V. RESPONSES TO INFERTILITY

A. Introduction

Artificial means of human reproduction namely artifical insemination, in vitro ("test tube") fertilization (I.V.F.) and surrogate motherhood, have become focal points of ethical commentary and legal proposals particularly since the birth in England in 1978 of Louise Brown, the world's first "test tube" baby. Since then, developments particularly in England and Australia have advanced the relevant technology. These countries may have been able to take initiatives because restrictions on fetal and embryonic medical research in the United States of America, both actual and presumed, arrested developments that specialists in infertility relief were anxious to pursue there. Monash University in Melbourne, Australia and Bourn Hall Clinic in Cambridge, England, have become destinations of many in the Commonwealth, the United States and beyond who seek to acquire and develop the technical expertise through which infertility may be relieved.

Relief is distinguishable both from prevention of infertility and from its cure. Improved knowledge of the many causes of infertility (see B, below) assists the potential for individual and collective preventive measures. Infertility itself may be differently defined for medical, demographic and, for instance, social purposes, and is divisible into primary and secondary infertility; many infertile couples have already had children, together or separately in earlier relationships. Secondary infertility affects those who were once fertile, and may become fertile again, but who have suffered from an event or condition that renders them infertile. The potential to be a partner in an infertile relationship may be preventable, however, by medical treatment and by self-care regarding health preservation and choice of life style. Particularly, but not only in developed courtries of the Commonwealth, infertility may be due to avoidable reproductive impairments, such as venereal diseases. Similarly, relief of infertility may be attempted through surgical (including microsurgical) means, drug treatments and, for instance, dietary management, without recourse to the more spectacular, technology-dependent means of artifical reproduction which have in recent years become a focal point of legal and ethical concern. Even when successful in producing a child, these often leave their beneficiaries still infertile.

The adoption alternative to artifical conception has become decreasingly available in recent years, particularly in developed countries, due to increasingly successful means of pregnancy prevention through contraception and sterilization, and to a lesser extent due to abortion and single women keeping their children, including when the mothers are of school age. In an inadvertently dysfunctional way, however, legislation in

developed countries designed to prevent buying and selling of babies and other unsavoury commerce in children has prevented development of an adoption alternative to abortion. By these laws, those who offer to buy babies from mothers unable to cope with rearing them, and those who offer to sell their babies to others who want them, become liable to criminal punishments. These laws may obstruct conscientious persons and agencies who want to deter pregnant women who are considering abortion from pursuing that goal, by offering to pay their pregnancy and confinement expenses, including lost wage earning opportunities, if they will agree at birth to the babies being adopted. A market in babies, including a regulated, non-exploitive market of relatively free and equal suppliers and consumers, is thus prevented in favour of abortion.

This Chapter of the Report will outline alleged causes of infertility, which in a country such as Canada is estimated to affect one in six and perhaps as many as one in five couples of reproductive age. It will review the general approaches to the issue proposed in a number of prominent Commonwealth reports from the United Kingdom, where the Warnock Report has attracted great attention, Australian jurisdictions, notably the Waller Reports from the state of Victoria, and, for instance, from the Ontario Law Reform Commission in Canada. It will then address issues more specific to the technologies of artificial insemination by sperm and ovum donation, and in vitro fertilization, and consider the application of both artificial and natural means of reproduction in "Surrogate Motherhood" transactions. These may be for so-called surrogate motherhood, by which a woman has her own ovum fertilized, and more authentic surrogacy by which a woman bears an embryo created from another's ovum, in both cases in order to surrender the child on birth. Finally, it will consider the often contentious but inescapable issue of embryo and fetal research. The Table of Reproductive Options at the end of this Introduction illustrates 22 alternatives to normal conception employing artifical means.

Issues will be presented primarily from a legal perspective, but in practice much public discussion concerns ethical issues. It is proper that these be raised, of course, both in relation to and separately from legal issues. It is interesting to observe, however, that ethical deliberation about artifical reproduction is rarely matched by ethical deliberation about natural reproduction. Both may appear in some cases to be irresponsible and hazardous to potential children and to societies themselves, but the reproductive initiatives that have come to bear the burden of ethical accountability tend to be the artificial. For instance, proposed in vitro fertilization (I.V.F.) programmes raise issues of marital status of patients and their likelihood to offer children good homes. When natural fertility can be

TABLE OF REPRODUCTIVE OPTIONS

Key:
- H = Husband (legal or Common law)
- W = Wife (legal or Common law)
- D = Donor of sperm, ovum or uterine service
- AI = Artificial insemination
- ET = Embryo transplantation
- "SM" = So-called surrogate motherhood
- SM = Surrogate motherhood
- F = Single father
- M = Single genetic mother
- SPA = Step-parent adoption
- IVF = In vitro fertilization
- IV+F = In vivo fertilization (by AI) and flushing
- Any = Natural conception, AI, IVF or IV+F

	Sperm	Ovum	Uterus	Means of Conception	Intended Child Custody	Explanation
1.	H	W	W	Natural	H & W	Normal conception
2.	H	W	W	AI	H & W	AI by husband
3.	H	W	W	IVF	H & W	IVF
4.	D	W	W	AI/IVF	H & W	Conception by sperm donor
5.	H	D	W	IVF or IV+F & ET	H & W	Conception by ovum donor
6.	H	D1	D1	AI	H & W	"SM" & SPA by W
7.	H	W	D	Any & ET	H & W	SM & SPA by W
8.	H	D1	D2	Any & ET	H & W	Ovum donation, SM & SPA by W
9.	D	W	D	Any & ET	H & W	SM of W's ovum & adoption
10.	D	D	W	Any & ET	H & W	W bears (unrelated) child & SPA by H
11.	D	D1	D1	Any	H & W	Adoption
12.	D	D1	D2	Any & ET	H & W	Adoption
13.	F	M	M	Any	F & M	Child of the union
14.	F	D1	D1	Any	F	Father has child
15.	D	M	M	Any	M	Mother has child
16.	F	D1	D2	Any & ET	F	Father has true surrogate child
17.	D	M	D	Any & ET	M	Mother has true surrogate child
18.	D	D1	D2	Any & ET	D2	True surrogate has child
19.	D	D1	D1	Any	Third party	Adoption
20.	D	D1	D2	Any & ET	Third party	Adoption
21.	H	W	W	Posthumous AI/IVF	W	Widow has child
22.	H	W	D	Posthumous IVF/IV+F & ET	W	Widow has true surrogate child
23.	H	W	D	Posthumous IVF & ET	H	Widower has true surrogate child

achieved or restored by, for instance, hormone treatments or microsurgery, which may be no less expensive than I.V.F., physicians and others are rarely asked to ensure that their patients will conceive only in marriage, or that they will make good parents. By its preoccupation with the artificial, ethical discourse raises problems not only of the ethics of reproductive biotechnology, but also of the ethics of ethics.

B. Causes of Infertility

While it is ubiquitous, infertility is not a uniform phenomenon in the world. The Task Force on Diagnosis and Treatment of Infertility of the World Health Organization Special Programme of Research in Human Reproduction conducted studies in 25 countries including many in the Commonwealth between 1979 and 1984, and identified different combinations of factors contributing to individual countries' and regions' experience of infertility (see W. Cates, T. Arley and P. Rowe, "Worldwide Patterns of Infertility: Is Africa Different?" The Lancet, 14 Sept, 1985, 596). Nevertheless, without being specific to any individual Commonwealth country or region, a number of causes can be proposed to explain the infertiltiy rates in many populations.

An important cause is the fact of biology that natural fertility, perhaps in both females and males, declines with age: younger people are more fertile than those who are of advanced years for reproduction. Where, as may be increasingly the case in developed countries, women postpone marriage, perhaps to pursue education or careers, they may seek children at an age when pregnancy is less likely to occur. Reduced likelihood may be because of reproductive failure due to embryonic or fetal genetic abnormality, or, for instance, to failure of ovulation or poor sperm quality. Seeking children relatively late in life may be related not only to postponed marriage, however, but also to second marriage following divorce. Divorce rates in developing countries may not be as high as in the developed world, but where males' average life-span is shorter that that of women and women first marry in their early teenage years, they are liable to suffer widowhood, and later seek children in a second marriage when natural fertility has declined. Infertility may itself precipitate divorce in some cultures, and be both stigmatizing and socioeconomically disadvantageous, so that pressure arises in almost all countries to relieve its effects. Pressure to conceive may be felt, of course, without regard to age. In the W.H.O. Task Force study, it was found that, in Africa, 42 percent of women seeking infertility services were aged 24 years or younger, whereas in Asia only 22 percent were in that cataegory (see ibid. p. 597).

Infection is a major pathological cause of infertility, and perhaps the major cause in women. The W.H.O. Task Force study found that "Over 85% of the African women have diagnoses which could be attributed to infection" (see ibid.). Although venereal diseases are popularly held to account for rising levels of infertility, the study found that frequency of a history in women of such sexually transmitted diseases (S.T.D.) was actually quite low. Indeed in Asia, it was found that a history of pregnancy complications in women who were infertile was twice as high as a history of S.T.D., that in Africa the rates were comparable, and that in the developed world, pregnancy complications were associated with infertility in a proportion of two-thirds the number of cases in which S.T.D. occurred (see ibid.) Infertility following pregnancy complications may be a result, of course, of poor maternal and post-natal care, and of inadequate family planning programmes to reduce abortion rates, and unskilled management of spontaneous and induced abortion.

Chemical and mechanical contraception (that is, contraceptive drugs and devices) are associated with a consequent rate of infertility in given populations. An intrauterine device may be a source of infection when it is fitted or removed, or while it is in place, and a calculable incidence of pelvic inflammatory disease which may result in infertility is associated with use of some devices in studied populations, primarily in developed countries. Drugs other than contraceptive drugs are associated with infertility, including illicit, non-prescription and also prescription drugs. The level of infertility that results from medical care, regarding both contraceptive and general health care, may make it highly appropriate that medicine should devote itself to developing means to relieve infertiltiy. Similarly, societies might justifiably give resources to treatment because other causes of infertility are associated with tolerated social life styles, such as consumption of alcohol and tobacco, and with environmental and industrial pollution which societies do not effectively control by legal, economic or other initiatives (see generally "Infertility and Sexually Transmitted Disease: A Public Health Challenge" Population Reports, The Johns Hopkins University, Population Information Program, Series L, No.4 (1983)).

Fertile couples may conscientiously decide not to have a child of both partners, because of unacceptable risk to them of transmitting a harmful genetic or other congenital condition to their child. Improved methods of genetic prognosis and diagnosis have resulted in individuals coming to know of their harmful reproductive potential, and seeking means to reduce the risk. Formerly, they had alternatives of celibacy, married voluntary childlessness and adoption. More recently, the alternative of artifical insemination by sperm donor became available when a husband presented an unacceptable risk of dysgenic reproduction. Now, further alternatives include both ovum and embryo donation when a wife alone or the couple jointly is dysgenic, and, where

the abortion law is accommodating, they may also conceive the child of them born. Prenatal diagnosis, for instance by amniocentesis, will reliably show whether the fetus, is harmfully affected. In many cases it will not be, and the pregnancy will continue. When prospective genetic harm is, for instance, Tay-Sachs disease, only one child in four will be affected, and if the risk is of Down's Syndrome due to advanced maternal age, 95 percent of fetuses have been found to be unaffected. If the fetus is found to be affected, the pregancy will be terminated. In many cases the pregancy will continue, however, and the couple will have a healthy child. This is the contribution an accommodating abortion law makes to the birth of genetically normal children (see R.J. Cook, "Legal Abortion: Limits and Contributions to Human Life" in Abortion: Medical Progress and Social Implications, Ciba Foundation Symposium. 115 (1985) 211).

C. Reports on Artifical Reproduction

In the United Kingdom, Australia, Canada and, for instance, New Zealand, major reports from governmental and law reform committees have recently addressed artifical reproduction. Further, government-related, professional, religious and other public and private agencies prepared submissions to those committees, and sometimes published them as independent documents. Accordingly, an influential literature of considerable size has recently been developed. Many items are of greater length than this Report, and a presentation of them must necessarily be selective and aim to be representative. The Appendix to this section lists a number of the more helpful Reports published in recent years relevant to artifical reproduction or to aspects of it, such as related research. A number of documents of both public committees and public agencies are relatively extensively reviewed in the Appendix to the Ontario Law Reform Commission's two volume Report on Human Artifical Reproductiona and Related Matters (Ontario Ministry of the Attorney General), published in 1985.

Perhaps the most visible Report in the Commonwealth has been the 1984 Report of the Committee of Inquiry into Human Fertilisation and Embryology (H.M.S.O. Cmnd. 9314), better known as the Warnock Committee after its Chairman, Dame Mary (now Lady) Warnock. The Committee did not expressly state in its Report the philosophy upon which it was drawing for development of its analysis and proposals, unlike other bodies, particularly the Ontario Law Reform Commission, which reviewed philosophical or strategic options (see Report above, ch. 4). The broadly stated options are:

1. Prohibition of practices by criminal sanctions;
2. Deterrence by frustration of objectives;

3. Control by regulatory agencies or courts; and

4. Permission of private practices to be recognized in law, in accordance with parties' intentions.

Recognizing that its conclusions could not reflect the diverse views held in society, and with various dissenting views expressed by its own members, the Warnock Committe was generally sympathetic to controlled recourse to reproductive technology, finding that "actions taken with the intention of overcoming infertiltiy can, as a rule, be regarded as acceptable substitutes for natural fertilisation" (Report, para. 2. 4, at p. 9). This view is reflected in many other reports, and in consequent legislation, almost all of which provides that A.I.D. and I.V.F. can be undertaken only in approved centres, and/or by approved personnel.

The Committee's Report made recommendations in outline, leaving their development for implementation through legislation to others, by implication meaning those in the legislature or government. The Committee emphasized that children are best placed in two-parent families based on legal marriage or a stable Common law relationship. Selection of individual patients for artifical reproduction was considered appropriately left to medical practitioners and consultants, however, who must bear the heavy responsibility to "make social judgments that go beyond the purely medical" (para. 2.13, at p. 12). Consistently with its view that parties to an artifical reproduction transaction, meaning prospective social parents of a child and donors of gametes (sperm and/or ova), should achieve their common intention of creating parental responsibilities for the former and not for the latter, the Committee recommended anonymity of all parties. Nevertheless, it opposed the view that artificial insemination by donor (A.I.D.) should be kept secret from a child born of the procedure.

The Committee's recommendation was that the A.I.D. child should be treated in law as the child of the mother who bore and gave birth to it and of her consenting husband, whose consent to A.I.D. should be rebuttably presumed. The sperm donor should accordingly not be father in law, and, correctly anticipating ovum and embryo donation, the Committee recommended that an ovum donor should not be considered as the mother. To prevent a donor from being parent to many children, a limit of ten children was recommended, with a central register to monitor the limit. Further, a move was favoured to pay donors only their expenses, rather than any payment appearing as a reward for donation.

The Committee made generally congruent recommendations for artificial reproduction by direct insemination and I.V.F followed by embryo transfer, thereby accommodating both sperm

and ovum donation. More reserve was expressed regarding embryo donation, however, when fertilization would be in vivo and the embryo would be recovered by the process called lavage, otherwise known as flushing, washing or irrigation. Because this technique is in its early stage of development and its risks are hard to calculate, it was recommended that "the technique of embryo donation by lavage should not be used at the present time" (para. 7.5, at p. 40). An ethical objection to this recommendation is that, since the Committee found that the procedure is acceptable in principle, it is wrong to provide that it not become available in the United Kingdom unless and until other populations have borne the risks of making it safer. A population prepared to receive the benefits of a procedure should also be prepared to incur the costs of developing it to a higher level of safety.

With the exception of its approach to surrogate motherhood (below), the Committee recommended the creation of a new, independent statutory licensing authority to regulate and monitor practice in specially sensitive areas. The authority would advise government, issue guidance on good practice, publish relevant data, grant licences and oversee inspection of licensed facilities. It would regulate such activites as I.V.F. and related sperm and ovum donation, embryo creation in vitro, and the preservation in freeze-storage (cryopreservation) of gametes and embryos. The storage authority, acting under and monitored by the supervising licensing authority, might acquire lawful control of gametes and embryos where persons banking them die or cannot be traced for five yearly updating of their intentions on use or preservation. The storage authority would gain responsibility for the gametes and embryos after ten years in any event. The licensing authority would also control embryo research, which the Warnock Committee was prepared to permit up to fourteen days after fertilization, on a project-by-project basis. The Committe's recommendation that the licensing authority might also regulate the sale and purchase not only of gametes but also of embryos may be difficult to express in law in view of another recommendation that "legislation be enacted to ensure there is no right of ownership in a human embryo" (para 10.11, at p. 56). Criminal punishments were recommended for breach of the licensing system.

Logic might have required that a licensing system be applicable to surrogate motherhood agreements reached through non-profit making agencies. By these agreements a woman gestates an embryo, formed of her own ovum or from another woman's, for the purpose agreed before her pregnancy of surrendering the child on birth to another person, such as the donor of the sperm or ovum. Observing however that "it is ... with the commercial exploitation of surrogacy that we have been primarily, but by no means exclusively, concerned" (para 8.17, at p. 46), the Warnock Committee recommended criminalization of agencies

arranging surrogate motherhood agrements, whether or not on a profit making basis, and that professionals or others who knowingly assist in the establishment of a surrogate pregnancy also be punishable. It was further recommended that legislation express the conclusion of widespread legal analysis that surrogacy agreements are illegal contracts and therefore unenforceable in the courts.

The Committee did not envisage that private persons entering into surrogacy arrangements be liable to prosecution, and observed that "We ... recognize that there will continue to be privately arranged surrogacy agreements" (para. 8.19, at p. 47). Since the Committee recognized that children will be born of these agreements, it had to consider provision of their legal status. Its opinion that the woman who bears such a child should be considered its mother conforms to the customary perception of the law that a woman who bears a child is its mother. The Committee considered that a more flexible adoption law should be available to regularize relationships when a child born of ovum or embryo transfer is brought up with its commissioning genetic mother or parents. This proposal may be criticized upon several grounds, such as introduction of uncertainty of status, and distinctions between genetic mothers and fathers associated with the presumption, which from United States' judicial experience is unwarranted, that a man giving sperm for artificial insemination of a woman other than his wife in a surrogate motherhood agreement is merely a "donor". In Michigan, for instance, it has been held that such a man can be a parent if that was his purpose in making his sperm available (see Syrkowski v. Appleyard (1985), 362 N.W. 2d 211 (Mich. S.C.)). The same might be held under legislation implementing the Warnock Committee's recommendations, so that the genetic father would not have to adopt his child in order to enjoy lawful custody and to bear responsibility.

It is an historic irony that, out of the Committee's many recommendations designed to benefit children born of artificial means of reproduction, the first and to date only ones to be legislated concern criminalization of surrogate motherhood agencies and of professionals and others who facilitate surrogate motherhood agreements (see F, below).

The Warnock Committee's Report serves as a marker in relation to which other Commonwealth committees' proposals are located, including those made before the Report was released, except in so far, of course, as they address issues the Warnock Committee did not consider. The 1982 Interim Report and 1983 Report on Donor Gametes in IVF of the Victoria, Australia, Committee to Consider the Social, Ethical and Legal Issues Arising from In Vitro Fertilization, chaired by Professor Louis Waller (The Waller Committee), for instance, were largely in agreement with the Warnock recommendations on A.I.D and I.V.F.

The Interim Report favoured restricting participants in these procedures to married couples, but acknowledged the need to accommodate "de facto relationships" (Report para. 5.8.5, at p. 24). There was also opposition to physicians acting alone as gatekeepers for society concerning which persons might participate in artificial reproduction and which others might be excluded. The final Report recommended that final responsibility for admission of patients to infertility programmes should be retained by authorized hospitals accountable to the Health Commission of Victoria, and thereby to the public. Unlike Warnock, the Waller Committee recommended that buying or selling gametes be made unlawful, although donors might be repaid for costs incurred. Donor-recipient couple anonymity was favoured, but it was considered that non-identifying information should be available to both donors and recipients, and also to consequently born children. The Waller Committee urged the Health Commission to establish a central registry containing comprehensive information, including of pregnancies and abnormalities found in I.V.F. children.

The Waller Committee's Interim Report briefly addressed cryopreservation and disposition of retained embryos, favouring that "the wishes of the couple concerning handling of such excess embryos should be respected" (para. 5.8.6, at p. 25). Like Warnock, the Committee also wanted medical reasons alone to justify embryo donation, and would not permit transfer of an embryo for reasons, for instance, of the convenience or vanity of having another woman gestate one's child. The Committee's 1984 Report on the Disposition of Embryos Produced by In Vitro Fertilization addressed management options for surplus embryos on whose destiny the gamete donors can express or have expressed no wishes. The expressed wishes of donors would not necessarily prevail, but responsible prospective usages would be respected. Embryos not governed by donors' wishes, it was recommended, should be removed from storage, but not be deliberately destroyed. Like terminally ill patients removed from life-support systems, they should be allowed to die.

The Committee recommended against surrogate motherhood, even when non-commercial, by its exclusion from authorized I.V.F. programmes and by legal non-recognition. The Queensland, Australia, Special Committee Appointed by the Queensland Government to Enquire into the Laws Relating to Artificial Insemination, In Vitro Fertilization and other Related Matters, which reported in 1984, followed the restraint of this recommendation by itself holding back from recommending actual criminalization of surrogate motherhood. It felt that the sanction of legal non-recognition and unenforceability was sufficient, reinforced by illegality of advertisements to recruit surrogate mothers or to provide facilities for those wishing to commission one. The South Australian Minister of Health's Working Party on In Vitro Fertilization and Artificial Insemination by Donor, reporting

in 1984, similarly recommended that there be no change in law to enable surrogacy to be practised, and that adoption law be used to prevent it, but did not seek criminal prohibitions.

The mainstream positions on almost all issues were taken by the Warnock Committee. Other reports can be shown to differ upon points of fine tuning, important in themselves perhaps when seen in the narrow perspective of particular concerns, but they mainly reflect the same tolerance to A.I.D. and I.V.F. in themselves, and preparedness to have the intended consequences of such procedures receive the approval of law. Similarly, they express rather different proposals to reflect the same central disapproval of surrogate motherhood. The first report fundamentally to break ranks on this and recommend recognition was the 1985 Report on Human Artificial Reproduction and Related Matters of the Ontario Law Reform Commission. It has since been reported that the Victorian Law Reform Commission has also recommended legislation to make non-commercial surrogacy agreements enforceable (see 12 Commonwealth Law Bulletin (January 1986) 252).

The Ontario Law Reform Commission approached surrogate motherhood without enthusiasm, and even less in a spirit of promoting the practice. It engaged in an exercise of damage control, recognizing that the practice is now known to exist, that it has been used in the jurisdiction, and that it is available for instance in nearby centres in the United States with family law consequences Ontario legislation and Courts would recognize. Further, the terms of the Ontario Attorney General's reference to the Commission emphasized the obligation to pursue in law the best interests of children. The Warnock Committee was established and composed to examine social, ethical and legal implications of assisted reproduction, and would have done its work by finding and declaring a practice to be unethical. The Ontario Law Reform Commission, composed of lawyers alone, but with access on this project to an Advisory Board of distinguished members of the professions of medical and social work and the disciplines of philosophy and ethics, was asked to report only on legal issues. The Commission acknowledged that moral, ethical and other perspectives critically influence evaluation of legal issues, but the project's burden was to propose legal solutions to actual problems that had already arisen in the jurisdiction. In particular, the Commission was influenced by the considerations that surrogate motherhood arrangement will continue to be made, as the Warnock Committee recognized, and that penalizing participants and holding their agreements legally unenforceable does not necessarily serve the best interests of the children who are born by them and in fact surrendered to the care and control of the commissioning, and often at least in part genetic, parents. The best interests of children are not served simply by claiming that they should not have been conceived in the way they were. The legal sanction of

unenforceability is of little effect when parties voluntarily comply with their agreements.

The Commission proposed what it described as a surrogate adoption procedure, by which prospective participants in a surrogate motherhood arrangement would take all of the agreed terms before a Family Court judge and request approval. A Children's Aid Society, a quasi-public agency mandated to protect children, would receive notice of the application, and have standing to oppose it, or to call in an officer such as the provincial Official Guardian. It would be an offence deliberately to conceal or misrepresent terms, for instance as to payment. A checklist of issues is included in the Commission's Report upon which the judge would need to be satisfied before the application could be approved. On approval, the agreement could be implemented and would have the effect upon the legal status of a resulting child and the adult participants agreed beforehand by the parties and the judge, subject to a court's right to change custody of a child in its best interests on a proper application being made and for due cause.

Most contentious is the recommendation that the agreement be specifically enforceable, if need be by seizure and delivery of the child from a surrogate mother who, on birth of the child, failed or refused to surrender it. The idea at first seemed utterly repugnant to the Commission, but on further consideration it appeared the least unattractive of the options. It has the positive merit of being emphasized to any woman considering whether to become a surrogate mother. If she is not willing to have the burden of her wanting to keep the child at its birth fall upon her instead of on the commissioning parents, she will not enter the agreement at the outset. The Advisory Board to the Commission drew upon its expertise in pediatric and child psychiatry and in social work to conclude that specific enforcement would be in the best interests of the child. Further, although the Commission did not express this justification in its Report, a surrogate may refuse surrender of the child at birth not because of her sentimental or emotional bonding to the child, but because she wants a sizeable illicit payment of money. If an agreement is not enforceable, the way is opened to ransom, baby-selling and the full horrors of unrestrained commercialism, which the threat of penal sanctions may fail to deter, not least due to the parties' incentives to conceal the transaction. The Warnock and other reports reacting against commercialism in surrogacy but recommending unenforceability do not address this issue.

APPENDIX

REPORTS ON ARTIFICIAL REPRODUCTION

Australia

The Parliament of the Commonwealth of Australia - IVF and the Status of Children, Report by the Senate Standing Committee on Constitutional and Legal Affairs on National Uniformity in Laws Relating to the Status of Children Born through the use of In Vitro Fertilisation, 1985.

National Health and Medical Research Council - Report of Working Party on Ethics in Medical Research, 1983

National Health and Medical Research Council - Report on Embryo Donation by Uterine Flushing, Interim Report on Ethical Considerations, 1985

National Health and Medical Research Council - Statement on Human Experimentation and Supplementary Notes, 1985

National Perinatal Statistics Unit, Fertility Society of Australia - In Vitro Fertilization Pregnancies, Australia and New Zealand 1979-1984.

Queensland, Report of the Special Committee Appointed by the Queensland Government to Enquire into the Laws Relating to Artificial Insemination, In Vitro Fertilization and Other Related Matters, 1984 (The Denmack Report)

South Australia Report of the Working Party on In Vitro Fertilization and Artificial Insemination by Donor, 1984.

Tasmania - Government Committee to Investigate Artificial Conception and Related Matters - Interim Report, 1985.

Victoria, Committee to Consider the Social, Ethical and Legal Issues Arising from In Vitro Fertilization - Interim Report, 1982 (The Waller Committee)

Victoria, Committee to Consider the Social, Ethical and Legal Issues Arising from In Vitro Fertilization - Report on Donor Gametes in IVF, 1983 (The Waller Committee)

Victoria, 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, 1984 (The Waller Committee)

Canada

Health and Welfare Canada - Report of the Advisory Committee on the Storage and Utilization of Human Sperm, 1981

Ontario Law Reform Commission - Report on Human Artificial Reproduction and Related Matters, 1985

Law Reform Commission of Saskatchewan - Tentative Proposals for a Human Artificial Insemination Act, 1981

New Zealand

Department of Justice, Law Reform Division - New Birth Technologies, An Issues Paper on AID, IVF, and Surrogate Motherhood, 1985

U.K.

Department of Health and Social Security - Report of the Committee of Inquiry into Human Fertilisation and Embryology, 1984 (The Warnock Committee)

British Medical Association - Working Group on In Vitro Fertilisation, Interim Report on Human In Vitro Fertilisation and Embryo Replacement and Transfer, 1983 (see 286 Brit. Med. J. 1594)

Medical Research Council, Research Related to Human Fertilisation and Embryology, 1982 (see 285 Brit. Med. J. 1480)

Royal College of Obstetricians and Gynaecologists, Ethics Committee on In Vitro Fertilisation and Embryo Replaceemnt or Transfer, 1983

D. Artificial Insemination by Donor

Artificial insemination by sperm donor has been practised for several decades in the Commonwealth, and its theoretical legal problems have not proven to be particularly troublesome in practice. The Canadian jurisdictions of Quebec and Yukon Territory have laws that aim to achieve legal parentage only in a recipient and her consenting husband, and that relieve the donor of the legal responsibilities and deny him the legal rights of fatherhood. Similarly, recent legislation in the Australian states of Victoria, New South Wales, South Australia and Western Australia has been enacted to achieve the same

effect, particularly where A.I.D. is conducted in approved centres, and the English Law Commission's 1982 Report (Family Law - Illegitimacy, Law Com. No. 118) was directed to the same general result. Perhaps because of tenacious legal presumptions of legitimacy and the circumstances in which A.I.D. is used, when married women give birth to children of A.I.D., all parties are content that their husbands be registered as fathers of the children, with all of the legal consequences. There may be an offence committed of wilful falsification of a public register when details of birth are recorded. This may also be deceptive to a testator who left bequests to a husband and the "heirs of his body", but this has not proven legally difficult nor generated significant case-law. It is no longer seriously asserted that A.I.D. without a husband's consent constitutes adultery in law.

Issues may be worthy of consideration outside the legal realm of legitimacy and inheritance rights of children. The question of legal standards by which donors should be screened and recruited has been aggravated by a tragic Australian experience in which women contracted acquired immune deficiency syndrome (A.I.D.S.) through artificial insemination by sperm donor. Legal negligence cannot be inferred simply from this consequence, since no standards of care at the time of donor recruitment or recipient insemination may have required or rendered reasonably reliable A.I.D. screening of donors or of sperm. After the event the need becomes clear, however, to screen adequately according to available knowledge.

It is more a matter of policy than of law whether a widow may be inseminated with her dead husband's sperm. The Warnock Committee disliked the idea, but recommended only that a child conceived posthumously or an embryo implanted posthumously be disregarded for the purposes of succession to and inheritance from the father (Report, para. 10.9, at p. 55). The issue of naming the deceased husband as the child's father on the birth register and birth certificate might also warrant attention, as a matter of social form and comfort, and genetic truth, even though this be of sentimental rather than legal consequence. The spirit of the 1984 French Parpalaix case (see Current Topics, "The Parpalaix Case and post-mortem insemination" (1984), 58 Australian Law J. 627), in which a widow was held entitled to her deceased husband's frozen sperm, seems to have prevailed to reinforce the widow's right to reproductive choice.

Whether a child born with A.I.D. or another congenital defect can successfully sue those involved in the insemination, notably through negligent screening of the sperm donor, depends upon the judicial approach taken to the wrongful life action (see Chapter III, E(iv), above), and whether the claim can be presented so as to preclude the conclusion that it is in substance such an action. Similarly, it may be doubted that a

child's claim for being born of a deceased father or illegitimate, a so-called dissatisfied life claim, would be systematically received by most Commonwealth courts. A little more credible may be a claim for negligence in causing avoidable harm to the child by omitting to keep genetic data of the donor relevant to the child's medical and, for instance, reproductive counselling. This claim may lack substance, however, when donors are screened to preclude transmission of more obvious and disabling genetic conditions. The claim that children's psychological health requires them to have means to know the very identity of their genetic parents is not legally accepted, and in adoption law and practice is often expressly denied.

The rights of donors are infrequently addressed in law. In the absence of an express agreement or of legislation to the contrary, it may be presumed that a donor abandons legal interest in the surrendered gametes, and has no power of subsequent recall or control. A person who stores gametes for individual use for his or her own advantage, such as a man storing semen before undergoing irradiation therapy, is not a donor, but rather a depositor. Such a person retains control of the deposit, unless through lapse of time without renewal or change of instructions the inference of abandonment can be drawn. The Warnock Committee recommended five-year reviews of depositors' intentions, their failure to respond resulting in transfer of control of the deposit to the storage authority.

Principles derived from the practice of sperm donation are applicable in principle to both ovum and embryo donation. Differences may arise, however, when either are recovered from a woman's body in the course of a medical procedure primarily intended for a different purpose. While medical law suggests that a patient who takes no initiative to control the destination of excised tissue intends to abandon it, so that it may pass into the lawful possession of another, this is not necessarily true of gametes. It may be that while these can be wasted without express approval, their use in transplantation or research while traceable to the human source requires the user to seek consent, because of issues of confidentiality or privacy.

E. In Vitro Fertilization

Because of the relative novelty of I.V.F., the practice fits into a less settled legal foundation. An initial issue is the unresolved legal status of the embryo outside the body. Sperm and ova as such can be shown to be property, even when they are genetically identifiable and in a living state. Some find it objectionable to consider embryos property, however, and prefer to speak not of owning them but of controlling them. Legal analysis in the Common law tradition shows that their deliberate wastage while outside the body is not the crime

of homicide. This requires killing of a human "in being", which means born alive out of the mother's body. Similarly it is neither abortion, which is acting with intent to procure miscarriage of a female person, nor child destruction, which is a statutory rather than Common law offence against a child in the course of birth. Theft law may be applicable, but this depends, of course, on status as property.

The approach of equating the embryo to a child and giving quasi-parental powers of control may be helpful, but is subject to the distinction that parents cannot dispose of a child by neglect and wastage, whereas an embryo can be removed from cryopreservation and abandoned to nature. A more creative approach is through contract law, after the genetic donors and storage authority have reached a comprehensive agreement selecting options for every foreseeable eventuality. Almost all Committee reports require that agreements be reached, or that controllers give instructions in default of which the storage authority acquires control.

Even if a couple's I.V.F. involves only a single ovum and embryo, it will exist for at least a short time in vitro outside the body in which it is destined to be implanted. The prospect of achieving fertilization, successful implanation, pregnancy and birth can be considerably increased, however, if several ova are available. Accordingly, practice in many centres is to induce a woman's superovulation, for instance by hormone treatments, and to recover, say, eight or nine ova by laparoscopic means. Laparoscopy requires general anesthetic, and represents a risk to the woman which has to be minimized. That is why at a single laparoscopic investigation it will be attempted to recover a relatively high number of ova.

If, say, eight or nine are recovered, only seven or so may achieve fertilization in vitro. Practice may be to implant all that are fertilized, or alternatively not to recover more ova than a woman is willing to have embryos implanted. Often, however, three or four will be implanted, and the surplus be cryopreserved in case none is successful in making the recipient pregnant. The surplus may then be available for implantation in a later menstrual cycle without repetition of the discomfort and risks of laparoscopy. Multiple implantation presents the possibility, of course, of multiple pregnancy. Among 518 I.V.F. pregnancies of at least 20 weeks' gestation in Australia and New Zealand from 1979 to 1984, 123 (23.7%) were multiple pregnancies, including 105 (20.3%) twin pregnancies, 17 (3.3%) triplet pregnancies and one quadruplet pregnancy (see National Perinatal Statistical Unit, Fertility Society of Australia, In Vitro Fertilization Pregnancies - Australia and New Zealand 1979-1984, at p. 2.)

If pregnancy is achieved at first implantation, or if the patient declines or fails to attend for repeat implantation after initial failure, the surplus embryos will remain in storage. In time, a decision will have to be made on their disposition. They can be held, be made available to another, be used for study or research, or be taken from storage and left to nature. It is desirable, of course, that the couple's or patient's wishes on the matter be known, since they will be very influential, and perhaps decisive. The ultimate destiny of the abandoned embryo, however, is wastage. This reflects the destiny of most embryos in natural reproduction. It may be emotionally challenging to achieve on purpose what nature leaves to chance. When embryos were left surplus at Monash University in Melbourne, Australia, the Waller Committee was asked to make a recommendation on their disposition. The Committee's recommendation that they be removed from cryopreservation and be allowed to die (see Report on the Disposition of Embryos Produced by In Vitro Fertilization, 1984, para. 2.12, at p. 29) was made to the Victoria legislature, but this body voted against it, and required that they be maintained in storage in the prospect of a woman being willing to have one or more implanted in her. The issue of these "orphan embryos" received widespread newsmedia attention, and many women offered to be available for implantation, although thawing for this purpose was never attempted.

Now that it is medically established that embryos can be transferred to an infertile woman (see D. Navot, N. Laufer et al. "Artificially Induced Endometrial Cycles and Establishment of Pregnancies in the Absence of Ovaries" (27 March, 1986), 314 N. Eng. J. Med. 806), the issue of acquiring embryos becomes more critical. An alternative to creating them in vitro is to create them for instance by artificial insemination in vivo and recover them for transplantation to another woman by lavage. Although the Warnock Committee felt that the procedure is not ethically objectionable, they considered it premature and insufficiently safe (see C, above). A technique and instrument to use the procedure have been proposed, however, and are now the subject of a controversial patent application in the United States. In a comparably entrepreneurial spirit, an Australian venture named I.V.F. Australia, founded by an American business woman with links to the Monash University I.V.F. team is planning to open a series of clinics in the United States (see M. Gold, "Franchising Test-Tube Babies" (April 1986) Science 86 16 (American Assn. for the Advancement of Science)). Some may fear and deplore the commercialization of relief of infertility, but others find it no less proper to achieve a baby by these techniques than by costly surgery to facilitate natural procreation.

F. Surrogate Motherhood

Probably the most contentious and least acceptable of the new reproductive alternatives is surrogate motherhood (S.M.). While facilitated by artificial insemination and I.V.F., the practice is not dependent on advanced technology. Indeed, two instances of surrogate motherhood appear in the Bible's Book of Genesis. In contrast to I.V.F., which was launched on the world through photographs of the lovely baby Louise Brown and her parents in 1978, S.M. has appeared as an outrage in itself, and as an exploitative debasement of motherhood. It may appear marginally tolerable as an expression of the altruistic dedication of friend to friend, when one bears her child for free and affectionate surrender to another. As a commercial transaction among strangers, however, arranged through the brokerage of profit-seeking agencies and well-paid lawyers, it appears to present an egregious wrong. The Warnock Committee recognized that for some it offers their only means to have a child, but the Committee found that such benefits as S.M. may offer to the desperate are overwhelmed by its symbolic threat to social and family values, and its harm to the children it produces.

When modern instances of S.M. come to the courts, however, and the very people involved appear, the parties to the transaction tend to achieve their purposes. The intended social parents, including the children's biological fathers, have gained lawful custody of their children. A case in Scarborough, Ontario in mid-1982, which led to the reference to the Ontario Law Reform Commission whose Report appeared in 1985, resulted in a man who supplied sperm for artificial insemination of a stranger proving his paternity and so gaining legal custody of his child. His wife then succeeded in her step-parent adoption application, regularizing her relationship with the child she was rearing. Similarly in England in 1985, in the much publicized Baby Cotton case, the purposes of those who entered a paid S.M. agreement were achieved. Late in 1985 in Red Deer, Alberta, it was decided not to take legal proceedings for breach of laws against paying a mother for giving consent to adoption when a man was shown to have commissioned a woman, for payment, to bear a child for him and his wife. This probably shows that such laws, the only ones apparently relevant, are inapplicable because adoption is secondary to the transaction. As the Warnock Committee expected, these agreements are being made, and, while not legally enforceable, they are being respected not only by the parties but by courts committed to achievement of the best interests of the children.

Medical developments may show S.M. in a more benign light. When S.M. came to be seen as more than a theoretical possibility in human reproduction, it seemed in principle, as indeed it still seems to many, to be outrageous. On further reflection, however, compassionate cases appeared that may have made it

tolerable. As the only means by which a worthy couple might have a child, acting in collaboration with an altruistic friend, it appeared excusable, although not necessarily justifiable. Responding to inevitability and occasional excusability of the practice, the Ontario Law Reform Commission recommended in 1985 that, under close judicial scrutiny on a case-by-case basis, S.M. be accommodated. Medical data now show, however, that in some cases it may be desirable, as the "gestation of choice". When a woman is diabetic and has difficulty controlling her condition, or when a woman survives phenylketonuria (P.K.U.) to reach a reproductive age and condition in life, it is in the best interests of any child she conceives that it be gestated in another woman. The genetic mother's reproductive system is inhospitable to the embryo and fetus, and may cause it grave injury. The same is the case, of course, regarding a woman who suffers chronic spontaneous abortion.

Legislation on S.M. has been uniformly hostile. In the United Kingdom, the Surrogacy Arrangements Act 1985 implemented the main thrust of the Warnock Committee recommendations, criminalizing the functioning of commercial surrogate motherhood agencies, any commercial or professional negotiation of such agreements and advertisements about S.M. The Act takes care not to render private S.M. agreements criminal, but makes no provision for the legal status of children so born. As children of the commissioning male parents, who gave sperm for the insemination, they may lawfully be in the custody of their fathers without court order, although fathers may adopt them, for instance to achieve birth certificates giving the children their fathers surnames. Through provisions of the general background law, parties to S.M. may therefore achieve their general objectives of placing a child in the intended family.

A number of Australian states have taken the step not primarily of criminalizing S.M., although operation of an unauthorized I.V.F. clinic may be punishable, but of frustrating attempts to make agreements that can be effective by reliance upon the background law. They provide that, when a woman is artificially inseminated, with her husband's consent if she is married, she shall be deemed mother of the child for all purposes of law, and he shall be deemed the father. Further, the man giving sperm shall not be considered the father, nor shall an ovum donor be considered mother. Thus, even when the woman bears an embryo created from another's ovum, and the sperm used for fertilization were from the man to whom she surrenders the baby on birth, no legal conseqences flow from the transaction. Only regular adoption proceedings can give the commissioning couple legal charge of the child, and that exposes them as individuals, and their relationship to each other, to very close judicial scrutiny. The legislation, such as Victoria's Status of Children (Amendment) Act 1984, the Artificial Conception Act, 1984 of New South Wales and Western

Australia's Artificial Conception Act 1985 operate by conclusive presumptions which render biological relationships of no legal consequence. Victoria's Infertility (Medical Procedures) Act 1984 goes further. It provides not only a rigorous regulatory system to govern A.I.D. and I.V.F., but also makes entry into a S.M. agreement punishable whether or not payment is involved.

Attempts to control S.M. through regulation of A.I.D. and I.V.F. raise the prospect of evasion by recourse to natural intercourse. Children of condoned adultery may enjoy a status more compatible with the goals of S.M. than those born in Australian states where S.M. is controlled when undertaken by artificial means of reproduction. Indeed, it has been noted that:

> "... medical practitioners in Australia have recently coined a new expression to describe surrogate motherhood achieved (perhaps following the biblical precedent) by sexual intercourse between the surrogate and a married man with his wife's consent. The expression is NID (natural insemination, donor)" (R. Scott, "Test tube babies, experimental medicine and allied problems", in Proceedings and Papers of the 7th Commonwealth Law Conference, 1983, 261 at p. 264).

The problem is not just of evasion of attempted control, of course, but of falsely claiming natural intercourse when in fact artificial insemination occurred without medical or other professional assistance.

An outright legislated prohibition of S.M. creates fewer legal problems than the partial ban of the United Kingdom legislation, which is aimed only at commercial transactions, although both laws leave unresolved the status of children in fact born of S.M. transactions. The U.K. Act allows altruistic S.M. agreements, for instance, but may punish lawyers who are asked by the parties to arrange their legal relationship for the purpose of minimizing the chance of friction and legal uncertainty affecting the child. If S.M. arrangements continue to be made, perhaps when medically approved in the best interests of children's survival and health, the Act may have to be reconsidered. So far, the only legislative proposal has been a Private Member's Bill aimed at further restricting the permitted scope of S.M.

Some question remains about the function of S.M. legislation. If S.M. symbolizes the decadent commercialization of motherhood, prohibitive legislation is understandable. Some critics have observed prohibition to be, however, a response based on moral panic (see The Economist, March 15, 1986 at p. 38), and an overreaction to a practice that will never be frequent in a society. Under prohibition it may be driven underground or

into other jurisdictions, where it becomes the resort of the devious or of the wealthy. Some oppose S.M. because of its potential to induce women to offer the facilities of their reproductive systems for money, so that the poor become exploitable. Here too, S.M. may be employed by the devious and the wealthy. The instinct to protect women against the seduction of gaining money through S.M. may explain support for restrictions. As against that, however, the view that women are unable to make their own decisions on S.M. and are in need of laws to protect them against their own poor judgment may be the stereotyping of women and the paternalistic intervention in their exercise of choice that the Women's Convention opposes.

G. Embryo Research

The Warnock Committee found limited research on the early embryo permissible under strict control exercised through a licensing authority. Reflecting the widespread view of many committees that have addressed the problem from a secular standpoint, the Committee found that research conducted up to 14 days from conception could be ethical. There is little philosophical cohesion in the reasoning that has brought different committees to agree on this limit, but legally it coincides with the important distinction between abortion and non-abortifacient procedures, such as contraception and contragestion (see Chapter II, D, above). Implantation is taken to have occurred at 14 days from fertilization of the ovum. No governmental licensing agency has yet been constituted in the U.K., but a Voluntary Licensing Authority has been set up by the Medical Research Council and the Royal College of Obstetricians and Gynaecologists, and they have published guidelines generally consistent with the Warnock Committee's proposals. These require that:

(i) research procedures involve no intention to transfer embryos to a uterus, and are clearly defined and scientifically sound; and

(ii) information is likely to be obtained about the process of reproduction in connection with clinical problems such as contraception and treatment of fertility and inherited diseases.

The matter remains contentious, however, and in the U.K. an unsuccessful Private Member's Bill aimed at severely restricting embryo research gained strong support (see R. Deitch, "Commentary from Westminster" The Lancet, July 20, 1985, at p. 166), and induced a governmental commitment to address the issue with further thought. The heat of the debate may have obscured the light of some important distinctions. Research aimed at advancing the viability of an individual embryo may be analogous to therapeutic research usually permitted, if not actively

encouraged, for the benefit of the individual. Research aimed at prevention of embryo and fetal loss through implantation failure and spontaneous abortion may also be permissible, as the Warnock Committee found, because of its benefit to respect for embryonic and later human life. Research on embryos to find root causes of human pathology, such as genetic and other diseases, is consistent with but more removed from this goal. Embryo research claimed to be directed to finding a cure for cancer and comparable scourges may be viewed with sympathy, but also with some caution since it may call for the sacrifice of the identifiable embryo for the sake of unidentifiable others and for more remote and less specific goals.

The proposed 14 day limit is itself problematic in research to reduce embryo loss. Much of this is due to implantation failure, but if implantation occurs at 14 days from conception, study of its subsequent failure may have to be conducted in the 14 to 17 or 14 to 21 day period. Accordingly, if studies for that purpose are permissible, the restriction on research may have to be extended for a few additional days. A broader definitional issue is whether I.V.F. is itself experimental. Clearly, there is much more to be learned about it, but insofar as it is applied to assist a couple affected by infertility, it appears to be a therapeutically indicated practice. In 1983, the Australian National Health and Medical Research Council observed that:

> "Although IVF and ET [embryo transfer] as techniques have an experimental component, the clinical indications for their use, treatment of inferility within an accepted family relationship, are well established" (Report Ethics in Medical Research (1983) 26).

Compatibly with the Warnock Committee, however, the Council in an Interim Report of May 1985 decided not to support research into recovery of ova by lavage or flushing of wombs of women whose ova had been fertilized naturally or artificially (see Report Embryo Donation by Uterine Flushing (1985)). The Council discussed the risks of the procedure, and the ethics of the procedure in itself and in light of the risks. It is interesting to speculate whether in this decision the Council was acting as a national health council or as a medical research council.

The Waller Committee in Victoria concluded that, if regularly scrutinized, embryo research is acceptable in order to improve I.V.F. procedures and to evaluate genetic research. For example, the successful development of ovum freezing would ease the ethically difficult problems arising from use of surplus embryos; that is, if instead of preserving embryos an inferility clinic could separately store ova and sperm, and combine them later with the same prospect of achieving fertilization and pregnancy, dilemmas of preserved embryos would be reduced.

To test if ova can be successfully fertilized after freezing, embryo rsearch is required.

This touches on a related issue more ethical than legal, namely whether embryos should be deliberately created in order to be used, and to be tested to destruction, in research. More conventional legal questions in embryo research concern permission of gamete donors to create embryos for research, permission of a woman from whom an embryo has been recovered, and for instance permission of a couple whose preserved embryo has been found surplus to their reproductive needs. These are matters that patients, infertility clinics, and other health facilities might resolve in advance of gametes and embryos becoming available for research use.