

# *Food and Farming*

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## ***1. Introduction***

This essay is an updated version of a pair of talks given to the "Effective Altruism" student group at the University of Sydney in 2018 and 2019. The themes of the talks were vegetarianism, farming, and the future of our relationship with nonhuman animals. This paper will include material from both talks, and also take things further.<sup>1</sup>

The first talk was prompted by reading a revised (40th anniversary) edition of Peter Singer's 1975 book *Animal Liberation*. I agree with Singer that that many things are badly wrong in our relationships with nonhuman animals. Several aspects of those

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<sup>1</sup> Occasionally I'll indicate places where an earlier write-up ("Reflections on Food and Farming") has more detail on a particular theme. See <http://metazoan.net/69-food/> for a link to that earlier version. This essay is informally presented and does not include full references. Thanks to those present at the talks, for discussion, and also to Rachael Weiss, Jennifer Jacquet, and Lori Gruen.

relationships deserve scrutiny, but my main topic here will be food.<sup>2</sup> Modern food production causes a huge amount of animal suffering. In response, Singer urges various changes, but especially, as basic, vegetarianism.

[T]here is one.. thing we can do that is of supreme importance; it underpins, makes consistent, and gives meaning to all our other activities on behalf of animals. This one thing is that we take responsibility for our own lives, and make them as free of cruelty as we can. The first step is that we cease to eat animals. (Ch. 4)

He thinks that we should stop – each of us – living in a way that contributes to animal suffering, and work towards a massive reform of farming, abolishing many of its familiar forms. (Below when I talk about "farming" without indicating any particular kind, I mean forms of farming that include animal husbandry, including egg and dairy farming as well as meat production.) Those are my topics here – human involvement in animal suffering and death, what shape the reform of food production might have, paths to that reform, and what we might eat in the future.

## ***2. Causation and Whole Lives***

These problems are in large part about our causal role in this area – what we *do*, and what results from what we do. The idea of "causal role" is not straightforward, and some of its complexities are directly relevant. A general distinction can be made between two sides to causation – there is a kind of duality in our concept of cause. Causation has a *production* side and a *difference-making* side.<sup>3</sup> These are two kinds of relationship our actions can have to what happens. On the production side, being a cause is being part of the process that led to something, whether or not you made a difference to how things turned out. You were part of the actual process that gave rise to it. On the other side,

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<sup>2</sup> Biomedical experimentation is probably the next most important (setting aside habitat destruction as a different and broader problem). For some related thoughts on experiments, see <https://metazoan.net/32-rivalry-continued/>, which includes discussion of a paper by Philip Kitcher, "Experimental Animals," *Philosophy and Public Affairs*, 2015.

<sup>3</sup> See, for example, Ned Hall's "Two Concepts of Causation," (2004) and my "Causal Pluralism" (2010).

there is making a difference to what happened, affecting an outcome, whether or not you were part of the physical process that produced the event.

Standard examples illustrating the distinction also show its relevance. For production without difference-making, think of a team of assassins, where you shoot the target but other people, backups, would have done so, immediately, if you had not. You were the cause as producer, the productive agent, but things would have gone very similarly if you had not acted as you did.<sup>4</sup> For difference-making without production, think of a case where you don't intervene in something; you keep silent and let a process unfold. Perhaps you were miles away. You made a difference, by your inaction, but were not a productive agent, were not part of the chain of events that produced the outcome.

In both cases you were responsible – in *a* sense but not in all senses. If there were back-up causes, then you might have been a difference-maker for the manner in which some event came out, including its timing, without being a difference-maker with respect to whether it happened at all. If, on the other hand, you were not a producer, and were not part of the physical chain that gave rise to the event that occurred, then you only *did* it in a special difference-making sense. This assessment of difference-making only makes sense when there are fairly clear alternative paths. What would have happened to this person, or sardine, if I had not done what I did? Usually the two causal relationships go together – you make a difference by being part of a process that produces some outcome – but not always.

There is good and bad in difference-making: did you make things better, or worse? There is good and bad in production: were you a producer of good or bad things – was it *you who did it?* – regardless of difference-making? It takes unusual cases to split the two completely, but these differences in causal involvement will be relevant below.

Another distinction, one with more obvious importance, is between farmed and wild-caught animals. Wild-caught animals are a small and shrinking proportion of the animals that people eat – even in seafood, around half is now farmed. But the two do raise different issues.

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<sup>4</sup> I wonder about the relationship between this distinction and some other ethical problems concerning causation, such as "double effect" issues, Frankfurt cases, and the like.

In the case of wild animals hunted or fished, we determine the manner and timing of their death. They would die anyway, of some other cause at some other time. We might cut their life short by a lot, or a little. We might kill them with more, or less, suffering than would otherwise happen. We might generate more, or less suffering for other animals (mates, prey, others in a group) when we kill this one. We are the productive agents in their deaths – we physically make those particular deaths occur – and we are difference-makers with respect to the timing and the manner of death.

In the case of farmed animals, we have *complete* responsibility: we are productive agents with respect to their entire lives. We physically bring about their births and (usually) their deaths. We control, in large part, any good things that might happen to them as well as the bad. Once these animals exist, they will die of something, given the kinds of beings that they are. We then only make a difference to the manner and timing of that death. But we are also difference-makers, as well as productive agents, with respect to whether that particular life, with a beginning and end, comes to exist at all.<sup>5</sup>

The moral questions we face are affected by this difference in the typical causal relations we have to wild and farmed animals. In the wild animal case, what we figure in is their particular deaths. We can ask: do our actions make these animals worse off than they would have been otherwise? It is also possible to assess and perhaps regret our role as productive agents in an animal's death even when we think we did not make much difference to how things went, perhaps even if our contribution was positive on the difference-making side.<sup>6</sup>

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<sup>5</sup> In-between cases include domestication of individual wild-born animals and farmed animals who are free to breed or not without intervention. I assume both cases are rare.

<sup>6</sup> Continuing from footnote 4, there is a relationship here to broader debates between Kantian and consequentialist views, at least in relatively pure forms. Long, complicated case-specific causal chains of the sort relevant to difference-making are not antithetical at all to consequentialist reasoning, but do not sit so well with universalisability? See also Blackburn, *Ruling Passions*, Chapter 7: "[Kant] found it it easy to put extremely simple boundaries round the complex tangles of human action. For Kant, not only the first word, but the last word about a practical situation is glacially abstract: 'It was a lie'; 'He broke a promise'; 'He took my property'; 'She broke the law'." I am not suggesting that the production side of causation is always concerned with shorter or more direct chains than the difference-making side. But there is some relationship here between the different kinds of causal thinking and these broad moral outlooks.

In the case of farmed animals, we are responsible, as I said, for the animal's entire life. It is common to ask specifically about the killing stage – to assess that on its own. I think that is not how we should approach it, or not the only way, given the causal arrangements in place. In this case we should (or should also) evaluate a temporally extended policy, or a series of acts, where we bring an animal into existence, treat it a certain way, and kill it a certain way. What is to be evaluated in the case of farm animals is the *whole life*, because that is what we are responsible for.

Then we can ask, in the case of farmed animals, several questions:

1. Are their lives *worth living*? Is the balance of suffering versus wellbeing bad enough for it to have been better, for each of them, never to have lived?
2. If a life in some case is worth living, is it *good enough for us to think that what are doing is OK*? Some people say that if we give an animal a life that is minimally better than nothing, we can feel fine about that case. Others would say that we should do much more than this – not just that we ideally should, but should if we are continue farming at all.
3. Did we give an animal a life *better or worse than it would have had in a wild state*? In some cases, it is not clear what this means any more, as the animals have been altered so much by domestication, but in other cases the question makes some sense.
4. Should we be *engaging in this kind of control at all*? Whether or not the situation looks OK with respect to an animal's overall well-being, is it appropriate ("do we have the right?") to do any of this? Is our proper relationship to animal lives, instead, one in which we *don't* control what happens, for good or ill, or at least try to minimize our impact on their lives?

In each of these questions, what we are assessing is our role in relation to their whole lives. That is what farming is about. It is bringing animals into existence (in most cases), controlling what happens, and then using them in the production of food. If this kind of farming is OK, or not OK, that is because of the features of those whole lives.

This is not how critics of meat-eating and the farming of animals tend to set things up. Singer is an example.<sup>7</sup> When looking at farming, Singer and others tend to proceed by assuming, or handling relatively quickly, the idea that killing animals is bad (perhaps except in some cases where stress and pain are totally absent), and then looking at a possible justification of farming they call the *replaceability argument*. The idea here is that when we kill one animal, in a farming context, we might compensate by creating another. The badness of the first act is accepted, but offset by another act that bears on another animal. That is different from an argument based on consideration of the package that is the totality of this *one* animals' life, which we were responsible for, from beginning to end.

It seems common in the literature to not worry much about the distinction.<sup>8</sup> But a replaceability argument about farming is different from a whole-life argument. Whether or not whole-life reasoning might actually justify farming, this is what we should be thinking about, at least at first, given that our causal role does extend in this way.

Why do people so readily consider a replaceability argument rather than a whole-life one, sometimes introducing the basics of a whole-life question but then switching to consideration of replaceability? Is it that the killing of an animal cannot be justified by what has gone beforehand, but might be morally offset by what can come afterwards?<sup>9</sup>

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<sup>7</sup> In the first talk and its written-up version, mentioned and linked in note 1, I discuss Singer's handling of these issues in detail. I will be quicker here.

<sup>8</sup> Nicholas Delon's "The Replaceability Argument in the Ethics of Animal Husbandry" discusses versions of both kinds of argument: replacement and (without using a term like this) whole-life. In the latest edition of *Practical Ethics* Singer cites Pollan's *The Omnivore's Dilemma* as endorsing a replaceability argument. Pollan in fact uses a sort of mix of the replaceability and whole-life arguments, along with others.

<sup>9</sup> In *Practical Ethics*, Singer distinguishes what he calls *prior existence* and *total* views in his discussion of utilitarianism. (*Prior existence*: only consider the consequences of an act for beings already alive; *total*: include the welfare of beings brought into existence by an act, as well as the welfare of those who already exist.) This distinction seems to have (as Singer suggested in correspondence) some relation to the whole-life/replaceability distinction. Thoughts in response: a whole-life justification for farming of the kind envisaged here is not utilitarian in a classical sense, because the suffering of one animal is not supposed to be compensated for by the well-being of others. A whole-life justification would be based on the overall balance of good and bad in the life of the individual farmed animal. Replaceability arguments do depend on "total view" reasoning, but whole-life arguments do not look at the well-being of previously existing organisms other than the animal in question.

Perhaps a problem is seen with whole-life reasoning because people think that the idea you should assess a temporally extended policy of this kind, in a way, incoherent. Whatever you might have done at earlier stages in an animal's life, you face a new decision at the moment where it is to be killed. You don't have to kill the animal when the time comes. You can spare it, perhaps send it to a sanctuary. You can assess this choice on its own terms, in the moment. You can always stay your hand, and perhaps you should. If you don't stay your hand, that might be partly because of what you intend to do next – a downstream action might be seen as a kind of compensation. You will have the option to rethink that action later, too, but perhaps justifications based on these forward-looking choices differ from those that look backwards. Something, in any case, seems to bring people back to replaceability arguments and away from whole life ones.

Whatever is going on there, I think that we *can* assess a temporally extended policy in the way a whole-life argument requires. It does make sense to assess extended policies or sequences of acts in the required way. An extended policy choice does not supersede last-minute choices; we can also reconsider in the moment. But the extended policies are things that we can make decisions about. I think that *if* farming is OK – farming of a kind that includes killing animals – it is OK because of whole-life considerations. Whole lives, after all, are what we are responsible for. A whole-life justification for animal farming is utilitarian in a way, but this is not an application of pure, unconstrained utilitarian reasoning – it is not an argument that some individuals can be sacrificed to benefit some larger group, or anything like that. The argument will be based on the kind of life that each individual animal encounters, the balance of good and bad in its own case.

### ***3. A First Round***

I'll next consider whether and when farming of a kind that includes the killing of animals is OK, using a whole life framework. Earlier, I listed a collection of questions about farmed animals:

1. Are their lives worth living at all?

2. If a farm animal's life in some case is worth living, is it good enough for us to think that what are doing is OK?
3. Do we give them a life better or worse than the wild state?
4. Should we be engaging in this kind of control at all?

I approach these questions in a way that has an eye to the nature of disagreement in this area, and what kind of thing we're doing when we accept or condemn a particular kind of farming. I'll set the situation up with two rounds of decision-making. In the first round, we look at the whole lives of farmed animals and ask a question that is fundamental in relation to some others. When I say it is fundamental, I mean that if the answer is no, then some other questions fade, at least in large part, and many disagreements about details also recede. The question is: do the animals under our control in modern farming have lives that are worth living at all? In many cases I would say no.

This seems clearest for the intensive modern farming of pigs and chickens (chickens used both for meat and eggs). It may be true of many intensively farmed grain-fed cattle, though cattle are a bit of a special case.<sup>10</sup> I'm unsure about dairy cows, but increasingly concerned as I learn more. In the case of sheep, I don't know enough, and special considerations involving the length of life arise in that case – lambs raised for food perhaps have a reasonably good life but a *very* short one (a few months). All sorts of factors are relevant and differ across cases, including different kinds of aversive experience (stress, pain, boredom), the length of life, the amount of time spent in positively enjoyable activities, and perhaps more. I will mostly focus on what seem the clearest cases – the modern and much-criticized forms of pig and chicken farming, and the most problematic high-intensity forms of cattle farming.

I think those lives are not worth living. I think a lot of people believe this, too, or believe things that imply it, and it's not hard to show this. Consider a reincarnation test. After you die, would you rather come back as an animal of that kind, or not come back at all? This is obviously an imperfect thought-experiment; given that it in some sense it has to be *you* returning, what sort of mental life do we assume? But in my case, I find that *however* the details are filled out, I find that I'd rather not come back at all, than come

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<sup>10</sup> See <https://michaelpollan.com/articles-archive/power-steer/>



back as one of those animals. There is no way for me to get the other answer.<sup>11</sup> So the inherent vagueness of the question is not the end of the matter. Those lives, I believe, are not worth living.<sup>12</sup>

The reincarnation test has a good deal of potency in my case, as a focusing of tacit assumptions and evaluations. And although the thought experiment is full of indeterminacy, I have yet to meet someone who has a definite reaction in the opposite direction. If this test is seen as a good one, then there is a large category of treatment of animals that is indefensible, and we should do what we can to bring those practices to an end.

What is the role of this "should"? With what intended force do I assert it? On the basis of some controversial moral theory? I don't think this is an area where an argument can compel someone who is not motivated by pre-existing values of a certain kind. There is a tradition in philosophy, especially in recent Kantianism, of trying to achieve real compulsion here, an argument that must move us, based perhaps on what is required for valuation and choice to be coherent at all. I don't think arguments of that kind work – in

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<sup>11</sup> A bit more detail, though I don't want to present this argument as more rigorous than it can really be: I assume there's only one return, no ongoing reincarnation, no larger purpose that your return might serve, and so on.

<sup>12</sup> One always wonders about the exaggeration of harms, and whether farmers and those in government who look after their interests care more about animal suffering than we might realize. In an Australian context, whenever one wonders about this, it is salutatory to think about ongoing debates around "live export," especially live export of sheep to the Middle East in northern summer. This practice is about as horrific as it could possibly be, with animals frequently being cooked alive in the ships. But evidently many farmers think this is acceptable, and the political representatives of the farmers in the Australian parliament, the National Party and Liberal Party, will not touch them. A *defender* of live export (or at least an emphatic critic of moves to ban it), the newspaper journalist David Crowe, let slip a bit of information a few years ago that I'd vaguely wondered about, but had not thought through well enough. How much extra money does each sheep bring in through live export, when compared to that animal's being sold on the local market? The answer is that the animals are put through hell for, at most, an extra \$20. (<https://www.smh.com.au/politics/federal/taking-time-of-the-essence-in-live-sheep-trade-debate-20180517-p4zfy0.html>)

In retrospect, it had to be that way, as the animals are being shipped to communities that are not rich, and the final retail price puts a cap on what can be made by the farmers.

That was a bit of a digression, and specific to the Australian context. A lot of other countries don't do things like this. This example is useful, I think, in working out who to believe on these issues, and how bad an animal's experience can be without it being regarded by producers as too awful for a practice to continue.

another essay I go through one of them in detail.<sup>13</sup> Here is a way of thinking about round one. This round can be aimed at what John Rawls called an "overlapping consensus," a point of intersection or agreement between different moral outlooks present in a society. For Rawls, an overlapping consensus is more than a *mere* intersection, a situation where people find themselves agreeing on something despite other differences. Instead, this kind of consensus is supposed to derive from "fundamental intuitive ideas regarded as latent in the public political culture" in a society.<sup>14</sup> In the case of farming, we don't have that, but perhaps something related – perhaps "fundamental intuitive ideas that might be latent in our sense of the proper use of our powers." If that is asking for too much, then I would make the case in terms of mere overlap, noting that the differences between more consequentialist and more deontological moral outlooks tend to fade in the context of these extreme cases.<sup>15</sup> I'd also make the case by way of a basic question shorn of excessive philosophical machinery. Would you say that in situations where we have total control, we should systematically give huge numbers of animals lives that are not worth living?

#### ***4. Round Two***

Then there is a second round of choices. When I say this, I imagine that round one has been settled – we are committed to ending the most abusive practices. Then we find that lot of farming – a small fraction of the whole, but still a lot – will probably pass a test of the kind outlined above. Suppose that animals of some kind, under our control, are given constrained but peaceful lives of reasonable length, without much physical suffering, and are then killed for food. When I run this scenario through the reincarnation test above, I find that I would rather come back as an animal on one of the better humane farms than not come back at all. I like living, I accept that life always involves some suffering and an eventual death, and I think that a life spent on a humane farm is well worth living.

As I am setting things up, passing a "lives worth living" test is necessary but not sufficient for a form of farming to be OK – though the "necessary and sufficient"

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<sup>13</sup> See my "Philosophers and Other Animals," in *Aeon*, February 2021.

<sup>14</sup> Rawls, "The Idea Of An Overlapping Consensus," 1987.

<sup>15</sup> Korsgaard's *Fellow Creatures*, a detailed neo-Kantian treatment of animals, winds up in a similar place to Singer on this first round of questions, for example.

language obscures some of what is going on, as there are shifts in the kind of assessment on the table. Round two choices involve questions about what relationships we want to have with animals, and the course of their lives, when the first round is behind us. These questions are dependent on issues where more diversity of outlook is found, and where some these differences in outlook seem likely to be permanent.

Question 4, of the list I gave above, is very much in this second round. (*4. Should we be engaging in this kind of control at all?*). Even when we believe that a form of farming does not involve real horrors and gives animals lives worth living, for many people that is not the end of the matter. Question 4's challenge is that no matter what happens on the welfare side, no matter how pleasant the lives we create and control are, perhaps we just should not be doing this sort of thing. It is wrong not because it will harm our character (as argued by Kant) or because it will make the animals miserable (it won't, overall), but because this is not how the relationships should be, not an appropriate application of our powers.

When people make this case they often base it on the idea of *exploitation*; even the most humane farming is bad because it involves exploitation. This description is given in a way that is intended to rationally compel: "You have to admit that this is exploitation, and you therefore should not support it." People have often said that sort of thing to me, and have seen it as overriding other arguments. My response is not that the idea of exploitation has no purchase here at all, but it does not have anything like its intended decisive status. The idea of exploitation (in a morally loaded sense, as opposed to the purely descriptive sense seen when we might "exploit" a convenient supply of sand when building something) is an import from human social affairs, from our attempts to regulate and shape social relations, especially in situations of unequal power. We can indeed bring this concept, with its guiding role, over into the non-human domain if we decide to. I see the appeal to exploitation in this context as an *invitation*, an invitation to form a particular kind of relationship with animals.

This example illustrates what I think of as the general situation, and the kind of question we tend to face in this round. Much of what we are doing is looking for reasonable extensions of concepts and principles that we have developed to assess and guide human social practices. In the case of the idea of exploitation, I see the coherence

in the invitation, but not a great deal of force. Another concept that can be exported from human social relations, one less fêted as a moral concept than exploitation, has more impact on me. That is the concept of *betrayal*. Modern farming in general is a higher-tech descendant of a quasi-contractual relationship that humans formed with some animals about ten thousand years ago. The relationship can have real reciprocity in it, when we give animals genuine protection and a peaceful life. However, modern factory-farmed animals are the victims of something like an immense betrayal of this relationship. The betrayal has developed slowly and been made possible by a steady increase in human powers. This is perhaps a less straightforward import from the context of human social affairs, but a rather potent second round concept for me. I don't want to be part of this kind of betrayal.

Those examples indicate how I think of round two. We are looking at different ways of reconceiving human/animal relationships, guided by factual discoveries about the animals and by ongoing shifts in our general moral outlook, but probably not sent by those developments towards some unequivocal answer.<sup>16</sup>

I'll step back for a moment to put the two rounds of decision-making into explicit relation with each other. The first round has both a political side and a side that involves individual choice. We can decide that we should not, in farming, create lives of misery. Many different views about what is acceptable in human practices can recognize this as a point of intersection. That recognition is a basis for political argument and action to change the rules. Then there is round two, where we ask about the relationships we want with animals, given that the forms of farming that remain an option are humane and pass the first test. In this second round, the issues are less clear, ongoing diversity of opinion is likely, and enforcement is perhaps more problematic in principle. Given that we're imagining, in round two, having already moved against the worst evils, I am not sure how problematic it is that round two attitudes will differ. One of my aims in this essay is to separate the rounds, and enable us to make sense of being relaxed about divergence in round two while being firmer in round one.

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<sup>16</sup> See the last part of my 2021 *Aeon* essay about Korsgaard's *Fellow Creatures*.  
<https://aeon.co/essays/why-korsgaards-kantian-argument-about-animals-doesnt-work>

I'll now say more about my own round two responses as they presently stand. Some of these thoughts will draw on general principles, while others are more specific to my temperament and circumstances – this, again, is to be expected in round two. I think that a great deal of modern farming of animals is not defensible, but the best kinds of humane farming are defensible, where this includes killing animals.

What about the idea that, regardless of a whole life justification, there is something unacceptable about the killing of sentient beings for food? Do I really endorse the final stage, inevitable even on the best farms?

My thinking here is probably affected by my own attitude to death. Many people who write in this area appear to have a horror of death, *per se*, that I do not share. I like life, as I said earlier, but I don't expect to live forever, and I am comfortable with being a part of an omnivorous web, part of a cycle in which turnover and consumption are inherent to the system. Each of us, a local pocket of bio-energetic order, passes into and out of being. I will leave the scene, and others will arise in my place. Death is part of animal life, and also integral to its broader ecological and evolutionary context. If you are going to have an animal life, then you will die somehow. That death can occur in a multitude of ways – being killed and eaten another animal, succumbing to disease, starvation or cold. To not want animals to die at all is to not want them to live.

Others might have no scrap of this attitude towards death. Or they might recognize some of this, but prefer to be involved in as few deaths as possible – they might not want to be productive agents in such events, regardless of difference-making and regardless of the context those events might be embedded in. That is an understandable choice. And something about our extraordinary levels of control, and hence responsibility, over the lives of animals does make me uneasy about the situation, despite my view of death and my considered approval of the best humane farming. In the course of working on this essay, whenever I've written "we kill...", I've felt a momentary hesitation. I think this is largely because of the paradigmatic, genuinely evil cases that come to mind in talk of killing. It is also because of the changing moral tides in this area, a shift in mood that is underway, at least in my circles. I can imagine my round two views changing in the future, even though I do not, right now, think that they need to. And if

they do change, this would be a mixed, temperament-as-much-as-principle shift. It would not be a new recognition of a moral truth, but a shift in ways of seeing and acting.

## 5. *Futures*

Just then I mentioned the future, and shifts presently underway. If we want to think in more detail about the future, a good way in is provided by a passage from Thomas Nagel's review of Christine Korsgaard's *Fellow Creatures*.<sup>17</sup>

Moral disagreement is a constant feature of the human condition, as we struggle to find the right way to live. Whether we should kill animals for food is one of the deepest disagreements of our time; but we should not be surprised if the issue is rendered moot within the next few decades, when cultured meat (also called clean meat, synthetic meat, or in vitro meat) becomes less expensive to produce than meat from slaughtered animals, and equally palatable. When that happens, I suspect that our present practices, being no longer gastronomically necessary, will suddenly become morally unimaginable.

What an extraordinary passage, with that contrast at the end. "Gastronomically necessary" is so weak – Nagel not saying they are dietetically or biologically necessary – and "morally unimaginable" is so strong.

I think there is probably a good deal of truth in this picture. The development of lab-manufactured meat and alternative forms of protein are projects of immense importance, and these projects are moving quickly now, even though less public support has so far been given to them than they deserve. This is the long-term answer to the problem posed by the large proportion of meat-based food production going on now that should not continue.<sup>18</sup>

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<sup>17</sup> Nagel, "What We Owe a Rabbit," *New York Review of Books*, March 21, 2019.

<sup>18</sup> See, for example, the work of the Good Food Institute (<https://gfi.org>). Very little public money has been used to develop these projects, and it would make sense for investment to be massive. The case of electric cars is instructive also instructive, though it might be seen to point in a different direction. The transformative development in the case of electric cars was Tesla, operating near the top of the market and making cars that can out-accelerate even high-performance petrol cars. That changed perceptions, and the market, permanently. Perhaps a starting-at-the-top move would work well here, as well.

Let's suppose that this will work – that various kinds of synthetic and lab-grown meat will become cheap, popular, and routinely eaten. What does the future then look like more broadly, and what might we want it to look like? Let's follow some paths forward from Nagel's sketch.

Most farming of animals of the sort commonly seen now will disappear and will, as Nagel says, probably come to seem an appalling legacy. What about the best humane farming? Suppose it is eliminated – that it comes to look like a backward attempt to ameliorate something basically unacceptable. Then we would get, fairly quickly, a loss of nearly all animals of that kind; animals like those on farms now will not exist at all. Just as I recognize, and have to take on board, an unease when I think about the killing side of humane farming, those who oppose this farming should recognize the unrealistic nature of a picture in which, instead of killing domestic animals in the future, we are consistently kind to them. This is unrealistic because animals of that kind will not exist to be the recipients of this kindness. A few would be found in sanctuaries, at least for a time (and see below on some special cases: free range eggs, massively reformed dairy). But we would see the general loss of a whole group of animals, as well as a loss of the general sort of life that farm animals have.<sup>19</sup>

Many critics of animal farming probably would not mind this at all, seeing the kind of life those animals have as one so compromised by exploitation. That is a coherent position. But depending on further empirical questions, the end of animal farming may also contribute to the loss of most large non-human land animals of any kind, farmed or not. That depends on what would happen to the land presently used (directly or indirectly) to support the farming of animals – whether "rewilding," or at least a decline in the loss of wild animal habitat, is likely.

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There's also the environmental side of this question, as well as the side that involves animal welfare. I accept the importance of the environmental side but don't address it in this essay.

The best and most detailed *skeptical* discussion of the lab-grown meat movement I've read is here: <https://thecounter.org/lab-grown-cultivated-meat-cost-at-scale/>. I am not able to assess the technical side of these arguments (difficult problems of contamination are emphasized, for example).

<sup>19</sup> A charity I much admire, and support, Animals Australia, sometimes uses advertisements that indicate this problem: <https://twitter.com/AnimalsAus/status/1407870355474157571>. "Here's to pigs: clever, loving, playful, and patiently waiting for a kinder world." The kinder world often envisaged would include very few pigs, if any.

There's an empirical question here and an evaluative one that comes in its train.

*Empirical:* Are we likely, after animal farming, to get wild nature back on a large scale, or at least preserve what remains?

*Evaluative:* Is wild nature something we should be interesting in fostering, insofar as our choice is guided by consideration of the lives of animals? Is wild animal life generally good, and is it better than life within humane farming?

Regarding the empirical question, I've long thought it reasonable to doubt whether, if farming of animals was eliminated, we'd be likely to see a return of much land to a wild state. Much use of land to support animal farming is very wasteful, but if the land was freed up, why would it be returned to the wild, rather than used for other human purposes? Without some economic rationale, those other human purposes will not involve animal lives. If wild habitat destruction also continues, we might then head towards a situation where few large nonhuman land animals would exist at all. Some reserves might be maintained, feral animals of various kinds would be found in bits and pieces of less useful land, and lots of smaller animals would live in the cracks of our land-use.

Without knowing quite what to make of it, I have always felt some unease about this scenario, too – one where a loss of a great deal of non-human large-animal life goes along with the loss of farming. When I presented this issue in talks a few years ago, some people resisted on the factual side. They said that human populations will stabilize and then shrink, before too long, as the "demographic transition" occurs in developing-world countries that still have high birth rates today. Empowerment of women and reduction in family size will take hold world-wide, on a several-decade or century-long scale.<sup>20</sup> If the demographic transition occurs globally, and if land is not used in a more wasteful way than before, then it need not be the case that population pressure will lead to most land being used for something – farmed, concreted, or developed in some way. If standard kinds of farming cease, much land might then re-enter a wild state without special efforts

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<sup>20</sup> I didn't keep track of their names, so I can't give credit for what looks, below, like some prescience.



being needed, because there is no reason for that land to be used for anything else. If that is how things go, a vast number of farm animals will be replaced by a smaller but still appreciable number of wild animals. The more efficient use of land to feed humans together with a relaxation of population pressure could lead to a recovery of wild nature on a significant scale.

When this scenario was raised in discussion at my earlier talks, I was doubtful, but the picture since then has been developing in accord with that view. Just when I began the current write-up of these ideas, a New York Times headline appeared: "*Long Slide Looms for World Population, With Sweeping Ramifications.*" "Demographers now predict that by the latter half of the century or possibly earlier, the global population will enter a sustained decline for the first time," and for exactly the reasons above.<sup>21</sup>

A return to large-scale wild nature, in many parts of the world, is not as unrealistic as it might have seemed. Then we reach the evaluative question about whether a return of wild nature would be a good thing, and how this relates to a continuation, on some scale, of humane farming.

There is a growing literature on the moral status of animal life in wild nature and how this kind of life relates to farming.<sup>22</sup> I won't try to settle those questions here, though I do think that *some* kinds of animal life on farms, with slaughter at the end, are probably better than much life (in animals of a roughly comparable kind) within wild nature. "Better" might be understood in various different ways, and I don't want to oversimplify the question, but let's suppose that what I said above about the comparison between life in the wild and on the best farms is true. Then one coherent scenario we might work towards, in a situation where population pressure has eased, is a mixed one with some rewilding and some humane farming.

Alternatively, a person might also argue that life in wild nature is a net negative for animals and the same is true in humane farming, so a great reduction in animal life on the planet is desirable. Another might argue that one of the other of life in wild nature or

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<sup>21</sup> <https://www.nytimes.com/2021/05/22/world/global-population-shrinking.html?action=click&module=Spotlight&pgtype=Homepage>

<sup>22</sup> See, for example, Oscar Horta, "Animal Suffering in Nature: The Case for Intervention," 2017, and "Debunking the Idyllic View of Natural Processes: Population Dynamics and Suffering in the Wild," 2010.

humane farming is better for animals, and once there is no imperative one way or the other (due to the achievement of good lab-grown meat), we should just choose the best (best for them, or best overall), and eliminate the other. All those other options I find myself pushing away, though it is possible that this is based to some extent on something like an aesthetic preference for a planet rich in life in a variety of different ways. If so, one must work out whether, in this setting, appeals to the aesthetic side should be resisted. (One imagines an animal's response: such-and-such a scenario might be aesthetically appealing to *you*, but I have to *live* in it!).

At this point, the difference between humane farming with slaughter at the end and farming without slaughter also becomes important. Free range egg production (which even Singer has said can be fine) might continue within nearly all the scenarios discussed here (all except for one in which it's decided that exploitation should be rejected across the board.) Dairy farming is a more difficult case, as it appears harder to reform this practice to the extent needed – in particular, hard to end the early cow/calf separation that is routine. I know of one dairy in Australia that keeps cow and calves together for a long period, sharing milk.<sup>23</sup> Unless, again, general arguments about exploitation were taken to rule it out, I'd expect that in most of the scenarios on the table now, dairy farming might continue in a form like this, along with free range egg production. Cows of this kind could live out their unproductive years in retirement and need never be deliberately killed (perhaps except at the very end). Lab-grown milk (probably technologically easier than meat) might make this question irrelevant, except at the most boutique level, rather quickly. In any case, the more difficult case is humane farming that does include slaughter.

An ideal with considerable rewilding and some humane farming is not one I can presently give a full defence of, but if I could make a choice, now, taking us to some particular future, that would be it.

I can sense a kind of fragility in this choice, and not just because of the empirical uncertainties. I can feel it under pressure, even though I don't much trust the pressure. There is a moral tendency in the cultural atmosphere right now that would push towards

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<sup>23</sup> Disclosure: I bought a small amount of stock in this company when it issued shares a few years ago. I don't have a known financial interest in any other food producing company.

an option where rewilding is encouraged and humane farming is not. The position I sense strengthening is one in which no whole-life justification of humane farming is seen as overcoming the moral objections to killing *per se*, but wild nature should be left to do whatever it does, ugly or not, and reducing our impact by increasing wild nature is also appropriate. In my social milieu, that combination is a sort of "ethical attractor," based on an ideal of non-interference in the case of wild nature and a rejection of killing as the worst kind of human interference.<sup>24</sup> This view feels also perhaps like a massive, global *apology* for the human mistreatment of animals over the years, and I think that is part of its appeal (I don't say this critically) within my social circles. The view does embody some tension, however, as rewilding is an active choice, an intervention, and one that can be expected to produce extra animal deaths in an indirect way. Wholesale rewilding would have a different justification if life in wild nature is both good in itself and better than life on any farm; then rewilding could have a utilitarian justification, as well as one deriving from a desire to see humans step back. No place would then remain for humane farming.<sup>25</sup>

On all the paths explored in this last page or two, it is assumed that most of the animal farming practices that dominate agriculture now will disappear, and will be replaced by lab-grown meat. This transformation will be immense and welcome. The residual question I am grappling with, about the continuation of humane farming, is a question about a relatively small fraction of present-day farming and something that might always be a correspondingly small fraction of future high-protein food production. This stage of the debate can then appear to be one spending a lot of time and moral

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<sup>24</sup> This is, I take it, not far from the view advocated in Korsgaard's *Fellow Creatures*, for example. I am not sure whether rewilding is to be encouraged in her view, but preservation of wild nature, despite its suffering, is defended, while humane farming that includes slaughter is opposed: "humane farms are not as bad as factory farms, but that does not mean they are justifiable. Death is not consistent with the good of the animals" (p. 225).

<sup>25</sup> The reasoning above was based on the assumption of a relaxation of population pressure. Suppose population pressure does not relax. What would become of humane farming then? Humane animal farming is, in most settings, not a very efficient use of land for food, though it is productive. But on some kinds of land, humane farming (of grazing animals) is, or might be, more productive than other presently feasible uses.. If population pressure does not relax, humane farming might be a good use of that land, assuming that animal farming in general did not (returning to Nagel's comments above) become unimaginable.

energy over something fated to end up as an epicurean indulgence, at most.<sup>26</sup> I see the point, but I can't help thinking that the question does matter. And the question of whether the goal we put in view now is one of reform of farming, or elimination, is important in all sorts of ways.

## ***6. What I Eat***

In this final section, something of an Appendix, I'll go through some further ideas that bear on the issues above but are presented largely via my own case, along with some general ideas about diet and health that are controversial in places but do matter to these discussions of plant-based and future diets.

I am not committed to veganism or vegetarianism at present. I did try to get close to vegetarianism some years ago, and aside from the familiar difficulties that many people have, it did not work well for me on the health side. This was perhaps as much due to the high-carbohydrate side of the diet as its basis in plants; I did not realize the importance of a particular carb-protein balance for my body, and any high-protein lower-carb plant-based diet would have been more of a challenge back then than it is now.<sup>27</sup> In any case, I did not end up getting very close to vegetarianism. However the causal lines run (whether this fact is partly a result of that period of difficulty, or just a cause of it), I find it hard to get by with no animal products and also do badly on high-carb diets. I seem to need a lot of protein and fat. I also acknowledge a gap between aspiration and practice here, with lapses into foods I believe I should not eat, for various reasons.

Right at the moment, I am in the middle of an experiment in vegetarianism of a kind that could be called near-veganism, initially just for a month. This is an experiment, rather than a commitment – I want to see how that sort of diet feels now (with higher protein levels), and also see how the practice affects my outlook and thinking.

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<sup>26</sup> The farmer Joel Salatin (of Polyface Farm) in his "Munk debate" with Peter Singer disagrees with this: <https://munkdebates.com/podcast/animal-rights>. He thinks humane farming can be scaled up.

<sup>27</sup> I wrote about the carb/protein issues here: <https://metazoan.net/42-squashed-by-the-pyramid/>. My failed attempt to approach vegetarianism was around the same time discussed there. Some later blog posts followed up: <https://metazoan.net/43-mountains/>.

Setting aside that current experiment, my goal in recent years might be described as a low cruelty diet, one that does not make use of food whose production was cruel. However, it's not initially clear what that even means, given my acceptance of whole-life arguments as the way to assess farming. If you are carnivorous, then you are (almost always) involved in a production process that at least involves killing animals. This seems inevitably "cruel," in an immediate sense. It may be part of a process that brings about good lives overall – does that make it not cruel on balance? In response, I think that "low cruelty" has to be seen as a rather rough label here, as the word "cruel" attaches so readily to specific events and is hard to dislodge from them by whole-life considerations. Perhaps my recent dietary aim should be called a "welfare-justified" diet, or something like that. I take the main idea to be pretty clear.

This diet includes meat, from what seem to me the best-practice farms.<sup>28</sup> (I do not trust supermarket labeling in this area.) These farms employ humane treatment, longer lives, whole animal use, and so on. I am also OK with sustainable wild-caught fish. I eat fish and take fish oil, and would be reluctant to stop the latter for health reasons (the fish oil is continuing through my near-vegan experiment). I reject much fish farming, especially the rapidly growing and troubling farming of salmon. I usually avoid that, with lapses.

The catching of wild fish does not have a whole life justification, and isn't fishing itself cruel? I think the difference we make, in sustainable wild fisheries, is acceptable. The deaths we figure in are affected by us only in timing and manner, and the animals are part of wild nature until that final stage. This I see as OK because our difference-making is not a great harm, not because, as with some farming, the practice might be positively good. I am not sure whether our role makes the deaths themselves worse than they would otherwise be for the fish, but it does shorten their lives. While scuba diving, I often see fish with parasitic illnesses of various kinds. If I was a fish, I'd rather be hauled up onto a boat before that happened to me. I am opposed to some particularly cruel forms of handling of fish and other seafood (lobsters being boiled alive, and so on).

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<sup>28</sup> For any Sydney readers, it is almost all bought from "Feather and Bone."  
<https://featherandbone.com.au>

My justification for eating wild-caught fish is entirely different from the whole life justification of farming, then, and I do wonder about this – about accepting both justifications, one based on whole life reasoning and one based on a relatively minor truncation of wild life. What they have in common is an avoidance of the particular evils of factory farming, though they avoid this in different ways. I do wonder if something here is not quite right, though, and one or the other should go.<sup>29</sup>

I am opposed to mainstream dairy practices – with cow-calf separation, the mistreatment and killing of male calves, and more. I see this as more problematic than the best humane meat production. (I do not want to be reincarnated as a cow in a modern high-intensity dairy operation.) I usually do eat some butter and some milk-based cheese, but regard these as lapses, while I don't regard eating steak from the best-practice farms as a lapse.<sup>30</sup> So a standard "vegetarian" combination with plants, eggs, and dairy is not one that I regard as better than a plants-plus-meat diet that is very selective about the meat.

I said above that I seem to need a lot of protein, and standard plant-based diets do not work well for me. Given this, the problems with dairy, and the fact that (*pace* Newman 1967) there's a limit to how many eggs a person can eat, my only significant progress in reducing consumption of meat in recent years while continuing to feel healthy has come from high-tech protein supplements. Many are now vegan, and while they used to be pretty hard to deal with, they're now much better. These are another indicator of what can happen with technological change.

In this discussion of protein, I have emphasized my own case, but I think we were given bad dietary advice for decades. I believe that the low fat, high carb, low dietary cholesterol diet that was pushed hard during much of my earlier life was a mistake. I'm not the only person who was "squashed by the pyramid" (the traditional food pyramid)

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<sup>29</sup> A factor I used to put more weight on is the number of meals per life. The differences are huge, with perhaps 1000 meals in a cow, 4 in a chicken, 1/20 in a shrimp, and so on. However, if the best kinds of humane farming are a positive good for the animals – a good deal from a whole-life point of view – then there is no reason to focus on meat that has a large number of meals per life. This would, however, affect choices in the case of wild-caught animals, where we are cutting short a life in wild nature, unless we had reason to believe that continuing to a later and "natural" death would be worse for the animal in those cases.

<sup>30</sup> Through here I am talking, again, about recent policies outside my present experiment.

until I moved away from it.<sup>31</sup> This is, I acknowledge, a controversial position, and it's not integral to my arguments about farming above.

Though all the scientific issues here are contentious, I'd offer as one relevant recent development the "protein leverage" view of appetite, developed by Raubenheimer and Simpson. This view holds that people (and some other animals) tend to keep eating until they get the protein their body is looking for. So if a diet contains a low proportion of protein, they will eat a lot. This phenomenon is important, as they see it, in the explanation of obesity. In further work, Raubenheimer and Simpson say that this does depend on the kind of carbohydrate you're eating. Some carbs are slow-digesting and reduce "protein leverage."<sup>32</sup> But protein dominates appetite in many modern settings.

Some readers may remember the succinct dietary advice that Michael Pollan gave in a bestselling book a bit over a decade ago: "Eat food. Not too much. Mostly plants."<sup>33</sup> Pollan contrasted *food*, the sorts of things found in traditional diets, with "edible foodlike substances," the products of modern nutritional engineering. It was an appealing message, but there may be an internal tension here, especially given the work on protein and appetite mentioned above. Assume first that we eat mostly plants, and stick to food rather than engineered food-like products. Then if protein governs appetite, we will keep on eating – too much. I note again that Simpson and Raubenheimer say that you can avoid this if you eat the right plants – slow-digesting "resistant starch." But when you stray from this, you will tend to keep eating. If we want to keep the plant-based emphasis and not eat too much, we might increase the fraction of protein, but if that is taken very far, it means we'll head towards using high-tech supplements. Then we're eating what Pollan sees as engineered foodlike substances rather than food. The other option is to eat food and not too much, but eat more animals again.

I don't want to overstate the case – we met several ways to avoid the problem – but without considerable effort, perhaps it's hard to follow more than two out of three of

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<sup>31</sup> <https://metazoan.net/42-squashed-by-the-pyramid/>.

<sup>32</sup> For protein leverage, see Raubenheimer & Simpson (2019). "Protein leverage: theoretical foundations and ten points of clarification," *Obesity* 27, 1225–1238. For the qualifications involving different kinds of carbs, see Wali et al. (2021), "Impact of dietary carbohydrate type and protein–carbohydrate interaction on metabolic health." *Nat Metab* 3, 810–828.

<sup>33</sup> The book is *In Defence of Food* (2008). For a shorter version: <https://www.nytimes.com/2007/01/28/magazine/28nutritionism.t.html>

Pollan's suggestions at once. Pollan might reply that we just need to try harder to resist the "too much" tendency.

In my own case, the problem with high-carb diets is not so much weight gain, but general well-being. I accept that many researchers, including Raubenheimer and Simpson, believe there is good evidence that higher-carb diets lead to greater longevity, but I am not very willing to trade immediate well-being for longevity, even if this is true.

Moving away from those dietary details, here is a summary of the ideas in this essay. I agree with Singer that there is an enormous problem in our relationship with non-human animals at the moment. Farming is the most important aspect of this problem. In modern farming contexts, where we control the births and day-to-day lives of animals as well as their deaths, the question of the justification of killing is not the only thing, or even the main thing, to consider. We need to think about whole lives. Modern, high-intensity farming of animals is, in at least a great many cases, an indefensible practice. This conclusion can be a point of intersection across many different moral outlooks (though not all), one that can be reached by asking whether it is a proper use of human powers to give vast numbers of sentient animals lives such that it would be better for them not to have lived at all. If this conclusion can be reached in a "first round" of discussion, we reach a second round, where the farming practices remaining on the table are sufficiently humane, from the point of view of whole-life reasoning, that they pass the tests used earlier. The next conclusions that might be reached probably will not arise as points of intersection across different moral outlooks, and ongoing disagreement is likely. One central question, or one part of the decision landscape, in this second round is between a general policy of disengagement from the lives of animals, leaving them be as much as we can and relinquishing projects of control, and a policy where we accept a more custodial role and continue with farming, in a much-reformed and more humane way. The probably-inevitable and ongoing disagreements that I envisage in the second round need not interfere with the attempt to make practical progress in the first round, and end the clearer evils of factory farming.