

## NEW REPRODUCTIVE TECHNOLOGIES AND LEGAL REFORM

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**Synopsis**—New reproductive technologies have led to numerous government reports that all recommend legislative regulation. The dominant concern has been with the fate of the embryo and to limit human embryo experimentation. This embryo-centric focus relegates women's point of view and interests external to the issues or terms of reference. Such a focus ignores the health and well being of women. This article identifies some of the implications for women of recent developments in reproductive technologies. It argues that the law will be unable to regulate the medical profession because they are both based on restrictive gender norms specifying marriage and motherhood as natural and normal for women and conceptualizing nonmotherhood as deviant and requiring remedy.

New reproductive technologies, especially *in vitro* fertilization (IVF) and artificial insemination (AI) have led to a number of inquiries and reports regarding the attendant moral, ethical, legal and social issues. The proposed and enacted legislation differ regarding restrictions on *in vitro* fertilization procedures and embryo experimentation but none address the implications of reproductive technology for women's health and well being. The present paper argues that the implementation of new reproductive technologies is part of the historical process of the medicalization of the female body and control over women's fertility by the (predominantly male) medical profession. These technologies reduce rather than expand women's alternatives and increase the risks to their health. Neither government committees nor (proposed or enacted) legislation address these issues. It will be shown that this is because they are premised on assumptions that child-bearing and mothering constitute part of women's nature. They accept the orthodox view of medicine as a scientific body of knowledge applied to pathological conditions with physiological causes (Doyal and Pennell, 1979). The key assumption underpinning the debate is

that infertility is pathological thus requiring treatment. While it cannot be denied that reproductive technology enables some women to have children, this paper does not address individual 'successes', as measured by the birth of a child, but examines issues regarding women's control over fertility and women's health.

### REPRODUCTIVE TECHNOLOGY

Following Klein (1987: 64) I define reproductive technology inclusively as any biomedical or technical procedure aimed at producing a child or preventing or terminating a pregnancy. The 'new' reproductive technologies focus more on enabling conception/procreation than on preventing pregnancy. The most well-known of this group are artificial insemination (AI), and *in vitro* fertilization (IVF), popularly termed 'test-tube' baby programs, where an embryo is created by mingling ova and sperm (either or both of the gametes may be donated) in a petri dish in the laboratory then transferring them to the uterus for implantation. Other procedures include surrogate embryo transfer, embryo freezing, and yet to come cloning and ectogenesis<sup>1</sup>.

The controversy surrounding these techniques and their clinical and experimental application has led to government inquiries in all Australian states and the Commonwealth, as well as in the United Kingdom, Europe and the United States, regarding their social, legal, ethical and moral implications<sup>2</sup>. One dimension of the controversy pivots on questions of parenthood when donor gametes (ovum, sperm, or both) are involved in the reproductive process. In this context surrogacy contracts are discussed widely as they usually, but not necessarily, involve IVF or AI. At the heart of this discussion and the legislation and inherent in the medical rationale lie assumptions that women's nature and desire is to bear children and to mother.

### THE MEDICAL RATIONALE

Medicine has achieved virtually exclusive jurisdiction over defining and delineating illness. This mandate derives from medicine's association with natural science (Larson, 1977). The profession projects and society perceives medical knowledge as scientific, objective, and reliable and therefore as less vulnerable to moral evaluation, critique, or social, economic, and historical influences than other types of information. Medicine not only defines but intervenes to treat, eradicate, and control illness and pathology. The determinants of health and illness are assumed to be primarily biological thus their treatment requires medical intervention. This scenario projects medicine as a benign scientific enterprise intervening to eradicate illness and to bring about physiological change which is defined as health and normality (Doyal and Pennell, 1979).

However, the definition of illness is a social process. The selection and categorization of biological phenomena as illness involves reference to ideas about health and illness which are social constructs (Freidson, 1970). Rather than being a scientific, value neutral enterprise

the designation of illness as deviance requiring medical intervention and treatment relies upon normative criteria, distinct and perhaps unrelated to the physiological reality. Freidson (1970: 214–215) observes that the moral judgements of medicine are often ignored because of the almost universal consensus that much of what is labelled illness is undesirable. Infertility is an example.

Medical accounts define infertility as a pathology with identifiable physiological causes such as diseased or obstructed fallopian tubes, endometriosis, exposure to Diethylstilbestrol (DES) which is linked with ectopic pregnancy and cervical or endometrial 'defects', and other cervical, immunological or anovulatory problems (Jones, 1986). From the medical perspective infertility has a physiological etiology and therefore requires medical intervention. The concern is to *manage* or treat these symptoms successfully by aiding conception, not to locate or to *remedy* their origins.

Despite the surge of medical interest in infertility, particularly since the 1970s, the inability to procreate is not a new phenomenon. Historically, infertile individuals (read women) have been deprived of status and stigmatized (Goffman, 1963; Greer, 1984; Schur, 1984). In contemporary society infertility has become a social problem – publicly discussed and publicly financed programs aim to aid conception – not just a type of individual deviance. Infertility could not have become a social problem without the 'moral entrepreneurship' of the medical profession (Becker, 1963). In constructing infertility as a social problem medical scientists have acquired prestige, continuous media coverage, government monies, international fame, and public acceptance.

Reproductive technologies, according to 'techno-docs'<sup>3</sup>, enable infertile (married, heterosexual) couples to have children. From the medical framework the procedures expand the couple's options

and alternatives where one or both is infertile. They argue that infertility no longer results in childlessness. Unlike adoption, new reproductive technologies usually enable at least one of the parents to contribute 'biologically' to the makeup of the child, thus reinforcing the conception of the nuclear family as a natural entity and of parenthood as 'true' and real only if it involves genetic transference. Such conceptions undermine the social in favor of the 'biological' aspects of parenthood.

A notion of women as primarily child-bearers and mothers underlies these medical arguments. The conception of the reproductive role as intrinsic to personality and to psychological well-being inheres in the medical view of women. The medical profession assumes motherhood and the maternal instinct to be central to women's lives, thus it is normal (healthy) for women to give birth and mother and deviant (sick) for them not to (Doyal and Pennell, 1979: 220). Infertility, but more importantly nonmotherhood, is 'unnatural'. Rapid developments in artificial conception techniques rather than widespread programs to alleviate the conditions causing infertility (Greer, 1984) support the argument that the medical profession views nonmotherhood as more problematic than infertility (for certain segments of society). The development of new reproductive technologies reinforces traditional idealized notions of the conjugal nuclear family and with it, women's relegation to the domestic sphere. No one argues that women unable to conceive are thereby 'free' to pursue careers without having to balance occupational and childcare responsibilities.

The media echo this conflation of womanhood with motherhood and propound the achievements of IVF programs by reporting the successful births of children artificially conceived. Little information is made public on the high failure rate of reproductive

technology or on the disappointment of participation in an IVF program without becoming pregnant. Australian and New Zealand data from 1979 to 1985 show that 57.5 percent of all IVF pregnancies resulted in a live birth, while 36 percent ended in abortion (preclinical and spontaneous), 4 percent in ectopic pregnancy, and 2 percent in stillbirth (Australian In-Vitro Fertilization Collaborative Group, 1988: 432). This information only refers to women who became pregnant not those who participated in IVF programs and does not reflect subsequent problems or disappointments. Of the babies born alive 38 percent resulted from multiple pregnancies caused by transferring several embryos to increase the pregnancy rate, and 35 percent were of low birth weight (Australian In-Vitro Fertilization Collaborative Group, 1988: 433; Westmore, 1984: 8). These outcomes increase the need for intensive neonatal care and the risks of morbidity and mortality. Recent reports suggest congenital malfunctions, especially neural tube and cardiac defects, occur more frequently in IVF pregnancies than in the total population (Fertility Society of Australia, 1987: 12). More comprehensive data demonstrate that the proportion of live births in 1986 was 8.9 percent per IVF treatment cycle (Stanley, 1988). Neither the medical profession nor the media focus on the very small proportion of women participating in IVF programs who give birth to healthy babies, or emphasize the emotional impact of prematurity and the strain on parents that intensive neonatal care entails.

The argument that developments in reproductive technology expand women's alternatives and choice to have a child is questionable. First, this 'choice' is predominantly accessible to middle class, heterosexual, married (or at least in a stable relationship), white couples in industrialized, western nations (Corea, 1985: 119; Rowland, 1987c: 513). Lesbian, single and divorced women are

not provided with such a 'choice'. Structuring access to reproductive technologies in this way assumes a model of the family based on marriage and heterosexual coupling<sup>4</sup>. In less developed countries, and among those people with third world characteristics in developed nations – the poor, ethnic minorities – infertility is not considered a problem. The choice of these women and couples to have a child is not an issue (Gordon, 1977; Greer, 1984). It is more likely that their fertility is defined as problematic<sup>5</sup>.

Second, the development of child creating technologies is paralleled by increasing restrictions on the availability of abortion (The Economist, 1987; Petchesky, 1984). To have a child might become the only 'choice' (Rothman, 1984). Infertile women or couples choosing not to have children may be perceived as 'doubly' deviant – infertile and child free. The availability of reproductive technology undermines the acceptable reasons to remain without children, thereby limiting not expanding options. The pronatalist values and images central to the discussion and presentation of artificial conception technologies legitimate a social and ideological environment in which abortion is unpopular. Additionally, if infertile couples participate in an IVF program and the woman becomes pregnant then her choices about the extent of medical testing and intervention, the place of birth and the kind of delivery are likely to be curtailed.

Finally, numerous examples of medically induced infertility (Corea, 1985: 144–165; Greer, 1984: 56–61) counter the conception of a benign medical profession primarily oriented to expanding the options of women unable to conceive. Despite claims that new reproductive technologies serve women, many other medical technologies propounded in the name of benefiting women have had opposite effects (Ehrenreich and English, 1978).

## **GOVERNMENT INQUIRIES INTO REPRODUCTIVE TECHNOLOGY**

Every government committee of inquiry and report, both in Australia and overseas, focussed on the moral and legal status of embryos outside the human body (Gallagher, 1987: 140). According to one Australian inquiry:

Reproductive technology programmes moreover, involve the use of human embryos in ways previously not possible. This raises major social, moral, legal and ethical questions for the community as to the purposes for which human embryos should be used (Family Law Council, 1985: 4).

In general, the medical model is seen as value neutral, involved with the rational pursuit of scientific knowledge and as such has limited consideration for values and moral questions (Weber, 1948). Hence, the medical profession cannot adequately regulate scientific experimentation. In contrast, 'the public' is viewed as a moral community expressing a range of values which must be taken into account in preparing guidelines to regulate human embryo experimentation (Skene, 1985). Surrogacy arrangements to be discussed below are also subjects of inquiry and legislation.

The present paper deals primarily with the findings and recommendations of two reports for the Australian federal government, namely The Report of the Senate Select Committee on the Human Embryo Experimentation Bill 1985 entitled "Human Embryo Experimentation in Australia, 1986," and The Report of the Family Law Council of 1985 entitled "Creating Children – A Uniform Approach to the Law and Practice of Reproductive Technology in Australia," (known as the Asche committee). For comparative purposes the discussion also refers to selected Australian state government and overseas reports on the new reproductive technologies, including the Warnock Report on Human

Fertilization and Embryology, in the United Kingdom.

The terms of reference of the Senate Select Committee were restricted to examining the need for research on human embryos in the context of IVF programs, the need for research guidelines, and the proposals of the Human Embryo Experimentation Bill 1985 introduced by Senator Brian Harradine. Following the Helsinki Declaration the committee distinguished between 'therapeutic' experimentation, that is experimentation with a diagnostic and/or curative value to the patient, and 'non-therapeutic' experimentation, that is experimentation undertaken to advance medical/scientific knowledge without direct diagnostic or therapeutic value to the person subjected to the research. According to the committee, a therapeutic experiment is carried out with the goal of acting in the 'best interests' of the embryo, for example, by improving culture fluids or transfer techniques. It further defined 'destructive non-therapeutic' experimentation as involving a level of intervention as to inevitably cause the destruction of the embryo by preventing continuous development, and recommended "that the principle protecting the embryo from destructive non-therapeutic experimentation be adopted by the Senate" (Senate Select Committee on the Human Experimentation Bill 1985, 1986: 29). The report proposed commonwealth legislation making unlawful any destructive nontherapeutic experimentation inhibiting the development of the human embryo but supported the creative components of reproductive technology. It argued for a national system of regulation where accredited (usually by the states) institutions seek research licenses from a national body before engaging in any experimentation.

Basically, the Asche committee's terms of reference were to consider families and the welfare of children. Its major recommendations dealt with the embryo, the welfare and interests of the

child born of reproductive technology, and questions of parenthood, particularly in relation to the donation of gametes, and to surrogacy arrangements. The committee recommended prohibitions on the production of human embryos and on the use of 'spare' embryos for the sole purpose of research or experimentation (Family Law Council, 1985: Recommendations 22, 23). In contrast, in Victoria the Waller Committee which reported on the disposition of embryos produced by IVF allowed some experimentations recommending that:

Embryo research shall be limited to the excess embryos produced by patients in an IVF programme (Family Law Council, 1985:81).

Such an exception seems to undermine any restrictions on embryo experimentation as 'spare' embryos can be obtained relatively easily by increasing superovulation thus constituting an active medical decision. Moreover, the drugs to superovulate women have now been shown to reduce the chances of an embryo implanting in the uterus and to increase the chances of tubal or ectopic pregnancies (Rogers and Trounson, 1986: 232). Initially, the rationale for superovulation was to minimize the number of laparoscopies to one cycle (Senate Select Committee on the Human Experimentation Bill 1985, 1986: 127). Medical scientists maintained that obtaining several oocytes enabled more than one embryo to be transferred thereby increasing the chances of implantation. Women would not have to undergo superovulation before each treatment because 'spare' embryos could be frozen and transferred in later cycles if previous embryos failed to implant. However, as superovulation reduces the probability of implantation more than one superovulation and laparoscopy will be necessary, thus undermining the initial rationale.

Regarding embryo experimentation the Warnock Report on Human Fertilization

and Embryology in the United Kingdom recommended that:

No live human embryo derived from *in vitro* fertilization, whether frozen or unfrozen, may be kept alive, if not transferred to a woman, beyond fourteen days after fertilization, nor may it be used as a research subject beyond fourteen days after fertilization. . . it shall be a criminal offence to handle or to use as a research subject any live human embryo derived from *in vitro* fertilization beyond that limit (Warnock, 1985: 66).

While disagreement exists regarding the extent of restrictions on human embryo experimentation a broad consensus prevails among the various reports and inquiries that reproductive technology must be regulated and controlled through legislative and administrative provisions. The Family Law Council recommended:

That all forms of reproductive technology (including artificial insemination with donor, *in vitro* fertilization and embryo transfer) be subject to regulation and control by government, by legislative and administrative means; that such regulation and control be of multi-disciplinary nature; and that there be uniformity throughout Australia as to the regulation and control of reproductive technology research and programmes enabling the creation of children and families (Family Law Council, 1985: Recommendation 25)<sup>6</sup>.

The federal government did not respond to either the Report of the Senate Select Committee on the Human Experimentation Bill 1985 or to the Family Law Council Report until December 1987 in the "dying hours of [the] Parliament" (Australia, Parliamentary Debates (Senate) 18 December, 1987: 3485). It rejected the Senate Committee's recommendation for legislation establishing a co-operative

accreditation and licensing system but proposed a National Bioethics Consultative Committee whose jurisdiction would not be limited to issues of human reproductive technology. Such a committee would have a consultative not regulative function and thus would have little power to enforce prohibitions or to control the development and application of artificial conception technologies.

### REPRODUCTIVE TECHNOLOGY LEGISLATION

Victoria and South Australia are the only states to enact legislation regulating reproductive technology and human embryo experimentation. Both acts specify that a woman who undergoes the IVF procedure be married or, in Victoria, "living with a man as his wife on a bona fide domestic basis, although not married to him" (The Infertility (Medical Procedures) Act 1984 s 3(2)s), and in South Australia, "have cohabited continuously as husband and wife for the preceding 5 years" (The Reproductive Technology Act 1988 s 13 (4))<sup>7</sup>.

The Victorian Act made *in vitro* fertilization illegal except for the purposes of implanting the embryo in a woman's uterus with a penalty of 100 penalty points or imprisonment for 4 years (s 6(5)). The Infertility (Medical Procedures) Act Amendment Act 1987 modified this prohibition to allow, under limited circumstances, laboratory research on fertilization before, but not including, syngamy (the alignment on the mitotic spindle of the chromosomes derived from the pronuclei which occurs 20–24 hours after fertilization, but before the fusing of the nuclei). After heated social debate, a committee divided on the issue, and pressure from doctors and infertility lobby groups, the legislature amended the Act further (the amendment is to be proclaimed in July, 1988) to allow the testing of embryos formed through micro-injection of the sperm into the ova. This

opens up the possibility for experimentation on embryos that will not be transferred to a woman's uterus for implantation.

The original Act also prohibited embryo freezing except when carried out for the purposes of enabling the embryo to be implanted at a later date and restricts the carrying out of artificial insemination to medical or approved hospital personnel. Before undergoing IVF (where there may be one, two or no donated gametes) the woman and her husband must consent in writing to the procedures and 12 months prior a medical examination must establish that the patient (that is, the woman) is unlikely to become pregnant without the assistance of reproductive technology or that a natural pregnancy may result in the transmission of an 'undesirable' hereditary disease, such as Down's syndrome or spina bifida. The Victorian legislation requires that the patient and her husband receive counselling from an approved counsellor, though to date this has not been enforced as the regulations to the law have not been put in place. The Act establishes a Standing Review and Advisory Committee to advise the Health Minister in relation to infertility and procedures for alleviating infertility and to approve experimental procedures. According to the legislation the Committee:

shall have regard to the principle that childless couples should be assisted in fulfilling their desire to have children (The Infertility (Medical Procedures) Act of 1984 s 29 (7a)).

In South Australia, the In Vitro Fertilization (Restriction) Act 1987 specifies where IVF procedures can be carried out, and the Reproductive Technology Act 1988 establishes a Council on Reproductive Technology and a system of licensing persons involved in artificial fertilization. The functions of this 11 member statutory body include the formulation and review of ethical practice governing the use of artificial fertilization

procedures and experimentation with human reproductive material, that is human embryos, semen or ovum. It advises the South Australian Health Commission on the conditions of licenses authorizing artificial fertilization procedures, formulates conditions for licenses dealing with research involving experimentation with human reproductive material, and carries out and promotes research into fertility and the social consequences of reproductive technology. According to the Act the code of ethical practice must prohibit the practice of embryo flushing, and provide restrictions on the disposal of human embryos and their maintenance outside the body (s 10(3)). The South Australian Health Commission determines the conditions of and grants licenses to persons carrying out artificial fertilization procedures with a \$10,000 penalty for noncompliance. It does not require a license for AI to be carried out gratuitously or by a medical practitioner but specifies that a license will be subject to a condition *prohibiting research that may be detrimental to an embryo*.

The dominant concerns of this Act are with the embryo and the resulting child. It states that:

The welfare of any child to be born in consequence of an artificial procedure must be treated as of paramount importance, and accepted as a fundamental principal, in the formulation of the code of ethical practices (s 10 (2)).

None of the legislation addresses the health or interests of women, or limits experimentation on women's bodies. The Reproductive Technology Act 1988 (South Australia) specifies that the Council "should, as far as practicable, be constituted by equal numbers of men and women" (s 5(3))<sup>8</sup>. The purpose of this provision is to ensure that women's views inform the Council's decisions thus protecting women's interests (South Australia, Parliamentary Debates

(Legislative Council) 24 November, 1987: 1951–1957). However, the legislation does not guarantee the promotion of women's health or interests, and as it emphasizes the welfare of the child and the embryo, presumably they will be the Council's major concerns.

Like the medical profession the legislation treats the woman and the embryo as distinct entities. Medicine and law disconnect embryos from their source as though women are not involved (Rowland, 1987a). Medical concerns to increase the rate of IVF pregnancies legitimate increasing intervention and manipulation of women's bodies without legal constraints. Legislation does not regulate or ban the experimental or nonessential components of IVF procedures which jeopardize women's health. Specifically, laws do not limit superovulation, the number of ovum obtained or embryos transferred, hormone manipulation, or caesarian section births. Feminists informed the public debate and gave evidence to government inquiries enumerating the dangers of experimentation and artificial conception techniques to women's health. Regardless of this information legislators persisted with embryo-centered legislation that reflects the medical viewpoint and fails to promote women's interests and well-being.

Rather than critiquing, evaluating, and effecting the regulation of the medical profession the proposed and enacted legislation accepts and reinforces medicine's objectification of women's bodies, highlighted by the conception of the embryo as an independent entity. Medicine objectifies bodies, categorizes phenomena as medical, and applies medical technology and techniques to areas it defines as problematic (Turner, 1987). Women unable to conceive are doubly deviant: they are the deviant other as well as deviant from gender roles prescribing maternity and motherhood. Similarly, the positivistic rationale of law is to classify and to distinguish situations

and actions in order to apply appropriate rules. These tendencies toward classification and objectification enable the discussion in law of embryo experimentation, disposal, and freezing without considering the implications for women who are separated from the moral, legal, social, and ethical issues.

### SURROGACY

Surrogacy agreements are not recent developments, the Old Testament refers to them (Morgan, 1985). However, the new reproductive technologies enable new and different forms of surrogacy arrangements which the various reports and legislation generally condemn. Surrogate motherhood involves an agreement or contract between a woman and a couple that she will bear a child she will relinquish to them at birth. Sometimes such contracts are drawn up through an agent or a lawyer (Corea, 1985: 213–249). Two types of surrogate arrangements exist: (a) the woman who bears the child is the donor of the ovum fertilized (naturally through coitus or artificially) by the husband, or by a donor. Here the genetic and gestational mother are the same person and the term surrogate mother is inaccurate; (b) the woman who bears the child does not donate ova. The embryo which may derive from the gametes of the husband and wife or from one or two donors (but not from the birth mother) is transferred to her uterus after *in vitro* fertilization. The genetic and gestational mother are not the same person.

Reports in Australia and the United Kingdom recommended that it should be illegal to (a) advertise to recruit surrogate mothers or to state that a woman is willing to act as a surrogate mother; (b) exchange money as a surrogacy agreement or contract, and that any surrogacy contract/arrangement should be treated in law as null and void and therefore unenforceable because it is contrary to public policy.



The Warnock Report advocated criminal sanctions for agencies that make surrogate arrangements, and for professionals that knowingly assist in the establishment of surrogate pregnancy (Warnock, 1985: 42–47). The Infertility (Medical Procedures) Act 1984 states:

A contract or agreement under which a woman agrees with another person or other persons to act as a surrogate mother is void (s 30(3)).

It prohibits payment for surrogate services and bans advertisements intended to encourage, recruit, or indicate women willing to act as surrogate mothers and specifies a penalty of 50 penalty points or 2 years imprisonment for violation of these conditions. A recent IVF surrogacy arrangement between two sisters in Victoria has questioned differences between commercial and altruistic, that is without payment, surrogacy contracts despite the legislative ban “whether or not for payment or reward” (The Infertility (Medical Procedures) Act 1984 s 30 (1)). Even if the courts rule in favor of altruistic agreements the genetic mother will have to initiate adoption procedures because the gestational mother is the legal mother, but the adoption laws preclude adoption by relatives. In response the government suggested legal change if the courts did not accommodate the arrangement (Pitt, 1988: 1; West, 1988: 20). This situation illustrates problems in the legislative regulation of medical practitioners. The doctor supervising the pregnancy claimed that despite legal uncertainty and the refusal of one hospital to allow the procedures he acted in the “interests of the woman involved” (Conley and Pirrie, 1988; Peak and Cossar, 1988). Presumably, this means the woman who wanted the baby not the surrogate mother, thus assuming their interests to be identical.

In South Australia the Family Relationships Act Amendment Act 1984 states:

A woman who gives birth to a child is, for the purposes of the law of the state, the mother of the child, notwithstanding that the child was conceived by the fertilisation of an ovum taken from some other woman.

The Act prohibits surrogacy arrangements by specifying the social parents of a child to be the legal parents and by denying gamete donors any rights or obligations in relation to the children resulting from their donation. A 1988 amendment declares that surrogacy and procurement contracts are illegal and void (Family Relationships Act Amendment Act 1988 ss 10g (1–3)). This includes altruistic surrogacy agreements, though during the debate it was recognized that:

We cannot hope to provide in the law for those surrogacy contracts where there is no monetary or similar consideration. If there is an arrangement within a family, while the adoption and custody laws will apply to the child, one cannot as a matter of legislation deal with that particular surrogacy contract (South Australia, Parliamentary Debates (Legislative Council) 16 February, 1988: 2764).

Two kinds of argument against surrogacy predominate: The first focuses on the enforceability of the contract and the situation if the surrogate mother refuses to relinquish the child. Such arguments are based on the perception that surrogate mothers are victims and naively, even irrationally, enter such arrangements without realizing the emotional trauma involved when relinquishing the baby. A concern that a woman’s natural, maternal instincts would (should) not enable her to overcome parting from the child justify prohibitions on surrogacy arrangements. During the debates on the passage of the amendment banning surrogacy contracts in South Australia one member (also a doctor) argued:

The biggest problems with surrogacy are human emotional problems. People

can make an intellectual decision with that higher part of the brain which deals with intellect, superego, morals, and the ought-to-do-this type of feeling, but much deeper in the mind there are instincts which may be suppressed but which may arise to override the intellect. This certainly occurs when a woman gives birth to a child (South Australia, Parliamentary Debates (Legislative Council) 16 February, 1988: 2765).

These arguments emphasize emotions which are seen as inevitable, normal and appropriate due to the supposed natural bond between mother and child. They assume women's nature to be emotional, irrational and maternal thereby reproducing powerful gender norms which prescribe maternity and motherhood as the essence of womanhood.

From this perspective to relinquish a child without trauma is abnormal, deviant, unfeminine, even cruel. It constitutes an offence against motherhood norms and the maternity ideal (Schur, 1984: 81–82). This is not to deny that women do not experience trauma when they are separated legally from their children, but the force of the arguments denies women other sentiments.

Surrogate arrangements also contravene marriage norms. Legislation banning surrogacy contracts reinforces sexual stereotypes of women confined to having their husband's children (Morgan, 1985: 231). Albeit never explicit, prohibitions against surrogacy assume that a child born to a person not married to another is illegitimate and a noncitizen.

The second group of arguments concerns 'baby selling' and profiteering. According to the Family Law Council:

As a matter of public policy, surrogacy arrangements are contrary to the welfare and interests of child (Family Law Council, 1985: 70).

The Demark committee appointed by the Queensland government to examine the

law and new reproductive technologies stated:

A baby must not be treated as a commodity to be purchased; it must not be the subject of traffic in any form (Family Law Council, 1985: 66).

The legislation banning surrogacy arrangements reflects the 'baby selling' concern. The Infertility (Medical Procedures) Act 1984 and the Family Relationships Act Amendment Act 1988 (South Australia) render illegal making or receiving a payment as part of a contract in which a woman agrees to act as a surrogate mother.

In February 1988 the New Jersey Supreme Court ruled that paying a surrogate mother constituted illegal baby selling (Bremner, 1988: 5). The Court decided a case where a woman accepted payment to donate an ovum and bear a child for another couple, but decided to keep the baby herself. The Court ruled that commercial surrogate motherhood contracts are illegal but vested custody in the couple who requested the child, not in the biological and gestational mother. The Court did not prohibit a woman from volunteering to be a surrogate mother as long as she retains the right to revoke her decision and keep the baby. The judgement stated that the couple promised "a secure home, with an understanding relationship that allows nurturing and independent growth to develop together", and noted that the surrogate mother became pregnant out of marriage in 1987, divorced and remarried a younger man within two weeks (The Age, Friday 5 February, 1988: 7). The Court decision seems to have been based on the judgement of the surrogate mother's potential for being an 'unfit' mother given her 'deviant' family situation. This ruling is likely to have wider implications as a number of commercial enterprises arranging and advertising surrogate services exist in the United States (Zipper and Sevenhuijsen, 1987)<sup>9</sup>. The court has

subsequently extended visiting rights to the biological mother (The Age, Friday 8 April, 1988: 7).

Little concern either in government inquiries, legislation, or judicial judgements surrounds the objectification and commodification of the female body or the exploitation of women participating in surrogacy arrangements. Nor is there sustained analysis of the control over women, intensive monitoring, subjection to tests, and the woman's loss of autonomy during the pregnancy (Ince, 1984). The Warnock committee condemned the exploitation of women participating in surrogacy arrangements, but referred specifically to commercial exploitation. As payment to a surrogate mother represents the other side of the baby selling transaction concern appears to be less with the exploitation of women than with the exchange of babies for money.

Arguments surrounding commercialization are inconsistent. The commercialization and exportation of patented IVF procedures have certainly not endured the same level of critique as surrogacy contracts. The medical procedures are commodities for marketing and profit in both Australia and overseas (Thorpe, 1988: 3). Commercialization of this aspect of the reproductive process also indicates the perception of a child, or at least the gametes, as a product which will eventually be 'custom' made allowing consumer 'choice' (Rowland, 1987c: 526). Gregory asks:

Could a situation arise . . . where female children were produced without the capacity for sexual reproduction, thus ensuring a ready market for the sale of reproductive technologies? (Gregory, 1986: 157).

Failure to critique or control commercialization by the medical profession while condemning women for participating in commercial arrangements reinforces medicine's dominance and

control over women and the reproductive process.

### THE ROLE OF LAW

All the investigations into reproductive technology and subsequent legislation emphasized the welfare and interests of the embryo and the child. Such a focus has led to a neglect of women's health issues and a failure to address the assumptions about women, or to provide a critique of the medical profession. The result is the taking of women further out of the reproductive process. Discussion of human embryos, human reproductive material, and gametes is gender neutral. It separates the reproductive process from women's bodies, thus implicitly legitimating the lack of concern with issues of women's health and position in society. This paper argues that legislation is unable to control the medical profession or to further women's interests because like medicine, legalization is an aspect of rationalization rather than a critique of values, and does not attempt to reintegrate women.

The law's capacity to regulate medicine will be peripheral and limited, not only because law and medicine are based on restrictive gender norms specifying marriage and motherhood as natural and normal for women, but because the law, like most other social institutions, fails to address the assumptions inherent in medical knowledge and practice (Freidson, 1970; Turner, 1987). While the legislation aims to restrict the application of medical knowledge it assumes, at least implicitly, that infertility has strictly biological causes and therefore is amenable to medical intervention and surveillance. Legislative regulation of scientific medicine is not automatic as the history of the Victorian Act illustrates. Subsequent amendments narrowed the original Infertility (Medical Procedures) Act's prohibition on embryo research and widened the scope for experimentation

which medical scientists viewed as central to developments in artificial conception technology. Specifically, scientists argued for legislative change to enable the testing of embryos fertilized through the micro-injection technique where a single sperm is injected into the zona pellucida (outer wall) of the ovum. On the basis of experiments with mouse embryos showing normal fetuses after microinjection (Rogers and Trounson, 1986) the scientists used the technique for human fertilization without seeking the approval of the Standing Review and Advisory Committee and before the amendment was proclaimed. The Victorian Health Minister ordered the technique's use to cease. Medical scientists have claimed that delays in the amendment's proclamation have "cost Australia its world leadership in IVF technology" and prevented them from helping infertile couples (Allender, 1988: 4). The image projected is of a benevolent, altruistic medical profession serving the interests of infertile couples restricted by legislation.

Medical arguments for experimentation to develop techniques for detecting embryonic defects early in pregnancy, or even before, are couched in terms of benefits both to the individual woman and to the community at large. According to the medical profession the antenatal test chorionic villus sampling (CVS) used to detect chromosomal abnormality, such as Down's syndrome, or other inherited disorders, for example haemophilia and thalassemia, avoids the emotional and social costs of birth deformities and the perpetuation of genetic defects. As CVS is performed at 9–10 weeks of pregnancy, they argue, termination will be less traumatic and safer than after amniocentesis. However, CVS has been linked with a high rate of subsequent miscarriage (Ragg, 1988). A further development, embryonic biopsy involving the removal and testing of part of the 4–8 cell embryo which is frozen, is used to locate gene structural defects

before the embryo is implanted. Again, medical scientists project these developments as benefiting all members of society but the long term effects of the testing on the embryo are unknown. Such experimentation expands the opportunities for intervention in 'natural' pregnancies, the techniques can be applied to fertile women thus extending the scope of IVF procedures (Bartels, 1987).

### WOMEN'S HEALTH

The Asche committee report hardly mentioned the issue of women's health yet it claimed to be:

aware that reproductive technology has particular implications for women because it is women's bodies which are primarily the focus of these medical procedures, many of which are still experimental (Family Law Council, 1985: 112).

This comment contrasts with the committee's (and many others) view that experimentation on all human embryos – 'spare' or specially fertilized for research purposes – be prohibited. The failure to address experimentation on women's bodies indicates the limitations of the committee's terms of reference and its acceptance of the medical model of infertility as illness. Experimentation on women (often without their knowledge) becomes therapy, a cure for infertility legitimated by the medical model (Corea, 1985: 100–143). The medical assumption that a woman unable to conceive, because either she, her husband or both are sterile, needs treatment to remedy this pathological condition rationalizes the experimentation women undergo. According to Corea:

When reproductive engineers manipulate the bodies of human females – those beings, who, like animals, are a part of nature men must control – their language changes. Today they say they are manipulating

women's bodies out of compassion; to bring new hope to the infertile; to prevent birth defects; to increase women's options, expand their freedom. Obscuring the impact of reproductive engineering as a class they emphasize the 'rights' of individual women to use these technologies (Corea, 1985: 313).

Moreover, Rowland writes:

The medical profession in fact fails to differentiate between research to aid infertility and research to change and control conception and the genetic balance. It is again using women's bodies for experimentation and using their 'need' (social or otherwise) to have babies (Rowland, 1987b: 75).

Experimentation on women's bodies under the guise of therapy and benevolent treatment has a long history (Ehrenreich and English, 1973; 1978). The medical profession has encouraged women to endure many unnecessary surgical and nonsurgical treatments for their own good and well being, despite often negative or unknown consequences. Barker-Benfield (1977) documents the nineteenth century medical profession's conception of insanity, nervous disorder and even sexual independence as deriving from pathological reproductive organs. The 'cures' ranged from clitoridectomy (excision of the clitoris) and the removal of the uterus and ovaries. Female castration exemplifies men's control of women's bodies and dominance in forcing them into restrictive gender roles. The medical takeover of the childbirth process and the exclusion of midwives indicated the growing salience of the medical definition of the female body and its functions as inherently pathological and requiring treatment. Ehrenreich and English write:

Everything that seems uniquely female becomes a challenge to the rational scientific intellect. Woman's body,

with its autonomous rhythms and generative possibilities, appears to the masculinist vision as a 'frontier', another part of the natural world to be explored and mined. A new science—gynecology—arose in the nineteenth century to study this strange territory and concluded that the female body is not only primitive, but deeply pathological (Ehrenreich and English, 1978: 18).

More recent reproductive technologies and interventions negatively affecting women's health, despite medical claims of increased control over fertility and autonomy, include intra-uterine contraceptive devices (IUDs), Depo Provera, hormonal contraceptives and therapies for menopausal symptoms, unnecessary, even involuntary, hysterectomies, and ovary removal. Some nonsterilization contraceptive devices increase the risk of infertility which could result in less autonomy for women and greater reliance on the medical profession for reproductive technology (Corea 1985: 147). The Dalkon Shield IUD, for example, heralded in the 1970s as a better – safer and as efficient – birth control method than the Pill was withdrawn from the market<sup>10</sup> following deaths and injuries to women who used it (Dowie and Johntson, 1977; Nanson, 1986). A similar fate may well befall the copper loaded IUDs which are currently under suspicion. The connection between IUD usage and fallopian tube damage (a principal cause of infertility) via Pelvic Inflammatory Disease is now well established and the major reason for the warnings on IUD usage in recent years.

In our society childbirth is almost completely medicalized (Rothman, 1984; Schur, 1984). Routine obstetric practice includes epidural anesthesia, ultra sound, forceps delivery, techniques to initiate and stimulate labor, and caesarian section births. Many women are unaware of the dangers and risks of these interventions to their own and to the baby's health (Hubbard and Sanford, 1984; Muhlen,

Pyrke and, Wade, 1986). The childbirth procedures used in a medically managed hospital setting may be unrelated to the actual birth process or to women's health needs, but be determined by the needs, procedures, and convenience of the medical profession (Pincus with Swenson, 1984; Rothman, 1983; Schur, 1984). Schur (1984: 96) identifies the central problem of medicalized childbirth as "female autonomy versus professional (primarily male) control."

The new developments in reproductive technology extend this medicalization and control of women's bodies masked by a concern with the embryo and fetus which become 'problems' detached and independent from women's bodies. Indeed, the embryo and fetus become 'the patient'. The emphasis is always on the positive aspects of the reproductive technology and its primary purpose "to create a child who would not otherwise have been conceived" (Family Law Council, 1985: 4).

The medical profession accepts the dangers and risks of the techniques given women's 'desire' to have a child. For example, the drugs – clomiphene citrate and/or human pituitary gonadotropins—used to super-ovulate women have been linked with cancer, and increased rates of spontaneous abortion and birth defects (Fertility Society of Australia 1987; Hubbard with Sanford, 1984: 149; Klein and Rowland, 1988). Other tests, such as amniocentesis where at about week 18–20 of the pregnancy a small amount of amniotic fluid is extracted to determine whether the fetus is chromosomally deviant, increase the likelihood of miscarriage. Many women (43.5 percent according to the Fertility Society of Australia) who undergo IVF procedures have caesarian births which give doctors more control over the birth process without necessarily improving outcomes. Besides the risks to women's physical health participation in IVF procedures, the insensitivity of medical procedures, and frequent disappointments negatively affect

psychological and emotional well being. Women have the choice and legal right to refuse certain medical procedures but this argument ignores the power of the gynecologist who can ask "do you want a healthy child, or a child at all?" An affirmative response undermines all other objections. The decision to have a child and the choice to participate in an IVF program often automatically cancel out other choices, for example the kinds of tests and level of surveillance.

Technodocs emphasize making babies rather than preventing or treating infertility. The focus is 'how can we make infertile couples procreate?' not 'what causes infertility? or, do medical practices increase the likelihood of infertility?' The concern is less with treatment or healing than with men's continuing control over the process of childbirth (Klein, 1987: 65)<sup>11</sup>. This emphasis reflects and reinforces the dominant medical perspective which focuses on 'cure' (that is, eradication of symptoms or, at least, management of consequences) rather than on investigating the process and origin of illness and disease.

#### REPRODUCTIVE TECHNOLOGY AND VALUES

Recent inquiries and legislation regarding new reproductive technologies do not confront the central values which legitimize the medical profession's control over the reproductive process. Specifically, that it is woman's nature to want, bear and mother children. In our 'pronatalist' society (Laws, 1979: 122) gender norms define women's status (and fulfillment) in terms of maternity and mothering which are internalized and reproduced in the mother-daughter relationship (Chodorow, 1978). Nonmotherhood constitutes deviance. Infertility is seen as a cause of nonmotherhood and the medical profession intervenes to remedy and treat this pathological state. Medical scientists maintain that the infertile patient experiences a variety of suffering and

therefore treatment for infertility falls within the ambit of the ethic emphasizing the doctor's obligation to relieve suffering, which is championed at the expense of the edict of beneficence (Wood and Kerin, 1984: 178).

However, infertility is not inherently or innately deviant, rather this view derives from the construction of marital and maternity norms in our society. Gender norms largely specify that women should marry and that married women should have children. Chodorow refutes the idea that women's mothering is innate and argues:

Women's mothering is a central and defining feature of the social organization of gender and is implicated in the construction and reproduction of male dominance (Chodorow, 1978: 9).

Voluntary violation of maternity norms, for example if a single woman has a child, or a married woman remains child free, are sanctioned negatively (Schur, 1984: 53, 60–63, 81–92). Social stigma attaches to non motherhood. Women who choose not to have children are seen as selfish, irresponsible, unfulfilled, and their lives incomplete (Schur, 1984: 82–83). The language used to describe women unable to conceive—barren, infertile, fruitless – indicates the definition of their deviance from their 'natural' function in society. No parallel vocabulary exists for sterile men. The most used word is impotent, that is they are men without *power*.

Despite the generality of these maternal norms their application is limited. Access to AI and IVF programs is restricted to married couples, or at least to those in a stable heterosexual relationship. Single women and those in less traditional relationships, especially lesbian women, are excluded. The cost of IVF programs restricts access to middle class women who can afford to participate, and who can take time from their jobs (professional

occupations are the most flexible), or who do not participate in the labor force, in order to undergo the procedures.

The medical profession, governments, and agencies such as the World Health Organization (WHO) define fertility among the poor and minority segments of industrialized societies and among the populations of developing countries as deviant. They perceive birth control under the auspices of family planning programs as essential for population control (Gordon, 1977: 392–399). This frequently involves coerced or induced sterilization or the administration of often harmful contraceptives (Balasubrahmanyam, 1984; Dreifus, 1977; Petchesky, 1984). Despite serious questions of safety and bans or restrictions in the United States, the United Kingdom, and Australia, Depo Provera is being administered widely in poor, urban, minority segments of the population, for example among the Asian and West Indian women in the United Kingdom, Polynesian women in New Zealand and Aboriginal women in Australia (Bunkle, 1984; Greer, 1984)<sup>12</sup>.

Proponents of the new reproductive technologies present their achievements in terms of enabling infertile couples to *choose* to have a child. This 'choice' is projected as a basic human right. However, the emphasis on individual rights to such action diverts attention from wider social and contextual issues. First, access to this option is limited to certain segments of some societies, namely white, middle class couples living in industrial nations. Other segments – poor, urban, ethnic minorities – do not have the same rights to procreate as evidenced by population control policies and the marketing of contraceptives unacceptable to contemporary western capitalist society. In a situation of population control, that is fertility control, infertility will not be defined as a social problem, access to IVF programs will be minimal. Such developments indicate population manipulation and suggest eugenics under the guise of

treatment for (some) women. Second, the rhetoric surrounding IVF reinforces gender norms relating to maternity and childrearing, thus rendering the choice not to have a child more deviant. The emphasis on expanding women's so-called choices to conform to norms prescribing motherhood reproduces patriarchal definitions of the family and the division of labor. Current discussion of reproductive technologies is couched in terms of service provision to individual infertile couples which displaces attention from issues of population control and manipulation.

### CONCLUSION

The dominant focus of enacted legislation and that proposed by committees of inquiry regarding reproductive technology and human embryo experimentation has been on the fate of the embryo and the well being of the child created through medical knowledge. This effectively takes women out of the reproductive process. Discourse on human reproduction can proceed without ever mentioning women, by referring only to the embryo, donor gametes, *in vitro* fertilization. For centuries the medical profession gained control over women's reproductive capacity and fertility, now concern for the embryo legitimates further medical intervention and control.

The proposed and enacted laws do not question the norms prescribing motherhood as essential and natural for women and accept infertility as deviance in need of remedy. The legislation addresses the extent to which the medical profession should be limited in the pursuit of those goals. The criminalization of surrogacy contracts and some human embryo experimentation illustrates this conception of law. The Asche committee recommended penalizing agencies established to arrange surrogacy services. Following the Warnock Report it was concerned not to criminalize individuals because of the stigma that might attach to

the child (no mention of the surrogate mother!). One of the main arguments against surrogacy is that women are unable to cope with severing the natural mother-child bond and that they may naively enter surrogacy arrangements without contemplating the emotional trauma. Thus, childbirth under the wrong circumstances is to be negatively sanctioned. Childbearing when the biological parents are not married has a long history of stigmatization. In contrast, the penalties attached to some embryo experimentation do not question the medical profession's control over reproductive technology as long as a child results. This discrepancy can be explained by assumptions about the nature of women and their primary role as childbearers and rearers, and the acceptance of medical intervention in the reproductive process.

Debate surrounding new reproductive technologies emphasizes the need to regulate the medical profession. This 'need' does not encompass protecting much less promoting women's health and interests or evaluating the medical framework. The proposed and enacted legal changes will not exert any real control over the medical profession because they reflect the same marital and maternal norms which specify nonmotherhood as deviant and accept the medical conception of infertility, the alleviation of which requires medical intervention. The strength of these norms legitimates the medical control over the reproductive process despite the risks to women.

Embryo-centered laws cannot address women's role and position vis-a-vis new reproductive technologies. Such laws only partially restrict medical scientists' intervention in the reproductive process. The regulation of artificial conception technologies and their clinical application requires legislation to promote women's health. Legislation incorporating women's interests by providing them with input and control over reproduction and their bodies



is essential for reducing medical experimentation and intervention.

*Acknowledgment*—The author expresses appreciation to Barbara Buttfeld, Liz Eckermann, Bob Holton, Margie Ripper, and Robyn Rowland for their many insightful comments and suggestions.

### ENDNOTES

1. The Family Law Council adopted a more exclusive definition of reproductive technology, namely:

Reproductive technology refers to the body of medical and scientific knowledge and research which when applied enables the creation of a child who could not have been conceived/born without the intervention and application of that technology (Family Law Council, 1985: 4).

For a detailed discussion of the various reproductive technologies see Corea, 1985; Rowland, 1987c.

2. For a list of all Australian (commonwealth and state) and selected overseas reports on new reproductive technologies see the Family Law Council, 1985: 124–125.

3. The term 'technodoc' was coined by Dr. Alan De- Cherney, head of the IVF program at Yale University, cited in Gena Corea (1987) *The Mother Machine*, Women's Press, London. (Harper and Row, New York, 1985).

4. The point about restricting participation in IVF programs is not injustice or discrimination which can be remedied by expanding access, rather structuring access along ethnic and class dimensions conveys eugenicist implications. The negligible number of IVF pregnancies undermines arguments that IVF programs radically alter the population composition, but restricted access to new reproductive technologies establishes the view that some segments of the population have the right to have children *at any cost* whereas others have no such right *at any cost*.

5. Reproductive technology programs are being developed in countries like Colombia, India, Singapore, and Chile (Fishel, 1986: 15). Infertility in so called third world countries also resulted from the use of IUDs which

caused Pelvic Inflammatory Disease, and from other experimental hormonal contraceptives (Gordon, 1977:400–402). Again, the programs will be differentially available to infertile women or those with sterile husbands who can afford to participate and who come from the 'right' class, caste, or ethnic group. Moreover, the record of contraceptive experimentation on women in developing societies suggests that IVF programs in those places might be more 'experimental' and less 'therapeutic' to further medical knowledge and refine techniques for application in industrialized nations where restrictions on experimentation exist.

6. In Australia, because federal and state laws deal with different aspects of family law, legal reform in the area of reproductive technology requires legislation at both levels of government (Family Law Council, 1985: 13). The Australian Constitution (s 51) gives the commonwealth government power to legislate in regard to marriage and divorce. Until recently, the Family Law Act (1975) (Commonwealth) dealt with custody, guardianship, and maintenance of children born within marriage, while state laws covered exnuptial children. The Family Law Act Amendment Act (1987) (which commenced on 1 April 1988) deals with maintenance, guardianship, custody, and access for all children, including those born through "an artificial conception procedure" (s 60). The status of children, that is the legal parent- child relationship and the attendant rights and obligations, falls within state legislatures' jurisdiction. For example, the Status of Children Act (1974) (Victoria) and the Family Relationships Act (1975) (South Australia) make all children of equal status regardless of the marital status of their parents. All states have legislation dealing with the legal status of children born of donated gametes which raises problems of commensurability. Regarding human embryo experimentation the federal government maintained that it has a limited constitutional base for legislation (Australia, Parliamentary Debates (Senate) 18 December, 1987: 3484). Such laws are the states' responsibility.

7. The Family Relationships Act Amendment Act (1984) (South Australia) amended the Sex Discrimination Act (1975) (South Australia) to define the carrying out of a fertilization procedure as outside its provisions. The exclusion of single women (as defined in law) from access to IVF programs

therefore does not fall within sex discrimination legislation.

8. The Infertility (Medical Procedures) Act (1984) (Victoria) does not contain similar provisions regarding the composition of the Standing Review and Advisory Committee.

9. At this stage in Australia no agencies have been established on such a commercial basis.

10. In 1974, after a Food and Drug Administration (FDA) inquiry the Robins Company ceased to manufacture the Dalkon shield in the United States, but only stopped marketing it in Australia in 1975. Even so, women were still being fitted with them in 1982 (Nan-son, 1986: 62).

11. In a letter to the Family Law Council Justice Asche (Chairman of the Asche committee) wrote:

Save for the amorous (and mythical) exploits of Zeus who managed to achieve paternity while metamorphosed into a bull, a swan and even (mirabile-dictu) a shower of gold, the human race has not envisaged any examples of achieving parenthood other than through human sexual intercourse [until the recent developments in reproductive technology] (Family Law Council, 1985: xvii-xviii).

It is instructive he selected this example of a male figure who achieved childbirth without a woman.

12. Depo Provera has 'experimental' usage in Australia. Its use must be recorded and the National Health and Medical Research Council has access to the information if it decides to liberalize or ban its use.

## REFERENCES

- Age, The* 1988. Baby M's Mother Wins Wider Visiting Rights. Friday 8 April: 7.
- Age, The* 1988. Surrogacy Contracts Illegal but Baby Stays with her Father. Friday 5 February: 7.
- Allender, Jackie 1988. Legal delays force IVF scientists overseas. *The Australian* Friday 15 April: 4.
- Arditti, Rita, Klein, Renate Duelli and Minden, Shelley eds. 1984. *Test-Tube Women: What Future for Motherhood?* Pandora Press, London.
- Constitution of the Commonwealth of Australia, The*.
- Australian In-Vitro Fertilization Collaborative Group. 1988. In-vitro fertilization pregnancies in Australia and New Zealand, 1979-1985. *Med. J. Aust.* 148 (May 2): 429-436.
- Australian, Parliamentary Debates* (Senate). 1987. Thursday 18 December: 3481-3495.
- Balasubrahmanyam, Vimal 1984. Women as Targets in India's Family Planning Policy. In Arditti, Rita, Renate Duelli Klein, and Shelley Minden, eds, *Test-Tube Women: What Future for Motherhood?* Pandora Press, London.
- Barker-Benfield, G. J. 1977. Sexual Surgery in Late-Nineteenth-Century America. In Dreifus, Claudia, ed, *Seizing Our Bodies: The Politics of Women's Health*. Vintage Books, New York.
- Bands, Ditta 1987. *The Engineering of Reproduction: Is It Heading Off The Rails?* The fifth Keith Roby lecture on community science, Murdoch University.
- Becker, Howard S. 1963. *Outsiders: Studies in the Sociology of Deviance*. The Free Press of Glencoe, New York.
- Boston Women's Health Book Collective, The 1984. *The New Our Bodies Ourselves*. Simon and Schuster, New York.
- Bremner, Charles 1988. Paying for Surrogate Babies Illegal. *The Australian*. Friday 5 February: 5.
- Bunkle, Phillida 1984. Calling the Shots? The International Politics of Depo Provera. In Arditti, Rita, Re-nate Duelli Klein, and Shelley Minden, eds, *Test-Tube Women: What Future for Motherhood?* Pandora Press, London.
- Chodorow, Nancy 1978. *The Reproduction of Mothering*. The University of California Press, Berkeley.
- Conley, Jennifer and Pirrie, Michael 1988. Cain willing to change law for IVF baby. *The Age* Saturday 9 April.
- Corea, Gena 1985. *The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs*. Harper and Row, New York.
- Corea, Gena, Klein, Renate Duelli, Hamper, Jalna, Holmes, Helen B., Hoskins, Betty, Kishwar, Madhur, Raymond, Janice, Rowland, Robyn, and Steinbacher, Roberta 1987. *Man-Made Women: How New Reproductive Technologies Affect Women*. Indiana University Press, Bloomington and Indianapolis.

- Dowie, Mark and Johntson, Tracy 1977. A Case of Corporate. Malpractice and the Dalkon Shield. In Dreifus, Claudia, ed, *Seizing Our Bodies: The Politics of Women's Health*. Vintage Books, New York.
- Doyal, Lesley and Pennell, Imogen 1979. *The Political Economy of Health*. Pluto Press, London.
- Dreifus, Claudia, ed. 1977. *Seizing Our Bodies: The Politics of Women's Health*. Vintage Books, New York.
- Dreifus, Claudia 1977. Sterilizing the Poor. In Dreifus, Claudia, ed, *Seizing Our Bodies: The Politics of Women's Health*. Vintage Books, New York.
- Economist*, The 1987. The Turn of the Tide. Saturday October 31: 51–52.
- Ehrenreich, Barbara and English, Deirdre 1973. *Witches, Midwives, and Nurses: A History of Women Healers*. The Feminist Press, New York.
- Ehrenreich, Barbara and English, Deirdre 1978. *For Her Own Good: 150 Years of the Expert's Advice to Women*. Doubleday Anchor Books, Garden City, NY.
- Family Law Act 1975 (Commonwealth of Australia).
- Family Law Act Amendment Act 1987 (Commonwealth of Australia).
- Family Law Council. 1985. *Creating Children—A Uniform Approach to the Law and Practice of Reproductive Technology in Australia*. Australian Government Publishing Service, Canberra.
- Family Relationships Act 1975 (South Australia).
- Family Relationships Act Amendment Act 1984 (South Australia).
- Family Relationships Act Amendment Act 1988 (South Australia).
- Fertility Society of Australia. 1987. *IVF and GIFT Pregnancies: Australia and New Zealand 1986*. National Perinatal Statistics Unit, Sydney.
- Fishel, S. 1986. IVF-Historical Perspective. In Fishel, S. and Symonds, E. M. eds, *In Vitro Fertilization: Past Present Future*. IRL Press, Oxford.
- Fishel, S. and Symonds, E. M. eds, 1986. *In Vitro Fertilization: Past Present Future*. IRL Press, Oxford.
- Freidson, Eliot 1970. *Profession of Medicine: A Study of the Sociology of Applied Medicine*. Harper and Row, New York.
- Gallagher, Janet 1987. Eggs, Embryos and Foetuses: Anxiety and the Law. In Stanworth, Michelle, ed, *Reproductive Technologies: Gender, Motherhood and Medicine*. Polity Press.
- Gerth, H. H. and Mills, C. Wright, eds, 1948. *From Max Weber: Essays in Sociology*. Routledge and Kegan Paul, London.
- Goffman, Erving 1963. *Stigma: Notes on the Management of Spoiled Identity*. Penguin, Harmonds-worth.
- Gordon, Linda 1977. *Woman's Body, Woman's Right: A Social History of Birth Control in America*. Penguin, Harmonds worth.
- Greer, Germaine 1984. *Sex and Destiny: The Politics of Human Fertility*. Picador, London.
- Gregory, Robyn 1986. Reproductive Technologies—the Implications for Women and Health. In Kerby Eaton, E. and J. Davies, eds, *Women's Health in a Changing Society* Vol II. University of Adelaide, South Australia.
- Hubbard, Ruth with Wendy Sanford 1984. New Reproductive Technologies. In The Boston Women's Health Book Collective *The New Our Bodies Ourselves*. Simon and Schuster, New York.
- Ince, Susan 1984. Inside the Surrogacy Industry. In Arditti, Rita, Renate Duelli Klein, and Shelley Minden, eds, *Test-Tube Women: What Future for Motherhood?* Pandora Press, London.
- Infertility (Medical Procedures) Act 1984 (Victoria).
- Infertility (Medical Procedures) Act Amendment Act 1987 (Victoria).
- Infertility (Medical Procedures) Act Amendment Act 1988 (Victoria).
- In Vitro Fertilization (Restriction Act) 1987 (South Australia).
- Jones, Howard Jr. 1986. The Infertile Couple. In Fishel, S. and E. M. Symonds, eds, *In Vitro Fertilization: Past Present Future*. IRL Press, Oxford.
- Kerby-Eaton, E., and J. Davies, eds 1986. *Women's Health in a Changing Society*. Proceedings of the Second National Conference on all aspects of women's health, held at the Magill Campus of South Australian College of Advanced Education, Adelaide 4–7 September, 1985. Vols II, III. University of Adelaide, South Australia.

- Klein, Renate Duelli 1987. What's 'New' About the 'New' Reproductive Technologies? In Corea, Gena, Renate Duelli Klein, Jalna Hanmer, Helen B. Holmes, Betty Hoskins, Madhur Kishwar, Janice Raymond, Robyn Rowland, and Roberta Steinbacher, eds *Man-Made Women: How New Reproductive Technologies Affect Women*. Indiana University Press, Bloomington and Indianapolis.
- Klein, Renate and Rowland, Robyn 1988. Hormonal Cocktails: Women as test-sites for fertility drugs. *Reproductive and Genetic Engineering*, 1(3): 000-000.
- Larson, Magali Sarfatti 1977. *The Rise of Professionalism: A Sociological Analysis*. The University of California Press, Berkeley.
- Laws, Judith Long 1979. *The Second X: Sex Role and Social Role*. Elsevier, New York.
- Morgan, Derek 1985. Making Motherhood Male: Surrogacy and the Moral Economy of Women. *J. Law and Soc.* 12(2): 219-238.
- Muhlen, Liselott, Pyrke, Meg and Wade, Ken 1986. The New Obstetrics and its Effects on Women and Babies. In Kerby-Eaton, E. and J. Davies J., eds, *Women's Health in a Changing Society* Vol III. University of Adelaide, South Australia.
- Nanson, Angela 1986. The High Cost of Contraception: Lessons from the Dalkon Shield. In Kerby-Eaton, E. and J. Davies J., eds, *Women's Health in a Changing Society* Vol III. University of Adelaide, South Australia.
- Peak, Susan and Cossar, Lynne 1988. Epworth ethics board refused surrogacy case. *The Herald* Thursday 14 April.
- Petchesky, Rosalind Pollack 1984. *Abortion and Woman's Choice: The State, Sexuality, and Reproductive Freedom*. Verso, London.
- Pincus, Jane with Swenson, Norma 1984. Childbirth. In Boston Women's Health Book Collective, *The New Our Bodies Ourselves*. Simon and Schuster, New York.
- Pirrie, Mark 1988. New IVF Treatment Stopped. *The Australian* Saturday 2 April: 1.
- Pitt, Helen 1988. Woman to bear her sister's baby. *Sydney Morning Herald* Friday 8 April: 1.
- Ragg, Mark 1988. The Antenatal Test With a Big Moral Dilemma. *The Australian* Tuesday 16 February: 16.
- Reproductive Technology Act 1988 (South Australia).
- Rogers, P. A. W. and Trounson, A. O. 1986. IVF: The Future. In Fishel, S. and Symonds, E. M., eds, *In Vitro Fertilization: Past Present Future*. IRL Press, Oxford.
- Rothman, Barbara Katz 1983. Midwives in Transition: The Structure of a Clinical Revolution. *Social Problems* 30(3): 262-271.
- Rothman, Barbara Katz 1984. The Meanings of Choice in Reproductive Technology. In Arditti, Rita, Renate Duelli Klein, and Shelley Minden, eds, *Test-Tube Women: What Future for Motherhood?* Pandora Press, London.
- Rowland, Robyn 1987a. Making Women Visible in the Embryo Experimentation Debate. *Bioethics* 1(2): 179-188.
- Rowland, Robyn 1987b. Motherhood, Patriarchal Power, Alienation, and the Issue of 'Choice' in Sex Preselection. In Corea, Gena, Renate Duelli Klein, Jalna Hanmer, Helen B. Holmes, Betty Hoskins, Madhu Kishwar, Janice Raymond, Robyn Rowland, and Roberta Steinbacher, eds, *Man-Made Women: How New Reproductive Technologies Affect Women*. Indiana University Press, Bloomington and Indiana.
- Rowland, Robyn 1987c. Technology and Motherhood: Reproductive Choice Reconsidered. *Signs: Journal of Women in Culture and Society* 12(3): 512-528.
- Schur, Edwin, M. 1984. *Labeling Women Deviant: Gender, Stigma, and Social Control*. Random House, New York.
- Senate Select Committee on the Human Embryo Experimentation Bill 1985. 1986. *Human Embryo Experimentation in Australia*. Australian Government Publishing Service, Canberra.
- Sex Discrimination Act 1975 (South Australia).
- Skene, Loane 1985. Moral and Legal Issues in the New Biotechnology. *Aust. Law J.* 59(July): 379-392.
- South Australia, Parliamentary Debates* (Legislative Council). 1987. 24 November: 1951-1957.

- South Australia Parliamentary Debates* (Legislative Council). 1988. 16 February: 2764–2765.
- Stanley, Fiona J. 1988. In-vitro fertilization – a gift for the infertile or a cycle of despair? *Med. J. Aust.* 148(May 2): 425-426.
- Status of Children Act 1974 (Victoria).
- Status of Children Act Amendment Act 1984 (Victoria).
- Thorpe, Deryn 1988. IVF Expertise Now Exported World-Wide. *The Australian* Monday 18 January: 3.
- Turner, Bryan S. 1987. *Medical Power and Social Knowledge*. Sage Publications, London.
- Warnock, Mary 1985. *A Question of Life: The Warnock Report on Human Fertilization and Embryology*. Basil Blackwell, Oxford.
- Weber, Max 1948. Science as Vocation. In Gerth, H. H. and C. Wright Mills, eds, *From Max Weber: Essays in Sociology*. Routledge and Kegan Paul, London.
- West, Rosemary 1988. Dilemma of a Child with Two Mothers. *The Age* Wednesday 13 April: 20.
- Westmore, Ann 1984. History. In Wood, Carl, and Alan Trounson, eds, *Clinical In Vitro Fertilization*. Springer-Verlag, Berlin.
- Wood, Carl and Kerin, John 1984. Ethics. In Wood, Carl and Alan Trounson, eds, *Clinical In-Vitro Fertilization*. Springer-Verlag, Berlin.
- Wood, Carl and Alan Trounson, eds. 1984. *Clinical In-Vitro Fertilization*. Springer-Verlag, Berlin.
- Zipper, Juliette and Selma Sevenhuijsen 1987. Surrogacy: Feminist Notions of Motherhood Reconsidered. In Stanworth, Michelle, ed, *Reproductive Technologies: Gender, Motherhood, and Medicine*. Polity Press, Oxford.