

## Genetic Engineering as Animal Slavery

This chapter rejects absolutely the idea that animals should be genetically manipulated to provide better meat-machines or laboratory tools. According to the perspective embraced by animal theology, to refashion animals genetically so that they become only means-to-human-ends is morally equivalent to the institutionalization of human slavery. There is, therefore, something morally sinister in the untrammelled development of genetic science which admits of no moral limits save that of the advancement of the controlling species. Nothing less than the dismantling of this science as an institution can satisfy those who advocate moral justice for animals. We reach here the absolute limits of what any reputable creation theology can tolerate.

### *Animal Revolution*

Imagine a place called Manor Farm. The farmer, Mr Jones, has retired for the night. Quite an ordinary farm of its type with a wide variety of animals: cart-horses, cattle, sheep, hens, doves, pigs, pigeons, dogs, a donkey and a goat. The only difference with this farm is that the animals can talk to one another. And in the dead of night when the farmer is sound asleep, the Old Major, a prize Middle White Boar, addresses a secret meeting in the barn. He begins:

Now, comrades, what is the nature of this life of ours? Let us face it: our lives are miserable, laborious, and short. We are born, we are given just so much food as will keep the breath in our bodies, and those of us who are capable of it are forced to work to the last atom of our strength; and the very instant that our usefulness has come to an end we are slaughtered with hideous cruelty. No animal in England knows the meaning of happiness or leisure after he is a year old. The life of an animal is misery and slavery: that is the plain truth.

The Old Major continues his oration with increasing passion:

But is this simply part of the order of nature? Is it because this land of

ours is so poor that it cannot afford a decent life to those who dwell upon it? No, comrades, a thousand times no! The soil of England is fertile, its climate is good, it is capable of affording food in abundance to an enormously greater number of animals than now inhabit it ... Why then do we continue in this miserable condition? Because nearly the whole of the produce of our labour is stolen from us by human beings. There, comrades, is the answer to all our problems. It is summed up in a single word – Man. Remove Man from the scene, and the root cause of hunger and overwork is abolished for ever.

Man is the only creature that consumes without producing. He does not give milk, he does not lay eggs, he is too weak to pull the plough, he cannot run fast enough to catch rabbits. Yet he is lord of all the animals. He sets them to work, he gives back to them a bare minimum that will prevent them from starving and the rest he keeps for himself ... and yet there is not one of us that owns more than his bare skin.

Finally the oration reaches its crescendo to gladden the animal hearts that hear it:

What then must we do? Why, work night and day, body and soul, for the overthrow of the human race! That is my message to you comrades: Rebellion! I do not know when that Rebellion will come, it might be in a week or in a hundred years, but I know, as surely as I see this straw beneath my feet, that sooner or later justice will be done. Fix your eyes on that, comrades, throughout the short remainder of your lives! And above all, pass on this message of mine to those who come after you, so that future generations shall carry on the struggle until it is victorious.<sup>1</sup>

By now, of course, you will have guessed the location of Manor Farm – in the *Animal Farm* of George Orwell's imagining. We all know that Orwell intended his book not as a satire on the oppression of pigs and horses but on the oppression of working-class humans by their indolent and unproductive bosses. Nevertheless, it could not have escaped Orwell's attention, as it may not have escaped ours, that there is indeed a similarity between the arguments used (so brilliantly summarized and rebutted by the Old Major) for the justifying of oppression of humans and animals alike.

And if we see this similarity we shall also have grasped something historically quite significant.<sup>2</sup> For the two arguments, or rather assump-

tions, alluded to in the rousing polemic of the Old Major, namely that one kind of creature belongs to another and exists to serve the other, have not been confined to the animal sphere. Earlier we have made reference to how Aristotle – typically or untypically – held that animals were made for human use. ‘If then nature makes nothing without some end in view,’ he argues, ‘nothing to no purpose, it must be that nature has made all of them [animals and plants] for the sake of man.’<sup>3</sup> Notice that Aristotle is not claiming here that we may sometimes make use of animals when necessity demands it, rather he is asserting that it is in accordance with nature, indeed it is *by nature*, that animals are humans’ slaves. And if we ask how Aristotle knows that animals are by nature slaves the answer seems to be that if they were not they would ‘refuse’ but since they do not, it obviously follows that it is natural to enslave them. It is crucial to appreciate, however, that this ingenious argument does not stand alone in Aristotle’s *The Politics*. When Aristotle comes to considering the right ordering of society, based in turn on the pattern of nature, he uses the example of animal slaves to underline and justify the existence of *human* slaves as well:

Therefore whenever there is the same wide discrepancy between human beings as there is between soul and body or between man and beast, then those whose condition is such that their function is the use of their bodies and nothing better can be expected of them, those, I say, are slaves by nature.<sup>4</sup>

In a notorious section, Aristotle describes human slaves as ‘tools’ and none other than pieces of property. ‘A slave is not only his master’s slave but belongs to him *tout court*, while the master is his slave’s master but does not belong to him.’<sup>5</sup> In short: Aristotle does not demur from using the same two arguments, namely that one creature belongs to another and one kind of creature exists to serve the other – to justify both animal and human slavery. As for women, incidentally, they appear to stand somewhere in between, possessing some soul, that is reason, but not as much as men, and having a kind of half status depending upon their rationality.<sup>6</sup>

#### *Belonging to and Existing for*

Aristotle represents what we may call the ‘belong to and exist for’ element within the Western intellectual tradition which Christianity in particular has taken over and developed to the detriment of slaves and

women as well as animals. In Aquinas, for example, a few centuries on, we find this same argument repeating itself. ‘There is no sin in using a thing for the purpose for which it is,’ he argues.<sup>7</sup> Also with women, though to a lesser degree, we may observe a similar logic. Men, not men and women, are made in the image of God and thus only males possess full rationality. Women are half way between men and the beasts. ‘In a secondary sense the image of God is found in man, and not in woman,’ argues Aquinas, ‘for man is the beginning and end of woman.’<sup>8</sup> Some of us may not fail to see an echo of Aristotle in these words.

Now the simple point I want to make is this: the debate about slavery, human or animal, is not over. Let us take human slavery first. Most of us think that the battle about human slavery was fought and won two hundred or more years ago. If we think that we are simply mistaken. The Anti-Slavery Society exists to combat slavery which continues to exist in many parts of the world, albeit under different guises and in different forms.<sup>9</sup> But if we stay with the issue of slavery and the slave trade of less recent history and go back about two hundred or more years, we will find intelligent, respectable and conscientious Christians supporting almost without question the trade in slaves as inseparable from Christian civilization and human progress. The argument is not an exact repeat from Aristotle, but one that may owe something to his inspiration. Slavery, it is argued, was ‘progress’ – ‘an integral link in the grand progressive evolution of human society’ as William Henry Holcombe, writing in 1860, put it. Moreover, slavery was a natural means of ‘Christianization of the dark races.’<sup>10</sup> Slavery was assumed to be one of the means whereby the natural debased life of the primitives could be civilized. And in this it may not be too far-fetched to see at least a touch of the logic of Aristotle, who defended human slavery on the basis that domestic tame animals were better off ‘to be ruled by men, because it secures their safety.’<sup>11</sup> As David Brion Davis points out: ‘It is often forgotten that Aristotle’s famous defence of slavery is embedded within his discussion of human “progress” from the patriarchal village, where “the ox is the poor man’s slave”, to the fully developed polis, where advances in the arts, sciences, and law support that perfect exercise of virtue which is the goal of the city state’.<sup>12</sup>

If slavery then was frequently defended on the basis of ‘progress’, on which basis, we may ask, did its opposers oppose it? We know that individuals – like Shaftesbury, Wilberforce, Richard Baxter and Thomas Clarkson – opposed the trade in slaves because they regarded it as cruel, dehumanizing and the source of all kinds of social ills. But

one argument we find them using time and again, namely that 'man' had no right to absolute dominion over other 'men'. According to Theodore Weld's influential definition, slavery usurped 'the prerogative of God'. It constituted 'an invasion of the whole man – on his powers, rights, enjoyments, and hopes [which] annihilates his being as a MAN, to make room for the being of a THING'.<sup>13</sup> In other words, humans cannot be owned like things or as property. This argument was not peculiar to Weld and Wilberforce and the other reformers in the eighteenth century. Nearly fourteen hundred years before Wilberforce was born, St Gregory of Nyssa made the first theological attack on the institution of slavery itself. His argument is simple; man is beyond price. 'Man belongs to God; he is the property of God'; he cannot therefore be bought or sold. St Gregory was arguably the first to break decisively with that 'belong to and exist for' element within the Western tradition.<sup>14</sup>

And yet St Gregory's argument contains a twist in its tail. For Gregory argues that humans cannot have dominion over other humans and therefore possess them, because God gave humans dominion not over other humans but over the world and animals in particular. In other words, humans belong to God and are therefore beyond price but the animals, since they belong to humans, can be bought and sold like slaves!<sup>15</sup> One kind of slavery is therefore opposed on the grounds that another is self-evident.

We are now in a position to confront the second kind of slavery I want to consider, namely the slavery of animals. When it comes to animals we find almost without exception the kinds of arguments used to justify human slavery also used to justify the slavery of animals. Animals, like human slaves, are thought to possess little or no reason. Animals, like human slaves, are thought to be 'by nature' enslavable. Animal slavery, like human slavery, is thought to be 'progressive', even of 'benefit' to the animals concerned. But two arguments are used repeatedly, and we have already discovered them: Animals belong to humans and they exist to serve human interests. Indeed Brion Davis describes what is meant by a slave in a way that makes the similarity abundantly clear:

The truly striking fact, given historical changes in polity, religion, technology, modes of production, family and kinship structures, and the very meaning of 'property', is the antiquity and almost universal acceptance of the *concept* of the slave as a human being who is legally owned, used, sold, or otherwise disposed of as if he or she were a domestic animal.<sup>16</sup>

It may be asked: what has all the foregoing to do with the issue of genetic engineering? The answer is this: Genetic engineering represents the concretization of the *absolute* claim that animals belong to us and exist for us. We have always used animals, of course, either for food, fashion, or sport. It is not new that we are now using animals for farming, even in especially cruel ways. *What is new is that we are now employing the technological means of absolutely subjugating the nature of animals so that they become totally and completely human property.* 'New animals ought to be patentable', argues Roger Schank, Professor of Computer Science and Psychology at Yale University, 'for the same reason that new robots ought to be patentable: because they are both products of human ingenuity.'<sup>17</sup> When technologists speak, as they do, of creating 'super animals'<sup>18</sup> what they have in mind is not super lives for animals so that they may be better fed, lead more environmentally satisfying lives, or that they may be more 'humanely' slaughtered; rather what they have in mind is how animals can be originated and exist in ways that are completely subordinate to the demands of the human stomach. In other words, animals become like human slaves, namely 'things' – even more so in a sense since human masters never, to my knowledge, actually consumed human slaves. *Biotechnology in animal farming represents the apotheosis of human domination.* In one sense it was all inevitable. Failing to have respect for any proper limits in our treatment of animals always carried with it the danger that their very nature would become subject to a similar contempt. Now animals can be not only bought and sold, but *patented*, that is owned, as with human artefacts, like children's toys, cuddly bears, television sets, or other throwaway consumer items, dispensed with as soon as their utility is over.

Again we are not, even at this point, as far away from Aristotle as some might suppose. For in an uncanny, prophetic-like part of his work, Aristotle seems to anticipate a time when human slaves would be automated, being slaves of their own nature, rather than by Nature or the will of their masters. 'For suppose', he muses, 'that every tool we had could perform its task, either at our bidding or itself perceiving the need ... then master-craftsmen would have no need of servants nor masters of slaves.'<sup>19</sup> Some might argue that biotechnology has transformed this ancient dream into a present nightmare.

*Patenting and Creation Doctrine*

The nightmare intensifies when we look further into the concept of patenting. In 1992, the European Patent Office in Munich actually granted a patent for the oncomouse, the first European patent on an animal. The controversy over this has not unnaturally focussed on the issue of suffering to animals and whether genetically-engineered animals (in this case a mouse genetically designed to develop cancer) are likely to lead to an increased level of suffering among laboratory animals. This is an important consideration, but the one which requires even more attention is whether the granting of patents for genetically-engineered animals is acceptable in principle. Such a step would, in my opinion, reduce their status to no more than human inventions, and signifies the effective abdication of that special God-given responsibility that all humans have towards the well-being and autonomy of sentient species. Animal patents should not be given; not now, not ever.

We should be clear what the full granting of a patent will mean. A patent confers the legal status of ownership. For the first time – in a European context at least – animals will be classed legally as property without any duty of care; animals will become human artefacts or inventions. If the application for this patent withstands opposition, it will mark the lowest status granted to animals in the history of European ethics. While historically animals have sometimes been thought of as ‘things’ – beings without rights or value – the patenting of animals will mark their enduring legal classification in these terms. I have, I hope, said enough in this and previous chapters to demonstrate that such a use and classification of animal life is not compatible with the Christian doctrine that animals are God’s creatures. The Christian doctrine of creation requires us to grasp the fact that human estimations of our own worth and value cannot be the sole grounds for evaluating the worth of other creatures.

Allied to the debate about whether and in what ways humans may use animals is the debate about how far humans are justified in changing the nature of created beings, including their own. It would not be possible to argue that humans must not interfere with any part of nature as it now is, either animate or inanimate. According to traditional Christian belief, creation is ‘fallen’, in a state of ‘bondage’, and therefore – from the Creator’s perspective – unfinished. It follows that there is scope for human development of nature, and the notion of dominion in particular presupposes an active role for humans in the care and management of the planet.

That accepted, such empowerment to ‘better’ creation carries with it some strict limits. In the first place, the empowerment presupposed in Genesis is the power to do good in accordance with God’s will. It is not a commission to do with creation willy nilly as one wishes. Second, in each and every case it must be shown that such ‘alteration’ of nature is consistent with the designs of the Creator and not simply the pursuance of human avarice and self-advantage.

Here we reach the nub of the matter. Is the created nature of animals ‘bettered’ by genetic engineering? It may be that there is some, albeit limited, case that can be made for such research if it seeks to genuinely enhance the welfare of the individual animals concerned. But in the case of the oncomouse we are dealing not with any bettering of nature either individually or generally but rather with a process that involves the deliberate and artificial creation of disease, suffering and premature death. What is more, the purpose of patenting is so to secure the legal rights to this ‘invention’ that the patent holders concerned may uniquely secure any benefits that may flow from it, not least of all commercial gain. If successful, therefore, the granting of a patent would not only legitimize a morally questionable line of research, it would also financially reward those who carried it out.

While it cannot be claimed that all nature in every instance should be regarded as sacred and inviolable, it is a mistake to suppose that the pursuance of every conceivable human advantage no matter how indirect or trivial justifies each and every intervention in nature. While creation may be disordered, it does not follow that there is a total absence of integrity; maintaining and promoting the good that already exists is an essential task of stewardship. The artificial creation of disease in animals can hardly be claimed to be compatible with the designs of a holy, loving, Creator.

Moreover, while it may not strictly speaking be an implication of creation doctrine, opposition to cruelty has been a long-standing feature of traditional moral theology. Whatever else may be said in favour of the oncomouse, it is difficult to see how it can pass any test of moral necessity. To show that something is necessary we have to show that it is essential, unavoidable or, arguably at its very weakest, that some higher good requires it and could not in any way be obtained without it. Even within those sub-traditions of Christendom which have been profoundly unreflective about animal welfare, there is a strong conviction that the infliction of pain can only be justified, if at all, on the most stringent criteria. Animals pose special problems in this regard. They

cannot give consent to experimental procedures performed upon them; they cannot merit any infliction of pain, and moreover they cannot intellectually comprehend the meaning of the procedures to which they are subjected. These considerations always tell against the infliction of pain upon innocents, whether they be children, or the mentally handicapped, or animals.

In short: the innocence and defencelessness of animals, far from being considerations which should push animals away from our field of moral concern, are precisely those which should make us exercise special care and enjoin extraordinary scrupulosity. Whatever views may be held generally about the use of animals in scientific research, patenting represents the attempt to perpetuate, to institutionalize, and to commercialize, suffering to animals. It seems predicated on the assumption that animal suffering is justifiable no matter how indirect the benefit to humans.

The objection may be raised that the oncomouse is, after all, only a mouse. According to many people, including Christians, a mouse has little value in comparison with a human being.

Proponents of patenting have certainly been clever in choosing a species which apparently commands limited public sympathy. Because mice interact with human environments in ways which are disadvantageous to us, they are frequently classed as a pest species and often killed inhumanely. The limited sympathy this species can invoke is, however, irrelevant to its moral status and therefore to the issue of principle. Mice are intelligent, sentient, warm-blooded creatures. There are no rational grounds on which we can include some sentient species while excluding others from moral consideration.

It is important to remember that the patent for the oncomouse constitutes a test case. The oncorabbit, the oncocow, the oncopig, the oncochimp will inevitably follow. There is no limit to the species or the numbers which may be patented. If the arguments in favour of patenting succeed in the case of the oncomouse, there can be no rational grounds why they should not succeed in others. We shall wake up and find that we have reduced innumerable species of animals to a class of human inventions, tailor-made to laboratory needs and arguably unprotected in law. If successful, the patenting of animals will represent the victory of short-term utilitarianism over the constraints of Christian theology (however unimplemented these may have been in the past). It may be no exaggeration to say that we stand on the brink of a wholly new relationship to other creatures: no longer custodians of our fellow creatures, but rather dealers in new commodities.

### *The Discredited Theology of Genetic Engineering*

I was going to call this chapter 'the discredited theology of genetic engineering' but some individuals protested that it might be read as assuming that genetic engineering *had* a theology. In fact, as we have seen, it does and a strong and powerful one at that. The Christian tradition, fed by powerful Aristotelian notions, has been largely responsible for its propagation. For many centuries Christians have simply read their scriptures as legitimizing the Aristotelian dicta: 'existing for and belonging to'. The notion of 'dominion' in Genesis has been interpreted as licensed tyranny over the world, and animals in particular. God, it was supposed, cared only for humans within creation, and as for the rest, they simply existed for the human 'goodies'. According to this view, the whole world belongs to humans by divine right, and the only moral constraints as regards the use of animals was whether animal cruelty brutalizes humans or how we should treat them if they were other humans' property.<sup>20</sup> This god – not unfairly described as a 'macho-god' – essentially masculine and despotical, who rules the world with fire and expects his human subjects to do the same, has trampled through years of Christian history, but his influence is now waning. There are many reasons for this and two in particular: First, most Christians do not believe in him any more. You will have to search high and low for any reputable theologian who defends the view that God is despotic in power and wants human creatures to be as well. Second, as we have seen, having re-examined their scriptures most theologians conclude that we misunderstand dominion if we think of it simply in terms of domination. What dominion now means, according to these scholars, is that humans have a divine-like responsibility to look after the world and to care for its creatures.<sup>21</sup> Indeed, for those who still hold to the 'macho-god' version of divinity, I have some worrying news. Not only theologians (who tend in the nature of things to be either ahead of or behind the times) but also churchpeople, even church leaders, have disposed of this old deity:

The temptation is that we will usurp God's place as Creator and exercise a *tyrannical* dominion over creation ... At the present time, when we are beginning to appreciate the wholeness and inter-relatedness of all that is in the cosmos, preoccupation with humanity will seem distinctly parochial ... too often our theology of creation, especially here in the so-called 'developed' world, has been distorted by being too man-centred. We need to maintain the value, the

preciousness of the human by affirming the preciousness of the non-human also – of all that is. For our concept of God forbids the idea of a *cheap* creation, of a throwaway universe in which everything is expendable save human existence. The whole universe is a work of love. And nothing which is made in love is cheap. The value, the worth of natural things is not found in Man's view of himself but in the goodness of God who made all things good and precious in his sight . . . As Barbara Ward used to say, 'We have only one earth. Is it not worth our love?'<sup>22</sup>

These words come from a lecture given in 1988 by the then Archbishop of Canterbury, Robert Runcie. Notice how the earlier tradition is here confronted and corrected. God is a God of love. God's world is a manifestation of costly, self-sacrificial love. We humans are to love and reverence the world entrusted to us. And lest you should think that this is just 'Anglican' theology which may at times tend to be a little fashionable, it is worth mentioning that an encyclical from that rather unfashionable, undoubtedly conservative Pope, John Paul II, specifically speaks of the need to respect 'the nature of each being' within creation, and underlines the modern view that the 'dominion granted to man . . . is not an absolute power, nor can one speak of a freedom to "use and misuse", or to dispose of things as one pleases'.<sup>23</sup>

We have not yet brought our argument to its sharpest point, however. It is this: No human being can be justified in claiming absolute ownership of animals for the simple reason that God alone owns creation. Animals do not simply exist for us nor belong to us. They exist primarily for God and belong to God. The human patenting of animals is nothing less than idolatrous. The practice of genetic engineering implicitly involves the claim that animals are ours, to do with as we wish and to change their nature as we wish. The reason why it is wrong to use human beings as slaves is also precisely the reason why we should now oppose the whole biotech endeavour with animals as theologically erroneous. We have no right to misappropriate God's own.

#### Four Objections

I anticipate four objections to this conclusion which I shall consider briefly in turn.

1) The first objection is as follows: We have always made animals our slaves. Our culture is based upon the use of animals. It is therefore absurd to suppose that we can change our ways.

I agree with the first part of this objection. It is true that human culture is based on the slavery of animals. I, for one, would like to see a root and branch cultural change. Christians may legitimately disagree about how far we can and should use animals. But one thing should be clear: we cannot own them, we should not treat them as property, and we should not pervert their nature for the sole purpose of human consumption. Genetic engineering – while part of this cultural abuse of animals – also represents its highest, or lowest, point. Because we have exploited animals in the past and now do so, is no good reason for intensifying that enslavement and bringing the armoury of modern technology to bear in order to create and perpetuate a permanently enslaved species.

2) The second objection is that the record of Christianity has been so terrible as regards the non-human that we must surely despair of any specifically theological attempt to defend animals.

I agree with the first part of this objection. Christianity has a terrible record on animals. But not only animals – also on slaves, gays, women, the mentally handicapped, and a sizeable number of other moral issues as well. I see no point in trying to disguise the poor record of Christianity, although I have to say that I do not quite share Voltaire's moral protest to the effect that 'every sensible man, every honourable man, must hold the Christian sect in horror'.<sup>24</sup> All traditions, religious or secular, have their good and bad points.

But to take one issue as an example: Recall my earlier point that if we go back in history two hundred years or so, we will find intelligent, conscientious, respectable Christians defending slavery as an institution. The quite staggering fact to grapple with is that this very same community which had in some ways provided the major ideological impetus for the defence of slavery came within a historically short period, one hundred, perhaps only fifty, years, to change its mind. The same tradition which helped keep slavery alive was the same community, one hundred or fifty years later, that helped end it.<sup>25</sup> So successful indeed has this change been that I suppose that among Christians today we shall have difficulty in finding *one* slave trader, even *one* individual Christian who regards the practice as anything other than inimical to the moral demands of the Christian faith. While it is true that Christian churches have been and are frequently awful on the subject of animals, it is just possible, even plausible, that given say fifty or one hundred years we shall witness among this same community shifts of consciousness as we have witnessed on other moral issues, no less complex or controversial. In sum: Christian churches have been agents

of slavery – I do not doubt – but they have also been, and can be now, forces for liberation.

3) The third objection is that genetic engineers are really good, honest, loving, generous, well-meaning people only trying to do their best for the sake of humanity, or at the very least they are no more awful than the rest of us. Why criticize what they are doing, when in point of fact *everybody* is in the difficult situation of moral compromise to a greater or lesser extent?

Again, I agree with the first part of this objection. I have no reason for doubting the sincerity, the motivation, and the moral character of those who are actively engaged in biotech research. One of the really sad aspects of the campaign for the abolition of the slave trade was the way in which abolitionists tended, during the time of their ascendancy, to vilify their opponents by regarding them as the source of all evil. I have no desire to do the same. Indeed, what I want to suggest is that genetic engineers are really doing what they say they are doing, namely pursuing the cause of humanity according to their own lights. What I want to question, however, is whether a simple utilitarian humanist standard is sufficient to prevent great wrong. From the slave trader's perspective, it was only right and good to use slaves for the sake of the masters. From the genetic engineer's perspective it is only right and good to treat animals as utilities in order to benefit the human species. I doubt whether simple utilitarian calculation based on the interests of one's own class, or race, or species can lead otherwise than to the detriment of another's class, race, or species. Once we adopt this framework of thinking, there is no right, good or value that cannot be bargained away, at least in principle, in pursuit of a supposedly 'higher' interest.

4) The fourth objection is to the analogy so far drawn between human and animal slavery. Animals are only animals, it is argued. Animals are not human.

This argument, which emphasizes a clear demarcation between animals and humans, whatever its merits in other spheres, is exceedingly problematic when applied to genetic engineering. After all, are not genetic engineers involved in the injection of *human* genes into non-human animals? According to a recent report, Vernon G. Pursel, a research scientist at the US Department of Agriculture's research faculty in Beltsville, responded to a recent move by various humane agencies and churches against genetic engineering by saying, 'I don't know what they mean when they talk about species integrity.' He went on to make a most revealing statement: 'Much of all genetic material is

the same, from worms to humans.<sup>26</sup> This statement is revealing precisely because it supposes what transgenic procedures must implicitly accept, namely that there is not a watertight distinction between humans and animals. Some may think that this is an argument in favour of treating animals in a more humane fashion, and so in a way it should be, but the argument is used to the practical detriment of non-human creatures. Here we have curious confirmation of the anxiety that besets bystanders like myself. For the question that must be asked is this: if the genetic material is much the same – from worms to humans – what is there logically to prevent us experimenting upon humans if we accept its legitimacy in the case of animals? Indeed genetic experiments on humans are not new. And neither is the view that there should be an eugenic programme for human beings. This view has received strong support from Christians at various times. One Christian writer in 1918 made clear that

The man who is thoroughly fit to have children, and who either through love of comfort, or some indulgence of sentiment, refrains from marriage, defrauds not only himself and his nation, but human society and the Ruler of it ... But the man or woman who knowing themselves unfit to have healthy children yet marry, are clearly guilty of an even more serious offence.

This writer does not just advocate these moral imperatives as personal guidelines, rather he seeks to have them enshrined in law:

The only kinds of legislation for which the times are ripe seem to be two. In the first place, marriage might be forbidden in the case of those mentally deficient, or suffering from certain hereditary diseases. And in the second place, much more might be done at present in the way of providing cottages in the country, and well-arranged dwellings in the towns, and by encouraging in every way the production of healthy children.<sup>27</sup>

This work by Percy Gardner was entitled *Evolution in Christian Ethics*. Gardner's view was straightforward: only those who are fit have the right to propagate the race. The well-being of the race was, as he saw it, threatened by the First World War because only the 'weaker, and especially those whose vital organs are least sound, we retain at home to carry on the race'.<sup>28</sup>

*Eugenics and Genetic Engineering*

Gardner's views had to wait another fifteen years before his ideas reached their fullest and most persuasive expression in the work of another writer, a political philosopher, of immense influence:

[The state] must see to it that only the healthy beget children; but there is only one disgrace: despite one's own sicknesses and deficiencies, to bring children into the world, and one highest honour to renounce doing so ... [The state] must put the most modern medical means in the service of this knowledge. It must declare unfit for propagation all who are in any way visibly sick or who have inherited a disease.

And according to this view:

[The state's philosophy] of life must succeed in bringing about that nobler age in which men no longer are concerned with breeding dogs, horses, and cats, but in elevating man himself, an age in which the one knowingly and silently renounces, the other joyfully sacrifices and gives.<sup>29</sup>

These views are taken from the well-known work, *Mein Kampf*, and the author is, of course, Adolf Hitler.

Some may object that the analogy here breaks down. After all Hitler would hardly have approved of infecting Aryan blood with the genes of animals or, more accurately, allowing Aryan genes to be wasted on animals. He was hardly in favour of 'hybrid humans' – as he called the children of mixed marriages – so he might well have had a certain disdain for the very idea of transgenic animals. And yet we cannot dismiss the fact that Hitler popularized, indeed did apparently much to develop, a medical science which aimed at 'preserving the best humanity' as he saw it. And what is more his ideas of genetic control exercised through force, coercion, and legislation are by no means dead. Indeed the notion of creating a 'super animal' is faintly reminiscent of the Hitler doctrine of creating a 'superior' race.

Some may still feel that human eugenics and genetic engineering with animals are two quite separate things. Some may think that I am being simply alarmist. But *Mein Kampf* is, in my view, a much more important work of political philosophy than its detractors allow. But that is beside the point. What is the point is that I can find no good arguments for

allowing genetic experiments on animals which do not also justify such experiments (or genetic programmes) in the case of human beings. I am alarmed by the way in which we have simply failed to recognize that animal experiments are often a precursor to experiments on human beings. Even in current established practice, animal experiments frequently precede the clinical trials on human subjects. We should not be oblivious to the fact that the century which has seen the most sustained and ruthless use of animals in scientific research is also the century that has seen experiments on human subjects as diverse as Jews, blacks, embryos, and prisoners of war. If 'much of all genetic material is the same, from worms to humans', as Dr Pursel maintains, what real difference does it make if the subjects are animals or humans?

If some of this still appears alarmist, it is perhaps worth emphasizing that one of the main planks of the case for anti-vivisection has always been that the experimental method, if morally valid, must logically extend to humans. C. S. Lewis based his critique on this very idea. His words deserve to be read in full:

But the most sinister thing about modern vivisection is this. If a mere sentiment justifies cruelty, why stop at a sentiment for the whole human race? There is also a sentiment for the white man against the black, for a *Herrenvolk* against the Non-Aryan, for 'civilized' or 'progressive' peoples against 'savage' or 'backward' peoples. Finally, for our own country, party, or class against others. Once the old Christian idea of a total difference in kind between man and beast has been abandoned, then no argument for experiments on animals can be found which is not also an argument for experiments on inferior men. If we cut up beasts simply because they cannot prevent us and because we are backing our own side in the struggle for existence, it is only logical to cut up imbeciles, criminals, enemies, or capitalists for the same reasons. Indeed experiments on men have already begun. We all hear that Nazi scientists have done them. We all suspect that our own scientists may begin to do so, in secret, at any moment.<sup>30</sup>

Lewis was writing in 1947 and may be accused of hindsight. No such accusation, however, could be levelled at Lewis Carroll who seventy-two years earlier, when vivisection was just beginning at Oxford, argued on precisely the same basis but with even more vigour. Of the thirteen 'Popular Fallacies about Vivisection', it was the thirteenth 'that the practice of vivisection shall never be extended so as to include human subjects' that earned his greatest mockery:



That is, in other words, that while science arrogates to herself the right of torturing at her pleasure the whole sentient creation up to man himself, some inscrutable boundary line is there drawn, over which she will never venture to pass ... And when that day shall come, O my brother-man, you who claim for yourself and for me so proud an ancestry – tracing our pedigree through the anthropomorphoid ape up to the primeval zoophyte – what potent spell have *you* in store to win exception from the common doom? Will you represent to that grim spectre, as he gloats over you, scalpel in hand, the inalienable rights of man? He will tell you that it is merely a question of relative expediency, – that, with so feeble a physique as yours, you have only to be thankful that natural selection has spared you so long. Will you reproach him with the needless torture he proposes to inflict upon you? He will smilingly assure you that the *hyperaesthesia*, which he hopes to induce, is in itself a most interesting phenomenon, deserving much patient study. Will you then, gathering up all your strength for one last desperate appeal, plead with him as with a fellow-man, and with an agonized cry for ‘Mercy!’ seek to rouse some dormant spark of pity in that icy-breast? Ask it rather of the nether mill-stone.<sup>31</sup>

There is one important sense, however, in which Pursel was right. In addition to the nature appropriate to each individual species, there is a nature which is common to all human and non-human animals. But this realization alone should make us think twice about genetic engineering. Animals, it is sometimes supposed, are simply ‘out there’, external to ourselves like nature itself. Likewise, it is thought, what we do to animals does not really affect *us*. In fact, however, humans are not just tied to nature, they are part of nature, indeed inseparable from nature. Because of this there is a profound sense in which we cannot abuse nature without abusing ourselves.<sup>32</sup> The genetic manipulation of animal nature is not just some small welfare problem of how we should treat some kinds of animal species, it is part of a much more disturbing theological question about ‘who do we think we are’ in creation, and whether we can acknowledge moral limits to our awesome power, not only over animals, but also over our own species.

At the beginning of this chapter I invited you to imagine the Old Major addressing his fellow animal comrades and complaining that their state was none other than ‘misery and slavery’. You may recall that a little provocatively the Old Major thought that the answer was the

abolition of ‘Man’. In one sense the Old Major was right. We need to abolish what St Paul calls the ‘old man’ which is humanity in moral bondage or slavery to sin.<sup>33</sup> Demythologized a little, what St Paul might have said is that we must stop looking on God’s beautiful world as though it was given to us so that we can devour, consume, and manipulate it without limit. I look forward to the final death of the ‘old man’ – of which St Paul speaks – both in myself as well as in other human beings. Then, and only then, when we have surrendered our idolatrous power, which is nothing short of tyranny, over God’s good creation, shall we be worthy to have that moral dominion over all which God has promised us.