

Animal Farms and Ethics: A View of Rights Theory

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Abstract:

Many animals suffer terribly under intensive farming that existence is simply of no benefit to them. Animals have a moral right not to be raised when their other rights will inevitably be violated. This paper applied the rights theory to the question of farm animals and argues that animals have a moral right not to be killed and not to be made to suffer by agricultural practices, but have no moral right not to be used in farming at all. This paper argues that there is nothing inherently wrong with modifying animals for human ends, however, not all modifications are permissible. For example, modifying animals to be kill and modifying them to suffer is wrong. Those modifications that lead to animals possessing worthwhile lives but with insufficient opportunities for well-being are also impermissible. This paper implies a call to end to intensive farming methods which are not animal friendly, and an end to raising animals for just their meat.

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NON-HUMAN ANIMALS AND AGRICULTURE

Of all our uses of animals, animal experimentation generates the fiercest debate. However, experimentation does not constitute our greatest use of animals. While 2.9 million animals were used in scientific experiments in the UK in 2005, around 913.6 million farm animals were slaughtered in the UK in the same year (Dooley Et al., 2015). While the volume of farm animals slaughtered every year is staggering, it really should be of little surprise. After all, the most regular and direct contact many of us have with animals comes through eating their flesh, their milk and their eggs. In fact, for most people in affluent societies nearly every meal involves the consumption of some kind of animal product. To meet this demand, intensive farming techniques have been developed to raise productivity: that is, to extract as much protein out of the animals at as little cost as possible. The lives of intensively farmed poultry and dairy cattle illustrate this well. For example, to rear more birds per square metre, battery chickens are often held in cages so small that they cannot even stretch their wingspan. To get more meat from birds, broiler chickens are fed huge amounts to grow quickly and to unnaturally large sizes. Once again, to exploit the space, the birds are usually kept in darkened sheds together with both hundreds if not thousands of other birds (dead and alive) and their excrement. To get as much milk as possible from dairy cows, the cows are artificially inseminated, have their calves removed, and are then milked several times a day. They have then inseminated again, milked until before they give birth, have their calves removed, and milked again. This cycle continues until the animals are 'spent' and slaughtered.

While the development of such intensive farming practices has undoubtedly reduced farming costs and resulted in the cheap meat, milk and eggs that so many of us now enjoy, it has undoubtedly come

at the cost of animal welfare. For example, the cramped conditions to which poultry are subjected not only lead to the breaking of limbs but also 'necessitates' the painful process of de-beaking. For if the beaks of confined poultry were not trimmed, the cramped conditions would lead them to simply peck each other to death. Additionally, not only does the dairy cow suffer from both her confinement (often she is kept indoors all her life) and the removal of her offspring, but she is also particularly vulnerable to mastitis, an infection of the udder. For such reasons, many proponents of animal welfare have been campaigning for better conditions for farm animals, and the abolition of so-called 'factory farming' (Ogar et al., 2020). They favour a return to more traditional farming techniques where animals are given the freedom to move and exercise their natural capacities. At the same time, however, more radical animal rights advocates see animal agriculture as not something that can be 'fixed' by improved welfare legislation. Instead, they see the practice of raising animals for food as in itself morally objectionable. Such groups claim that animal agriculture is necessarily exploitative and will always violate the rights of animals, whether free-range or not. In this paper, we will explore the permissibility of animal agriculture. In particular, we intend to examine whether animals have a right not to be raised for food.

Applying the Rights Theory to Animals in Agriculture

We have claimed that for an individual to have a moral right he or she must have an interest that is sufficient to impose a duty on another. It is important to note that animal interests in avoiding pain and in continued life were indeed sufficient to ground animal rights not to be killed and made to suffer in experimentation. At the same time, however, this paper believes that animals have no intrinsic interest in liberty, and thus have no general moral right not to be used or interfered with by humans. This theory has profound implications for the moral permissibility of animal experimentation as it is currently practiced. In this section, we will briefly outline the implications of these conclusions for animal agriculture.

Factory Farming

If animals have a moral right not to be made to suffer, much of what we do to animals in intensive farming practices are morally impermissible. The claim made that animals have no fundamental interest in liberty does not mean that humans can confine them and use them in any way that we see fit. In particular, it does not mean that we can subordinate animal well-being in search of increased protein and increased profit. Animals may have no interest in liberty itself, but they do suffer from the confinements of the factory farm. However, these are by no means the only ways in which these animals suffer, nor indeed are they the only types of animal that suffer. To make the point, let us consider the suffering of an intensively reared pig. Pigs are useful to consider not just because so many people enjoy eating them in their sausages and bacon, but also because pigs are widely acknowledged as highly intelligent and social animals. Indeed, in terms of their intelligence and sociability, pigs compare favourably with domestic dogs. Given this, consider the behaviour sometimes evidenced in intensively farmed pigs who are housed indoors all their lives:

One type of behavioural abnormalities is so-called stereotypies, which are repetitive invariant behaviours, apparently without function. Stereotypies are often thought to develop as strategies to cope with the limited stimuli available in captivity. In pigs, stereotypies consist of bar biting, head-weaving, vacuum chewing, tail biting, rooting bare floor, and maintaining dog sitting position in relation to apathy (Tuytens 2005: 7).

Many practices of what has been labelled the 'factory farm' without doubt make animals suffer. From the rights perspective defended in this thesis, such suffering is *prima facie* unacceptable.

However, banning the rearing of animals in such ways will of course lead to the end of cheap meat, milk, and eggs. As anyone thoughtful enough to have sought out the free range products from the supermarket or local shop will tell you, animal welfare comes at a price. Perhaps then, this price counts against recognising an animal right not to suffer in factory farms. We find this argument unconvincing. Interests cannot be ignored and violated just because they are slightly burdensome. Moreover, animals have a strong interest in not being made to suffer. If living up to one's moral obligations involves having to pay a bit more for one's shopping, then so be it. In any case, it is not

obligatory to choose meat, milk, or eggs for your meal and vegetables remain perfectly affordable to most.

Killing Animals for their Flesh

Of course, animals do not just have the right not to be made to suffer under my scheme; they also have a *prima facie* right to life. This has much more radical implications for animal agriculture than a simple end to factory-farming. It means that killing an animal to eat that individual's flesh is a rights violation and thus ordinarily morally impermissible. Thus, even if an animal leads a good life under free-range conditions, it is still wrong to kill that animal for food. Animals have an interest that their lives continue so that they may have future valuable experiences. Essentially then, if this right to life is grounded, we should stop raising animals to kill them and eat their flesh. We wish to examine four common objections that might count against assigning a right to life for farm animals. First of all, it might be argued that granting such a right would be a gross violation of our fundamental human freedoms. It is often claimed that while some people may want to be vegetarian for whatever reasons, that is up to them. However, to force it on people is to impose a way of life that not everyone accepts. To stop people eating meat, it could be argued, is akin to making people follow the same religion: both are unwarranted infringements upon our liberty. However, this argument fails because it does not understand the purpose of this thesis. We are not outlining a theory of what we think is a good life. Rather, we are delineating a scheme of moral rights and obligations. If one of our obligations is not to kill animals for food, then this is an obligation for all. And yes, of course, this limits our freedom, just as our obligation not to kill humans for food limits our freedom.

Secondly, it is sometimes claimed that if we cease killing animals for food, this will mean thousands of people losing their livelihoods. Farmers, farm labourers, slaughtermen, animal feed suppliers, animal transporters, butchers, restaurateurs, pet food suppliers, and the leather industry all face losing their means of making a living. For some, the idea of a complete cessation of the killing of animals for their flesh comes at too great an economic price. In response to this, we think it is only reasonable to concede that there is a price to be paid for shutting down the meat industry. However, there is almost always some kind of cost to be paid for respecting the core interests of individuals, but this cost should not prevent us from following the morally right action. For example, there were economic costs in the abolition of slavery - particularly in the southern states of the USA - but that did not render abolition the wrong course of action. In any case, we are not advocating simply abandoning those that work in the meat industry. As when any industry shuts down, care must be taken to ensure that the process is gradual, that adverse impacts on communities and their families are kept to a minimum, and that sufficient resources are provided for retraining.

Third, it might be objected that we simply must eat meat to survive. This objection seems somewhat old-fashioned these days, for as so many lifelong vegetarians have shown, a diet without animal flesh is perfectly healthy. However, it might be countered that this does not answer every situation. For example, some icebound people are simply unable to live off a plant-based diet: to survive they need to kill and eat animals (Benatar 2001). In such extreme cases of survival, we think we can concede that the killing and eating of animals is permissible. After all, it is completely unreasonable to expect people to sacrifice themselves to respect another's interests. That is why we allow people to harm others in cases of self-defence, for example. However, we must face the fact that the vast majority of us simply do not need to eat meat to survive.

The final objection probably lies behind most people's refusal to give up eating meat: that is, the flesh of dead animals tastes nice. This objection is often dismissed by proponents of animal rights out of hand. They argue that our interest in eating the tastiest food is only trivial, whereas the interest that animals have in continued life is one of the most fundamental that they have. However, at first sight, our rights theory might be more sympathetic to the argument that dead animals taste nice. We recognised that animals have an interest in continued life, but it is weaker than that same interest of persons. So perhaps the human interest in eating animals outweighs the animal interest in continued life? Unfortunately, it does not. Like other proponents of animal rights, we claim that the human interest in eating animals is only trivial, and certainly not a key welfare interest. In contrast, the animal interest in continued life - while weaker than that of persons - is fundamental. To explain,

human beings can ordinarily lead exceptionally good lives with high levels of well-being without eating meat. Contrary to much popular opinion, vegetarians can even enjoy immense pleasures of the palate. The welfare costs of following a diet without meat are thus extremely low for human beings. Animals however have a more fundamental interest in staying alive, as this is the only means by which they can actually lead good lives through having valuable experiences. The value of life to animals is thus high indeed. Unfortunately then, although the flesh of animals might well taste nice, this does not justify our raising and killing of them for food.

Raising Animals for their Milk and Eggs

The majority of milk and eggs presently consumed come from animals who suffer terribly. Indeed, Thus if we are to raise animals for their milk and eggs, we must raise them in accordance with their well-being. This will require an end to intensive farming practices and of course, will result in more expensive dairy products. At this point, many proponents of animal rights will disagree. They argue that veganism is mandatory, and not only because pain is presently inflicted on farmed chickens and dairy cows. The claim is that even in 'ideal' free-range conditions, where animals do not suffer pain and have room to move about outdoors, deliberately raising them, confining them, and extracting food from them is exploitative and undermines their dignity. Furthermore, some would probably point out that the implications of our argument do not even lead to vegetarianism. For clearly, if an animal leads a good life and dies of natural causes, this paper ordinarily sees no wrong in eating the flesh of that animal. Once again, it might be claimed that such a conclusion undermines the dignity of animals.

First of all, we should make it clear that we do accept this implication of my paper: there is nothing wrong in itself with eating animals that have died naturally. Our obligations to animals relate to the interests of animals, and interests concern how life goes for the individual whose life it is (Akpan 2020). If the animal has no life to go well or badly, she has no interest. So while a living animal has a clear and discernible interest in not being killed, a dead animal has no interest in not being eaten (or in anything else). Our obligation is not to kill animals, rather than not to eat them once they are dead. However, by eating animals do we fail to respect their dignity, as some have suggested? After all, if dead animals have no right not to be eaten, the same must be true for humans. And yet most of us see cannibalism as an affront to human dignity. Appeals to dignity are ordinarily invoked when we find something distasteful. For example, in the field of bioethics some regard cloning, genetic engineering, and embryonic research as all affronts to human (and sometimes animal) dignity. The point here is not that these practices necessarily violate rights or interests, or cause pain or suffering, but that they somehow violate some higher or natural order. The fact that so many of us feel distaste or disgust when we consider such practices, so the argument goes, is evidence that this order has been wrongfully disrupted and dignity undermined. Similarly, we feel disgusted at cannibalism, and this is because it violates human dignity. Nevertheless, the feeling of distaste by itself cannot be a valid argument for the moral impermissibility of an action. If so, all sorts of bodily functions, sexual practices, and bad habits would have to come under censure. But if a feeling of disgust is not sufficient to signal a violation of dignity, then what is? To be truthful, we have no idea. The problem with relying on notions such as dignity rather than interests to formulate our obligations is that dignity is an ethereal quality and is thus hard to pin down. We might see dignity in the flowering of a plant. Does that mean picking that flower is a violation of dignity and thus wrong? Or have we ascribed dignity where it is not warranted? Without falling back on some intrinsic property of the object in question - such as its interests or welfare - it is difficult to know how to make a case either way.

Dignity is simply too vague a concept to be the basis of our moral obligations. But if this is so, since human corpses have no interests, do we do no wrong in eating them? Fortunately, we do not have to rely on the notion of dignity to find good reasons not to make the flesh of dead humans available for consumption. The interests and wishes of the living seem sufficient to do the job: we do not want to be eaten after my death and do not want my friends and relatives to be eaten. In other words, we are happier now for the knowledge that we will not be eaten once dead, and neither will those close to us. This seems like a good reason to prevent humans from dining on one another. But of course, this argument must cut both ways. If an individual does want to offer his dead body for consumption, we

see no wrong done; just as we see no wrong done when people eat dead humans in survival situations.

Animals Killed in the Field

While it might seem obvious that a vegetarian diet does not involve the deaths of animals, unfortunately, this is not true. Even if one adopts a purely vegan plant-based diet, animals will still be killed so that one can eat. This is because many animals - particularly birds, mice and other small rodents - are killed through working the fields. For anyone who has seen a modern harvester in action, this may not be much of a surprise. This fact has raised two specific objections to the idea that we are under a moral obligation to be vegetarian. First of all, one philosopher has argued that to meet everyone's nutritional needs, a crop-only system of agriculture will kill more animals than one in which cattle are also killed. Secondly, it might be argued that if we are under an obligation not to violate the rights of field animals not to be killed, then we will perish. Since this is absurd, it is argued that the whole case for vegetarianism is undermined. In this section, we discuss and refute both of these objections.

Crop Cultivation and Numbers of Animals Killed

Steven L. Davis has claimed that more animals would be killed by following a vegetarian or vegan diet than following one that involves the consumption of large herbivores as well as plants (Davis 2003). Davis compares two agricultural systems: one which involves only the cultivation of crops; and one which involves half crops and half ruminant pasture (e.g. grass-fed cows). Davis argues that tending to the ruminants will involve fewer animal deaths, given that the land devoted to this system does not need to be worked so much. In effect then, Davis claims that if we all switched to a diet whereby both large herbivores and crops were consumed, fewer animals would die than if we switched to a diet of plants only. What can we make of Davis's argument? In the first instance, it should, of course, be pointed out that even fewer animals would die if we did not eat those ruminant cattle used for grazing, but only used them for their milk. This rather obvious point seems to lend further weight to my advocacy of lactose-vegetarianism. However, Gaverick Matheny has made a much more devastating objection to Davis's argument. Matheny argues that Davis's comparison of animal deaths rests on a mathematical error:

Davis mistakenly assumes the two systems - crops only and crops with ruminant pasture - using the same total amount of land, would feed identical numbers of people. Crop and ruminant systems produce different amounts of food per hectare - the two systems would feed different numbers of people (Alward 2000: 83).

Matheny's essential point is that one can extract far more protein from a hectare of crops than from a hectare of cattle. Indeed, crop production uses so much less land than ruminant pasture to produce the same amount of protein, that fewer animals would actually be killed by a crop-only system than by a crop and ruminant pasture system. Thus, in actual fact, fewer animals would be killed by the mass adoption of a diet based on plants.

Crop Cultivation and Rights Violations

However, all this still leaves the issue of those animals that are killed in the field. For surely it is the case that field animals have an interest in continued life, just like any other animal. Moreover, we have argued that this interest is sufficient to ground a *prima facie* moral right in animals not to be killed. Given this, it appears that by working the field to cultivate our crops, we are violating the rights of many animals. Does the rights theory outlined in this thesis demand then that we stop cultivating crops? The rights theory outlined in this thesis does not demand that we stop producing crops in order to avoid the deaths of animals in the field. We must remember that we have argued that the rights of animals not to suffer and not to be killed are *prima facie*. Thus, we say that the animal interests in avoiding pain and in continued life are ordinarily sufficient to ground in us a duty not to cause them pain and not to end their lives. However, whether these interests ground duties in any particular instance depends on a range of factors. In evaluating whether the human interest in therapeutic advances trumped the animal interest in not being killed by experimentation. We claimed that it did not, based on the fact that this would be inconsistent with our considered judgment that

lethal experiments on non-autonomous humans are impermissible. The circumstances in this context are, of course, quite different. It is certainly true that field animals have an interest in continued life which would be set back if we killed them while cultivating crops. However, we as humans need to eat to survive and need to cultivate crops in order to survive. In effect then, our interest in continued life clashes with the field animals' interest in continued life. Given the arguments we made in about animals having a weaker interest in continued life than human persons, it is evident that the field animals' interest in continued life is insufficient to the ground in us a duty not to cultivate crops. Quite simply, field animals have no moral right not to be killed by us when we cultivate crops. To conclude this section we wish to claim that the argument from killings in the field does not undermine the case for vegetarianism. In the first place, it is simply false that more animals will die if we adopt a vegetarian or vegan diet. Moreover, given the fact that humans must cultivate crops in order to survive, field animals' interest in continued life is insufficient to the ground in them a moral right not to be killed by us when we cultivate crops.

The Predation Argument

Rather than entering into complex assessments of how many animals are killed in the field, it might be argued that there is a much more straightforward objection to my proposal that we should not kill animals for their flesh. This is simply the point that some animals kill other animals in order to eat, so why shouldn't we? The argument is sometimes put in terms of a supposed *reductio ad absurdum*: if vegetarians are correct and we have an obligation to refrain from killing animals to eat them, then we must also have the seemingly bizarre obligation to prevent predator animals from killing their prey. In this section, we examine the argument from predation by evaluating three common rebuttals that have been put forward by advocates of vegetarianism. First, it has been argued that animals are not moral agents. So it is argued that while we - as humans and moral agents - have an obligation not to kill other animals, we are under no duty to prevent animals from so doing. Second, it is pointed out that predator animals need to kill in order to survive while we do not, making their killings permissible and ours impermissible. And finally, some argue that if we were to interfere with predator-prey relations we would actually end up causing more overall harm to sentient animals. We argue that while the first objection fails, the second and third rebuttals effectively defeat the predation argument against vegetarianism.

Animals Are Not Moral Agents

It is sometimes claimed that there is an important difference between the killing of animals by humans, and the killings perpetrated by predator animals. As moral agents, humans are able to reflect upon and decide on the appropriate moral action. Animals, on the other hand, lack such capacities. Thus, while most humans can be held morally accountable for the killing they inflict, animals cannot. So the claim is that when we as humans kill animals for food, we are blameworthy and such killing should be prevented; but when animals kill other animals for food, they are not blameworthy and this should not be prevented. However, this argument suffers from a significant problem. As several thinkers have pointed out, while it seems clear that moral agents cannot be held accountable for their actions, which does not mean to say that we should not prevent them from causing harm to others. To illustrate this point, Peter Alward gives the following example:

Consider, by way of analogy, a child too young to know the difference between right and wrong, attempting to slit the throat of his sleeping father. If the child succeeded in his attempt, he would have performed a morally wrong act albeit one for which he ought not to be blamed. However, despite the lack of blameworthiness for his act, we would be morally required to prevent the child from slitting his father's throat if we could (Alward 2000: 83).

The simple fact that children and animals are not moral agents does not mean that we should prevent them from causing harm. And predator animals do cause harm when they kill their prey: prey animals have an interest that their lives continue. Moreover, if this interest is sufficient to ground a right to life for animals in agriculture and in experimentation, why should it not be sufficient to ground a right for prey animals in the wild? Of course, this putative right to life of prey animals would not be held against their predators: predators are not moral agents, so cannot have moral duties. Rather, it would be held against us: we are moral agents and can act to prevent their deaths.

So all this seems to suggest that if it is true that we should not kill animals to eat their flesh, then maybe we should also act to prevent predator animals from killing their prey. However, perhaps there is an alternative moral difference between the deaths that humans inflict and the deaths that predator animals inflict.

Killing for Survival and Overall Harm

While the vast majority of humans do not need to kill animals in order to survive, predatory animals do need to kill to stay alive. This, we think, marks an important moral difference between the deaths we inflict upon animals, and those that are caused by predatory animals. One might argue that the killings of predatory animals are 'necessary', while those of humans are 'unnecessary'. Thus prey animals have a moral right not to be killed by us to be eaten but have no right not to be killed by predator animals to be eaten. However, there remains a difficulty with this argument. Dale Jamieson has correctly observed that not all the kills enacted by predators on prey animals are strictly necessary (Dale 1990: 354). Sometimes predators will kill more animals than they need to survive. Moreover, and as owners of pet cats will testify, in the process of killing, predatory animals will often inflict more pain on an animal than can be deemed necessary for survival. Given this, Jamieson wonders whether it would thus be better if we as humans raised the prey animals, killed them humanely, and then fed them to the predator animals ourselves. We believe that the vegetarian can resist this conclusion by pointing out that to interfere with the predator-prey relationship would undoubtedly cause more overall harm in the long-term. To avoid the unnecessary harms inflicted on prey animals we would either have to segregate the prey animals as Jamieson considers, or segregate the predator animals. Both options seem impossible in practical terms. Nevertheless, even if we could do either, the impact on the ecosystems in which they reside would be catastrophic. For example, if we were to remove predator animals to avoid the unnecessary harms they inflict, there would be many so-called 'cascade effects'. First of all, many scavenger animals who once fed on the corpses of the prey would suffer and die. Second, the prey animals would become abundant and out-compete other species for the best habitat, again leading to the suffering and death of animals from rival species. Moreover, the prey animals might begin to decimate particular plant species. This might deny an important food source to other animals, who again would suffer and die. Such harms are also inevitable if the prey species are segregated: predator animals and scavengers would start to roam miles in the vain search for food; rival species would grow in number and decimate other populations; and the vegetation they once fed on might become abundant, adversely altering the habitat of other species. Given all this, we shouldn't interfere with predator-prey relations. While this will inevitably result in some unnecessary killings, where animals are killed and suffer without necessarily contributing to the survival of their predator, in the long run it will lead to far less harm to sentient animals. For this reason, we can say that in general prey animals have no right against us that we prevent their deaths at the hands of predator animals. As a final point, however, we should stress that where it is clear that killings by predator animals are unnecessary for survival, and where we know that we will not cause more harm in the long term, we do have an obligation to interfere. So, for example, cat owners ordinarily must try to prevent their cats from killing and inflicting pain on other sentient animals. This section concludes that it is wrong for us to kill animals to eat their flesh, even though some animals kill and eat one another. This is not because humans are moral agents, and animals are not. Rather, it is because predator animals need to kill their prey to survive, and we do not. While it might be objected that not all of their killing is necessary for their survival, we simply have to face up to these unfortunate deaths. For the alternative - greatly interfering with predator-prey relations - comes at too great a cost.

IS MODIFYING ANIMALS INHERENTLY WRONG?

To recap then, we have argued that one can be wronged by action, even if that action does not make one worse off overall. This means that it is wrong to raise animals to kill them, even when they will have worthwhile lives. However, this conclusion has an impact on another contentious issue in animal agriculture: deliberately producing animals that have capacities that suit human ends. Is it permissible to breed or genetically modify farm animals so that they have capacities (reduced or otherwise) that benefit humans? Before looking at how the implications of my claims concerning the

nonidentity problem affect this issue, it will first be valuable to consider whether modifying animals is simply wrong in and of itself.

Domesticated farm animals are far removed from their wild ancestors. The process of domestication has involved the deliberate breeding of animals which has radically altered their nature. Without fail, this change has been engineered for human purposes: so that hens lay more; so that cows produce more and leaner meat; so that sheep produce more wool; and so on. With the technology of genetic engineering now at our disposal, even greater opportunities to alter the nature of farm animals to better suit our goals are available: goats that produce hormones in their milk to cure human disease; pigs that grow bigger and leaner than any of their ancestors; turkeys that do not get broody and thus lay more; and even sheep that produce their own insecticide in their skin to prevent the need for dipping (Reiss and Roger 1990: 192). Is there any reason to think that such alterations are just inherently wrong? There seem to be three possible routes one might take. First off, one might claim that these alterations offend nature and are thus wrong. In this spirit Michael Fox writes:

To change that which is natural is to alter the harmony within living beings and the harmony in their relationship with the external environment. This is the meaning of harm: to cause injury by disrupting the harmony of life (Fox 1990: 33).

It will probably be evident from some of our previous arguments that we disagree with Fox. Harm cannot be simply equated with disrupting the natural. We argue that disrupting the natural can often be ethically valuable, such as when we prevent the realisation of humans' murderous instincts. However, Fox's argument is not quite as simple as this quotation suggests. He sees the wrong in modifying animals, not in the disruption of nature generally, but in the fact that we disrupt animals' telos; that is, their 'nature or beingness' (Fox 1990: 31). Unfortunately, such arguments take a rather static view of species and their individual members. According to evolutionary theory, the 'natures' of both individuals and species change all the time. Given this, it is unclear why nature's alterations are permissible, but ours are not.

Second, we might argue that altering animals for our purposes in ways such as these fail to treat animals with the appropriate respect. Here 'respect' might involve something like the Kantian injunction that we should not treat others only as means but also as ends (Bassey 2020). Of course, by treating someone as an end, Kant means that we should respect the autonomy, rationality, and moral agency of persons. Since animals are nonpersons, this type of respect argument needs to be modified. Perhaps then, we might define treating an animal as an end as having proper concern for the animal's wellbeing. In this case, respecting an animal would mean that we should not simply use an animal however we see fit, but must pay due consideration to her own interests. Now, by modifying animals solely for our own ends, it might well be argued that we are using animals as mere instruments, thus failing to show them respect. However, there is a problem with this claim. For while altering animals for our purposes is an uncontroversial case of using animals as means, it is not clear that such alteration also necessarily involves denigrating their ends. In other words, to treat something as a means or as an instrument is not incompatible with showing it respect (Gillon 2003). For example, imagine genetically engineering a dairy cow so that she is resistant to mastitis. Ultimately, we might do this so that we can extract more milk from the cow, and in this way, we obviously use the cow as a means. However, if we allow the animal to lead a life of high quality with a full range of valuable experiences, it seems that we are also respecting the cow's well-being, and treating the cow as an end. In other words, altering animals need not involve treating them with disrespect.

Finally, it has been argued that modifying animals is wrong because it fails to show humility. David Cooper argues that humility is a virtue for human beings because it turns us away from mere selfish concerns. However, when we, "...programme animals with ends to suit ourselves and otherwise bend them to our will" (Hobman 2017: 65), we wrong animals by abandoning our 'proper humility' (Hobman 2017: 67). Clearly, this argument rests on a judgment of the actions and attitudes of the modifiers, rather than the interests and well-being of the entity being modified. However, this focus leads to some rather strange implications. For example, consider a brilliantly talented yet supremely arrogant surgeon who performs many life-saving operations over the course of any week. Let us

assume that his success rests on the satisfaction he takes from his skills conquering nature and cheating death, rather than any concern for his patients. It is probably safe to assume that this surgeon fails to show 'proper humility'. Despite this, however, it would be extremely odd to judge his actions impermissible, given the lives he saves. Humility may often be a virtue, but it should not hold us back from facilitating great benefits at no cost.

Is Modifying Animals Ever Wrong?

We have argued then that there is nothing inherently wrong with modifying animals. However, is it ever wrong? First of all, and in keeping with my argument above, we can claim that animals who are modified and living lives that are not worth living have been wronged. We should not create animals whose lives are full of pain and suffering just to suit ourselves. Unfortunately many farm animals that are currently genetically engineered do have such lives. The classic example is that of the Beltsville pigs, named after the US Department of Agriculture research station where they were born. The pigs had a human growth hormone gene inserted into them so that they would grow faster and leaner. In some respects, they were a success: the pigs' rate of gain increased by 15%, their feed efficiency by 18%, and their carcass fat was reduced by 80% (Getmantseva et al., 2019). However, these 'gains' came at considerable costs to the pigs' own well-being. For not only did the pigs suffer from liver and kidney problems that shortened their lives, furthermore:

The animals also exhibited a wide variety of diseases and symptoms, including lethargy, lameness, uncoordinated gait, bulging eyes, thickened skin, gastric ulcers, severe synovitis, degenerative joint disease, heart disease of various kinds, nephritis and pneumonia (Poskin et al., 2014: 76).

We have an obligation not to produce animals who suffer so terribly in this way. And while it might be objected that these side-effects were unwanted, that provides a little excuse. Adopting a 'precautionary principle' seems apt when we are embarking on such radical alterations of sentient beings: when we have little idea concerning the effects of alteration, we should refrain from making it. Given the somewhat random nature of genetic modification, this precautionary principle would indeed be prohibitive. To explain, the genetic modification of animals usually involves the technique of pronuclear microinjection. This is the injection of the prospective gene into the single-cell embryo of the prospective animal. The procedure breaks up the chromosomes in the cell, and in the process of self-repair, the gene is incorporated. It is hard to tell exactly how these genes will be incorporated, and very often the process is lethal, with those that do survive regularly suffering from serious pathologies (Bala 2015: 85). Given all this, the onus must be on those who wish to make genetic alterations to animals to prove that their changes will not cause harm.

Clearly, however, not all farm animals who are modified - genetically, or more conventionally through breeding - have lives that are not worth living. Many animals have valuable lives. So what about the permissibility of altering animals for our purposes, but who have lives worth living? Well, if one of our purposes is to kill them, or violate their rights in some other way, then that would be wrong. As we argued above, animals have a right not to be raised to be killed, even if they would not have existed had they not been raised to be killed. Really then, this leaves the question of modifying animals who will not be killed or have their rights violated, and who will have worthwhile lives: is that permissible? We believe that much depends on the type of modification that is being considered. To help us then, we might consider two extremes. First, we might alter an animal in such a way so that she has very similar opportunities for well-being compared to her predecessors. So, take the example given above of altering sheep so that they produce their own insecticide. If this alteration had no other effects, and if it is neither inherently objectionable to raise sheep for their wool nor to alter them (and we do not think that it is), then such an alteration would be permissible. On the other hand, we might alter an animal so that she has limited capacities and reduced opportunities for well-being compared to her predecessors. So, imagine creating a chicken with reduced capacities: let us say that she is incapable of spreading her wings and has no desire to nest. If the animals do not suffer as a result and have a worthwhile life, would such action be wrong? Bernard E. Rollin thinks not.

Any animals that are genetically engineered for human use or even for environmental benefit should be no worse off, in terms of suffering, after the new traits are introduced into the genome than the parent stock was before the insertion of the new genetic material (Rollin 2009: 53).

But if it is permissible to reduce the capacities of animals so long as they do not suffer, surely then the same must also be true for humans? This raises the repugnant idea of producing happy idiots, as envisaged in *Brave New World*. However, Rollin thinks that we cannot alter humans in this way and that this is because reason and autonomy are nonnegotiable ultimate goods for humans (Rollin 2011: 103). But we can question Rollin's reasoning here. While we agree that rationality and autonomy are intrinsic goods for most humans, they are not so for all humans. As we have argued before, autonomy is of no value to someone who is not autonomous, such as a young baby for example. So if autonomy and rationality are only valuable for autonomous and rational creatures - which seems plausible - is there any problem with deliberately creating non-autonomous and non-rational humans who have worthwhile lives?

We think that there is a problem with deliberately creating humans who will never be autonomous or rational. The problem here is in deliberately creating individuals with fewer capacities than most other humans. And this is problematic because fewer capacities mean fewer opportunities for valuable experiences. True, these individuals will have lives that are worth living. Also true, had they not been created with reduced capacities they would not even have existed at all. But as we argued above, one can be wronged even if one is left no worse off overall. When we are confronted with the question of whether to bring an individual into existence, we must not just consider whether they will have a life worth living. Nor must we only consider whether they will have their rights respected. We must also consider whether they have sufficient opportunities for well-being.

This begs the question, what counts as sufficient? Quite simply, a sufficient number of opportunities equates to those available to an individual with 'species-typical normal functioning' (Rollin 1995: 179). Of course, basing the threshold of sufficiency on 'normality' raises the difficult question of determining what normal is. However, we do not think that this difficulty is insurmountable, for we do often have clear ideas as to what counts as normal functioning. So to take an example, imagine considering whether to modify a human being so that she will have permanent mental disabilities which are such that she will never be autonomous, but she will have a life worth living. We claim that such deliberate creation would be wrong because the individual will have insufficient opportunities for well-being. Her opportunities are insufficient because they are lower than the normal functioning of human beings.

Let us now return to the question of modifying chickens; modifying them so that they have reduced capacities but worthwhile lives. Remember that our example concerned deliberately creating birds who cannot spread their wings and have no desire to nest. In this case, the same argument as outlined above must apply. Do these chickens have sufficient opportunities for well-being? To answer this, we must compare the birds against their species-typical normal functioning. In short, chickens normally can spread their wings, and normally can nest; and ordinarily, these are valuable experiences for chickens. By reducing the capacities of these chickens, we have reduced their opportunities for well-being. On this basis, and contrary to Rollin, it would be impermissible to deliberately create such chickens.

Before concluding this section, we must once again consider whether individuals have a right not to have been modified so that they have insufficient opportunities for wellbeing. Do individuals have an interest in not having been modified with reduced capacities that are sufficient to impose a duty on others not to conduct such modifications? We believe that they do. After all, sentient beings of all types have a very strong interest that their capacities are not reduced during their lives. Quite rightly, we consider it to be very serious harm when someone is injured or suffers from some disease that significantly reduces their capacities for well-being. This harm is not simply explained by the reduction in their capacities however, but also by the fact they have fewer capacities compared to the species norm. Accordingly, we think it makes good sense to say that individuals, including animals such as chickens, have a strong enough interest to impose on us a duty not to modify them with

insufficient capacities for well-being. In short, animals have a moral right not to have been modified with significantly reduced capacities.

CONCLUSION

Given the numbers of farm animals we raise and slaughter, the issue of animals in agriculture is indeed pressing. In this paper, we have applied the rights theory to the question of farm animals. We argued that animals have a right not to be killed and not to be made to suffer by agricultural practices, but have no right not to be used in farming at all. This has two radical implications: an end to a great many intensive farming methods, and an end to raising animals for their meat. The objection that more animals will be killed by the mass adoption of vegetarianism fails: the agricultural system that will kill the fewest animals is actually a 'crop-only' one. The objection that animals kill one another, so we should be able to, also fails: predator animals need to kill to survive whereas we do not. The fact that not all predator kills are strictly 'necessary' is unfortunate, but we have to accept that interfering with them may cause more harm than good. Finally, the objection that farm animals would not exist at all had they not been raised to be killed also fails: one can still be wronged by policy even if one benefits overall from it. This conclusion has implications for our modifications to farm animals. Importantly, we can still wrong an animal by creating an animal with reduced capacities, even if that animal does not suffer.

REFERENCES

1. Alward, P. (2000). The Nai've Argument against Moral Vegetarianism. *Environmental Values*, 9(1).
2. Bala, A., Uchin, M., Anzaku, S., Gokir, I., & Gukut, M. (2015). Detection of Cadmium (Cd) Residues in Kidney and Liver of Slaughtered Pigs at Sabo-Wakama Market of Akun Development Area of Nasarawa State, Nigeria. *International Journal of Livestock Research*, 5(12), 38. <https://doi.org/10.5455/ijlr.20151202085457>
3. Benatar, D. (2001). Why the naïve argument against moral vegetarianism really is naïve. *Environmental Values*, 10(1), 103–112. <https://doi.org/10.3197/096327101129340769>
4. Dale J. (1990). Rights, Justice, and Duties to Provide Assistance: A Critique of Regan's Theory of Rights, *Ethics*, 100(1).
5. Davis, S. L. (2003). The least harm principle may require that humans consume a diet containing large herbivores, not a vegan diet. *Journal of Agricultural and Environmental Ethics*, 16(4), 387–394. <https://doi.org/10.1023/A:1025638030686>
6. Dooley, A. E., Smeaton, D., & McDermott, A. (2005). A model of the New Zealand beef value chain. *MODSIM05 - International Congress on Modelling and Simulation: Advances and Applications for Management and Decision Making, Proceedings*, 190–195.
7. Fox, M. (1990). *Transgenic Animals: Ethical and Animal Welfare Concerns*, London: Pluto Press.
8. Getmantseva, L. V., Bakoev, N. F., Kostyunina, O. V., & Bakoyev, S. Y. (2019). Effects of the growth hormone gene genotypes on the traits of pig's productive longevity. *Bulletin of Agrarian Science*, 5(80), 63–66. <https://doi.org/10.15217/issn2587-666x.2019.5.63>
9. Gillon, R. (2003). Ethics needs principles - Four can encompass the rest - And respect for autonomy should be "first among equals." *Journal of Medical Ethics*, 29(5), 307–312. <https://doi.org/10.1136/jme.29.5.307>
10. Hobman, J. L. (2007). Molecular techniques for the study of toxic metal resistance mechanisms in bacteria. In *Manual of environmental microbiology* (Vol. 3rd, p. 1293).
11. Matheny, G. (2003). Least Harm: A Defense of Vegetarianism from Steven Davis's Omnivorous Proposal. *Journal of Agricultural and Environmental Ethics*, 16(5).
12. McGreevy, P. (2004). Equine behavior: A guide for veterinarians and equine scientist. In *Equine Behavior: A Guide for Veterinarians and Equine Scientist*. <https://doi.org/10.1016/B978-0-7020-2634-8.X5001-1>
13. Poskin, A., Van Campe, W., Mostin, L., Cay, B., & De Regge, N. (2014). Experimental Schmallenberg virus infection of pigs. *Veterinary Microbiology*, 170(3-4), 398–402. <https://doi.org/10.1016/j.vetmic.2014.02.026>

14. Reiss, J., Roger S. (1996). *Improving Nature? The Science and Ethics of Genetic Engineering*. Cambridge: Cambridge University Press.
15. Rollin, B. E. (1995). *The Frankenstein Syndrome: Ethical and Social Issues in the Genetic Engineering of Animals*. Cambridge: Cambridge University Press.
16. Rollin, B. E. (2009). Ethics and Research on Human Beings. In *Science and Ethics* (pp. 66–98). <https://doi.org/10.1017/cbo9780511617218.005>
17. Rollin, B. E. (2011). Animal rights as a mainstream phenomenon. *Animals*, 1(1), 102–115. <https://doi.org/10.3390/ani1010102>
18. Tuytens, F. A. M. (2005). The importance of straw for pig and cattle welfare: A review. *Applied Animal Behaviour Science*, 92(3), 261–282. <https://doi.org/10.1016/j.applanim.2005.05.007>
19. Ogar, J. N., Emina, K. A., & Bassey, S. A. (2020). An Ethical Overview of Animal Welfare and the Use of Antibiotics. *Bulletin of Pure and Applied Sciences*, 39a(1).
20. Akpan, C. O., Ogar, J. N., & Bassey, S. A. (2020). Examining the Ethics of Research in Animal Experimentation. *Bulletin of Pure and Applied Sciences*, 39a(1).
21. Bassey, S. A., (2020), Technology, Environmental Sustainability and the Ethics of Anthropoholism. *Przestrzeń Społeczna*, 1(19).