Send in the Clones?

OR

Should Liberals Ban Human Reproductive Cloning?

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Working Paper Number 2001/2

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On the 24th of February 1997, practically every newspaper in the world had a picture of a sheep on its front page. The news that a lamb had been created by asexual reproduction, or cloning, sparked a rash of stories in the popular press, followed by an equally large rush of papers in the academic literature. Recent announcements that attempts are being made to use cloning as a reproductive technique in humans have caused a new rush of publicity about cloning.

Most of the discussions of human cloning, in both the popular press and academic literature, have been negative; overwhelmingly so in the case of the popular press. Human cloning has been condemned by the United Nations General Assembly, and has been banned in at least 23 countries, including Japan, Great Britain, Israel, Germany and Italy.

I wish in this paper to examine the objections to human reproductive cloning, and to see whether such wholesale condemnation is justified. In particular I wish to examine the question of whether there is an argument that would support the outright banning of cloning in liberal democracies like ours.

In a Western liberal democracy, we are mainly concerned with rights and consequences. We tend to think that governments should restrict options only if the rights of others will be violated, or if it is obvious that there will be serious consequences. Thus in examining reproductive human cloning, I will assume that the only grounds for an outright ban on the practice are either that rights will certainly be violated, or that it is obvious that bad consequences will follow from not banning cloning in this form.
Given this assumption, we can see that the important question that has to be asked about anyone who is proposing human reproductive cloning is not whether they have good enough reasons to do it, but rather whether they have bad enough reasons for us to prevent them from doing it. So arguments about whether lesbians should be allowed to clone themselves to save them from having to include a male in their reproductive lives, or whether parents should be allowed to "replace" a dead child, turn out to be red herrings. The arguments that need to be examined are not those in favour of human reproductive cloning, but rather those arguments that oppose it.

**General Arguments Against Reproductive Technology**

Before examining cloning itself, I will first examine some arguments that have been proposed against reproductive technology generally. For if all reproductive technology ought to be banned, then of course cloning ought to be banned as well.

David James is one writer who has brought forward some well articulated arguments against the use of any reproductive technology. There are two main arguments that he has formulated. First, he questions the motivations of those who seek to use reproductive technology to assist them in their attempts to have children, and suggests that these people should be steered towards adoption instead. Second, he questions whether treatment of infertility should receive funding given the other programs that also require funding.

I have discussed these objections in detail in another paper,¹ but I will quickly mention the problems with James' arguments. James assumes that some desires that people have are entitled to support, because these desires express fundamental interests of persons. He also assumes that the desire of the childless to nurture is such a fundamental interest. James suggests that if the desire to have children is a legitimate desire, then the state should encourage people unable to fulfil this desire to adopt unwanted children, rather than supplying them with new children through reproductive technologies such as cloning. This argument has been attacked by Paul...

Lauritzen,\(^2\) who points out that “even in a strictly utilitarian calculus, we must examine the costs as well as the benefits, … and this James does not do”.\(^3\) Certainly adoption produces certain benefits that are not produced by reproductive technologies that also fulfil the same fundamental interests, but it also shares some of the problems of those reproductive technologies, as well as having some unique problems of its own.

One common criticism of reproductive technologies is that they commodify children. Yet modern adoption practices seem to fall foul of the same objection, especially in the USA. The popular model of adoptions is that of a non-profit public agency, where counsellors and social workers talk to birth mothers and prospective parents, screen for psychological problems, conduct home studies, and at all times seek the best result for the prospective adopted child. But by 1993 in the USA only 5 percent of domestic adoptions were arranged by such a public agency.\(^4\) 50 percent of all domestic adoptions in the USA were arranged independently, usually by an attorney, and 45 percent of adoptions were arranged by private agencies, many of whom exist solely for profit. The situation for international adoptions is similar, with both private for-profit agencies and independent individuals organising the vast majority of international adoptions. The cost of these adoptions can often exceed the cost of using reproductive technology, especially in cases where adopting couples seek a quick result. One article in a popular Australian women’s magazine claimed that some American couples are paying up to 190 000 dollars to secure a child through adoption.\(^5\)

The problem unique to adoption is that these cases involve an existing child, and in most cases, existing parents. In the words of Barbara Katz Rothman “For every pair of welcoming arms, there is a pair of empty arms. For every baby taken in, there is a

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\(^2\) Pursuing Parenthood (Bloomington: Indiana University, 1993) pp. 119-134.

\(^3\) Ibid. p. 121.

\(^4\) Ibid. p. 124.

\(^5\) The Australian Women’s Weekly April 2001, p. 120.
The vast majority of mothers do not relinquish children for adoption because they want to, but rather because they are forced to through poverty. They are not unwilling to care for the child, they are simply unable. This is especially the case with international adoption. Virtually all the children adopted internationally come from economically or politically oppressed areas. Probably only the orphans from these areas can really be classed as “unwanted”. Even within the USA, one study found that 69% of parents giving children up for adoption cited external pressures, including financial constraints, as the primary reason for surrender. Given these problems, adoption hardly looks the glowing alternative to reproductive technology that James suggests.

What of James' second objection to reproductive technology, the suggestion that this sort of program, and even the treatment of infertility generally, should not receive any government funding, given the other priorities of the health care budget. While this objection may work when we are talking about ways in which public money ought to be spent, it doesn't seem to carry any weight as an objection against the use of private funding for reproductive technology. We generally allow people to spend their own money an any way that they see fit, so if they want to spend their money on reproductive cloning, then why shouldn't they? To suggest that they shouldn't spend their money on reproductive cloning would require an additional argument, probably either that rights would be violated by spending money in this way, or that the consequences would be dire. Since these are exactly the same sorts of arguments that would be required to justify banning the practice in the first place, it would seem that arguments about the allocation of resources will get us nowhere as long as we are only talking about private money.

**Arguments against Cloning**

Having dismissed general arguments against reproductive technology, let us now turn our attention to cloning. What arguments could there be that would justify a

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government ban on cloning in a liberal democracy such as ours? One obvious reason that governments ban things, is because allowing them would violate the fundamental rights of others. So let us examine whether allowing cloning might lead to such rights violations.

If reproductive cloning was going to violate rights, then whose rights could plausibly be violated. I can think of only two realistic possibilities here; either the rights of the person who is to be cloned will be violated, or the rights of the person created by cloning will be violated. All other possibilities seem to collapse into discussions of the bad consequences of allowing reproductive cloning, a topic to which I will return later.

**Violation of the Rights of the Person to be Cloned**

If we allow reproductive cloning, how might this violate the rights of the person who is going to be cloned? The most obvious, and important, way in which their rights might plausibly be violated would be if they were to be cloned against their will. However, like the resource allocation objection, this seems to be a non-starter in the current debate, for those who are suggesting reproductive cloning are not suggesting cloning people against their will. They are rather suggesting that people should be allowed to clone themselves, or to use cloning to "replace" dead children.

Whether reproductive cloning might actually violate the rights of people who are cloned against their will is not my present concern, for the programs that are currently researching human reproductive cloning are only proposing cloning where consent has been obtained from either the person to be cloned, or their next of kin. I will assume for the moment that people will NOT be cloned against their will, but rather will have given informed consent when they are to be cloned. If they have given informed consent, then it seems unlikely (to say the least) that their rights will be violated by their being cloned. In cases where the person being cloned is not capable of giving consent for the cloning, then it would seem reasonable to err on the side of caution, and assume that they would not consent, unless (perhaps) there was some strong evidence that they would have consented, had they been able to. In the case of those who were never capable of giving informed consent for cloning, such as dead
infants, it seems reasonable to me to follow the standard consent procedure in such cases. In cases where an infant dies, their next of kin is asked about organ donation. I would suggest that if the same procedure, of asking for consent from the next of kin, is followed in cloning cases, then the rights of the person to cloned would not be violated by such a procedure.

**Violation of the Rights of the Person Produced by Cloning**

Most concerns about cloning seem to arise out of concern for the being to be created by cloning, which in the interests of brevity, I will from now on call the clonant. How might the clonant be harmed by being cloned? I can think of two general possibilities here. Either the clonant might be harmed because the technique itself is in some way unreliable, for example if it produces a very high number of birth defects, or the rights of the clonant might be violated in some way.

It is not my intention to address the first of these possibilities here, for this is not a philosophical argument, but is rather a scientific one. Questions of whether the technique is reliable, whether it produces a greater than usual number of birth defects, or a higher than usual number of spontaneous abortions, whether it has longer term health implications for the clonant, are all scientific questions that need to be answered experimentally. While such problems may produce an argument against reproductive cloning, this would be a scientific argument, not a philosophical argument against cloning. It would also be an argument open to scientific rebuttal; if a scientific means of solving the problems was to be found, then the scientific objections to the use of the technique would collapse.

So what of the philosophical objections to reproductive cloning? Would the rights of the clonant be violated in some way. The most important question here, is what right might be violated by being a clonant?

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A right to a unique genetic code

One possibility is that cloning would violate the clonant's right to a unique genetic code. If such a right exists, then it certainly seems plausible to suggest that cloning would violate such a right. But the existence of such a right is not so plausible. For if there was such a right, then we would have to say that any person born as an identical twin has had their rights violated. But I don't think that anyone would want to suggest that a person's rights are violated if they have an identical twin, which seems to rule out the possibility of there being a right to a unique genetic code.

A right to not be deliberately produced with a non-unique genetic code

Another possibility is that there is a right to not be deliberately produced with a non-unique genetic code. Such a right would not be violated by simply being an identical twin, for naturally occurring identical twins are a fluke of nature, and a person who is born as an identical twin has not been deliberately produced with a non-unique genetic code. However, identical twins can be deliberately produced. It is possible, for example, to take a fertilised embryo, and split it in two during the early stages of division, thus producing identical embryos. If both these embryos were to develop, then they would, of course, develop into identical twins. But these twins would not be a fluke of nature, but would instead have been deliberately produced. I don't think that many people would think that the rights of these identical twins had been violated, despite the fact that they were deliberately produced with a non-unique genetic code. But if the rights of deliberately produced identical twins have not been violated, then there cannot be a right to not be deliberately produced with a non-unique genetic code.

A right to a genetic code not borne by a previously existing individual

If there cannot be a right to not be deliberately produced with a non-unique genetic code, perhaps there is a right to have a genetic code that has not be borne by a previously existing individual. Proposing this right would certainly avoid the counter-example of the deliberately produced identical twins. But there is another counter-example that seems to negate this right. In the current practice of IVF, it is quite common for doctors to produce more embryos than can be implanted at one time.
Embryos that cannot be implanted straight away are often frozen, sometimes for years, before being thawed and implanted at a later date.

Now let us return to the previous example of the deliberately created identical twins. Suppose that one of these twin embryos was to be implanted into its mother's uterus, and allowed to develop, and the second twin embryo was frozen for implantation later. If the first twin was to develop normally, and grow up into a healthy child, is there any reason to think that it would be unethical to implant the second twin embryo into its mother's uterus and allow it to develop? I can't see any obvious objection here; if deliberately creating twins is unproblematic, and freezing embryos is unproblematic, then why should the combination of the two be unethical? Yet such a case would see the second twin develop with the genetic code of another previously existing individual. If there is a right to have a genetic code that has not be borne by a previously existing individual, then the rights of the second twin would be violated by being created in this way.

There is another objection to be considered here. Even if there is a right to have a genetic code that has not be borne by a previously existing individual, cloning, in the form that we currently have, would not violate this right, for the technique of cloning, as it is currently practiced, does not actually create a clonant that is genetically identical to the person being cloned.

What we commonly call cloning, is technically known as nuclear somatic transfer, or NST. In this process, the nucleus of a fertilised egg is removed, and is replaced with the nucleus of an adult cell from the person who is being cloned. The resulting embryo is then stimulated to begin dividing before being implanted into the uterus of a surrogate mother, who carries the resulting foetus to term. Genetic information is carried on DNA, and virtually all the DNA in a cell is found in the nucleus. Thus replacing the nucleus of the fertilised egg will replace virtually all of the genetic information in that egg. But it will not replace all the genetic information, since some DNA from the fertilised egg still remains after the nucleus has been replaced, mostly in the form of mitochondrial DNA (The mitochondria are the tiny organelles that fuel cellular reactions). NST replaces the nucleus of the fertilised egg that will develop into the clonant, but the mitochondrial DNA from the egg will also be incorporated
into the genetic make-up of the clonant. Thus creating a clonant through the process of NST does not violate the right to have a genetic code that has not be borne by a previously existing individual, because the clonant does not have the same genetic code as any previously existing individual.

A right to an unknown genetic code

Perhaps the right that is violated in producing a clonant is somewhat less specific than the rights that we have been discussing. Perhaps the right that is violated in producing a clone is the right to an unknown genetic code. However, there are several possible objections to this suggestion as well. The first problem is that even if cloning was to exactly duplicate the cloned persons genetic code, it is questionable to what extent this genetic code can be referred to as "known". How well can we say we known anyone's genetic code?

Even if this simple objection is not sufficient to counter the claim that there si a right to an unknown genetic code, some other cases do seem to provide counter-examples. Tests are being developed to allow the screening of embryos for various genetic diseases. If the embryo was found not to have the genetic disease that is being screened for, then it would be allowed to continue to develop. Such a procedure seems quite reasonable, but if there is a right to an unknown genetic code, then such a procedure would violate that right, for a part of the genetic code of the embryo is known, in that it is known that the embryo does not have this genetic disease.

Another problem for the right to an unknown genetic code is the previously mentioned case, of the deliberately created identical twins when one embryo is frozen and the other implanted. If the first twin develops normally, and then the second embryo is thawed and implanted, then the second twin is developing from a known genetic code. I have already suggested that there is nothing unethical about this case, but it would violate the right to an unknown genetic code.

Given that all of these arguments fail, it would seem that there is no right that is plausibly violated by human reproductive cloning. Given this, we must turn our attention to the other possibility; that the consequences of allowing human reproductive cloning would be dire.
The Consequences of Cloning

What are the proposed bad consequences of allowing human reproductive cloning, that would justify banning the practice in a liberal democracy? The main arguments that are usually raised in this area are; one, the expectations that will be placed upon the clonant by their parents; two, that allowing cloning would lead to a diminishment of the gene pool; three, the feminist objection that cloning could be used to get rid of females entirely; and four, the suggestion that allowing cloning will lead to a loss of respect for human life.

Parental Expectations

It might be suggested that cloning should not be allowed because the parents of the clonant will place unrealistic expectations upon them. But it seems strange to single cloning out in this way, because many parents have unrealistic expectations of their children. We don't normally see the fact that parents have unrealistic expectations of their children as a reason to forcibly prevent them from having children, though we may try to reveal the unreality of the expectations to them. To single out the parents of a cloned child for having unrealistic expectations, and to forcibly prevent them from having children in this way because of those expectations, would seem to be unjustified discrimination against those who favour this method of reproduction. If the only reason to prevent cloning is because of the unrealistic expectations of parents, then this should be good enough reason to prevent any parents with unrealistic expectations from reproducing. The question, really, is not whether unrealistic expectations exist, or even whether unrealistic expectations lead to bad parenting. What is important is whether parents having unrealistic expectations is grounds to prevent parenting.

However discussing unrealistic parental expectations doesn't really seem to capture the essence of this objection to cloning. For the problem is not so much the unrealistic expectations, but rather that those expectations having some grounding in reality, because of the fact that there has been some previously existing individual with an almost identical genetic code. In fact the problem with cloning seems not to be unrealistic expectations of parents, but realistic expectations of parents.
Are the realistic expectations of the parents of a cloned child grounds to prevent reproductive cloning? It seems bizarre to even suggest this. Since we don’t normally consider realistic expectations of parents grounds for preventing them from reproducing, then why should we use this as a reason to prevent reproductive cloning?

**Diminishing Gene Pool**

What of the second possible consequence of allowing cloning, that it would lead to a decrease in diversity of the gene pool? This objection seems to assume that if we allow cloning, then cloning will be the only method of reproduction. This seems unlikely to say the least. Even if cloning was to become common, easy and cheap, it seems likely that most people would choose normal sexual reproduction over cloning, if only because it is a lot more fun! This objection also seems to assume that people would all be cloned from only a few individuals, which is unlikely to be the case. If six billion people all reproduced by cloning themselves, then there hasn't been any reduction in the gene pool. At worst massive reproductive cloning might lead to a stagnation of the gene pool, but not a shallowing of the gene pool. Even this seems unlikely in the extreme.

**A Feminist Objection**

Some feminists have objected to reproductive cloning on the grounds that it would allow men to get rid of women entirely, since they would no longer be required to perpetuate the species. In fact, with NST it would actually be easier to eliminate men than women, for while there would still be a need for women in reproduction, there would no longer be a need for men. For NST a fertilised egg is needed, and a surrogate mother is required to carry the resulting embryo to term. Obviously a woman is required for both of these things. While sperm are also required to produce the fertilised egg, the process doesn't really require a man, just some of his best swimmers!

**Loss of Respect for Human Life**

What of the final objection, that developing cloning would lead to a loss of respect for human life? This was the suggestion of the United Nations General Assembly. Unfortunately, while this claim has been made by a number of people, no one seems to want to specify why this would happen. It is the same objection that was levelled at
IVF, abortion, contraception, and even masturbation. Would there be a loss of respect for human life because cloning would allow greater control over reproduction? Every advance in genetics and reproductive technology has done that, so there seems no reason to single out cloning. Is it because cloning is unnatural? Maybe it is, but there is the question of how unnaturalness should be defined, and the additional problem that there is no valid argument from saying something is unnatural to saying it is wrong. Is it because cloning is against the will of God? How do we know what the will of God is? I suspect the main reason that people suggest that cloning will reduce respect for human life is that they reject it at a gut level, and don't know what else to say; hardly a conclusive argument against the practice.

**Conclusions**

I would conclude from this discussion that there are no good philosophical arguments for banning human reproductive cloning in a liberal democracy such as ours. It does not violate the rights of the clonant to be produced by cloning, and there are no significant bad consequences that can be predicted if the procedure is allowed. Currently it is reasonable to object to reproductive cloning on scientific grounds, but if we get the science right then this objection will evaporate. Certainly there are no philosophical arguments that would justify legislation opposing human reproductive cloning within a liberal democracy. Whether this fact is enough to prevent such laws being passed is another question entirely.