Defending *Wild Animal Ethics*

Kyle Johannsen

The purpose of this paper is to respond to the thoughtful commentaries contained in the *Wild Animal Ethics* (WAE) book symposium. Responding to my critics has required that I bolster the arguments, and sometimes modify the conclusions I defend, in my book (Johannsen, 2021), so I'm grateful to have had the opportunity to engage with my critics' criticisms.

In section 1, I defend the view that the vast majority of sentient wild animals live bad lives, but that most sentient wild animals who survive to maturity (a small minority of those born) probably have lives worth living. In section 2, I discuss the distinction between intrinsic value and intrinsic valuing, and I reject the claim that we should intrinsically value harmful natural processes. I also discuss the case for intentional habitat destruction and argue that, from a moderate deontological perspective, habitat destruction is an unjustified response to wild animal suffering. In section 3, I discuss the contribution that agency makes to wild animal wellbeing, and I argue that taking agency into account doesn't undermine the case for delivering genetic painkillers to r-strategist infants. I also argue that if identity-affecting actions generate rectificatory duties, then we currently have a duty to prevent, or compensate wild animals for, many of the harms they experience, including the harms caused by predation and the r-strategy.

1 Wild Animals' Wellbeing

One of the issues brought up in the commentaries is wild animals' level of wellbeing. Palmer, on the one hand, argues that it's hard to determine r-strategists', and other animals', levels of wellbeing. Fischer, on the other hand, thinks I'm being too conservative in my assessments, and that there's good reason to believe that the lives of both r-strategists, and K-strategists, typically

aren't worth living (according to a hedonic metric, at least).[1] Like Palmer, I think that there's some uncertainty concerning what conclusions we should draw about wild animals' wellbeing. However, we can be reasonably confident that the following conclusions are true: (1) that the vast majority of sentient r-strategists live bad lives, (2) that the vast majority of sentient individuals born into the word are r-strategists, and (3) that wild animals who survive to maturity normally live very difficult lives that are nonetheless probably worth living. I'll say a bit about each in turn.

What do we know about the lives of sentient r-strategists? We know that they tend to end prematurely. A defining feature of r-strategists is that they have remarkably high birth rates, so it isn't possible for their populations to remain stable unless most of their offspring perish at a young age. Were more than a tiny fraction of r-strategists' young to reach maturity, then r-strategist populations would grow exponentially. Furthermore, we know that the standard causes of death for young r-strategists are predation, starvation, exposure, dehydration, injury, disease, etc. Some of these causes sometimes lead to fast deaths, e.g., being killed by a predator can be fast. Many of them lead to very slow deaths, though, e.g., dying of starvation, exposure, or dehydration, normally takes a while. For any sentient animal, dying from such causes will involve a prolonged period of pain. Finally, we also know that young r-strategists are at a high risk of dying from painful causes. This might not sound like a new piece of information, but it actually is. The fact that r-strategists, when young, are at a high risk of dying from painful causes, lets us infer some of the experiences that characterize their childhoods. For example, r-

[1] Though Fischer and Delon both attribute a hedonic conception of wellbeing to me, I'm actually a pluralist: I think wellbeing has many constitutive elements, including objective elements. The only form of hedonism I commit myself to in WAE, is a hedonic conception of the threshold below which a life is not worth living. It seems to me that, at least with respect to non-human animals, an individual's life is no longer worth living if and only if, throughout the foreseeable future, her suffering exceeds her positive experiences.

strategists who are at risk of starving lack adequate access to food, so they're often hungry. And r-strategists who are at a high risk of being killed by predators, are threatened by predators, so they're often on the run or on the lookout.[2] These features of r-strategists' lives don't necessarily entail that the amount of suffering in nature exceeds the amount of enjoyment. They also don't necessarily entail that r-strategists' lives aren't worth living. I don't commit myself to either of these distinct (but related) claims. What I do think these features show, is that the vast majority or sentient r-strategists live bad lives. A life that ends painfully and prematurely, and which was characterized by a very high risk of death by predation, starvation, etc., is not a good life. It may be so bad that it's not worth living at all. Or it may be good enough that it's worth living. But if the good experiences of such a life exceed the bad experiences, they don't do so by much.

A second justified claim is that most sentient individuals born into the world are r-strategists – a claim that's different from, and much easier to justify than, the claim that most r-strategists are sentient. It may not be true that most r-strategists are sentient. Many r-strategists are invertebrates, after all, and it's often uncertain whether invertebrates are sentient. Unfortunately, the r-strategy is also quite common among vertebrates. The r-strategy is even common among mammals, specifically small mammals (Stoddart, 1979, Chapter 1). Since r-strategist birth rates are so much higher than K-strategist birth rates, it follows that the vast majority of vertebrate individuals are r-strategists. So even if invertebrate r-strategists turned out to be insentient, r-strategists would still comprise the vast majority of sentient individuals born into the world. That the vast majority of sentient individuals die painfully and prematurely, and that their lives are characterized by a very high risk of death by predation, starvation, etc., is more than enough to ground a cautious commitment to large-scale intervention.

[2] For a general discussion of how animals' wellbeing can vary over the different periods of their lives, and of how to take this variation into account when estimating the wellbeing of populations, see Hecht, 2021.

A third justified claim is that wild animals who survive to maturity normally live very difficult lives that are nonetheless probably worth living. Wild animals who survive to maturity live longer lives than those who don't, so there's enough time for them to have positive experiences that hopefully outweigh the many negative experiences they suffer while juvenile. What's more, wild animals who live to maturity manage to do so in part because they've developed competence – they've learned to manage the dangers of their environment and have developed successful strategies for achieving their goals. That mature wild animals are competent is good reason to think that their quality of life has improved: that their life as an adult is quite a bit better than it was during their childhood. However, Fischer doubts that the above considerations suffice to justify my claim that mature wild animals have lives worth living. For one, Fischer points out that pain and pleasure are asymmetrical. More specifically, he suggests that when evaluating a sentient being's level of wellbeing, a unit of pain should be accorded more weight than a unit of pleasure, i.e., that a unit of pain detracts more from wellbeing than a unit of pleasure contributes to it. If Fischer's right, then it's harder for a mature wild animal's pleasant experiences to compensate for the painful experiences in her life. Second, Fischer claims that the instances of pain we experience throughout our lives are far more numerous than we normally notice. Quoting David Benatar, Fischer notes that experiences of tiredness, stress, itchiness, thermal discomfort, etc., are common for just about anyone, and that over time, people become accustomed to such experiences and stop noticing them so much. As a result, Fischer maintains that we tend to underestimate the amount of negative experiences in our own lives, and that we're perhaps even more likely to do the same when evaluating wild animals' level of wellbeing. If pain should be weighted more heavily than pleasure, and if we tend to

underestimate the amount of pain in sentient beings' lives, then it does seem much more likely that mature wild animals lack lives worth living.

In reply, I agree that there's a sense in which a unit of pain detracts more from wellbeing than a unit of pleasure contributes to it. However, I also think that this claim is ambiguous. In WAE, I note that pain has more than one dimension. It has a sensory dimension - pain is something one experiences, but it also has an affective dimension - pain is something one is bothered by.[3] When one is greatly bothered by their pain, then it's appropriate to say that they're 'suffering'. When one isn't bothered much by their pain, then their experience is one of 'mere pain', rather than one of suffering. With these definitions in mind, the specific asymmetry claim I think is true (and which I think philosophers normally have in mind) is that a unit of suffering detracts more from wellbeing than a unit of pleasure contributes to it. A unit of mere pain, by contrast, doesn't outweigh a unit of pleasure.

Keeping the affective dimension of pain in mind is important for the sake of correctly understanding the asymmetry between pain and pleasure, but also for the sake of understanding why we tend to underestimate the quantity of negative experiences in our lives. As we age, we become accustomed to the pervasive negative experiences in our lives. Abrasions, bruises, headaches, etc., that felt excruciating to us when we were children, become merely annoying when we're older. In other words, we learn to cope with recurring pains, and learning to cope with a pain is largely a matter of not letting it bother you much. It's because we don't let these experiences bother us much, that we tend to underestimate how frequent they are. Thankfully, however, the fact that we don't let them bother us much also means that they don't qualify as suffering.

[3] For a discussion of the distinction, see Shriver, 2006.

That we often learn to cope with the various pains in our lives, has two implications when applied to wild animals. First, it supports the claim that mature wild animals have lives worth living. Though mature wild animals live very difficult lives, they're also competent to manage the dangers they face, and they've presumably learned to cope with some of the recurring pains they experience. Second, it supports the claim that sentient r-strategists who die during infancy (the vast majority of sentient beings born into the world), live bad lives. Not only do these animals die painfully and prematurely, but they also experience a variety of pains that they never learn how to cope with. It's still possible that their lives (though bad) are worth living, but it's certainly plausible that their lives are net negative.

2 Nature's Value and Habitat Destruction

In her commentary, Palmer devotes some space to analyzing my claim that naturalness is only extrinsically valuable. First, she distinguishes the claim that something is intrinsically valuable (that it's valuable in and of itself), from the claim that it's intrinsically valued (that one or more valuers care about it for its own sake). Second, she correctly notes that the claim I criticize in Chapter 2 of WAE, is that naturalness is intrinsically valuable. Third, Palmer speculates that I perhaps think people are making a mistake when they value naturalness for its own sake. As a matter of fact, I do think that valuing naturalness for its own sake can be a mistake. Valuing something for its own sake is mistaken when it reflects a philosophical error. For example, since I deny that naturalness is intrinsically valuable, I think that that anyone who, on the ground that naturalness is intrinsically valuable, comes to value it for its own sake, is making a mistake. By contrast, someone who, on the ground that the wellbeing of sentient beings is intrinsically valuable, comes to value others' wellbeing for its own sake, makes no mistake. After all, the

wellbeing of sentient beings is, in fact, intrinsically valuable. However, we're not always making a mistake when we intrinsically value things that acquire their value from us (things that are valuable because they're valued). People intrinsically value many of the things in their lives - the recipes they grew up with, the objects they've spent time collecting, the memories they've acquired, etc. As a number of philosophers, including John Stuart Mill, have noted, many of the things that matter most to us, and thus contribute the most to our wellbeing, are valued not because they contribute to our wellbeing, but for their own sake. According to Mill (1871, Chapter 4), the things we care about for their own sake are not *means* to our wellbeing, but are rather *parts* of our wellbeing – they count among our wellbeing's constitutive elements. Converting something that lacks intrinsic value into a part of your wellbeing, is not normally a mistake. However, there is something wrong with intrinsically valuing morally bad things. For example, it would be wrong to intrinsically value slavery. After all, the right is supposed to constrain the good. When someone cares deeply for something that's morally bad, they're failing to appropriately constrain their conception of the good. Considering that predation and the r-strategy produce astronomical amounts of harm, I think it's wrong to intrinsically value them.

At the end of her commentary, Palmer argues that we have good reason to intrinsically value nature. One premise is that we should refrain from oppressively intervening in nature. Another is that we should refrain from being hubristic – that we should recognize our epistemic limitations. I agree that these are reasons to value nature, but I don't think they're reasons to intrinsically value it. Instead, they're reasons to contingently value it. More specifically, when we lack the knowledge needed to responsibly intervene in nature, then we should value nature. But when we possess the knowledge needed to responsibly intervene, then we should value intervention. Similarly, when intervention is oppressive, e.g., when it causes significant harm to

wild animals for the sake of fulfilling trivial human interests, then nature should be valued. But when intervention is both beneficial to wild animals and respectful of deontic constraints, then intervention should be valued. In other words, nature should only be valued over intervention when intervention is either reckless or oppressive. When intervention is neither reckless nor oppressive, but is instead cautious and beneficent, then intervention should be valued over nature.

A prime candidate for the label 'oppressive intervention', is intentional habitat destruction. Some interventionists, notably Brian Tomasik (2017), have argued that the best way to address wild animal suffering is by depriving r-strategists of the resources needed to survive and reproduce. In Chapter 4 of WAE, I argue against intentional habitat destruction. More specifically, I argue that even if we assume that most wild animals live net negative lives, and that the level of wellbeing in nature is net negative, it remains false that intentional habitat destruction is justified. The reason I give is that intentional habitat destruction violates the deontic constraints on intervention. Though it's good to prevent disvalauble lives from coming into existence, doing so by wiping out existing animals (who have net positive lives) is impermissible. Causing harm is justified when doing so is necessary to secure far greater benefits, but the harms of habitat destruction are too great to be justified within a moderate deontological framework.

Fischer argues that my case against habitat destruction fails, and he makes some good points. First, he's probably right that the threshold for justifiably killing one being is lower than 10 billion lives saved. I chose the number 10 billion arbitrarily for illustrative purposes, and though I don't know what the right number is, it's certainly lower than that. Furthermore, he's certainly right that an astronomical number of r-strategists will be born in the future. When we

compare the number of net negative beings who would be born if we don't act, to the number of beings with net positive lives that intentional habitat destruction would kill, it may be true that habitat destruction satisfies the threshold for justified killing. However, in order for the threshold to be met, killing must be necessary. In WAE, I argue that gene editing is a superior alternative. Using a technique called 'gene drive', it's possible to spread beneficent, engineered traits throughout wild animal populations. For example, we could use analgesic drives (genetic painkillers) to dull the affective dimeson of r-strategists' pain for the first few weeks or so of their lives - make it so that their pain won't bother them so much. Replacing r-strategists' suffering, with mere pain, during the worst phase of their life (also the only phase, for most of them), would do an astronomical amount of good. Furthermore, since genetic painkillers leave the sensory dimension of pain intact, r-strategist young are still well-equipped to avoid harmful stimuli. Finally, since genetic painkillers reduce suffering without decreasing r-strategist birthrates or population sizes, they shouldn't negatively affect predator populations or otherwise impact the way ecosystems function. Though using genetic editing this way might sound like science fiction, it isn't. Suffering-inhibited mice have already been produced in the laboratory (Sun et al., 2008; Wei et al., 2002), so it shouldn't take much testing to develop genetic painkillers for wild animals.

Genetic painkillers may or may not suffice to ensure that r-strategists' lives are worth living. If they do ensure this, then they're straightforwardly superior to intentional habitat destruction.[4] But even if r-strategists' lives are, and would remain, disvaluable, I'm confident

[4] In his commentary, Fischer argues that habitat destruction is more feasible than gene drives, since habitat destruction is already happening. However, the unintentional (but foreseeable) habitat destruction caused by climate change, habitat encroachment, etc., doesn't reliably reduce r-strategist populations. R-strategists tend to be adaptable generalists, and habitat destruction sometimes increases generalist species' populations (for a relevant study that focuses specifically on bird populations, see Devictor et al., 2008). Only habitat destruction that significantly reduces biomass and primary productivity, such as desertification, reliably reduces r-strategist populations.

that genetic painkillers would make the harm of their disvaluable lives incomparable to the harm of killing sentient, net positive beings. After all, meeting moderate deontology's threshold for killing requires more than just providing a very large quantity of benefits, or preventing a very large quantity of harm. It also requires that the benefits provided, or the harms prevented, be comparable to the harm of killing. For example, to prevent 10 billion headaches is to prevent a very large quantity of harm. But since this harm is incomparable to killing, preventing it doesn't justify killing someone. By contrast, preventing deaths is comparable to killing, so preventing 10 billion deaths can justify killing a person. But whether preventing a disvaluable life from coming into existence is comparable to killing, depends on the content of the disvaluable life. My own intuition is that when lives are disvaluable due to suffering, preventing a disvlauable life is comparable to killing, but that when a life is disvaluable due to mere pain, preventing it is not comparable. A short life filled with mild aches and little else might still be a harm, but if so, I think it's a small harm. Such a life is the headache of disvaluable lives, and I doubt that the prospect of preventing such lives justifies killing. As a result, genetic painkillers promise to remove one of the conditions needed for habitat destruction to satisfy the threshold for killing.

3 Agency and Non-Identity

Delon's and O'Brien's commentaries explore some of the nuances associated with intervention. I'll start with Delon's commentary and then move on to O'Brien's.

I think Delon's right to claim that agency has a close relationship with wild animals' wellbeing: it's likely one of the constitutive elements of their wellbeing. I also think he's right that the existing literature on wild animal suffering (WAE included) hasn't paid adequate attention to agency's implications for the content of beneficent intervention. As Delon knows, I

do discuss wild animals' liberties throughout WAE, and the interventions I favor are those which involve fewer liberty infringements. Taking liberty into account the way I do presupposes that some wild animals have an interest in agency – that they have an interest in having the liberty to decide what they prefer and to act upon their preferences. But agency might matter in ways that are independent of liberty. Indeed, if agency is a constitutive element of wellbeing, and dulling animals' capacity for pain would impede their ability to exercise agency, then we should be cautious about the use of genetic painkillers. Genetic painkillers should only be used if and when they'll improve animals' wellbeing.

I have a few thoughts about Delon's worry. First, I'd want to hear more about the relationship between pain and agency before concluding that genetic painkillers would impede agency. Though I presume that sentience has an important relationship with agency (I assume that conscious, valanced experiences are a precondition for any meaningful kind of agency), genetic painkillers wouldn't remove sentience. What they'd do is reduce the extent to which an animal's pain bothers her. Maybe genetic painkillers would have some kind of impact on agency, but that impact would have to be spelled out.

Second, assuming that genetic painkillers would impede agency, I think this would mainly be a reason to restrict their use to certain cases. More specifically, it would be a reason to refrain from using genetic painkillers on animals who stand to benefit from exercising their agency, namely animals or who are competent to manage the dangers of their environment, or who have a significant chance of developing competence. For animals who know how to manage risks, or who are likely to learn how to manage those risks after encountering them, beings shielded from those risks in ways that compromise agency is harmful – it's akin to unjustified paternalism. By contrast, for animals who aren't competent to manage risks, and who aren't

likely to become competent, being shielded from risk is beneficial, even when shielding them infringes upon their liberty or otherwise impedes their agency. The upshot would be that we ought to be wary of using genetic painkillers on K-strategist animals. Since K-strategist adults are reasonably competent, and since their young have a reasonable chance of developing competence, genetic painkillers (if they impede agency) risk lowering K-strategists' wellbeing. By contrast, administering genetic painkillers to r-strategists straightforwardly benefits them, especially if the painkillers are designed to only affect r-strategists during their most vulnerable period, e.g., the first few weeks following their birth.

Moving on to O'Brien, his commentary makes some interesting observations about identity-affecting actions. In particular, he argues that identity-affecting actions generate secondary duties. Changing the identities of future predators, and future r-strategist parents, causally connects us to the harms they bring about, and it might also make us morally responsible for those harms, since these animals aren't moral agents, and since the harms they cause are foreseeable. Furthermore, changing the identities of future prey and future r-strategist young, causally connects us to their birth, and might also make us partially responsible for the harms they experience, since they'll foreseeably experience significant harms that they'd never experience were it not for our actions. The upshot, it would seem, is that changing the identities of wild animals generates duties to rectify many of the harms they cause and experience.

In his commentary, O'Brien is mainly concerned to show that, by virtue of changing the identities of wild animals, large-scale interventions generate secondary duties. His conclusion is that beneficent intervention generates responsibility for harms that are normally thought of as naturogenic, thereby extending the extent to which considerations of rectificatory justice apply. However, O'Brien's argument extends further than he seems to realize. As many scholars argue,

we're currently in a so-called 'Anthropocene' era where human activity is the main causal factor influencing the earth's environment (Moore, 2016). Though we continue to think of wild spaces as separate from us, it's not clear that we should, since human behavior pervasively affects which animal populations grow or shrink, as well as which species do or don't go extinct. Considering the size of our impact, it may no longer make sense to draw a sharp distinction between naturogenic and anthropogenic harms. But if O'Brien's right about identity-affecting actions, then we're even more entangled with nature than it seems. After all, our collective actions affect not only the size of wild animal populations, but also the identities of the individuals who populate them. And if identity-affecting actions generate secondary duties, then considerations of rectificatory justice support preventing, or at least mitigating, most of the harms that befall wild animals. Since the general public mistakenly denies that considerations of justice apply to animals, I think that interventionist activists should still focus on beneficence anyways. But if O'Brien's right, then focusing on beneficence is, to a greater extent than I realized, a strategic move motivated by a concern for securing democratic support. O'Brien's argument suggests that considerations of beneficence, and of rectification, converge extensively with respect to what we owe to wild animals. Since duties of rectification are more stringent than duties of beneficence, the most powerful considerations supporting large-scale intervention are those of rectification.

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