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Case Study: Animal Disenhancement & Human Enhancement¹

Jonathan Jacob Leduc has been a vegetarian for over ten years. While he doesn't believe that killing animals for food or using animals in scientific research is inherently morally wrong, he prefers to abstain from consuming meat because he objects to the current economic structures which needlessly cause animal suffering in both medical experimentation and industrial livestock and food production.

Many of Jonathan's friends have asked him whether he would change his position given recent developments in biotechnologies which have the potential to dis-enhance the cognitive and physical abilities of animals so that they cannot suffer psychological and physical harms.

Consider, they claim, researchers who conducted studies on a certain strain of blind chickens and showed that they were less likely to experience distress in crowded conditions. Crowded conditions are the status quo in poultry and egg production in the US, which cause chickens to become aggressive and inflict harm on each other. Blind chickens, however, do not display this stress or behaviour. Thus, one can claim that, if using this strain of blind chickens for egg and poultry production means lessening animal suffering, and increasing overall animal welfare, then the poultry industry ought to do so on moral grounds.²

Now, while this particular strain of blind chickens is not the product of bioengineering, it is reasonable to think that, in the near future, we may be tempted to apply methods in which biotechnologies are applied to animals to lessen their ability to feel pain or distress from so-called production diseases in factory farming and do so in a cost-effective way. For example, we may be able to genetically remove or disable the development of certain traits in animals. Or, we may be able to synthetically "build" modified living organisms without central nervous systems that can produce meat, milk, and eggs for our use. Philosophers have considered the possibility of inducing microcephaly in pigs or cows so that we can reduce their ability to suffer from psychological distress resulting from our industrial practices (Clark 1994).

Jonathan thinks animal disenhancement is a rational response to people's concerns about animal welfare in factory farming in the context of industrial farming practices. However, the more he thinks about the possibility of applying these technologies to fundamentally change the nature of chickens, pigs, or cattle, the more he feels uneasy about the implications of such interventions. He considers whether lessening animal suffering by genetic interventions is enough to justify the exploitation of animals in these industries. As a philosophy student, Jonathan also considers how

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² The ethical dilemma and the example of the blind chickens are found in Thompson (2008).

the ability to modify cognitive and physical traits in animals could be eventually applied to human beings and, more importantly, how the philosophical arguments to reduce suffering in animals might lead to undesirable outcomes if applied to human beings in the same way.

Discussion Questions

1. Jonathan cares about animal welfare and he accepts that applications of these technologies to animals are more likely to bring about less animal suffering than efforts to protest against the methods of production in factory farms. However, he wonders, is that enough to justify their use?
2. What if disenhancement technologies were to apply to lessen the pain of human beings who suffered from debilitating illnesses or degenerative conditions? What if they were applied to create non-sentient humans who could be used as models in scientific research or for harvesting organs and tissues for our future use? Is there a morally salient difference between these two scenarios? Is one more or less justifiable than the other?
3. Jonathan is bothered with the assumption that the best we could do is to lessen animal suffering in the contexts of medical research and factory farming, rather than challenge the use of animals within these practices themselves. He thinks that if this example were to be extended to apply to technologies that could potentially make human beings better off in some sense, it is not clear whether such applications would always be morally justified. Might there be cases in which enhancing human traits might ignore some gross injustices inherent in current social and economic arrangements? If so, is that sufficient to claim that we should not try to make humans better off in any way we can?

Commentary

Philosophers and ethicists have recently brought attention to some arguments for the moral permissibility (and, in some cases, the moral imperative) of adopting animal disenhancement technologies *if* (and, more likely, *when*) they become available. First, if our goal is to reduce overall animal suffering, and animal disenhancement would reduce or eliminate the ability to suffer in animals, then we ought to accept animal disenhancement as a moral imperative. This reasoning follows closely the logic of the utilitarian argument presented by Peter Singer to reduce animal suffering (Singer 2002). Second, from an animal rights view, Tom Regan has argued that we should not treat animals solely in an instrumental way because in doing so we violate them as “subjects of a life” (Regan 1983). But, according to this line of argument, if disenhancement entails a lack of consciousness in animals, then they cannot be “subjects of a life,” and therefore they no longer have any moral status (Thompson 2008; Palmer 2011). Other arguments have been made to support interventions to reduce animal suffering while maintaining current industrial practices in cases like using animals for scientific research. For example, Bernard Rollin has argued for the “Principle of Welfare Conservation” (Rollin 1995). According to his principle, disenhancement is morally acceptable if it did not “create animals that were more likely to experience pain, suffering, or other deprivations of welfare as a result” (Thompson 2008, 310). As is evident, both consequentialist and non-consequentialist arguments have been made to support the proposal of animal disenhancement as a moral gain.

Conversely, there have been philosophical arguments against modifying animals, including disenhancement. For example, some philosophers have argued that disenhancement is intrinsically wrong because it compromises or violates the notion of animal dignity or species integrity, even if, with disenhancement interventions, some individuals would be better off than they otherwise might have been (Balzer, Rippe, & Schaber 2000, De Vries 2006, Heeger 2000). Others have invoked the “yuck factor” in appeal to many people’s moral intuitions about the prospects of disenhancement (Kass 1997, Midgley 2000).

Philosopher Paul B. Thompson, the W.K. Kellogg Chair in Agricultural Food and Community Ethics at Michigan State University, has considered all of these arguments and questions why there is still the persistence of negative moral reactions to the proposal of animal disenhancement. He also suggests that a close look at the case of animal disenhancement might shed light on ethical concerns over human enhancement (Thompson 2008).

He argues that although the idea of animal disenhancement seems rational and morally acceptable under many philosophical frameworks of animal ethics – especially given the difficulties of changing the means of production in industrial farming practices – there may be good reasons to take the widespread negative moral intuitions about disenhancement seriously. He suggests that our “yuck factor” objections to animal disenhancement may reflect our deeply-held beliefs about human virtue; that is, that disenhancement exhibits disrespect in humans. He suggests, “the entire project exhibits the vices of pride, or arrogance, of coldness, and of calculating venality” (Thompson 2008, 314).

Interestingly, Thompson goes on to consider the implications of moral intuitions and philosophical arguments about animal disenhancement for the ethical debate about human enhancement technologies. He thinks that a re-orientation of the problem of both animal disenhancement and human enhancement in the framework of virtue ethics can highlight how we associate some social practices with good and bad moral characters.³ Such a shift requires thinking critically about the assumption that it is always morally justified to alter the animal/person to fit the environment, rather than the other way around. To illustrate this idea, Thompson makes an analogy to working conditions in a factory, claiming that animal disenhancement strategies “are like offering assembly line workers an aspirin in lieu of better working conditions” (Thompson 2008, 313). His analogy illustrates the idea that the proposal to disenhance animals in factory farming so that they no longer suffer or feel pain amounts to a mere band aid solution to a larger underlying problem about how we’ve chosen to organize animal industries.

In the analogous case, perhaps our moral intuitions about the character of a person, e.g. the factory owner, might differ in different contexts. Thompson suggests that we might think differently about the small factory owner, who is trying to maintain a livelihood while being under pressure from economic competitors and powerless to change the conditions of the market, and about the market leaders who regulate and influence the terms of competition (Thompson 2008, 315). In both cases, the conditions in the factory are the same and the factory workers are

³ Virtue ethics is a moral normative framework that considers the moral character of an individual to account for moral judgments, rather than rules or guidelines about specific moral actions (as deontological and consequentialist frameworks do).

harmed in some sense, yet there seems to be a moral difference in the characters of the small factory owner and the market leaders. This moral difference might map on to what is morally problematic about the proposal to reduce animal suffering in factory farms by modifying the animals so that they can no longer experience suffering.

Lastly, philosophers have also brought attention to the distinction between the Dumb-Down approach and the Build-Up approach to enhancements. In the Dumb-Down approach, “researchers identify the genetic or neurological basis for certain characteristics or abilities, and produce animals that lack them by removing or otherwise disabling them either genetically or through nano-mechanical intervention in cellular and neurological processes” (Thompson 2008, 308). The Build-Up approach characterizes methods in which researchers manipulate DNA and cells *in vitro* to build organisms without a central nervous system, but with the ability to produce the products we consume, like eggs or meat.

Whether the distinction between these two methods presents a morally salient difference is an open question. Perhaps in the case of Dumb-Down interventions, there is a sense in which these interventions are reducing overall suffering in actual circumstances, which seems to be a morally desirable outcome. In the case of the Build-Up strategy, it seems that there is no sense in which these newly-created organisms are better or worse-off than they otherwise would have been. Yet there is a sense in which this approach facilitates the instrumentalization of disenhanced beings. If we apply this thinking to humans, say creating human-like organisms for organs and tissues, then that kind of instrumentalization may seem morally repugnant to us.

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