

Journal of Contemporary Health Law & Policy (1985-2015)

Volume 11 | Issue 2

Article 7

1995

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Recommended Citation

Ralph C. Conte, *Toward a Theological Construct for the New Biology: An Analysis of Rahner, Fletcher, and Ramsey*, 11 J. Contemp. Health L. & Pol'y 429 (1995).

Available at: <https://scholarship.law.edu/jchlp/vol11/iss2/7>

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TOWARD A THEOLOGICAL CONSTRUCT FOR THE NEW BIOLOGY: AN ANALYSIS OF RAHNER, FLETCHER, AND RAMSEY

*Ralph C. Conte**

The prophets of the Old Testament were not always the most popular people in society. They often spoke of the future as being in stark contrast to present societal standards. Such biblical visionaries generally commented on serious and fundamental concerns, such as how to live one's life properly. At times, these commentators clashed with the prevailing governing entities and unremarkably were treated to relatively unpleasant ends. In the discipline of bioethics, several theologians proffered their concerns, which, in retrospect, proved rather prophetic. Faced with the fundamental challenge to humanity which the emerging genetic technologies posed, Karl Rahner, Joseph Fletcher, and Paul Ramsey offered their own analyses of the morality of these nascent scientific and medical technologies from which today's legislators and judges may benefit.

Occasionally, governments, as with the audiences that the prophets addressed, are faced with fundamental challenges that rise from the depths of such ontological¹ concepts as human nature,² the determinative mo-

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1. Ontology can also be described as a philosophical or existential concern with "being." See TOM L. BEAUCHAMP & JAMES F. CHILDRESS, *PRINCIPLES OF BIOMEDICAL ETHICS* 36 (3d ed. 1989). Legal questions approach an ontological study, for example, when attempting to decipher when human life (or "being") begins, when "personhood" can first be ascribed to a "being," and when the life of the subsequent person no longer exists at a level commonly associated with "personhood." Webster's Dictionary defines ontology as "the branch of metaphysics concerned with the essence of things [and] the study of being." *THE NEW WEBSTER'S COMPREHENSIVE DICTIONARY OF THE ENGLISH LANGUAGE* 701 (Deluxe ed. 1987).

2. See Scott C. Idleman, *The Role of Religious Values in Judicial Decision Making*, 68 *IND. L.J.* 433 (1993). The author notes that in difficult cases, the court must consider "ultimate moral determinations about the nature of human beings or about the nature of their relationship to one another, to the state, and to the global community." *Id.* at 435. See

ments which delineate life and death,³ or the parameters of personhood.⁴ Legislatures, confronted with such divisive issues, must struggle with the diverse complications which emanate from these fundamental questions. Regrettably, in response to these issues, a government will attempt to accomplish through power and force⁵ what it has not been able to resolve through trenchant analysis of its own social, political, economic, and ethical systems. In the end, a people affords true legitimacy to a government when that government applies the law which is warranted in a particular situation and which is also consonant with the prevailing social mores and values.⁶

When faced with ontological challenges,⁷ however, the law must as-

Bowers v. Hardwick, 478 U.S. 186 (1986), where the Supreme Court upheld Georgia's criminal anti-sodomy statute as applied to homosexuals. Did not the Court declare essentially that such acts were in violation of human nature? *Id.* at 190-94.

3. See *Cruzan v. Director, Mo. Dep't of Health*, 497 U.S. 261 (1990). The Supreme Court examined the status of a human being in a persistent vegetative state and held that a limited constitutional right to refuse life-sustaining or life-saving medical treatment exists. *Id.* at 278.

4. See *Roe v. Wade*, 410 U.S. 113 (1973). The Supreme Court held that a constitutional right, based on privacy, exists and permits a woman, with the aid of her physician, to have an abortion. However, the Court also held that the right can be circumscribed by the state in the final trimester. Although the Court did not attempt to "resolve the difficult question of when life begins," *id.* at 159, the decision, nonetheless, implicates such issues.

5. A perusal of any widely circulated newspaper quickly confirms this observation as reports of "ethnic cleansing," genocide, and civil war predominate headlines. On a less political note and more philosophical level, Walter Kaufmann, the noted commentator on the philosopher Friedrich Nietzsche, explains that if human beings do not have a firm grounding in the fundamental values that provide meaning to human life, the state or government can inject its own values as seen in Hitler's Germany, Fascist Italy, and other ideology-driven countries. Kaufmann notes that:

The ancient theological picture of man is gone. If we cannot discover a new picture of man that will again give him a sense of his essential dignity, the State, in the hands of military despots, will demand that we should yield to it in idolatry; and eventually men will lose all respect for one another, all social structures will break down, and men will seek only to rob and to exploit one another.

WALTER KAUFMANN, *NIETZSCHE: PHILOSOPHER, PSYCHOLOGIST, ANTICHRIST* 167 (4th ed. 1974).

6. Law must have some relationship to the society it governs and must change with the values of the governed. For example, Roberto Unger, a noted jurisprudence commentator in the Critical Legal Studies movement, explains that differing conceptions of the basis of social order provide a framework for the analysis of law. To illustrate this point, Unger refers to a consensus theory of jurisprudence which focuses on society and "its shared values and understandings" as opposed to the individual. In consensus theory, therefore, "the main reason for which laws are obeyed is that the members of the group accept in belief and embody in conduct the values the laws express." ROBERTO UNGER, *LAW IN MODERN SOCIETY: TOWARD A CRITICISM OF SOCIAL THEORY* 24-31 (1976).

7. The courts and legislatures deal with "ontological challenges" when considering

sume a more interdisciplinary approach in analyzing such fundamental concepts if it is to retain its legitimacy. Just as our government had to grapple with the fundamental nature of personhood when attempting to resolve the abortion and euthanasia dilemmas, legislatures and courts must once again examine such concepts when faced with the challenges the New Biology presents.⁸ This Article maintains that when dealing with the "hard cases" mentioned above, it is appropriate for the law to draw upon such fields as ethics, philosophy, medicine, and even theology, when fashioning a legal construct by which society can resolve pragmatically these essential questions.⁹ The goal, under circumstances posed by the New Biology, is to produce an application of the law which is harmonious with society's concept of the common good.¹⁰ By injecting other curative disciplines into the legal analysis of such problems, a government can build a broader consensus among those that it governs. This consensus, in turn, promotes a greater respect for the law and a healthier society which is not fractured by bitter disputes over the law or its results.

As a product of the New Biology, the Human Genome Initiative (Initiative) is an attempt to map the fifty to one-hundred and fifty thousand genes that comprise the overall biological portrait of a human being.¹¹ The Initiative presents the law with several fundamental challenges. The aspiration of this Article is to explicate for the law a construct which employs theological analysis¹² as a complement to other disciplines for the

the "hard cases" of abortion, physician-assisted suicide, and the autonomy-based position of the "right to die." See Idleman, *supra* note 2, at 434 (stating that the courts, in these circumstances, are focusing "on ethically difficult cases, or other so-called 'hard cases'").

8. The "New Biology" refers to any type of revolutionary, technologically advanced, experimental, or visionary medical treatment or therapy. See Roderic Gorney, *The New Biology and the Future of Man*, 15 *UCLA L. REV.* 273, 304 (1968); GEORGE P. SMITH II, *THE NEW BIOLOGY: LAW, ETHICS, AND BIOTECHNOLOGY* (1989).

9. For example, one author has noted that "[e]xclusive reliance should not be placed on legal remedies, however, to resolve the complex ethical problems that biomedical research presents." GEORGE P. SMITH, II, *BIOETHICS AND THE LAW: MEDICAL, SOCIO-LEGAL AND PHILOSOPHICAL DIRECTIONS FOR A BRAVE NEW WORLD* 14 (1993).

10. As St. Thomas Aquinas noted in his *Treatise on Law of the Summa Theologiae*, "[L]aw has as its first and foremost purpose the ordering of the common good." ST. THOMAS AQUINAS ON POLITICS AND ETHICS 45 (Paul E. Sigmund ed. & trans., 1988) [hereinafter *AQUINAS*]. See generally George P. Smith, II, *Manipulating the Genetic Code: Jurisprudential Conundrums*, 64 *GEO. L.J.* 697 (1976).

11. SMITH, *supra* note 8, at 6.

12. This Article maintains that mapping all of the genes that control the basic functions of human life implicates questions concerning the fundamental nature of humanity. Analogously, theology, in its quest to determine the fundamental nature of the human spirit in relation to God, can serve as a guide to the law just as ethics, science, medicine, and other disciplines do in appropriate situations.

purposes of resolving these fundamental quandaries of the Human Genome Initiative. When applied, such a construct will aid the law in establishing the parameters of scientific and medical research without stifling beneficial applications of the New Biology.

In drawing from the theological realm, a construct for the analysis of bioethical challenges should strive toward flexibility. The construct should neither restrict itself exclusively to principles found in natural law¹³ nor, at the other pole, contain only consequentialist or utilitarian principles.¹⁴ In seeking a middle ground between such poles, the resulting construct draws upon *a priori* or universal principles¹⁵ which are temporally conditioned by the ever evolving nature of biomedical science. The construct, therefore, employs a paradox. While maintaining a justified deference to universal principles of human nature (the ontological principles), the construct approaches the problems of the New Biology with a flexibility that recognizes how principles can evolve under the pressures of current conditions.

The Initiative endeavors to map the *a priori* biological existence of the human being. The use of such a map to aid in both somatic and gametic genetic therapy,¹⁶ as well as other genetic-based medical technologies,

13. For the purposes of this Article, principles of "natural law" are developed within the context of St. Thomas Aquinas. Aquinas discusses the kinds of law in his Question 91. AQUINAS, *supra* note 10, at 46. There exists eternal law, which is the governance of the universe by divine reason. Natural law is simply the manifestation of the eternal law in natural or living beings: "[I]t is evident that all things participate in the eternal law in a certain way because it is imprinted upon them through their respective inclinations to their proper actions and ends." *Id.* See also JOHN C. MURRAY, WE HOLD THESE TRUTHS: CATHOLIC REFLECTIONS ON THE AMERICAN PROPOSITION 295-336 (1960). Murray focuses upon natural law's "metaphysical character" and its primary concern with "the ultimate order of beings and purposes." *Id.* at 320. Such notions of natural law accordingly consist of universal, transcendent, and timeless principles. *Id.*

14. Consequentialist theory analyzes ethical problems according to the outcomes or consequences of particular decisions. THE NEW GENETICS AND THE FUTURE OF MAN 81 (Michael P. Hamilton ed., 1972). Consequentialist theory is subsumed within the broader field of normative ethics. "Normative ethics is concerned with determining what actions and states of affairs are right, wrong, good, or bad, and with related evaluations such as praiseworthiness and blameworthiness." MICHAEL H. SHAPIRO & ROY G. SPECE, JR., BIOETHICS AND LAW 73 (1981).

15. *A priori* principles are founded upon the concept that some acts are inherently unethical or immoral. THE NEW GENETICS AND THE FUTURE OF MAN, *supra* note 14, at 81.

16. Somatic therapy consists of treating a disease, caused by incorrect genetic coding, through the substitution of the incorrect genetic code with the correct genetic code. Because such treatment only affects the individual cells of the patient, the patient's gametic or sex cells would need to be altered to prevent the genetic predisposition toward the disease from passing to the patient's offspring. Gametic or germ-line therapy consists of the alteration of defective genes in the sperm (male) and ova (female) to prevent the transmission of

implicates the very essence of human nature. The challenge referred to above is simply stated: Should the courts and the legislatures permit science and medicine to, in effect, manipulate human nature through the use of this genetic map or blueprint?¹⁷ A flexible, interdisciplinary construct for decision-making, anchored in ethical and theological principles, answers this challenge with a cautious "yes." It remains then for the courts and legislatures to decide, after considering many disciplines, including theology, how far the genetic mission may delve into human existence.

Part I of this Article discusses the general background of the Initiative, as well as the technological and medical offshoots of the Initiative, such as genetic therapy (both somatic and gametic), various methods of experimentation, and research associated with genetics. Part II examines the need for the law to assume an interdisciplinary approach to solving the questions that arise from the Initiative. Accordingly, this part of the Article asserts that theological principles have a modest, albeit critical, role to play in the legal construct. Part III of the Article commences with a general discussion of basic theological principles the Initiative evokes, and specifically explores these principles in the realm of genetic therapy. The works of three prominent thinkers, the late Catholic theologian, Karl Rahner, the late Protestant ethicist, Joseph Fletcher, and the Protestant theologian-ethicist, Paul Ramsey, provide the basis for the theological ingredient of the construct. Part IV concludes the Article by formulating a construct, in part derived from the above theological principles and authors, by which the law can address the fundamental challenge posed by the Initiative and genetic therapy: the extent to which technologies of the New Biology should be permitted to manipulate and experiment with the basic genetic composition of the human being.

unfavorable genes to the offspring. John C. Fletcher, *Moral Problems and Ethical Issues in Prospective Human Gene Therapy*, 69 VA. L. REV. 515, 515 (1983); Alexander M. Capron, *Which Ills to Bear?: Reevaluating the "Threat" of Modern Genetics*, 39 EMORY L.J. 665, 675-77 (1990).

17. Several governmental regulatory groups have concluded that somatic cell therapy does not deviate much from any other kind of medical therapy. However, any alteration of the germ-line or gametic cells would not be allowed as such alteration would affect future offspring. Capron, *supra* note 16, at 675. Obviously, manipulation of the sex cells has impact on future generations whereas somatic cell therapy simply corrects an aberrant gene within the cells of only one patient. *Id.* at 675-77.

I. THE HUMAN GENOME INITIATIVE: MYTH, MONSTER, OR MIRACLE¹⁸

A. *The Human Genome Initiative—“Our Fate is in our Genes”*¹⁹

The Initiative is a plan to map and sequence the fifty to one-hundred and fifty thousand genes²⁰ that comprise the genetic blueprint of a human being.²¹ Genetic mapping consists of the laborious process of matching the position of genes onto specific chromosomes.²² Once the map is complete, scientists, physicians, and the public can “screen” for both beneficial and deleterious genetic attributes.²³ Screening an individual’s genetic map theoretically will enable scientists and physicians to predict and prevent potential genetic disasters.²⁴ The medical purpose of mapping and sequencing the human genome is to target specific, disease-related genes

18. See George J. Annas, *Mapping The Human Genome and The Meaning of Monster Mythology*, 39 EMORY L.J. 629 (1990) (drawing from literary examples of humanity’s desire to create and control life or human nature).

19. James Watson, the co-discoverer of DNA and the Chief Administrator of the National Institute of Health’s Human Genome Initiative, *quoted* in Annas, *supra* note 18, at 638. Watson further noted that “when finally interpreted . . . the genetic messages encoded within our DNA molecules will provide the ultimate answers to the chemical underpinnings of human existence.” *Id.*

20. Annas, *supra* note 18, at 629. There are approximately three billion base pairs of nucleotides that make up the twenty-three different chromosomes that compose the human genome. *Id.* at 635. Chromosomes are composed of genes (50,000 to 100,000 in humans), which in turn are composed of deoxyribonucleic acid (DNA), the chemical carrier of genetic information. *Id.* DNA is composed of the base pairs of nucleotides which are found in two linear strands wrapped around each other in the form of a double helix. *Id.* Genetic mapping, the nuts and bolts of the Initiative, consists of sorting through the genes and assigning them to specific chromosomes. *Id.* Ultimately, by knowing which gene is responsible for a particular disease and where the gene is located among the twenty-three pairs of chromosomes, scientists can treat the aberrant gene and eradicate the disease. *Id.*

21. The Initiative in the United States is composed of three organizations which are providing the funding for the project: the National Institutes of Health (NIH), the Department of Energy (DOE), and the Howard Hughes Medical Institute. *Id.* at 637.

22. *Id.* at 636. The position of the gene on a particular chromosome constitutes a genetic locus or “marker” which encodes for specific traits. *Id.* With the aid of markers, the inheritance of traits or genetic diseases can be pinpointed to specific genes thereby allowing scientists to attempt genetic therapy on the particular genes. See Robert M. Cook-Deegan, *Mapping the Human Genome*, 65 S. CAL. L. REV. 579, 581 (1991).

23. See generally Kimberley Nobles, *Birthright or Life Sentence: Controlling the Threat of Genetic Testing*, 65 S. CAL. L. REV. 2081 (1992) (maintaining that, with the ability to map genes responsible for genetic disorders, the potential for discrimination and invasion of privacy exists).

24. See Louis J. Elsas, II, *A Clinical Approach to Legal and Ethical Problems in Human Genetics*, 39 EMORY L.J. 811, 826 (1990). Elsas notes that “[t]he power of genetics as a tool in health care is that of prediction and prevention.” *Id.*

for future therapy,²⁵ as well as to identify normal genes for the purposes of augmenting scientific knowledge.

With such potential knowledge, courts and legislatures are faced with the challenge of producing an environment which promotes beneficial research yet curbs unethical²⁶ forays into human existence. As will be discussed in greater detail in Parts II and III of the Article, theological and ethical principles, as utilized by the decision-makers (courts and legislatures), can provide standards that will help ensure the proper balance between producing beneficial research and maintaining the ethical integrity of the human being.

B. Genetic Therapy²⁷

The map of the human genome will enable scientists to locate the full complement of genes which control virtually every aspect of human development.²⁸ Once these genes are identified, geneticists can attempt to alter genes that are either deleterious to the individual or insert genes that will enhance the individual's overall genetic profile.²⁹ Genetic therapy occurs in two forms, depending on the type of cells altered.³⁰ When somatic cells, which compose an individual's tissues and organs, are changed, the genetic result occurs only in the altered cells of the individual and such alterations are not inheritable.³¹ Gametic genetic therapy, on the other hand, is designed to alter genes both in the individual and in the individual's offspring by changing the gametes which are the male sperm and female ovum.³²

25. See Cook-Deegan, *supra* note 22, at 581.

26. One to three percent of the three billion dollar budget is earmarked to investigate the Initiative's ethical implications. See Edward J. Larson, *Human Gene Therapy and the Law: An Introduction to the Literature*, 39 EMORY L.J. 855, 863 (1990).

27. Genetic therapy, as discussed above, falls under the broader field of genetic engineering. Genetic engineering is the chemical manipulation of the genetic information contained in the cells of an organism which causes biological alterations. JUDITH AREEN ET AL., *LAW, SCIENCE, AND MEDICINE* 2 (1984). See also GEORGE P. SMITH, II, *GENETICS, ETHICS, AND THE LAW* i (1981).

28. See SMITH, *supra* note 27, at i.

29. Cook-Deegan, *supra* note 22, at 584-85. The author comments that the genetic map of an individual affected with a particular disease will enable physicians to isolate the gene which is triggering the disease. *Id.* at 584. The gene itself codes for a protein which, when isolated, can be further studied to discern which defect exists in the protein that causes the disease. *Id.* Once this molecular defect is isolated, the gene coding for the protein can be replaced with a normal copy by means of genetic therapy. *Id.* at 585.

30. Fletcher, *supra* note 16, at 515.

31. Capron, *supra* note 16, at 675-76.

32. *Id.*

Somatic cell therapy, as it does not affect the genetic make-up of future offspring, closely resembles other types of beneficial and therapeutic invasive processes, and accordingly poses, less of an ethical problem than gametic therapy.³³ By targeting specific disease-causing genes, such therapy can relieve the suffering caused by inherited genetic disorders. The President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (Commission) has concluded that somatic therapy can be pursued, provided that it does not alter the gametes of the individual.³⁴

As the Commission has done, several other groups have drawn a distinction between somatic and gametic or germ-line therapy because manipulation of the genes of offspring, as well as the individual's cells, presents a more serious problem. As some have maintained, germ-line therapy contains "the risk of perpetuating any errors made into future generations of nonconsenting 'subjects'. . . [and] also go[es] beyond ordinary medicine and interfere[s] with human evolution."³⁵ For these reasons, some groups have called for a moratorium on the genetic therapy of gametic cells.³⁶

Such concerns stem from the notion that when technologies can affect future generations, broader issues arise, such as actively manipulating human identity and redefining the meaning of human nature.³⁷ Once again, when deciding these issues, courts and legislatures must consult a diverse body of knowledge and avoid relying solely upon science or legal precedent.³⁸ For example, it may be argued that correcting genetic deficiencies is simply another means of therapeutic medical practice and does not deny the ability or choice of procreation. Nonetheless, if executed without ethical and moral constraints, modern genetic therapy can be uti-

33. Several guidelines have been suggested for somatic therapy: (1) scientists should be reasonably sure that the therapy will be beneficial; (2) scientists must be able to limit the therapy to the targeted cell; and (3) such therapy will not cause serious harm to the cell or the offspring. See generally Fletcher, *supra* note 16, at 535-36.

34. See Capron, *supra* note 16, at 675.

35. *Id.*

36. At the Fifth Summit Conference on Bioethics in Rome in April, 1988, the French delegate Jean Dausset "urged that a formal moratorium be imposed on genetic engineering of human germline cells." *Id.* at 678. Dausset's proposal was rejected, but not without the statement that, "there are neither medical indications nor ethical justification for intentional genetic manipulation of human germ-line cells at this time." *Id.* (emphasis added).

37. *Id.* at 677.

38. See Larson, *supra* note 26, at 858 (stating, "[j]ust as [Judith] Areen concluded that 'scientists alone should not control human genetic therapy,' so [Alexander] Capron adds that the [germ-line] technique is too important to leave solely to the politicians").

lized in an oppressive and discriminatory fashion which contradicts basic theological tenets. Before deciding whether or not to limit reproduction through genetic therapy, the basic sanctity of human life must be integrated into the equation. This Article asserts that it is possible to improve human life through such therapy and yet maintain the sanctity of life. The quality of life is improved through such therapy because the individual's cells or offspring are genetically more viable, suffering is greatly relieved, and society benefits by avoiding increased costs of care.

C. Issues Related to Genetic Therapy

Two of the most recent and controversial issues related to genetic therapy are embryo experimentation and cloning. Each has provoked vehement rebukes from both ethical and religious circles. Both procedures incorporate genetic manipulation but also implicate such volatile issues as abortion and embryo discard. Postconception, preimplantation screening of embryos, and genetic therapy on embryos³⁹ is one step removed from germ-line therapy. Through the techniques of in vitro fertilization (IVF),⁴⁰ embryo freezing, and embryo biopsy, human embryos can be screened for genetic defects before they become implanted in the uterus of the mother.⁴¹ Preimplantation screening⁴² of embryos is in its prelimi-

39. A zygote is the single cell which contains the genetic information from both the male and female parents but has not yet begun the process of division to form new cells. Once the zygote begins to divide, the organism is termed an embryo. After the embryo has implanted and grown in the uterine wall for approximately six weeks, the embryo becomes a fetus. See John R. Harding, Jr., *Beyond Abortion: Human Genetics and the New Eugenics*, 18 PEPP. L. REV. 471, 474 (1991).

40. In vitro fertilization (IVF) entails the removal (surgical or through inducement) of eggs from a woman's ovary and the subsequent "test tube" fertilization with the male sperm. Through the process of IVF, physicians can genetically manipulate the egg of the mother or the sperm of the father before fertilization takes place (germ-line or gametic therapy). Alternatively, once fertilization is achieved, the physician could genetically manipulate the resulting zygote or embryo. See John A. Robertson, *Embryos, Families, and Procreative Liberty: The Legal Structure of the New Reproduction*, 59 S. CAL. L. REV. 939, 947-49 (1986).

41. John A. Robertson, *Procreative Liberty and Human Genetics*, 39 EMORY L.J. 697, 705 (1990). The article focuses upon the screening capabilities of this technique and notes that such "advances will enable couples to avoid the birth of a child with a serious genetic defect without undergoing pregnancy and a later abortion." *Id.* The author then notes that "[i]t will also eventually allow gene therapy to occur." *Id.*

42. The practice of screening early embryos for defects and then deciding whether or not to abort is a controversial topic. While most people accept prenatal diagnosis and abortion for serious genetic defects, there is more widespread opposition to prenatal diagnosis and termination of pregnancy for what are perceived as less serious, treatable, or trivial genetic complications. See Dorothy C. Wertz & John C. Fletcher, *Fatal Knowledge?*

nary stages.⁴³ Once the embryo is screened for any potential genetic defects, genetic therapy can be conducted to remove the deleterious genes and insert the normal or healthy gene sequence.⁴⁴ Because such screening, experimentation, and therapy involve the manipulation of embryos which may eventually develop into a fetus, criticism of such procedures has arisen.⁴⁵ Some state laws already prohibit using certain genetic technologies and experimental gene therapy on embryos.⁴⁶ Such bans, however, function not only as an impediment to scientific progress, but also neglect the duty to improve the overall health of the present and future population.⁴⁷ For example, genetic research on embryos would clearly benefit the population because over fifty percent of conceptions which result in spontaneous miscarriage occur because of chromosomal imbalances.⁴⁸ Not only would screening and experimentation thus help

Prenatal Diagnosis and Sex Selection, HASTINGS CENTER REP., May-June 1989, at 21; Curt S. Rush, *Genetic Screening, Eugenic Abortion, and Roe v. Wade: How Viable is Roe's Viability Standard?*, 50 BROOK. L. REV. 113, 114 (1983) (noting that, with the scientific ability to genetically screen for defects, coupled with the right to choose to abort, disturbing eugenic practices may result).

43. Robertson, *supra* note 41, at 705. Professor Robertson comments that the technical requirements of isolating the embryos, sampling blastomeres (which are recently divided zygotes), and assaying their genetic structure have not yet reached a level of sophistication necessary for the purposes of experimentation. *Id.*

44. *Id.* at 706. See also Nobles, *supra* note 23, at 2086 (noting that one advantage of preimplantation embryo screening is that it avoids abortion because once a genetic defect is discovered, the embryo need not be transferred to the uterus, thus avoiding an actual pregnancy).

45. See Cook-Deegan, *supra* note 22, at 589-90 (noting that the use of genetic screening, testing, and therapy may result in an increase in abortions); see also Fletcher, *supra* note 16, at 519 (asserting that the above-mentioned technologies have become "inextricably linked to the abortion issue"); see also Rush, *supra* note 42, at 114 (discussing and defining the concept of eugenic abortion as "an abortion to prevent the birth of a defective or malformed child").

46. Seven states prohibit experimental gene therapy on embryos. See LA. REV. STAT. ANN. § 9:122 (West 1991); ME. REV. STAT. ANN. tit. 22, § 1593 (West 1992); MASS. GEN. LAWS ANN. ch. 112, § 12J (West 1983); MICH. COMP. LAWS ANN. §§ 333.2685-.2692 (West 1992); N.D. CENT. CODE §§ 14.02.2-01 to -02 (1991); R.I. GEN. LAWS § 11-54-1 (1994); UTAH CODE ANN. § 76-7-310 (1990). Other issues which stem from embryo experimentation include the controversial practice of embryo discard, where the extra embryos or genetically defective embryos are simply destroyed. See Robertson, *supra* note 41, at 707; see generally George P. Smith, II & Roberto Iraola, *Sexuality, Privacy, and The New Biology*, 67 MARQ. L. REV. 263 (1984). Various states have already moved toward prohibiting embryo discard. See LA. REV. STAT. ANN. §§ 9:121-133 (West Supp. 1990); MINN. STAT. ANN. §§ 609.266-.268 (West Supp. 1990); MO. ANN. STAT. § 1.205 (Vernon Supp. 1994).

47. Elsas, *supra* note 24, at 834 (commenting that "[t]here are clear scientific and public needs to continue fetal research utilizing molecular genetic techniques").

48. *Id.* Other research beneficial to the study of the reproductive sciences would be

couples avoid the trauma of miscarriages, such therapy could also lead to a healthier general population.

The ultimate goal of any cloning technology is to produce a copy of a cell or to produce offspring possessing the same genetic material as that of the parent cell or organism.⁴⁹ Because cloning human beings conjures up a myriad of horrific science fiction scenarios,⁵⁰ geneticists and reproductive technology specialists have primarily limited themselves to the cloning of various livestock.⁵¹ However, recent studies have reported breakthroughs in the cloning of human embryos. Using a technique known as "embryo splitting,"⁵² researchers at George Washington University Medical Center in Washington, D.C., cloned cells from human embryos for the first time; however, the researchers emphasized that cloning human beings is still only a distant possibility.⁵³ Cognizant of the controversy surrounding embryo research, and seeking to avoid the specter of experimentation on a future fetus, the researchers utilized genetically abnormal embryos that would have been discarded because they could not have reached viability.⁵⁴ Cloning presents an additional ethical problem

experimentation with cells from aborted fetuses. This could aid in targeting the defective genes which cause other genetic disorders. *Id.*

49. George A. Hudock, *Gene Therapy and Genetic Engineering: Frankenstein Is Still a Myth, But It Should Be Reread Periodically*, 48 *IND. L.J.* 533, 549-50 (1973).

50. See, e.g., Michael D. Lemonick, *Cloning Classics*, *TIME*, Nov. 8, 1993, at 70.

51. J. Madeleine Nash, *They Clone Cattle, Don't They?*, *TIME*, Nov. 8, 1993, at 68 (noting that the cloning of certain animals had been accomplished in the early part of the 1980s).

52. In the process of embryo splitting, scientists first produce an embryo through in vitro fertilization (IVF). IVF consists of combining the sex cells (egg and sperm) of the parents in a Petri or culture dish. Once a sperm penetrates the egg and produces an embryo, the embryo is then implanted in the uterus of the mother. In embryo splitting, however, once the embryo divides, the protective coating around the cells, known as the zona pellucida, is removed, and the cells of the embryo are separated. After the cells are separated, an artificial zona pellucida is again placed around the cells to restart the process of cell division and growth. Kathy Sawyer, *Researchers Clone Human Embryo Cells*, *WASH. POST*, Oct. 25, 1993, at A4; Boyce Rensberger, *The Frightful Invasion of the Body Doubles Will Have To Wait*, *WASH. POST*, Nov. 1, 1993, at A3.

53. Sawyer, *supra* note 52, at A4. Although the experiment at George Washington University Medical Center caused much controversy last summer, cloning remains a distant possibility. During the development of an embryo, certain genes within the cells either turn on or off, depending upon the embryo's stage of development. Thus, implanting a fully developed cell from another organism precludes further division because this new embryo contains genes which, although responsible for future development, have already been turned off. Rensberger, *supra* note 52, at A3.

54. Sawyer, *supra* note 52, at A4. These particular embryos were abnormal because the eggs had been fertilized by more than one sperm cell and thus had excess genetic material. *Id.*

because during the first group of cell divisions, the cells are "totipotent" and thus have not attained a level of development in which certain cells or groups of cells code for specific functions.⁵⁵ Accordingly, any manipulation of the genetic make-up of the cell at this stage could have far-reaching ramifications in the ultimate development of the individual produced by the cloned cell.

Cloning, as with other forms of genetic manipulation, presents an ethical dilemma for society. Should society allow science to tinker with the biochemical building blocks that hold the very key to human existence? Throughout these medical and scientific challenges, a common theme exists—society's need to balance the chance to improve the quality of life of the population with the possibility of violating basic ethical and moral principles. In the case of cloning, couples who have difficulty conceiving children benefit by such therapy because the cloning of an IVF-produced embryo produces more embryos for implantation which increases their chances of pregnancy. In drafting legislation regarding such techniques, ethical and moral considerations should be weighed appropriately rather than act as ideological impediments to improving people's lives.

II. THE NECESSITY FOR AN INTERDISCIPLINARY APPROACH

A. No Law is an Island Unto Itself

A genetic map of the human being can alter how humans think of themselves, both as individuals and as a society. A genetic map, as with all forms of knowledge, can be used to produce benefits enjoyed by the individual and by society as a whole. With proper deference to human dignity, a construct which employs theological and ethical principles prevents science and medicine, as well as legislatures, from overreaching and producing a map for the purposes of controlling the individual or restricting the individual's freedom. But first, why should the law even consider such a construct?

As the abortion debate has affected society's perception of the beginning of life and produced the viability standard,⁵⁶ genetic research also has the potential to alter society's perceptions of another fundamental

55. *Id.* Although the researchers noted that such therapies would be developed for the benefit of infertile couples, manipulating the cell at its "totipotent" stage would be similar to gametic genetic therapy in that not only the immediate cell or embryo is affected, but also any offspring which may result.

56. *Roe v. Wade*, 410 U.S. 113 (1973).

principle: personhood.⁵⁷ As the secular and pluralistic society progresses, the law cannot afford to cloister itself in its own self-contained field.⁵⁸ Accordingly, the law, in its attempt to understand the implications of the Initiative and genetic therapy, must be ever vigilant of scientific and technological advances⁵⁹ and their theological and ethical⁶⁰ implications. Ultimately, the law must avoid the role of functioning solely as a mechanism of control, preventing science from improving human existence, thereby, denying autonomy, privacy, and dignity.⁶¹ It is for this reason that the law must consult theological principles when developing a framework of analysis.

B. Related Bioethical Principles

When resolving medical-legal issues it is wise to consult some generally recognized bioethical principles that not only reflect the need for an interdisciplinary approach, but also implicate theological principles. Autonomy, beneficence, and justice comprise the triumvirate of ethical principles.⁶² Autonomy, or self-determination, implies that individuals should have the freedom to choose or act without actual coercion from external forces or passive coercion resulting from an internal inadequacy or incompetence.⁶³ The analogous theological value is the freedom of the

57. Rochelle C. Dreyfuss & Dorothy Nelkin, *The Jurisprudence of Genetics*, 45 VAND. L. REV. 313, 315 (1992). The authors note that "[g]enetics has profoundly altered the perception of personhood within our culture." *Id.*

58. See generally Richard A. Posner, *The Decline of Law as an Autonomous Discipline: 1962-1987*, 100 HARV. L. REV. 761 (1987).

59. SMITH, *supra* note 9, at iii-iv. Perhaps the most concise statement of the interrelationship of law, science, and medicine is stated as follows: "Law, science, and medicine must become full, unlimited partners in the bioethical ventures of modern society." *Id.*

60. Because of the many social, ethical, and legal issues raised by genetic therapy and research, the National Institutes of Health (NIH) and its National Center For Human Genome Research established an Ethics Committee to aid in the formulation of the ethical issues. Annas, *supra* note 18, at 650-51. The international Human Genome Organization (HUGO), comprised of 42 scientists from around the world, has also formed an ethics committee for the purposes of providing a forum for the discussion of ethical issues. *Id.* at 651. Perhaps the most successful of the regulatory or oversight organizations has been the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (The President's Bioethics Commission). *Id.* at 656.

61. See Fletcher, *supra* note 16, at 519 (arguing that "since genes are such a fundamental aspect of what makes us human, any prospect of deliberate change implies the exercise of inordinate power by those who discover and control such knowledge").

62. See generally BEAUCHAMP & CHILDRESS, *supra* note 1, at 194-255; see also SMITH, *supra* note 9, at 6-9.

63. See BEAUCHAMP & CHILDRESS, *supra* note 1, at 68. As this nation is a "rights"-

human spirit.⁶⁴ Beneficence can be described as “[t]he prevention of harm and the production of good.”⁶⁵ The analogous theological maxim is found in St. Thomas Aquinas’ Treatise on Law: “[h]ence the first precept of law is that good is to be done and pursued, and evil is to be avoided.”⁶⁶ Justice can be portrayed as “an aspirational codification of the common good.”⁶⁷ Bridging the gap between ethics and theology, justice is also depicted as that which is morally correct.⁶⁸ The ethical constructs employed have often balanced these three principles so that the end result “of minimizing human suffering and maximizing the social good”⁶⁹ is achieved.

Judge Guido Calabresi suggests an analogous paradigm. Judge Calabresi reflects that most health law issues can be analyzed according to the extent that solutions to such bioethical issues are in conformity with constitutional and societal notions of life, liberty, and equality.⁷⁰ Likewise, theological concerns are rooted in three fundamental notions: human life can be treated as sacred, a gift from God; liberty is that element which all human beings are duly granted out of respect for their autonomous and free nature; equality is maintained when society recognizes the common

oriented society, autonomy often seems to take precedence over community-oriented values of justice.

64. Karl Rahner notes that humanity’s basic freedom is not simply a choice between objects. Freedom is best described as the individual spirit’s choosing his or her own total identity—in Rahner’s words, “self-choice.” KARL RAHNER, *THEOLOGICAL INVESTIGATIONS VI*, 181-88 (Karl-H. Kruger & Boniface Kruger trans., 1969). Rahner comments further by noting, “Freedom is the inevitable *necessity* of self-determination, by which man . . . *makes himself* what and who he wants to be and ultimately will be” A RAHNER READER 271 (Gerald A. McCool ed., 1975).

65. SMITH, *supra* note 9, at 8. See also BEAUCHAMP & CHILDRESS, *supra* note 1, at 194-95 (noting that beneficence is “the obligation to confer benefits and actively to prevent and remove harms”).

66. AQUINAS, *supra* note 10, at 49.

67. SMITH, *supra* note 9, at 6. A corollary of justice known as distributive justice implies the distribution of benefits justly and fairly among various social groups. *Id.* at 9. For example, the proper allocation of the benefits of genetic therapy would be included in an analysis of whether a genetic policy was “just.”

68. BEAUCHAMP & CHILDRESS, *supra* note 1, at 257. Further connoting theological concerns, justice also is manifest in the protection of the vulnerable. SMITH, *supra* note 9, at 9.

69. SMITH, *supra* note 9, at 6. Other sources also acknowledge that the principles are balanced or harmonized to produce a just result. “No one principle is supreme, but all are to be considered together.” Elsas, *supra* note 24, at 815.

70. Dean Guido Calabresi, Yale Law School, Address at the *Journal of Contemporary Health Law and Policy* Annual Banquet (Apr. 8, 1994). At the time of his remarks, Judge Calabresi was Dean of Yale Law School. President Clinton appointed Judge Calabresi to the U.S. Court of Appeals for the Second Circuit in 1994.

bond between all of God's creation and refuses to denigrate one population for the benefit of another.

C. Justifications for Employing Theological Principles

Theological principles, in the form of religious values, have contributed to American jurisprudence throughout this nation's history.⁷¹ Many authors note that the Constitution itself was substantially infused with theological beliefs concerning the nature of human beings and their existence in society.⁷² In various substantive due process cases, the Supreme Court intimates theological values as the Court explores the nature of human sexuality,⁷³ the existence of human life,⁷⁴ and the nature of death.⁷⁵ It is especially appropriate in these "hard cases" for judges and legislators to consider theological values because these issues are the focus of theocentric thinking.⁷⁶ Therefore, theological values provide the law with guidelines that are axiomatic to understanding the very issues that are the genesis of these "hard cases."⁷⁷

71. See Harold Berman, *The Interaction of Law and Religion*, 31 *MERCER L. REV.* 405, 406 (1980); Timothy L. Fort, *A Jurisprudence of Faith: An Experiment in Using Theology to Interpret Jurisprudence*, 30 *CATH. LAW.* 22 (1985).

72. See Frank S. Alexander, *Symposium: Religious Dimensions of American Constitutionalism*, 39 *EMORY L.J.* 1, 1-8 (1990).

73. *Bowers v. Hardwick*, 478 U.S. 186 (1986) (holding that there is no constitutional right to engage in homosexual sodomy). Former Chief Justice Burger noted in his concurrence in *Bowers* that "[c]ondemnation of those practices is firmly rooted in Judeo-Christian moral and ethical standards." *Id.* at 196 (Burger, C.J., concurring).

74. *Roe v. Wade*, 410 U.S. 113 (1973) (holding that there is a constitutional right to undergo an abortion; however, abortions can be restricted by the states in the second and third trimesters). Regardless of the fact that the Court decided not to "resolve the difficult question of when life begins," *id.* at 159, the issue is prevalent and embodies the very root of the abortion debate.

75. *Cruzan v. Director, Mo. Dep't of Health*, 497 U.S. 261 (1990) (establishing that there is a limited constitutional right to refuse life-sustaining or life-saving medical treatment); see George P. Smith, II, *Death Be Not Proud: Medical, Ethical and Legal Dilemmas in Resource Allocation*, 3 *J. CONTEMP. HEALTH L. & POL'Y* 47 (1987).

76. It is in these "hard cases" that judges (and legislators drafting the laws in question) seldom have strong precedent upon which to rely and thus must consider supra- or extrajudicial sources (whether explicitly or implicitly acknowledged in the text of the opinion). See, e.g., George E. Garvey, Book Review, 33 *CATH. U. L. REV.* 801, 801 (1984) (reviewing MICHAEL J. PERRY, *THE CONSTITUTION, THE COURTS, AND HUMAN RIGHTS* (1982)). Professor Garvey notes that it would be "shocking, however, for the courts to refuse to consider the moral teachings of religious traditions when making moral value judgments." *Id.* at 805.

77. See Richard S. Myers, *The Supreme Court and the Privatization of Religion*, 41 *CATH. U. L. REV.* 19, 24 (1991). The author notes that "accepting a public role for religion enables religious institutions to contribute significant resources and insights regarding

III. THEOLOGICAL IMPLICATIONS AND SOURCES

A. Which "Map" of Human Nature?

The map of the human genome can be seen as a quest for the existential meaning of human nature on a biological level. As James Watson, one of the discoverers of the double helix structure of DNA stated, "[w]hen finally interpreted . . . the genetic messages encoded within our DNA molecules will provide the ultimate answers to the chemical underpinnings of human existence."⁷⁸ Once the entire map is procured, who is to decide which genetic profile is "normal" or "defective"? Who is to decide, and by what standards, the value of one genetic profile over another? Ultimately, when any type of genetic policy is implemented, the decision-maker inherently makes a value judgment on the genetic profile of the individual or embryo.⁷⁹ What value does the decision-maker assign to the embryo encoded for the disease of cystic fibrosis? If genetic markers are found that implicate a predisposition toward alcoholism or homosexuality, what value is assigned to these individuals? Analysis of such values need not always be executed under the calculus of utilitarianism, which may view certain individuals as economic burdens.⁸⁰

Without making an overly broad (and unwise) claim that any use of the map of the human genome is unethical or immoral, theological principles remind the decision-maker to proceed with caution. First, any equation of the individual human spirit with that of his or her genome engages in radical reductionism and should be eschewed.⁸¹ Such reductionism detracts from the essential dignity of the individual as spirit in relation to God.⁸² Second, in viewing the individual spirit or subject as merely a product of his or her genome, the decision-maker objectifies and dehu-

moral issues." *Id.* See also *Developments in the Law — Religion and the State*, 100 HARV. L. REV. 1606, 1618-19 (1987).

78. Dennis L. Breo, *DNA Discoverer James Watson Now Dreams of Curing Genetic Diseases*, 262 JAMA 3340, 3343 (1989).

79. See Capron, *supra* note 16, at 682-83 (noting that "deconstructionism," the philosophical discipline of interpreting texts espoused by the French philosopher Jacques Derrida, can be applied to the "reading" of the human genome map and challenge the conception that what is "normal" is the rule and what is "abnormal" is the exception).

80. See Rush, *supra* note 42, at 134-35 (stating that "it is a considerable economic burden to both state and family to raise a child, but in the case of a severely defective child that burden may be enormous, and often impossible to bear").

81. See Annas, *supra* note 18, at 648. In reflecting on the new perspectives on humans that the human genome would bring, the author noted that "[t]he most obvious is that breaking 'human beings' down into six billion 'parts' is the ultimate in reductionism." *Id.*

82. See RICHARD A. McCORMICK, *HOW BRAVE A NEW WORLD* 10 (1981). "The Judaeo-Christian tradition has always seen persons as 'in relationship to God.' This means

manizes the individual.⁸³ Third, in science's race to control existence,⁸⁴ human beings are essentially engaging in the futile attempt to deny their finitude.⁸⁵ Humanity, in all its aspirations to transcend humankind's inherent limitations through science and medicine, refuses to recognize that, as God's creation, humanity is inherently and essentially good.

B. A Triumvirate of Theologians Addresses the Issues

1. Karl Rahner and the "Moral Faith Instinct"

One of the most notable theologians in Catholicism, Karl Rahner, has described each human as a freedom event, an unfinished spiritual and corporeal existence that creates itself into the existence the individual desires.⁸⁶ In this creative capacity, the free individual is both experimenter and experiment—being part of a divine and natural design, yet also contributing to this design.⁸⁷ Accordingly, the human essence is experimentally malleable in that the individual has the freedom to construct and to manipulate his or her existence and essence.⁸⁸ Rahner, in assessing the then-emerging breakthroughs in genetic technology, noted that "today [man] is able to manipulate himself in tangible, bodily and societal terms, and . . . he can plan this manipulation rationally and steer it by

that persons are the bearers of an 'alien dignity,' a dignity rooting in the value God puts in them." *Id.*

83. See Sidney Callahan, *The Challenge of Technological Change*, in ONE HUNDRED YEARS OF CATHOLIC SOCIAL THOUGHT 174, 182 (John A. Coleman ed., 1991). The author notes that "[m]any technologies endanger human dignity by their tendency to turn a human being into an object or thing . . . Humans can be degraded by becoming enmeshed and subsumed in a technological process." *Id.*

84. See JOSEPH FLETCHER, HUMANHOOD: ESSAYS IN BIOMEDICAL ETHICS 91 (1979). "To be [human] we must be in control. That is the first and last ethical word." *Id.* Fortunately, control is not the first and last theological word; rather it is love.

85. See PAUL RAMSEY, FABRICATED MAN: THE ETHICS OF GENETIC CONTROL 154 (1970). "The flaw in 'the human condition' lies at the heart of man's self-awareness of . . . our finitude, or rather the fact that we are conscious beings aware of our limitation." *Id.*

86. Karl Rahner, *Experiment: Man*, 16 THEOLOGY DIG. 57, 58-59 (1968). Rahner notes that "[m]an has always had the power to determine his permanent, everlasting orientation." *Id.* at 62. Rahner sees the onset of genetic technology as providing humanity the potential for physical self-creation as a complement to spiritual self-awareness. *Id.* at 58.

87. *Id.* at 59. The reason for humanity's uniqueness, which separates it from the rest of creation, is the ability to transcend its spatio-temporal existence and reflect upon its "selfness" -its existence in the world. *Id.* Thus, humanity exists (is experiment) and contemplates its existence (is experimenter).

88. *Id.* at 60. Rahner also notes that "[a]s far as a Christian understanding of mankind is concerned, man is not simply the product of 'nature', as if nature *alone* were able and authorised [sic] to determine and model man's being." A RAHNER READER, *supra* note 64, at 270-71 (emphasis in original).

means of technology.”⁸⁹ In applying this premise to genetic therapy, Rahner initially explains that “[i]t is impossible simply to dismiss the thought of man’s ‘genetic manipulation’ as an unethical project.”⁹⁰ Rather, in a cautious fashion, Rahner suggests that the abstract concept of genetic self-manipulation does not imply a morally repugnant act.⁹¹ Rahner reasons that because the individual’s very nature consists of the ability to create itself, such kinds of self-manipulation, genetically speaking, are morally legitimate if in accord with the individual’s nature.⁹²

What then is the individual’s nature against which Rahner would measure the moral quality of such manipulation? Rahner explains human nature: the individual is spirit as evidenced by his or her subjective essence; the individual is free; the individual is unique; the individual tends toward community-building, as opposed to self-obsessing; and the individual is worldly; that is, spatio-temporally conditioned or finite.⁹³ Any genetic manipulation must be in accord with the above concept of human nature. This paradigm then functions as a backdrop to an analysis of the moral quality of genetic manipulation.

The following three factors are considered in this analysis: (1) the moral quality depends upon the nature of the parties engaging in the manipulation (the state, the medical profession, the informed and consenting patient); (2) the moral quality depends upon the actual and intended result on the whole human being; and, (3) the moral quality depends upon the technological method employed (the success as well as the humanness of the method).⁹⁴ Rahner summarizes the three principles into one

89. A RAHNER READER, *supra* note 64, at 271-72.

90. *Id.* at 271. Rahner further notes that “man is characteristically the being who has been handed over to himself, consigned to his own free responsibility. In this sense he *must* ‘manipulate’ himself.” *Id.* (emphasis in original).

91. *Id.* Perhaps out of respect for the depth of genetic knowledge yet revealed at the time of his writing in 1975, Rahner posits his critique in the negative as opposed to any type of broad endorsement.

92. *Id.* at 272. Rahner explains that because humans inherently are beings that create themselves or their identities, it is natural that humans will engage in self-manipulation. *Id.* Simply because humankind now has the ability to apply genetic technology to this concept of self-creation or manipulation does not change the fundamental, albeit abstract, notion that human beings *create* themselves.

93. KARL RAHNER, THEOLOGICAL INVESTIGATIONS II, 239-41 (Karl-H. Kruger trans., 1963). Spatio-temporal existence is simply an existence of being present at a particular time and place. The concept merely denotes that human beings, by their finite nature, are shaped and molded according to the particular moment in history and particular culture in which they find themselves.

94. KARL RAHNER, THEOLOGICAL INVESTIGATIONS IX, 230-31 (Graham Harrison trans., 1979).

common factor: is the proposed manipulation or treatment "appropriate to or contrary to the nature of man."⁹⁵ Ultimately, Rahner asks, "[i]s there such a thing as an unchangeable 'nature' of man against which we can measure the appropriateness or inappropriateness of a particular genetic manipulation?"⁹⁶

Next, Rahner summarizes human nature and simultaneously lays the groundwork for his construct by which a decision-maker can analyze the moral quality of genetic manipulation. The theologian notes that "man *has* a knowledge and understanding of his own nature," and utilizing this knowledge, the individual can make normative judgments as to particular actions.⁹⁷ It is in the difficult cases of somatic and gametic therapy or cloning that "there exists a *moral* mode of knowing."⁹⁸ In accordance with humanity's nature, this knowledge is based upon universal or *a priori* principles (as discussed previously). Yet, at the same time, this knowledge is conditioned by the particular time and culture within which the individual resides. Rahner delineates this mode or construct of knowing as the "*moral* instinct of faith, i.e. a universal knowledge of right and wrong belief."⁹⁹ The moral faith instinct becomes the focal point of Rahner's construct for analysis and is discussed more fully in Part IV.

2. Joseph Fletcher - The Consequentialist Approach

Other thinkers also reflect Rahner's element of the human subject as a freedom event capable of controlling his or her existence and destiny. In contrast to Rahner, Joseph Fletcher reveals a consequentialist approach which focuses more upon the results of particular actions, and whether

95. A RAHNER READER, *supra* note 64, at 273.

96. THEOLOGICAL INVESTIGATIONS, IX, *supra* note 94, at 242. Rahner first appears rather skeptical as to the possibility of delineating a neatly packaged definition of human nature. The theologian asks, "[w]ith all our knowledge of man's immense malleability in the biological, psychological, cultural and social spheres, do we still have the courage to talk about the 'nature' of man?" A RAHNER READER, *supra* note 64, at 273. In terms of the Human Genome, how far do we extend the map of what is considered normal? As Rahner asks, "[d]o we know precisely where the limits of man's nature are to be found?" *Id.*

97. THEOLOGICAL INVESTIGATIONS, IX, *supra* note 94, at 231.

98. A RAHNER READER, *supra* note 64, at 274. Rahner highlights the notion that this mode of knowing does not lend itself to a concrete or objective definition: "This moral knowledge itself has a structure which is both universal and not exhaustively analysable [sic] in conscious reflection." *Id.* at 275. Part of the reason for the inability to assess this mode of knowing with scientific precision is that, as with most "moral" beliefs, such knowledge is culturally-conditioned and individually instinctual.

99. *Id.* at 275.

given the particular situation, the results are beneficial.¹⁰⁰ The Protestant ethicist does not employ any universal rules as with *a priori*-influenced thinkers. Rather, he resorts to guidelines which can be adjusted to particular situations.¹⁰¹ Fletcher explains that the definitive question in analyzing the ethics of genetic control is whether the decision-maker is "to reason from general propositions and universals, or . . . to reason from empirical data, variable situations, and human values[?]"¹⁰² Fletcher insists that society must choose between the former *a priori* ethics (traditionally embodied by religious morality) or the latter consequentialist ethics.¹⁰³ Fletcher opts for a pragmatic modality: "[w]e reason from the data of each actual case or problem and then choose the course that offers an optimum or maximum of desirable consequences."¹⁰⁴

Fletcher asserts that "[m]an is a maker and a selector and a designer and the more rationally contrived and deliberate anything is, the more *human* it is."¹⁰⁵ In other words, how man goes about making, selecting, and designing is not as important as the fact that man *can* and *does* make, select, and design his existence. Again, the focus is not on universal, *a priori* principles which demand certain decisions. Rather, the focus is on the theory that it is in humanity's nature to create or manipulate existence. If that which is created or manipulated serves the social good, "the greatest good of the greatest number,"¹⁰⁶ then the act, as well as the means by which the act is achieved, is justified. Fletcher ultimately argues that the consequentialist approach moves the ethical analysis of the New Biology into a quality-of-life realm as opposed to a sanctity-of-life

100. Consequentialist ethics is contrary to *a priori* ethics in that the former concentrates more upon fact-specific analysis, is pragmatic and situational, and produces results from a utilitarian-type calculus. McCORMICK, *supra* note 82, at 282-83.

101. FLETCHER, *supra* note 84, at 4.

102. *Id.* at 81.

103. *Id.* Fletcher provides the following critique of *a priori* thinking: certain acts are "always wrong intrinsically, in and of themselves, as such. Their inherent wrongness was believed by faith and by metaphysical opinion to be a matter of 'natural' moral law or of divine revelation Such 'moral laws' were presumably known to the moral agent—the actor or decision maker—through inner guidance or intuition In any case, right and wrong were determined by a religious or metaphysical or nonempirical kind of cognition." *Id.* at 82.

104. *Id.* at 83.

105. McCORMICK, *supra* note 82, at 45; FLETCHER, *supra* note 84, at 88. Fletcher goes on to make, what is still considered by many critics, to be a baffling claim: "It seems to me that laboratory reproduction is radically human compared to conception by ordinary heterosexual intercourse." FLETCHER, *supra* note 84, at 88.

106. FLETCHER, *supra* note 84, at 85.

realm.¹⁰⁷ This quality-of-life model focuses decision-making in biomedical dilemmas on human needs instead of human nature or rights.¹⁰⁸ Unfortunately, it is this “needs”-based construct that causes Fletcher’s ball of utilitarian logic to unravel into simplistic relativism. For example, Fletcher begins one particular analysis as such: “[t]here *might* be a need in the social order at large for one or more persons specially constituted genetically [to perform some function].”¹⁰⁹ Under the Fletcher paradigm, almost any function-defined human being can be filled in at the brackets. This analysis resolves into a blatant denial of the human spirit as subject. Accordingly, humans are merely created as a means to an end and, therefore, the concept of autonomy in bioethics, as well as the individual as a free spirit in theology, is obliterated for the sake of the utility-driven social order.

3. Paul Ramsey - The A Priori Approach

Paul Ramsey assumes a “deontological” approach as compared to Fletcher’s consequentialist mode. Ramsey, as does Rahner, sees humans as free, truth-seeking subjects who cannot be utilized “as . . . mere object[s] of genetic or environmental determination” or as “mere . . . object[s] discovered among the contents of the science of genetics.”¹¹⁰ In describing the human being’s fundamental nature, Ramsey disagrees with the consequentialist camp by noting that the individual “will not begin with the desired *end* and deduce his obligation exclusively from this end.”¹¹¹ A morally acceptable construct under Ramsey would insist that there are “elements in the nature of man which are deserving of respect and should be withheld from human handling or trespass.”¹¹² Ramsey’s reasoning derives from his belief in the mystery inherent within the na-

107. *Id.* at 88. “In any case, what is called for here, for consequentialists, is a quality-of-life ethics instead of the sanctity-of-life ethics in the classical Western tradition.” *Id.*; see generally George P. Smith, II, *Quality of Life, Sanctity of Creation: Palliation or Apotheosis?*, 63 NEB. L. REV. 709 (1984).

108. FLETCHER, *supra* note 84, at 89. “Needs are the moral stabilizers, not rights. The legalistic temper gives first place to rights, but the humanistic temper puts needs in the driver’s seat.” *Id.*

109. *Id.* at 85 (emphasis added).

110. RAMSEY, *supra* note 85, at 19.

111. *Id.* at 30 (emphasis in original). Ramsey continues, “[the human being] will not define *right* merely in terms of conduciveness to the good end; nor will he decide what *ought to be done* simply by calculating what actions are most likely to succeed in achieving the *absolutely imperative end* of genetic control or improvement.” *Id.* (emphasis in original).

112. *Id.* at 31.

ture of human beings. If science and medicine respect the mystery within the human spirit they will proceed with caution upon the path to genetic manipulation.¹¹³ Ramsey continually admonishes the scientific and medical community to avoid the desire to transcend humanity's ultimate limitation—death—if it is done at the expense of the human spirit.¹¹⁴ For example, Ramsey clearly differentiates between therapy and experimentation, and argues that it is the latter which science and medicine should avoid. Experimentation treats the human being as an object. It denies the "patient" status as a person because the treatment is conducted, not for the individual's benefit, but for the benefit of science. Genetic therapy, if it can be performed safely, would not violate Ramsey's notion of human nature because it espouses the improved welfare of the individual as its end.¹¹⁵ Any type of genetic therapy that can reasonably predict that no grave harm will be done to the subject (or, for that matter, the isolated cell, zygote, embryo, or individual) and purposely intends, as its goal, the amelioration of the subject is not only permissible, but warranted for the purpose of alleviating human suffering.

C. *Applications to the New Biology*

As noted, Ramsey insists upon the protection of the individual, through informed consent, from genetic therapy which crosses a moral line and becomes experimentation upon the human subject.¹¹⁶ The Roman Catholic Church also takes an intermediate stance in its approval of somatic genetic therapy provided "its aim is to 'ameliorate the conditions of those who are affected by chromosomic [sic] diseases.'" ¹¹⁷ Fletcher, in keeping with utilitarian principles, would also recognize a net benefit to both society and the individual if somatic therapy is conducted with the consent of the patient. Rahner, in accordance with his notion of human-

113. See Paul Ramsey, *Genetic Therapy: A Theologian's Response*, in *THE NEW GENETICS AND THE FUTURE OF MAN* 137, 163 (Michael P. Hamilton ed., 1972).

114. See *id.* Ramsey warns that humanity, driven by the existential awareness of its finitude, should refrain from the "Faustian search for a yet undiscovered state of bliss." *Id.* at 157.

115. See McCORMICK, *supra* note 82, at 287.

116. *Id.* McCormick summarizes Ramsey's position in stating that, "We may never submit another human being to experimental procedures to which he cannot consent when these procedures have no relation to his own treatment." *Id.*

117. JUDITH AREEN ET AL., *LAW, SCIENCE, AND MEDICINE* 175 (quoting Pope John Paul II, *La sperimentazione in biologia deve contribuire al bene integrale dell'uomo*, *L'OSSERVATORE ROMANO*, Oct. 24, 1982, at 2).

kind as experiment and experimenter, would endorse somatic therapy as long as it does not violate his "human as subject" premise.

Paul Ramsey espouses many of the theories of the Roman Catholic Church. Compared to Fletcher and Rahner, Ramsey is the most conservative when examining the procreative implications of the New Biology. The Catholic Church believes gametic therapy, cloning, embryo experimentation, and eugenic abortion, conducted beyond the scope of therapy or healing, impermissibly manipulate the unity of love and procreation, which is reserved exclusively to the family within the context of sacramental marriage.¹¹⁸ The Catholic Church admonishes that any manipulation of the reproductive process must be measured against the goal of "harmonizing conjugal love with the responsible transmission of life."¹¹⁹ Paul Ramsey echoes this moral principle in his assertions that much of this genetic technology violates the inseparability of sexuality in marriage and procreation.¹²⁰

What follows are some examples of the unity doctrine as applied in the above circumstances of genetic manipulation. Ramsey asserts that, in the practice of cloning, "the conquest of evolution by setting sexual love and procreation radically asunder entails depersonalization in the extreme."¹²¹ The Church criticizes manipulation of embryos by stating, "genetic manipulation of human embryos . . . [is] contrary to the human dignity proper to the embryo."¹²² In response to gametic manipulation, the Church responds by stating, "[c]ertain attempts to influence chromosomal or genetic inheritance are not therapeutic but are aimed at producing human beings selected according to . . . predetermined qualities. These manipulations are contrary to the personal dignity of the human being and his or her integrity and identity."¹²³ Even Rahner argues that gametic manipulation, embryo experimentation, and eugenic abortion

118. See, e.g., *Gaudium et Spes: Pastoral Constitution on the Church in the Modern World*, in *PROCLAIMING JUSTICE AND PEACE: PAPAL DOCUMENTS FROM RERUM NOVARUM THROUGH CENTESIMUS ANNUS 157, 188* (M. Walsh & B. Davies eds., 1991).

119. *Id.* at 192. The Church has noted that "[m]arriage and conjugal love are by their nature ordained toward the begetting and educating of children. Children are really the supreme gift of marriage . . ." *Id.* at 190.

120. McCORMICK, *supra* note 82, at 286-95. Ramsey notes that the two spheres of love and procreation are inseparable; likewise, other authors concur with Ramsey in this by noting the resulting dehumanization where reproduction is separated from human sexuality. *Id.*

121. *Id.* at 289.

122. *The Vatican on Birth Science: 'Moral Responsibility'*, N.Y. TIMES, Mar. 11, 1987, at A15.

123. *Id.* The Church bolsters this argument by noting that "[e]very person must be

separate the procreation of a new individual from the marital union.¹²⁴ However, Rahner suggests that because modern science is yet unsure as to when human life actually begins, any definitive statement against gametic manipulation, embryo experimentation, or cloning cannot be considered as an *a priori* truth.¹²⁵ Conversely, Fletcher asserts that the more rational and deliberate an act is (for example, embryo screening, manipulation, and reimplantation) then the more human the act is. Therefore, Fletcher would approve of embryo experimentation and cloning if it produced an overall benefit to society or relieved the suffering of an individual.¹²⁶

IV. TOWARD A THEOLOGICAL CONSTRUCT

The law, aided by theological principles, must take a stand on the moral issues which the New Biology raises. Philosophical pluralism, the broadening scope of scientific and technological knowledge, and culturally-influenced concepts of human nature make it increasingly difficult to reach sound moral conclusions derived from universal or *a priori* principles.

The human spirit is a free spirit and has the ability to manipulate the self to create the existence and essence desired. Because of this inherent freedom and malleability, any paradigm or mode of analysis should assume an open concept of human spirit. An intractable *a priori* stance is too restrictive¹²⁷ and the consequentialist approach¹²⁸ is too flexible. Humanity is too complex to be forced to choose between either unbending and categorical rules or standardless utilitarian calculations. As a compromise, the balancing of autonomy and beneficence in hopes of arriving at a just result has been marginally successful when the law addresses bioethical quandaries.¹²⁹ However, all balancing is subject to the bal-

respected for himself: in this consists the dignity and right of every human being from his or her beginning." *Id.*

124. A RAHNER READER, *supra* note 64, at 272-73.

125. *Id.* at 273.

126. See Joseph Fletcher, *Ethical Aspects of Genetic Controls: Designed Genetic Changes in Man*, 285 NEW ENG. J. MED. 776, 780 (1971).

127. A strict *a priori* stance would be dissimilar to Rahner's concept of universal principles conditioned by the particular culture in which the individual must act.

128. Fletcher's position has been criticized as "structureless utilitarian calculus." McCORMICK, *supra* note 82, at 298.

129. See generally BEAUCHAMP & CHILDRESS, *supra* note 1, at 50-78 (suggesting that some of the due process decisions implicated by the abortion and euthanasia debate have employed, albeit in a disguised fashion and with differing terminology, the principles of autonomy, beneficence, and justice).

ancer, the weigher of values who determines the type of justice and its distribution and, therefore, balancing has its limitations.

The middle ground sought by the theological construct proposed here is not one of compromise but rather one of moral correctness. This construct is an application of universally recognized human values to historically and culturally conditioned situations. Similarly, natural law, which is teleological, points the human spirit toward the inherent structure or value in all of creation.¹³⁰ Just as the many arrangements of genes recombine to produce a unique individual in every circumstance, utilizing the exact same biological building blocks, natural law predisposes humanity toward the recognition that there exists fundamental, essential, and immutable concepts imprinted within each individual spirit, despite the multiplicity and diversity of ethical and moral constructs. Indeed, these ontological and *a priori* building blocks or fundamental values are the same for every human being. Regardless of the particular society or historical moment, aspects of human nature (human as subjects, humans as free spirits) are constant.

How are the decision-makers (the courts and the legislatures) to decide what these fundamental values are? Modern society, when faced with issues such as genetic manipulation, falls upon a paradox revealed by Aristotle. Justice (that which an ethical society strives toward) is part legal (temporally, culturally conditioned human law) and part natural (universal or fundamental in nature).¹³¹

Society can only seek to resolve this paradox and begin to make laws to regulate genetic manipulation through what Rahner explained as a moral faith instinct. The moral faith instinct is the "universal knowledge of right and wrong belief."¹³² Rahner justifies use of the "instinct" concept by asserting that an instinctive judgment derived from this universal knowledge need not be adequately subject to analytic reflection.¹³³ Analogously, even with the map of the entire human genome (perhaps the quintessential "analysis"), science will always be unable to explain the mystery of the human spirit and its uniqueness. As evidence of this premise, science, for all of its "analysis," will not decipher the mind-brain connection. As free spirits, all individuals are part mystery and, accordingly, must rely on their faith instinct in arriving at solutions to such ontological and essential questions as the beginning or end of life (abortion or

130. AQUINAS, *supra* note 10, at 46.

131. ARISTOTLE, NICHOMACHEAN ETHICS 133 (Terren Irwin trans., 1985).

132. A RAHNER READER, *supra* note 64, at 275.

133. *Id.*

euthanasia issues), the meaning of personhood (slavery), and the existential foundation of life and procreation (genetics).

As a collective of moral beings, society cannot default on its struggle with this instinct. For example, reliance on traditional, cultural, or historical prejudices is not a moral faith instinct. Ultimately, the challenge of the moral faith instinct is to arrive at the universally correct or *a priori* principle in the particular, historically-conditioned moment in which the issue presents itself. Such a construct involves a paradox because it employs universal principles which are applied to particular issues, bending or evolving accordingly yet not completely yielding to those principles.

V. CONCLUSION

A theological construct for decision-making would aid legislatures and courts in deciding issues brought on by the New Biology precisely because these cases implicate moral and ethical issues. Resolution of such issues, while employing such a construct, produces laws that are rooted more firmly in the population's moral consciousness. Therefore, these laws will gain greater legitimacy by referring to moral and ethical values shared by the general population.

In terms of genetic manipulation of somatic cells, the theological construct provides that, as with any other therapy benefitting the individual, this type of therapy can be conferred autonomously and beneficently for the end of justice. The triumvirate of Rahner, Fletcher, and Ramsey would generally concur in this application of the New Biology.

Gametic genetic manipulation and the related issues of embryo experimentation and cloning, appear to be "ripe" for moral faith instinct reflection. Borrowing from Rahner, the construct approaches such issues with the concept of the human being as subject and free spirit. The decision-maker will never know objectively whether such therapy should be permitted, yet the construct directs him or her to not foreclose what may *potentially* be a *beneficial* result.

Only an irrational fear or categorical adhesion to unchallenged principles can keep the law from employing a construct which does not fear to struggle with the "hard cases." If the law does not employ such a construct in its attempts to bring about a greater societal good, its judges and legislators will be doomed to cowardly indecisiveness, like that by experienced by Shakespeare's Hamlet. Such tentativeness will only lead to moral division and strife. As with the Initiative, the journey toward implementing such a construct in the "hard cases" will be arduous. Yet, in

the face of such challenging quandaries posed by the New Biology, a theological construct will empower legislatures and judges to approach this Ulyssean journey with the moral courage needed to conform the law to both *a priori* principles and prevailing social concerns. In this manner, the law will attain legitimacy and thus produce consensus and stability instead of division and tumult.

