

Embryo Experimentation

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The issue of the status of human embryos arose as a separate issue when experiments began to try to achieve fertilisation in the laboratory, experiments that ultimately succeeded in achieving the birth of Louise Brown in 1978. What may or may not be done to those embryos often does involve issues of women's rights, particularly since they may be exploited by the technology as the sources of ova and as gestators for the embryos conceived in the laboratory, but unlike the abortion of human foetuses, human embryo experimentation need not involve use of the woman's body. It may even be possible now to achieve a human embryo without even involving a woman as a source of ova. There are reports of attempts to achieve cloned human embryos developed using animal ova in which the animal nucleus is replaced by a nucleus from an ordinary somatic cell from a human being - trans-species somatic cell nuclear transfer.

In his treatment of human embryo experimentation, Peter Singer (with Helga Kuhse), an advocate of human embryo experimentation, admits the validity of the claim that a human embryo is a human being, but challenges the claim that every human being has a right to life. Not everyone accepts that a human embryo is a human being, but that may be simply a matter of semantics. Kuhse and Singer's point is straightforward:

“...the embryo is clearly a being, of some sort, and it can't possibly be of any other species than *Homo sapiens*. Thus it seems to follow that it must be a human being.”¹

There is a further question that they might have pursued but do not appear to have, and that is that the sense in which the human embryo is human may be in the trivial sense that even a human hand is human. Saying that it is a human *being* is to say that it is much more than a mere part of a human being or even a discarded or separated part of a human being, as in the case of sperm. That it is a being seems to denote an existence, even a life of its own which is not true of a human hand, for instance, or of sperm for the latter continues to survive only as a part of a human being or by fusing it with an ovum to form an embryo.

There is some debate, to which Kuhse and Singer refer, about when a human embryo actually begins and when it can be considered an individual being, given the capacity of the early embryo to divide to form identical twins. The twinning argument only has relevance to the first week or so. After that it does not occur as the cells become differentiated losing their totipotentiality. I could concede that first stage without affecting the basic point of interest which is to defend the status of immature members of the human family including “the child before birth”, and to make the claim that infants are considered worthy subjects of protection and of human dignity and

¹ Helga Kuhse and Peter Singer “Individuals, Humans and Persons” in Pete Singer et al *Embryo Experimentation* Cambridge University Press 1990, pp. 65-75

equal and inalienable rights.²

However, rather than avoid the issue of twinning and the first few days altogether, and because it is relevant to early embryo experimentation, briefly, I am inclined to the view that a new member of the species comes into existence when a new cell, the human zygote, is formed for the first time with the completed capacity of being able to develop to human adulthood given only nourishment and a favourable environment. That is a biological reality. We may differ about the moral or social significance of that biological reality.

We now have to accept that while, in our experience, human zygotes have only come into existence through the fusion of an ovum and sperm, it may eventually be possible that such a cell could be artificially constructed through altering or substituting the genetic constitution of an ovum, or, even more remotely possible, by bringing about the de-differentiation and activation of a somatic cell so that it acquires the totipotentiality of a zygote. The event known as “Dolly the sheep”, which Professor Ian Wilmut claimed to have achieved in his now famous cloning experiment³, opened the possibility of cloning in humans which I will discuss later.

I see no more difficulty for identity and individuality in the twinning issue - asexual reproduction - than in ordinary sexual parenthood. In the one case a new being comes into existence from another with the first continuing throughout the process. In the second case a new individual comes into existence from two others. I suspect that the twinning debate over identity and individuality lost its relevance when it became a possibility that an adult human being might also be cloned - also asexual reproduction. Conceptually it is no more a challenge to the identity of an embryo that a cell or cells might become isolated and form another individual, than it is for the circumstance in which a cell might similarly be isolated from an adult and become activated to act as an embryonic cell commencing development toward adulthood. In that sense we are all potentially more than one individual, so to speak, in the sense that we can be twinned by cloning, but that does not alter the fact that we are now individuals.

Kuhse and Singer also raise the question of chimera formation. This is when two embryos are combined to form one individual which in some species has been shown to develop to adulthood containing two different genomes. In some cases the combination was trans-species so that animal has some cells belonging to one species and other cells belonging to the other. This is quite distinct from cross fertilisation between species in which case a single genome is formed and may be found in every cell in the body of the animal. I am inclined to hold that with the formation of a chimera a new individual is formed which is distinct from the two individuals which ceased to live as distinct entities when they united. The individuals that they were cease to be. If it were possible to unite two people to form one person, it is difficult to imagine how this could happen in a way which preserved their individual identities. If this was to be true merging their brains would have to unite to form one brain and one mind. In those circumstances the person would presumably have memories of “when I was two people” but that poses so many problems for identity that it is difficult to imagine that one could survive the addition of the other. Rather it would seem more like the loss of two people and the formation of

² See for instance, the preamble to the UN *Convention on the Rights of the Child*

³ Ian Wilmut, A E Schnicke, J. Mc Whir, A J Kind and KHSL Campbell “Viable offspring derived from fetal and adult mammalian cells” *Nature* 1997, 385, p. 810-3

a third very strange person. There is saying that we are what we eat. But of course this is false. I am not a lettuce or the beans or the lamb I may have had for lunch. They lose their identity when they are assimilated through my digestion if not during the processing before being eaten. Who I am as an identity is a bundle of continuities in space and time in one integrated entity. Whether through the changes that may occur that identity persists depends on those continuities in the one entity. It would seem that chimera formation breaks those continuities in relation to the loss of the separate entities and that would be the case in either adults, if that were possible, or in embryos. What is formed would be a different being altogether. But for my purposes here this discussion, like the twinning discussion need not be pursued, chimera formation is no longer possible after the first few days and there remains the issue of the status of the immature being from that time right through to some time in his or her development when he or she exhibits the higher order characteristics we particularly value in human beings.

But membership of the species may not be what is meant by “human being”, the adjective “human” has other meanings than merely belonging to the species *homo sapiens*, such as having the characteristics of humankind⁴, especially the better characteristics or those that seem particularly unique to human beings, such as those which involve higher intelligence. In this debate some have taken that line rather than accept as Kuhse and Singer do that a human embryo is a human being. The embryo, they may say, lacks those characteristics that are so significant in adult human beings: it may be a member of the genus as a biological entity, but it is not yet human in that sense of having valuable human characteristics. Therefore, they might claim, the human embryo is not a human being.

Kuhse and Singer instead attack the proposition that every human being has a right to life. Given our earlier discussion of Singer’s treatment of the wrongness of killing a human being, this comes as no surprise. In fact he does not recognise a right to life of any human being: even an intelligent, self-conscious human being only has his or her right recognised as a rough rule of thumb which at a level of critical moral thinking⁵ may be overridden in the circumstances in which a calculation of preferences would indicate greater satisfaction of preferences through killing him or her.

Their argument is familiar. In order to explain our particular objection to killing human beings over and above other species, we are moved to resort to an appeal to some particular characteristics of human beings not possessed by animals, typically those characteristics requiring higher levels of intelligence. In making that move we exclude immature human beings because they lack that status. Any appeal that we make for special consideration of human beings on the basis merely of their membership of our species will be subject to a charge akin to racism, that species membership, like membership of a particular race is itself morally relevant.

There is a difficulty for Kuhse and Singer in relation to mature human beings who temporarily lose those higher characteristics for which they are valued, which happens regularly with sleep and with any other occasions of lost or diminished consciousness. In *Practical Ethics*, Singer

⁴*The Concise Oxford Dictionary* 9th Edition 1995

⁵By “critical moral thinking” I am here referring to the type of thinking which RM Hare describes in his *Moral Thinking: Its Level, Method and Point* Clarendon Press, Oxford 1981

resorted to referring to a sleeping adult human being as being *of a kind* who has valued characteristics. If this move is permitted then it seems that the door is open to those who are of the kind of being who normally, when adults, would have those valued characteristics - that is, immature human beings.

The third string of their argument is to raise the matter of arguments about potential persons. Rightly they dismiss potential human beings as of no significance. A sperm and an ovum together before fertilisation constitute a potential human being, but nobody, it seems claims that the gametes should be given equal and inalienable rights.

However I have never actually heard or read an argument from someone proposing that an immature human being - zygote, embryo, foetus or new-born - should have rights *because they are potential human beings or potential persons*. The argument that Kuhse and Singer tackle at this point would seem to be something of a straw man of their own construction. I have heard an argument expressed along the lines that an immature human being is valuable because as human being it has the potential for exhibiting valuable human characteristics, that is a human being with potential rather than a potential human being. An immature human being differs from sperm and ova because it has come to be as a being with the completed capacity for continued development as a human being, which capacity is *only* potential in the sperm and the ovum. One cannot rightly say of a sperm or of an ovum that it is the kind of being which will, unless there are mishaps, have higher order characteristics. That being only exists once the sperm and ovum unite to form the new cell with the completed genome and human constitution which determines that capacity. As sperm or as ovum they are incapable of further development.

Kuhse and Singer claim that damage to an embryo, if it never becomes a sentient being, does not harm it, because its total lack of awareness means that it never has had any interests at all.

The truth or otherwise of this proposition depends very much on what is meant by harm and what is meant by interests. There is a simple way in which it is false. If I poison a rosebush so that its leaves blacken and shrivel and it dies, I have harmed it. Whether that harm has any intrinsic moral significance is a different matter.

Similarly what is meant by interests is not simple. It is commonly claimed that interests are related to desires but the nature of the relationship is not clear. A person can desire what is not in their interests not only mistakenly through lack of information, but also deliberately. I can choose to act in someone else's interests rather than my own, and for altruistic reason may prefer, desire or choose to further another's interests in a way which is contrary to my own interests. I can knowingly desire something which is harmful to me. Once it is admitted that there is some sense of what is good or advantageous for me in terms of meeting vital needs for my development, flourishing or fulfilment, then some other standard than desires may be applied. In that way it may even make sense to speak of what is in the interests of even a non-sentient being, such as a tree. That is to say something is in the interests of a tree if it is necessary for or results in the flourishing of the tree. Whether that notion of interests has moral significance would seem to depend on whether trees have moral standing.

However it is not necessary to argue for non-sentient interests to justify considering immature

human beings to have interests. That an immature human being exists as a being of a kind which, in maturity, normally has significantly valuable characteristics, such as rational autonomy for instance, and all that autonomy or free will makes possible, does justify referring to what is or is not in his or her interests and makes it possible that he or she may be harmed. The question is whether those interests or that harm is morally significant. I would argue that damaging an immature human being so that he or she loses the capacity for rational autonomy is to do grave harm to him or her, harm of a morally significant kind akin to damaging an adult human being so that he or she loses his or her rational autonomy.

Such a claim will depend on the theory of dignity, equality, rights or morality applied. But those theories that contain a notion of dignity inclusive of inviolability or sacredness, I will argue, ought yield just such a moral conclusion.

Singer's account in this respect has some gaps, and it is not clear that even his preference utilitarianism would exclude consideration of an immature human being who is of a kind that will, unless mishap occurs, have self-conscious preferences, any more than those who are sleeping would be excluded. As I have discussed, a major gap in Singer's account is that his account of the wrongness of killing does not yield the protection of the individual that is claimed, for instance, in the international human rights instruments based on a notion of inherent dignity inclusive of inviolability or sacredness and which yields inalienable rights. For Singer such notions can only be rules of thumb, contingent upon the results of critical analysis in any given circumstance.

Nevertheless, the issue of induced abortion has given the issue of respect for the life of a human being before birth a highly charged character, and I am afraid that what I have argued thus far may already have been dismissed because it is seen to challenge an entrenched acceptance of the practice of induced abortion. The major difference however is that abortion involves a woman who is pregnant and this whatever happens to the child involves her.

The issue of embryo experimentation, though it is likely to involve a woman as a source of eggs and possibly a man to provide sperm, or someone else if cloning is used, is less complicated than abortion in that the embryo comes to be in the laboratory. There is no conflict with the right's the woman with respect to her body. The issue can be considered therefore entirely in terms of whether the embryo can be treated as mere biological material or whether it is a nascent human life.