

Cloning and Respect for Human Life

The recent cloning of human embryos by Cell Nuclear Replacement (CNR) in South Korea raises all sorts of questions about the human person and respect for human dignity.

Let us be clear that what is at stake here is not so much the sanctity of 'human life' – after all, sperm and eggs are living human material – but that of the human person. So, what exactly is the status of the embryo? There are some who hold that, because all the genetic material required for a human being is present in the embryo, it should be treated as a fully-fledged person from the very beginning. It is certainly true that the genetic status of the embryo is the basis for the 'respect' which the law requires it must be accorded. This means that embryos should not be used or discarded unnecessarily. The Human Fertilisation and Embryology Act 1990, however, allows the creation and storage of embryos outside the womb. It also permits research on human embryos up to a limit of 14 days or when the so-called 'primitive streak' appears, whichever is earlier, always provided that such research can be shown to be necessary for the treatment of human infertility or of serious disease.

The justification usually given for research on human embryos is that a very large number of 'conceptuses', or very early embryos, are wasted even in the course of natural reproduction. In the nature of the case, *in vitro* fertilisation (IVF) requires that more embryos be produced than can be used and the question then is, what should be done with the 'spare' embryos? They can, of course, be stored for future use but rather than simply being discarded, some can be used for research with the necessary safeguards mentioned above.

It seems to me that a distinction can quite usefully be made between 'supernumerary' embryos produced in the course of fertility treatment and those created especially for research. If IVF is to be used at all as a technique for helping infertile people, and even more so if Pre-implantation Genetic Diagnosis (PGD) is to be carried out for the avoidance of serious genetic disease, there are likely to be 'spare' embryos at the end of the

process. Some will judge that, with the proper consents, it is better that these should be used for the common good than simply allowed to perish.

Such a course of action is, of course, quite different from creating embryos through CNR, or some other means, simply so that research may be carried out on them and that they may be used for the treatment of various diseases (for example, by the harvesting of their 'stem cells'). Even if an embryo is not regarded as a fully human person, it has the potential to become one and this must be the basis for the use of the precautionary principle in the handling of embryos: they should not be created without necessity, they should not be destroyed unnecessarily and there should be no unnecessary research on them.

What then of the opportunities and promises held out before us if more research on embryos is allowed? It is claimed that the 'stem cells' yielded by early embryos can be used to treat a wide variety of serious diseases such as Alzheimer's or Parkinson's. This may well be so, even though their efficacy has not been fully established, nor have possible side effects been fully taken into account. It is also the case that 'stem cells' occur elsewhere. For instance, they are to be found in some adult tissue, such as bone marrow. Some such 'stem cells' are already being used in certain kinds of treatments.

The advantages of embryonic stem cells are said to be, firstly, that they have a greater ability to differentiate into a range of cells, thus widening the sorts of applications which may be possible and, secondly, that if an embryo is produced from the nucleus of the cell of an affected person, then the 'stem cells' from such an embryo could be used to treat that person without the danger of rejection which is always present with alien tissue. As to the second, the increasing possibilities of storing cord blood might meet some of the concerns regarding rejection. Where the first is concerned, research is showing more and more the possibilities of getting adult cells to de-differentiate' so that they can be more widely used. If there is a rôle for embryonic 'stem cell' research, it may lie in the strictly limited area of identifying how adult cells can be made to behave in ways similar to embryonic cells. This was one of the main reasons given for permitting

research on embryonic 'stem cells' by the House of Lords Select Committee on 'stem cell' research chaired by the Bishop of Oxford.

The use of CNR to create embryos, even if only for a limited period and for the purposes of research or treatment, raises, nevertheless, the question of reproductive cloning. There remain enormous scientific and ethical objections to any such attempt. The risks associated with cloning are formidable and would be completely unacceptable in a human context. Socially, there are problems with generational disruption (in genetic terms, the clone's parents are the grandparents and so on) and with family life (the clone is identical with one 'parent' and has no similarity with the other, and how will the clone relate to any siblings?). There are serious questions about motivation: is the cloned child an end or merely the means to an end and what kind of end? Does the clone 'replace' a deeply mourned child or satisfy some narcissistic desire to replicate oneself or to have children outside a committed relationship? Important issues related to the welfare of the child also come to mind: in the presence of the nucleus-donor 'parent', how will the clone come to a sense of identity? Will 'leaving home' be more difficult? What about forming other relationships?

For these and other reasons, reproductive cloning is illegal in this country and many scientists want a worldwide ban on it. With the cloning of embryos through CNR, there is the danger that the genie will escape from the bottle. The most rigorous methods are needed to prevent this from happening. In this context, moral intuition and scientific scepticism come together. When I asked an eminent scientist about the possibility of reproductive cloning, he replied that it *could* happen but he was not sure that it *would*. He was certain, however, that it *should* not be allowed to happen.

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February 2004

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