



Two Challenges to Johannsen on Habitat Destruction

Bob Fischer¹

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1 Introduction

According to Kyle Johannsen’s *fallibility-constrained interventionism*, “preventing [wild animal suffering] is desirable and thus, we should intervene in nature, but we should proceed very cautiously in light of our limited understanding of ecosystems and the resulting ecological risks intervention poses” (2020, p. 53). One objection to fallibility-constrained interventionism is that it doesn’t go far enough: if most wild animals have net negative lives, then while the consequences of some interventions might be difficult to discern, the consequences of others are relatively clear.¹ For instance, we have very good reason to believe that destroying habitat will reduce the number of wild animals who come into existence, and if most wild animals have net negative lives, then reducing the number of wild animals who come into existence will increase total utility. So, insofar as we ought to increase total utility, we have moral reason to destroy animals’ habitats. Those who take this line are sometimes called “pavers,” an allusion to the opening lyric in Joni Mitchell’s 1970 song, “Big Yellow Taxi,” where she complained about those who “paved paradise and put up a parking lot.” Accordingly, let’s call this the Pavers’ Objection.

Johannsen reply to the Pavers’ Objection is simple. He grants that destroying animals’ habitats would indeed increase total utility. As a rights theorist, though, he argues that other considerations are decisive:

...negative duties are weightier than positive duties and, as a result, doing the right thing sometimes requires that we refrain from performing the

¹ Following Johannsen, I am going to use the phrases “net negative life” and “life not worth living” interchangeably. If we understand “net negative” as “experiencing more pain than pleasure,” as Johannsen does, then this is tantamount to assuming a certain theory of animal welfare. That theory could be questioned, and perhaps ought to be, at least given the position that Johannsen wants to defend on our duties to wild animals. A desire satisfaction or objective list theory of welfare might serve his aims better. However, I won’t say anything more about this until the very end.

✉ Bob Fischer
fischer@txstate.edu

¹ Department of Philosophy, Texas State University, 601 University Drive, San Marcos, TX 78666, USA

action that produces the best consequences. For example, in a situation where killing one person is necessary in order to save two people, killing that person would produce the best consequences. But that doesn't mean saving two people justifies killing one. Your positive duty to save two people is trumped by your negative duty to refrain from killing one. My own view is that, past some threshold, positive duties do trump negative duties, for example, that saving 10 billion people would justify killing one. Whatever the threshold is, though, it's high enough that the duty to refrain from killing typically (but not always) trumps the duty to save lives, and I think that what's typically the case holds true with respect to habitat destruction... [On] the plausible assumption that negative duties are more stringent than positive duties, it's unlikely that our duty to provide the benefits associated with habitat destruction trumps our duty to respect the interests of existing sentient beings (p. 58).

Let's grant both that we have a mix of positive and negative duties to animals and that some form of moderate deontology is true (where there is a threshold beyond which positive duties trump negative duties). Still, there are at least two ways to challenge Johannsen's reply. The first involves challenging his estimate of the number of animals who have net positive lives. The second grants Johannsen's view about the distribution of net positive and net negative lives, but denies that this gets him the result he wants for independent reasons. Let's consider these challenges in turn.

2 Challenge #1: The Extent of Net Negative Lives in the Wild

Again, Johannsen's reply seems to depend on the assumption that there are enough animals with net positive lives. The "enough" part is supposed to be straightforward. Recall his claim that the threshold where positive duties trump negative ones is "high enough that the duty to refrain from killing typically (but not always) trumps the duty to save lives." The net positive part is based on the idea that animals have a right not to be killed if and only if they have an interest in continued life. Since animals with net negative lives don't have such an interest, they have no right not to be killed. Hence, there must be some (and sufficiently many) animals with net positive lives who, as a result, have a right not to be killed: it's those animals whose rights we'd violate were we to destroy their habitats.

Johannsen could, of course, insist that even animals with net negative lives have a right not to be killed. That position, however, is implausible. Without qualification, it would imply that it's wrong to put our companion animals down when their lives have become miserable for them — a position that, I assume, no rights theorist holds. Granted, it's plausible that we have a *prima facie* duty to refrain from killing *people* with net negative lives, partly because we think we ought to defer to their autonomy: if they want to keep living, we ought to respect that choice. But the standard view is that animals are not autonomous in this way, and Johannsen doesn't argue otherwise.

Is it plausible that there are enough animals have net positive lives? While this position may seem intuitive, I worry that Johannsen has undersold the problem of wild animal suffering.

Compared to some people in the literature (e.g., Faria, 2015; Tomasik, 2015; Horta, 2010a, b; Paez 2020), Johannsen takes a modest stance, not even coming down squarely in favor of the view that most *r*-strategists have net negative lives (namely, animals with a reproductive strategy where they produce lots of offspring and invest little in each one, as opposed to *K*-strategists, who produce few offspring and invest more heavily in each one). Instead, he only suggests they *may* not have lives worth living, summarizing the case for his stance this way:

1. A life that's filled with suffering and ends shortly after birth is not a flourishing one, and it may not be worth living.
2. Most *r*-strategists live lives that are filled with suffering and end shortly after birth.
3. Most sentient individuals born into the world are *r*-strategists.
4. Most sentient individuals born into the world do not live flourishing lives, and their lives may not be worth living (p. 12).

He then goes on to say that some *r*-strategists and many *K*-strategists probably *do* have lives worth living, as some of them “live long enough to enjoy an array of pleasures” (p. 16). Of course, this is not to say that these animals are flourishing. He draws an analogy to clarify his view:

...the conditions faced by people in absolute poverty are very difficult. Life is hard when one not only has less than others, but is perpetually malnourished, lacks easy access to clean water, has inadequate shelter, has inadequate access to medical assistance, etc. Still, it's likely that most of those in absolute poverty live lives worth living. Most still have the opportunity to form friendships, have families, learn skills, and develop talents, etc. Given that they face similar hardships, it's perhaps appropriate to think that the lives lived by wild animals who survive to maturity are, on average, similar in quality to (but probably still somewhat worse than) the lives lived by people in absolute poverty (p. 16).

In his reply to the Pavers' Objection, Johannsen is conceding that habitat destruction would indeed increase overall utility; so, we can ignore Johannsen's tentativeness about *r*-strategists. We can assume that most animals do have net negative lives, focusing instead on those animals that, in Johannsen's estimation, probably have lives that are “on average, similar in quality to (but probably still somewhat worse than) the lives lived by people in absolute poverty”—namely, some *r*-strategists and many *K*-strategists. Let's call them “impoverished animals.”

Johannsen's case for the view that impoverished animals have net positive lives is both brief and thin: he simply points out that there are many pleasures they could experience and that they live long enough to experience them. However, he makes no attempt to show that the balance of pleasures and pains is positive and, as I'll now argue, there are good reasons to be skeptical of that conclusion.

As Johannsen himself argues, there is plenty of evidence that animals experience suffering in nature: we know quite a lot about the parasite loads that many animals carry; the pandemics that sweep through their populations; the stresses imposed by hunger, cold, and predation; and much else. That alone doesn't show that the members of any particular group of wild animals tend to have net negative lives. Instead, that conclusion is supported by indirect considerations that are supposed to reduce our estimate of the number of positive experiences that animals have. Such considerations include the average length of life, particularly for members of *r*-selected species, as that's some evidence that animals wouldn't have time to have an array of positive experiences. We might also factor in natural selection's promoting fitness rather than welfare, which means that we shouldn't expect there to be mechanisms that spare animals from suffering unless they would improve the likelihood of reproducing. There are also our own biases to counter, including our tendency to romanticize nature.

It's certainly possible to review these considerations and remain agnostic about whether most wild animals have net negative lives (see, e.g., Clare Palmer's contribution to this symposium). However, Johannsen's conclusion is, as we've seen, that "it's perhaps appropriate to think that the lives lived by wild animals who survive to maturity are, on average, similar in quality to (but probably still somewhat worse than) the lives lived by people in absolute poverty." Johannsen doesn't define "absolute poverty," but the standard reading is that people in such circumstances can't meet most of their basic needs—for food, water, shelter, medical care, and so on. If most wild animals are living in circumstances that are *somewhat worse* than that, then I don't see why we should describe their lives as worth living. I would choose a life of absolute poverty over death for myself; so, I'm not saying that those lives aren't worth living. But I also think that those lives are on the edge of being worth living; so, if you make them marginally worse and take away some of the goods (moral and otherwise) that can be realized in human communities, then my judgment shifts. The upshot: even without any further considerations to the mix, I'm skeptical that Johannsen's characterization of the lives of impoverished animals fits with his assessment of them.

Moreover, there are at least two other considerations that tilt the scales more firmly toward a negative assessment of the lives of impoverished animals. The first is that we tend to overestimate the quality of our *own* lives, a fact that suggests we are vastly underestimating the number of factors that compromise the welfare of wild animals (whose lives are obviously much harder). The second is that pleasure and pain don't appear to make symmetrical contributions to well-being: pain appears to be worse for you than pleasure is good for you.

On the first consideration, let's take in these depressing observations from David Benatar (2006, p. 71–72):

...we tend to ignore just how much of our lives is characterized by negative mental states, even if often only relatively mildly negative ones. Consider, for example, conditions causing negative mental states daily or more often. These include hunger, thirst, bowel and bladder distension (as these organs become filled), tiredness, stress, thermal discomfort (that is, feeling either too hot

or too cold), and itch. For billions of people, at least some of these discomforts are chronic. These people cannot relieve their hunger, escape the cold, or avoid the stress. However, even those who can find some relief do not do so immediately or perfectly, and thus experience them to some extent every day. In fact, if we think about it, significant periods of each day are marked by some or other of these states. For example, unless one is eating and drinking so regularly as to prevent hunger and thirst or countering them as they arise, one is likely hungry and thirsty for a few hours a day... The negative mental states mentioned so far, however, are simply the baseline ones characteristic of *healthy* daily life. Chronic ailments and advancing age make matters worse. Aches, pains, lethargy, and sometimes frustration from disability become an experiential backdrop for everything else. Now add those discomforts, pains, and sufferings that are experienced either less frequently or only by some (though nonetheless very many) people. These include allergies, headaches, frustration, irritation, colds, menstrual pains, hot flushes, nausea, [hypoglycemia], seizures, guilt, shame, boredom, sadness, depression, loneliness, body-image dissatisfaction, the ravages of AIDS, of cancer, and of other such life-threatening diseases, and grief and bereavement. The reach of negative mental states in ordinary lives is extensive.

There are different ways to interpret the significance of all this. The optimistic reading is that we can experience more discomfort than we'd realized while still having lives worth living (on the assumption that our own lives are, indeed, worth living). So, we should be less inclined to conclude that most wild animals have net negative lives. The pessimistic reading is that our base rate of wellbeing may well be lower than we normally assume; we are, in general, worse off than we typically take ourselves to be, as we underestimate the hedonic burdens we carry. So, by parity, we should lower our estimate of the base rate of wild animal wellbeing accordingly, since they have even fewer tools to address the discomforts that we experience. I find the latter reading more compelling, largely because I don't trust our judgments about the significance of negative hedonic states when they aren't occurrent. It's easy, when comfortably sipping tea and writing philosophy, to downplay the unpleasantness of hunger and thirst. When in the grip of those sensations, however, they have an enormous impact on wellbeing, and it's the occurrent impact that matters. So, it seems to me that we ought to lower our estimation of the base rate of wild animal wellbeing. Given all the factors that decrease our own well-being and our relative ability to manage them, it would be quite surprising if things weren't substantially worse for wild animals.

As for the second consideration, Shriver (2014) points out that pleasure and pain don't appear to make symmetrical contributions to well-being. As he puts it, the empirical evidence seems to show that:

Equal amounts of positive and negative experiences do not balance out to neutrality; in fact, negative experience has more weight and drags one down faster than positive experience picks one up. A straightforward claim that units of enjoyment are weighted equally to units of suffering in relation to well-being is simply false (2014, p. 156).

This conclusion is based on a substantial body of research across a wide range of contexts. Studies have been done on marriages, business teams, student life satisfaction, and much else; in the aggregate, they indicate that the ratio of positive to negative experiences in each context needs to be roughly 3-to-1 before people offer positive overall assessments.

Shriver's observation matters in its own right, of course, but it's especially significant in light of the base rate point we borrowed from Benatar. Again, Johannsen's case for the view that impoverished animals have net positive lives involves pointing out that there are many pleasures they could experience and that they live long enough to experience them. However, not only are there ample reasons to think that we overestimate the number of pleasures relative to the number of pains, but we also have reason to think that pains disproportionately impact wellbeing. Granted, someone could hold that nonhuman animals are far more tolerant of negative affect than humans are. However, the standard defense of that view is that animals have *muted* affect when compared to humans; the idea is that *all* their experiences are less intense, pleasures and pains alike, so they suffer less than humans would from comparable negative stimuli. Obviously, though, that won't get the desired result: it doesn't affect the *ratio* of positive to negative experiences.

Let's tie these threads together. Given Johannsen's characterization of the lives of impoverished animals, we already have reason to think that most of them have net negative lives. And if we're underestimating both wild animals' negative hedonic states as well as the size of the contributions that those states make to wellbeing, then it's even more plausible that almost all wild animals have net negative lives—then ones who appear to be relatively well off.

Let's return to the Paver's Objection. Johannsen's reply is that (1) there are enough animals with net positive lives who have a right not to be killed, (2) we'd violate that right were we to destroy their habitats, and (3) our negative duty to respect that right trumps any positive duties we have to aid beings with net negative lives; so, (4) we shouldn't destroy habitat. However, if the first premise is false—if it turns out that there are hardly any wild animals with net positive lives—then Johannsen's fallibility-constrained interventionism is in trouble.

Of course, Johannsen could insist that there are still enough wild animals with net positive lives to block habitat destruction as a response to wild animal suffering. By way of rejoinder, recall his claim that "saving 10 billion people would justify killing one." He acknowledges that this isn't the specific threshold that moderate deontologists should endorse; he's choosing an arbitrarily high ratio for illustrative purposes, and while we may not know the true one, it's reasonable to suppose that it's much lower. I'll just observe that as our estimate of the number of animals with net positive lives dwindles, it becomes more plausible that we've reached that ratio. And Johannsen seems to be committed to saying that our estimate of the number of animals with net positive lives ought to be low indeed.

At this juncture, Johannsen might appeal to negative duties we owe to other human beings. After all, it seems plausible that there are some human beings who depend on the existence of certain habitats for their survival; so, destroying those habitats would involve violating our duty to refrain from killing them, albeit indirectly.

However, that reply is not very plausible. First, insofar as it works at all, it only covers a very narrow range of cases. Surely, there are many habitats that we could destroy without killing any human being. Second, Johannsen's moderate deontology may no longer support the conclusion he wants. Suppose, for instance, that there are cases where destroying habitat would involve saving 100,000 animals from net negative lives at the expense of one human life. It's hard to see how any proponent of animal rights could see that trade off as unacceptable. Yet, numbers like that might be quite common when we consider actual habitats we might destroy.

It seems, then, that we have good reason to doubt Johannsen's reply to the Pavers' Objection because we have good reason to doubt that, in many cases, there are enough individuals with net positive lives to whom we owe it not to destroy the habitat on which they depend.

3 Challenge #2: Clarifying the Threshold and Future Animals

But let's suppose I'm wrong about the distribution of net negative lives in the wild. Even if so, Johannsen's reply to the Pavers' Objection is in trouble. That is, even if we grant that quite a few animals have net positive lives, it still isn't clear that there are enough of them to avoid the conclusion that they should be sacrificed to satisfy our positive duties to animals with net negative lives.

There are really two versions of this problem. The first version considers various possible thresholds beyond which positive duties trump negative ones, suggesting that any plausible number won't deliver Johannsen the result he wants. The second version takes the threshold as fixed. Then, it questions the assumption that habitat destruction would involve violating any negative duties that aren't trumped by our positive duties given the sheer number of future animals.

Let's consider the first version. Again, Johannsen is not committed to the 10 billion to one ratio; it's going to be lower than that. The problem is that we can plausibly bring the threshold quite low and end up with the conclusion that pavers want. When we consider letting five die to avoid killing one, I still have a fairly strong intuition that it would be wrong to kill the one. But once we raise it to letting 100 die to avoid killing one, my intuitions aren't clear. And given the sheer number of offspring that members of some *r*-selected species have, it's quite plausible that the ratio of net negative lives to net positive lives is no greater than 100 to one.

Granted, I might be idiosyncratic in being unsure of what to say when we consider cases that involve letting 100 die to avoid killing one. Still, the problem is clear. Choose a threshold that's higher but not wildly high—say, letting 1,000 die to avoid killing one. Here again, given the sheer number of offspring that members of some *r*-selected species have, it's quite plausible that there are more than 1,000 net negative lives for every net positive life. If so, then Johannsen can't provide a plausible threshold premise that will deliver the result he wants.

Suppose, however, that we're inclined to accept a much higher threshold. Suppose, in fact, that we go with the arbitrarily high threshold he uses for illustrative purposes: if we have to choose between letting 10 billion die and killing one, we should kill the one; but if we have to choose between letting 9,999,999,999 die

and killing one, we should let the 9,999,999,999 die. Johannsen's claim is that habitat destruction falls below that threshold: it involves allowing no more than 9,999,999,999 to have net negative lives for the sake of one individual with a net positive life.

If we focus on currently existing individuals, this assessment seems to be correct. But there is no good reason to limit our attention to currently existing individuals. When we opt not to destroy habitat for the sake of the one, we don't just condemn all the *currently existing* animals with net negative lives to those lives; we condemn all the *future* animals who will have net negative lives to those lives. And if we look far enough into the future, the total number of animals who will suffer will cross the 9,999,999,999 to one threshold.

Of course, in saying this, I'm assuming that there will be wild animals with net negative lives far into the future. Johannsen could object that this isn't true: at some point, he might argue, we'll introduce gene drives and various wildlife care practices that will give all wild animals net positive lives. I can only say that if that's true, it strikes me as being in the *very* far future, and I suspect that we'll hit the positive-duties-trump-negative-duties threshold long before then.

Johannsen might take a different tack: he could object that this future-oriented challenge ignores all the future individuals who will have net *positive* lives. Once we factor them in, we get a stable ratio, or perhaps even one that steadily tilts toward net positive lives, not one that steadily moves toward the threshold where positive duties trump negative duties.

However, there is a crucial asymmetry here. We have no negative duty not to prevent beings with net positive lives from coming into existence, but we do have a positive duty not to allow being with net negative lives from coming into existence. So, the possible beings with net positive lives are irrelevant to the calculation; the possible beings with net negative lives are relevant. As a result, even if we accept Johannsen's arbitrarily high threshold, the numbers break in favor of destroying habitat.

4 Conclusion

With these problems in mind, I suspect that Johannsen's best move is to argue that habitat destruction isn't our only option. But that's easier said than done. Humans are destroying habitat *now*; it takes extraordinary effort to *prevent* habitat destruction. The best-case scenario for all the other options—such as vaccine distribution, gene drives, or what have you—involves waiting *years* for both the research and a program that could begin to systematically implement it. Moreover, countless challenges could derail such efforts; there is no reason to be confident that wild animals will receive aid on any given timeline. And, by Johannsen's own lights, a truly staggering number of animals will have net negative lives in the interim. Given the arguments I've offered, that's enough to justify the habitat destruction already taking place—and more.

All that said, I'm not actually in favor of habitat destruction. So, I'm inclined to think that we need to employ a vastly different approach to the problem of wild

animal suffering, one that doesn't give the Paver's Objection a toehold. My guess is that this will take one of two forms: either (a) showing that the case for most wild animals having net negative lives is much weaker than I've suggested or (b) rejecting the hedonism that's been implicit in this discussion in favor of a different theory of wellbeing. The latter move would allow us to grant that most wild animals have net negative lives in hedonic terms while denying that, as a result, their lives aren't worth living. But alternate solutions aside, it seems to me that insofar as Johannsen wants to avoid the Pavers' Objection, he owes us a different story than the one he offers.

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