

Re-examining the Moral Importance of Species Boundaries¹

—Respect toward Animal Nature—

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Abstract

Animal ethics has developed the anti-speciesism argument to support the view that nonhuman animals matter morally on their own terms. In particular, the argument contends that it is discriminatory to make a moral distinction between humans and nonhuman animals, appealing to the difference in species. However, as genetic engineering enlarges our power to design and manipulate nonhuman animals' characteristics, this anti-speciesistic framework faces a difficulty in articulating a moral issue arising from the manipulation of nonhuman animals. In this article, I will explore a possible way to incorporate the concept of animal nature into animal ethics, while maintaining the anti-speciesism argument. I will first analyze the issue by looking at the ethical argument concerning the creation of human-nonhuman animal chimeras in bioethics. After clarifying the issue based on the concept of species identity and animal nature, I will examine Bernard Rollin's and Alan Holland's arguments, respectively.

Keywords: species identity, chimeras, animal ethics, bioethics, animal nature, speciesism, respect

1. Animal Ethics So Far: Abandoning the Concept of Species

Animal ethics is a branch of applied ethics, contending that animal welfare is a matter of justice. It attempts to expand the realm of morality to include animals, mainly by focusing on animal pain and the anti-speciesism argument.

Nonhuman animals (hereafter, animals) have traditionally been excluded from moral arguments, particularly in a Kantian framework. As Kant claims, although we ought to be compassionate toward animals, we owe them nothing as they are incapable of understanding morality. Morality, according to Kant, is only for those who can engage in moral practice, namely moral agents. Animal ethics challenges this perspective by emphasizing

the fact that all animals feel pain. It claims that animal pain should be considered as a moral reason that binds our actions in a certain way, whereas Kant believes that animal pain has no moral significance by itself².

Animal ethics introduces the concept of speciesism, often known as the anti-speciesism argument, to further reinforce the view that animal pain is morally wrong. While Kant believes that animals are not by themselves the objects of moral consideration because they are not moral agents, he does not exclude humans who are unable to exercise moral agency. Consequently, we can say that moral agency is used arbitrarily as a criterion. Indeed, animal ethicists criticize this arbitrariness, claiming that it is discriminatory.

You may argue that people who cannot be moral agents are still humans, members of *Homo sapiens*, as a result of the fundamental difference

between humans and animals, indicating different species. That is, we simply belong to a different species. But why is the difference in species morally significant? This is where the anti-speciesism argument comes into play. Peter Singer, one of the prominent philosophers on animal ethics, notably contends that ethically distinguishing humans and animals based on species is not justified as it is unjustly discriminatory, analogous to racism and sexism. It is discrimination to morally differentiate people based on race and sex because these criteria are irrelevant to moral considerations. Similarly, species *per se* is not a morally relevant factor. Therefore, the moral distinction between humans and animals is also a form of discrimination, that is, speciesism. In other words, Singer criticizes speciesism by demonstrating the logical inconsistency of denying racism and sexism while accepting the moral differentiation of humans from animals.

Pain is pain, regardless of who or what is experiencing it. Species membership is irrelevant to the moral indefensibility of the pain. If human pain is perceived as a moral reason, so is animal pain. Excluding animals for the sole reason that they are not members of *Homo sapiens* is therefore unjust. The argument illustrates how we include animals into matters of morals. In other words, animal ethics dissolves the moral significance of species boundaries between humans and animals to deconstruct the privileged status of humans in morality³.

2. A Novel Problem: Focusing on the Concept of Species Again

It is fair to say that animal ethics has been successful, especially as the anti-speciesism argument has impacted neighboring fields, such as bioethics and environmental ethics. It is now widely accepted that those who want to defend humans' superiority must demonstrate either that it is justified without committing to speciesism or that speciesism is justified.⁴

However, animal ethics is confronted with a novel dilemma as the emergence of genetic engineering has made animal use more complicated than before. First and foremost, animals we use are not mere animals. They are categorized as

domesticated animals bred by humans. We create them to serve our purposes. As genetic engineering enhances the accuracy of our manipulation, researchers have found it more important to design animals to suit the ends of research, raising ethical concerns among some scholars.

Mary Midgley, for instance, believes that species boundaries are important because they remind us that nature is not something we can change as we like. Biotechnology removes this restriction, however, by modifying the species-specific nature of living creatures. "Champions of bio-engineering have started claiming that some characteristics can be moved about among species, and that there is no reason in principle why all characteristics should not be so moved."⁵ Midgley is particularly concerned about "chimeras," or creatures that transcend species, such as mice with human ears on their backs. She thinks that creating chimeras effectively eliminates the significance of species.

What bothers Midgley is our overconfidence in putting "ourselves in a relation of control to the nonhuman world around us."⁶ In her opinion, it is a sense of arrogance to alter animals' species-specific nature (hereafter, animal nature) for our own ends.

Since such an alteration is a fundamental aspect of our use of animals, it should be discussed in the context of animal ethics. However, it is difficult to integrate this type of concern into animal ethics because it abandons the moral significance of species boundaries as demonstrated earlier. Indeed, animal ethicists have extensively talked about ethical issues surrounding how humans use animals, yet modifying animal nature does not appear to be one of their primary concerns.

In this article, I will explore a possible way to incorporate the concept of animal nature into animal ethics while maintaining the anti-speciesism argument through the moral argument of human-animal chimera research. I chose chimeras as an example not only because Midgley uses them in her argument, but also because the very feature of crossing species directly forces us to reconsider the moral significance of species.

3. The Argument on Human-Animal Chimeras in Bioethics

Not long after Midgley's article was published, the American Journal of Bioethics published a special issue on the ethical arguments for human-animal chimera research. The featured article was "Crossing Species Boundaries" by Jason Scott Robert and Francoise Baylis. In their article, they explored what kind of ethical problems would arise from crossing species.

First, crossing species boundaries in chimera research involves combining human and animal cells, as chimeras are made of cells from two or more genetically distinct organisms of the same or different species. More specifically, chimeras are produced by implanting human embryonic stem cells or iPS cells into an animal embryo.

Robert and Baylis center their argument around the concept of species identity. They first introduce the common view as follows. Species identity usually presupposes that species "have particular identities and the belief that the boundaries between species are fixed rather than fluid, established by nature rather than by social negotiation."⁷ As a result, crossing species boundaries is problematic because it violates species identity. Specifically, the fact that animals exist with species identity is the reason species boundaries should be respected. However, Robert and Baylis contend that species identity is not a plausible view, as there is no consensus among biologists regarding the definition of species and it is not consistent with the evolutionary understanding of the world.

Furthermore, interspecific hybridization does occur in nature, particularly in plants. Even among animals, we have observed wild hybrids, for example, the grizzly-polar bear hybrids and the coyotes-eastern wolf hybrids. It is scientifically difficult, therefore, to consider species boundaries as natural barriers that cannot be crossed. Overall, the idea that species have a fixed identity commits us to essentialism, which is incompatible with evolutionary biology.

With the critique of species identity and boundaries in mind, Robert and Baylis suggest an alternative account of species identity. They argue that species should be understood as a socially

constructed concept rather than a biological term, drawing the analogy with race. Race is a biologically meaningless concept, but still functions as a social construct (whether such a function is ethically justifiable or not). Similarly, discussing species identities and boundaries makes little sense, scientifically. Yet morally, "we rely on the notion of fixed species identities and boundaries in the way we live our lives and treat other creatures, whether in decisions about what we eat or what we patent."⁸ Indeed, social institutions, structures, and practices depend heavily on a *moral* distinction between humans and animals. Despite the fact that the concept of species identity is scientifically implausible, we could handle animals in the manner that we would not do to humans.

Pointing out the gap between science and morality this way, Robert and Baylis contend that what is problematic is not crossing species *per se*, but the *moral* boundary between humans and animals being threatened as a result. "If we breach the clear (but fragile) moral demarcation between human and nonhuman animals, the ramifications are considerable... in terms of having to revisit some of our current patterns of behavior toward certain human and nonhuman animals."⁹ In other words, because human species identity has a social value to maintain the moral order, the creation of human-animal chimeras would cause moral confusion by shaking the identity, which leads to question the current moral order.

The way Robert and Baylis frame the potential issue of chimera research has stimulated the subsequent discussion. In particular, many commentaries respond to the following question they raise at the end of their article: "Do we shore up or challenge our current social and moral categories?"¹⁰ This question suggests that the moral categories are nothing more than a means to preserve human privilege.

According to these commentaries, suggesting that chimera research would bring about moral confusion commits speciesism.¹¹ Some claim that there is nothing morally confusing about chimeras, as the moral distinction between humans and animals is unjustifiable in the first place. Others take the moral confusion positively. It is a moral advancement that we face such confusion, perceiving it as an opportunity for bioethics to

oppose humans' privileged status, that is, combating speciesism.

The anti-speciesism argument promoted in the commentaries' response reveals that using species identity as a criterion of judgment or analysis is indefensible and unsustainable, not only scientifically but also morally. The commentaries then argue that pain and suffering are ethically relevant. "Serious considerations about pain and suffering, which transcend arbitrary distinctions such as species, gender, race, and class, are the compelling issues."¹² Here, we see the bioethical argument following the path of animal ethics. As shown in section 1, animal ethics contends that species-based arguments and framed moral problems based on animal pain. Similarly, anti-speciesism was introduced to the chimera argument in bioethics and as a result, the argument ended up appealing to pain and suffering, instead of species boundaries, to illustrate the moral problem of chimera research.

4. Rollin's Welfare-based Argument

Let us summarize what has been discussed in the preceding sections. The initial question raised through Midgley's concern is whether we can modify animal nature without restriction to achieve our goals. Then looking at the moral argument over the creation of chimeras in bioethics, we examined whether the concept of species identity could provide a moral reason against the modification of animal nature. Consequently, we saw that making species boundaries morally significant leads us to speciesism. That is, the anti-speciesism argument makes it difficult to capture such modifications as a problem.

Bernard Rollin is one of the few animal ethicists who address this difficulty. He attempts to integrate animal nature into the framework of animal ethics. He first draws our attention to the fact that our use of animals "changed drastically in the mid-20th century with the advent of high-technology agriculture"¹³, leading to industrialized agriculture, such as factory farming. More specifically, with the rapid development of technology-based economics after World War II, animal agriculture became subject to industrialization. We no longer need to respect natural constraints as much as traditional

husbandry, with efficiency and productivity taking over the caring aspect of husbandry. "With 'technological sanders'—hormones, vaccines, antibiotics, air-handling systems, mechanization—we could force square pegs into round holes, and place animals into environments where they suffered in ways irrelevant to productivity."¹⁴

Rollin believes that we need a moral standard that goes beyond pain and suffering to combat this new type of animal use. What makes industrialized agriculture problematic is not just that it imposes suffering on animals. The modern industrialization denies that animals have their own nature, which, in Rollin's words, is something like "the pigness of the pig, the dogness of the dog...fish gotta swim, birds gotta fly."¹⁵ Animals suffering in industrialized agriculture, thus, stems from the failure to satisfy an essential condition for animals to be what they are; this failure is the fundamental problem. This view resonates with Midgley's following claim: "You can't expect to go on forever exploiting living creatures if you don't pay some attention to their natural needs. You ought not to be trying to do that in the first place."¹⁶

To capture this aspect more clearly, Rollin introduces the term *telos*. "...[T]elos has emerged as a moral norm to guide animal use in the face of technological changes which allow for animal use that does not automatically meet the animals' requirements flowing from their natures."¹⁷

Then, I want to ask what the *telos* of an animal is. How is it different from an animal's nature? According to him, the *telos* of an animal is "the set of needs and interests which are genetically based, and environmentally expressed, and which collectively constitute or define the 'form of life' or way of living exhibited by that animal, and whose fulfilment or thwarting matter to the animal."¹⁸ Most parts of the definitions are equivalent to animal nature, but the last part explicitly states that animal nature matters to the extent that it relates to animals' interest, something the careful should give attention. Indeed, Rollin attempts to incorporate animal nature into the concept of welfare through the term *telos*.¹⁹

Centering around *telos*, Rollin proposes the respect principle as follows:

If an animal has a set of needs and interests that

are constitutive of its nature, then, in our dealings with that animal, we are obliged to not violate and to attempt to accommodate those interests, for violation of and failure to accommodate those interests matters [sic.] to the animal.²⁰

As *telos* is the basis of welfare, respecting *telos* is concerned with welfare. In other words, we should respect *telos* because welfare matters. What is at issue in the modification of animals' *telos*, then, is that it may go against animals' interests, such as suffering.

Rollin's argument will be able to explain why crossing species boundaries can be a matter of welfare issues if we understand welfare in this way. That is, the creation of chimeras involves deforming animals' *telos*, which is likely to lead to the degradation of their welfare. Thus, Rollin demonstrates how to argue for the moral relevance of species boundaries without committing to speciesism by connecting species-specific characteristics with welfare.

5. Holland's Kantian Approach

However, I do not think that Rollin's welfare-based argument fully captures Midgley's concern. In Rollin's view, altering animal nature is problematic insofar as it affects animal welfare. As Rollin clearly states, the respect principle does not forbid all kinds of alteration. "...[O]ne cannot argue that because it is wrong to violate the various aspects of a certain animal's *telos*, given the *telos*, it is therefore wrong to change the *telos*."²¹ But Midgley seems to claim that the very act of modifying animal nature is potentially problematic, as she chooses words such as "monstrous" or "unnatural" to express her uneasiness toward bioengineering.

I argue that this difference found in Midgley's and Rollin's views can be explained by the fact that Midgley accepts non-consequentialism, whereas Rollin follows consequentialism. As consequentialism is a position that attributes moral wrongness to the consequence of an action, Rollin explains the wrongness of modifying animal nature via the consequence, that is, animal suffering. More specifically, he claims that "...it is only wrong to change a *telos* if the individual animals of that sort

are likely to be more unhappy or suffer more after the change than before."²²

On the other hand, non-consequentialism explains moral wrongness using non-consequential terms, such as dignity and rights. To explore Midgley's concern in more detail, I will turn to a non-consequential argument. In particular, I will look at Alan Holland's Kantian-based argument.

In response to Rollin's argument, Holland says "even if Rollin is correct...it may still be correct—but on other grounds—that it is wrong to change the *telos*."²³ To elucidate such grounds, he suggests a case in which we could create an animal with a reduced capacity to suffer. He does not give a specific example, but you can imagine the following scenario: Some research indicates that the surgical removal of the anterior cingulate took maternal behaviors away from mother mammals²⁴ in which case mothers will not get frustrated even when they are separated from their child. Theoretically speaking, then, we could create animals that experience no pain by altering their *telos*, that is, by knocking out the part responsible for negative experiences.

For Rollin, the alteration of *telos* is problematic only if it brings about greater suffering. The scenario above, therefore, is considered as a permissible case. Indeed, if you look at the consequences of such a modification, the amount of suffering would be reduced. I find this view counterintuitive. To further illustrate this point, consider another case. Suppose an owner of a factory gives his workers aspirin to keep them working at an assembly line so that they would stay productive without feeling pain. No one would say, I believe, that the owner's action is morally acceptable, even if the workers' pain is greatly alleviated by aspirin.

Rollin's framework cannot point out the problems found in the cases mentioned above. As explained previously, the respect principle prohibits the violation of *telos*, but it does not mean that we cannot alter *telos*. In other words, while we should not do anything that goes against animals' interests, it is permissible to generate different or alternative interests as a result of altering *telos*.

Holland reframes this distinction by bringing another distinction "between the *experience* of suffering and the *capacity* to suffer."²⁵ Capacity enables a creature to suffer, whereas suffering is the

creature's subjective experience. Based on this distinction, Holland claims that "from the fact that one ought to reduce suffering it does not follow that one ought, or even that it is not wrong to reduce the capacity to suffer."²⁶ The amount of suffering is directly related to animals' interests, which can lead to the violation of *telos*. Capacity, on the other hand, is not itself connected with welfare. Thus, altering capacity, especially to reduce suffering, is not considered as the violation of *telos*.

By illustrating Rollin's argument in this manner, the reader can see that it is the understanding of suffering in consequentialist terms that fails to capture the problem found in the two examples of reducing the capacity to suffer. What is the problem that Rollin overlooks, then? To answer this question, Holland offers a Kantian account of respect. Although Kant did not consider animals to be morally significant, it is possible, Holland argues, to apply the Kantian sense of respect to animals.

To understand Holland's picture, we need to look at Kantian ethics. According to Kant, morality is to bind ourselves under the form of obligation. A typical example is the act of making promises. When we make promises, we obligate ourselves to keep them. This binding cannot be activated without a mutual understanding of the binding force. Indeed, it is literally impossible to make a promise to someone who does not think that promise is to be kept. Just like making promises, Kant believes that morality is not possible without being moral binding to both or all parties.

Moral binding, according to Kant, is authorized by what he calls the Formula of Universal Law: "Act only in accordance with that maxim through which you can at the same time will that it become a universal law."²⁷ To put it differently, we must act according to a rule (maxim) that can be shared (universalizable) by everyone. For example, you do not get to decide that you are allowed to use your hands while playing soccer because using your hands cannot be shared with other soccer players. This would ruin the entire game. Similarly, we cannot make a promise with no intention of keeping it because we cannot universalize it. It would make the very act of making promises impossible. Neither using a field player's hands in a soccer game nor flouting promises are considered valid rules to act accordingly. The same reasoning is applied to moral

binding. Moral binding is under a principle (the Universal Law) that says you should act according to a rule you can apply not just to yourself but to others.

Who, then, are those others? For example, if you do not understand how soccer works, you cannot play soccer. Once you comprehend the rules, you are able to join. Indeed, if you are not capable of understanding the rules, you can never be a part of the game. You could even say that there are some physical conditions required to play soccer, such as fully functioning feet. In this way, rules set a boundary between the in-group and out-group. In the case of moral binding, you must understand the Universal Law. That is, you should be able to universalize the maxim and act accordingly. Kant calls this capacity "rational nature" and those who have the capacity are called "rational beings". Similar to the example of a soccer game, those who cannot understand the Universal Law are not eligible to participate in moral activities.

To summarize, rational beings all those that share rational nature, which means rational beings are to act according to a universalized maxim. From the preceding, Kant derives what is called the Formula of Humanity as an End in Itself: "Act so that you use humanity, as much in your own person as in the person of every other always at the same time as end and never merely as means."²⁸ That is, we should not use other people to achieve our own ends.

Holland proposes that we can approach animal nature in the same manner as Kant treats rational nature. He claims that the act of reducing the capacity to suffer is to treat animal nature as a means to our ends. "There would remain the charge that one was using an animal's nature as a means, and failing to respect its ends in the process."²⁹ To illustrate this point, consider the aspirin example introduced above. The owner tries to alleviate his workers' pain by giving them aspirin, but his goal is to keep the workers as productive as possible. If the owner respects their natural conditions, they do not need to take aspirin in the first place. In this sense, he prioritizes his end over theirs. Similarly, Holland claims that the alteration of *telos* by reducing the capacity to suffer ignores the fact that animals have their own ends and interests, which leads us to the disrespect toward animal nature.

Therefore, what matters is not the consequence of an action. As Holland says, it is problematic to place “respect for the states of a subject above respect for the subject.”³⁰ We should not subordinate animal nature to mere consequences, as it means treating animal nature as a means to produce desirable consequences for us. Notice here that this Kantian idea of respect is fundamentally different from Rollin’s. Rollin represents a welfare-based understanding of respect. To respect the animals’ *telos*, we must morally consider animals’ interests. In contrast, Holland offers a non-consequentialist account. To respect animal nature, we must consider animals’ ends.

Through Holland’s argument, I have demonstrated that the non-consequentialist account of respect is not reducible to welfare issues. It offers the possibility of arguing that even if it does not go against animals’ interests—in Rollin’s term, not violating their *telos*—, it is possible that its alteration is morally problematic. Crossing species boundaries in the creation of chimeras, then, could be problematic because they are connected with disrespecting animal nature.

6. The Ground of Respecting Animal Nature

Like Rollin’s contention, Holland’s argument avoids speciesism as it treats animal nature as the ground of respect without making a moral distinction between humans and animals. That is, each creature has its own species-specific nature that we should treat as an end.

It is too quick to claim, however, that we simply need to replace rational nature with animal nature. As illustrated below, Kant’s argument about why rational nature demands us to treat it as an end may not be able to be applicable to animal nature.

For Kant, rational deliberation (including moral deliberation) requires justification or a reason that grounds it. For instance, suppose you stole food from a store. As a rational being, we would naturally ask why you did it. If it was a cat stealing fish from a fish market, on the other hand, it would be pointless to ask the cat his or her rational justification.

To understand the actions of rational beings, we need to appeal to a reason that is not just a subjective end (reason applicable to you specifically)

but an objective end (reason applicable to rational beings in general). For no one would find it an acceptable response if you stole the food simply because you felt hungry and wanted to eat something. As Kant puts it, “[r]ational nature exists as an end in itself. The human being necessarily represents his own existence in this way; thus to that extent it is a subjective principle of human actions. But every other rational being also represents his existence in this way as consequent on the same rational ground as is valid for me; thus it is at the same time an objective principle, from which, as a supreme practical ground, all laws of the will must be able to be derived.”³¹ In other words, we should treat rational beings as an end because each rational being acts toward objective ends. In this sense, people have absolute worth that is not reducible to any other value. And since people are the source of value, we should not treat them merely as a means to an end.

We cannot apply this argument to animal nature, as animals do not act toward objective ends, at least not in the Kantian sense. Therefore, we must find an alternative argument to support a position that animal nature must be seen as an end. As explained in the previous section, Holland’s account concerning not respecting animal nature is evident: it is to subordinate animal nature to consequences. Altering animals’ species-specific characteristics for humans’ benefits, then, fails to respect animal nature. In other words, we treat animal nature merely as a means by imposing our ends on animals while ignoring that they have their own ends.

However, Holland does not provide a reason why animal nature should be treated as an end. To explore the source of respect toward animal nature, then, we have to look at other scholars on the subject. Here I would like to take up Christine Korsgaard’s and Martha Nussbaum’s arguments. Although they take different positions—Korsgaard is Kantian, whereas Nussbaum is Aristotelean—they both argue that animal nature has been underrated in the Kantian framework, claiming that rational nature and animal nature are, in fact, inseparable³².

Korsgaard contends that objective ends applicable to rational beings are the only source of value, for we are not merely rational beings but also animal beings. Nussbaum similarly points out,

given that humans are animals, that rationality is one aspect of animality. “[R]ationality is not idealized and set in opposition to animality; it is just garden-variety practical reasoning, which is one way animals have of functioning.”³³ Indeed, we value our ends not just as rational beings but also as animal beings. As Korsgaard says, for example, “[f]ood, sex, comfort, freedom from pain and fear, are all things that are good for us insofar as we are animals.”³⁴ She then introduces two senses of “ends in itself”: ends based on rational and animal beings. That is, animals take themselves to be ends in themselves in the latter sense “since an animal just is a being that takes its own functional good as the end of action.”³⁵

Although Nussbaum takes an Aristotelian approach, instead of Kantian, her basic idea is the same as Korsgaard’s. Types of goodness we pursue are not only rational goodness but also animal goodness. Focusing on the plurality of goodness, Nussbaum claims that animals also pursue their own good and that we should “treat animals as agents seeking a flourishing existence.”³⁶ This is equivalent to Korsgaard’s second sense of “ends in itself” as explained above.³⁷

Through Korsgaard’s and Nussbaum’s arguments, I illustrated a view that animality is the source of value not reducible to instrumental value, which demands us to respect animal nature, i.e., treating it as an end. Their view seems to supplement Holland’s argument. He says in a different essay that “[f]or anything that is capable of flourishing can be construed as having that as its end. This notion seems to rule out using a life-form in any way which seriously frustrates its ends.”³⁸ In other words, he thinks that the aspect of being flourishing in creatures makes themselves as an end. Korsgaard’s and Nussbaum’s arguments provide some ground, then, to support such a claim.

7. Instrumentalizing Animal Nature

I have shown the ground of respecting animal nature thus far. I will now explore its implication in the example of chimera research.

It is widely assumed that animal embryos and human embryos have different moral status. Indeed, although the research use of human embryos is not forbidden, it is more restrictive to use them

compared with the use of animal embryos. Implanting animal embryonic stem cells into a human embryo is considered more morally problematic than the vice versa, that is, implanting human stem cells into an animal embryo. In Japan, for instance, it is legally forbidden to transplant a human embryo implanted with animal stem cells to the uterus, while transplanting an animal embryo implanted with human stem cells to uterus is allowed.

Such a difference is easily understood, given that the research use of animals is commonly thought to be permissible. If it is permissible to use animals for research, why should not also be permissible to use animal embryos? They are, after all, less than fully developed animals. Animal ethicists would contend that the moral difference in animal and human embryos commits speciesism, or that it is impermissible to use animals for research in the first place. As we saw in Rollin’s argument in section 4, however, the issue of injustice found in our current treatment of animals would not directly help us find out what is wrong with altering animal nature at the stage of embryos. Rollin is right when he maintains that the alteration of telos is not equal to the violation of telos.

The concept of respect based on animal nature, then, sheds light on a sense of instrumentalization that has been overlooked in animal ethics. I argue that altering animals’ properties, even if it does not lead to welfare issues, would be problematic, as it does not respect animals and fails to treat animal nature as an end.

Not to mention, this new type of respect is still an underdeveloped concept and poses many questions we need to consider. For instance, forbidding alterations of animals’ properties, with no exception, seems to be too restrictive. Consider the following situation:

[W]e know that there is an ice age coming and we know that certain species will become extinct unless something is done to save them. Suppose that, through genetic engineering, we are able to prevent the extinction of the species by making its members better able to cope with the colder conditions while leaving them otherwise genetically unchanged.³⁹

It is quite plausible to argue that this scenario is acceptable. How do we reconcile this view with the respect of animal nature, then? Furthermore, we should aware that this problem is not unique to animal nature, especially if we are to pursue the Kantian sense of respect. For instance, Kant opposes suicide because it treats rational nature as a means to alleviate suffering. This view often leads to the controversy over the (im)permissibility of euthanasia. What we see in both cases is the tension between rational/animal nature and individual welfare. It is a problem, therefore, that all Kantian scholars must face in humans' and animals' cases.

We also have to rethink of the very existence of domesticated animals. That is, how do we apply the respect of animal nature to domesticated animals whose nature has been altered for a long time? Animal ethicists have been arguing over the ethical issues of domesticated animals, but this question, as I showed throughout this article, cannot be properly located within their argument. As Rollin's distinction between violation and alteration of animal nature suggests, animal ethics has dealt with the moral problems of the former, whereas questioning redesigning animals' ends is a matter of the latter. Rollin made a wrong turn, however, when he explores the latter in terms of consequentialist reasoning. In particular, I argue that we need to reevaluate the Kantian understanding of respect, not only in the context of violating but also in terms of altering animal nature.

8. Conclusion

In this article, I have re-examined the moral importance of species boundaries that have been overlooked in animal ethics. In animal ethics, the concept of species and species boundaries have been disregarded through the anti-speciesism argument it relies on. However, I argued that the emergence of genetic engineering has strengthened the manipulative aspect of animal use and raised a new type of ethical concern. I illustrated this concern by looking at Mary Midgley's argument. I then explored it through the example of human-animal chimera research and examined how to argue for the moral importance of species boundaries within animal ethics. In particular, I looked at the arguments proposed by Bernard Rollin and Alan Holland,

respectively. After highlighting the insufficiency of Rollin's argument, I demonstrated that Holland's Kantian approach better captures the concern by developing the idea of respect based on animal nature, with the supplement of the arguments proposed by Christine Korsgaard and Martha Nussbaum.

Endnotes

- 1 This article is a developed version of the following original article in Japanese: 高江可奈子(2015). 「キメラ的存在を巡る議論—「種」を規定する生のあり方の倫理的な位置づけを考える」『現代生命哲学研究』4号, pp. 50-61.
- 2 It may be helpful to introduce the distinction between *direct* and *indirect* moral obligations to illustrate how animal ethics differs from Kantian ethics. Kant does claim that we have an obligation toward animals. For instance, he says that no violent and cruel treatments of animals are allowed. But this obligation does not directly arise from animals *per se*. As Kant clearly states, "...from all our experience we know of no being other than man that would be capable of obligation (active or passive). Man can therefore have no duty to any beings other than men"(Kant, 1991, p. 237). For Kant, it is an obligation to oneself that we must treat animals with compassion. In this sense, our obligation toward animals is indirect. "...[G]ratitude for the long service of an old horse or dog...belongs *indirectly* to man's duty *with regard to* these animals; considered as a *direct* duty, however, it is always only a duty of man *to himself*."(Kant, 1991, p. 238). Animal ethics argues against this view that we have *direct* moral obligation toward animals by emphasizing the fact that animals experience pain.
- 3 Not to mention, not all animal ethicists agree with Singer. Animal ethics is not a monolithic discipline. There are many different ethical positions to argue for the moral significance of animals themselves. The most well-known controversy within animal ethics, for example, is the one between animal welfare and animal rights. They all share the view, however, that human chauvinism is a form of speciesism. Thus, it is enough for the purpose of this article here to introduce animal ethics through Singer's argument against speciesism.
- 4 (Jaworska & Tannenbaum, 2014; Liao, 2010)
- 5 (Midgley, 2000, p. 11)
- 6 (Midgley, 2000, p. 13)

- 7 (Robert & Baylis, 2003, p. 2)
- 8 (Robert & Baylis, 2003, p. 6)
- 9 (Robert & Baylis, 2003, p. 9)
- 10 (Robert & Baylis, 2003, p. 9)
- 11 (Bok, 2003; Savulescu, 2003; Siegle, 2003; Thompson, 2003; Urie et al., 2003)
- 12 (Urie et al., 2003, p. W20)
- 13 (B. E. Rollin, 1998, p. 159)
- 14 (B. E. Rollin, 2011, p. 109)
- 15 (B. E. Rollin, 1995, p. 159)
- 16 (Midgley, 2000, p. 8)
- 17 (B. E. Rollin, 1998, p. 161)
- 18 (B. E. Rollin, 1998, p. 162)
- 19 You might object that *telos* commits biological essentialism. But all Rollin says through the idea of *telos* is that nature and welfare are interrelated. So, I do not think this concept necessarily assumes fixed identity such as species identity, allowing some plasticity.
- 20 (B. E. Rollin, 1998, p. 165)
- 21 (B. Rollin, 1986, p. 89)
- 22 (B. Rollin, 1986, p. 89)
- 23 (Holland, 1995, p. 301)
- 24 (Eisenberger et al., 2003)
- 25 (Holland, 1995, p. 302)
- 26 (Holland, 1995, p. 302)
- 27 (Kant, 2002, p. 37)
- 28 (Kant, 2002, pp. 46–47)
- 29 (Holland, 1995, p. 304)
- 30 (Holland, 1995, p. 304)
- 31 (Kant, 2002, p. 46)
- 32 Tom Regan is probably the most famous animal ethicist arguing for animal rights. I do not look at his argument in this article, however, because I do not think his position is considered as Kantian. Although initially taking a Kantian approach, Regan at the end drops off the fundamental part of what makes Kantian ethics “Kantian.” He attempts to argue that moral patients as well as moral agents have inherent value, which would demand us to treat them as an end, where moral patients are individuals having consciousness, sentience, and certain cognitive abilities (e.g., beliefs and memories) (Regan, 2004, p. 153). But such a demand cannot be made without appealing to rational nature within the Kantian framework as we saw in section 5 and 6 of this article. By shifting a focus from moral agents to moral patients, therefore, Regan departs from Kantian ethics. To preserve the Kantian aspect while expanding a moral circle to animals, we have to show that rational nature and animal nature are interconnected.

- 33 (Nussbaum, 2007, p. 159)
- 34 (Korsgaard, 2018, p. 144)
- 35 (Korsgaard, 2018, p. 146)
- 36 (Nussbaum, 2007, p. 337)
- 37 The difference between Korsgaard and Nussbaum is that Korsgaard sees the source of value through the act of valuing (that is, the fact that creatures are able to value goodness for themselves) whereas Nussbaum considers the source of value entailed in creatures themselves that are striving to pursue goodness.
- 38 (Holland, 1990, p. 170)
- 39 (Burgess & Walsh, 1998, p. 402)

References

- Bok, H. (2003). What’s wrong with confusion? *American Journal of Bioethics*, 3(3).
<https://doi.org/10.1162/15265160360706471>
- Burgess, J. A., & Walsh, A. (1998). Is genetic engineering wrong, per se? *Journal of Value Inquiry*, 32(3).
<https://doi.org/10.1023/A:1004391910055>
- Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, 302(5643).
<https://doi.org/10.1126/science.1089134>
- Holland, A. (1990). The Biotic Community: A Philosophical Critique of Genetic Engineering. In P. Wheale & R. McNally (Eds.), *The Bio-Revolution: Cornucopia or Pandora’s Box?* (pp. 166–174). Pluto Press.
- Holland, A. (1995). Artificial Lives: Philosophical Dimensions of Farm Animal Biotechnology. In T. B. Mepham, G. A. Tucker, & J. Wiseman (Eds.), *Issues in agricultural bioethics* (pp. 293–305).
[https://doi.org/10.1016/s0377-8401\(97\)00002-3](https://doi.org/10.1016/s0377-8401(97)00002-3)
- Jaworska, A., & Tannenbaum, J. (2014). Person-rearing relationships as a key to higher moral status. *Ethics*, 124(2), 242–271.
<https://doi.org/10.1086/673431>
- Kant, I. (1991). The Metaphysics of Morals. In M. Gregory (Trans.), *Cambridge University Press*.
- Kant, I. (2002). *Groundwork for the Metaphysics of Morals* (A. Woods (trans.)). Yale University Press.
- Korsgaard, C. M. (2018). Fellow creatures: Our obligations to the other animals. In *Fellow Creatures: Our Obligations to the Other Animals*.
<https://doi.org/10.1093/oso/9780198753858.001.0001>
- Liao, S. M. (2010). The basis of human moral status. *Journal of Moral Philosophy*, 7(2), 159–179.
<https://doi.org/10.1163/174552409X12567397529106>

- Midgley, M. (2000). Biotechnology and Monstrosity: Why We Should Pay Attention to the “Yuk Factor.” *The Hastings Center Report*, 30(5).
<https://doi.org/10.2307/3527881>
- Nussbaum, M. C. (2007). Frontiers of Justice: Disability, Nationality, Species Membership. In *Harvard University Press*.
<https://doi.org/10.2307/j.ctv1c7zftw>
- Regan, T. (2004). *The Case for Animal Rights*. University of California Press.
- Robert, J., & Baylis, F. (2003). Crossing species boundaries. *American Journal of Bioethics*, 3(3).
<https://doi.org/10.1162/15265160360706417>
- Rollin, B. (1986). On Telos and Genetic Manipulation. *Between the Species: An Online Journal for the Study of Philosophy and Animals*, 2(2).
<https://doi.org/10.15368/bts.1986v2n2.9>
- Rollin, B. E. (1995). The Frankenstein Syndrome. In *The Frankenstein Syndrome*.
<https://doi.org/10.1017/cbo9781139172806>
- Rollin, B. E. (1998). On telos and genetic engineering. In *Animal Biotechnology and Ethics*.
https://doi.org/10.1007/978-1-4615-5783-8_12
- Rollin, B. E. (2011). Animal rights as a mainstream phenomenon. *Animals*, 1(1).
<https://doi.org/10.3390/ani1010102>
- Savulescu, J. (2003). Human-animal transgenesis and chimeras might be an expression of our humanity. *American Journal of Bioethics*, 3(3).
<https://doi.org/10.1162/15265160360706462>
- Siegle, A. (2003). The Moral Insignificance of Crossing Species Boundaries. *American Journal of Bioethics*, 3(3).
- Thompson, P. B. (2003). Crossing Species Boundaries is Even More Controversial than You Think. *American Journal of Bioethics*, 3(3).
- Urie, K. A., Stanley, A., & Friedman, J. D. (2003). The humane imperative: Amoral opportunity. In *American Journal of Bioethics* (Vol. 3, Issue 3).
<https://doi.org/10.1162/15265160360706778>

