

Cloning

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Every body cell of an animal or human being contains the same complete set of genes. In theory any of these cells can be used to start a new embryo. The technique has been employed in the case of frogs. The nucleus is taken out of a body cell of a frog and implanted in an enucleated frog's egg. The resulting egg cell is stimulated to develop into a normal frog, and will be an exact copy of that frog which provided the nucleus with all the genetic information. In normal sexual reproduction, two parents each contribute half their genes, but in the case of cloning, one parent passes on all his or her genes.

The possibility of the cloning of human beings has had a great effect upon the popular imagination. It has caught the attention of science fiction writers, and evoked fears of the multiplication of undesirable types on a large scale. The claim that one child has already been produced by cloning¹ has been met with scepticism,² but if it is a possibility, we need to consider the moral problems that may be raised by it.

Here I shall confine my attention to cloning when seen as an alternative method of reproduction of living human individuals. The cloning of dead, possibly long-dead, individuals, may raise different problems.

As R. M. Hare has pointed out,³ in order for a moral philosopher to apply moral philosophy to a practical problem, he must first of all have a theory to apply. The view put forward (but not defended) here is a form of preference utilitarianism, in which an attempt is made to maximize preference satisfaction. Such a position can provide reasons for holding that cloning may be justified in some circumstances. First, however, I shall consider alternative ways of looking at the question, which might be thought to offer arguments for taking the view that human beings should not practice clonal reproduction.

Arguments About the Unnaturalness of Cloning

It might be thought that the question of the relevance to moral philosophy of what is 'natural' is a dead issue. However, the notion still carries consider-

¹ David M. Rorvik, *In His Image* (London: Sphere, 1978).

² Derek Bromhall, 'The Great Cloning Hoax', *New Statesman* (2 June 1978) 734-736.

³ R. M. Hare, 'Abortion and the Golden Rule', *Philosophy and Public Affairs* 4 (1975) 201-222.

able intuitive appeal. What is claimed when anything is objected to on the ground that it is 'unnatural' is far from clear, and it is no clearer in the case of cloning than anything else. It is not that cloning does not occur 'in nature'.⁴ Asexual reproduction took place in evolutionary history long before sexual reproduction did, and many species still reproduce by parthenogenesis. The point is rather that the human species has evolved as one that employs the practice of sexual reproduction, and thus cloning is unnatural *for the species*. The claim must be understood as making this restricted point.

What is its force? It is intended to give a reason to support the view that cloning is wrong.⁵ If this enterprise is to have any chance of success, however, the statement that 'cloning is unnatural for the species' cannot be interpreted as saying simply that it has not been used as a means of reproduction before. This could not be taken seriously as a reason for adopting the view that cloning is wrong.

It seems that if the claim that cloning is unnatural for the species is to carry any weight it must be interpreted in one of two ways:

Argument from Function

To say that a certain practice is unnatural for the species may be understood as claiming that the members of the species cannot *function* properly if it is carried out.

For some, such an argument may carry the unwelcome suggestion of design and thus of a designer, who has determined some function or purpose for members of the human species. But perhaps the argument can be stripped of such connotations. This would be done by an attempt to show that there are certain very basic features with which we associate being human, which are taken away by the practice. Thus, to take an analogy, it is often claimed that it is unnatural for hens to live in batteries because they cannot perform such basic hen-like activities as spreading their wings. This may provide a reason for supporting the view that it is wrong to keep hens in batteries.

A similar line of thought may be applied to human beings, with the intention of showing that certain ways of treating them should be ruled

⁴ Cf. J. S. Mill, 'Nature', in *Three Essays on Religion* (London, 1874) 8, where 'nature' is defined as 'all the powers existing in either the outer or the inner world and everything which takes place by means of these powers', or as 'what takes place without the agency, or without the voluntary and intentional agency, of man'.

⁵ The naturalistic fallacy would be committed only if it were held that to say that cloning is 'unnatural' in some descriptive sense *entailed* that cloning is wrong. That is not the view under discussion.

out because they are unnatural in this way. Such an attempt encounters two difficulties. First, there is the problem of trying to give clear criteria of what would be 'unnatural' in this sense for members of the human species. There is widespread disagreement over what basic human functions are. Secondly, it is difficult to see how such an argument, in terms of what is unnatural for the species, could have an advantage over an approach to the problem in terms of what people want or what their preferences are. This way of looking at the question, to be considered in a later section, has at least the merit that it is easier to state what individuals want than it is to give criteria for what would be unnatural for them in the sense outlined.

Even if this could be done, however, it is not obvious that cloning would satisfy the criteria. Depriving human beings of opportunities for sex and reproduction might, but it is difficult to see why opportunities for asexual reproduction should.

Playing God

Those who try to gain some control over life and death are sometimes accused of 'playing God', with the implication that this is undesirable.⁶ Man is seen as overreaching himself. The Greek *hubris* from which this idea derives was inevitably followed by *nemesis*, in the shape of very unpleasant consequences.

The 'playing God' argument is a version of the unnatural argument, because it is in situations where man interferes with the course of nature that the term is commonly used. Cloning could be seen as a playing God type of interference in the natural reproductive process, inasmuch as it may be a bid for a kind of immortality, with potentially disastrous consequences.

Should we take this 'playing God' argument seriously? Is it sufficient to label something as an instance of 'playing God' and therefore rule it out? One might object that since the reason why *hubris* is discouraged is that *nemesis* follows it, we should do better simply to assess actions in terms of their consequences, and discard the concept of 'playing God'.

However, while we may reject it as a reason for automatically ruling out an interference with nature, it has some usefulness as a *description* of one class of cases in which we should be concerned to consider whether interference is wise. The reasons for this are twofold: firstly, actions describable as 'playing God' have the tendency to arouse anxiety. This results from fear of the unknown, as playing God actions are usually ones not attempted before.

Secondly, this type of action, having consequences that are unforesee-

⁶ See e.g. John Harris, 'The Survival Lottery', *Philosophy* 50 (1975) 84.

able, may *in fact* lead to the terrible consequences that have been feared, or worse.

Rather than ruling out the action with no more ado, however, it may be preferable to consider the possible consequences, and adopt some kind of risk-assessment.

The two versions of the unnatural argument both seem to have considerable drawbacks, and cannot on their own provide reasons for the view that cloning is wrong. We must consider another approach.

Arguments About Rights

It could be argued by those who speak in terms of rights that cloning is wrong because it violates certain rights, the right to be genetically unique and the right to privacy, for example.

Right to Genetic Uniqueness

Any such argument fails to gain a foothold in the cloning debate. Lederberg⁷ points out that the Thirteenth Amendment to the American Constitution which prohibits slavery and involuntary servitude has been proposed to cover cloning since a 'genetic bondage' which diminishes autonomy is deliberately designed to reduce the option of choices which create individuality.

There is something rather odd about this. In what sense does someone who has been cloned have less autonomy than someone who has been produced by normal sexual reproduction? If our genes restrict our choices, as it is plausible to think they do, then everyone is faced with some restrictions determined by the genes they have.

What is really found objectionable is not the fact of 'genetic bondage' but the having of a genome identical to someone else's. But has someone's *right* been transgressed here? Is that the idea? It is difficult to see how those moral philosophers who speak in terms of rights could make out a case for this. If everyone has a right to be genetically unique, then identical twins are cheated of that right.

Further, in the cloning case, *who* is the possessor of the right? Not the person who is born as a result of cloning, because *he* would not have existed if he had not been cloned. There is no person who can be said to have the right to be genetically unique.

⁷ Seymour Lederberg, 'Law and Cloning: The State as Regulator of Gene Function', in A. Milunsky and G. J. Annas (eds), *Genetics and the Law* (New York: Plenum, 1976) 377-386.

Right to Privacy

It might be argued that cloning would violate a right to privacy. There seems to be some confusion, among those who hold that there is a right to privacy, as to what constitutes it.⁸ Privacy seems to be an element of liberty: it involves the ability to control who has access to information about us, access to our person, and to intimacy with us. What force would the right to privacy have in the cloning debate? The argument would be that cloning constitutes a transgression of the right, because the child's genetic make-up is known and foretold. But again, he could not exist if he were not cloned. The right could carry force only after he was born, and could then generate conclusions about access to information about his genotype, as it might do in the case of anyone else's genetic make-up. The argument cannot therefore show that cloning is wrong.

Arguments About Maximizing Worthwhile Life

It is interesting to note that anyone who, like Jonathan Glover,⁹ holds that there is an impersonal principle urging us to maximize the *amount* of worthwhile life, and that there is no difference in principle between contraception and abortion, ought also to hold that there is no difference in principle between contraception and abstaining from using cells of one's own body in order to produce new individuals. The refusal to clone, contraception and abortion would be on a par.

A difference would of course be drawn in terms of side-effects, but a discussion of these will be postponed until we look at the application of preference utilitarianism to the problem.

Arguments About Preferences

It may be claimed that while there is no *right* to be genetically unique, nevertheless most people would *prefer* to be genetically unique, and thus that cloning is wrong because it will produce people who are not.

One objection to this might be a factual one, that individuals do not, as a matter of fact, prefer to be genetically unique. Identical twins do not necessarily wish they were not twins. Also, the very fact that people want

⁸ See e.g. Judith Jarvis Thomson, 'The Right to Privacy', *Philosophy and Public Affairs* 4 (1975) 295–314; James Rachels, 'Why Privacy is Important', *ibid.* 323–333.

⁹ Jonathan Glover, *Causing Death and Saving Lives* (Harmondsworth: Penguin, 1977).

copies of themselves, as is claimed in David Rorvik's book *In His Image*, surely disproves the suggestion.

It seems, however, that there is a very important point to be made about priority. If X at 50 is intending to have a child Y by cloning, the way X and Y view the situation may be very different. X may like the idea of having a copy of *himself*, while Y may hate the fact that he *is a copy* of X. In the identical twin case neither is a copy of the other.

If we can say that there is a general preference for being unique rather than a copy, then that may give us a reason for opposing cloning, but perhaps it can be overridden by other preferences, both of the cloned individuals and of the people of whom they are copies.

As far as the former is concerned, it may be claimed that life as a cloned individual is better than no life at all. *This* individual would not exist were he not a product of the cloning technique.

Secondly, we must consider the desire to *be* the donor of a cell for cloning. It may be that it would be desired as a way of ensuring some kind of survival. By this method there is one real sense in which I survive. When I have a child by sexual reproduction, only half my genes will be passed on, but they will all be passed on in cloning.

It is not clear whether this would be regarded as a better way of survival than e.g. the brain transplant and bisection cases considered by Derek Parfit.¹⁰ In the latter type of situation it is envisaged that the resulting person may have certain memories of the earlier person, so one may feel that he would be a future self to a greater degree than the genetic copy.

But cloning would bring to birth an individual who may not have had one's own experiences but who would have the potential for developing similar abilities and character.

It might be felt that this desire for survival is one that should not be given too much weight. But great efforts are made to help otherwise infertile people to pass on half their genes, because they so desire. Why should it not be possible for people to pass on *all* their genes, if they so desire? What is the significant difference here? If it is a desire that people have, it should be given some weight.

One possibility is that it could be justified in the case of couples in which the husband is sterile, as a preferable alternative to AID. The couple could have a copy of the man and one of the woman, thus producing a family with an ideally balanced sex ratio. But if it can be justified in the case of such a couple it is very hard to see why it should be wrong for other people who do not have problems of infertility but simply desire it.

On the basis of preference-satisfaction, then, it may be the case that the satisfaction of such desires, and of those of the person produced in this

¹⁰ Derek Parfit, 'Personal Identity', in Jonathan Glover (ed.), *The Philosophy of Mind* (Oxford University Press, 1976) 142–162.

way, could outweigh the desire not to be a copy, and thus cloning might be justified in some cases.

To lessen the problem of the desire for uniqueness, it might be advisable to take the cells from young people, to minimize the age gap. Identical twins do not have the problem of thinking they are predetermined to grow up in a certain way. On the other hand, decreasing the age gap will also increase the physical similarity, and so such a policy would probably not be successful.

If many copies of one individual are produced the psychological effects may be even worse. One is suspicious of the desire to produce large numbers of copies of an individual. If it is the individual himself who desires it, then it seems unlikely that the utility arising out of the satisfaction of his desire will outweigh the disutility experienced by the members of the clone and the undesirable side-effects on society, which must now be discussed.

Side-effects on Society

One point is that cloning might lead to a lessening of respect for individual persons, because of the feeling that they can easily be replaced. If we have clones with large memberships, the loss of one member may be insignificant. It is already argued that foetuses are replaceable. Cloning could lead to the extension of this argument to other ages.

Bernard Williams suggests (in another context) that such replaceability could have a far-reaching effect on our relationships:

If someone loved a token-person just as a Mary Smith, then it might well be unclear that the token-person was really what he loved. What he loves is Mary Smith, and that is to love the type-person. We can dimly see what this would be like. It would be like loving a work of art in some reproducible medium. One might start comparing, as it were, performances of the type; and wanting to be near the person one loved would be like wanting very much to hear some performance, even an indifferent one, of Figaro—just as one will go to the scratch provincial performance of Figaro rather than hear no Figaro at all, so one would see the very run-down Mary Smith who was in the locality, rather than see no Mary Smith at all.¹¹

It appears, however, that this situation is very unlikely, because of the fact that love seems very much bound up with the phenotype.

¹¹ Bernard Williams, 'Are Persons Bodies?' in *Problems of the Self* (London: Cambridge University Press, 1973) 81.

Secondly, cloning could be employed to produce new forms of discrimination. Members of an élite clone may discriminate against members of a downtrodden one. This is the kind of situation described in *Brave New World*.

A third suggestion is that cloning might lead to the practice of 'womb-hiring'. This need not occur, however, either when wives agree to bear copies of their husbands (or indeed of themselves), or when artificial wombs are available.

Less likely is the use of cloning to breed a class specifically for the purpose of military objectives. As Motulsky¹² points out, there are ways of producing the required mentality which are easier and more reliable than clonal reproduction.

One side-effect that is suggested as *good* is that members of a clone could easily exchange organs if the need arose. They would not experience the normal rejection problems associated with transplants. However, this, though an advantage, could also produce further undesirable side-effects in itself. If one member of a clone had achieved a position of great importance, and then became seriously ill, needing a transplant, the others might, with good reason, feel that their lives were in danger. The general acceptance of the idea that the replacement value of individuals had been lessened would only make the individuals concerned less secure.

Side-effects on the Gene Pool

Would cloning have any eugenic effect?

If we had a policy of cloning genetically desirable types (assuming that we had adequate criteria of what these were) we should run the risk of having any benefit this might produce outweighed by the undesirability of the lack of genetic variation that would result. Cloning is conservative, preserving types that we already have rather than producing new genotypes that might be advantageous.

On the other hand it may be thought that if we had just a few copies of some extraordinarily desirable types, these could be used to good effect in interbreeding with other types. In this case, however, the eugenic effect on the species as a whole would be almost unnoticeable.

It is unlikely, then, to be of use in any plan to breed a super-race. It could, however, be used as a tool for dealing with genetic disease. If one partner has a history of e.g. Huntington's chorea in the family, then the couple could have a child by cloning the other parent.

¹² Arno G. Motulsky, 'Brave New World?' in Thomas R. Mertens (ed.), *Human Genetics: readings on the implications of genetic engineering* (New York: John Wiley and Sons, 1975) 280–308.

Conclusion

It appears that cloning is not necessarily undesirable in itself, and can be used to good effect in e.g. treatment of genetic disease, as outlined above. The possible unwelcome side-effects, such as the lessening of the replacement value of individuals and the lack of variation in the gene pool, would be likely to occur only when large numbers of copies of an individual were produced.

If cloning is employed to bring into existence a single copy of a person, then the worst of the possible side-effects would be avoided. Then the problem would be whether the individual so produced would wish he had never been born. But as we have seen it is not inconceivable that the satisfaction of any other preferences he may have when alive may outweigh a backward-looking preference not to have been a copy, especially when added to the desires of the parent to produce a copy of himself.

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