Animals, Distributive Justice, and Desert

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Abstract

There is great injustice in the distribution of wellbeing among humans. But the situation may appear even worse once we expand our outlook to include other animals. Even a human who has a decent but not very good life plausibly has a much better life than the life of a mouse or an ant. And yet, if nonhuman animals are typically worse off than humans, does that mean that we should favor distributions that prioritize their wellbeing over the wellbeing of humans? Many of the popular principles of distributive justice imply that we should, and some philosophers view this as a problem. I carefully specify this alleged problem, reject two popular approaches that have been taken to resolve it, and I then explore how a desertist approach to distributive justice handles the problem. I suggest that desertism about distributive justice sometimes favors human over nonhuman wellbeing in distributions. However, I then show that the desertist principle that I advance offers only a very limited justification for favoring human wellbeing over the wellbeing of other animals.

keywords: distributive justice, nonhuman animals, desertism, wellbeing

1 What is the misallocation problem?

There is great injustice in the distribution of wellbeing among humans.[1] But the situation may appear even worse once we expand our outlook to include other animals. Consider the inequality in wellbeing found between the easy life of a wealthy human being living at

[1]Here I take the category of 'human being' to be a biological category: to be a human being is to be a member of the species *homo sapiens*.

the heights of human flourishing, and the difficult life of a human being struggling under impoverished conditions. Still, as long as the latter human life is one worth living—containing a net positive level of wellbeing—it is plausible that, though it is deprived of most of the ingredients that would constitute a good human life, it contains a greater absolute quantity of wellbeing than that found within the life of a mouse or an ant. Thus, with respect to the distribution of wellbeing, there is even worse inequality *throughout* the animal kingdom than just among us humans.

All (or perhaps *almost* all) animals feel pleasures and pains, have desires which go satisfied or unsatisfied, have natures with which they may more or less conform, and have the capacity to realize many valuable connections with the world like relationships and achievements. So on all the main theories of wellbeing (Hedonism, Desire Satisfactionism, Perfectionism, and Objective List Theory), animals (human and nonhuman) have levels of wellbeing.

Though if Mill and others are correct, humans are typically much better off than other animals, mainly because humans are capable of rich experiences (like intellectual and aesthetic pleasures), capable of experiencing profoundly positive emotions (like love), and capable of making deeply valuable connections with the world (like friendship and knowledge) of which most other animals are missing out.[2]

Under several popular principles of distributive justice, it is better to improve the lot of those who are worse off than those who are doing well. Thus, including nonhuman

[2]Mill (1863) famously says "It is better to be a human being dissatisfied than a pig satisfied", which I take to capture the idea that a high level of wellbeing for a nonhuman animal is still not as great in absolute terms as the level of wellbeing of a human who is having a bad day. The philosophers writing on the topic of this paper all make a similar assumption. Roger Crisp claims in Crisp (2003) that "on the most plausible and widely held views of welfare... the lives of nonhuman animals are less valuable than the lives of most humans. ... [M]ost humans do a lot better than most nonhumans." Peter Vallentyne claims in Vallentyne (2005) that "Mice have the capacity for wellbeing (because they are sentient), but most human beings have more wellbeing (opportunity for wellbeing, or brute luck wellbeing) than most mice." Jeff McMahan claims in McMahan (1996) that "A dog, for example, has a relatively low level of well-being... [and] a normal human adult with a comparable level of well-being would be very badly off...". It seems plausible to Nils Holtug "that, on average, non-human animals have a significantly lower welfare than humans." (Holtug, 2007, 12) And Shelly Kagan in Kagan (2019) goes so far as to speculatively assign some numbers: "... one would be hard pressed to think that dogs have lives higher than 40 (if 80 is the relevant number for a minimally acceptable human life); and most other animals will have a significantly worse level of well-being, with mice earning at best a 2 or a 3 (that's probably generous), and insects having mere fractions of a point."

animals within the sphere of distributive justice seems to imply that whenever we can improve the wellbeing of creatures generally, we should direct these improvements to the wellbeing of other animals instead of humans.[3] But this implication strikes many philosophers as counterintuitive. Are we really required to forego our efforts to alleviate poverty among humans in order to instead provide gourmet cheese for mice?[4] Many philosophers believe this would involve a *misallocation* of wellbeing. Hence, I will call this the *misallocation problem* on behalf of those philosophers who worry about it.

In this paper, I carefully specify this alleged problem, reject two popular approaches that have been taken to resolve it, and I then explore how a desertist approach to distributive justice handles the problem. I suggest that desertism about distributive justice sometimes favors human over nonhuman wellbeing in distributions. However, I show that the desertist principle that I advance offers only a very limited justification for favoring human wellbeing over the wellbeing of other animals.

2 Some refinements and clarifications.

I am focused in this paper on questions about distributive justice. Often we can do much more good overall by directing our resources toward improving the wellbeing of humans than of other animals.[5] Suppose I have ten dollars with which I could purchase a mosquito net for a person in a malaria-ridden region of the world or instead an expensive piece of cheese for a mouse.[6] It is clear that I can have a bigger impact on wellbeing by purchasing the net. But that's because what is at stake for the human being is so much greater than what is at

[3]This problem is discussed in McMahan (1996), Vallentyne (2005), Holtug (2007), and Kagan (2019).

[4]Should nonhuman animals fall within the sphere of distributive justice? On some views, creatures have a demand for justice only in virtue of possessing special cognitive abilities such as the capacity for deliberation and consent, the capacity to recognize and reciprocate beneficial treatment, or the capacity for moral agency. But restricting the subjects of distributive justice on the basis of the cognitive capabilities just outlined also excludes the wellbeing of human infants from the sphere of distributive justice. And those who want to carve out priority for humans generally would find that absurd. (Holtug, 2007, 13) claims more generally that "There is no property that all humans share, but no non-human animal has, that can justify the exclusion of non-human animals from our distributive principle(s)."

[5]Holtug for example claims that "at least when basic needs have been met, most humans are more efficient than most non-human animals at converting resources into welfare."(Holtug, 2007, 9)

[6]This example comes from Brouwer and van der Deijl (2020).

stake for the mouse. When we can make a larger impact on overall wellbeing, I assume that concerns of distributive justice take a back seat in our moral calculations.

The problem which is the focus of this paper arises more narrowly when the same overall amount of wellbeing is at stake. In such cases, we focus only on the *pattern* of wellbeing. Patterns that promote distributive justice are better than those that do not. When a choice between two interventions would make no difference in the total amount of wellbeing, the popular theories of distributive justice seem to imply that it is more just to promote the wellbeing of nonhuman animals over the wellbeing of humans. It is this implication that many philosophers find problematic.

It will be helpful to present a concrete case that illustrates the alleged problem. Suppose that on a Saturday morning in the early spring an environmentally conscientious gardener is trying to decide what to landscape around her front porch for the upcoming growing season. Suppose she has been experiencing depression, and that she would be made a bit happier by some ornamental flowers. But suppose she has recently been watching from her window a groundhog who has been contentedly devouring the foliage in the woods out back. This groundhog is doing quite well—at least as compared to his fellow groundhogs. And yet, she knows that the groundhog could be made even better off if she were to plant some delicious alfalfa out front instead of the flowers. Meanwhile, the gardener isn't doing that well as a result of her depression—and this remains true even though she continues to live a life that's on balance good for her and plausibly much better than the groundhog's. Would it be just for the gardener to grow the ornamental flowers instead of the alfalfa?

In stipulating all of this, I assume that a creature's level of wellbeing can in principle be measured, and that all wellbeing can be measured on one and the same 'welfare scale'. I also assume that it is in principle possible to specify precisely *how much* better off one creature is than another. For the sake of simplicity in presentation, let's assume that the gardener is two times better off than the groundhog on Saturday morning. Let's assume she would be made three times better than the groundhog were she to plant flowers, and let's assume

that she and the groundhog would be equally well off were she to plant alfalfa. Accordingly, as is common in the literature on distributive justice, we can simplify the discussion of the problem at hand by assigning numbers to represent the welfare levels of the creatures involved in our situation, as outlined in Table 1.

	Gardener welfare	Groundhog welfare
Saturday	20	10
Flowers	30	10
Alfalfa	20	20

Table 1: welfare levels on and after Saturday morning

As stipulated, either intervention adds precisely 10 units of wellbeing to the world, and so both outcomes contain the same total amount of wellbeing. The alfalfa pattern more closely approximates equality, without making any creature worse off. It also gives priority to the creature with the lower level of wellbeing. So simple formulations of egalitarian and prioritarian principles of distributive justice seem to imply that the alfalfa pattern is more just. Furthermore, if we suppose that the depressed gardener at 30 just barely has 'enough' wellbeing, then the flower pattern keeps the groundhog well below the level of wellbeing that counts as 'good enough'. Thus basic formulations of sufficientarian principles seem also to imply that the alfalfa pattern is more just because it alone brings the groundhog up to the threshold of sufficiency. (And while it might be suggested that what's 'good enough' for a groundhog is different from what's 'good enough' for a person—and thus that the threshold should be lower for groundhogs—this idea requires elaboration, which I explore in Section 3.)[7]

[7]Throughout this paper, I am assuming that all wellbeing counts equally, regardless of whose wellbeing it is. In Kagan (2019), Kagan calls this position 'unitarianism', and he argues against unitarianism in an attempt to solve several problems, the problem I discuss here among them. But rejecting unitarianism does not so obviously solve the problem. For if the groundhog's wellbeing 'counts less' than the gardener's wellbeing, this only serves to make the situation on Saturday morning even less equal with respect to the *goodness* of welfare. And what matters in a pattern is not wellbeing levels per se, but how *good it is* for each creature involved to be at those wellbeing levels. More fundamentally, if groundhog wellbeing 'counts less' overall, then the two distributions we have been considering do not satisfy one of the central conditions of the problem I am discussing. For in order to focus on evaluating the *pattern* of wellbeing in distributions we need a case in which both interventions are equally good with respect to wellbeing.

But despite receiving the endorsement of the three types of principles of distributive justice, it is unclear whether the alfalfa pattern is more just. Many philosophers would claim that it represents a misallocation of wellbeing.[8] They would find unacceptable any principle of distributive justice that favors the well-off nonhuman groundhog over the human gardener whose life is on balance positive but not very good.

However, several other philosophers writing on this issue appear to deny that the misallocation problem I am describing is a genuine one.[9] And I myself am not sure if the misallocation 'problem' needs to be solved. Nonetheless, it is worth seeing what a satisfactory solution to this alleged problem would be. As it turns out—and as I will explain in the last section of this paper—the desertist approach that solves the problem has implications that even those who do not worry about the misallocation problem may be happy to accept.[10]

Before proceeding to explore solutions, it is helpful to identify what a satisfactory solution would look like. As with any thought experiment, there are some background assumptions in the gardener and groundhog case that have not been specified. Some may seek a solution that favors the flowers distribution over the alfalfa distribution under *all* possible background assumptions on the basis that it is always more just to favor human wellbeing over the wellbeing of other animals. But such a solution would be objectionably speciesist: it would make the mere fact that the gardener is human automatically justify her receipt of boosts of wellbeing. Instead, the more moderate solutions offered in the literature identify some feature of human life that at least some of the time makes it appropriate to favor distributions that benefit humans over other animals. Thus, an adequate solution needs to show only that

[8]These philosophers would include McMahan (1996), Vallentyne (2005), and Kagan (2019).

[9]Nils Holtug is "prepared to accept the implications of prioritarianism with respect to non-human animals", diagnosing the counterintuitiveness of these implications to unreliable speciesist attitudes. (Holtug, 2007, 21) And Horta (2016) takes the counterintuitive implications to be a reason to support egalitarianism, not reject it. Faria argues that we should treat the interests of those with low levels of wellbeing equally, regardless of species membership, and thus claims that we should "accept that the problematic conclusion may not be so problematic after all".(Faria, 2014, 233).

[10]Thanks to an anonymous referee for encouraging me to be clear about my own commitments to solving this problem.

under *some* plausible ways of understanding the gardener and groundhog case it is more just to pursue the flowers distribution over the alfalfa one.

It is also important to clarify why I focus here on distributions in which both creatures enjoy positive levels of wellbeing. Recall the advanced cognitive and affective capacities of human beings through which it seems plausible that humans enjoy greater levels of well-being than other animals. These same capacities may be responsible for making human suffering more profound and of greater negative impact on wellbeing than the suffering of other animals. Humans in pain can anticipate and fear further pain, grieve deeply at loss, and experience cognitively complex negative emotions like guilt, regret, existential dread, and despair. And while other animals can experience versions of these emotions, it is not clear that they can do so to the same degree as humans. Thus, when wellbeing levels are negative, it is not clear that the basic principles of distributive justice misallocate wellbeing to nonhuman animals over humans: if the typical case of human suffering constitutes more negative wellbeing than the typical case of nonhuman animal suffering, the popular theories of distributive justice will advocate on behalf of distributions that favor the human. Furthermore, when nonhuman animals suffer more than humans, it is not clear that those who worry about the misallocation problem would want to nonetheless hold that it is more just to prioritize distribution of wellbeing to the human over other animals. The alleged problem arises most vividly in situations in which all creatures are at positive levels of wellbeing.

3 Why solutions based on potential do not solve the problem.

According to pretheoretic commonsense, the groundhog lives a fully adequate life with an abundance of wellbeing, regardless of whether the gardener plants flowers or alfalfa. But even if the gardener plants flowers, she would remain living a life that is far short of a full human life. So we may be tempted to relativize wellbeing to the creature who has it. Underlying this thought is the idea that humans generally have a much greater potential for wellbeing than groundhogs do. Accordingly, a distribution that prioritizes bringing the wellbeing level

of the gardener closer to her potential is more just than one that boosts the groundhog who is already quite close to his potential.

To see how this might work, start by assuming that for each creature there exists a level of wellbeing at which we can say that the creature has reached their potential. Any creature who has reached their potential is exceedingly fortunate. The further a creature is from their potential, the less fortunate they are. And instead of viewing distributive justice of wellbeing as determined by patterns of absolute welfare, look to patterns of fortune.[11]

For simplicity in illustration, suppose that the groundhog has a potential of 30, while the gardener has a much greater potential of 100. We may represent fortune as a fraction of potential. On Saturday morning, the groundhog is already much more fortunate than the gardener. The pattern under which the gardener plants alfalfa only makes the discrepancy in fortune worse, as opposed to the pattern involving the planting of flowers, as illustrated in Table 2.

	Gardener fortune	Groundhog fortune
Saturday	.2 (= 20/100)	.33 (= 10/30)
Flowers	.3 (= 30/100)	.33 (= 10/30)
Alfalfa	.2 (= 20/100)	.66 (= 20/30)

Table 2: potential-based fortune levels on and after Saturday

By focusing on fortune, all three principles of distributive justice deliver the verdict that the flowers distribution is more just: it makes fortune more equal without making any creature less fortunate, it gives priority to the least fortunate creature, and supposing that a 'good enough' fortune level is .3, it alone brings all creatures above the sufficiency threshold.

Of course, this strategy works only when supplemented with an account of how to determine a creature's potential, and the three most plausible accounts of potential face counterexamples.

According to the first account, a creature's potential is based on the level of wellbeing

[11]See McMahan (1996) and Vallentyne (2005) for versions of this approach. *Fortune* here is a technical notion which has nothing to do with luck. It really just stands for something like 'the measure of how a creature fares relative to their potential'.

which is normal for the species of which the creature is a member. But this account fails when we recognize the possibility of creatures who are highly cognitively advanced compared with their conspecifics. Suppose, for example, that scientists inject a groundhog with a cognitive-enhancement serum that brings the groundhog to a level of cognitive sophistication similar to that of an average adult human. Suppose that this 'super-thinking groundhog' nonetheless doesn't receive any boosts in wellbeing and remains at a level of wellbeing normal for a groundhog. Intuitively, the super-thinking groundhog is unfortunate to remain at the normal groundhog wellbeing level, but the species account cannot capture that intuition.

The thought that the super-thinking groundhog is less fortunate than the average groundhog might be based on the observation that he has the possibility of experiencing higher levels of wellbeing of which he is deprived. So according to a second, individualistic account, we could specify potential by surveying the possible lives an individual creature could lead, letting the creature's potential be the greatest wellbeing level among all their possible lives. But this account has a problem with a different type of enhancement. Suppose that scientists inject a groundhog with a dopamine serum which when injected into groundhogs wildly increases the degree to which they can enjoy the gustatory pleasure of eating alfalfa. In this scenario, it is now possible that the groundhog in our example becomes a 'super-tasting groundhog' whose life contains the same quantity of wellbeing as that contained in the best of the possible lives of the gardener. But despite missing out on alfalfa, the supertasting groundhog who subsists on typical groundhog fare is still doing just fine—we don't view him as unfortunate.

But of course, dopamine enhancement is not possible now. And a supertasting groundhog's constitution would be radically altered by the serum. So we could specify a third account of potential by reference to what level of wellbeing is now possible for a creature given the current state of science and without altering their current constitution. Note that applying this account requires that we know a bit more about the circumstances of the groundhog and the gardener. We assumed that the gardener's potential was at least three

times that of the groundhog. But suppose it is true of the gardener that she will die shortly after planting her garden (perhaps she has an untreatable and fatal heart condition). Her potential is thus limited. It may even be less than that of the groundhog if we assume that the groundhog's constitution makes it possible for him to live another several years full of wellbeing. Thus, it is important to note that this third account of potential does not result in a solution that favors the flowers distribution over the alfalfa distribution under *all* circumstances.[12]

But this third account of potential faces trouble. Suppose that a lifelong animal rights activist suddenly becomes afflicted with a rare neurological disease that permanently lowers her cognitive and affective abilities to that of a groundhog. Suppose she also suffers a great loss in wellbeing so that she is now at the same level of wellbeing as the groundhog in our example. Given the current limits of technology and her current constitution, the 'afflicted activist' now has the same potential as the groundhog. But it does not seem right to now treat her as equally fortunate as the groundhog.

Thus, the three most plausible accounts of potential face counterexamples. And even if a better account of potential can be developed, further problems remain for the fortune-based solution. While the case of the gardener and the groundhog is one in which the creatures involved experience positive levels of wellbeing, it is important to recognize the implications of the fortune-based solution for those animals—like those in factory farms—who experience net-negative levels of wellbeing. For animals with negative levels of wellbeing, the simple mathematical formula for determining fortune needs to be tweaked. Imagine that on Saturday both the gardener and the groundhog are in the negative: -20 for the gardener, and -10 for the groundhog. Assuming that the gardener's potential is 100 and the groundhog's is 30, then simple division delivers the counterintuitive result that the gardener (at -.2) is *more* fortunate than the groundhog (at -.33), even though the gardener suffers more.

[12]This, of course, is not a mark against the solution. As I remarked in Section 2, moderate solutions simply show that in *some* circumstances it is justified to favor humans over other animals.

We could instead compare a creature's negative wellbeing level with the creature's potential for negative levels of wellbeing. Naturally, we would say that suffering creatures who are closer to their negative potentials are *less* fortunate than those suffering creatures who are further away from theirs. But recall the brief discussion in Section 2 regarding the greater capacity for negative wellbeing among humans than among nonhuman animals. For simplicity in illustration, assume that the negative potentials of the gardener and the groundhog are roughly symmetrical with their positive potentials: -100 for the gardener and -30 for the groundhog. So under this modified account of negative potentials, the gardener who suffers at -20 is still *more* fortunate than the groundhog who suffers at -10—for the gardener is further away from her negative potential than the groundhog is from his. But those who want a solution to the misallocation problem presumably would seek a justification for prioritizing the wellbeing of the suffering gardener over the suffering groundhog.[13]

Yet another challenge for the fortune-based account arises in the consideration of highly advanced alien visitors.[14] Suppose that extraterrestrials land on Earth and are reduced to the typical level of wellbeing of an adult human upon their arrival. Suppose also that these aliens have a much greater potential for wellbeing than us humans (this could be true under any of the three accounts we have explored). It then follows that the Earth-bound aliens are much less fortunate than those of us reading this article, and that justice demands distributing all boosts of wellbeing to them. We may be unwilling to accept this result.

4 Why solutions based on moral status don't solve the problem.

According to a different idea, the typical human lives a more valuable life than the lives of other animals in virtue of possessing highly developed capacities for abstract and complex thought and emotion. We humans (at least the ones reading this article) are self-aware,

[13]My thanks to an anonymous referee for the suggestion to explore the fortune-based approach as it applies to negative wellbeing levels. More can be said on behalf of negative wellbeing under the fortune-based approach, but the resulting mathematical complexities speak in favor of an alternative solution. See Vallentyne (2005) for a suggestion of how to handle negative wellbeing levels and Holtug (2007) for an exploration of the counterintuitive results that remain.

[14]See Faria (2014) for a more complete explanation of this challenge for the fortune-based account.

self-reflective, deliberative, and responsive to normative reasons—all to a great degree. We can formulate complicated plans with vast temporal range, and we can act on these plans by virtue of making our own choices, often overriding our instincts. In short, we have a high degree of rational and moral agency.[15] As a result, it may be thought that we have a higher moral status than the other animals, and so it is just that we enjoy greater levels of wellbeing than others in the animal kingdom.[16]

Similar to the way we defined fortune, we could define 'status-adjusted welfare', and we could view distributive justice as sensitive to status-adjusted welfare instead of simple wellbeing levels. Here's one way we could do it. Start by assuming that each creature has a moral status, which we can represent as a fraction, which is a function of the capacities of the creature, and which is higher corresponding to greater degrees of rational and moral agency. For simplicity in illustration, suppose the typical human has a status of 1; the typical groundhog a status of one third. Then the status-adjusted welfare levels are as represented in Table 3.

	Gardener status-adj welfare	Groundhog status-adj welfare
Saturday	20 (= 20/1)	30 (= 10/.33)
Flowers	30 (= 30/1)	30 (= 10/.33)
Alfalfa	20 (= 20/1)	60 (= 20/.33)

Table 3: status-adjusted welfare levels on and after Saturday

We can see how the principles of distributive justice favor the flower pattern over the alfalfa one when the principles are sensitive to status-adjusted welfare rather than simple wellbeing levels.

The moral status approach handles the cases of the super-thinking and the super-tasting groundhogs more naturally than the fortune-based approach does. The super-thinking groundhog's status is elevated by the cognitive-enhancement serum, which may explain why he gains a greater claim for wellbeing despite remaining at the same level of wellbeing which

[15] All of these features that allegedly separate humans from animals are described in (Kagan, 2019, 125-126).

[16] This view is defended at length in Kagan (2019).

is normal for groundhogs. On the other hand, the super-tasting groundhog's capacity for rational and moral agency remains unchanged despite his now being able to enjoy alfalfa to a greater degree; thus his status is not elevated. This may explain why he retains the same claim for wellbeing after being injected by the serum.

But the problem with the afflicted animal rights activist that troubled the third account of potential under the fortune-based approach also causes difficulty for the moral status approach. With the loss of her cognitive abilities, the afflicted activist also loses her rational and moral agency. Her status is thus the same as that of the groundhog. Thus, it is important to note that the moral status approach cannot always prioritize the wellbeing of humans over other animals. Like any modest solution to the misallocation problem, the solution prioritizes human wellbeing only in some cases. And yet, in the case of the afflicted activist, the feeling among those who are keen to solve the misallocation problem persists that she is owed more from the perspective of justice than the groundhog.[17]

The moral status approach also seems to face difficulty with Earth-bound aliens. Rational and moral agency comes in degrees. And certainly humans are not at the peak of what is possible for agency. Supposing the aliens exhibit much greater deliberative and normative reasoning capacity, they will have a much higher moral status than us humans. Thus, under the moral status approach the aliens will have a much stronger justice-based claim for the receipt of boosts of wellbeing than us. We may be unwilling to accept this implication.

More fundamentally, there are two significant problems for the moral status approach. First, the moral status approach is objectionably arbitrary. For we should ask *why* the degree to which a creature is an agent affects the value of distributions that promote the wellbeing of that creature.[18] It's not obvious why advanced agential abilities alone should

[17]We could complicate the determination of moral status by including counterfactuals: a creature that would have exemplified agency under different circumstances has a higher status than a creature that wouldn't have. But even if this approach could succeed in dealing with the case of the afflicted activist, it results in a solution to the misallocation problem that is much more complex than the desertist approach I will offer. Additionally, making status a function of modal properties fares even worse with respect to the charge of arbitrariness I bring against the approach, below.

[18]See Martha Nussbaum's recent book *Justice for Animals* in which she raises this arbitrariness concern.

play an interest-enhancing role within the domain of justice. While the capacity for rational and moral agency among humans is indeed truly extraordinary within the animal kingdom, so is the sensory capacity of bats (who can see by hearing!), and geese (who can directly experience the fluctuations of magnetic fields). The capacity for loyalty among dogs is extraordinary; so is the capacity for social memory among dolphins. Why not elevate the moral status of those who have exceptional capacities in these other domains instead? We require a principled reason for thinking that advanced cognitive abilities and the agency they engender are central to the determination of value within the domain of distributive justice.

The moral status approach is also elitist. Because the capacity for rational and moral agency comes in degrees, it is possible that two humans differ with respect to this status-elevating capacity. But can your friend who is a better planner, more self-aware, more self-disciplined, more attuned to normative reasons, and more logical really claim that it would be better—on this basis alone—for them to receive a boost of wellbeing over you, all else being equal? That objectionable snobbery does not belong to the concerns of distributive justice.

What matters to distributive justice should not simply be a function of how a creature fares relative to their moral status. For several creatures all with the same status can nevertheless have diverging claims for wellbeing. Suppose one animal has suffered in the past through no fault of his own while another has culpably brought suffering upon herself through imprudent choices. Even if both have the same moral status, the first deserves a compensatory boost in wellbeing over the second. Or suppose one animal has exhibited high levels of virtue while another has behaved in morally despicable ways. The first deserves more wellbeing than the second, even if they have equal capacities for rational and moral agency. These examples suggest that what a creature *does* with their agency is more important in determinations of just allocations of wellbeing than the mere fact that the creature has agency. The approach based solely on moral status cannot capture this idea.

5 How a desert-based approach can solve the problem.

Going at least as far back as Aristotle, philosophers have recognized two basic formal requirements of justice: justice requires (1) treating like cases alike and (2) giving to each their due.[19] The second requirement of justice incorporates the notion of desert. Focusing on the first formal requirement alone leads to the misallocation problem when it is not supplemented with the second formal requirement. For on the basis of features that some human beings exhibit to a greater degree than nonhuman animals, we might be able to motivate the idea that some humans deserve higher levels of wellbeing than other animals. By making this idea more precise, we can provide a solution (albeit a very limited one) to the misallocation problem on behalf of those who worry about it.

Before proceeding to put this idea to work, however, we should consider several reasons that someone grappling with the misallocation problem might be hesitant to pursue a desertist conception of distributive justice. Some may worry that appeals to desert inherit the same problems as the moral status approach. Others may accept certain responsibility constraints on desert that imply that very few, if any, creatures are deserving at all. Still others might worry that those creatures who lack certain capacities to deserve wellbeing have a justice-related complaint against those who have such capacities. I will explain and address each of these worries in turn.

5.1 Is an appeal to desert the same as an appeal to moral status?

Shelly Kagan suggests that a desert-based approach to the misallocation problem collapses into the moral status approach. Kagan acknowledges that desert sensitive principles of distributive justice could justify sometimes favoring humans over other animals, but claims

[19] 'Treat like cases alike' is how people traditionally summarize the content of this passage from Aristotle (2012) the Nicomachean Ethics: "Equality for the people involved will be the same as for the things involved, since [in a just arrangement] the relation between the people will be the same as the relation between the things involved" (NE 1131a20-25). 'Give to each his or her due' is how people traditionally summarize the content of this passage, which immediately follows the passage above: "For all agree that the just in distributions must accord with some sort of worth..." (NE 1131a25).

that such principles would "do so only at the cost of assigning a higher moral status to people than to animals."[20] Kagan seems to be thinking that the basis upon which humans would be more deserving than other animals is on the basis of their being persons.[21] In this context, 'personhood' is understood as a property that obtains when a creature reaches a certain threshold of rational and moral agency—the very same basis upon which a creature has a high level of moral status on the status approach.[22] Those animals which have personhood (typically humans) would deserve more wellbeing than those animals which lack it. But just as we criticized the moral status approach for being arbitrary and elitist, we could also criticize this person-centric desertist account. What is it about possessing personhood that endows creatures with a greater level of desert? And if I exemplify personhood to a greater degree than you, does this really imply that I deserve more wellbeing than you?

Kagan, however, is overlooking a more nuanced perspective on how we might determine levels of desert among animals. Consider for example this list of desert bases for wellbeing:[23]

1. Excessive or deficient past receipt of goods or bads.

2. Innocent suffering.

3. Conscientious effort towards morally attractive goals.

4. Moral worthiness.

This is a plausible set of considerations under which creatures may deserve boosts of wellbeing, and it is neutral with respect to personhood. The first two items clearly are bases upon which all animals, regardless of their capacity for rational and moral agency, can be deserving

[20]See (Kagan, 2019, 68). He goes on to claim that under a desert-based approach "We would be saying, in effect, that the weight to be given to some particular individual's interest depends on how deserving they are, and how deserving they are depends (if not solely, then at least to a considerable extent) on what kind of *being* they are—person, dog, mouse, or fish."

[21]Fred Feldman is one such philosopher who appears to view 'being a person' as a basis for desert. In Feldman (1995b), he writes "Suppose an innocent person comes into existence. In virtue of being a person, he deserves a certain amount of happiness."

[22]Kagan's notion of personhood is not the notion of legal personhood that Francione (2008) argues should be extended to nonhuman animals.

[23]This list comes from Vessel (2021), who attributes it to (Feldman, 1997, 203).

of wellbeing. The third and fourth items, which we may together call 'moral desert', require some agency, though perhaps not rising to the level of rational and moral agency required for personhood.

Notice that an appeal to the desert bases I've enumerated above is neither arbitrary nor elitist: there is a natural, justice-related motivation for distributing wellbeing on the basis of items on this list. Regarding moral desert, for example, Leibniz claims in *On The Ultimate Origin of Things*

> "It is impossible in this matter to find a better standard than the very law of justice, which dictates that everyone should take part in the perfection of the universe and in his own happiness in proportion to his own virtue and to the extent that his will has thus contributed to the common good." Leibniz (1695)

The fact that a creature exhibits some feature on the enumerated list offers an explanation for why they deserve wellbeing in a way in which merely being a person, or having the capacity to sense magnetic fields, or having the capacity for echolocation, or possessing any other unique capacity found among animals, cannot. Additionally, it is not objectionably elitist to claim that those among us who have experienced more innocent suffering, or who have exhibited higher levels of moral virtue deserve more wellbeing than those who have not.

5.2 Do considerations of responsibility render all creatures equally deserving?

Ingmar Persson, who has written in favor of interspecies equality, has argued that desert-based approaches to distributive justice cannot favor the wellbeing of some creatures over others.[24] Persson accepts a strong responsibility constraint on desert. Unless a creature is

[24]See the section 'Equality as a Principle of Justice' in Persson (1993). Persson agrees with the desertist conception of justice according to which "it is just that everyone (for whom there can be value) be so treated that their lives be as equal in respect of value to them as possible, *unless* they deserve to lead lives differing in value". But then Persson also claims that "nobody deserves to lead a life differing in value from that of any other (since the concept of desert is inapplicable)." Persson's stated reason for believing that the concept of desert is inapplicable is that "ultimately, all our contributions to the state of the world spring from factors beyond our control and responsibility."

responsible for exemplifying a desert base, responsible for whatever gave them such responsibility, and responsible for *that*, *and so on*—Persson believes that the creature cannot be deserving of a boost of wellbeing on that basis. And since no creature has such *ultimate responsibility* over the bases upon which they are putatively deserving of wellbeing, no creature is deserving at all. Thus, considerations of desert could never favor human wellbeing over the wellbeing of other animals, as the concept of desert is inapplicable.

Persson's ultimate responsibility constraint is a remarkably strong requirement on desert, and it is unclear why we should accept it as a general principle. For example, an innocent creature need not be ultimately responsible for the conditions under which she suffers in order to deserve a compensatory boost of wellbeing on that basis. Consider the billions of animals suffering in factory farms. These animals deserve boosts of wellbeing over the domesticated companion animals who live contentedly in our homes. This seems true particularly because these factory farmed animals are *not* ultimately responsible for their condition.[25]

We might nonetheless be inclined to accept a more modest connection between responsibility and desert. Moral desert (the third and fourth bases on the above list) seems to require moral responsibility. Conscientious effort toward a morally attractive goal may be seen to require that the creature who expends such effort is moral responsible for it. And if we understand moral worthiness in terms of morally admirable behavior, then it is plausible that moral worthiness requires moral responsibility. So if no creature can be morally responsible, then all creatures deserve equally with respect to the moral desert bases.

Yet, for the purposes of this paper, I assume that it is possible for at least some creatures to be morally responsible. Indeed, I believe that many nonhuman animals can exhibit moral responsibility as well as human beings, though perhaps in a more rudimentary way.[26]

[25]It might be suggested that the ultimate responsibility constraint applies to moral desert only. But we would need to know why desert is divided in this way. If we are willing to concede that there are some instances of desert for wellbeing in which one can deserve without ultimate responsibility, why not simply reject the ultimate responsibility constraint entirely? See Feldman (1995a).

[26]See Ferrin (2019) for arguments that nonhuman animals can be morally responsible.

5.3 Does unequal capacity for moral desert among animals generate a justice-related complaint?

At this point, it will be helpful to spell out more concretely how considerations of desert can be used to solve the misallocation problem on behalf of those who worry about it. Anyone who wants to pursue the general outlines of a desertist solution will need to focus on moral desert. Recall the enumerated list of desert bases for wellbeing. All creatures are equally capable of excessive or deficient receipt of goods and bads. So this desert basis cannot constitute a reason to prioritize humans in distributions of wellbeing. And the second item on the list, innocent suffering, is found throughout the nonhuman animal world (likely to a much greater degree than it is found among humans). Additionally, for reasons explained above, the central case in this paper concerns a distribution in which the creatures involved enjoy positive levels of wellbeing. Thus the desert basis of innocent suffering cannot support favoring human wellbeing over the wellbeing of other animals in this context. Regarding the third item on the list—conscientious effort toward a morally attractive goal—we seem to see this exhibited to a much higher degree among certain nonhuman animals than among humans. Loyal service dogs, for example, plausibly exert much more sustained effort toward the promotion of a morally attractive goal than any of us reading this article. Thus, the only desert base in which humans could plausibly have an edge over the other animals is moral worthiness, understood here in terms of the exercise of moral virtue (and lack of moral vice).[27] In the next section, I will motivate the idea that at least some humans exercise moral virtue to a greater degree than other animals, and this could justify prioritizing the gardener's wellbeing over the wellbeing of the groundhog.

Yet before doing so, the reliance on moral worthiness in this solution gives rise to a worry. For only creatures who are capable of (perhaps a relatively robust degree of) moral responsibility are eligible to merit more wellbeing on this basis. It may be seen as unjust

[27]For a careful and illuminating discussion, see Vessel (2021). For the suggestion that humans may exhibit higher levels of virtue and vice than other animals, see (Moore, 2002, 306-307).

to claim that an agent to whom we can attribute moral responsibility deserves more than a being with interests like a nonhuman animal or a human infant who lacks the capacities to be attributed moral responsibility.[28] Let an *innocent creature* by any creature who is incapable of being morally responsible. Don't innocent creatures have a complaint?: a feature that they cannot possess is being used to prioritize the wellbeing of other creatures over them.

First, it is important to recognize that moral responsibility does not uniformly elevate the desert of wellbeing. In fact, the capacity for moral responsbility puts a creature under the burden of normativity, and it is quite easy—as many of us know—to succumb to moral vice when placed under this burden. The level of desert for wellbeing goes down in the case of vicious behavior. Thus, in many cases, innocent creatures may deserve higher levels of wellbeing than those morally responsible creatures who have behaved morally poorly. The relevance of moral responsibility to the determination of desert does not always come to the detriment of innocent creatures.

Second, the complaint about moral responsibility seems to rely on the idea that it is unjust for some justice-enhancing property to be inaccessible to all justice-subjects. But consideration of several examples suggest that it is not so clear that we should accept this idea about justice. It is not unjust to award gold medals on the basis of supreme athletic ability, despite the fact that most competitors are incapable of exhibiting the highest levels of skill. Nor is it unjust to prioritize qualified over unqualified applicants in a job search—even if the requisite qualifications are not accessible to everyone. Or suppose that there were creatures who could not innocently suffer. It wouldn't be unjust to nonetheless continue to treat innocent suffering as a justice-enhancing property. So it is not clear that it is unjust to treat moral responsibility as a justice-enhancing property despite the fact that it not accessible to all justice-subjects.

[28]My thanks to an anonymous referee for this objection.

5.4 The relevance of moral desert to the misallocation problem.

There are several reasons to think that humans are capable of displaying higher levels of moral virtue than other animals. I sketch two here. First, recall the set of abilities that were meant to justify a higher moral status for humans than other animals under the moral status approach: humans are to a high degree self-aware, self-reflective, deliberative, and responsive to normative reasons. These abilities are also those which are commonly seen to make it possible for a creature to exercise a high degree of moral agency. And the greater the degree to which moral agency is possible, the greater the exercise of moral virtue is possible. Second, recall some of the features of human life that it is claimed result in our having relatively higher levels of wellbeing than the other animals. Humans are capable of experiencing profoundly positive emotions like love. But love requires affective emotions that also make possible moral virtues such as compassion and care. Humans are also capable of making valuable connections with the world, like strong and lasting friendships. But deep friendship requires mutual respect, the ability to recognize what's good for another, and the capacity to sacrifice one's own interests to promote the other's good. And these traits correlate with the capacity for moral virtue. Thus, to the extent to which it is plausible that a typical human can experience love more profoundly and enter into deeper friendships than other animals, it seems that humans have a greater capacity for moral virtue than other animals.

On a desertist conception of distributive justice, what matters in a distribution is not wellbeing levels alone, but how closely they *fit* the deserved levels of wellbeing of the creatures involved. Each of the desert bases enumerated in Section 5.1 contributes to a creature's overall level of desert. To evaluate the distribution in the case of the gardener and the groundhog, then, we need to know how they compare relative to the various desert bases. (And thus, like the other solutions examined in this paper, the desertist approach does not attempt to prioritize human wellbeing over the wellbeing of other animals in all circumstances.)

Imagine plausibly that the gardener and the groundhog are equals with respect to all

the enumerated desert bases besides moral worthiness: suppose neither the gardener nor the groundhog has received a deficiency or excess of past goods, neither experiences innocent suffering, and both are equal with respect to the extent to which they have exerted conscientious effort toward the promotion of morally attractive goals. Suppose that in virtue of her elevated capacities for moral agency, the gardener has exhibited a modest degree of moral virtue throughout her life. Suppose that the groundhog, having a great deal less moral agency, has exhibited very little moral virtue. For simplicity in illustration, let's suppose the gardener is six times as morally virtuous as the groundhog, with the gardener deserving at least as much wellbeing as would be afforded her under the flowers distribution. These stipulated moral desert values illustrate how the desert-based solution can be made to work, as demonstrated in Table 4.[29]

	Gardener desert	Gardener receipt	Groundhog desert	Groundhog receipt	Overall fit
Saturday	30	20	5	10	-15
Flowers	30	30	5	10	-5
Alfalfa	30	20	5	20	-25

Table 4: deserved levels of welfare, actual welfare, and overall fit

Under the assumptions we are making about the desert levels of the gardener and the groundhog, the flowers distribution has a much closer fit between desert and receipt than the alfalfa distribution. Accordingly, the desert-based conception of distributive justice favors the flowers distribution over the alfalfa one.

Furthermore, the desert-based solution offers natural accounts of the counterexamples that stymied the other solutions. Recall the super-thinking groundhog. His cognitive enhancement increases his capacity for moral agency. Provided that he uses his cognitive

[29]For the calculation of overall fit, I use simple subtraction and addition: I take the difference between a creature's desert level and the creature's actual level of wellbeing, make it negative, and sum over the differences for all the creatures. The more negative this value, the less perfect the fit; 0 represents a perfect match between receipt and desert. Calculations of fit can be much more complicated. See, for example, Kagan (2012). However, the simple formula I use here is sufficient for my purposes in this paper. And unlike the mathematical complexities that arise for calculations of fortune in the case of negative wellbeing levels, the simple formula of fit used here handles all wellbeing levels the same, regardless of whether they are positive or negative.

enhancement to do something to merit higher levels of wellbeing, he gets priority over his conspecifics under the desert-based account. But suppose he shuns his new cognitive abilities and instead continues to live like his conspecifics: suppose he doesn't *do anything additionally morally productive or virtuous* with his modified agential abilities. Then it does indeed seem just for him to continue to enjoy the wellbeing level he was at prior to the cognitive enhancement. Recall the super-tasting groundhog. His enhancement pertains only to his capacity for consumption: being able to find great pleasure in eating alfalfa does not make the groundhog any more capable of moral agency, and so it cannot make him any more deserving of wellbeing on the basis of exemplifying moral virtue. This explains why it is not any better from the standpoint of justice to give him a boost in wellbeing just because he can taste more.

Recall the afflicted activist. Because moral virtue that was exhibited in the past does not disappear with the loss of moral agency, the desertist approach aligns with our intuitions in a way in which both the fortune and moral status approaches do not. Even though she now has limited potential for wellbeing and a lower moral status, her past activism elevated her moral desert for wellbeing. Thus, she remains more deserving of wellbeing than a groundhog.

Recall finally the Earth-bound aliens. It is possible that these extraterrestrials possess the capacity for moral agency to a much greater degree than us humans. On that basis alone, however, the desertist approach does not prioritize their wellbeing over ours. But suppose that they exercise their agency in beautiful and awe-inspiring ways. Suppose they exhibit enormously high levels of virtue, like angels. I am prepared to accept the implication that distributions which prioritize their wellbeing are more just than distributions that prioritize ours.

5.5 Three implications of the desert-based solution

In Section 2 I remarked that not all philosophers think the misallocation problem needs to be solved. But while the desert-based solution does carve out the possibility that it is

sometimes just to prioritize the wellbeing of humans over other animals, it hardly constitutes a human-supremacist conception of distributive justice. Indeed, those who are not worried about the misallocation problem may welcome three important implications.

First, it may well turn out that incorporating the notion of moral desert within our principles of distributive justice more often than not prioritizes the wellbeing of other animals over humans. Indeed, consider a version of our central case in which the gardener is reckless and morally evil. In this situation, it may be much better from the perspective of distributive justice for the groundhog to enjoy the alfalfa than for the gardener to enjoy the flowers. This implication of the desertist view seems precisely correct to me. Furthermore, it is not clear that that the majority of humans exercise their moral agency in positive directions. Given how humans treat each other and how we treat animals in factor farms, for example, it may be that the majority of humans have lower moral desert levels than the desert levels of other animals.[30] So the desertist conception offers a very limited solution to the misallocation problem, for in many cases justice in fact requires the prioritization of nonhuman animal wellbeing over human wellbeing.

Second, it is important to note that even when a human being is supremely morally virtuous, the focus on moral desert never favors distributions that bring innocent creatures below a baseline level of desert. Compare a saint and an innocent cricket. Suppose a saint is deserving of an exceptionally high 100 units of wellbeing, and a cricket, entirely incapable of moral desert, has a baseline desert level of 1 unit of wellbeing. Table 5 illustrates that it is more just to reallocate some wellbeing from the cricket to the saint when the cricket is above the baseline and the saint is below her level of moral desert. But it is not more just to continue reallocating more wellbeing from the cricket to the saint if that would bring the cricket below his baseline. And any time a human being (even a saint) enjoys a level of wellbeing above her moral desert level, it makes the situation less just to continue to reallocate wellbeing from the innocent creature to the human.

[30]See Cooper (2018). See also Vessel (2021) who is skeptical that the typical human being is more morally virtuous than other animals.

	Saint desert	Saint receipt	Cricket desert	Cricket receipt	Overall fit
A	100	98	1	2	-3
B	100	99	1	1	-1
C	100	100	1	0	-1
D	100	101	1	-1	-3

Table 5: different distributions of 100 units of wellbeing between a cricket and a saint

Third, the desertist conception presented in this paper countenances at least four desert bases for wellbeing. Some may want to argue that moral desert is the only desert base that matters from the perspective of distributive justice. But I have not pursued that line of argument here. And the other desert bases are ones that all animals may exemplify, regardless of their capacities for moral agency. In particular, desert on the basis of innocent suffering has wide-ranging implications for how we ought to direct our efforts in distributing wellbeing among humans and other animals. One reason to prioritize the wellbeing of animals who suffer is that it increases the overall amount of wellbeing in the world. But consider cases in which we are weighing tradeoffs between improvements to human and nonhuman animal wellbeing, either of which would have the same impact on overall wellbeing. Given the extent of factory farming and wild animal suffering, it is plausible that the vast majority of innocent suffering occurs among nonhuman animals. Different ways of developing the desertist approach will weigh innocent suffering against moral desert differently. Suppose we take them to count equally toward a creature's overall desert level. Then, though this would need to be developed in greater detail than I can do here, it is likely more just in many cases to prioritize the wellbeing of nonhuman animals who have been subjected to innocent suffering over the wellbeing of morally virtuous human beings.

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