# Assisted Human Reproduction

## Psychological and Ethical Dilemmas

Edited by

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and

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# Foreword

This book brings together key commentators on social and ethical issues in the field of assisted reproduction to produce a timely and informative account of some of the most pressing issues facing us today. A particularly appealing and worthwhile feature is that the authors come from a range of backgrounds and thus provide the reader with an all-round perspective of the various topics discussed. Whether new to the field or a veteran, this book will give the reader new insights into the complex issues that arise from the practice of different assisted reproduction procedures and the consequences for all the parties concerned. By taking a broad and long-term view, the multifaceted implications for individuals, families and society as a whole are presented in a fresh light to increase understanding of issues that are of fundamental importance to us all.

In Chapter 1, Eric Blyth and colleagues integrate a historical account of the formation of the Human Fertilisation and Embryology Act 1990, with a discussion of key social and ethical issues that arise from its implementation. They highlight the vagueness of the requirement that account should be taken of the welfare of any child who may be born as a result of treatment, and point to a tendency for greater weight to be placed on the marital status and sexual orientation of prospective parents than on other aspects of parenting. They also focus on the differential access to treatment services that exists according to geographical location and the ability to pay, and the limitations associated with the provision of infertility counselling, including the contradictions involved in combining independent counselling with the screening of potential parents. In their discussion of surrogacy and posthumous conception, they alert the reader to inadequacies in current legislation. They also tackle the controversial topics of payment to gamete donors, access to information about gamete donors, and the nature of the relationship between the Human Fertilisation Embryology Authority (HFEA) and licensed clinics.

Françoise Shenfield focuses on two key issues in Chapter 2: gamete donation and sex selection. With respect to gamete donation, she presents the differing opinions and arguments for and against the payment of

gamete donors. She also tackles the controversial issue of egg sharing and highlights the ethical problems that arise. Finally, she considers what kind of non-identifying information about donors should be available to donor offspring and whether or not donor identification may be desirable from the perspective of the different parties involved. Shenfield discusses these issues in the context of legislation on human rights. With regard to sex selection, she presents the opposing views on sex selection for social reasons and argues that, whatever the reason for sex selection, such a practice devalues the position of women.

Jim Richards, in Chapter 3, gives an account of different religious perspectives on a range of issues raised by the practice of assisted human reproduction and embryo research. He highlights similarities and differences among the major faiths with particular attention to artificial insemination by husband, third-party reproduction, *in vitro* fertilization and surrogacy. These issues are discussed in the context of the views of the major religions about the role of marriage, the status of the human embryo and the fundamental question of when human life begins. He lays out the arguments against practices such as surrogacy, human cloning and techniques that involve the destruction of spare embryos, and outlines some of the major religions' criticisms of the Warnock Report and the HFEA.

Theoretical debates that arise from the practice of assisted reproduction from a human rights' perspective are considered by Derek Morgan and Robert Lee in Chapter 4, with particular attention to the right to procreative autonomy. The authors describe three cases in the UK that fall under the Human Rights Act 1998. The first concerns a prisoner who wished his wife to be artificially inseminated with his sperm, the second represents a challenge to the law on the identification of gamete donors, and the third relates to use of genetic testing to enable a child to be born whose cells may be used to save the life of an older brother. The authors discuss these cases in the context of the Human Rights Act, highlighting differing interpretations that may be made. They conclude that developments in assisted reproduction will continue to present challenges in relation to human rights.

In Chapter 5, Julia Feast examines the similarities and differences between donor-assisted conception and adoption with respect to the law, and the implications for those born as a result of donor conception. Drawing from her own research she describes the feelings and experiences of adopted children and adults, and the importance of information about birth parents for the development of a secure sense of identity. Although acknowledging the difficulties presented by openness, she emphasizes that telling children does not have an adverse effect on their relationship with their adoptive parents, and that it is the adoptive parents who are viewed as the real parents. Based on the experiences of adopted children and adults, Feast argues for openness by donor insemination parents and a change in legislation to allow

donor identification. She also points to a need for ways of helping parents to be open with children about their donor conception.

Clare Murray, in Chapter 6, examines empirical evidence on the quality of parenting and the psychological well-being of children in assisted reproduction families in relation to the concerns that have been expressed. She concludes that traditional, two-parent, assisted reproduction families, whether created by *in vitro* fertilization, egg donation or donor insemination, appear to be functioning well, with no evidence of raised levels of psychological difficulties among the children. The same appears to be true of children raised in two-parent lesbian mother families. She stresses, however, that little is known about the outcomes for mothers and children when single women have children through donor insemination. Murray also highlights the finding that many heterosexual parents of children conceived by gamete donation do not tell children about their donor conception. In contrast, lesbian mothers are much more likely to be open with their children about this issue. She points out that the situation regarding the secrecy or openness of single heterosexual mothers is as yet unknown.

Alexina McWhinnie explores a number of ethical issues raised by the practice of assisted human reproduction in Chapter 7, including the dilemmas faced by parents whose religious beliefs are incompatible with the method by which they had a child, the problems that result from multiple births with respect to the physical, psychological and financial costs for the families involved, and the negative consequences of foetal reduction where parents opt to reduce a multiple pregnancy. She also gives an account of the difficulties associated with maintaining secrecy in families with children conceived by gamete donation, including the particular issues raised by the practice of egg sharing.

The issue of secrecy versus disclosure from different theoretical viewpoints, together with the differing perspectives of the various parties involved, is the focus of Chapter 8 by Sharon Pettle. Based on her own interviews with people who had discovered previously unknown information about their parentage, she describes a series of stages that individuals commonly experience, from the initial revelation to integration of the new information. She then examines therapeutic approaches to working with people who have an involvement with donor conception, with particular attention to parents who wish to be open with their child and to providing therapeutic support for those who have been told about their donor conception beyond early childhood. She concludes by considering issues that are faced by therapists and counsellors who work with individuals or families with an involvement in donor conception.

In the final chapter, Ken Daniels describes the development of policy and legislation on third-party assisted reproduction around the world, with a

particular emphasis on donor insemination (DI). He discusses the perspectives of the various stakeholders (DI offspring and their families, gamete providers and the medical profession), argues that public policy is essential to protect the offspring, and challenges the view that identification of gamete providers would necessarily result in a decline in donors. He also stresses the importance of national registers to enable DI offspring to access information about gamete providers. Daniels describes the situation in Sweden, where DI offspring have a legal right to identifying information about their donor, but only a minority of parents tell their children about their donor conception. He contrasts this with the situation in New Zealand where there is no legislation but only donors who are willing to be identified are recruited and parents show greater openness with their DI children. Daniels concludes with the highly significant point that a change in legislation does not necessarily lead to a change in behaviour. Instead, he argues, it is a change in attitude that is required.

In reading this collection of writings it becomes apparent that there are a number of issues that are of particular concern – notably, the question of whether or not parents of children conceived by gamete donation should be open with their children about their donor conception is addressed in all but one chapter. Most of the authors favour openness on the ground that withholding such information from donor offspring may cause psychological harm. It is also suggested that the needs of children and adults born as a result of donor conception should take priority over the wishes of parents and donors who may prefer not to tell. Nevertheless, as several authors point out, many parents decide against openness, and it is argued that parents' opinions and experiences must also be understood. Whether or not individuals conceived through gamete donation should have access to identifying information about their donor is the subject of government consultation in the UK as this book goes to press. This collection of writings will make a valuable contribution to this debate, which is likely to continue for some time.

Other important issues that recur throughout the book include selective access to infertility treatment, the implications of assisted reproduction for human rights, and conflicts between the practice of assisted human reproduction and religious beliefs. These issues all raise troublesome questions for those touched by assisted reproduction in any way. For those who are committed to tackling these controversial and difficult ethical and social issues, *Assisted Human Reproduction: Psychological and ethical dilemmas* will provide a rich and essential resource.

Professor Susan Golombok
City University, London
November 2002

# Introduction

IVF blunder gives white parents black twins

*Evening Standard,* Sawyer (2002)

Many people's worst fears about fertility treatments seemed to have suddenly, shockingly, landed on their doorstep in the form of sensational newspaper headlines. Quickly condemned as 'an appalling tragedy' by the British Medical Association, public response was viewed as 'hysterical' by some (Birkett, 2002); while others commented that, while unfortunate, it was not a tragedy (Winston, 2002a). The regulation of legal and social parenthood in this case would take several more months to establish, and the psychological sequelae cannot be known for several more years. However, the Human Fertilisation and Embryology Authority thereafter changed its policy of 'double witnessing' which sperm fertilizes which egg and in whom the embryo is implanted, from a voluntary one to a compulsory one (Meck, 2002a). At the same time philosopher Baroness Mary Warnock, arguably the regulatory 'mother' of the infertility industry in the UK, was suggesting that her own ethical guidelines and restrictions, as set out in the 1990 Human Fertilisation and Embryology (HFE) Act were already out of date. '...The law should be changed, so that children born with the help of donors would be able to have identifying information about the donor.' (Warnock, 2002 p65). Furthermore, along with Professor Edwards the IVF pioneer, she proposed that human cloning, once proved safe, might not be psychologically or morally reprehensible (Warnock, 2002).

It seems 'we can do pretty much anything in the lab now . . . what we have to do is make sure we act judiciously in that lab' (Sauer, 2001) – a notion that strikes both hope for many couples and trepidation in others. 'Our scientific knowledge is what gives us our ethical view, and our ethics change depending on our understanding of the natural world . . . [research using "eggs" as opposed to foetuses, is ethically justified] . . . because it is designed to save, maintain and enhance human life and not destroy it'(Winston, 2002b). [For a discussion of what those involved in assisted human reproduction understand by 'eggs', see Boden et al., (2002).]

The first stem cell licences were awarded in the UK in March 2002, closely followed by the establishment of a stem cell bank, making Britain one of the most permissive countries to do so where science is regulated. The House of Lords' Science and Technology Committee, chaired by Richard Harris, the Bishop of Oxford, ruled that stem cell research on embryos was to be allowed in the UK, although this involves the use of early human life with no intent to produce a child. The Bishop was quoted as being 'satisfied on the basis of the scientific evidence that as yet research on adult stem cells has not, as some claim, made research on embryonic stem cells unnecessary' (Meek, 2002b). Despite negative reaction from religious groups, a boost in funding swiftly followed and the Human Fertilisation and Embryology Authority (henceforth the HFEA) awarded licences to two British research institutions, and the benefits thereof are predicted to come to fruition within a decade. In the USA, public funding for such research is generally tightly controlled, feeding speculation that a number of American companies might transfer some of their research activities to the UK. Both the Committee and the HFEA stressed the therapeutic purpose of these developments (aimed at curing such degenerative and chronic diseases as Alzheimer's and Parkinson's) and maintained that the regulations against human cloning remain watertight. Opinion remains deeply divided in both secular and religious communities. In the USA two of the largest groups of Orthodox Jews, representing about 1000 synagogues, expressed their support for therapeutic cloning apparently to show that there could be a moral religiously informed justification for such research [for a Jewish perspective on assisted human reproduction see Kahn, 2000].

Still under consideration in the UK are the implications of family 'sex balancing', i.e. allowing parents to choose the sex of their baby for social or religious reasons (such as, 'we already have five girls'; 'we just lost our only son'), rather than for medical reasons (e.g. to avoid sex-related hereditary or genetic diseases). Social sex selection is already available in some parts of the USA and accessible (at a price) to women of other countries. Even in the UK, for those who can afford it at a reputed cost of £8000, a trip to Belgium suffices for parents who want to choose their baby's sex (Revell, 2002).

As the technology becomes available, the use of assisted human reproduction (AHR) techniques has the potential to shift from a reactive stance of treating infertility (arguably a medical need) to an increasingly proactive stance of prenatal screening and selection to, potentially, genetic enhancement (a social want). Indeed 'the prospect of screening the entire genome at the embryo stage is not very far off' (Gosden, 1999). Consequently health professionals are finding it harder to avoid the moral and ethical issues thrown up by the advances in reproductive medicine. The need to decide how to promote the positive, but avoid or minimize the negative, consequences from the new power to alter the origins of human life is becoming more pressing.

## *In vitro* fertilization

'The existence of IVF has made it harder for people to live with childlessness' (Leather, 2002). *In vitro* fertilization (IVF), i.e. fertilization with parents using their own gametes, raises a number of ethical questions. It is primarily available to the rich both in the UK (for a discussion of inequities of service provision in the UK, see Lord et al., 2001; Multidisciplinary Working Party, 2002) and in the USA, where only a minority of states allow fertility treatment to be included in health insurance schemes. Arguably IVF raises expectations unlikely to be fulfilled, given a success rate of 21–28 per cent between April 2000 and March 2001 (HFEA, 2002) – up from 8.6 per cent in 1986. IVF generates a surplus of embryos, the disposal of which is itself a matter of controversy and may lead to disputes in the court where partners are in disagreement. Another issue is that of multiple births where these represent 42 per cent of neonates and 70–80 per cent of pathologies (Papiernik et al., 2002). It is estimated that it costs the NHS some £60 million to treat the triplets born of IVF, on top of the financial and emotional cost to parents and the triplets themselves (Kellaway, 2002), and is often indicative of poor health outcomes. Ruth Deech, former Chair of the HFEA, contrasted these costs with the earnings of clinicians in private practice in pursuit of maximum success rates. Although not offering specific proposals, Deech (2002) suggested that some of the public cost could be borne by the private (infertility) sector. Generally the outcome seems to be that the physical health of AHR mature singleton babies is similar to naturally conceived babies (Sutcliff, 2002).

Refinements of IVF treatments have meant that sperm sorting allows embryos with desirable genes or of the desired sex to be selected for implantation, while improvements in amniocentesis tests (for an exposition, see Rapp, 1999) and the ability to screen embryos allow those predisposed to disability to be eliminated. In addition, the use of hormones in IVF treatment may increase the risk of ovarian hyperstimulation syndrome (OHSS) by 5 per cent. OHSS is a potentially life-threatening condition. It particularly affects those with endometriosis or whose infertility is the result of unknown causes (Ness et al., 2002). IVF can also lead to the paradoxical situation where a couple may be advised against unprotected intercourse during the course of ovarian stimulation (Milki et al., 2001). Those who maintain that infertility can in many cases be overcome 'naturally' have flagged concerns about what they consider to be an overhasty resort to technological assistance or what they see as an over-emphasis on high-tech means of conception (Glenville, 2000; Barbieri et al., 2001; Payne, 2002).

Treatment is rarely confined to neat categories and, once a technology exists, its use widens. Thus, it is no longer only married couples who seek

assistance. Single women, even if they have never had a sexual relationship (so-called 'virgin births'), unmarried or same sex couples, older women, postmenopausal couples (with or without children from a previous relationship), women born without a uterus, survivors of cancer or other traumatic illness who may need surrogacy, and mothers wanting to start a second family hoping to use their daughter as a known egg donor – all now have the possibility of attempting to achieve the previously unthinkable.

## Lone conception

In early 2000 the HFEA permitted the use of frozen eggs in fertility treatment, directed primarily at young women suffering from illnesses such as cancer. Even before this event a commercial company called Time of Life was set up to assist single women – for a joining fee – to prepare themselves for lone conception initially using donated gametes. The options proffered are 'artificial insemination, self insemination by a known donor, and sex' (Time of Life International website). These women often prefer to remain anonymous, not admitting membership to friends or colleagues for fear of the stigma and accusations of being 'unscrupulous "sperm-hunters, . . . tampering with nature"' (Kerr, 2001). Often the stated preference was for frozen eggs, despite the low chances of pregnancy (1–2 per cent). Another company followed, originally on the Internet, as an introductory agency for lesbian and single women to male sperm donors. This led to media criticisms of indiscriminate pandering to a 'baby on demand' culture (Lockett, 2002; Brinkworth, 2002).

There are no statistics available as to how many women go forward to become mothers in this way. The social pressures to be independent career women, coupled with the demise of marriage, are often cited for the growth of this group. Others argue that media representations that it is safe to postpone the decision to have children cannot be relied on, as many women in their late 30s discover that it can be too late for them to conceive (Hewitt, 2002; Conran, 2002; Earle and Letherby, 2002). On the whole, motivation to become a parent in this way seems to be linked to the perception that time to find a partner in the usual way has run out (Murray and Golombok, 2002).

By October 2002 the first UK baby was born from the frozen egg of her genetic mother, opening the door to engineering patterns of childrearing. Dr Gillian Lockwood, who pioneered a new unfreezing technique, acknowledged that this might become 'the ultimate kind of family planning', particularly for younger women postponing parenthood to

concentrate on their careers (Bosley, 2002). Is the wish to postpone parenthood unreasonable? What of the stories and individuals behind the headlines? [Names have been altered]:

> Eva, a white heterosexual English woman with retired parents, feels she has much to offer a child – love, stability and a warm family environment. At 38 she is a financially secure university graduate based in Europe. Past relationships have not worked out. Given her age she wants to store frozen embryos using her own eggs and donor sperm for future use in clinic A. Simultaneously she wants to freeze her eggs at clinic B. Should she find a suitable (and fertile) partner she plans to use her own eggs, but if this were unsuccessful she would use the embryos stored in clinic A.
>
> Were she to be a lone parent she would return home where she has a stable network of supportive friends with children. Were she not to use the embryos created on her behalf, she would donate them to other infertile couples.

## Delayed birth

The number of births to women aged 45-54 rose to over 4500 in the USA in 2000, the last year for which figures are available, the highest number recorded in that age group in 30 years (Associated Press, 2002). Older and postmenopausal mothers appear to be the brunt of particular opprobrium. These women are generally discussed in the media as an 'offence' against nature, whereas older fathers may be admired or envied for their prowess (Mobiot, 2001). Findings that older male sperm have a larger number of chromosomal abnormalities do not generate the same media interest (Prestes et al., 2001). Older mothers have been criticized not in terms of their ability to parent but for being 'unnatural'. Yet, arguably, children whose parents have gone to a great deal of effort to conceive them are more likely to be loved than those conceived accidentally, and mature women are likely to have more experience and patience than younger counterparts. Late births may mean that a young child may suffer the death of his or her mother prematurely. Does this constitute sufficient reason to refuse treatment, especially as, in the developed world at least, life expectancy is greatly increased?

AHR techniques have opened the doors to intermixing relationships previously considered unalterable, raising unease about the blending of generations, potential sources of conflict with respect to 'ownership,' and possibly competing emotional claims on the resulting child(ren). The following is an example of a proposed daughter-to-mother donation:

Jane, a 40+-year-old woman who had previously been married, and Adam, her partner of over a decade, have been trying for a child together for years. After several failed fertility treatments, including advertising (unsuccessfully) for an unknown donor, Jane's adult daughter spontaneously offered to act as egg donor.

In her early 20s, she has had one five-year relationship, which has now ended. Adam has been her stepfather since she was little. Jane's first marriage was brief and her first husband offered little support.

Adam is childless. The couple live with Jane's daughter (the proposed donor) and adult son. The couple own their own business, employing the daughter and other members of their extended family. Jane's son is unaware of the proposal. The couple claim that they intend to be open with the prospective child. Should treatment be successful and there were additional embryos, the couple might try for another child.

Although Jane has tried to shield her daughter from her distress at her inability to conceive again, they have talked extensively and at times she has been unable to conceal her pain. The daughter believes that she will be unaffected by the donation – the child would be a sibling she expects to baby-sit. She wants children in the future and wants any spare eggs frozen for her own future use. Should something befall her parents, she would take on full responsibility for the prospective child.

What are the implications for the various parties if treatment proceeds? How will the family negotiate these special relationships? How should the issue of information sharing be handled? On what basis could treatment be refused?

## Surrogacy

In the UK surrogacy is viewed as the treatment of last resort. It is illegal in Austria, Germany, Sweden and Norway. In Finland, Greece and Ireland surrogacy takes place with no legislative provisions. In Australia it is allowed, but not on a commercial basis. France, Denmark and the Netherlands prohibit payment to surrogate mothers. In the UK only 'reasonable' expenses are permitted. Laws vary across the USA: Arizona, New Jersey and Michigan opt for a complete ban; others such as Florida allow it with certain conditions. Those who cannot receive treatment in their own area will often seek it in other jurisdictions.

The major religions seem to be united in their opposition to surrogacy. This is based on the view that the right to reproduce means a right to have one's own children to rear. Where there is no intent or ability to rear – as in surrogacy – there is no fundamental moral right to reproduce (Steinbock, 1995). In contrast, in the secular world some advocate the advantages of openness and commercialization in the area of surrogacy (O'Driscoll, 2001). O'Driscoll cited various Hollywood stars such as

Robert De Niro, Cheryl Tiegs and Kelsey Grammer (Frasier) who had commissioned women to carry their child for them and their partner, dubbing it 'the celebrity tip of an affluent middle-class iceberg'. This is in sharp contrast to recent bans on surrogacy in China and Australia. As in the UK, US figures are largely speculative, but Shirley Zager, director of the Organization of Parents Through Surrogacy is quoted as putting the number at about 1000 annually; the UK equivalent is 415 facilitated surrogacy births since 1988. At the time of writing, California is the only American state where surrogacy agreements have legal force.

As a result of improved technological techniques, most surrogacy arrangements use the commissioning couples' gametes, which are then 'hosted' by the 'gestational carrier', avoiding a genetic link to the surrogate. Such arrangements tend to come with a price: openly in the USA, under the guise of 'reasonable expenses' in the UK where advertising for a surrogate by individuals or couples is against the law. Yet how relevant is this when seeking a surrogate seems freely available on the Internet? Anecdotally, there are reports of private surrogacy arrangements for fees in the region of £50 000, where there is no screening or contract of agreement between the parties, as promulgated by the British organization Childlessness Overcome Through Surrogacy (COTS). Is this the dreaded 'commodification' of life predicted by earlier opponents of AHR techniques, or a reasonable empowerment for those willing and able to pay an upfront fee for service? On the other hand, a recent study showed that surrogacy is often associated with good parenting (MacCallum and Golombok, 2002).

The Internet can also act as a means of anonymous communication where donor sperm can, for example, be shipped in a vial to those who request it, with no questions asked as long as payment is forthcoming. Infertile Israeli women recently won the right to import ova from abroad, meaning from Romania, apparently the greatest potential source of eggs (Siegel-Itskovich, 2002). Thus the issue of competing interests arises again and again, often couched in terms of family values versus scientific progress, rich versus poor, powerful versus powerless.

## Third-party conception

Third-party reproduction raises particular psychological and ethical issues. As a medical treatment it came into its own in 1984 (the first baby conceived using donor eggs was born in 1987), and involves using the gametes (sperm or eggs) or embryos of people external to the prospective (social) family unit. Medically the need for this can arise because the male partner cannot produce sufficient or adequate quality sperm, or because the woman cannot produce eggs, e.g. the result of illness such as

cancer, polycystic ovaries or a premature menopause (for a discussion of premature menopause, see Singer and Hunter, 2000).

More than 12 500 individuals have been born by donor insemination (DI) in the UK since 1991, when the HFEA was charged to keep records of all gamete transactions. There are probably another 3000 people conceived from donor eggs or embryos (Department of Health, 2001), and there may be a further 20 000 conceived before 1991; no-one knows as there was no requirement to keep records. For those born after 1991 in the UK, the earliest they will be able to access information about their gamete provider (donor) is 2008. Of course, they would need to have either been told by their parents or suspect their status in order to consider approaching the HFEA. They cannot yet be provided with identifying information about their provider. It has been argued that the information available should be increased at least to provide recipients with reassurance, and if the donor-conceived individuals are to be told, the information 'should be sufficient for them to fill in the first chapter of their life story' (Pennings, 2000).

This remains a controversial area: the climate in the UK does not appear to be ready to take up the radical notion that information regarding the means of conception be included on a donor-conceived individual's birth certificate. Yet the current situation has been criticized as too casual with calls being made for even nominal payment to (sperm) 'donors' to cease; for the quality of information gathered about them to be improved and the information verified; and for a means of updating their medical information for the benefit of their donor-conceived offspring (e.g. in the event of an inherited disease).

At their 2002 conference, the British Medical Association overturned an earlier decision of its ruling council that future people conceived from donor sperm should have the right to discover their father's identity. On the other hand, the British Fertility Society, comprising medical and allied health professionals, although against radical reforms, were urging the government to allow non-identifying information of donors to be made available, initially through a Voluntary Contact Register (Hunt and Fleming, 2002). At the same time the British Infertility Counsellors Association (BICA) strongly supported access to identifying information in the future (BICA, 2002).

## Welfare of the child

What are the psychological implications for donor-conceived individuals? Could confusion and insecurity result, particularly among those who have been told that they have been conceived using donor gametes but are

denied further information about their biological origin? How can the negative impact of secrets held about one's identity be assessed, or that of an unplanned discovery of such secrets? There are as yet no clear answers. In practice these issues tend to be presented as a matter of risk assessment to prospective parents. The options they are expected to consider are secrecy, partial disclosure (presented as a kind of drip-feed over time) or full disclosure from the start. Those who argue against information sharing, primarily parents and some in the medical professions, believe that donor-conceived people may find the information disturbing or alienating and that it may adversely affect their relationships with family and peers. Equally, certain religious perspectives, which do not subscribe to the virtues of AHR technology, may influence parents not to risk future ostracism of themselves or their children from their religious group. Furthermore, such information as is available is incomplete, and may be more likely to confuse or frustrate than satisfy, resulting in 'genetic bewilderment'. Weighed against this are arguments that donor-conceived individuals have an inalienable right to know their origins, and that children may be psychologically damaged if they sense an inexplicable – and conclude a shameful – difference from their social parents. The presumption is that it is better not to withhold information about origins, and that genetic information needs to be stored securely and made available so as to avoid unwitting genetic incest later on – and in future, DNA testing would quickly settle the matter.

Should there be legislation, which is notoriously slow to change, in a field driven by dazzling new possibilities at an ever-faster rate, particularly when restrictions vary from country to country, so that those who can afford it travel elsewhere for their treatment of choice? Whose rights are paramount – the adults' longing for a family at almost any cost or the prospective individual's future well-being? Can such an apparent dichotomy of interests be reconciled? Is it a matter of unadulterated consumerism primarily in individualistic, highly developed, highly technological Western cultures or, if not, on what basis can apparently competing 'rights' be regulated or adjudicated, and how and to what extent can these be enforced in practice?

For AHR is more than a series of amazing technical feats. It is at once about how human beings can be created and about how social relationships are formed – how these evolve throughout a lifetime and arguably beyond, affecting future relationship patterns and potential psychological make-up. In the past most people have appealed to 'blood ties' and the bonds of 'flesh and blood' as the basis of social obligation. Kinship ties and family life have defined how human beings make sense of the world (Finch, 1989). Until recently, a special connection between the social and the natural has been presumed, although the meaning of this may be

interpreted differently across cultures. Nevertheless it constituted a recognisable given, an anchor to reality. AHR raises questions of the psychological impact of people living in families in which such traditional assumptions about kinship and family life are being challenged.

To a greater or lesser extent, part of everyone's identity as a person derives from their beliefs about their birth and upbringing. This information has necessarily involved other people and as such is also social knowledge, reaching out into how these relationships are governed and adjudicated, as in the laws of inheritance. The relationship of donor, recipient and resulting individual is exceedingly complex. The motivation of gamete providers can be complicated and this is likely to have psychological ramifications for the resulting donor-conceived person.

The meaning of these various relationships and the motivations involved are likely to have a significant impact on all concerned, e.g. does a child born using AHR techniques believe that 'their' gamete provider did so for commercial or altruistic reasons? Does the gamete provider(s) wish to have contact with the 'child', and if not what might this mean to the donor-conceived individual? At present, relatively little is known from the donor-conceived person's point of view. What psychological impact might the donor have on the family? Arguably this method of reproduction might create a triangle among the donor, the genetic parent and the non-genetic parent. This could recede into the background of everyday life but may reappear at significant junctures such as birthdays, weddings or the birth of the donor-conceived adult's own children, or it may arise in an unfamiliar fleeting gesture or a particular talent, or become a major factor in a medical history with a hereditary illness. Where only one parent is genetically related, the balance of power in the marital relationship may also be affected, as may the ease of attachment to the child.

Relationships can break down. A recent example in Scotland ruled that a gay sperm donor for a lesbian couple, who had been named on the birth certificate as the father, had visited the 18-month-old baby frequently and had contributed financially, had full parental rights, against the couple's wishes. This highlighted some of the legal difficulties faced by same sex couples that in this instance were not considered a valid family unit (Scott, 2002).

## Donor-conceived individuals: the offspring

At a British Fertility Counselling Association study day, a 47-year-old man spoke of feeling excluded from his own story, of feeling 'less than fully human' and of being 'conceived by syringes'. He advocated the formation of an ethical framework for full disclosure and contact with the gamete

provider (Heyworth, 2001). Christine Whipp, a 46-year-old grandmother, says that she always sensed that she did not 'fit'. When she was 40 her mother – with whom she had a difficult relationship – died, leaving a letter revealing 'that my father was a glass jar with a blob of sperm in it' . . . 'I . . . feel like a freak, a fake . . . I don't feel I know who I am any more'. Another 36-year-old woman discovered how she was created when her mother 'blurted it out' during a heart-to-heart. She questions why individuals like herself will never be able to know their genetic roots, particularly as changes in adoption were made retrospectively (Braid, 2002).

The introduction of the Human Rights Act in 1998 in the UK, which came into force in October 2000, led to almost instant challenges to the HFEA. Two actions were lodged, one in respect of sex balancing by a couple wanting to use preimplantation diagnosis to choose the sex of the embryo and a second by another couple challenging the restriction of the use of embryos. 2002 saw the first legal proceedings against an embryologist and consultant under the 1990 Act. In late 2002, the embryologist concerned was found guilty of conducting 'futile and painful operations' on women to pay off his debts (BBC, 2002). Further cases are outstanding. Most hinge around the delicate balance between the need for careful regulation and consumers' 'right' to procreate (McGleenan, 2001).

Increasingly, coverage in the media and elsewhere seems to favour the donor-conceived individual's 'right to know' in the UK and elsewhere (Dyer, 2002a, 2000b; *Rose and Another* v *Secretary of State for Health and HFEA*, 2002). One possibility currently before the Canadian parliament, which could be adopted in the UK, would allow all children conceived using donor gametes to be given full medical information about the gamete provider (but not information about his or her identity).

Even under the current arrangements half-siblings, conceived before the 1990 legislation came into force, are managing to find each other. Using DNA testing, David Gollancz (2002), who has written and spoken publicly about his feelings, has linked up to his half-brother and -sister, Barry and Janice Stevens, who were brought up in Canada. Both sets of parents were treated at a Harley Street clinic. Barry made a film called 'My Sperm Donor Dad' screened on BBC 4 in March 2002. All three believe that they may have several more half-siblings. For them, questions of nature versus nurture are lived on a daily basis (Jacobus, 2002).

As these voices begin to be heard, the notion of a register similar to that for adopted people seems to be gaining ground. Crawshaw (2002) suggests that a proportion of donor-conceived individuals will want identifying information about their gamete providers and some may also want face-to-face contact with their 'donor'. Based on recent work on adoption (Howe and Feast, 2002), she also expects that more female than male offspring will undertake searches. The two most likely single triggers