development of scientific method and the triumph of technique, science is viewed as a means of changing the world.¹⁹

Probabilities are at the center of scientific inquiry. As such, an absolute form of truth is not within its scope of realization. Yet, science can yield such a high degree of probability that it becomes a certainty for all practical purposes.²⁰

Science is a way of ordering experience; it is ordered knowl-

15. Hoagland, *Some Reflections on Science and Religion*, in *SCIENCE PONDS RELIGION* 17, 18 (H. Shapley ed. 1960) (quoting the physicist P.W. Bridgman).

16. B. RUSSELL, *THE SCIENTIFIC OUTLOOK* 273 (1931).

17. B. RUSSELL, *THE IMPACT OF SCIENCE ON SOCIETY* 98 (1952).

18. *Id.* at 29. The Greeks, with Archimedes being the exception, were interested only in the first function. The Arabs, however, were in quest of the elixir of life and the methods needed to transmute base metals into gold. *Id.*

19. *Id.* at 98. During the past three centuries, the science which has been rated as successful has consisted "in a progressive mathematization of the sensible order . . ." *Id.* The history of science reveals that it is based on creative leaps of imaginative vision. L. GILKEY, *RELIGION AND THE SCIENTIFIC FUTURE* 45 (1970). See S. MATTHEWS, *CONTRIBUTIONS OF SCIENCE TO RELIGION* (1924); J. MARITAIN, *SCIENCE AND WISDOM* (1940); H. MULLER, *SCIENCE AND CRITICISM* (1943); *SCIENCE FOR A NEW WORLD* (J. Crowther ed. 1934). See also H. HOVENKAMP, *SCIENCE AND RELIGION IN AMERICA 1800-1860* (1978); F. TURNER, *BETWEEN SCIENCE AND RELIGION: THE REACTION TO SCIENTIFIC NATURALISM IN LATE VICTORIAN ENGLAND* (1974); Edsall, *Scientific Freedom and Responsibility*, 188 *SCIENCE* 687 (1975).

20. Hoagland, *Some Reflections on Science and Religion*, in *SCIENCE PONDS RELIGION* 17, 24 (H. Shapley ed. 1960). The examples used for support of this last statement are: the certainty that the earth is round, not flat and the realization that biological evolution, by natural selection, is no longer just a theory but is a high probability. *Id.*

In its fundamental phase, science is explanation by description using methods of observation and experiment. The fundamental assumptions which it makes are practical conclusions of common sense: namely, that the objects and the events constituting the material universe are in a necessary connection with one another and that man, by his decisions, can affect the order and events of the universe itself. W. SCHROEDER, *SCIENCE, PHILOSOPHY AND RELIGION* 44, 45, 58 (1933).

edge. Its constant testing and referral to the facts of past experiences should be viewed as the only valid way man can progressively increase both his knowledge and control of the objective world.²¹ This constant reference to past experience in the quest for knowledge is the most significant attribute of the scientific method, for from it comes, "the cosmic side of that intellectual scaffolding of religion we call theology."²² Yet, there has been a prolonged conflict between religion and science.²³ Perhaps one of the basic reasons for the inherent conflict has been the differences in focus of religious creed and scientific theory. A creed is said to embody both eternal and absolute truth. Scientific theory is always recognized as tentative, with modifications sooner or later found necessary. The scientific method, then, unlike the religious creed, is one which is logically incapable of arriving at an ultimate statement.²⁴

Religion, to a considerable extent, consists in a way of feeling sometimes more than in a set of beliefs.²⁵ The beliefs are secondary or supportive of these feelings. There are some things people believe, then, because they feel as though they are true;²⁶ and such feelings and beliefs are a source of mystery and incomprehensibility to the scientific mind. Faith is an unknown and rather primitive principle to the scientist.²⁷

Religion must, from the standpoint of maintaining its strength, efficiency, or power, face change in the same spirit as

21. J. HUXLEY, *SCIENCE, RELIGION AND HUMAN NATURE* 20, 21 (1930).

22. *Id.* at 58.

23. B. RUSSELL, *RELIGION AND SCIENCE* 3 (1935). See BARBOUR, *MYTHS, MODELS AND PARADIGMS—THE NATURE OF SCIENTIFIC AND RELIGIOUS LANGUAGE* (1974); *THE ENCOUNTER BETWEEN CHRISTIANITY AND SCIENCE* (R. Bube ed. 1968); J. DRAPER, *HISTORY OF THE CONFLICT BETWEEN RELIGION AND SCIENCE* (1903).

24. B. RUSSELL, *RELIGION AND SCIENCE* 11 (1935). Russell lists the fact that the historical religions have had a Church and a code of personal morals as a reason for further conflict. *Id.* at 4. See generally, S. JAKI, *THE ROAD OF SCIENCE AND THE WAYS OF GOD* (1978).

25. *Id.* at 14. See B. DEMARTINO, A. SWYHART, *BIOETHICAL DECISION MAKING: RELEASING RELIGION FROM THE SPIRITUAL*, ch. 8 (1975). See generally Gustafson, *Theology Confronts Technology and the Life Sciences*, *COMMONWEAL* 386 (June 16, 1978).

26. B. RUSSELL, *THE IMPACT OF SCIENCE ON SOCIETY* 16 (1952).

27. While religion seeks to explain the obvious in terms of mystery, science masters the simple and obvious and then witnesses, by the application of elemental principles, the dissolution of the complex. F. NORTHRUP, *SCIENCE AND FIRST PRINCIPLES* (1931). See also A. WHITEHEAD, *SCIENCE AND THE MODERN WORLD*, ch. 13 (1926); J. MORTON, *MAN, SCIENCE AND GOD* (1972).

science does. While religion's principle may be immutable and eternal, the expression of those principles requires a continual development.²⁸

Roman Catholicism, predominantly under the leadership of the late Pope John XXIII, has charted a new course of contemporary expression, particularly in its liturgy. Certain dogma such as the Virgin Birth by Mary, papal infallibility, priestly celibacy, the exclusivity of the male priesthood, and the sanctity of creation remain inviolate. The sanctity of creation, however, has presented problems to the scientific community as it explores eugenic proposals and fetal experimentation.

During the middle and latter half of the 19th century, science made its greatest inroads into religion. Then a credibility gap was beginning to open between what could be explained within the framework of religion and what could be explained within the scientific frame of analysis. Some view this gap as continuing to widen simply because the more scientific discoveries about the universe that are made, the less explicable they become. Some thirty years ago it was generally believed that gradually science was attempting quite successfully to explain the entire universe. The more scientific facts presented for understanding, the more knowledge of the universe would emerge. Today, however, there is a concern because rationalists and humanists are suggesting that within the near future science will not be able to say anything fundamental about the true nature of the universe.²⁹

The advancement of science is often blamed for a loss of religious faith.³⁰ There is, on the other hand, a belief that the

28. A. WHITEHEAD, *THE INTERPRETATION OF SCIENCE* 179 (A. Johnson ed. 1961)[hereinafter referred to as WHITEHEAD]. See also L. GILKEY, *RELIGION AND THE SCIENTIFIC FUTURE*, ch. 1 (1970) [hereinafter referred to as GILKEY]. See Briggs, *Theologians Weigh Links to Scientists*, N.Y. Times, July 15, 1979, at 19, col. 1, where a Conference on Science and Religion of the World Council of Churches recently found that while major conflicts have been largely overcome between science and religion, problems concerning evolution still exist.

See generally Dobzhansky, *Evolution: Implications for Religion*, in *CHANGING MAN: THE THREAT AND THE PROMISE* 142 (K. Haselden & P. Hefner eds. 1968); P. QUINN, *DIVINE COMMANDS AND MORAL REQUIREMENTS* (1978).

29. Evans, *Rationalization, Superstition and Science*, in *SCIENCE, REASON AND RELIGION* 43, 45 (C. Macy ed. 1974). See generally A. VANMELSEN, *SCIENCE AND TECHNOLOGY* (1961).

30. Hoagland, *Some Reflections on Science and Religion*, in *SCIENCE PONDS RE-*

work of science has been the one factor causing the greater understanding of religious truths today.³¹ The overriding fact to be observed is that normally a scientific advance will show that statements of various religious beliefs, if they have contact with or are tied to physical facts, require some sort of modification either through expansion, reinterpretation, or restatement. If the particular religion is grounded in a sound expression of truth, the required modification will only "exhibit more adequately the exact point which is of importance."³² A contradiction, in formal logic, is the signal of a defeat. In the evolution of real knowledge, a contradiction marks but the first step in progress toward a victory, and this is the principal reason why a variety of opinion is tolerated and even encouraged.³³

The equivocal attitudes of Christians regarding their religious faith cannot be so easily modified. These attitudes are compounded by suspicion, ignorance, and misunderstanding: suspicion directed against advancing technology which appears to have a considerable power for good or evidence depending on the technologist who directs it; ignorance from not knowing sufficiently the true nature of science and technology; and misunderstanding of the Christian doctrine of creation which has in turn led to false ideas about materialism.³⁴

As viewed today there is no actual conflict between the statement of theological principle and the scientific method of inquiry by investigation, because there is no interrelationship or mutual dependence.³⁵ Based on revelation and faith, theology presents its concepts and principles totally independent of the scientific theories about nature or speculations regarding the

LIGION 17 (H. Shapley ed. 1960).

31. L. GILKEY, RELIGION AND THE SCIENTIFIC FUTURE 4 (1970).

32. WHITEHEAD, *supra* note 28.

33. *Id.* at 176. See also GILKEY, *supra* note 28.

34. C. COULSON, SCIENCE, TECHNOLOGY AND THE CHRISTIAN 48 (1960). See generally G. McLEAN, PHILOSOPHY IN A TECHNOLOGICAL CULTURE (1964).

35. GILKEY, *supra* note 28, at 25. Nonetheless, it is not so much the content of specific scientific theories but their methods of valuation which trouble the thoughtful person with a religion perspective today. Barbour, *The Methods of Science and Religion*, in SCIENCE PONDS RELIGION 196 (H. Shapley ed. 1960) [hereinafter referred to as Barbour]. See also W. HOCKING, SCIENCE AND THE IDEA OF GOD 3 (1944) [hereinafter referred to as HOCKING].

past.³⁶ Both science and religion present different phases of human activity and embody distinctive experiences. While religion is fundamentally a spiritual experience, science is based on "sensuous experience."³⁷ Yet, science and religion are one in the experience of revelation they offer to those who pursue them: the revelation of a supreme fact of mental or progressive spirit and experience.³⁸

Both the scientist and the theologian depend, in the final analysis, on experience and interpretation. They ask different types of questions not expecting to receive the same types of answer in return. Science and religion are but reflections of different aspects of man's social experiences. If one can move beyond popular misconceptions regarding the nature and role of science and religion, he will feel no conflict between their methods of study and practice.³⁹ Religion should be devoted to the expression and fulfillment of final values beyond which no other values can exist.⁴⁰ A scientific approach to religion then becomes but a noble effort to study the true story of man, the relation to the source of his being and his duties, privileges, and structure of values. Science, if pursued within this construct, provides the basic framework for a new dynamic testament, a new scripture of truth about man and his destiny.⁴¹

If the administration of science is to be perfected for the betterment of mankind, not only are moral ideals needed, but a spiritual vision as well. The most notable scientific work has flowed consistent with a high conception of social duty and with a spirit of altruism. Science is but a means to an end, with its values being determined by the end.⁴² Societal progress as expressed in the law must, in the ultimate analysis, embrace two complementary plans of development; plans embracing both sci-

36. GILKEY, *supra* note 28, at 25.

37. W. SCHROEDER, *SCIENCE, PHILOSOPHY AND RELIGION* 61 (1933).

38. *Id.* at 62, 63.

39. Barbour, *supra* note 35, at 214, 215.

40. HOCKING, *supra* note 35, at 5, 8; Murray, *Two versions of Man*, in *SCIENCE PONDER'S RELIGION* 147, 148 (H. Shapley ed. 1960). See generally D. EDWARDS, *RELIGION AND CHANGE* (1969); J. SMURL, *RELIGIOUS ETHICS* (1972).

41. Burhoe, *Salvation In The Twentieth Century*, in *SCIENCE PONDER'S RELIGION* 65, 77, 78 (H. Shapley ed. 1960). See also T. FOWLER, *THE RECONCILIATION OF RELIGION AND SCIENCE* (1873); H. SCHILLING, *THE NEW CONSCIOUSNESS IN SCIENCE AND RELIGION* (1973).

42. *Supra* note 37, at 60.

entific research as well as increased moral understanding and appreciation.⁴³

IV. Theological Considerations

A. *The Roman Catholic View*

Roman Catholic dogma teaches that marriage does not bring to the married couple an absolute right to children, only a conditional right. All that may be done is for the couple to avail themselves of the use of legitimate medical processes in order to assure their sexual act be performed in a natural way to attain "its fertile union."⁴⁴ The Church, thus, stresses the fact that coition be recognized solely as an act designed for procreation, between husband and wife only, and that the act, itself, be unimpeded by direct means. "Human sexual congress in order to be authentic, must involve intravaginal ejaculation by the husband and retention of the semen, or at least no deliberate effort at expulsion, by the wife."⁴⁵

The exclusivity of the marriage contract forbids intercourse with a third person or the use of semen from a donor to effect artificial congress. Thus, the Church considers the use of A.I.D. to be adulterous irrespective of the fact that a husband may consent to his wife's indulging in sexual "relations" with another man through artificial processes.⁴⁶ The major point of emphasis is the invasion by a third party into an exclusive marriage contract. The unity of love and procreation must remain inviolate.

The normal way of obtaining semen is through masturbation. This very act is considered to be a "perversion of the sex-

43. C. MILLER, *A SCIENTIST'S APPROACH TO RELIGION* 29 (1947).

44. Hasset, *Freedom and Order Before God: A Catholic View*, 31 N.Y.U. L. REV. 1170, 1180 (1956).

45. H. L. SMITH, *ETHICS AND THE NEW MEDICINE* 64 (1970). According to St. Augustine, a sexual act deprived of its procreative character was illegitimate. Thus, if, in the name of life, a couple chooses to express themselves sexually, they should accordingly, perform the authentic sexual act not deprived of its procreative character. Love and procreation are inseparable. D.H. Smith, *Theological Reflections and the New Biology*, 48 IND. L.J. 605, 619, 621 (1973) [hereinafter referred to as *Theological Reflections*]. See also N. St. John-Stevan, *A Roman Catholic View of Population Control*, 25 LAW & CONTEMP. PROBS. 445, 446 *passim* (1960).

46. *Supra* note 44, at 1179.

ual faculty" because it is not procreative.⁴⁷ If semen were collected from the wife's husband (A.I.H.) in a manner other than through auto-erotic techniques,⁴⁸ and then injected into the wife's reproductive tract, it has been submitted that Church teaching would allow this act as valid, since love and procreation are not really separated but, indeed, furthered by the act.⁴⁹ It is a physical disability which forces the husband to resort to A.I.H. in the first instance. It is love which induces him to seek artificial means of impregnating his wife. The unity of love and procreation is thus strengthened.⁵⁰

In contradistinction, fertilization by donor gametes *in vivo* or *in vitro* would be automatically rejected by the Church because, although no adulterous relation was present, two different communities would be created: one procreative and the other loving. Although perhaps anonymous, the donor becomes a silent partner in an exclusive relationship which admits no intruders.⁵¹ Yet, the technological manipulation of a husband and wife's own gametes would appear to be compatible with the principle of loving and procreation, since the basic marital relationship remains intact.⁵²

Although a new intellectual climate of openness and reeval-

47. *Id.* at 1180. The concern of the Church, and more especially that of Pope Pius XII as enunciated in his address to the Fourth International Convention of Catholic Physicians, October, 1949, that the artificial means of obtaining semen was repulsive to the state of marriage and immoral is today no longer viewed by most moralists as a valid obstacle to A.I.H. or homologous insemination. Donor insemination, or A.I.D., is still regarded, however, as violative of Church dogma. HUMAN SEXUALITY—NEW DIRECTIONS IN AMERICAN CATHOLIC THOUGHT 137-139 (1977) [hereinafter referred to as HUMAN SEXUALITY]. See generally Smith, *A Close Encounter of the First Kind: Artificial Insemination and An Enlightened Judiciary*, 17 J. FAM. L. 41 (1979); D. MARTIN, *THE DILEMMAS OF CONTEMPORARY RELIGION* (1978); K. HASELDEN & P. HEFNER, *CHANGING MAN: THE THREAT AND THE PROMISE* (1968).

48. See HUMAN SEXUALITY, *supra* note 47, at 138-39.

49. *Theological Reflections*, *supra* note 45, at 620.

50. One Catholic writer's position regarding artificial insemination has been interpreted as being that faith in God is final in the sense it overrides any agreements for artificial insemination based on humanistic moral standards; the Church's teaching has God's backing and God is final and that fact precludes any further discussion. J. FLETCHER, *THE ETHICS OF GENETIC CONTROL* 114 (1974).

51. *Theological Reflections*, *supra* note 45, at 621.

52. *Id.* at 622. Use of a woman's womb by another couple would be considered by the Church as "analogous to allowing use of one's body solely for the sexual pleasure of another, and, thus immoral." *Id.* at 621.

uation is evident in the Roman Church hierarchy, this climate has not fostered new and significant moral directions for the Church and its theologians in this specific area of concern.⁵³ The official Church posture today remains the same as that first announced by Pope Pius XII in his address to the Fourth International Convention of Catholic Physicians, October, 1949. The Pope stated that an act of artificial insemination outside the state of marriage was immoral; use of a donor or third party's semen (A.I.D.) to facilitate conception by a married couple was also immoral. Such an act was to be "rejected summarily." The Pope also rejected use of A.I.H. or homologous artificial insemination for Catholic couples.⁵⁴

In 1951, Pope Pius XII, addressing the Congress of the Italian Catholic Union of Midwives, sought to amplify his views regarding A.I.H. Accordingly, he expanded upon his idea that the conjugal act was a personal act of "simultaneous and immediate cooperation on the part of the husband and wife." He continued by observing that "this is something much more than the union of two seeds, which may be brought about even artificially, without the natural action of husband and wife."⁵⁵

The concern of Pope Pius XII over the manner of obtaining semen in A.I.H. is, today, no longer viewed by a number of moralists as a valid obstacle to this procedure. Indeed, when this method of conception is the only method by which the "procreative mission" may be met, pastoral counselors are encouraged to suggest use of A.I.H.⁵⁶

Donor insemination or A.I.D., however, is still regarded by many as "an intrusion into the exclusivity and intimacy of the conjugal bond that is hard to reconcile with the Christian understanding of the nature of conjugal love."⁵⁷ Yet, there is clear evidence that couples who have successfully used A.I.D. have enriched their personal and marital lives and that the issue has not been "a painful reminder" of the husband's impotency.⁵⁸

In a September 4, 1978 article, the editors of *Time Maga-*

53. See HUMAN SEXUALITY, *supra* note 47, at 138-39.

54. *Id.* at 137.

55. *Id.* at 137-38.

56. *Id.* at 138.

57. *Id.*

58. *Id.* at 139.

zine noted that Albino Cardinal Luciani, before he assumed the papacy, appeared to have adopted a modern understanding of the scientific imperative in the brave new world of the coming twentieth century.⁵⁹ Although the experimentations that led to the birth of the first test tube baby were severely criticized and condemned outright by some Church theologians, Cardinal Luciani commented that if the husband and wife who participated here "acted in good faith and with good intentions, they could even gain great merit before God" for their actions.⁶⁰

Yet, the Cardinal sought to balance this viewpoint by further elaboration on the extent of the scientific mandate noting, as such, that science must be sufficiently regulated in order to prevent an industry directed toward the manufacture of children. Acknowledging that the dictates of individual conscience must be followed in cases of this nature, he cautioned that "a well-informed conscience—does not have the duty of creating law, but of informing itself on what the law of God dictates."⁶¹

Before Cardinal Wojtyla's elevation to the papacy as Pope John Paul II, he too had gone on record in his book, *Love And Responsibility*, published in 1960, as being against all artificial methods of birth.⁶² Although known as a staunch conservative on specific issues of doctrine, morality, and church authority, in the same book, the Cardinal also recognized sexual pleasure deriving from the marital relation.⁶³ While breaking no new ground in Roman Catholic ethics or doctrines, the Pope recently cautioned that scientists engaging in a wide range of medical procedures such as artificial insemination and genetic engineering to be aware of "the implicit danger to the rights of man" from the

59. *A Swift, Stunning Choice*, TIME, Sept. 4, 1978, at 65, 66.

60. *Id.*

61. *Id.* In addressing the World Conference on Faith, Science and the Future, July 12-24, 1979, Humberto Cardinal Medeiros of Boston observed that, "Both science and faith are committed to the 'never-ending restlessness of man' which is the quest for truth. For far too many, it has been not science *and* religion, but science *or* religion. . . . A Christian faith that ignores or disregards the marvels of scientific technology in agriculture, medicine, and energy is unworthy of the same religion, and even more unworthy of the mystery of the incarnation. A technology that ignores or disregards the questions of Christian ethics, especially the value it places on man, will quickly reduce the earth to desert, the person to an automation. . . ." 38 ECUMENICAL COURIER 1, 5 (Nos. 3-4, 1979).

62. WOJTYLA, *LOVE AND RESPONSIBILITY* (1960), commented on in TIME, Oct. 30, 1978, at 94.

63. *Id.* at 97.

discoveries and advances in these fields, for such actions could well violate the individual's physical and spiritual life.⁶⁴

B. *The Protestant View*

The conservative Protestant Ethic maintains that some acts are specifically commanded in the Bible and must be followed by all. The literalist approach to the Bible has serious weaknesses as a basis for religious ethics primarily because often the moral precepts found within the Bible are both unclear and contradictory.⁶⁵ Under conservative protestantism, a monogamous marriage is the biblical expression of God's unalterable will. The only alternative to marriage is abstention from sexual intercourse.⁶⁶ The only inferences which may be drawn from this philosophy is that A.I.D. is morally objectionable as an invasion of a monogamous marriage unity and that genetic engineering qualifies as an offensive sexual relation.⁶⁷

The liberal and more contemporary Protestant view is that since all of the biblical commandments are ambiguous and, thus, not clear expressions of God's will, there are no universal modes of conduct required of Christians.⁶⁸ In defining relationships between persons, the crucial determinant is whether love is present or absent. Therefore, the validity of one's actions sanctified and legalized by a marriage contract is of secondary importance. What is of central importance is whether coition is a truthful expression of a personal commitment to one another: Is it honest and carried out in such a manner so as not to exploit the other person?⁶⁹ So long as mutuality of love is expressed, then almost any procedure within the ambit of a practice of the "New Biology" would be tolerated.

Whether A.I.D. is considered adulterous is really only a

64. *Pope Warns Against Misuse of New Medical Procedures*, Wash. Post, Oct. 28, 1980, at A4, col. 3.

65. H. L. SMITH, *ETHICS AND THE NEW MEDICINE*, 66, 67 (1970); *Theological Reflections*, *supra* note 45, at 608.

66. H. L. SMITH, *supra* note 65, at 67.

67. *Id.*

68. *Id.* at 68.

69. *Id.* at 69. For a discussion of the prominent Protestant Theologian, Helmut Thielicke's views of A.I.D. see 70 *passim* in H. L. SMITH's book, *id.* See generally *In Vitro Fertilization: Four Commentaries*, 8 HASTINGS CENTER REPORT 7 (1978).

question of semantics.⁷⁰ A.I.D. involves a far more responsible level of decisionmaking than the "normal" one-night stand act of adultery or the clandestine relationship. No infraction of the marriage vows is promoted by a consensual decision regarding the use of A.I.D. by a married couple. Moreover, when a husband allows his wife to be impregnated by a donor, it is this very consent and desire for offspring which assures that the subsequent child, itself, is of primary concern. There can be no allegation of broken faith in such a situation. In an adulterous relationship, the very essence of that relationship is grounded in broken faith by one partner to the marriage contract.⁷¹ In such a situation, should a "careless mistake" be made and issue result as a consequence of the exultation of physical and emotional needs outside the bounds of the marriage, that "mistake" is usually the subject of concern, despair, and nonacceptance instead of love and acceptance as in a consensual act of A.I.D.

C. *The Jewish View*

Under Jewish law, a woman who participates in A.I.D. is not guilty of adultery. The child born of the artificial act is regarded as legitimate, regardless of whether its mother is married or single.⁷² Only when it is established conclusively that a child has been born of an adulterous or incestuous relationship is the child regarded as illegitimate.⁷³ There is a strong presumption against adultery or incest. In fact, it is virtually impossible to prove any conception was adulterous or incestuous since the husband is always presumed to be the father of his wife's

70. Ramsey, *Freedom and Responsibility in Medical and Sex Ethics: A Protestant View*, 31 N.Y.U. L. REV. 1189, 1198 (1956).

71. For an argument regarding the compatibility of A.I.D. with the Christian understanding of secularity, marriage and parenthood, see J. FLETCHER, *MORALS & MEDICINE* 118 (1960).

72. Rackman, *Morality in Medico-Legal Problems: A Jewish View*, 31 N.Y.U. L. REV. 1205, 1208 (1956) [hereinafter referred to as Rackman]. Although Jewish ethics would favor experiments and tests to discern possible genetic malfunctions which would result in congenital disease before the birth of a fetus, the artificiality of test tube babies and of cloning, for example, would be disregarded as tampering too much with the basic structures of creation. Siegel, *The Ethical Dilemmas of Modern Medicine: A Jewish Approach*, 3 THE KENNEDY INST. Q. REP. 5, at 7 (No. 1, 1976-77).

73. Rackman, *supra* note 72, at 1210.

children.⁷⁴

Interestingly, the donor in an act of heterologous insemination, although in no way stigmatized by his act, remains the natural father of the child and can never rid himself totally of this relationship. Yet, he may be relieved of liability for support of the issue and his estate removed from claims of inheritance by children whom he normally would never know or see.⁷⁵ This strict rule of civil liability obviously does not preclude the development of a foster parent relationship in addition to the natural relationship.⁷⁶

V. Conclusion

What is clear in the theology of the "New Biology" is that belief in God and the perceptions of the Divine Will are not shared uniformly. Religious groups will disagree within their own religious ranks regarding the use and application of the "New Biology." Because of this variance within religious groups, perhaps it is better and wiser to submit opinions only about specific moral applications of genetic engineering rather than focus in on positive condemnations of one development and its use as opposed to another.⁷⁷

74. *Id.* In 1958, the Chief Rabbi of Israel, Rabbi Nissim ruled that children born to parents as the result of artificial insemination will be recognized by the Jewish religion as legitimate. A. SCHEINFELD, *YOUR HEREDITY AND ENVIRONMENT* 665 (1965).

75. Rackman, *supra* note 72, at 1209.

76. *Id.* at 1209-10.

77. J. FLETCHER, *THE ETHICS OF GENETIC CONTROL* 114, 115 (1974). See generally D. GOSLING, *SCIENCE AND RELIGION IN INDIA* (1976); R. WETTIMUNY, *BUDDHISM AND ITS RELATION TO RELIGIOUS SCIENCE* (1962). For an interesting perspective on atheist realism and marxist dialectics regarding the "New Biology", see P. CHAUCHARD, *SCIENCE AND RELIGION*, Ch. 3 (1962).

It is far beyond the scope or purpose of this article to probe the various beliefs and reactions of the mainstream Protestant groups which include: Evangelical Lutheran; Southern Baptists; Mormon; Lutheran-Church, Missouri Synod; Episcopal Church; United Presbyterian Church; United Church of Christ; United Methodist, and the Lutheran Church in America. While the most authoritative sources for discovery would be the various church statements published concerning individual issues of the "New Biology," perhaps the best overview could be obtained from 3 *ENCYCLOPEDIA OF BIOETHICS* 901-1020, 1365-1378 (W. Reich ed. 1978). Other sources would include: D. GAINES, *BELIEFS OF BAPTISTS* (1952); *A BAPTIST BIBLIOGRAPHY* (E. Starr ed. 1947); *NEW CATHOLIC ENCYCLOPEDIA* (1967); *ENCYCLOPEDIA OF RELIGION AND ETHICS* (J. Hastings ed. 1927); *THEOLOGICAL DICTIONARY OF THE OLD TESTAMENT* (G. Botterweck & H. Ringgsen eds. 1978); *THE INTERPRETERS DICTIONARY OF THE BIBLE* (1962).

Religions should be careful not to be too terribly dogmatic in the area of the "New Biology." A religious ethic rooted in human well-being should survive the pressures of the emerging, brave new world. Churches and religious teaching will either be molded to reflect the new ethics of the age or will die out:

[R]eligion in the age of science cannot be sustained by the assumption of miraculous events abrogating the order of nature. Instead, we should see acts of God in events the natural causes of which we fully understand.⁷⁸

It is time for the major religions to advance a balanced scientific spirit of inquiry, investigation, and basic reevaluation and thus provide the law with a much needed point of direction. If law and religion can but jointly approach the problems of the "New Biology" there is an excellent likelihood that a degree of stability will emerge. If accepted, the utilization of artificial insemination will assist family planning and ensure the continued "sacredness" of the family unit in those cases where, without its use, no family would be forthcoming.⁷⁹ Given this progressive attitude of enlightenment, the use of artificial insemination within

Since marked development and, indeed, progress has been recorded as to what has been called the "Genetic Revolution" only within the last five or so years, many of the religious denominations have yet to evolve a statement of position here. It would be practical, for example, to conceive of the Southern Baptists taking a different point of view from their brothers on the East Coast. In such cases, one would perhaps try to reconcile the two views by considering the fundamental tenets of the Baptist Church. Or, one could study the basic precepts of the Baptist faith and predict what direction one group would take as opposed to another group geographically located elsewhere.

78. FLETCHER, *supra*, at 127. The biological revolution of today must be regarded by religion as neither a threat nor an annoyance, but, rather, as an integral and extremely important part of God's gift and his continuing revelation to all to become more effective tools and worthier stewards. Thus appreciated, the revolution will lead to what might be considered an ultimate ecumenism or final rapprochement between science and religion. R. ETTINGER, *MAN INTO SUPERMAN* 216, 219 (1972).

79. See generally A. TOYNBEE, *AN HISTORIAN'S APPROACH TO RELIGION* (1956). Interestingly, a 1969 Harris opinion survey of some 1,600 adults throughout the country relative to advances and applications of the "New Biology", revealed a most interesting attitudinal profile. Nineteen percent of all interviewed approved of AID, while fifty-six percent disapproved of the process. Where the only method for a married couple to conceive a family involved use of heterologous insemination (AID), thirty-five percent of those interviewed approved of the technique. Forty-nine percent of the men interviewed in the survey agreed in principle with homologous insemination (AIH), while sixty-two percent of the women expressed their approval of allowing their husband's semen to be used, through artificial means of injection, in order to inseminate them. Smith, *For Unto Us A Child Is Born—Legally!*, 46 A.B.A. J. 143 (1970).

the bounds of matrimony can only serve as a complement to a Catholic society both of today and tomorrow. Again, by endeavoring to effecuate a balancing test which seeks to minimize human suffering and thereby maximize the social good, a eugenically sound standard of quality life and a continued recognition of the sanctity of creation can exist together.