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ETHICAL ASPECTS OF IN VITRO FERTILIZATION

Just over a decade ago, the problem of infertility received a triumphant answer by the development and successful use of a new technique of artificial reproduction, *in vitro* fertilization (IVF). Up to that time, the treatment of infertility was confined to practices such as artificial insemination using donor semen (AID), which was introduced in Europe in the 30s to relieve infertility in couples in which the husband was the cause of the condition, and the «fertility pills» of the 60s. When in 1978 the first *in vitro* baby, Louise Brown, was born the doors opened to conbatting infertility caused by a blockage or damage of the Fallopian tubes of the woman as well as some other forms of the condition. Louise Brown was created as a result of a process in which her mother's egg was fertilized by her father's sperm in laboratory glassware, *«in vitro»,* and the embryo was then transferred (after developing to a multi-cell stage) into the mother's womb. Today IVF is well accepted and is promoted as a treatment of some forms of infertility in many parts of the world. However, the method has raised many important ethical questions and problems and has been repudiated on several moral grounds. In the present paper I want to examine critically some of the types of reasoning that have been used in the refutation of the procedure and attempt to show that they are faulty. My discussion will take the form of an argument in favour of the IVF programme.

IVF is most commonly justified in the name of health: as it is a cure of the impairment of infertility it is a good thing. However, this justification of the procedure has been criticized in several ways. According to one line of argument it is wrong to think of IVF as a cure of infertility because it is wrong to think of infertility as a disease or a disability. The infertile person, it is said, is not unhealthy. Infertility is not a threat to life, it is not physically painful, it does

not lead to bodily damage[1]. But many conditions which are recognized as diseases or disabilities are not life threatening or painful. Moreover there is a bodily damage associated with infertility -- (in many cases at any rate) the woman's Fallopian tubes are damaged or blocked. And although it is not externally detectable, this is not in any way relevant to whether or not infertility is a disease or a disability. What is rather crucial is that this bodily damage prevents the infertile from achieving an expected term of life, a state held to be normal.

It is indeed contrary to popular evidence to suggest that infertility is not a disablement. Although some infertile individuals may not think of their condition as a problem, or might even think of it as an advantage -- because, for example, of not having to worry about contraception - - in most cases infertility is a very negative experience; it is seen as something pathological and is accompanied by a lot of suffering. «I am just someone with a disability, a handicap»[2] says one infertile woman. «It hurts to be infertile, to make the conscious and informed choice to have children and then to be denied»[3] says another. The reason why infertility should be experienced in this way is complex. There is no doubt that evolutionary considerations are very important. But more important still are social factors, such as deep seated conceptions about the role of women mainly but also about the role of men and how having their own children constitutes the fulfillment of their lives. Whatever the causes, however, the fact remains that infertility is predominantly experienced as a pathological state, and this makes it unreasonable to suggest that the condition is not a disablement.

Some other critics of the IVF programme do not deny that infertility is a disease but question whether IVF is a treatment for it, and can moreover be regarded as a legitimate part of the medical practice. IVF, these critics claim, is not a cure of infertility because the woman's condition remains unchanged. Thus Leon Kass, a phy-

1. Leon Kass «Babies by Means of *In Vitro* Fertilizarion: Unethical Experiments on the Unborn» *New England Journal of Medicine,* 285 (1971) p. 1176.

2. Peter Roberts, «The Brennan Story: A small mlracle of creation» in W. Walters and Peter Singer eds., *Test-Tube Babies* (Melbourn: Oxford University Press, 1982) p. 15.

3. Barbara Menning, «In Defense of *In Vitro* Fertilization» in H. B. Holmes et al. eds, *The Custom-Made Child? Woman-Centerd Perspectives.* (Clifton, N. J.: Humana Press 1981) p. 264.

sician interested in medico-moral problems, writes: «Providing a child by artificial means to a woman with blocked oviducts is not a treatment (as surgical reconstruction of her oviducts would be). She remains as infertile as before. What is being 'treated' is her desire... to bear a child»[1]. William Daniel agrees: In promoting IVF, he says, the medical profession goes «beyond the curing of disease» -- its «basic therapeutic role» -- to the «satisfaction of desires»[2]. The Protestant theologian Paul Ramsey, moreover, casts doubt on whether the medical profession can legitimately go beyond its basic therapeutic role in that way. There is an important line, he says, «between doctoring desires...and seeking to correct a medical condition...medical practice looses its way into an entirely different human activity ... if it undertakes... to produce a child without curing infertility»[3]. And further, «To construe IVF as a practice of medicine we have to construe medicine to be devoted to the satisfaction of desires»[4].

Now it is true that IVF does not correct the woman's Fallopian tubes but rather responds to a sympton of this physical disoreder by meeting the woman's desire to have a child. But this does not make IVF less of a treatment for infertility than, say, sleeping pills are for insomnia or insulin is for diabetes or spectacles are for short-sightedness. For in these cases also what is treated are not the underlying disorders, but some symptoms - - and ultimately a desire to transcend the limitations imposed by the physical disorders[5]. In fact as Robert Edwards, the co-creator with Patrick Steptoe of the first *in vitro* baby points out «most medical treatment, particularly of constitutional or genetic disorders, is ...symptomatic in nature». And he continues, «Exactly the same... applies to the cure of infertility: should patients have their desired children, the treatment would have achieved its purpose»[6].

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1. Kass, «Babies by Means of *In Vitro* Fertilization» p. 1177.

2. Willian J. Daniel, «Sexual Ethics in Relation to IVF and ET: The Fitting Use of Human Reproductlve Power» in Walters and Singer, *Test-Tube Babies,* p. 72.

3. Paul Ramsey, «Shall We Reproduce?», *Journal of Americal Medical Association,* 220 (1972) p. 1482.

4. Ibid, p. 1481.

5. Samuel Gorovitz, *Doctors' Dilemmas* (Oxford and New York: Oxford University Press 1982) p. 177.

6. Robert G. Edwards, «Fertilization of Human Eggs in Vitro: Morals, Ethics and the Law», *Quarterly Review of Biology,* 50th Anniversary Special Issue (1976), p. 376.

There is no question about whether IVF is a treatment of infertility. Is its provision then part of the basic therapeutic role of medical practice? What is and what is not part of the basic therapeutic role of the medical profession does not depend on the distinction between responding to a physical condition as such and responding to some related desire, while leaving the physical condition unchanged. The criteria rather lie in the nature of the problem that is given to our attention, whether we focus on the physical disorder or on its symptoms or both. This is an area of considerable relativism. Judgments as to which conditions are legitimately medically treatable are influenced by social, scientific, economic and value expectations. In a context which is familiar to us and and in which medical care is publicly funded priority is given to conditions which would lead to undesired death or which involve serious pain and suffering. But medical care extends much beyond this to include, among other things, the treatment of mental disorders. And as Peter Singer and and Deane Wells rightly remark, it would be absurd for community resources to be spent on the psychiatric treatment of the depression and anxiety caused by infertility but not to be spent on the treatment of infertility itself[1].

It has been argued that in view of the fact that social pressures are to a great extent responsible for the negative experience of infertility, the solution to the problem of infertility should not so much be sought in medicine but in a change of the attitudes of society toward children and parenting. Thus it has been said, for example, that by placing less significance on the genetic link with one's offspring --the importance of which is indoubtedly socially constructed -- and by encouraging the adoption of children who are not exlusively white and healthy and the interraction with children who are not one's own, the experience of infertility would loose the unremitting desperation that so often accompanies it[2].

The value of a social response to the problem of infertility cannot of course be doubted. However, such a response can only have some long term effect, and with that end in view it should be certainly undertaken. It will not thus help the individual infertile woman who feels now desperately depressed about not being able to have a

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1. Peter Singer and Deane Wells, *The Reproduetion Revolution. New Ways of Making Babies* (Oxford: Oxford University Press, 1984) p. 67.

2. Christine Overall, *Ethies and Human Reproduction. A Feminist Analysis* (Boston: Allen and Unwin, 1987) ch. 7.

child. As Willian Daniel points out, «Her need is real enough to her» and is not going to be changed by an approach which seeks to undo social conditioning[1]. In the present context, then, the medical response to infertility is irreplaceable.

Let us now turn to consider a very different issue. In most cases IVF, undertaken to remedy infertility, involves the production of «spare» embryos: because of the fertility hormones that are used to increase the chance of obtaining an egg from the woman's ovaries, more than a single egg is usually produced, which are then all fertilized, but of which at most three are transferred into the womb. (The re-implantation of two or three fertilized eggs has the point to improve the pregnancy rate, while of course allowing for the possibility that the woman will have twins or triplets). The embryos which are not implanted are «spare» and are either frozen for future use or discarded or used for experimentation and research. To the extent that IVF involves the production of excess embryos it raises a question about the moral status of the human embryo -- about the degree of protection and respect that the human embryo should be accorded. For even in the case in which the spare embryos are all frozen for future use, it is possihle that they might not be used by the parents (if, for example, the re-implantation of the first embryo was successful and the parents do not want any more chlldren) or by another couple (if, for example, the parents do not wish to donate them) and that they might thus have to be eventually destroyed.

The issue of the moral status of the embryo has been extensively debated, especially in connection with, or as part of, the abortion controversy. On the one side of the debate there are those who believe that a human embryo, from the moment of conception, is a human being, and thus deserves the protection and respect that is due to all human beings. As we would not think it acceptable to destroy human individuals or use them for scientific experimentation and research without their consent, the proponents of this view, who of course oppose abortion, vehemently oppose IVF when it leads to the production of spare embryos. Moreover some «Right to Life» organizations reject the IVF programme, even if it is restricted to the fertilization of no more eggs than the woman is prepared to have reimplanted into her womb. The reason they give is that even if all embryos are transferred into the mother, a high percentage of them

1. Daniel, «Sexual Ethics in Relation to IVF and ET», p. 73.

fail to survive; and although some eggs which are fertilized by natural intercourse also fail to implant and thus die, this is an unavoidable fact of nature which cannot in any way be used to mitigate the ethical responsibility of deliberately creating embryos in the knowledge that they will be exposed to high risks[1].

On the other side of the debate there are those who hold that the status of a human being does not begin at conception but at some point after it. The proponents of this view, who naturally defend abortion up to the point of development of the embryo which is thought to mark the beginning of human life, also defend IVF to the extent that the embryos that it brings into existence are dealt with (either transferred into the womb or destroyed or experimented upon) before that point.

The debate about the moral status of the embryo, although concerned with how the embryo should be treated, actually takes the form of an argument about when a human life begins. This is unobjectionable as it stands, since in order to know how to treat an entity it is necessary to know something about its nature. In the context of this argument those who oppose IVF, but also abortion, find themselves at a considerable advantage, in view of the failure of their opponents to give a satisfactory definition of that point. If, for example, as some of the latter suggest, human life starts at birth, the obvious objection is that the characteristics of the embryo-baby are not different just before and just after birth to justify drawing the line along that boundary. If, to consider another of their suggestions, human life starts at the point where the embryo could survive outside the mother's womb, the objection is that physical independence can hardly count as a defining criterion of the beginning of human existence. To support this it is sufficient to cite the case of a newborn who cannot survive if it is not breastfed by its mother (e.g. in a remote area where bottlefeeding is impossible) or if it is not connected to a machine (e.g. a kidney machine). As these suggestions fail, the opponents of IVF and abortion are right to think that the only acceptable - because safe - solution is to grant the embryo the status of human being right from the time of conception and offer it the full protection and respect that is due to all human beings.

But do all human beings deserve the same protection and respect? Like the issue of abortion, that of IVF can be seen under a dif-

1. See Singer and Wells, *The Reproduction Revolution*, p. 85.

ferent light, if we stop debating about when a human life begins and realize that while, undoubtedly, the human embryo - - whether or not it is a human being - - is certainly not a person the prohibition against killing (to consider killing only and leave aside research and experimentation for the moment) applies to persons only, and not to all human beings. Indeed it applies to all kinds of persons and not only to human ones[1]. Few could deny that, *ceteris paribus,* it is morally permissible to terminate the life of a patient in irreversible coma, in fact the recently established concept of brain-death is a manifestation of this - - by now widely held -- belief. Yet, by being in this condition one is not deprived of the status of personhood; which, as most would agree, requires, besides consciousness, characteristics such as a sense of the past and the future, the capacity to relate to others, and a dergee of self-consciousness and rationality.

Killing a non-person is not of course always permissible. For although it is not intrinsically wrong to kill a creature who is not a person, it might be wrong to do so by virtue of the effects that the killing may have on others who are directly affected by it. In the case of IVF it would be wrong to produce spare embryos intending their eventual destruction if that was against the parents' wishes for example. Moreover it does not follow from the view that there is nothing intrinsically wrong with killing embryos that it is ethically acceptable to use them in certain ways, e.g. for experimentation and research. For although it is permissible to kill non-persons, it is wrong to inflict pain on them (so that if they are to be killed, this ought to be done painlessly), and if using them in research might involve some sense of pain, it would be unacceptable to do so. However, in the first few weeks of its development (probably up to six weeks at the very earliest) an embryo is incapable of feeling pain, as it has not as yet got a sufficiently established nervous system. And since embryos produced by the IVF procedure do not, at the moment at least, live for more than a few days, using them for research purposes is unobjectionable. (Things of course will be different with the possible development of artificial placentas which will allow embryos to grow to a much later stage than at present.) Indeed it appears to

14. See S. Dracopoulou, «The position of man within the world and the value of human and animal life» forthcoming in the Proceedings of a conference on the relationship of science and ethics sponsored by the Instituto Scientifico H san Raffaele in Milan, April 1988. Although the notion of a person does not figure in this article, it is clearly implied by the notion of a «mentally complex being».

be even morally required if we take into account the great value of such research for understanding the cause and reducing the incidence of congenital disease, perhaps even of cancer and other diseases, for improving the success rate of the IVF procedure, and for providing material for transplantation into injured and dying patients.

It might be argued at this point that although a human embryo is not a person it still deserves our special protection, so that it is gravely wrong to kill it, because it has the potential of developing into one. But this so widely used argument fails. The fact that x has the potential of beconing Y does not entitle x to the treatment that Y deserves. A child has the potential of becoming an adult. This in itself does not constitute a good reason for treating it like an adult.

The potentiality argument can moreover be refuted in a different way. If embryos have the potential to become persons, so do unfertillzed eggs and spermatozoa. There are certain stages that the embryo has to go through in order to reach the point of becoming a person. For example, it has to implant into the uterous, it has to divide to give a multi-cell entity, it has to develop a nervous system etc. Similarly there are certain stages that the individual unfertilized egg and the individual unfertilized sperm must go through in order to reach the stage of personhood. One of these stages for the egg is to come into contact and unite successfully with a sperm and for the sperm to come into contact and unite successfully with an egg. It would be unreasonble to think that because eggs and sperms need to go through one more stage of development than embryos do in order to become persons, they do not have the same potential to become this as embryos do[1]. Yet, nobody would argue that on the basis of their potentiality the gametes should be accorded the moral status of perons. Inded we do not think of these entities as qualifying for any protection whatsoever --we are in fact constantly wasting them, nature is constantly wasting then (if we think of the ova that are wasted every month that women in their reproductive years do not become pregnant). It follows that any attempt to accord embryos our special protection on the basis of their potential to become pesons is flawed.

It is sometimes argued that although gametes may be said to have the potential to develop into persons, their potential is of a different moral kind, as it were, from that of embryos, since the genetic nature of the person to which they may develop is not as yet deter-

1. See, Singer and Wells, *The Reproduction Revolution*, p. 91.

mined. (Any of the millions of sperm in a man's semen may fertilize a woman's egg.) On the other hand, because of the complete genetic identity of the embryo, the genetic nature of the person to which it may develop is determinate. But it is not clear why the potential to develop into a genetically specific person should be ethically relevant, qualifying the entity which has it for special protection, in a way in which the potential to develop into a genetically indeterminate person is not. Leaving this aside, however, suppose that we isolate an individual sperm and an individual egg about to unite. Would we say that this pair of gametes should be accorded the moral status of a person, so that, for example, it would be wrong not to allow them to unite and to destroy them instead? Yet, surely the pair has the potential to develop into a genetically specific person[1].

Having reached the conclusion that the embryo does not qualify for the moral status that many of those who oppose IVF want to accord to it, let us finally consider yet another moral objection that has been raised against the IVF programme, an objection which takes the form of a «slippery slope» argument. If we accept IVF as a cure of infertility, this objection says, we have started sliding down a slippery slope which will inevitably lead us to some totally unacceptable practices. Thus Leon Kass, for example, opposes funding for research on IVF because «it will be difficult to forestall dangerous present and future applications of this research and its logical extensions»[2]. Paul Ramsey also sees IVF as the beginning of a process which will be very difficult or impossible to stop and which will end in social disaster[3]. Where these critics believe that IVF therapy will inevitably lead are practices such as cloning, sex-selection, genetic enginnering, etc.

It is not necessary at this point to address the question of the moral permissibility of these practices (although it might be valuable to point out that some applications of them, such as therapeutic genetic enginneering, by which we will soon be able to cure certain genetic diseases, are not merely unobjectionable but also morally admirable). For even if they are abominable, this is not a reason for rejecting IVF therapy, since although from the point of view of bio-technology the IVF procedure opens the way to them, it is not

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1. See ibid, p. 92. Also, Gorovitz, *Doctors' Dilemmas* p. 174.

2. Leon Kass, *HEW Support of Research Involving Human In Vitro Fertilization and Embryo Transfer,* 1978 Appendix, Section 2.

3. Ramsey, «Shall We Reproduce?» p. 1484.

clear that it also and inevitably leads to them. Indeed the validity of the slippery slope argument in refutation of the IVF programme is suspect. But let us examine this argument.

Its basic claim is that once we accept a certain practice, we will not be able to restrain ourselves from accepting certain other practices, some of which at least are totally unacceptable. Now within this general formula there is a crucial ambiguity in the phrase «we will not be able to restrain ourselves from». The phrase could mean either (a) that logically there will be no grounds for restraining ourselves or (b) that we will be psychologically unable to restrain ourselves. Under (a) the argument becomes that once we allow the IVF procedure to go on, we are logically committed to allowing practices such as cloning, sex-selection, genetic engineering etc. But this is surely false. A quick way to see why is to notice that the principle on which clinical IVF and research on spare embryos are defended is humanitarian and therapeutic in nature, and cannot be invoked in cases, such as for example eugenic genetic engineering, where what is attempted is the enhancement of human genetic constitution (e.g. of intelligence and competitiveness), cloning genuises, and selecting the sex of one's child for preference (and not in order to avoid certain sexlinked diseases).

Under (b) the argument says that once we allow IVF, it will be psychologically impossible not to accept all these other sort of practices. Unilike the previous claim, which makes a point about what from the point of view of logic, we must accept once we allow IVF, the present one is about what we are psychologically committed to accepting -- what we will inevitably do as a matter of fact, in view of our psychological and social circumstances. But this is a factual claim which can only be assessed empirically. And as yet, we do not have any conclusive evidence in favour of it or against it, so much so that some of these practices are not yet possible. However, it would be irrational to suggest that because we fear that in the future we might slide down the slope we should not now permit IVF -- a procedure which is clearly beneficial. We do not forbid the use of contraceptives because we fear that it might lead us down a slippery slope to the extinction of the human race. The suggestion appears even more irrational in view of the option we will always have to draw a line, after exercising judgment, between IVF therapy which is permissible and other practices which may not be. And to deny infertile individuals the chance of having a child that they so much de-

sire on the ground that we may not be able to draw that line, or draw it in the right place, indicates a lack of trust in the human ability to exercise judgment and control on the basis of instinctive ethical classifications.