THE ETHICS OF HUMAN CLONING.

By
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The successful cloning of Dolly the sheep was announced to an unsuspecting world in February, 1997. Since then there have been rapid developments in the field of cloning adult mammals. For example, mice have been successfully cloned at the University of Hawaii, and in that laboratory, the process has been extended to produce clones of clones, and clones of clones of clones. Also, the famous Dolly is proving so-far to be a normal animal. She was mated with a ram and subsequently gave birth to her own lamb. Those rapid developments prompt me to return to the subject of human cloning and specifically to ethical questions raised by the prospect.

We could have been debating the ethics of cloning for the past 30 years, but we weren't. While Dolly is a very recent development, the experimental production of animal clones is not. In the late 1960s J.B. Gurdon cloned tadpole cells, which grew into adult frogs. In my opinion, no great insight was necessary at that stage to conclude that this type of technology would soon be successful with adult mammals. Dolly was born in February 1997, the first clone to be made of an adult mammal, and since then the world has been in a tizzy of fearful anticipation of possible consequences.

As I pointed out in the previous article, it would be wildly premature from a technical point of view, leaving considerations of ethics aside altogether, to go ahead now with the cloning of human adults. This consideration alone is more than sufficient reason to ban human cloning for the present. We don't know yet if clones of adult sheep have a normal lifespan, have normal good health, and behave over their lifespan in a normal manner. But let us assume that the animal clones will prove to be normal in all respects, and that technical improvements in the technique and its successful application in primate cousins of man will make it virtually certain that the technique could be used successfully to clone adult humans. Will it then be ethical, under any circumstances, to produce human clones?

Human cloning has been seriously proposed as an option for providing children for childless couples. Some experts have claimed that the ethical guidelines that apply to in-vitro fertilisation should also apply to cloning. In this view cloning is just another technique, equivalent to in-vitro fertilisation, to allow people, who cannot procreate in the usual manner, to have children. But this opinion is surely mistaken. The child produced by in-vitro fertilisation has a biological father and a biological mother, and, although fertilisation of the egg by the sperm and subsequent implantation, etc., is achieved only with much technical assistance, the resulting child is a product of the same basic biological procedure that has produced every human child ever born on earth.

The first deliberately engineered human clone will mark a qualitative change. While it is true that sometimes a fertilised egg divides in two to produce identical twins that are genetic clones of each other, the fertilised egg that divides in two is produced by the normal sexual mechanism and is a genetic mixture of two parents. An artificially produced human clone would be a genetic copy of its lone parent. Such a revolutionary process surely calls for its own ethical guidelines, not hand-me-down guidelines designed to deal with an altogether different process.

I think it is broadly accepted that, as a civilised norm, children should be conceived out of love and reared as autonomous individuals. Such an ethical norm rules out the specific case of

producing clones who must live in some pre-determined way. For example, it would be unethical to produce a clone for the purpose of supplying a desperately needed body organ for a close genetic relative. It would be unethical to clone a person who is hugely talented in some field in order to reproduce that talent.

But what about the case of a childless couple who are desperately longing for a child and for whom, for some reason, in-vitro fertilisation will not work? Would cloning be ethically permissible here under circumstances where there is no doubt that the couple would love the child and rear him/her as an autonomous individual? It seems to me that this question entirely hinges on what weight we put on the 'right' to have a child who is closely genetically related to us.

I have no doubt that the pain of childlessness is felt intensely by some people. Nevertheless, I don't think that this problem is sufficiently big to merit being solved by the introduction of human cloning. In a world where so many children are starved, neglected and abused, it would seem to be grossly out of proportion to take such a huge step as the introduction of cloning in order to provide children for a small number of childless couples. It is also hard to understand how any medical doctor can advocate human cloning in order to give a childless couple an intensely longed-for baby, while, in the clinic around the corner, perfectly normal human fetuses are routinely aborted.

It seems to me that if human cloning is ever to be allowed it should only be as a last resort to solve some extraordinarily important problem. Adoption has brought great joy and comfort to countless couples and the techniques of in-vitro fertilisation are under constant development. These two options would seem to be sufficient to deal with the problem of providing children for childless couples for the foreseeable future.

Modern genetic science has raised a wide range of issues, and, the introduction of practical and ethical guidelines to regulate many of these issues, e.g. genetic modification of plants and animals, is seen by many to be more urgent than dealing with the possibility of human cloning, because many of these practices are already with us. But, since Dr. Seed, the American physicist who wants to produce a human clone within 2 years, has declared his mind, can human cloning be far away? Certainly not if we do not vigorously debate the matter.

Postscript: Very recently it was announced that the world's first human clone had been made by an American biotechnology company. A cell from a research scientist was combined with a cow's egg from which the genes had already been removed. The clone-egg divided up to the 32 cell stage when it was destroyed. Of course we don't know if this clone would have developed into a viable baby if the process had been allowed to continue, but the initial development seemed to be progressing smoothly.

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