

## JUDGES, GENES AND MAN

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### SUMMARY

*The impact of the developing science of human genetics on society will produce social conflicts and raise social questions which require legal solutions. Particular problems are limitations on human experimentation; legal duties which result from the growth of genetic knowledge; and the role of legislation. Experimentation must be based on informed consent by the subject. As to in vitro gestation, status and protectability of the developing experimental subject is considered in the light of Roe v. Wade, 93 S.Ct. 705. Duties stemming from increased genetic knowledge pose no new legal problems. A substantial quantity of genetics based legislation re eugenic sterilization exists; legislation is needed to clarify status of the parties involved in artificial insemination, utero transplants; and, legislation may be expected to develop as public and legislative awareness of human genetic research grows.*

### LAW AND BIOLOGY

Nearly 400 years ago, a perceptive English playwright remarked that "he that hath learned no wit by nature nor art may complain of good breeding, or comes of very dull kindred" (SHAKESPEARE 16- ). There is no doubt that mankind was aware of and concerned about human heredity in antique times, is concerned about it now, and will be increasingly concerned in the future as new sciences and new technologies answer old questions about human life - pose new ones - and provide technical means for accomplishing a whole spectrum of hitherto undreamed of human genetic controls.

Many of the possibilities now opening before us are frightening. They raise the spectre of risks beyond our ken and of a kind which touch our deepest moral, ethical and social sensibilities. In equal measure, new possibilities inherent in the science and technology of human genetics raise our hopes for a better future for mankind by holding forth bright promises of mastery over genetic disease, aid to the childless, and even improvement of the race - whatever that may be. However,

whether we look at human genetics with hope, foreboding or a mixture of the two, the one sure thing is that its development generates social problems and - inevitably - social conflicts. These problems and conflicts - both actual and potential - range from questions of how far human genetic experimentation should be allowed to go to disputes over support for children who are the products of artificial insemination and, of course, whenever problems and conflict arise in a civilized community, the ultimate recourse, more often than not, is sought in the law. What, then, is the position of law with respect to human genetics?

This is a hard question to answer for, just as human genetics is a developing, changing science - so is law a developing, changing social phenomenon. Law does not spring forth like Aphrodite from the foam (GAYLEY 1893) fully formed, symmetrical, and perfect. To the contrary, it grows slowly and with many false starts, detours, and reversals as the needs, hopes, prejudices and fears of the community shape it.

There are, of course, many definitions of law and many notions of its function but, as Felix Cohen remarked, "A definition of law is useful or useless. It is not true or false" (COHEN 1935). For us, a useful definition is that law is any rule of human conduct that a court will enforce. Further, it is useful for us to consider law as having a threefold purpose - first regulating human conduct - second - settling human disputes and - third - settling them in a fashion that is rational and consistent with the settlement of like disputes in the past to the end that men may predict with reasonable certainty how they will be settled in the future.

This statement of what law is and what it does seems, at first blush, to ignore legislation, but a moments reflection demonstrates that a statute is no more nor less than a rule of human conduct which has been sanctioned by a legislature and the aim of which is "to obviate some mischief, to supply an inadequacy, to effect a change of policy, to formulate a plan of government" (FRANKFURTER 1947). When disputed, statutes must meet the test of trial and, when they fail to square with canons of constitutionality, they suffer the fate of non-enforcement. Oklahoma, for example, had such a statute. It was called the Habitual Criminal Sterilization Act and purported to direct the sterilization of those persons adjudged habitual criminals. The statute also provided that certain classes of offenses, including embezzlement, a felony, were excepted from the law. A thrice convicted felon was ordered sterilized under and appealed - ultimately reaching the United States Supreme Court, which determined that the Oklahoma statute discriminated invidiously among persons who had

committed offenses that were intrinsically the same.<sup>1</sup> This, the court said, clashed with the equal protection clause of the Constitution and the case was, therefore, reversed (*Skinner v. Oklahoma* - 1942). Stated bluntly; - the statute was one which, because of its constitutional infirmities, the court would not enforce.

Human genetics has interfaced with law at least since Moses received the law denouncing intercourse between certain degrees of kinship as an abomination (EXODUS 18:6 et seq.). What we really need, however, is some insight into the direction the law is taking today with respect to the human experimental component of genetics; the legal duties that may result from our growing knowledge of genetic disease; and the position of legislation with regard to genetic controls and genetic research.

#### HUMAN EXPERIMENTS

The legal nexus in problems of human experimentation is the requirement that human beings may not be the subjects of experiments unless they have given their informed, voluntary, consent. This principle, familiar to us as an essential element of the Nuremberg Code (NUREMBERG CODE - 1947) is imbedded in American law. It stems from the proposition that human beings have a right to determine what shall be done with their own bodies (*Schloendorff v. N. Y. Hospital* - 1914) and has developed through many cases involving unusual or experimental therapy. The thrust of these cases is that there is a positive duty to disclose all data which are necessary to form the basis of an intelligent decision, including the risks to be

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<sup>1</sup>"Sterilization of those who have thrice committed grand larceny, with immunity for those who are embezzlers, is a clear, pointed, unmistakable discrimination. Oklahoma makes no attempt to say that he who commits larceny by trespass or trick or fraud has biologically inheritable traits which he who commits embezzlement lacks. Oklahoma's line between larceny by fraud and embezzlement is determined, as we have noted, 'with reference to the time when the fraudulent intent to convert the property to the taker's own use' arises. *Riley v. State*, supra, 64 Okla. Cr. at p. 189. We have not the slightest basis for inferring that that line has any significance in eugenics, nor that the inheritability of criminal traits follows the neat legal distinctions which the law has marked between those two offenses. In terms of fine and imprisonment, the crimes of larceny and embezzlement rate the same under the Oklahoma code. Only when it comes to sterilization are the pains and penalties of the law different. The equal protection clause would indeed be a formula of empty words if such conspicuously artificial lines could be drawn." (*Skinner v. Oklahoma*, 316 U.S. 535 - 1942).

encountered. (Natanson v. Kline and cases cited 1960). There has been little litigation on the question of human experimentation which lacks a therapeutic or diagnostic component, but what there is emphasizes the absolute need for full disclosure. It is summed up neatly in the Recommendations of the Board of Regents Discipline Committee in what has come to be known as the Jewish Hospital Case. In that case, live cancer cells were injected into a group of patients afflicted with chronic diseases. The stated objective of the experiment was to study rejection of the cancer cell homografts, it had no relation at all to any therapeutic regime for the subjects; they were not clearly and unequivocally asked if they wanted to volunteer to participate in an extraneous research project; and they were not told that the material to be injected was live cancer cells. The Discipline Committee noted that the responsible physicians regarded the experiment as medically harmless, but went on to say: *"There is evidence in the record of this proceeding of an attitude on the part of some physicians that they can go ahead and do anything which they conclude is good for the patient, or which is of benefit experimentally or educationally and is not harmful to the patient, and that the patient's consent is an empty formality. With this we cannot agree. . . . No person can be said to have volunteered for an experiment unless he has first understood what he is volunteering for. Any matter which might influence him in giving or withholding his consent is material. Deliberate nondisclosure of the material fact is no different from deliberate misrepresentation of such a fact. The respondents maintain that they thought that some of the patients might have refused to consent to the injection of live cancer cells into their bodies. This was, however, a possibility and a decision that had to be made by the patients and not for them. Accordingly, the alleged oral consents that they obtained after deliberately withholding this information were not informed consents and were, for this reason, fraudulently obtained. . . ."* (Board of Regents Discipline Committee - 1965).

The traditional, consent oriented approach to human experimentation obviously does not help much when applied to *in vitro* growth of human conception products. To be sure, donation of the raw materials of *in vitro* research must be based on informed consent by the donors, but what of the developing embryo? What of the "baby in a bottle?" This inchoate, potential human being will surely become a legally protectable entity at some point in its development, but when - short of live "birth" - and to what extent is, at best, uncertain. There is no doubt that the law makes live birth a prerequisite for vesting a foetus with the legal personality of a born child (People v. Belous 1969, and cases cited - note 12), but this begs the question of when, in the process of *in vitro* gestation, the developing organism may be killed, or - to use a more delicate phrase - when the experiment may be terminated and the experimental subject disposed of without running afoul of the law.

This problem shares many elements with the abortion controversy that was recently the subject of a decision by the United States Supreme Court striking down a Texas abortion statute as unconstitutional (*Roe v. Wade*, 1973). Those parts of the decision which deal with the mother's right to privacy and the state's interest in maternal safety obviously have no bearing on what may be done lawfully with an *in vitro* embryo or foetus. What does bear upon it, however, is the court's conclusion that, although ". . . the unborn have never been recognized in the law as persons in the whole sense . . ." the state has an important interest in potential life and this interest becomes compelling at the point of viability. The court then ruled: "*For the stage subsequent to viability, the state, in promoting its interest in the potentiality of human life, may, if it chooses, regulate and even proscribe, abortion except where it is necessary, in appropriate medical judgment, for the preservation of the life or health of the mother.*" There is no reason to believe that the law will draw a distinction between a viable foetus in a laboratory bottle and a viable foetus in a live female. The test is viability of the foetus, and not its situs. When that stage is reached, the state has power to regulate what may be done with it. In a nutshell - *Roe v. Wade* does not give carte blanche to *in vitro* experimenters. To the contrary, it puts them on notice that a foetus, when viable, is a proper subject for state concern and protection.

*Roe v. Wade* does not answer the question of when a foetus becomes viable but there is a considerable body of judicial opinion that this occurs when ". . . it has sufficiently developed to be able to live outside its mother's womb, either under normal conditions, . . . or in an incubator." (62 Am. Jur.2d Prenatal Injuries Sec. 1; 40 A.L.R.3rd 1227). This gives rise to an interesting speculation. Should the day come when egg and sperm may be united and brought to term *in vitro* it is at least arguable that viability begins at the moment of conception and that we have come full circle in the abortion controversy. What is more likely, however, is that the laboratory "womb" will be equated with the human womb and by analogy viability will come to mean capable of independent existence outside of either a natural or an artificial uterus.

#### LEGAL DUTIES IN GENETIC MEDICINE

Genetic therapy and diagnosis and their corollary, genetic counseling, pose no legal problems that are not shared by medical practice at large. Certainly much of genetic medicine is and will be experimental but - as in the case of the non-therapeutic research discussed above - the cardinal rule is that there must be informed, voluntary consent by the patient/subject.

With respect to counselling, the legal duty, when the question is one of genetics, is in no way different than it

would be for any other medical problem. Certainly, should a physician contract with an individual to provide genetic evaluation and counselling, the physician will be expected to perform his contract or to pay the penalty for breaching it. The more likely source of trouble, however, is in the ordinary physician - patient relationship. For example, when a physician diagnoses a genetic anomaly which likely will have serious deleterious effects on the children of his patient, does he have a legal duty to disclose this fact? The law on this question is derived principally from that governing disclosure necessary to form the basis of an informed consent for surgery (Natanson v. Kline, supra) and it is reflected in opinions - not involving consents to surgery - that "*The physician owes a duty to his patient to make a reasonable disclosure of all significant facts under the circumstances of the then situation . . .*" (Dietze v. King 1960) and "*. . . failure in this respect (to disclose x-ray suggestive of tuberculosis) was a breach of duty imposed by the relationship of physician and patient.*" (Dowling v. Mutual Life Insurance Company of New York - 1964). In summary, it is a fair generalization that physicians have a legal duty to tell their patients the material facts of their medical condition and it should make no difference that these facts may have a genetic base.

#### THE ROLE OF LEGISLATION

It is a besetting vice of mankind that one of their first reactions to things that disturb them is the cry that "there ought to be a law." There is no doubt that much of genetic research and its products is disturbing and that some of it may come to threaten us, but we should be very careful before invoking the aid of the legislature. We should be very sure that, to paraphrase Justice Frankfurter, supra, there is a mischief to be obviated, an inadequacy to be supplied, a policy to be changed, or a plan of government to be formulated.

Certainly, as already discussed, there exists a large and effective body of law protecting us as individuals from experimental excesses and regulating the relationship of physician to patient in genetic no less than in other medical problems. Certainly, there is a place for limited and carefully drafted eugenic sterilization laws - hopefully more valid genetically than some of the 40 odd such statutes that are already on the books (See note 1, supra). Certainly, too, there is need for legislation to define the rights and duties of those who are involved in artificial insemination and in utero transplants and the status of the children produced by such activity. The rub comes, however, over what to do about concern over the propriety of human genetic engineering and research that looks to *in vitro* gestation, cloning, hybridization and the like.

There is a considerable body of opinion, well represented by that of Dr. Leon Kass (KASS 1971), that much of such activity is ethically and morally questionable if not, in some cases,

indefensible but whether or not it is such a present "mischief" as to warrant prohibitory legislation is, at best, arguable.

On the other side of the coin, the popular press treats us to visions of a genetic utopia in which all of God's (or the laboratory's) children are engineered to a state of genetic perfection and live happily ever after. Does this warrant formulation of a plan of government to make us all supermen? Or should we think it over a bit? After all, the vision gets cloudy when one considers the failure and recall rate of engineering products no more sophisticated than the family car.

I believe, and in this I agree with Professor Grad, that laws seeking to cut the Gordian knot of ethics, morality, and scientific inquiry by simply enacting prohibitory legislation would be an exercise in utter futility and that attempts to formulate statutes based on speculations about future applications of genetic possibilities that are today but gleam in a researcher's eye are entirely premature (Grad 1971). I also believe, that, as legislators respond to their constituencies and as the body of case law develops, genetic research and its fruits will and should be the subject of increasing regulation which falls short of outright prohibition on the one hand or pure legislative speculation on the other.

This is likely to be an unpalatable prospect for those of the scientific community who question the right of legislatures, courts, or the public - none of whom lay claim to scientific expertise - to inquire into, let alone control, research. The fact is, however, that both the public and its constituent members have interests to be served and rights to be vindicated and this is the great task of legislators and judges. They must inquire; they must make value judgments - some of which may well be wrong - if they are to perform their task and they may not abdicate it to members of the scientific community. Senator Walter Mondale summed the matter up in these words: *"The notion that somehow ignorance of what medical technology is producing protects the scientist better than public understanding is one which I am unable to accept.*

*I think the medical professional has a right to ask us to give him the resources and the elbow room he needs to fulfill his function. But I think that same professional must understand that society has a stake in what he is doing, and that society must know not only what he is doing, but the implications of his efforts."* (Mondale 1968).

Man the individual has freedom of choice. He participates in the endeavors of science subject to his right to be informed and his right to grant or withhold his consent. Mankind is entitled to no less and it is the role of legislation - indeed it is the role of the whole body of the law - to guarantee that freedom and to reflect that choice.

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