In the Rear and Limping a Little: Some Reflections on Medicine, Biotechnology, and the Law: The Roscoe Pound Lectures

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The Right Honorable Sir Zelman Cowen*

In the Rear and Limping a Little:
Some Reflections on Medicine,
Biotechnology, and the Law:
The Roscoe Pound Lectures**

I

LECTURE NO. 1.

I am honoured by the invitation to deliver this series of Pound Lectures at the University of Nebraska. Though I have been a frequent visitor to the United States since I first came to teach in the Law School of the University of Chicago in the summer of 1949, this is my first visit to this University. It follows a meeting with President Roskens in Australia at a time when I was Governor-General, and he called on me in the national capital, Canberra. When I came to Oxford after retiring from that office, he extended an invitation to me to come to the University, and I am specially pleased to come for this purpose. There can be few lawyers who do not know the name and at least something of the work of Pound. I have, in addition, a personal link, because I met him when I came as Visiting Professor to the Harvard Law School thirty years ago.

As Pound Lecturer, I am in distinguished company. I know all of my predecessors by reputation, and most of them personally. Among my books is the text of Warren Seavey’s Cogitations on Torts, which he gave me when I was a visiting member of the Harvard Law School Faculty in 1953-54. I came to Harvard then and again ten years later at the invitation of Erwin Griswold, a great Dean of that school and later Solicitor-General of the United States, and he, too, was a Pound Lecturer on Search and Seizure: A Dilemma of the Supreme Court. He and I have been friends for many years. Julius Stone, whose subject was Aggression in International Law, has been a long-time friend,

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** These lectures were delivered on October 3 & 4, 1984 as part of the continuing lectureship program in honor of Roscoe Pound.
3. J. Stone, Aggression in International Law (19—).
and we were colleagues for many years as law professors in Australian universities. His great contributions to the law and to jurisprudence were acknowledged by the publication last year of a volume of essays entitled *Legal Change: Essays in Honor of Julius Stone.* As Governor-General I wrote a foreword that was a short statement of appreciation of Stone's work and writings. In that volume, there were references to Stone's relationship with Roscoe Pound. Stone was much influenced by Pound's teaching and that is reflected in his own teaching and writing. Stone's major work, *The Province and Function of Law,* was reviewed by Pound in 1948, and the master wrote that he found the book "so thoroughly worthwhile that I read every word of text and notes most attentively." I have told that I met Roscoe Pound when I was a young Visiting Professor at Harvard in 1953-54. He was then in his eighties and was the editor of the NACCA journal. I had some opportunity for talk with him at that time. He was still living when I came to Harvard a second time, ten years later; he died at 93 in July, 1964.

These lectures honour him for his great contributions to the law and jurisprudence; they fittingly honour him here, in the University to which he first came in 1888. He was both botanist and lawyer; there is a rare fungus, *Roscopoundia,* which he identified and which is named for him. For a time he worked in both fields, but, as a writer in the Nebraska Law Journal recounts: "[h]e was, however, a practical man and it is said that he was influenced to finally settle upon a legal career by his belief that the profession had much to offer." He taught some courses before he became Dean of the College of Law at the University of Nebraska in 1903. He held that office for a few years only, until 1907, and as I have read the history, it is clear that his tenure was important in setting the College of Law in the mainstream of American law teaching, through the pervasive use of the case method. He had had a short experience of the Langdellian style method and philosophy at the Harvard Law School. He went from Nebraska successively to Northwestern, Chicago, and then to Harvard, and there he built and confirmed his great reputation.

He is, of course, known as the great exponent of sociological jurisprudence. In his eight point program he argued that sociological jurists seek to enable and to compel law making whether legislative, judicial, or administrative, and also the development, interpretation, and application of legal precepts, to take more complete and intelligent account of the social facts upon which the law must proceed and

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to which it is to be applied. It is to an aspect, or to aspects, of this, that these lectures are directed. It is the case that science and technology present many challenges to laws developed in earlier times, and that the changes they bring to society frequently require the reconsideration of existing rules. It is probable that science and technology present the most dramatic and insistent forces for change in our time. One of my predecessors as Pound lecturer, Willard Hurst, has written that the record of this century discloses that the law has not been very successful in dealing with the social consequences of technological change. He takes the case of the motor car: it has added vigour to the economy and increasing opportunities for communication and recreation, but is has also imposed horrendous costs in life and personal injury, in urban sprawl and policing problems, in air and noise pollution, and in the prodigal use of natural resources.

More generally it is the case, as Harvey Brooks observes in an essay on Technology, Evolution and Purpose,\(^8\) that although science and technology have provided us with the means to overcome scarcity for everybody, it is less than self-evident that the actual application of these means is compatible with such other goals as democracy, personal liberty, an aesthetically satisfying environment, the preservation of pristine nature, or individual privacy and dignity.

II

In these lectures I propose to consider a specific case that commands wide public attention in our time. I have taken as my title, In the Rear and Limping a Little, borrowed from the judgment of an Australian judge who wrote, little more than a decade ago, that the law marched with medicine, "but in the rear and limping a little."\(^9\) It is in the field of medicine, of the life sciences and biotechnology that some of the great contemporary challenges of science and technology have presented themselves, raising great social, ethical, religious and legal issues. In the opening chapter of its final report, the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research observed that the awesome powers of medicine that are continually expanded by developments in the life sciences have sparked growing public interest in what are now termed "bioethical" issues.\(^10\) It is said that the scientific researcher has an obligation to be as active in his moral as in his scientific imagination. To the traditional matters of personal conscience for scientific workers, and for physicians and other health care workers, have been ad-

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ded the increasingly difficult questions that face courts and legislators among others, as biomedical and behavioural scientists and practitioners explore new ways to conquer illness, to sustain organ functions, to generate human life in new ways, and even to manipulate the genetic basis of life itself.

The President’s Commission was appointed to study and report on the ethical and legal implications of issues in medicine and research, and over the three years of its effective work and life, from 1980 to 1983, it performed an important task of public education through the study of and report on problems whose value components were at least as important as their technical aspects. There have been many such enquiries and explorations: particular problems have been explored by commissions, committees, and law reform agencies. I was a member of the Australian Law Reform Commission whose report, Human Tissue Transplants, has, I believe, been widely regarded as a major contribution to the study of the legal and associated problems that arise in this important and comparatively new area of biotechnology. Within the last few months, a major report of the Committee of Enquiry into Human Fertilisation and Embryology has been published in the United Kingdom. That committee (the Warnock Committee), explored matters associated with artificial insemination, in vitro fertilisation, with and without embryo transfer, and associated matters. That is one of a number of reports and enquiries undertaken in various parts of the world where human births have been achieved by these methods, and where the ethical and legal issues that arise from this technology have commanded wide and often anxious public attention and debate.

Again, issues have been raised in the public arena by groups with a committed viewpoint, who are determined to press and make visible that viewpoint. A conspicuous example is the case of treatment of seriously ill, newborn children and the “profound ethical issues” that arise in the context of medical intervention (or other action) to preserve them alive or to allow them to die. This problem, as the President’s Commission points out in its report Deciding to Forego Life Sustaining Treatment, is made the greater because of remarkable advances in neonatal care and preservation that have taken place in the very recent past. In cases arising in common law jurisdictions, particularly involving children born with Down’s Syndrome, the issues have been presented in various contexts: in criminal actions taken

against doctors; in civil actions to compel surgical interventions to preserve the lives of newborn children against the wishes of parents, and of doctors responding to such parental indications; even indeed in the context of actions brought by the representatives of very young children alleging failure to act, with the consequence that they have been born alive with birth defects that are said to result in "wrongful life."

The problems and issues extend in many directions. The capacity of medicine and technology to prolong life and to postpone death yields many benefits, but it also presents problems. As Russell Scott says in his excellent book *The Body as Property*, the law has to be framed to deal justly with the intractable problems of long term coma, the helpless, dying aged, the hopelessly defective newborn, and other human beings whose existence may be an intolerable burden to themselves, their families, and the community.14 If all that society can offer is the criminal law of homicide within which to provide a legal response to these problems, it will cause a great deal of injustice and, at the same time, provide poor and inadequate opportunity for the consideration of the problems. We have to take account of the point that the value of life is lessened not by a decision to refuse treatment, but by the failure to allow a competent human being the right of choice. The problems for the law in the resolution of such issues are formidable.

In *The Body as Property*, Scott was concerned primarily with issues that arise in the context of human tissue transplants, though his formulation of the problems posed for society by such medical and biotechnical developments is obviously of more general application:

> The medical advance is followed by a period of shock during which the community—through its doctors, scientists, philosophers, theologians and lawmakers—grapple with its wider significance. On balance, if it is believed that society will derive a benefit, the burden of ensuring community acceptance is transferred to the lawmakers, who must devise laws that will enable the medical and other necessary routines to be carried out lawfully, framing them so as not to allow the procedures to trespass beyond the limits of community acceptance.15

In the specific context of human tissue transplants, Scott pointed out that we were dealing with new concepts of life and death, and with unprecedented usage of the human body. Unless important issues were clarified and resolved quickly, there was a risk that grave social damage could be done, and that unacceptable practices could quickly appear that might prove impossible or at least very difficult to eliminate. A legal vacuum was against everybody’s interest, while dealing with and responding to the issues on a random basis, as particular questions arise, would be very unsatisfactory.

There is the scientist’s argument that a premature attempt at legal

15. *Id. at 80.*
regulation will not serve the public interest. So it is put that biotechnology is moving so rapidly that "if we have a Royal Commission or introduce legislation now about recombinant DNA or in vitro fertilization or heart transplants or anything else of this nature, the ground will have shifted before we have gone through the mechanics, the action will have shifted to the next level." So too, it is argued that it is much better to use "soft-edged measures" depending on human judgment and decency, such as strong ethics committees including lay members, to monitor research and treatment in laboratories and hospitals. In any case, it is said, the genie is out of the bottle and cannot be put back.

This is the voice of a serious and concerned medical scientist, and there can be no doubt that some of the issues that arise sit awkwardly and inappropriately in a court setting. It may well be that the law in particular cases may fairly say that the resolution of particular issues can be appropriately left to the shared decision of doctor and parents, without call for court intervention or approval. The scientist's statement, however, goes too far. It carries with it a very real danger of conflict between scientist and technologists on the one hand and the general community on the other, and this is not calculated to serve the interests of scientific and technological advance that can be of great benefit. The widespread debate over issues relating to in vitro fertilisation provide one example; in recent times, research with recombinant DNA is another. It must be said that the case for appropriate legal regulation is very strong, and that in some areas it is patently necessary. There are, however, likely to be areas of sharp disagreement as to what the law should say, because there are deep disagreements often of an ethical or religious character. This argues the case for the fashioning of mechanisms and bodies that can monitor activities, courses of action, scientific, and technological developments, and that can assure some measure of informed community understanding and oversight of what is happening.

In some areas heavy burdens have been placed upon courts without guidance otherwise from common law notions. American courts, for example, have been faced with questions relating to the taking or organs and tissues from living persons. Generally speaking, the task of the courts, without legislative guidance in such areas, is very difficult. Lord Devlin in his reflections on the judge as law maker, points to the constraints and limitations under which common law judges operate. Judges by themselves, he says, are not, as a body, the complete lawmakers and it is unreasonable to expect that they should be. The aid furnished to a judge under the English common law system is limited by the assumption that it is his duty to try the case. He has the

16. Id.
assistance of counsel who are there to argue the cases of their clients and not to argue in more general terms the desirable course of development of the law. Moreover, the support available to judges in manpower, time and facilities for research is severely limited. "New law," says Lord Devlin,

ought not to be made until after consultation with the representatives of those who will be concerned with it. Methods of achieving this have been admirably developed by law reform bodies. This, of course, does not deny the obligation of common law judges, the body of those who made the common law, to discharge their responsibility for keeping it abreast of the times; it simply asserts that there are and should be limits to the assumption and expectation that law reform and law making should come from judges.18

We are not here to discuss modes of law reform and law-making generally; we are concerned with problems relating to the law and medicine, and biotechnological developments, often of far reaching importance. It seems to me clear that in such areas as these that raise novel questions, different methods and techniques are required. The recently retired Chairman of the Australian Law Reform Commission, Mr. Justice Kirby, who presided over that Commission's enquiry into and report on Human Tissue Transplants, and who has been a remarkable and active publicist for law reform, has written about this matter.19 He points out that the common law did not furnish adequate or satisfactory direction on the many issues involved in human tissue transplants. If transplantation was to proceed with assurance, legislative action was necessary, and in advance of that, consideration and appropriate resolution of various issues of principle. Because of their complexity, effective law reform called for distinctive procedures. In the case of tissue transplants, there was a need for interdisciplinary participation in the tasks: the Commission called upon doctors, scientists and technologists with a wide variety of relevant knowledge and skills, as well as upon lawyers, and the views of philosophers, ethicists, and theologians were also sought.

I was a member of the Commission at that time, and an active participant in this particular enquiry and report. I remember particularly a day-long meeting of the Commissioners with a body of doctors drawn from diverse but relevant specialties. The session was devoted to the definition of death. That definition was of critical importance for transplantation, though its importance extends beyond the case. As the President's Commission has pointed out, the need for viable organs to transplant does not account fully for the concern with the definition of death; that concern rests more broadly on the need both to render appropriate care to patients and to replace artificial support with more fitting and respectful behaviour when a patient become a

18. Id.
dead body. The need to update the criteria for determining death stems from the realisation that the dedication of scarce and expensive care facilities to bodies without brain functions may not only prolong the uncertainty and suffering of grieving families, but also preclude access to facilities for patients with reversible conditions.

The Chairman also pointed to another aspect of the Commission’s activity in the consideration of this reference: the ascertainment of the sense of the general community. In the consideration of issues such as human tissue transplants, and *in vitro* fertilisation, community views and attitudes, so far as they can be ascertained, are of substantial importance. So in this case laymen’s discussion papers were prepared and circulated widely; public hearings were arranged in various parts of the large country in which people might present their views; and the media, especially television, were used quite effectively to publicize and generate debate on the issues.

Regular law reform agencies, equipped and furnished with such resources and using such procedures, may serve the needs of adaptation of the law to biotechnological change very well; again, it may be judged desirable for specially constituted commissions of enquiry to undertake such tasks. In respect of human fertilisation through artificial insemination and *in vitro* fertilisation and embryology, the British procedure was to appoint the Warnock Committee, which has recently reported after two years of deliberation. In Australia, where work on *in vitro* fertilisation and embryo transfer is well-advanced, special committees have been appointed under the laws of a number of states. The Australian Law Reform Commission in its report on human tissue transplants specifically declined to deal with issues relating to *in vitro* fertilization and associated matters on the ground that “important social and moral as well as legal questions are involved [that] are not appropriate for legislative attention in a general ordinance dealing with transplantation.” That did not disclose a reluctance to tackle these subjects, but rather a view that they raised many substantial independent questions and issues, which is certainly the case. So far, that separate reference has not been forthcoming and the matter has been considered, as I have said, by a number of commissions appointed under state law. Their number, and the intense public debate over the issues, give expression to the lively concern with these biotechnological issues and their implications. We shall consider these issues later.

III

Let me now speak more particularly about some of the major issues raised within the context of human tissue transplants. Those issues were drawn dramatically to public attention by the heart

transplant first effected by Dr. Christiaan Barnard in South Africa in 1967. That, of course, was not the first transplant either of regenerative or non-regenerative tissue; work had been progressing actively since the latter 1940's, and transplants of corneas and kidneys had been successfully undertaken for some years. Dr. Barnard's heart transplant was, however, the case that captured world attention just as, little more than a decade later, did the birth of Louise Brown in England by in vitro fertilisation and embryo transfer.

The heart transplant was the case, par excellence, in which issues of critical importance arose to make it as certain as rules could that the patient should have the greatest confidence that his doctor should not become his executioner. That case focused attention on the need for a definition of death; a heart transplant donor was of necessity a dead person. More generally, of course, the use of organs and tissues from dead bodies was a very valuable and important source of material for transplantation. For effective transplantation it was necessary to have available material that was viable and not damaged or rendered useless by reason of delay in removal and transplant. The development of ventilators and associated biomedical technologies made it possible to maintain heart beat and respiratory functions in bodies that had sustained total and irreversible loss of brain functions. At an earlier time, when the use of a dead body was not a matter of concern in this way, it was enough to define death without further refinement in terms of classical criteria: the cessation of heart beat, respiration, and circulation of the blood. The question now became one of seeking a definition by reference to total cessation of brain function, ascertained in accordance with strict procedures. As I have pointed out, this concern with the definition of "brain death" arises not only in the context of tissue transplants, but there, for very practical reasons, it has a special and urgent significance.

So it is possible to conjure up the prospect of "bioemporium" in which, as Russell Scott writes, there are:

> corpses . . . utterly unlike any corpses known throughout man's previous history . . . warm, respiring, pulsating, evacuating and excreting bodies, requiring nursing, dietary and general grooming attention . . . long silent rows of them, looking like any other patients would be laid out for the purpose of being, in effect, farmed and harvested for the benefit of the living.21

That is unaccustomed and unpleasing imagery of a new world. The definition of brain death certainly allows for organs physically to be preserved for effective use within a dead but respiring donor body; it allows for the respirator to be switched off without that act of switching off being ascribed as the cause of death. Even if we do not allow imagination to range over cadaver farms, the fact is that an established and a developing biotechnology makes the cadaver an increasingly im-

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21. R. Scott, supra note 14, at 164.
portant source of parts to meet an unsatisfied demand for tissue and organs for transplantation. As medicine continues to find uses for human tissue, we may come to see claims upon the dead body taking on the aspect of a public entitlement. Are we to look forward to something approaching the notion of a life estate in the body, determinable upon death, after which it will become available as a source of parts for transplant into other defective but living bodies?

The debate on the terms on which organs and tissues may be removed from a body certified as dead takes on special significance in light of this. I may illustrate this from the debate that took place within the Australian Law Reform Commission on this issue. It was generally accepted that authority was required for the transfer; it involved decision on principles as between the merits of two views. One was expressed as "contracting in." It required that the deceased during his lifetime should have given authority for the removal of organs or tissue, or, if he had said or indicated nothing, that the removal should be approved by authorised persons, generally, though not necessarily, relatives. The other notion of "contracting out," adopted in a number of legal systems, allows removal and transfer unless the deceased, in his lifetime, has expressly forbidden it. The Commission after a debate, in which some support was voiced for the latter, adopted "contracting in" on the basis that it was more closely in accord with general community mores. In the Commission this was certainly my view, not only as more in conformity with community attitudes, but as a personal judgment. I am now disposed to think that Russell Scott is right in arguing a case for the contracting out principle. He writes:

I believe that western communities are prepared to allow the use of their dead for the therapy of the living, provided that it is decently done. The great value of human tissues is now established. I can see no objection to a law under which the bodies of the dead may be promptly used for public health purposes. Whether this position seems to interfere with preserving personal freedom will depend on whether you believe freedom is something which should extend to your corpse. I do not believe that it should and moreover take comfort from the fact that my law along with others of its kind, will allow everyone to signify an effective objection while alive. It is plain that such a law should be accompanied by safeguards.22

Does this set us on the slippery slope, so that if we move to accept "contracting out," the next step will be to deny the entitlement of the person to effective objection, so that a "contracting out" law may be only the latest stopover in an unfinished journey to a destination where all dead bodies will be compulsorily available to the state? If this appears extreme, let me draw attention to a body of American case law that in Scott's words "has created a unique and self-contained legal process which appears to be without parallel in any other coun-

22. Id. at 260.
try under which the law in a number of states will recognize and enforce claims made by the sick for the tissues and organs of living persons.23 Thus, in one case it was held that a kidney of a mental incompetent of full age might be taken for transplant into the body of his brother.24 In another, it was held that the kidney of a seven-year-old twin (who for what it is worth, expressed herself willing) might be taken for transfer to the other twin.25 There is a body of Massachusetts cases at first instance in which the courts have authorised the transfer of both regenerative and non-regenerative tissue from the bodies of minors and other incompetent persons.26

It is a characteristic pattern in such cases that the tissues of donor and recipient have been found to be distinctively compatible, and the parents support and indeed encourage the giving of the tissue on which the life of the recipient may depend. In a number of cases, the courts have used the language of substituted judgment; that is to say, the court has regarded it as open to it to provide the consent that the minor or incompetent cannot actually or effectively give.27 Sometimes the court has found a psychological benefit to the donor in the lifesaving gift to a grievously ill sibling.28

My own view is that this is a bad principle, and it is one to which I am strongly opposed. I believe that the only valid principle upon which a donation of tissue can be made by a living person is one that requires effective consent. Where the person is a minor of a very young age, or is otherwise incompetent and incapable of giving an acceptable or meaningful consent, I believe that no taking (which it is, rather than donation) should be allowed, certainly in the case of non-regenerative tissue, and indeed in the case of regenerative tissue that may require substantial intrusion, as for example bone marrow. I should indeed prefer to make the principle general.

The Pennsylvania case of McFall v. Shrimp,29 raised the question of a compelled donation of bone marrow from one adult to another. Bone marrow is a regenerative tissue, but its removal requires a surgical procedure under general anesthetic. The plaintiff was suffering from aplastic anemia and would die without a transfer of compatible tissue. Shrimp was a cousin and the indications were that his tissue was compatible. After one encouraging test, Shrimp declined to submit to any further procedures and McFall took action to compel him

23. Id. at 116.
26. See, for example, the cases cited by R. SCOTT, supra note 14, at 115.
27. See generally id. at 108-09, 111, 114-15, 120 & 156.
29. The decision is unreported. For a discussion of the case, see R. SCOTT, supra note 14, at 127-37.
to submit to further tests and to the removal for transfer of bone marrow. The court assumed jurisdiction, but declined to impose the obligation on Shrimp, though it was critical of his refusal.

The principle stated was that to compel Shrimp to submit to bodily intrusion "would defeat the sanctity of the individual and would impose a rule that would know no limits and one could not imagine where the line would be drawn." It happened that the plaintiff died shortly afterwards, but my view is that the decision is right and principled. This accords with the view of Russell Scott. He states the principle that:

"The individual is not primarily some kind of social debtor whose obligations to the community outweigh, or do no more than balance his rights, powers and privileges. Society and its laws should aim to promote personal autonomy and individual liberty. Accordingly my law in relation to tissue removal from living persons would be expressed positively not negatively, and would allow donations of body parts by adults of sound mind, provided that it is done on the basis of free and informed consent."

In respect of persons of full age and capacity, this would allow donations, including donations of non-regenerative tissue. To establish that such donations were clearly in accordance with the law, the Australian Law Reform Commission recommended that they should be authorised, subject to the requirement of the informed consent of the donor. That commanded general agreement; so, too, did the proposition that it should not be lawful to take tissue from the mentally incompetent, of whatever age. This rested upon the basis that such persons were incapable of giving informed consent and that there was no other acceptable basis upon which such donations should be allowed; the Commission in this respect dissented from the holding of some American courts.

In respect of donations of non-regenerative tissue by minors, the Commission was divided. A majority would have allowed such donations subject to very stringent safeguards: that the donor and recipient were members of the same immediate family; that there was independent medical advice that without the transplant there was a danger of death; that there was parental consent; and that the donor "had sufficient" mental capacity and consented. This provision for consent was drawn in severely restricted terms, but the dissent that denied any capacity to consent was based on the view that the great urgency and emotional stress in such a case imposed a great, and even overwhelming pressure on the minor donor to consent. The dissenters took the view that so long as a notion of incapacity was retained in the law for minors, this was pre-eminently the case in which it should be preserved, and that any consent should be placed beyond reach.

30. McFall v. Shrimp, quoted in id. at 134.
31. Id. at 255.
Scott deals very severely with this view, which he describes as an "unbending logic ... [that is] ... not even good law or at least good common law."\(^3\) I do not know how that can be maintained. He says further that the protection of the minor against such strong pressures has to be balanced against the "tragic injustice" of a blanket ban: "the denial of capacity to give an organ might lead to family tragedy, with permanent and incalculable grief to minor and family and that is not only unjust but morally wrong."\(^3\) The framing of the matter in this way shows what pressures there would be on a minor to consent, and the case illustrates the great problems that confront the law-maker. In Australia, those jurisdictions that have generally adopted the Law Reform Commission's report, and draft legislation, have divided quite sharply on this issue. Some allow the very restricted power of donation by mature minors. Others impose the blanket prohibition for which the dissenters argued. On this matter I have not changed my mind.

I have spoken about the requirement of consent by a donor to the giving of bodily parts for transplant. This notion necessarily looms large in the context of medical and surgical procedures, and certainly in the area with which we have been concerned. It has special relevance in the context of experimental procedures on humans. It is also relevant to the case of therapeutic procedures, and in a new technology involved in some major tissue transplants there are likely to be both therapeutic and experimental elements.

There has been much concern with the notion of informed consent following the revelation of the inhuman experiments carried out by Nazi doctors on human subjects during the war. Their acts were judged at Nuremberg after the war. It was said in a notable American Symposium that, given what was done by the Nazi doctors in their experiments with human subjects, it was altogether reasonable that jurists, physicians, and many others would wish to reflect on that experience and seek to establish codes that would make such bestial activity impossible and unrepeatable.\(^3\) It would be difficult to overstate the emphasis that this uniquely tragic European experience has given to studies of the ethics of human experimentation. Out of a concern with the violence done to human beings came an attempt to give definition to the conditions under which such experimentation might take place. The Nazi case is unique in its extent and its horror, but there are other cases that have come to light. These have prompted the deeply disturbing judgment that it is no accident that research of a

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\(^{32}\) Id. at 257.

\(^{33}\) Id. at 257-58.

\(^{34}\) Symposium, Ethical Aspects of Experimentation with Human Subjects, 98 DAEDALUS 219 (1969).
questionable nature has been conducted on the most vulnerable and
the most helpless: the institutionalised, the sick, and the poor.

Issues of consent are, or may be, complicated by the fact that pro-
dcedures have both a therapeutic and an experimental character, and by
the fact that they are performed upon children. Children themselves,
by reason of varying maturity, have widely differing powers of under-
standing. There are therapeutic procedures for children where the
only meaningful consent can be given by a parent. Can a parent give a
consent to an experimental procedure on a child? Is such a notion,
unless there is a distinct therapeutic aspect involved, an acceptable
one?

A recent English case of a heart transplant to a newborn child
raises a crop of very difficult questions. Hollie Ruffy, a newborn girl,
was born with left-sided hypoplastic heart disease from which she
would inevitably have died. She received a transplanted heart. After
a period of days, during which her case was watched and reported with
intense and concern, she died of a variety of complications. In the af-
termath many questions were asked. It appears that unlike the case of
the first adult heart transplant by Dr. Christiaan Barnard in 1967,
where he had accumulated knowledge from more than a hundred sim-
ilar operations on animals, no comparable work had been done, or if it
had been done, it had not been recorded in the medical literature that
would apply to transplants in neonates. The distinguished surgeon
who performed the operation on the baby girl was reported as saying
that it was an experiment and that all surgery advances by such exper-
iment. That surely is true, but expressed as baldly as that cannot be a
justification. Despite Dr. Barnard’s preparations in the case of his op-
eration on an adult in 1967, it was criticized on the ground of prematu-
rity. Russell Scott, for example, reports that the failure rates were so
high, and the surgeons so inexperienced, that a strong adverse reac-
tion developed and many hospitals throughout the world gave up
heart transplantation.35 One of the most distinguished practitioners
in the field was reported as saying that “it wrecked the field for a good
five years.”36 It was not until the late 1970’s that there was a global
resurgence in heart transplants thanks to improved surgical and after-
care techniques.

In the case of Hollie, it was not possible to make a reasoned judg-
ment as to the outcome, had she survived. Questions posed by this
case might run as follows:

Would her new heart have failed to grow, so that at the age of five or six, she
might have had to have another transplant, with the possible result that if she
did not survive? Would her parents then have had to face the death of a child
they had learned to love as a person? Would, as other cardiologists have sug-

35. R. Scott, supra note 14, at 21.
gested, the heart have been efficient enough to enable her to grow physically and mentally? There are many other unanswered technical questions. For instance, what dose of immuno-suppressant drugs does a baby of this age need, and to what extent will this dose increase her liability to cancer later?

If we turn to the question of consent to what was concededly an experimental procedure, though essentially bound up with the future survival of the child, it is obvious that the only consent can be given by the parent. In the case of this child's disease there was little time, and in some cases the decision would have to be made within hours of birth. In such cases, are parents confronted with the child's situation in a fit emotional state to make a decision? The implications for the future of the child, and it may be for the future of the marriage and the family, cannot easily be thought through by parents who have the urgent responsibility for giving consent.

These are issues that are now in the forefront of discussion where a decision has to be made to preserve or to attempt to preserve seriously ill newborn children. Some of these cases involve decisions whether to carry out comparatively routine and well-established surgical procedures on children with other continuing defects like Down's Syndrome. In the case of Hollie the procedure was a heroic one, quite untried, and with unknown and possibly threatening consequences. Is it open, in the interests of the child, to allow the parent to consent in such a case? It is very difficult to answer no; it is a question still whether, having regard to the existing state of knowledge, it is a permissible procedure on newborn humans. There are other questions that have been widely debated in the aftermath of this case. The costs in terms of money and particularly in demands on skills and other human and physical resources are very great; in a situation of limited resources and great competing demands, what priority is to be given to experimental surgery of this character?

Not all of the questions raised by this case could be appreciated by a nation watching and reading the tragedy of Hollie Ruffy. The questions that this application of the biotechnology of tissue transplant raised are a complex of legal, moral, and ethical and resource issues, and I doubt whether the laws already in place, and only recently in place, in respect of tissue transplants, provide clear answers to the problems posed by this case.

IV
LECTURE NO. 2

I spoke yesterday about biotechnological developments in the field of organ and tissue transplants, and of the responses of society and the law to these developments. Once it is established that the human body has value as a stockpile of curative materials, the question of ownership and use of a dead body assumes a new importance. In this
case, since the technology requires viable organs and tissue for transplantation, there is need for precise rules for the determination of "death," though the heart may still beat in a respiring body. In such cases, it allows for a respirator to be switched off without that act being ascribed as the cause of death. In the case of a live person who may provide organs or tissue for transplantation, it is of critical importance to formulate the terms and conditions on which such material may be taken for transplant. In this context, questions of informed consent and the capacity to give consent are of central importance. The resolution of the many complex issues depends significantly on moral and value judgments within a community. These may shift as the new technology develops and becomes more assured, and as its applications and benefits are more fully understood and accepted. There may be tensions between the individual's claim to autonomy of his person and the community's claim to the resources of his body.

This technology focuses directly, though not exclusively, upon death, the end of life; another major current development in biotechnology directs attention to issues associated with the beginnings of life. The former Chairman of the Australian Law Reform Commission has spoken aptly of a number of riddles now being presented to our legal systems by advancing medical technology as it affects the beginning of life. Within the space of little more than a decade, two spectacular achievements in biotechnology attracted worldwide attention. In December, 1967, Dr. Christiaan Barnard in South Africa successfully transplanted a human heart from a necessarily dead donor to a recipient. In July, 1978, shortly before full term and by caesarian section, Louise Brown was born in the United Kingdom.

In the latter case, in November, 1977, Mr. Patrick Steptoe and Dr. Robert Edwards had extracted a ripe egg from the body of Mrs. Lesley Brown and fertilised it in a dish with her husband's semen. It was grown for a short period of days in a nutrient in the laboratory, and the embryo was then implanted in Mrs. Brown's uterus where it attached and grew to full maturity. It was said of this achievement that it was a giant step towards the full laboratory control of human reproduction. A commentator, reviewing the major events of 1978, wrote that "[t]he most important birth of the year (leaving aside the little Metternichs and Mozarts who have not yet made themselves known) was of Louise Brown conceived in a laboratory dish. That fertilisation was less important as an achievement than as an omen; in biology, as in politics, power is expanding faster than ethical understanding." 37 Harvey Brooks says that a particularly brilliant technology may give a spurious brilliance to an inadequate vision. 38 Whether this is apt to describe the case of biotechnological advances in human reproduction,
it is demonstrably the case that the technology outstrips the law, and that the time cushion between scientific and technological change, and the need for governmental and social reactions, is now greatly diminished, if it has not completely disappeared. While scientists are in a hurry and are hustling society, society for its part is, not surprisingly, slow to evolve its attitudes, particularly in cases that raise issues that go to the core of human being. Biotechnological achievement and invention often find an unprepared and largely inchoate public opinion.

In the aftermath of these biotechnological developments in human reproduction—and medical doctors, scientists and technologists in my own country, Australia, have been in the forefront of this work and research—governments, professional, and other concerned bodies have established enquiries to assess the work and its implications, and to make recommendations. In the United Kingdom, where the first successful birth by \textit{in vitro} fertilisation and embryo transfer was achieved in 1978, government set up a committee in 1982, the Committee of Inquiry Into Human Fertilisation and Embryology (known as the Warnock Committee, for its Chairman), to consider recent and potential developments in medicine and science related to human fertilisation and embryology. The Committee was to consider what policies and safeguards should be applied, including consideration of the social, ethical, and legal implications of these developments, and to make recommendations. The committee reported in mid-1984, and the London \textit{Times}, noting in advance that the report was to appear in this year, observed that it was a date that those with doubts over recent medical developments regard as having ironic Orwellian overtones.

The Warnock Committee drew attention to social and legal considerations:

\begin{quote}
It would be idle to pretend that there is not a wide diversity in moral feelings, whether these arise from religious, philosophical or humanist beliefs. What is common . . . is that people generally want some principles or other to govern the development and use of the new techniques. There must be some barriers that are not to be crossed, some limits fixed beyond which people must not be allowed to go. Nor is such a wish for containment a mere whim or fancy. The very existence of morality depends on it. A society which has no inhibiting limits, especially in the areas with which we have been concerned, questions of birth and death, of the setting up of families and the valuing of human life, would be a society without moral scruples. And this nobody wants.\end{quote}

Relating this more particularly to the issues of legal controls and regulation, the Committee observed that:

\begin{quote}
[T]he development of science and medical technology in the field of human fertilisation opens up many new issues for the law. \textit{In vitro} fertilisation, for example, has brought about situations not previously contemplated in relation to which there is no law at all or such law as exists was designed for entirely different circumstances. We believe that new laws will be necessary to cope
\end{quote}

\footnote{39. WARNOCK REPORT, \textit{supra} note 12, at 2.}
with the new techniques for alleviating infertility and their consequences and
to deal with the developments in research in the field of embryology. But we
foresee real dangers in the law intervening too fast and too extensively in ar-
eas where there is no clear public consensus. Furthermore both medical sci-
ence and opinion within society may advance with startling rapidity.40

To what developments and biotechnological work and research do
these general and elegantly stated formulations apply? There are,
first, the techniques of artificial insemination that antedated the re-
cent successful achievement of in vitro fertilisation and embryo trans-
sfer. These include the cases of the artificial insemination of a woman
with the sperm of her husband (AIH), and artificial insemination of a
woman (normally with the consent of her husband) with the sperm of
a third person (AID). Then there are the procedures of in vitro ferti-
ilisation and embryo transfer. We start here with the most common
case, “the simple couple centered paradigm,” illustrated by the 1978
case of Louise Brown, which involves only husband and wife as the
providers of gametes and the wife as carrier of the child to delivery.
There is further case, within this general description, in which the em-
broyo, fertilised from husband and wife gametes, is frozen, subse-
quently thawed and implanted in the mother. The first reported case
of live birth achieved by this technique was in Australia early in 1984,
when a girl, Zoe, was born.

There is, next, the case of the use of donated gametes (sperm or
ova or both), and of donated embryos (either fresh or frozen), which
may be implanted in a mother who may or may not have a genetic
relationship to the child, depending, of course, upon whether the ova
are hers, but who, in any event, carries the child to be brought up as
her own.

The next case is that of surrogacy. Of surrogate motherhood Rus-
sell Scott wrote that the community is barely aware of the practice, let
alone at a stage where any consensus has begun to emerge, and that
there exists the clearest evidence that the practice of surrogate moth-
erhood is underway and that it already raises extraordinarily difficult
social and legal issues.41 The surrogate mother carries the child to the
point of delivery, by agreement with other parents to give it up at
birth to them. There are various cases. They include the natural in-
semination of the surrogate by a man with the consent of his wife
(who is the intended mother for whom the child will be carried by the
surrogate), artificial insemination, and in vitro fertilisation and em-
broyo transfer, in which the surrogate mother may be simply a “womb
carrier” without any genetic relationship to the child. The surrogate
“womb carrier” may provide service for a woman with a medical con-
dition that precludes her from carrying a child to delivery; it may be

40. Id. at 7.
that she is a carrier of convenience for a woman who wishes to be free of the risk or burdens of child-bearing. A recent writer speaks of a surrogate as serving as carrier for "a busy female litigator (who) may hire a woman to carry her baby for her." There is some prospect that the skills of such a hirer will be needed in litigation with her surrogate.

All of this may make for complex situations. It is now possible for a child to have up to five parents in the course of its manufacture and handing over for upbringing: an egg donor; a sperm donor; a surrogate mother who carries the fetus to delivery; and the couple who raise it. A writer in the American Bar Association Journal, perhaps ominously, comments that "many of the participants in [this] 'collaborative reproduction' are insufficiently protected by the current laws."43

There is another issue that arises out of this technology that has generated and continues to generate intense, even passionate debate. It concerns in vitro fertilisation without embryo transfer; it arises out of the desired use for research and experiment by scientists and biotechnologists of embryos produced by in vitro fertilisation that are surplus to the requirements of embryo transplant or which may be grown specifically for purposes of research and experimentation.

V

These are the main cases and issues that have been the subject of consideration and report. The Warnock Committee reported in the middle of 1984 in the United Kingdom on all of these issues. In Australia where, as I have said, work in the forefront of this biotechnology is being carried on, a series of reports has been produced. Notable among these reports are those of the Waller Committee in Victoria, Australia.44 That Committee was charged in 1982 with the task of considering "the social, ethical and legal issues arising from in vitro fertilisation."45 It has issued three reports in 1982, 1983, and, very recently, in 1984. The first dealt with the "most common case" and it approved, with appropriate safeguards and supervision, the practice of in vitro fertilisation and embryo transfer in the case of the "simple couple centred paradigm."46 In its second report, it considered and approved, though not unanimously, the use of donated gamates and embryos. In its third report, published very recently in 1984 (of which I

43. Id. at 56.
44. REPORT OF THE COMMITTEE TO CONSIDER THE SOCIAL, ETHICAL AND LEGAL ISSUES ARISING FROM IN VITRO FERTILISATION (1982) [hereinafter cited as WALLER COMMITTEE].
45. Id. at 1.
46. Id.
have seen only a summary statement), the Waller Committee dealt with the use of frozen materials, with surrogacy, and with embryo experimentation. It is a commentary on the tensions that arise on the one side between science in a hurry, and fortified by the wishes of potential parents in a hurry, and the community and its agencies in a state of uncertainty and divided opinion on the other, that the first birth of a child with the use of a frozen and thawed embryo took place before the Committee had reached a decision on the matter. This, it seems to me, justifiably attracted criticism; there was also some criticism of the action as “precipitated” by other scientific workers in the field.

The techniques and practice of artificial insemination are now well-established. In the case of insemination by a husband (AIH), there has been persistent opposition on the part of those who oppose all of these procedures on the ground that deviation from the natural processes of birth can never be countenanced. There has been active debate—given prominence in the world press recently by the Parpalaix case in France—on the propriety of the use of the semen of a dead husband that has been stored, to inseminate his widow. In such cases, there are questions of law involving succession to property, specifically, whether a child born in these circumstances is a child of the father. This technology raises many such questions. For example, what effect will the technology have on the Rule Against Perpetuities in its classic form? There is a wider range of questions impacting on the law of wills, and the techniques of freezing of gametes and embryos will allow of births many years after the gametes have been produced or the embryos first fertilised.

Another recently reported case that has also been given wide publicity in the world press concerns the fate of a frozen embryo deposited in Australia by a wealthy, non-Australian couple who were subsequently killed in an air crash outside Australia. The wife (Mrs. Rios) provided an ovum that was fertilised by a donor gamete and the embryo was frozen and banked for future use, which was frustrated by the death of the parties. The future of the embryo has become a subject for quite intense debate; one of the issues is the right of succession to the substantial estate of its depositors. The technology produces some bizarre outcomes, and issues and rules must be formulated for the resolution of such questions. The Warnock Committee in the United Kingdom, in the context of AIH, recommends that there should be no right of succession by a child to a father unless the child was in utero at the time of the father’s death. The Committee also recommends that the law should provide that any child born following in vitro fertilisation, using an embryo that had been frozen and stored, who was not in utero at the date of the death of the father should be disregarded for the purposes of succession to and inheritance from the
father. Such rules appear to me to be reasonable and to provide necessary certainty.

AIH in the case of a dead father raises less tangible considerations, and in the Parpalaix case the question was the entitlement to use his sperm to inseminate his widow. The Warnock Committee indicated a general disapproval; such action might give rise to profound psychological problems for child and mother and should be "actively discouraged." Beyond stating a recommended rule relating to testamentary succession, however, it was not prepared to recommend the blanket prohibition of the use of a dead husband's sperm. I share the Committee's unhappiness with this procedure. I have very real difficulty with the notion of crossing the barrier of death in such cases, and I would be disposed to prohibit the use of semen in such a case. This comparatively simple application of the new biotechnology exposes the difficulty in making judgments for a community.

AID exposes a wider variety of problems. Notwithstanding the consent of the husband, the intrusion of a third person donor (even though he is unknown) into the relationship between the married parties raises a moral and ethical issue that is not present in the case of AIH. In British law that intrusion is not regarded as adultery, but on common law principles the child is illegitimate, is not a child of the marriage, and the male relationship and obligations arising from the birth of the child are those of the donor and not the husband.47 Such matters must obviously be dealt with if the practice of AID is to be accepted and made regular. The Warnock Committee noted that, as late as 1960, a government committee in the United Kingdom had disapproved the practice of AID, but that this had not stayed its growth, and judged that AID should be regarded as a "legitimate form of treatment for those infertile couples for whom it might be appropriate."48 This view has been accepted elsewhere, in the United States and in Australia, and this acceptance carries with it broad acceptance of the principle that the AID child should in law be treated as the legitimate child of its mother and her husband where they have both consented to the procedure. Moreover, the parental relationship is established with the husband and not with the semen donor. The Warnock Committee, concerned that the practice should be properly conducted and administered, and not operated clandestinely, required that AID services should be provided only by a licensed authority with appropriate procedures, and that risks, such as those of possible incestuous relationships in a subsequent generation, should be reduced by limiting the number of semen uses derived from any single donor.

In such ways the law is called upon to respond to the problems

47. See, e.g., MacLennan v. MacLennan, 1958 A.C. 105; WARNOCK REPORT, supra note 12, at 20.
48. WARNOCK REPORT, supra note 12, at 23.
posed by the use, indeed the expanding use, of artificial insemination procedures. All of these are cases of dealing with the consequences of a comparatively simple technology. The issues that arise from *in vitro* fertilisation and embryo transfer are more complex. There are in the first place, the religious objections that also apply to artificial insemination, and which have been expressed very strongly in the *in vitro* case. In the mid-1950’s, the Pope declared the procedure and its outcomes to be “immoral and absolutely unlawful”: only the conjugal act is deemed ethically worthy of giving life to a new human being, and for this reason fertilization in a laboratory dish is seen as morally wrong. Many modern Catholic theologians formulate the objection in terms that “the technology procures human sex cells for the laboratory production of human beings which are at the mercy of scientists for irreverent manipulation. Fertilisation loses its truly human character.”

This objection is not generally shared; Jewish law, for example, does not condemn *in vitro* fertilisation-embryo transfer (IVF-ET) within the “parent centred paradigm.” There is, however, an objection to IVF-ET that rests on an ethical-moral judgment not necessarily derived from church doctrine. It is framed in terms that it sets us on the road to human battery farming; it represents the destruction of the notion of personhood in the creating of a child. So it is said that it is better to stop the whole business; once we take the first, allegedly compassionate step in the case of the couple centered paradigm, we will inevitably do what we have done with nuclear technologies and “go uncontrollably to the very end of the line.” At the end of this road lies Aldous Huxley’s *Brave New World*, populated by persons planned and graded, produced to political, social, and economic specifications in laboratories and factories, with the process of gestation taking place outside the human body. As to this, it is said that ectogenesis, complete gestation outside the human body, as Huxley envisaged it, is now only a speculative possibility. The Warnock Committee put it that “such developments are well into the future, certainly beyond the time horizon within which this Inquiry feels it can predict.” The Committee also recommended that the growing of an embryo *in vitro* and without implantation beyond fourteen days should be a criminal offense. This was proposed in the particular context of the limits of experimentation; it would obviously block attempts at achieving ectogenesis.

The question, of course, is whether legal prohibition is capable of restraining the use and development of technology that holds out so much attraction to infertile people. The Warnock Committee stated the case for the acceptance of *in vitro* fertilisation and embryo trans-

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49. *Id.* at 61.
plant very simply: the technique will increase the chances for some infertile couples to have children, and for some couples this will be the only method by which they may have a child that is genetically entirely theirs. For other infertile parents the extended applications of IVF-ET make it possible for them to have children who may have some more limited genetic link, or may make it possible to have children who have no genetic link with them. This is already the case with adoption; it may add to the available “stock,” and for what it signifies, a mother who has no genetic link with her future child may carry it in utero to birth. Certainly the pressures are strongly in favour of expanding the scope of available in vitro provision. The recommendations of both the Warnock and the Waller Committees against recognising and authorising surrogacy arrangements have been angrily criticised on the ground that they deny or limit the possibility of children to infertile couples. There are, however, those who question the use of donor gametes in in vitro fertilisation. As was said by a member of the Australian (Waller) Committee, in voicing his dissent to the recommendation that the donation of gametes should be recognised:

In a matter as sensitive as infertility such an alternative blend of argument may not find a ready response amongst those directly involved: the scientists excited at the prospect of a new field of research or a challenging clinical exercise may resent the intrusion of other disciplines and of the public into what they may have come to regard as their exclusive experimental domain; the infertile, for whom no-one who has been engaged in any field or caring can lack understanding and sympathy, may feel aggrieved when their fellows in society question the validity of the data upon which expectations have been fostered and the desirability of the genetic permutations and combinations which might possibly translate those expectations into reality.50

It is a powerful argument, and it exposes the difficulties and pressures that a society faces in setting limits to an exciting scientific and technological enterprise, particularly where, as in this case, its promised outcomes have such a powerful appeal. In the case of artificial insemination, doubt and disapproval have yielded to the pressures of practice, and once artificial insemination by a donor is accepted, necessarily involving the intrusion of a third party into the married biological relationship, it is not easy to see how to sustain an objection to the use of donor gametes in IVF. So it is that the Warnock and other Committees accept it. For myself, I have a personal difficulty with it, as I have a difficulty with the use of gametes derived from dead persons. It has to do with my own perhaps not very perfectly thought out views of the human condition and of the relationships of human gen-

50. WALLER COMMITTEE, supra note 44, at 52 (dissent). See also COMMITTEE TO CONSIDER THE SOCIAL, ETHICAL, AND LEGAL ISSUES ARISING FROM IN VITRO FERTILISATION, REPORT ON DONOR GAMETES IN IVF 49-50 (1983) (dissent) [hereinafter cited as Donor Gametes Dissent].
erations. The Australian dissenter to the recommendation that IVF-ET by donor gametes should be allowed, put it that

a society is no mere agglomeration of individuals. Its members live the same life in the past by reason of their traditions and share in the prolongation of life into the future through common aspirations. Everyone therefore has a right to trust in [his] ancestry and everyone has an obligation to be a repository of trust for [his] progeny.\textsuperscript{51}

Of course we make exceptions for adoption, for children who are already born without the assistance of the new technologies, and for whom adoption may offer the prospect of a better life. It may be very desirable (notwithstanding the warnings of not being able or allowed to stop at that point) to continue and recognise IVF-ET within the most common case, the husband-wife dyad. Once we go beyond that, as for example in artificial insemination, and more especially in the area of IVF, and give it legal acceptance, we open up a new prospect for humanity that I do not much like. In any event, it may be that the law will not be able to stay the tide, and that, as in the case of AID, there may be a retreat into secrecy with no checks, no standards, and no controls, and “nothing to be heard through the soundproof doors of the laboratories.” We are told that “the genie is out of the bottle.”

It is a consequence of acceptance of the extension of IVF procedures to allow donations of gametes outside the husband-wife area, which is the most common case, that it becomes necessary to formulate legal rules relating to parental status, entitlement, and responsibilities. The principles proposed for AID would fix the husband of the mother who has borne a child by IVF-ET by the donation of semen, as the father; the donor of the semen would have no parental rights and obligations. The recipient of a donated ovum provides a new case. The Warnock Committee sensibly proposes that the mother is she in whose body the child is carried, and that the ovum donor will have no rights and obligations in respect to the child.

Central to the recommendations of the committees that have considered these great issues of admissibility of procedures for the alleviation of infertility, is the acceptance of the need for comprehensive supervision and controls over the conduct and development of these procedures, and over those persons who operate them, and over those who conduct research in this area. The Warnock Committee contemplates the establishment of a licensing authority, broadly based in its membership, which will be invested with statutory powers over a wide range. The notion is that all places (including banks for the storage of fresh and frozen gametes and embryos) and all persons providing fertility services must be licensed. The reason for this is clear: it is plain, as the Warnock report says, that the protection of the public demands the existence of an independent authority for these purposes. Few

\textsuperscript{51} Donor Gametes Dissent, supra note 50, at 54.
people, as Russell Scott says, would contemplate with equanimity the proliferation of storefront embryo banks where passers-by could purchase take home fetuses, or, perhaps more realistically, the storage in a few small refrigeration units of enough reproductive material to create a new nation. The licensing and controllig authority is pivotal to the whole scheme; it will have to devise step-by-step a “moral and legal framework” which, as best it can, it will have to devise from its understanding of human society, its values and its purposes.

VI

The pages of the contemporary daily and periodical press bear continuing testimony to intense popular interest in and concern with these issues. Some of the particular cases are dramatic. Madame Parpalaix fights in a French court for the release of her dead husband’s semen to allow her to bear a child by him. The debate over the frozen embryo that Mrs. Rios银行ed in Melbourne before she and her husband were killed in South America in an aircraft accident raises a variety of questions. The wealth of the Rios parents makes the succession entitlement of the embryo a more prominent issue than it might otherwise have been. There is the bigger question: what is the future of the embryo? In the city in which the Rios embryo is banked, a child has earlier been born by IVF-ET from a frozen and thawed embryo. The Rios parents, now dead, have left no directions for the future use or disposal of the embryo. The recent reported announcement that the embryo will be allowed to die has generated angry protest from some sources, though it appears to me that there is no satisfactory alternative. In any event, no assurance can be given that the embryo, if implanted in a uterus, would adhere and grow to maturity. Further, in whom and by whose authority is it to be implanted, and what will be the implications for parenthood?

Another case: great prominence was given in England early in 1984 to the birth of quadruplets by IVF-ET to a woman, Mrs. Smale, who was living in a stable de facto relationship with a man whose semen fertilised her ova, producing multiple embryos that were implanted. She had earlier been sterilised, having had children, but wished for children by her de facto husband and had been admitted to an infertility program. The doctor responsible for these IVF procedures was reported as saying that while he would have preferred a single birth, multiple implantations were a better assurance of that outcome. In the event, in this case, quadruplets, produced from the four of the implants, were the outcome. It is a spectacular case, and raises questions. Among them: is it an acceptable procedure to allow the possibility of such multiple births? It may be that techniques will improve and that there will be a better assurance of success without
the need for multiple embryo implants. More generally: is what was done in the Smale case a justifiable use of IVF-ET technology?

It is not really surprising that such spectacular and dramatic cases and issues should attract such wide attention. The fact is, however, that these reproduction technologies, and particularly IVF, are the subject of widespread and comprehensive discussion in the public place. An Australian newspaper publishes frequent reports on developments in this area under the head of The Destiny of Creation. Some years after the birth of Louise Brown, and after the scientists and biotechnologists, while concentrating on the most acceptable and common case, have shown that they are capable of doing much more and have been insistently arguing the desirability of doing more, the issues are exposed in a variety of ways. This is given focus by the publication of able reports that discuss the great issues involved in the laboratory creation of human life, or at least of the beginnings of human life. So we are brought face-to-face with the questions discussed in this hour. Are the procedures of IVF-ET at any level justified? Is this an area in which the scientists and biotechnologists have become so preoccupied with exploring the limits of their technological capacities that they have had little time and, it may be, have shown little inclination to ponder the moral significance of what they are doing? In the case of the English IVF quadruplets, is it fair comment that "the test tube baby teams are all bristling with academic excellence and technical skills, but who is to provide the wisdom?"

VII

It was inevitable that surrogacy, the bearing of a child by a woman with an agreement to give it up to be raised as the child of other parents, should have assumed an added importance in consequence of the development of the new reproductive technologies. Surrogacy is not a new thing; there are biblical accounts of a surrogate bearing a child for another, conceived naturally by the intended father. As I said earlier, the modern cases involved artificial insemination, in circumstances in which the intended father is the semen donor, where the donor is another person, and by in vitro fertilisation and embryo transfer. In the latter case the surrogate may have some genetic relationship to the child. The end case, however, is the surrogate "womb carrier" without any such connection. By agreement she may carry the embryo of the husband and wife who are the intended parents, and the reasons for such an agreement may vary: it may be the incapacity or serious difficulty of the intended mother to carry it; it may be for reason of convenience, or the avoidance of interruption of career, or of discomfort and risk.

The Warnock Committee judged that "the question of surrogacy presented us with some of the most difficult problems we encoun-
At one level surrogacy can be exploitative; it may be seen as the sale of the use of the body and as degrading the process of childbirth. From another viewpoint, it may be seen as a genuine, sympathetic provision of assistance to a husband and wife—it may be to someone in their own family—which affords them the only possibility of having a child who is genetically their own. Between these cases lie the variations. The Warnock Committee and other Committees were aware of the fact that commercial surrogacy services have appeared, offering surrogacy contracts for reward, part of which represented payment to the surrogate mother, part the fees of the organisation. Such surrogacy organisations have emerged in the United States and elsewhere. The author of *The Stork Market: The Law of the New Reproduction Technologies*, notes that in at least twenty-four of the United states the law provides that paying a mother in connection with her giving up a child for adoption is illegal,\(^5\) and that there have been specific decisions that deny enforceability of an agreement by a surrogate for reward to hand over the child for adoption.\(^5\)\(^4\)

Lawyers avoid restrictive laws by arranging for surrogate adoptions to take place in states that do not prohibit payment. We may in time build up a new province, or at least new applications in the conflict of laws. There are, certainly, many problems associated with surrogacy agreements. For example, assuming no illegality in limine, is it possible to provide in the contract clauses governing the conduct of the surrogate during the period of gestation, to assure the best health of the child? Problems have arisen out of agreement that the surrogate and her husband will abstain from sexual relations during a specified period to ensure that there is no doubt about the parenthood of the child. If the child is born with some mental or physical defect, are the contracting parents obliged to accept it pursuant to the surrogacy agreement and, if not, what are the liabilities towards such a child and by whom are they owed? If a surrogate bears a child derived from an ovum from the female contracting party, who is the mother at birth?

The normal contemplation in IVF-ET is that the mother giving birth is the mother. Is the case different where there is a surrogacy agreement and the ovum is that of the woman for whom the child is carried? The Warnock Committee specifically recommends that even in such a case, the person carrying the child should be the mother. Then, there is a question whether any surrogacy agreement can be specifically enforced; and whether considerations of the welfare of the child prevail over contract terms. What if the surrogate mother changes her mind and will not voluntarily give up the child?

The view of the majority in the Warnock Committee, which did not

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\(^{52}\) Warneck Report, *supra* note 12, at 54.

\(^{53}\) Andrews, *supra* note 42, at 52.

traverse all of these issues, was that surrogacy for convenience alone was "ethically unacceptable." The majority recommended legislation to render criminal the creation or operation in the United Kingdom of agencies whose purposes included the recruitment of women for surrogate pregnancies or the making of arrangements for individuals or couples who wished to make use of the services of a carrying mother. Such legislation was to cover both profit and non-profit organisations. It was proposed further that the legislation should be sufficiently wide to render criminally liable the activities of professionals and others who knowingly assist in the establishment of a surrogate pregnancy. The Committee did not propose to extend the criminal law to all private surrogacy arrangements; it was recommended, however, that all surrogacy agreements should statutorily be declared to be illegal contracts, and therefore unenforceable at law.

There was a dissent that seems to me to be persuasively argued. It starts from the position that public opinion is not yet clearly formed on surrogacy, which has only recently assumed prominence. While accepting that surrogacy for convenience should not be permitted and that there should be no place for commercial operations in surrogacy as in adoption, it should be recognized as fact that the demand for surrogacy in one form or another would continue to grow. Couples with medical problems would seek surrogacy services as a last resort and would turn to their doctors for support and assistance. To confront them with criminal sanctions is likely to drive them to clandestine activity, with attendant health and other risks. The preferred course would be to avoid blanket illegality, to give to the general licensing authority charged with oversight of the regulation of infertility services and research the power to license agencies to make arrangements for surrogacy, which might include payment to a surrogate mother.

The appeal of the dissenters to leave the door "slightly ajar" in the case of surrogacy seems to me to be prudent. It is in accord with at least some of the Australian discussion of this issue, and it seems to me unwise at this early stage to impose so rigorous a prohibition upon the use of surrogacy. In any event, blanket prohibition is not likely to be effective in bringing the practice to an end.

VIII

It is fairly said that there is no more controversial bioethical issue than that of the extent of the protection to be given to embryonic and fetal life. The question arises in the context of in vitro fertilisation without embryo transfer, and relates to the use for purposes of experimentation and research of embryos that are surplus to the needs of implantation, or that are brought into existence specifically for research purposes, or come into existence as a result of other research. A Roman Catholic Archbishop in Melbourne, Australia, which is a
principal center of IVF work, characterizes experiments of human embryos as “callous, immoral experiments on living human beings.” An Anglican counterpart in the United Kingdom says of the view that early embryos are “human beings” and therefore to be protected against experimentation, is “somewhat absurd.” A characteristic view of a scientist and biotechnologist is stated by Dr. Edwards, who with Mr. Steptoe undertook the work that resulted in the birth of Louise Brown in 1978: “I believe that the need for knowledge is greater than the respect to be accorded to an early embryo.”

The great divisions over this issue are revealed in the Warnock report in the United Kingdom. The majority formulated its approach to the problem in terms that

Although the questions of when life or personhood begin appear to be questions of fact susceptible of straightforward answers, we hold that answers to such questions in fact are complex amalgams of factual and moral judgment. Instead of trying to answer these questions directly we have therefore gone straight to the question of how is it right to treat the human embryo? We have considered what status ought to be accorded to the human embryo, and the answer we give must necessarily be given in terms of ethical or moral principles.55

The answer given by the majority is that the embryo of the human species should be afforded some distinct protection at law, that in its early development, fixed at up to fourteen days after fertilisation, experimentation may take place, but not beyond that time. The fixing of that time is set by reference to the development of the embryo. There are varying views on the precise length, and the Warnock time is a conservative one. The argument in favor of research is expressed in terms of importance of outcomes. Other animal research will not provide a substitute for the use of human embryos, and the Report directs particular attention to the study of disorders occurring only in humans, such as Down’s Syndrome, research into the processes of human fertilisation, or perhaps into the specific effect of drugs or toxic substances on human tissue. The time limit is, as I have said, derived from the development of the embryo; the Warnock recommendation is that (allowing for the special case of a frozen embryo) an embryo that is not implanted may not be kept alive for more than fourteen days, and that is should be a criminal offense to handle or use a reserach subject any live human embryo beyond that limit. No embryo that has been used for research should be transferred to a woman by implant. Research on embryos may only be undertaken under license given by the general licensing authority. The majority concluded that as a practical proposition it was appropriate to allow research on embryos whatever their provenance; that is to say whether surplus to implanta-

55. Warnock Report, supra note 12, at 60.
tion or produced specifically for research or coming into existence as a result of other research.

Four members of the Committee dissented on this point, and would only allow research on surplus embryos; they would have rejected the creation of embryos specifically for research and experiment. Three members dissented fundamentally; they would have accepted in vitro fertilisation for embryo transfer only. Their human potential made it improper to allow any use, including that of research and experiment, beyond that. This was supported by the view that any concession would open the floodgates; such pressures for extending the time period and character of research and experiment would grow and could not easily be resisted.

These division expose the formidable difficulties in resolving these questions, and they are also exhibited in the recommendations of other reports. There are obvious implications in this great debate for other forms of fetal research and what is said, in this context, exposes issues that arise in debate over abortion. Here the law-maker finds himself with issues for decision that bear upon basic views about the human condition. For my part, I believe that the majority in the Warnock report provide sensible outcomes that I would support. At the end it has to be said, however, that at times, in the name of the human, it is necessary to say “no” to what one type of technology or science can do; we have to be aware of the danger of dehumanising a whole section of life that is central to our humanity.

Whether Roscoe Pound would have approved of my treatment of these matters I cannot know. I am certain, however, that he would have agreed that they are of great consequence, and that while they are of concern to society in which lawyers play only a part, that part, the legal response to a powerful technology, is very important.