

The Linacre Quarterly

Volume 54 | Number 4

Article 7

November 1987

The Ethics of Human Embryo Experimentation

Hiram Caton

Follow this and additional works at: <http://epublications.marquette.edu/lnq>

Recommended Citation

Caton, Hiram (1987) "The Ethics of Human Embryo Experimentation," *The Linacre Quarterly*: Vol. 54 : No. 4 , Article 7.
Available at: <http://epublications.marquette.edu/lnq/vol54/iss4/7>

The Ethics of Human Embryo Experimentation

Prof. Hiram Caton, Ph.D.

The author, a professor of history and politics at Griffith University, Brisbane, Australia, has published widely in philosophy, history, politics, and applications of human behavioral biology to the social sciences. He has been a visiting professor at a number of universities, most recently, Harvard.



INTRODUCTION: The Ambience of the Select Committee.

In October of last year, the Australian Senate Select Committee on Human Embryo Experimentation tabled its report. The principal finding was that "the embryo may be properly described as genetically new human life organized as a distinct entity oriented toward further development," so that "the respect due to the embryo from the process of fertilization onwards requires its protection from destructive non-therapeutic experimentation . . ." (Senate Select Committee 1985, xiv).

In reaching this conclusion, the committee rejected the advice of the Australian Academy of Science and of the National Health and Medical Research Council (NH & MRC) concerning the correct scientific description of embryos. It also rejected the ethical corollaries that experimentation should be permitted until the 14th day and that the taking of "spare" embryos was permissible. It appealed to the authority of the World Medical Association to support its position. Finally, the committee rejected the recommendation that norms should be administered by a non-statutory national accrediting, licensing and surveillance body consisting largely of medical and scientific experts. Instead the committee recommended a statutory regulative body armed with criminal sanctions. The regulative body is itself to be subject to injunction to ensure that it remains within its powers (Senate Select Committee 1985, pp. 51-53).

These recommendations are largely concordant with Sen. Brian Harradine's private member's bill on embryo experimentation, whose introduction occasioned the Select Committee's establishment. The Harradine bill was strongly opposed by IVF scientists from the outset. The committee's recommendations have since been sharply criticized by a leading IVF scientist and by a spokesman for the NH & MRC.

This observation suggests that in compiling their submissions, the IVF lobby (if I may so call it) realized that it must endeavor to repair a presumption against the innocence of IVF which the mere establishment of a Select Committee on the Harradine bill implied.

- Senator Harradine's bill was supported by a petition bearing 132,000 signatures.

- Opinion leaders in churches usually associated with liberal views had for some time expressed reservations about various aspects of IVF practice. The submissions of these churches to the Select Committee revealed that their reservations were based upon scientifically informed and ethically searching examination of the entire gamut of biomedicine.

- Leaders in law, medicine and science not identified with religious groups weighed in on the side of caution and restraint. This change in public opinion is expressed in the restrictive Victorian Infertility Act (1984) and the findings of the Asche Committee, established by the Department of Health.

- The Asche Committee Report, published shortly after the second reading of the Harradine bill (July, 1984), contained serious imputations against medical research and against existing monitoring structures. These findings were substantially influenced by representatives of the Feminist International Network on New Reproductive Technologies (FINNRET). The formation of this group represents a sharp turnabout from feminist support for reproductive innovations. The accusations are that reproductive technology brutalizes the birthing experience by turning women into "mother machines" who will soon be obsolete; and the biomedicine is the "Manhattan project" about to unleash the bomb of genetic engineering. The feminist defection must count as a major

ideological loss for the cause of reproductive medicine.

The 270 submissions received by the committee confirmed previous indications of widespread community apprehension about the social and psychological effects of reproductive technologies. The committee's *Hansard* documentation (presently available in photocopied form only), runs 2,200 pages, much of it the record of testimony before the committee. The submissions are well-informed about clinical practice, reproductive biology, and developing norms in the area of reproduction and biotechnology generally. The committee members, for their part, proved to be astute and informed examiners of expert witnesses.

For these reasons, the Select Committee documentation and report are outstanding sources for studying the policy-making process in an instance where norm-setting in an exceptionally contentious field is a major objective. Since Australian scientists lead in IVF, and, in addition, are supported by ethical philosophers of international standing, we may assume that their testimony approaches an optimal defense of science subjected to ethical scrutiny.

Ethics: A Specialist Subject

In examining the ethical justification of IVF by scientists, one notices the repeated disclaimer that they are not ethicists (89, 99, 120, 316, 373, 384f, 390, 682, 707, 759, 804f, 816, 864f). [Page references in parentheses are to the Official Hansard Report of the Senate Select Committee] The disclaimer is neither a gesture of modesty nor an expression of irony. It is basic to these scientists' self-perception in relation to a regulative environment, and we must strive to understand the disclaimer's exact sense. It does not signal indifference to ethical questions or indifference to norm-setting processes. On the contrary, their submissions and testimony indicate that IVF scientists take pains to comprehend the ethical dimension of their work. Indeed, their sense that they are not ethicists stems partly from their studied view of what ethics is. Let us consider particulars.

- Ethics is recognized as a specialist field cultivated by persons with training in philosophy, theology, law, and related subjects (120, 373, 682, 707, 757). Ethicists are perceived to produce comprehensive systems or philosophies in which the ethics of IVF is only a part. IVF scientists perceive their involvement in ethical justification as an unavoidable circumstance of their specialization, which draws them into extensive discussions meant to help identify and fix the norms under which they operate. In the course of this activity, they make many statements of an ethical character—including statements about the nature of ethics—but they do not, in their professional capacity, undertake a systematic defense of them, as ethicists do. The ethics disclaimer, then, puts on notice that the ethical opinions expressed by IVF scientists are fragmentary, undoctrinal, and, perhaps, situation-dependent.

- The absence of doctrine places IVF scientists in a position of relative

deference to those who do have (or think they have) a comprehensive ethical view. The operative deference in this case is exercised toward norm-setting and enforcement bodies and the public opinion that they are presumed to represent (113, 116, 120, 333, 384f, 761). IVF scientists seek to influence such bodies to adopt norms which permit what they perceive to be essential research and clinical practice, but they accept that ethics procedures may encumber research and practice.

IVF scientists also defer to the wishes of their clients whenever IVF procedures involve choice. The assignment of a range of choices to clients, on the ground that they are the only ones ethically competent to make them, strongly signifies these scientists' perception of what ethics is.

- The self-presentation as a scientist obliged by circumstances to engage in ethical discussion, conjures a certain image which usually lingers as an unexpressed sub-text of their explicit statements. It is the image of IVF scientists as persons whose dedication to humanitarian medical service is harassed by busybodies, usually ignorant, with axes to grind. The sub-text may be detected in the tone of irritation which sometimes sounds in their express statements. But we need not rely entirely upon our sense of nuance, since the sub-text occasionally emerges to become an explicit reproach (392ff., 741f, 2004f.). Complementary to this self-image is the image of the IVF scientist, stymied by the indecision of ethics committees or legislation. Here the scientist, who has fully resolved the ethical question to his own satisfaction, sees fundamental research placed in abeyance until numerous cumbersome committees reach a decision (114, 116, 320, 2002ff).

This characterization suggests that the expressed ethical views of IVF scientists comprise but a single dimension of information; and when the normative formulae expressed in that dimension are examined, it is apparent that, indeed, they do not constitute an ethic.

Of course, scientists need not be ethicists in order to have an ethic, since they might embrace an appropriate system. Bioethics has been a going concern for several decades; the Center for Human Bioethics, at Monash University in Melbourne has, in particular, published extensively on reproductive medicine. Indeed, the Center's director, Prof. Peter Singer, has collaborated with IVF scientists in preparing bioethical tracts pertaining to IVF, and Professor Singer has received NH & MRC grants for studies of IVF ethics. Singer thus appears to enjoy the esteem and confidence of the reproductive medicine establishment. Nevertheless, he appeared before the Select Committee only in his private capacity, and no scientist testifying to the Committee invoked his system. It is reasonable to suppose that this curious disassociation is deliberate and I cite it as further evidence that IVF scientists must be taken at their word when they disavow being ethicists.

I suggest, accordingly, that the norms and ethical rules which scientists from time to time enunciated, are best evaluated as components of, or contextual to, a second dimension which I will postulate as the operative

ethics of IVF scientists, namely, their professional personalities. I will style the operative ethics, the "effective values" of these scientists. "Values" substitute for ethics to mark the aforementioned distinction between a consistent, justified set of norms and rules of thumb. "Effective" indicates that in the dimension of professional personality, the provisional character of rules gives way to affirmations of numerous value certainties. The description obtained from this dimension of information is less an ethic than a self-image of the IVF scientist in his or her vocational capacity.

Common Response to a Perceived Threat

It is agreeably simple to identify just how and when the effective values of IVF scientists were engaged by the matters placed before the public by Senator Harradine's private members' bill: it was the bill itself which crystallized a response. In a conference telephone call which linked all IVF teams, they agreed that if the bill were adopted, they would cease IVF research (94, 458ff.). That decision, which was perceived by the Select Committee chairman, Senator Michael Tate, to be a boycott threat, illustrates what is meant here by the assertion of values through professional personality.

Two aspects of the bill provoked the boycott threat. One was a provision under which private persons could sue in federal courts if they believed that specific IVF researchers were in breach of the law. Once suit was filed, research and clinical practice involving the person or persons named in the injunction would be suspended until the case was heard. Believing that this clause exposed them to malicious suits, some denounced the bill on that account (74lf., 2004f.). They objected not only to the onus of suits, but also to what they perceived to be the slur implied by criminal penalties.

Secondly, the bill would alter the norms of embryo research just after Victorian legislation seemed to have stabilized them. Scientists believed that the Infertility Act permitted experimentation up to the 14th day after fertilization, as well as experimentation on so-called "spare" embryos, although freezing embryos was banned. According to Prof. Louis Waller, the Infertility Act says nothing about a 14-day period of permitted experimentation (personal communication, Jan. 9, 1987). It appears that the Act is being very restrictively enforced, with the result that the differences between it and the Harradine bill are fewer than IVF scientists then believed.

Given these circumstances it is noteworthy that scientists enjoyed an undisturbed good conscience about IVF. The presiding temper of the testimony is conveyed by the leader, Dr. Carl Wood, of the research team which produced Australia's first IVF baby: "We are a very ethical group of people" (102). Nowhere in their submissions and testimony does one find a concession to the imputations of moral taint alleged by critics and implied by various provisions of the Harradine bill. In addressing the Committee, scientists appeared to operate on the assumption that full disclosure of information about IVF would remove the ignorance which led some to

harbor reservations and suspicions. Let us examine the self-justification.

The Harradine bill was perceived to be far more restrictive. Its ban on the use of embryos as research material would bring much IVF and IVF-related research to a halt.

The Topography of Good Conscience

MEDICAL MERCY. Scientists emphasized justifications which enjoy undoubted public approval, especially the provision of medical service. Assisting infertile couples to have a child was the jewel of this crown, since most people resonant with the joy of a couple whose bitter disappointment with childlessness has found a remedy. These feelings were evoked during a slide presentation of the microsurgical technique of IVF, when a scientist said:

No doubt a number of men in this room have experienced the joy of being involved in conception, the birth of a child and the subsequent fathering of that child. Those men should perhaps pause for a moment and just imagine what it would be like if you were infertile, if you knew that you could never be the biological father of your child. What I have just presented to you is a technique that offers a chance for the first time to those infertile men to inseminate their own wives' eggs ... (33).

IVF scientists were keenly aware that IVF parents, as well as those hopeful of becoming parents through IVF, comprise a constituency strongly supportive of their service.

EXPANDED MEDICAL BENEFITS. Scientists also stressed the dramatic expansion of new medical services and potential services from the IVF base. These include therapies for male infertility, the development of improved genetic screening techniques, rapidly expanding research on genetic and chromosomal causes of birth defects and heritable diseases, new discoveries in endocrinology leading to, among other things, new contraceptive techniques, and a cornucopia of improvements in the breeding of livestock. This display of the research leverage obtained through or in association with IVF was directed against one type of critic ignorance. Those who would impose draconian constraints on IVF research might be less inclined to do so if they were aware of the many benefits that would be forfeited. It was in this spirit that scientists claimed the pro-life mantle for themselves.

"PRE-EMBRYO" VS. "EMBRYO." As was mentioned, the Harradine bill presupposed that the human embryo is, from the moment of fertilization, sufficiently human to entitle it to protection. The bill expressed the increment of humanity as the capacity to realize "full human potential": experimentation was tied to the condition that it assist that development. The perceived vaguenesses of "full human potential" was the subject of much criticism; and the committee, in its recommendation, adopted the phrasing previously mentioned, namely, that embryos are "genetically new human life organized as a distinct entity oriented towards further development." Since the biological attributes of the human

conceptus were crucial to the bill, scientific submissions as well as the committee devoted a great deal of attention to embryology.

The alternative views aired before the committee, and the norms which followed from each, had been established in the early '80s. In his speech at the second reading of his bill, Senator Harradine emphasized that two Royal Commissions had determined, on the basis of scientific testimony, that a new individual human life begins at the moment of fertilization, when female and male gametes fuse. The opposing view, expressed in the Warnock Report and supported by the Medical Research Ethics Committee (MREC), was that the embryo, properly speaking, was the stage of development commencing with differentiation of the primitive streak (about the 14th day) and concluding with the differentiation of organs (the fetal stage).

To mark this distinction, the British Medical Research Council had introduced the term "pre-embryo," which was quickly adopted in Australia. It was argued that the pre-embryo did not satisfy the conditions supposed by Senator Harradine's bill, which must therefore fail for want of an object.

Rebuttals of concept of the embryo assumed in the Harradine bill were meant to contest the idea that embryos have an unambiguous destiny to become human beings. Two arguments which attracted the attention of the Committee may be styled "the mole argument" and "the wastage argument".

The "mole argument" refers to the rare development of embryos into hydatidiform moles. They were a particularly striking example of the various ways in which embryos might deviate from their supposed human destiny. Prof. Roger V. Short, speaking to the submission of the Australian Academy of Science, bore the main responsibility for making the mole argument support the contention that pre-embryos are not sufficiently distinctive in humanness to warrant protection. He asserted that "scientific evidence provides no support for the concept of fertilization as the beginning of life" (2132). It is not until the 14th day, he maintained, that scientists can be sure that the embryo will not be a mole or whether it will develop into two or more individuals (2144, 2156-2162).

Argument Met with Suspicion

This line of argument was met with suspicion. Senator Harradine confronted Professor Short with the published statement of a leading scientist who chastized the "pre-embryo" distinction as a terminological gimmick invented to evade an ethical embarrassment (2150). Professor Short responded by citing a leading scientist who defended the distinction, pleading that the failure of embryologists to recognize the distinction heretofore was "sloppy" (2153). He believed that the sloppiness had proved to be costly in public debate, for the public imagines the embryo as having a head and limbs (2152). The introduction of the term "pre-embryo" seems to have been motivated largely by a wish to rectify this

public relations disadvantage. It has little basis in embryology textbooks, which commonly use the term "embryo" in describing the zygote and blastocyst stages.

Senators Harradine and Carrick whittled away at the distinction by asking why the ontogeny of the conceptus should be marked by only two distinctions when a multitude of stages were conventionally enumerated by embryologists. Professor Short eventually conceded that the distinction was "purely arbitrary" (2162). He also seemed to contradict his unqualified denial that there is any scientific evidence to support the view that human life begins at conception when he acknowledged that fertilization constitutes "a quantum leap in the probability that you are going to get a new individual when the sperm penetrates the egg" (2159).

Such admissions, together with testimony of other experts that unique human life does begin at conception, were noted in the Report as reasons for rejecting the pre-embryo distinction (Senate Select Committee, 10-13). The Academy of Science was seen to be saying that since some embryos develop into moles, the destiny of all embryos is doubtful until *scientists* can be certain *on the 14th day*. The doubt was the basis for justifying experimentation on normal embryos because they *might* be cancerous moles. The questionable logic of the mole argument, together with the suspect character of the pre-embryo distinction, and Professor Short's inconsistent defense of the whole position, probably influenced the Committee to adopt the alternative view that human life begins with fertilization.

The wastage argument figured prominently in submissions (67, 80, 684, 2015, 2154) but was somewhat less keenly pursued by the Committee, perhaps because it was not regarded as containing any relevant information distinct from the mole evidence. But scientists thought otherwise. In its simplest form, the wastage argument asserts that the natural loss of "pre-embryos" due to chromosomal abnormalities is 30%, a rate uncommonly high among mammals (67). Further natural losses occur at the embryo and fetal stage. The estimated total loss between fertilization and birth is 50%. The moral is that since nature pays so little respect to the conceptus, it is quixotic to impose ethical solemnities upon a small scrap of genetic information.

The wastage argument has an extension which explains why so few fertilized ova survive. The reproductive biology of mammals generally contains a number of inbuilt chemical and physiological barriers operating to inhibit not merely the conceptus and embryo, but also sperm and ova. These barriers were interpreted as Darwinian fitness tests, eliminating reproductive entities of inferior quality (2015). Despite the intense selection pressure, embryos which develop to term can go wrong genetically in thousands of ways. Here the story of abnormalities and disease commences, and the intimate link between embryo experimentation and the search for therapies for genetic-related diseases was stressed. These include fetal diagnostic service (by chorionic biopsy) and

abortion of fetuses found to be abnormal; grading of embryos for quality prior to transfer; and experimental work on direct genetic interventions, such as gene transfer between embryos (not yet operational for human species). These developments were justified as innovations to reduce the number of births which inflict sorrow on parents and service burdens on society (41, 44, 72f., 83f., 1598, 1951, 2173). The natural selection story enabled scientists to view their artificial selection procedures as a more directed and intelligent supplement to what already occurs naturally. By these two routes, therapy and artificial selection, scientists justified eugenic medicine. None of the scientists favorable to IVF failed to mention it with approval. Indeed, they regarded it as part of their therapeutic duty not to implant defective embryos, and to abort abnormal fetuses, when requested by patients to do so (72f., 368, 2163, 2183f.) The implicit "quality of life" standard undergirding these value judgments was never acknowledged, although it was criticized in testimony by IVF opponents.

Since these larger horizons were in view, it is not surprising that the defense of the 14-day cut-off point for experimentation was clumsy. Professor Short's predicament is instructive. He was obliged to defend it as an agreement reached by influential scientific bodies and accepted among ethics managers; yet what had been agreed was admittedly "purely arbitrary", scientifically and morally. Professor Short's fall-back position was that an objective determination of the moral status of pre-embryos was "impossible" (2135). He felt certain, however, that the moral status of experimentation was beyond reproach, since it was "wrong" to prohibit experimentation until an authoritative majority view emerges (2135). Ethics is not, in his expressed view, a fixed body of norms but is caught up in the flux of social change, one factor of which is the growth of knowledge (2136). Underscoring this point, he claimed that the Pope approved of IVF, and he stressed that the research of Edwards and Steptoe was unethical by the standards of the British Medical Research Council (because prior animal work hadn't been done) (2143, 2179).¹

Scientists' Intent

Scientists tended to substitute a "developmental" view of the value of life for the pre-embryo cut-off. It was said that all life is valuable to some extent and as such is entitled to a certain regard that prohibits wilful harm. How to proceed in particular cases is a matter of weighing costs against benefits on a scale of relative value. Thus Dr. Alan Trounson said: "I believe the value of the human embryo is only overridden by the quality of the research, if the benefit will outweigh the use of the human embryos. I think it is no different from arguments on a whole lot of other things . . ." (108).

Although MREC Chairman Professor Richard Lovell doggedly defended the 14-day cut-off, he too argued for the concept of the relative value of life. He suggested that the value of human beings decreases from teenager to child to newborn to fetus to embryo. This decrement of value

(as ordinary persons perceive it, according to his claim), can be judged by the amount of grief experienced by loss of life at these respective stages (382). He estimated that very little grief attaches to the loss of embryos, and supported his view by referring to the law on abortion, which leaves fetuses less protected than the embryo under the Harradine bill.

Lovell also introduced the therapeutic balancing of costs and benefits mentioned by Trounson and others. The balancing in this case is distinct from balancing the risk of a therapy to a particular patient against the possible therapeutic gain. What is being balanced is the entire loss of experimental embryos against the gain of implanted embryos. This criterion was often defended as established and accepted medical practice (382, 2007, 2155f., 2162, 2179).

UNACCEPTABLE REVISION OF NORMS ARGUMENT. Scientists commonly expressed dismay that the Harradine bill broke drastically with norms to which, as medical practitioners or medical associates, they were accustomed and which they believed to be largely accepted in the community. The Waller Committee recommendations and the Victorian Infertility Act based on them were referenced as a point of contrast. While Victorian legislation was perceived to be a substantial encumbrance, scientists could live with it. But the Harradine bill was said to be intolerable. The points made were these:

- The prohibition of non-therapeutic experimentation is contrary to the norms of contemporary medical science, where experiment and therapy are inextricably linked (355, 360, 2015, 2129, 2134, 2164). Scientists objected to the word "experimentation" in the Harradine bill, which they viewed as a ploy to awaken guinea pig anxieties and to insinuate sinister intentions. This is a curious response since the NH & MRC guidelines under which these scientists operate are entitled, "Statement on Human Experimentation." The Statement indeed indirectly evokes memories of medical immorality by referring to the Helsinki Declaration on medical ethics (354). This Declaration and its successors were meant to ensure that, as the NH & MRC express it in another document, "what was revealed at Nuremberg must never happen again" (331). The Nuremberg trials revealed that German physicians carried out extensive non-therapeutic and lethal experimentation on unconsenting subjects. Notwithstanding that ethical calamity, the postwar integration of research into medical practice has been accompanied by acceptance that non-therapeutic experimentation is indispensable to medical science. This is why scientists believed it concordant with accepted norms to sacrifice some embryos for the benefit of others (108, 392f., 728, 733, 2129, 2131, 2134, 2162, 2179), even though the express norms governing research on human subjects prohibit, without qualification, non-therapeutic experimentation which does, or even might, harm the experimental subject. That scientists attacked this declared norm when it was embodied in Senator Harradine's bill shows clearly that the norm has been quietly superseded by a consensual norm which frees experimentation from the condition that it

not harm the subject.

- The bill conferred on embryos a measure of protection denied to fetuses, or indeed to embryos destroyed by IUD contraception. All IVF scientists took the legitimacy of medically and socially therapeutic abortion for granted; indeed, they stressed that in the present stage of research, abortion is a major tool for eliminating heritable diseases (6, 41, 368, 2015, 2163, 2181f.) It was thus a staggering paradox, which some styled “irrational” and “illogical,” that legislation should protect embryos from experimentation. Some scientists claimed that the whole intention of the bill was to establish a norm which could be used to assault the legitimacy of elective abortion (8).

- The bill rejected the procedural mechanisms for medical ethics in Australia by entrenching specific prohibitions in law. The current and preferred procedure is to establish community standard norms through Institutional Ethics Committees (IECs) organized by the Medical Research Ethics Committee of the NH & MRC, which awards federal medical research funds. The committees are institution-specific because rules for vetting proposals usually require a host of proposal-specific decisions which are thought to be best made locally. Legislative entrenchment of norms would set a precedent for replacing the local arbitration-like process by an inflexible rule blind to local wishes (310, 384f., 394f.).

- Nothing in the bill appeared to be more offensive to scientists than the criminal penalties of its enforcement clauses. One member of the MREC expressed his indignation that the Parliament of Australia should dare insult and discourage the “enthusiastic” young scientists who are leading the world in IVF research (392ff.). This flashpoint identifies a conflict which surfaced frequently in the submissions and testimony: the research imperative vs. limits imposed in the name of ethical safeguards. The imperative submits to regulation in matters of procedure. But when regulation becomes substantive by placing some research out of bounds, absolute and dire conflict results. Thus Professor Short declared gravely that “to prohibit all research on the human embryo is to call a halt to progress; the abandonment of experiment is the death of science” (2131). The research imperative is here identified with an ineluctable cultural force—progress. Another scientist echoed Short’s notion by claiming on the basis of historical experience that prohibition on research succeeds only in driving it underground (2002-2015, 2022f.). The implication is that scientists may hold society to cultural ransom. This idea came out in a sharp clash with Senator Harradine, who intended that his bill should make genetic engineering of the human genome legally and practically impossible in Australia. The response was that the fatality of the research imperative embraces this very prospect. The Senator was informed that prohibition is ineffective because such research would continue in secret. And there in the twilight of illegitimacy, scientists would revenge themselves by creating the monster who terrifies moral feeling, the animal-

human hybrid (2002). The scientist who made this remarkable threat happens to be at the interface of animal-human biotechnology. (I have been informed by the person concerned that he did not mean to threaten but merely to project research trends. The trend is certainly there; geneticists have projected animal-human hybridization through cell fusion for more than two decades.)

Threat Intended as 'Spirited Rebuttal'

It is to be emphasized that the threat was made in the context of a spirited rebuttal of the slur on the honor of scientists implied by the criminal sanctions of the bill. The slur in question is the Dr. Strangeglove image which Senator Harradine had conjured up in his speech to the second reading of his bill (2005f.). The sense of the rebuttal seems to be that science *is* Dr. Strangeglove, and the only question is whether society will have him in a benevolent or in an angry mood. Perhaps instructed by this example, the report recommended criminal sanctions and banned animal-human gene transfer.

THE FUTURE IS OURS. The research imperative as cultural fatality was expressed in the confidence of IVF scientists that social values were rapidly changing in their favor. That same confidence laid to rest the bad conscience symbolized by Dr. Strangeglove.

"The future is ours" argument describes complex trends. We must approach it in a piecemeal fashion.

Since IVF is an unnatural way of making babies, scientists were at pains to correct any notion that it is a marginal service. They represented it as a boom area of medicine with a big growth potential to be calculated from the estimate that 10-15% of married couples experience infertility problems (104, 756, 778, 1602, 2127). Clients of the service are abundant; there are about 1000 IVF babies in Australia and the waiting lists at clinics are long. Although this is an impressive showing for a new, costly, strange, and emotionally taxing service, IVF scientists could also boast that they have established links with the impressive range of research areas previously mentioned.

Evidence of active community approval of IVF was given in the submissions of numerous IVF support groups. Their memberships are drawn mainly from couples who have been or are enrolled in the IVF program, and their function is counseling; but they are also a medical lobby supporting IVF in a variety of ways.

Such indices of rapid public acceptance and research entrepreneurship supported the optimism that the establishment of the legitimacy of so innovative a biotechnology was a harbinger of the future. About this there was agreement between IVF scientists and some critics: for good or ill; IVF has become a sensational growth industry. IVF scientists traced opposition to sectarian opinions and special interests which they perceived to be inconsistent with the permissive orientation of the pluralist society. The rapid change characteristic of the pluralist society would produce

further liberalization of values, thereby further marginalizing critics.

Analysis

The foregoing descriptions support the characterization of the ethics of IVF scientists in terms of their professional personalities as medical scientists. In that capacity they can and do vigorously legitimate their activity by appeal to community standards.

Their main legitimation is what might be called “the therapeutic imperative.” It is generated by interpreting public support for health care as a popular mandate for medical scientists to direct research wherever they will. The “Manhattan project” doubt, that some research may lead up dangerous paths, was rebutted by exhibiting the distress alleviated by present remedies and anticipated breakthroughs. The rhetoric of the therapeutic imperative faithfully mimics the claimed popular mandate. The direction of research is exhibited not as the choice of scientists but as a response to popular demand. This appeal is reinforced by the argument so frequently emphasized in the testimony, that only IVF clients are ethically competent to decide which of the available options to exercise. The Select Committee minority report endorsed this point of view.

The therapeutic imperative is capable of quite astonishing legitimations. To illustrate; eugenics is odious because of its elitism, its social Darwinist tendencies, and its association with the Nazi regime. Yet eugenics—renamed “gene therapy”—was repeatedly identified by IVF scientists as a cardinal therapeutic objective whose legitimacy never comes into question simply because medical fiat has declared it to be therapy (6, 28, 36, 65, 119, 226, 1598, 1622, 1951, 2015f., 2163, 2179). Testimony revealed that medical scientists believe that they hold a mandate to eliminate the thousands of genetically-related diseases from the gene pool. They regard it as their duty to screen embryos for “quality”, to implant only the “best”, to apply tests for birth defects to the developing fetus, and to recommend abortion when defects are detected. The next step, gene transfer, is already well developed among animal scientists, some of whom are involved in IVF. Eugenic medicine is accepted not only without qualms, but as positively required by the therapeutic imperative and client demand.

In this example, one sees how the therapeutic imperative lays Dr. Strange-glove’s troubled conscience to rest. Doubts which may arise on considering the consequences of the research imperative are quieted when the latter can be interpreted as therapeutic in outcome. The criterion of therapeutic success, at least for purposes of public debate, is satisfied clients.

Although the therapeutic and research legitimations are strong in themselves, their combination in contemporary scientific medicine equips IVF scientists with a double-edged justification of great flexibility and persuasiveness. The core of the professional personalities of IVF scientists as moral agents derives from their interpretation of their activities under this double legitimation.

Legitimacy contests acquire a political character when the participants are able to invoke sanctions. IVF scientists proved their political savvy by not neglecting this consideration. Pressure was applied in the first instance by the threat to halt IVF service if the Harradine bill were enacted. The perception that this threat exerted real pressure is witnessed by the Select Committee chairman. In questioning scientists about the effect of the Harradine bill as law, Senator Tate declared that he wanted to know "what is being held over our heads" (458). That several dozen scientists believed themselves to be potent enough to intimidate the Australian Senate is a measure of their confidence in the public demand for the IVF service. The character of this demand merits extended examination. We shall be content with a brief sketch.

Dr. Alan Trounson expressed his view of the ethical character of IVF clients when he said that infertile couples will "clutch at any straw" to have the wanted child (85). The point seems to be that the obsession with childlessness common among IVF clients makes them insensitive to ethical objections raised by critics. The guilt they feel is the sense of personal failure at being unable to procreate. If infertility afflicts 10% of married couples, there is a sizable minority keenly affirmative about IVF, regardless of ethical considerations.

A similar concordance between doctors and clients occurs in the area of eugenics. The committee was informed that all patients at one clinic opted to abort fetuses diagnosed as having genetic defects. The medicalization of reproduction, of course, extends further to artificial insemination by donor and surrogate motherhood, for which there is a brisk market in some countries. This is evidence that the neophobia about biomedical technology captured in the images of Dr. Strangelove and *Brave New World*, is not shared by the consumers who, having met Dr. Strangelove, think him a very nice man.

There are precedents for this effect. The factory system in the last century, and nuclear power stations in this, have been subjected to prolonged and intensive criticism, but both are still with us. The uptake of reproductive technologies appears to be repeating this pattern. Critics who raise the biotechnic spectre are undercut by satisfied customers who *like Brave New World*. Such phrases as "test tube babies", (which until recently carried frightening connotations), have lost much of their shock value. Biotechnologies thus appear to be in the process of becoming a permanent fixture of our culture, thanks to the impartial operation of market forces. IVF scientists are well aware of the market demand for their services and it may be that this factor especially buoys their confidence that the future is theirs.

The Replacement of Ethics by Process

The disavowal of ethics by medical scientists proves on examination to reflect their preference for acting according to values inherent in their professional personalities. These values, we have seen, are summed up as

the therapeutic imperative and the research imperative. Their occurrence in the contemporary social and scientific environment yields the multitude of choices and directions whose vector expresses professional interests.

The MREC's procedure for regulating experimental medicine institutionalizes these values. The procedure may be called the Process Model. Processual components consist of biomedical innovations and changing public attitudes toward them. The value components of the model are the two imperatives mentioned. On this basis, the regulative task is to interface biomedical innovation with public acceptance. The interfacing mechanism is the MREC's system of Institutional Ethics Committees (IECs).

Committees are appointed locally to interpret and administer MREC guidelines on medical research in the institutions (usually hospitals) which they serve. The MREC defines the ethical vetting of IECs as mediation between the research community and the client community (384f., 427f., 452-58). Thus, Professor Lovell told the Select Committee that IECs are "link(s) between local societal values and . . . biomedical research" (333), whose mediator role derives from the MREC's "belief that in a pluralist society, when issues need to be determined to which the question 'right or wrong?' cannot be given a simple answer . . . it is critically important that local cultural and social attitudes influence decision-making" (390). There are no simple answers to questions of right and wrong because the prevailing view is that ethical choice expresses unarguable subjective preference (314, 316, 384f.). The function of IECs is, accordingly, not to maintain a given norm, but to broker and arbitrate between the values of scientists and clients.

The decisions of IECs regarding what is and is not acceptable research are construed as objective evidence of what the community standards are. Since the reading is taken from the pulse of a changing, pluralist society, the MREC accepts and, indeed, emphasizes that community standards at any one time will be varied: research approved by one IEC might be rejected by another. This does not matter. What does matter is the *direction* of attitudinal change, and the *open-endedness* of the process of change. The MREC shares the opinion of IVF scientists that the direction of change is toward liberalization, i.e., ever greater uptake of medical interventions. Open-endedness is the result of harnessing attitudinal change to the motor of biomedical innovation via market demand for new services.

The process model eliminates ethical norms by substituting flexible guidelines and community standards in their place. This may be seen from the terms in which the MREC opposed the legal model of regulation, adopted in Victoria and recommended by the Asche Committee and the Senate Select Committee. Speaking for the MREC, Mr. Russell Scott derided the legal model as "delusory". The delusion is the belief inherent in the legal model that biomedical innovation can be halted by legal "fiat". To illustrate the irresistibility of the research medicine as a cultural force,

Scott accepted the challenge of genetic engineering which Senator Harradine identified as the absolute limit on what is ethically permissible. "To be truly logical and effective," Scott declared, "prohibition of IVF research should be complemented by prohibition of research on gene therapy and genetic manipulation because the latter will be able to alter permanently the physical and emotional features of our descendants. But surely such prohibition is undesirable." It is undesirable because the search for therapies for gene-related diseases is an independent process unstoppable by a mere parliament.

Concluding Critical Remarks

The present study confirms the finding of three parliamentary committees which the Australian public would be ill-advised to continue, the present arrangement of self-policing by the medical science establishment. The two imperatives of research and therapy equip many medical scientists with a certainty of their vocation equaling the conviction of the most rigid Calvinist. Immured by the conviction of inerrancy, the lessons of Nuremberg and Hiroshima that scientific technology may be terrible as well as benign, apparently do not affect their choices. Nor does one detect willingness to acknowledge that the recommendations of medical establishment express a distinct professional interest, which might vary in important ways from the public interest. The at-times self-righteous subordination of all other considerations to professional wishes and convenience, and aggressive attacks on critics, is paradigmatic interest group behavior. To certify such a body as the credentialing agency for the regulation of its own behavior would endorse the absolute coincidence of the medical and the public interest and impair society's capacity to secure itself against possible harm.

That harm is potentially very great. In replacing ethics by open-ended process, the MREC does not acknowledge the existence of a large body of ethical writings which articulate and defend the manipulation of the human genome and the eugenics program which sets its agenda. Good faith requires that it declare itself on the momentous changes of norms respecting life, death, and personhood found in the new medical philosophy. Ethicists have devised a conceptual machinery for generating categories of "quasi-persons" who, failing the "quality of life" test, become eligible for medical killing. It is not called killing; it is called "therapy". The new thinking which integrates the lethal function into medicine has many adherents on the bench and in the clinic. Feticide and killing of the comatose to retrieve organs for transplants are commonplace and legal. A number of categories of infanticide and euthanasia have been justified ethically and are commonly practiced, though they still lack legal standing.

The drive to extend medical destruction and creation is powered socially by consumer demand. Once a society accepts that categories of persons may be certified as unfit for life or as unwanted life, it is on the track of the German calamity. Australian society, like others, has now entered that

track. In these circumstances legal prohibition is the necessary, if not sufficient, means of re-establishing ethical standards which have been obliterated by the vagueness and manipulability of "community standards."

References

1. From about 1985 until the issuance of the Magisterium Instruction on Procreation in March, 1987, IVF scientists in Australia and abroad often claimed that the Church or the Pope approved IVF. The Pope's remarks on procreation in Melbourne in November, 1986, were interpreted by reporters as permissive of IVF. In Australia the press response to the Instruction was largely negative.

2. Scott, Russell, "Regulating Biomedicine by Law: Delusions at the Epicentre". Paper presented to the 57th ANZAAS Congress, Palmerston North, New Zealand, January, 1987, p. 26.

Documents Referred to in Paper

Senate Select Committee on the Human Embryo Experimentation Bill of 1985. *Human Embryo Experimentation in Australia*. Canberra: Australian Government Printing Service, 1986.

Senate Select Committee on the Human Embryo Experimentation Bill 1985. *Official Hansard Record*, 7 vols. Canberra: Australian Government Printing Service, 1986.

Asche Committee Report. Family Law Council Subcommittee on Reproductive Biology, interim report. Canberra: Australian Government Printing Service, 1984.

Family Law Council, *Creating Children: A Uniform Approach to the Law and Practice of Reproductive Technology in Australia*. Canberra: Australian Government Publication Service, 1985.

Waller Committee Report. Committee to consider the Social, Ethical and Legal Issues Arising from In Vitro Fertilization. *Report on the Disposition of Embryos Produced by In Vitro Fertilization*. Melbourne: Government of Victoria, 1984.

Warnock Committee Report, *Report of the Committee of Enquiry into Human Fertilization and Embryology*. London: H M Stationery Office, 1984.

Demack Committee Report. Special Committee Appointed by the Queensland Government to Enquire into the Laws Relating to Artificial Insemination, In Vitro Fertilization and Other Related Matters. *Report*. Queensland Government Printer, March, 1984.

The Helsinki and Geneva Declarations of the World Medical Association are reprinted in Appendix II of T.L. Beauchamp and J.F. Childress. *Principles of Biomedical Ethics*. (Oxford: Oxford University Press, 1979.)

Brief Bibliographic Guide to the New Medical Philosophy

Barber, Bernard, et al., eds. *Research on Human Subjects: Problems of Social Control in Medical Experimentation*. (New Brunswick, NJ: Transaction Books, 1979).

Bartels, Ditta. "The Human Embryo as Research Material." Paper presented at the 56th annual ANZAAS Congress, Palmerston North, NZ, Jan. 27, 1987.

Baskin, Yvonne, *The Gene Doctors: Medical Genetics at the Frontier*. (New York: Morrow, 1984).

- Bates, Erica and Helen Lapsley, *The Health Machine: The Impact of Medical Technology*. (Ringwood, Vic.: Penguin, 1985).
- Bayles, Michael D., *Reproductive Ethics*. (Englewood Cliffs, NJ: Prentice-Hall, 1984).
- Carmen, Ira H., *Cloning and the Constitution*. (Madison: University of Wisconsin Press, 1985).
- Caton, Hiram, *The Humanist Experiment: Superman from the Test Tube*. (Brisbane: Council for a Free Australia, 1986).
- Chambers, Claire, *The Siecus Circle: A Humanist Revolution*. (Belmont, MA: Western Islands, 1977).
- Corea, Gena, *The Hidden Malpractice: How American Medicine Treats Women as Patients and Professionals*. (New York: Morrow, 1977).
- Corea, Gena, *The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs*. (New York: Harper and Row, 1985).
- First Report on Inquiry into Options for Dying with Dignity*. 1986. Social Development Committee, Parliament of Victoria.
- Fletcher, Joseph, *The Ethics of Genetic Control: Ending Reproductive Roulette*. (New York: Doubleday, 1974).
- Fletcher, Joseph, *Situation Ethics: The New Morality*. (Philadelphia: Westminster Press, 1966).
- Fletcher, Joseph, *To Live and To Die: When, Why, and How* (New York: Springer Verlag, 1973).
- Glover, Jonathan, *What Sort of People Should There Be?* (New York: Penguin, 1985).
- Glover, Jonathan, *Causing Death and Saving Lives*. (New York: Penguin, 1977).
- Horan, Dennis J. and David Mall, eds., *Death, Dying and Euthanasia*. (Frederick, MD: University Publications of America, 1980).
- Horan, Dennis J. and Melinda Delahoyde, eds., *Infanticide and the Handicapped Newborn*. (Provo, Utah: Brigham Young University Press, 1982).
- Jones, D. Gareth, *Brave New People: Ethical Issues at the Commencement of Life*. (Leicester: Inter-varsity Press, 1984).
- Klee, Ernst, "Euthanasie" in *MS-Staat: Die "Vernichtung lebensunwerten Lebens"*, (Frankfurt: Fischer Verlag, 1983).
- Kluge, Eike-Henner, *The Practice of Death*. (New Haven: Yale University Press, 1975).
- Kuhse, Helga and Caroline de Garis, eds., *The Tiniest Newborns. Survival—What Price?* Proceedings of the Conference held at the Royal Australian College of Surgeons. (Melbourne: Monash Centre for Human Bioethics, 1984).
- Kuhse, Helga and Peter Singer, *Should the Baby Live? The Problem of Handicapped Infants*. (Oxford: Oxford University Press, 1985.)
- Liberation or Loss: Women Act on the New Reproductive Technologies*. Papers presented at the National Conference on New Reproductive Technologies and Their Impact on Women. (Canberra: Centre for Continuing Education, 1986).
- Lifton, Robert Jay, *The Nazi Doctors: Medical Killing and the Psychology of Genocide*. (New York: Basic Books, 1986).
- Lynn, Joanne, ed., *By No Extraordinary Means: The Choice to Forego Life-Sustaining Food and Water*. (Bloomington: University of Indiana Press, 1987).
- Mitscherlich, A. and F. Mielke, eds., *Medizin ohne Menschlichkeit. Dokumente Nürnberger Arzprozesses*. (Frankfurt: Hahn, 1978).
- Overduin, Daniel Ch., *Life in a Test-Tube: Medical and Ethical Issues Facing Society Today*. (Adelaide: Lutheran Publishing House, 1982).
- Ramsey, Paul, *Fabricated Man: The Ethics of Genetic Control*. (New Haven: Yale University Press, 1970).
- Restak, Ricard M., *Pre-meditated Man: Bioethics and the Control of Future Human Life*. (New York: Viking Press, 1973).
- Rifkin, Jeremy, *Algeny*. (New York: Viking, 1983).
- Rosenfeld, Albert, *The Second Genesis: The Coming Control of Life*. (Englewood Cliffs: Prentice-Hall, 1969).
- Roslansky, John D., ed., *Genetics and the Future of Mankind*. (Amsterdam: 1985.)

- Singer, Peter and Deane Wells, *The Reproductive Revolution: New Ways of Making Babies*. (Oxford: Oxford University Press, 1984).
- Stover, Eric and Elena Nightingale, eds., *The Breaking of Bodies and Minds. Torture, Psychiatric Abuse, and the Health Professions*. (New York: Freeman, 1985.)
- Tooley, Michael, *Abortion and Infanticide*. (Oxford: Oxford University Press, 1983).
- Veatch, Robert M., *Death, Dying, and the Biological Revolution: One Last Quest for Responsibility*. (New Haven: Yale University Press, 1976.)
- Weir, Robert, *Selective Nontreatment of Handicapped Newborns*. (New York: Oxford University Press, 1984).
-

Order Your CHRISTMAS GIFT Subscription NOW!

THE LINACRE QUARTERLY will make an excellent gift for doctors, nurses, priests, hospital and medical school administrators, social workers, lawyers, dentists, and all concerned with philosophy and ethics of medical practice.

SPECIAL CHRISTMAS OFFER: 5 issues for the price of 4. We'll mail this issue of the L.Q. to those you designate, plus all four issues in 1987. In addition, we'll send an acknowledgment letter informing the recipient that you have subscribed to the L.Q. for him. Order as many subscriptions as you wish. Be sure to list exact name, address and zip code.

Enclosed is my check to cover gift subscriptions for the following persons: (\$20 for each annual subscription). Make checks payable to LINACRE QUARTERLY and mail to Linacre Quarterly, 850 Elm Grove Road, Elm Grove, Wis. 53122.

SEND SUBSCRIPTION TO:

Name _____

Address _____

City _____ State/Province _____ Zip _____

Your Name _____

Your Address _____

Your City _____ State _____ Zip _____