Humanitarian Intervention in Nature
Crucial Questions and Probable Answers

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Sue Donaldson's and Will Kymlicka's *Zoopolis: a Political Theory of Animal Rights* is a very laudable effort to move the animal rights discussion beyond the issue of animal individuals' basic moral status. The authors consider the question of our overall obligations towards the class of animals that can plausibly be viewed as our co-citizens; towards the class that may be considered "liminal"; and last but not least, the class of wilderness animals in nature, whose communities should enjoy *prima facie* sovereignty rights – as a way of preventing and correcting for impermissible human action towards them. The latter also raises the question of humanitarian intervention in nature, which is potentially very consequential and should therefore be accorded significant epistemic resources: *Could* natural animal populations be (akin to) failed states? And if so, what is the prevalence of failed states in nature? Donaldson and Kymlicka seem to admit the normative possibility of humanitarian intervention in nature but deny obligations to try and intervene on a large, systematic scale, mainly on empirical grounds.

In what follows, I will outline the *crucial questions*, normative and empirical, which the issue of humanitarian intervention in nature hinges on. Crucial questions are questions which, depending on how we answer them, can radically alter the practical course we take [1]. If we get a crucial question wrong, our actions are likely to be radically sub-optimal or even counterproductive. In addition to outlining the crucial questions for humanitarian

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[1] I owe this concept to Nick Bostrom, who introduces it on his website: http://www.nickbostrom.com.

intervention in nature, I will attempt to identify their probable answers on the basis of arguments that are likely to have dominant force. I will argue that Donaldson and Kymlicka are right about the normative possibility of humanitarian intervention in nature but empirically probably wrong about the non-existence of an obligation to try and help wilderness animals on a large, systematic scale.

The proposed crucial questions are: (1) What is the empirical fact of the matter about how good/bad the situation of wilderness populations is? Are they "competent" or rather "failed states"? (2) If we were to try and intervene in nature, what is the probability of us actually (greatly) improving the situation vs. making it (much) worse? (3) To what extent should we accept obligations to help? Or: How (non-)consequentialist should we be?

Crucial question (1): What is the empirical fact of the matter about how good/bad the situation of wilderness populations is? Are they "competent" or rather "failed states"?

This question is crucial because there is broad agreement that the situation of wilderness populations being (sufficiently) catastrophic greatly increases the probability that an obligation to systematic humanitarian intervention exists. Donaldson and Kymlicka accept "overwhelming catastrophes" (e.g. by meteor impacts or devastating viruses) as a "triggers for intervention" (p. 182) and are sympathetic to the view that "there are times when humans should insert themselves into the equation, altering nature's course in order to prevent catastrophe" (p. 290) and thus oppose the "let nature be" doctrine.

When we think of wilderness animals, we tend to imagine cases of animals that may have decently autonomous, long and happy lives. These are strongly "*K*-selected" animals (MacArthur and Wilson 1967; Pianka 1970), i.e. species with few offspring that are taken good care of. Unfortunately, *K*-selected species do not seem to be representative of the animal populations in nature: species following the "*r*-selection" strategy are much more prevalent (Ng 1995; Horta 2010a). They bet on the numbers and have many more offspring than will survive to adulthood. If populations remain roughly stable (as they eventually must, given finite resources), then only one child can survive per parent individual – but *r*-selected animals have hundreds, thousands or even millions of offspring during their life-time. The consequence is that *almost all of them* have lives that can roughly be characterized as follows: birth; struggle over the way too scarce resources against the way too numerous siblings; gruesome death very shortly after birth. In his paper, *Animal Liberation and Environmental Ethics: Bad Marriage, Quick Divorce*, Mark Sagoff quotes the following passage from Fred Hapgood:

> All species reproduce in excess, way past the carrying capacity of their niche. In her lifetime a lioness might have 20 cubs; a pigeon, 150 chicks; a mouse, 1000 kits; a trout, 20,000 fry, a tuna or cod, a million fry or more; […] and an oyster, perhaps a hundred million spat. If one assumes that the population of each of these species is, from generation to generation, roughly equal, then on average only one offspring will survive to replace each parent. All the other thousands and millions will die, one way or another. (Hapgood 1979, 44-5)

Sagoff continues:

> The misery of animals in nature–which humans can do much to relieve–makes every other form of suffering pale in comparison. Mother Nature is so cruel to her children she makes Frank Perdue look like a saint. (Sagoff 1984, 297)

In *Zoopolis*, Donaldson and Kymlicka do consider the harms wilderness animals suffer in some detail. They mainly focus on food cycles and predation and claim that the evidence suggests that wilderness communities "respond competently [to this challenge]" (pp. 176, 288). While this may or may not be true, the much bigger – much more *crucial* – empirical issue is the one of wasteful reproductive strategies, which seem to be by far the biggest cause of suffering, preference frustration and death in nature (Tomasik 2009a; Horta 2010a). They should therefore be *prioritized* in our analysis. Unfortunately, Donaldson and Kymlicka only consider them in one very brief passage:

> This competence argument [to the conclusion that wilderness populations are sufficiently competent to self-govern, which is a necessary condition of their sovereignty rights] is more compelling in relation to some animals than to others. Many mammalian species produce few offspring, and invest greatly in their care either as individual parents or larger social groups. Individual young have a real chance of surviving the challenges of their early years and making it to adulthood. Compare this with the many amphibian and reptile species who lay vast quantities of eggs and leave them to fend for themselves. Most eggs never hatch. Most hatchlings are quickly consumed by predators. Life for many a fish, turtle, or lizard amounts to a few brief moments after emerging from the shell until a larger fish or bird or reptile swoops in to devour them. The scope for "competent agency" varies across species, but should be recognised and supported wherever it does exist. For some species, it grounds a strong argument for respecting autonomy. For others, the argument is weaker. On balance, however, we should still respect the sovereignty of wild animals, including those for whom there is minimal evidence of competent agency, because the argument is strongly buttressed by the earlier arguments about fallibility and flourishing. (p. 176)

Before turning to the fallibility argument under crucial question (2), let me note how this passage is dubious in the light of the empirical facts: it is not

clear whether individual young have a "real chance" of making it to adult-hood *even for the most strongly K-selected species*. A lioness might have 20 cubs, only two of which will reach successful sexual maturity on average. These are bad odds, and they are good compared with the typical odds in nature, which are terrible – and which permanently affect hundreds of billions of animals (Tomasik 2009b). Given this situation, it is unclear why "competence" (and resulting sovereignty) should be the default assumption. Rather, the empirical evidence probably supports an "incompetence" default assumption. Donaldson and Kymlicka accept that there are wilderness populations for whom there is only "minimal evidence" of competent agency, and seem to suggest that by positing sovereignty we are on the safe side. But this judgment likely results from a persisting bias towards the "let them be" or "let nature be" doctrine, which *Zoopolis* is itself interested in avoiding (p. 285): if the evidence supporting the "competence" assumption is minimal, then there is a significant probability that the "incompetence" assumption is true, too. On the "incompetence" assumption, positing sovereignty and an obligation to non-intervention could be a momentous moral error. It is thus not true that a "safe side" consideration points towards non-intervention. Rather, the empirical facts about what life in nature is typically and permanently like for hundreds of billions of animals make the opposite view more probable. (Crucial questions [2] and [3] will further elaborate on "safe side" considerations.)

Crucial question (1) is meant to be about empirical facts. One might legitimately wonder whether the normative question of *population ethics* should not be listed as a separate crucial question: Which (sub-)populations are optimal/good/neutral/bad/catastrophic? Is some total or average value the (more) relevant criterion? Can the extreme suffering of some members of a population be outweighed by the happiness of sufficiently many others? Given that population ethics confronts us with very difficult problems whose solutions are highly controversial (Arrhenius 2000), listing it as a separate crucial question seems particularly in order. I have decided against doing so for the purposes at hand, though, based on the following consideration: Donaldson and Kymlicka share the broad agreement that an obligation to (large-scale, systematic) humanitarian intervention necessitates the existence of a (large-scale, systematic) catastrophe, i.e. an axiologically catastrophic animal (sub-)population in nature. The question of when a population is catastrophic is thus of particular interest to us. Now, the class of judgments that are highly controversial in population ethics is wide-ranging, but some judgments about what very bad populations look like do not belong to it. It is uncontroversial that populations where *almost 100% of an enormous number of individuals* die very painful

deaths very shortly after birth are catastrophic. The section at hand – on crucial question (1) – has argued that the hypothesis that many wilderness (sub-)populations are *in fact* catastrophic is reasonably probable, or at the very least much less improbable than is standardly assumed. If this case is sound, then Donaldson and Kymlicka should be much more willing to assume the existence of "failed states" in nature triggering obligations to humanitarian intervention. In the context of their discussion of the "competence" assumption, they write:

> Someone might respond that wild animals are hardly competent to exercise sovereignty if they are unable to protect all of their own members from starvation or predation. If a human community failed in this regard, we would likely view it as a "failed state", or in any event one that requires some degree of external intervention. But in the context of ecosystems, food cycles and predator-prey relationships are not indicators of "failure". Rather, they are defining features of the context within which wild animal communities exist; they frame the challenges to which wild animals must respond both individually and collectively, and the evidence suggests that they respond competently. (p. 176)

The footnote to the passage elaborates:

> Wild animals could turn the tables here, pointing to the sustainability of sovereign animal communities compared with the rapacious ecological footprint of human communities which is quite possibly leading us all towards ecological collapse. (p. 288)

Sustainability being positive and greatly important assumes that populations in nature are not just non-catastrophic, but (greatly) net positive. The empirical evidence about reproductive strategies calls this into question. If an enormous human population were permanently stuck in a situation where almost all its members died very painful deaths very shortly after birth, judging it a tragically failed state would not be controversial. Moreover, we would (rightly) refrain from definitionally sanctifying the causes of the countless, painful deaths as "not indicators of failure" and "defining features of the context within which the communities exist", as well as from (even partly) defining "flourishing" in terms of what happens to humans in horrific contexts, however normal they may be. If the very defining features of a context cause catastrophe, then so much the worse for the context. These features belonging to the "natural" context does not diminish the harm that results for the sentient individuals affected by them, as Donaldson and Kymlicka seem to agree (p. 32).

Crucial question (2): If we were to try and intervene in nature, what is the probability of us actually (greatly) improving the situation vs. making it (much) worse?

This question is crucial because if a pessimistic stance on our ability to positively intervene on a large-scale is correct, there can be no obligation to intervene *even if* the situation of wilderness animals were indefinitely catastrophic.

The *fallibility argument* (p. 163) says that we are prone to serious misjudgements about when and how to intervene for the better (especially when intervening on a large, systematic scale), which our track record bears out. Therefore, were we to embark on a "large-scale humanitarian intervention in nature" project, we would be likely to make the situation (possibly catastrophically) worse.

It is, of course, very reasonable to be concerned with our epistemic limitations and practical track records. However, the fallibility argument as outlined above is open to a number of serious objections: first, the project would be one of *altruistically motivated* intervention in nature. No bad track record exists in this regard. And it is hard to see how (advocacy for) such a project, especially when combined with (advocacy for) *very careful, gradual, scientifically grounded* procedure – so as to safeguard global stability and enable adequately informed decisions –, would be more likely to lead to bad rather than good outcomes. Second, even if the risk of (greatly) net negative outcomes were very significant, it is to be balanced against the risk – or rather, assuming what has been said on crucial question (1), the *certain, indefinitely ongoing catastrophe* – of doing nothing. It is by no means clear that the former risk is greater. Cognitive psychology has shown that human minds are systematically biased against taking harmful omissions into account, and toward the *status quo*, which is likely to distort our assessment of the decisional situation (Spranca et al. 1991). Third, the empirical evidence presented as crucial for the task of answering (1) would suggest that the risk of doing nothing is greater: in a permanent situation where almost 100% of the members of a population die gruesome deaths very shortly after birth, it is probably quite hard to make the situation even worse, let alone catastrophically worse. The probability of making it catastrophically worse, although a popular theme and worry, may be close to zero. Indeed – adding to the aforesaid first point – it seems, perversely, possible that humanity's track record of primarily egoistically motivated (and near-sighted) intervention in nature has been net positive for wilderness animals. Humanity's net effect on nature has been to significantly reduce it – in ways that jeopardize global stability, which is an enormously bad consequence that responsible humanitarian intervention must avoid. But

purely in terms of how well or badly wilderness animals are off, it is not clear the situation has gotten worse even through egoistic human intervention: it is quite uncontroversial in population ethics that some possible populations are sufficiently catastrophic to support the judgment that reductions in (future) population size are good. (Incidentally, this is just the causal effect vegetarianism and veganism have.) Exactly how bad the situation of wilderness animals is remains an open research question, but the empirical evidence regarding reproductive strategies suggests that we should not be surprised to find that it is catastrophic.

If we were to accept an important obligation to large-scale, systematic humanitarian intervention in nature, it would likely translate into an urgently set-up massive research project of "welfare biology" (Ng 1995) for the time being: many open research questions need to be explored and adequately answered first. After a long phase of small-scale trials, one might (or might not, depending on the results) ultimately attempt to implement larger-scale interventions. They might, e.g., take the form of safe and stable reductions of the prevalence of *r*-selected animals relative to *K*-selected ones, which can probably be expected to improve the fate of wilderness populations. Cross-species fertility control is likely to play a crucial role (just as systematic fertility control has been crucial for the welfare of the human species). In general, we should expect there to be a number of positive large-scale interventions that are inconceivable given present-day knowledge and technology, but which may become feasible in the coming decades and centuries (Bostrom 2014). With our choices today, we inevitably influence the probability that technologically advanced future decision-makers will try and help wilderness animals in nature - or not.

For an illustration of what significant initial steps might look like, I recommend examining existing proposals such as the one for a "welfare state for elephants", providing "cradle-to-the-grave healthcare and welfare provision for the entire population of free-living elephants" (Pearce 2012). They seem to be in line with *Zoopolis'* spirit: in an interview (Mannino 2014), Kymlicka has accepted duties to small-scale intervention such as protecting "prey animals" from predators on a one-off basis (e.g., by making some noise if, while hiking, we see a predator about initiate an attack). Kymlicka also accepts larger-scale interventions such as protecting wilderness populations against new and devastating parasites. He does fear, though, that if we go beyond the "one-off" basis, we will reach a situation of human management – a "natural zoo" – that undermines wilderness animals' right to live autonomously. However, the difference between "one-off" and "systematic" intervention is not categorical, but gradual. It is not clear when the blurred line between the two is being crossed (if we

have a *prima facie* obligation to protect one "prey animal", then the same obligation presumably applies to the next, and so on); nor is it at all clear that systematic human intervention cannot empirically be the much lesser evil for wilderness animals in terms of their degree of autonomy. Only *we* can find out. *Zoopolis'* argument that wilderness animals are not seeking human contact (nor, *a fortiori*, humanitarian intervention) and are thus "voting with their feet" (p. 177) for sovereignty is dubious: wilderness animals lack the competence to adequately understand the situation they are in, let alone to compare it to the potential alternatives and pursue them. We may have it – any may thus be obliged to act on their behalf. At this point, we should certainly not be confident that the billions of animals that are starving to death, being eaten alive, asphyxiated or disembowelled as we speak would reject systematic human management in favor of the *status quo* (if they were competent to assess the decisional situation), but rather accept a probabilistic pointer in the other direction.

Crucial question (3): To what extent should we accept obligations to help? Or: How (non-)consequentialist should we be?

This question is crucial because any obligation to humanitarian intervention is an obligation *to help* (equivalent to *positive rights* of the individuals to be helped), which non-consequentialist normative outlooks might deny or consider relatively unimportant in the first place.

Donaldson and Kymlicka note that a narrow focus on our obligations *not to harm* animals (equivalent to their *negative rights*) has been popular in animal rights theory (p. 159). The least controversial argument justifying this focus is the fact that the harms we actively (and directly) cause to animals are the ones we can most easily remove. This argument has a lot of merit, but it may be just one element of the full picture, given what has been said on (1) and (2), and given the options for answering (3). Donaldson and Kymlicka rightly note:

> The fact that animals have a negative right not to be killed which humans must respect does not *logically* entail that animals also have a positive right to human aid or protection in the face of threats […]. But while there is no logical contradiction in affirming the former and rejecting the latter, the moral rationale for the former seems to push in the direction of the latter, and critics of [animal rights theory] are right to say that this moral tension has not been adequately addressed. (p. 285)

It is indeed a powerful push. It is logical, too, in the sense that *if* the driving reason (or: one reason) for not harming animals is that it is counterfactually bad for them, then it is logically inconsistent to deny the existence of any reason to help them – for if we do not help them, it is counterfactually bad

for them, too. Justifying obligations not to harm on (at least partly) *altruist* grounds and rejecting any obligation to help is inconsistent (Norcross 2008). Furthermore, if obligations not to harm are justified from the impartial perspective (Harsanyi 1953; 1955) or from behind the veil of ignorance (Rawls 1971), then strong obligations to help cannot be avoided either: positing them will make us much better off than rejecting them. Further arguments for accepting obligations to help animals are from intuition and parallel human cases: Peter Singer's famous *Drowning Child Argument* (make it a *Drowning Piglet Argument*) is very hard to completely reject (Singer 1972), and most legislations accept obligations to direct aid ("duty to rescue") as well as more indirect obligations to help other members of local and global society. More specifically, the view is widely shared that obligations to humanitarian intervention can be triggered by catastrophes of all sorts. Additionally, there is a "safe side" consideration in favour of granting obligations to help significant moral weight: *even if* one remains sceptical about the aforesaid arguments for obligations to help, one should grant a non-trivial probability of being wrong about the matter, especially in the light of strong peer disagreement. It follows that while providing help is certainly no moral error (but may be supererogatory), not providing help could – with the granted probability – be a serious moral error. We should therefore seek to err on the safe side and lean towards accepting obligations to help.

One might object that while it is plausible to grant some obligations to help, they should count for *much* less than our obligations not harm; and that, empirically, we will not be able to help wilderness animals on a large scale without harming some of them in the process. The latter is true, but consider the parallel human cases: very few normative outlooks reject humanitarian intervention in *all* practical cases – and practical humanitarian intervention usually comes with the risk (and reality/necessity) of seriously harming some individuals. Furthermore, the greater the catastrophe to be prevented, the more acceptable is harming some individuals in the process. More specifically, imagine what the typical moral reactions would be if almost 100% of the individuals of an enormous human population were suffering permanently horrible fates. There is no question that interventionist research programs would urgently be set up – and that in the face of the enormous catastrophe, a significant amount of actively (though unintentionally and regretfully) caused damage would be accepted.

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In *Zoopolis*, Donaldson and Kymlicka discuss a number of novel issues that arise in the context of extending animal ethics beyond animals' basic moral status. Humanitarian intervention in nature is one such issue. It is

potentially very consequential and thus needs to be accorded significant epistemic resources. I have attempted to outline the crucial questions upon which the issue of large-scale humanitarian intervention in nature turns. Crucial question (1) asks how good/bad the situation of wilderness animals actually is, as a matter of empirical fact. Humanitarian intervention presupposes the existence of a catastrophe and there is broad population-ethical agreement on what this means. I have argued that we currently tend to greatly underestimate the probability of wilderness animals' situation being permanently catastrophic. Crucial question (2) asks to what extent we can be confident that our intervention would actually make things (much) better, as opposed to (catastrophically) worse. I have argued that we have no track record of altruistically motivated intervention in nature going badly and can expect it to go reasonably well; that we need to balance the risks of intervening against the risks of doing nothing, which we are biased against; and that *if* and *to the extent that* the situation of wilderness animals already is permanently and indefinitely catastrophic, it is hard to make it worse (even through egoistic intervention), let alone catastrophically so, and easy to make it better. Question (2) thus partly hinges on question (1). Crucial question (3) asks to what extent we should accept obligations to help, i.e. be consequentialist. I have argued that theoretical arguments, arguments from intuition and parallel human cases, as well as a "safe side" consideration speak in favour of accepting significant obligations to help; furthermore, that the greater the catastrophe to be prevented, the harder it is to deny any practical obligation to try and help, and to deny the acceptability of some harm actively caused in the process.

The *Zoopolis* authors' judgment seems to broadly coincide with my own on the normative questions contained in (2) and (3). There is significant disagreement on the crucial empirical question of (1) as well as on the empirical aspect of (2), which thus recommend themselves as productive focal points of further research and discussion. Such discussion could likely benefit from a greater willingness to view supposed "reductios" as counterintuitive discoveries, not only but especially by authors critical of anthropocentrism. Cognitive psychology suggests that our intuitions are affected by numerous biases, e.g., *"status quo* bias" (Bostrom and Ord 2006). Non-anthropocentrism – in the form of non-speciesism (Faria and Paez 2014) – is both well-supported (Horta 2010b) and counterintuitive: it greatly alters our ethico-political outlook and overturns traditional priorities. Additional counterintuitive discoveries further down the inferential line should not come as a big surprise: They are predicted by the fact that (non-)anthropocentrism occupies a very crucial place in our action-guiding belief system.

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