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# Problems with Sentientist Politics

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One of the most prominent positions in animal ethics regarding the political status of animals is the sentientist view, according to which all sentient animals have equal moral worth and should be granted political standing within political communities. While there is disagreement regarding how to understand the political incorporation of animals, a prevalent view is that sentience can serve not only as the normative basis for granting animals political status and but also equal moral worth. Here I critique the claim that an undifferentiated, univocal conception of sentience can ground equality of moral standing and equal consideration of interests of all sentient animals. I focus on the conception of sentience employed by Alasdair Cochrane in his influential work *Sentientist Politics*. I argue that research in animal cognition shows that sentience is a greatly variable capacity, that sentience variability has moral significance, and that recognizing levels of moral status for sentient animals is an important step in feasible attempts to incorporate all sentient animals into political communities.

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principle of equal con-  
sideration of interests

## PROBLEMS WITH SENTIENTIST POLITICS

The “political turn” in animal ethics has been one of the most significant recent developments in the field. Alasdair Cochrane’s *Sentientist Politics: A Theory of Global Inter-Species Justice* has been particularly influential in promoting the view that sentient animals should be granted political status in our communities (Cochrane 2018).<sup>1</sup> He believes that all sentient animals have intrinsic moral worth and have interests of their own that we should respect. Since we significantly affect their welfare through our political decisions, Cochrane argues, it is appropriate to grant sentient animals status as political subjects in our societies to ensure that their interests are given due consideration. In this essay I will not challenge the contention that sentient animals should be recognized at some level or another as members of our political communities. Rather, I will argue that the capacity for sentience, as understood by Cochrane in the above-mentioned work, cannot serve as the normative basis for the political integration of all sentient animals as beings with equal moral status. I contend that an empirically informed and conceptually sound conception of sentience leads to a position of differential moral status that is more appropriate for the successful integration of sentient animals into political communities.

My arguments proceed in the following manner. I begin by arguing that research on animal cognition

demonstrates tremendous variation in different animals’ capacity for sentience. I contend that sentience is far from a univocal capacity and that the greatly differentiated forms of sentience that animals possess undermine Cochrane’s reliance on sentience to establish that all sentient animals have equal moral worth and standing. I also challenge Cochrane’s use of the principle of equal consideration of interests (ECOI) as a methodological principle to operationalize the view that the interests of all sentient animals should be granted equal moral consideration. I continue by arguing that the proper way to respond to the greatly variable forms of animal sentience is to recognize levels of moral status (LMS) for sentient animals. I briefly outline a novel way of conceptualizing LMS that is based not on the greater moral value or worth of some sentient beings over others, but on their greater vulnerability and developmental needs. I contend that we cannot resolve the problems that arise when incorporating sentient animals into political communities unless we acknowledge that sentient animals have different LMS that serve as much needed moral guidelines to prioritize the use of the limited resources and labor at our disposal. I argue that to achieve in a morally principled way the political integration of all sentient animals, we need to recognize the widely variable vulnerabilities and needs of sentient animals that arise in part from the different forms of sentience they possess. The insufficiently differentiated and empirically uninformed conception of sentience

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employed by Cochrane to argue for the goal of political incorporation of all sentient animals is ultimately not adequate for achieving this goal.

### WHAT RESEARCH IN ANIMAL COGNITION TEACHES US ABOUT SENTIENCE

It is important to note at the outset that Cochrane maintains not only that sentient animals merit political membership in our communities but that they all possess the same moral standing, i.e., they should be regarded as moral equals. For Cochrane, having the capacity for sentience is sufficient not only for the political inclusion of sentient animals into our communities, but for their inclusion as moral equals. But, as we shall see, an empirically informed conception of sentience that is sensitive to the radical differences between sentient animals points to the need for differentiated political protections and entitlements for sentient animals. This position is not only a better way to respond to the different vulnerabilities and needs of sentient animals that partly derive from their different forms of sentience, it also provides a better way of employing the limited resources and labor that we have at our disposal. To illustrate the problems that arise when we employ Cochrane's conception of sentience, I begin by contrasting his view of sentience with that provided by researchers in animal cognition, a field that has produced a very significant amount of research in animal consciousness over the last several decades (Broom, 2014; Beran, et al., 2016; Birch, 2020; Mikhalevich & Powell, 2020).

Cochrane maintains that sentient beings are capable of pain and suffering, have their own subjective experience or view of themselves, and experience the world in their own distinctive way. He states that sentient animals are beings who can "experience the world and their place in it" (Cochrane, 2018, p. 15). He also states that sentient creatures have interests of their own which confer on them value for their own sake, "because such creatures are concerned with how their lives are going—because they have a stake in their own fates—they possess a moral worth *of their own* which cannot be reduced to their usefulness to others" (Cochrane, 2018, p. 15). Because sentient beings are aware of themselves and their place in the world (unlike plants and physical objects) they have a sense of self and have interests in the goods that make their lives go well and improve their well-being. Their capacity to be aware of themselves and their own welfare, Cochrane believes, is crucially important in grounding their status as beings with intrinsic moral worth. Because sentient animals have these characteristic traits, they have

independent moral value that entitles them to be granted equal moral consideration within the context of our political communities.

These remarks are suggestive of the reasons why sentient animals have inherent moral worth and should be granted political status, but they need to be further explicated not only with regards to the meaning of key features of sentience such as conscious awareness and selfhood, but also with regards to how these features are exemplified in different forms in the vast range of sentient animals and the possible moral relevance of their various forms of sentience. For instance, how does selfhood for a dolphin, elephant, or chimpanzee, who are cognitively complex and highly social animals, differ from selfhood for simple sentient animals like snakes, sardines, or toads? It is interesting to note that when Cochrane considers differences in the cognitive complexity of different animals, he evidently acknowledges that these differences are relevant for the moral consideration they should receive. For instance, in *Animal Rights Without Liberation* (pp. 26-7) Cochrane briefly addresses the issue of whether some cognitively complex animals such as the great apes and cetaceans qualify as possessing personhood and on page 138, he maintains that intelligent and social animals like lions and tigers evidently suffer in captivity in circuses given their need to interact and to roam. In *Sentientist Politics* (p. 117) he considers whether cognitively complex animals like great apes and cetaceans, who could arguably be considered as nonhuman persons, might be entitled to greater protections from hunting, including possible military intervention, that simpler sentient animals. His analyses in these works already provide an indication that there is an unresolved tension in his position that, on the one hand, all sentient animals have inherent value and equal moral worth and, on the other, that interests based on species-specific capacities are relevant for conferring preferential moral treatment.<sup>2</sup> Differences in forms of sentience do not point towards equal moral consideration of the interests of all sentient animals, but towards preferential treatment of the interests of some animals that are based on their species-specific capacities. I will return to this point later, but first I want to discuss some research in animal cognition that reveals the extensive differences in the forms that sentience can take.

Extensive research in animal cognition shows that sentience is far from a univocal or singular capacity (Jones, 2013; Broom, 2019; Irwin, 2020; Mikhalevich & Powell, 2020). If we take the features of sentience that Cochrane mentions but does not adequately explain—having a sense or experience of oneself, experiencing the

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world from one's own perspective, and having the capacity to feel pain, joy, suffering, etc.—we can provide evidence from research in animal cognition to show that there is tremendous variation in the way in which sentient animals exemplify these traits. Consider the capacity to experience the world from one's own perspective. Chimpanzees, for example, live in communities with complex webs of social relationships that affect the way they think of their social position within their group (Nishida, 1968; Boesch, 2002). Their relationships to conspecifics can be complex and nuanced and they are aware of the appropriate or inappropriate nature of various group-governed behaviors. The way in which they conceptualize the world incorporates what is necessary for them to function effectively in social units that are important for their survival and flourishing. It is highly probable that chimpanzees experience the world in a very different way than crabs or toads, who do not have the dense social relationships to conspecifics that exist in chimpanzee communities. Chimpanzees experience the world in an intensely socially mediated way, while it is very probable that simple non-social or minimally social animals do not. The moral relevance of the social relationships that are part of a chimpanzee's experience of the world is that they can give rise to vulnerabilities and dependencies that can possibly affect their social and political rights, such as prohibitions on confinement or social isolation.

Consider now another feature of sentience mentioned by Cochrane, namely, having an experience or sense of oneself. The capacity to experience or be aware of oneself is not uniform across different sentient animals. David DeGrazia indicates that there are different ways in which animals can be self-aware, namely, they can exhibit bodily self-awareness, social self-awareness, and introspective self-awareness (DeGrazia, 2009). Using DeGrazia's three forms of self-awareness as a guide, we can provide evidence on their existence from research in animal cognition. The most primitive form of self-awareness involves cognizance of one's own body as different from the environment and includes awareness of one's body parts, their motion, and their position in space. *Bodily self-awareness* enables an organism to know its position in the physical world and to respond in appropriate ways to the input it receives from the environment, that is, it enables the organism to exercise its bodily agency. Bermudez (1998) makes a strong case for how this primitive form of self-awareness can form the basis for more developmentally sophisticated forms of self-awareness. Due to its very basic and simple nature, it is probable that all sentient animals have bodily self-awareness, for otherwise

they could not, for example, navigate their bodies through space or avoid eating their own body parts. However, in contrast to social and introspective self-awareness, it is probably the only form of self-awareness that all sentient animals share.

DeGrazia defines *social self-awareness* as “awareness of oneself as a part of a social unit with differing expectations attached to different positions . . .” (DeGrazia, 2009, p. 202). Research indicates that certain behaviors among the members of some species instantiate social self-awareness. Great apes like gorillas, bonobos, and chimpanzees exhibit social self-awareness by recognizing members of their social unit, remembering favors or grudges involving other group members, developing long-term relationships, and building alliances with others (Goodall, 1986; Stanford, 2001). In addition to apes, mammals such as bottlenose dolphins have quite complex social lives and exhibit a high degree of social behavior and cooperation. The learning process that young dolphins go through is extensive and complex, involving knowledge of rules governing social interaction, forms of group cooperation, and even the personalities of other group members (Herman, 2002, p. 275). In contrast, animals such as chuckwalla lizards do not form complex social relationships with conspecifics and do not interact much with one another except when mating (Bioexpedition, 2015). They are not part of communities bound by the complex social relationships that exist in ape and bottlenose dolphin communities. It is quite likely that the social self-awareness of solitary sentient animals is radically different than that of cognitively and affectively complex social animals like apes and dolphins. Thus, it is reasonable to maintain that while dolphins and apes exhibit a high degree of social self-awareness, animals such as chuckwalla lizards possess only a limited degree of such self-awareness.

The third form of self-awareness identified by DeGrazia is *introspective self-awareness*, i.e., awareness of one's own mental states, such as thoughts, intentions, and desires. This form of self-awareness involves second-order awareness, or metacognition, for it requires cognizance of one's mental states. J. David Smith (2010) describes some experiments with a bottlenose dolphin in which the dolphin was provided with a way to indicate behaviorally whether he was uncertain regarding his responses to certain perceptual tasks. The dolphin, named Natua, was given food rewards when he answered correctly in trials requiring him to discriminate between high- and low-pitched sounds. The experimenters gradually decreased the differences between the sounds, so that it became more and more difficult for Natua to discriminate

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between them. They then provided him with the option of “passing” over particularly difficult trials by pressing a button that presented him with the next trial, in effect providing him with the option of skipping over hard trials in which he was too uncertain to provide an answer. Natua responded quickly and enthusiastically when presented with easy trials, but hesitated and wavered with the difficult ones and, once given the option of a third “skip this and move on to the next trial” button, he used it. A reasonable interpretation of his behavior is that he was thinking about the level of uncertainty in his own mind for answering correctly, and in those cases in which he was uncertain, he chose to move on to the next trial.

In a study involving chimpanzees, M. J. Beran (2015) and research associates conducted an experiment in which chimpanzees were given delayed food rewards—which were dispensed in an area spatially separated from where they registered their responses—after successfully completing trials. They found that the chimpanzees were more likely to move to the spatially separated reward area after completing trials in which they answered correctly. In other words, they were more likely to move to the reward area when their responses were correct, even though they had not been given any feedback on a trial’s outcome. These confidence movements strongly suggest that the chimpanzees adjusted their behavior based on their levels of confidence or uncertainty, that is, based on the introspective awareness of their own state of knowledge. When they were more confident of the correctness of their response, they modified their behavior in expectation of the food rewards by moving to the reward area. This indicates that the chimpanzees had the metacognitive capacity to monitor their own mental states and acted accordingly.

Metacognition is a sophisticated cognitive capacity that for most animals has its neurological base in the neocortex part of the brain. Only mammals have a neocortex and some sentient animals, such as fish, do not have one. The neocortex, by enabling a sentient animal to monitor its own thoughts, intentions, and feelings, makes possible the higher-level sophisticated reflective thought processes and behaviors that apes and humans, for example, are capable of instantiating. Because the neocortex is the neurological seat of the reflexive monitoring of one’s mental states, it is likely that fish and most sentient animals without a neocortex are not capable of a high level of introspective self-awareness. We should note, however, that even though birds do not have a neocortex, there are some avian species who exhibit high levels of cognitive sophistication. Recent research suggests that in

avian brains a certain arrangement of microcircuits may play a role that is analogous to that played by the neocortex in mammals (Morell, 2020). Moreover, we should also note that there is evidence that some animals that are not generally considered as highly cognitively sophisticated, such as rats and honeybees, have a certain level of metacognition (Perry & Barron, 2012; Foote & Crystal, 2007). This should alert us to the idea that when considering the possible moral relevance of forms of sentience, it is not any single capacity that is decisive in determining the moral entitlements which an animal merits. I will return to this consideration later when considering levels of moral status. In any case, the general point I want to make here is that it seems plausible to maintain that not all sentient animals possess introspective self-awareness. Here again we have evidence that the trait of having an experience or sense of self does not exist in the same way for all sentient animals.

Finally, consider the third trait of sentience mentioned by Cochrane, viz., the capacity to have phenomenological experiences involving pain, joy, suffering, satisfaction, fear, and so forth. The capacity for experiencing pain and suffering as well as pleasure is probably the trait that is most commonly associated with sentience, particularly when considering its moral significance. Of particular importance is the likelihood that different sentient animals can experience distinctive kinds or modes of suffering resulting from such conditions as captivity or confinement (Birkett, 2011). Moreover, chimpanzees and humans, for example, partly because they have the capacity for episodic and not merely implicit memories, can experience distinctive forms of psychological trauma, such as post-traumatic stress disorder (Ferdowsian, 2011; Shalev, 2017), that animals such as snakes, crickets, and frogs likely cannot. Episodic memory involves the capacity to retrieve multiple integrated features of past events, i.e., to mentally retrieve or reexperience past phenomenological events, while implicit memory involves merely the capacity to retain information from past experiences, which even simple sentient animals possess (Schwartz, 2001). Given their capacity for episodic memories, introspective self-awareness, and complex emotions, bonobos, gorillas, chimpanzees, and humans can suffer life-long psychological trauma as the result, for example, of childhood abuse.

We can now see that the three prominent traits of sentient animals mentioned by Cochrane, namely, the capacities for experiencing the world from one’s perspective, possessing an experience or sense of oneself, and experiencing pain, suffering, joy, and so forth, can be exemplified in very different ways by sentient animals. These

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three traits of sentience do not jointly comprise a singular or univocal capacity shared by all sentient animals, since evidently some sentient animals do not possess all of these capacities, such as the metacognitive capacity of introspective self-awareness. Neither are they connected singular traits that differ only in degree. It would be more accurate to describe these traits of sentience as capacities that differ radically between different species of animals, that is, they are qualitatively diverse capacities. The sense of self of a bonobo or a chimpanzee is qualitatively different than that of a guppy or a toad and the *psychological* modes of suffering that a great ape can experience are different in kind, and not merely in degree, from the capacity of a crab or lizard to experience pain.

### IMPLICATIONS OF THE VARIABLE NATURE OF SENTIENCE

But if there are radical differences in the ways in which different animals exemplify sentience, what is the moral and political significance, if any, of this realization? First, the significant variation in the capacity of sentience raises the question whether sentience can serve as an adequate concept on which to base not only moral status, but *equal* moral status for all sentient animals. If sentience is the basis for moral worth, why doesn't the possession of more complex forms of sentience serve as the basis for greater moral worth? Cochrane himself objects to the use of complex cognitive capacities such as moral agency as the basis for granting moral status by arguing that "different humans have very different capacities of moral agency and thus personhood. In light of this, it is unclear why the moral worth that follows from individuals' capacities should not also come in degrees, rather than being held equally" (2018, p. 22). His objection to using variable cognitive capacities such as moral agency or rationality to ground moral status is that it would ostensibly commit us to holding that moral status itself comes in degrees. But if the use of variable cognitive capacities such as moral agency is a problem, why is it not also problematic to employ the variable psychological capacity of sentience? In other words, if using a variable capacity like moral agency to ground moral status evidently commits us to degrees of moral status, why doesn't the use of the variable capacity of sentience also commit us to differential moral status? To be clear, the issue here is not whether we can use sentience as a basis for moral status, but whether using sentience, unlike employing a capacity like moral agency, avoids a commitment to degrees or LMS.

We should note that it does not help Cochrane to employ the concept of interests, in addition to the capacity of

sentience, to ground equal moral status for all sentient animals. He argues that all and only sentient beings have interests. Cochrane agrees with the view that possessing sentience implies that an individual has interests—and therefore intrinsic moral worth—since it has a life of its own and is aware of its own well-being that is affected by those interests (2018, pp. 15-17). This is why he believes we should not treat a sentient being as an object, without regard to how our actions affect its interests. Cochrane, by focusing on interests, proposes a seemingly straightforward way to argue that we should treat all sentient beings as moral equals. He states that because a being either possesses interests or does not, the possession of interests is a binary property. Cochrane argues that every sentient creature has interests, and that the binary nature of having interest implies that every sentient being has the same moral worth and status as any other sentient being (2018, p. 24). Further, he maintains that adopting the position that all sentient beings have equal moral worth entails a commitment to the principle of equal consideration of interests (ECOI).<sup>3</sup> If we maintain that all sentient beings have equal moral worth, Cochrane states, then we are committed to showing "*equal concern* to all of their interests" (2018, p. 25).

In adopting the principle of ECOI, Cochrane points out that we are not committed to treating all sentient animals in the same way, but to treating them as moral equals (2018, pp. 24-25). There is a difference between treating all sentient animals in the same manner and providing them with equal consideration for their interests. Cochrane maintains that treating all sentient animals equally, i.e., in the same manner, does not make much sense, given that their interests can be so different. A human being has an interest in receiving an education, for example, but a frog does not and so we would not regard the frog's interests any less if we did not provide it with an education. The frog, however, does have an interest in continuing to live, so we have a moral obligation to refrain from adopting policies that would destroy its habitat and endanger its life, even if such policies would further human interests. Cochrane points out that a commitment to the principle of ECOI means that, when making decisions that affect them, we should regard other sentient beings and their interests with the same moral concern that we have for our own interests. Cochrane identifies two fundamental interests that we can reasonably suppose all sentient animals have, namely, the interest for continued living and the interest in not being made to suffer (2018, pp. 28-29). He believes that these interests are of fundamental importance for sentient beings and should be protected by considering them as basic rights of all sentient beings. The right protecting the

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interest for continued living, for example, is centrally important because it must be satisfied for any other interests of a sentient being to be respected. Without life, a sentient being would not have any interests to be protected.

By focusing on interests and embracing the principle of ECOI, Cochrane appears to have found a way to defend and make sense of the view that all sentient beings have equal moral worth and deserve to have their interests given equal moral consideration. But there are serious problems with focusing on interests to operationalize and justify a view involving the equal moral worth and status of all sentient beings. First, Cochrane makes a basic logical error in arguing that because having interests is a binary property and having interests entails the possession of moral worth, therefore all sentient beings have equal moral worth. Just because a property is binary, so that an entity either has or does not have this property, it does not follow that the property is not scalar, that is, that it does not come in degrees. As Federico Zuolo has pointed out in critiquing Cochrane's position, having money is an example of a binary property because someone either has or does not have money (2019, p. 8). But even though having money is a binary property, some people have more (or less) money than others, i.e., having money is both binary and scalar. Similarly, it is fallacious to argue that because a being either has or does not have interests, those beings who qualify as having interests have them to the same extent or to the same degree. Ironically, Cochrane himself recognizes that the property of having interests can vary along different dimensions, "individuals will often have different *types* and *numbers* of interests; and even when individuals have the same interest, it may vary in *strength* and *complexity*" (2018, p. 24). But if the property of having interests is the basis of moral worth and interests can vary in terms of their magnitude, number, and complexity, then having interests faces the same criticism I raised earlier against sentience, namely, that it is not at all clear why its variability does not lead to differential moral worth and status.

It could be argued that even though Cochrane believes that the binary nature of sentience *allows* for equal moral status for those that have it, it does not *entail* equal moral status. I think that this response does not help Cochrane, because there are passages in which Cochrane makes statements that imply that he maintains that the binary property of having interests entails the equal moral worth of those who have it. On page 24 of *Sentientist Politics*, Cochrane states "The possession of interests is 'binary.' That is to say, an individual either possesses interests or does not, making it straightforward to *explain why* the moral worth of humans does not come in degrees" (italics mine). Later in the same

paragraph on page 24, Cochrane states "Nonetheless, it is impossible for any individual to be more or less *in possession of interests*: an individual either has them or does not. So grounding moral worth in the possession of interests does conform to aspects of common sense: it is by far the most compelling ground for human equality." Why would Cochrane insist that the possession of the binary property of having interests entails the *equal* moral worth of all humans if he did not believe that possessing this binary property entails the moral equality of those that have it (including presumably all sentient beings). If Cochrane believes that possessing the binary property of having interests entails equal moral worth for humans, on what basis would he deny that possessing interests entails the equal moral worth of sentient beings? Moreover, the fact that the title of the section from which these passages are drawn is "Equal Moral Worth for All Sentient Individuals" certainly supports my interpretation of Cochrane's position, namely, that in this section of the chapter he was using the binary property of possessing interests to show that it implies equal moral status for those that have it, namely, all sentient beings.

There is also a problem with Cochrane's use of the principle of ECOI to make sense of the moral equality of all sentient animals. Cochrane embraces this principle to show that it is possible to systematically treat the interests of all sentient animals in an egalitarian, non-speciesist manner. But the problem with this principle is that to apply it we must *weigh the significance* of the interests we are comparing, for we cannot merely rely on the *kind* of interests that they are (Zuolo, 2019, pp. 6-9).<sup>4</sup> We cannot simply compare the interest of a silverback gorilla and a ball python to eat, for example, without considering the animals who have this interest. The ball python can go for months without eating, while the silverback gorilla must eat for hours every day to stay healthy (Team, 2020; Turner, 2018). The problem here is that in many if not most cases, we cannot compare the interests of different animals by considering these interests as detached, free-floating entities, disconnected from the animals who possess them. To evaluate the significance or moral weight of an interest, we need to see how it is connected to other interests the animal has, how the animal regards the interest, how the animal's capacities affect, and are affected by, the interest, and so forth. It does not suffice to simply consider the kind of interest that it is, e.g., whether it is an interest in eating, continued living, or avoiding pain. Even the allegedly paradigmatic "equal" interest of avoiding pain must be evaluated in relation to the animal's other interests, beliefs, and capacities. Thus, to determine the weight or significance of the interest in

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avoiding pain we need to see whether the pain is willingly accepted (as in childbirth), whether it is maliciously inflicted by another party, whether one's tolerance for pain is high or low, whether the pain is accompanied by psychological trauma, and so on.<sup>5</sup>

Once we recognize the importance of considering the capacities, needs, and other interests of the beings whose interests we are comparing, the principle of ECOI loses its egalitarian character, for an appeal to these other factors can be used to systematically grant greater consideration to the interests of some beings over others. For example, consider comparing the interests in living of two sentient animals, one a complex, self-conscious, socially centered animal with numerous future-oriented desires and life projects and the other an animal who is barely sentient and is not self-aware, does not have life projects, and does not have significant social relationships. Surely their interest in continued living is not the same, for the weight and significance of the interest in continued living of the first animal is much greater.<sup>6</sup> In death, the first animal stands to lose much more—in terms of unfulfilled desires, unrealized life projects, lost significant social relationships, and so forth—than the second animal. Moreover, we can apply the same kind of reasoning to some of their other interests, such as the interest in freedom, which is of much greater value to a complex self-conscious animal. Freedom to a psychologically complex self-conscious animal is far more important, for it is a precondition for the satisfaction of many of its other present and future-oriented interests and desires. A typical snake or turtle, for example, is generally harmed far less from confinement in a limited space than a human, dolphin, or gorilla. Thus, when comparing the interests for avoiding confinement between, say, a human being or dolphin and a crab, turtle, or guppy, we can generally and reasonably grant priority to the interests of the former.

These observations raise the important question: In what sense is the principle of ECOI a truly egalitarian standard for judging the interests of different sentient animals if it directs us to systematically grant greater moral consideration to the interests of some animals over others based on the kind of animal that they are rather than solely on the interests themselves? If we cannot construe interests as isolated free-floating sources of value, but should consider them as factors that matter to animals based on their capacities, other interests, and needs, how can we use the principle of ECOI as a neutral procedure for equal treatment of all sentient animals without regard to their species-specific capacities (Zuolo, 2017, p. 180)? After all, the point of the principle of ECOI was to grant equal moral consideration to the comparable interests of different animals

without regard to the species-membership of the animals whose interests they are. I am not claiming that species-membership is in itself relevant for moral status, but that an animal's species-specific capacities must be taken into account in weighing the importance of its interests. That is, my point is that we cannot generally weigh the normative significance of an animal's interests unless we attend to the capacities that are typical for members of their species.

In addition to these criticisms of Cochrane's views that all sentient animals have the same moral worth and that we should adopt the principle of ECOI to protect their interests, there are also problems with the implications of his theory. A problematic consequence of Cochrane's view is that in certain scenarios we would be obligated to perform what would widely be considered as morally irresponsible acts. He maintains that since all sentient animals have a prima-facie right to life, we are committed to avoiding actions that deny sentient beings their right to life. But imagine a scenario in which a family consisting of parents and their young children have been lost in the wilderness for a week and face starvation (assume there are no other sources of food) but have the option of catching fish to eat. By killing some fish, they would be able to save themselves from imminent starvation. We can reasonably maintain that the parents have a very strong moral obligation to protect their children from starvation, not to mention that they also have a very compelling interest in saving their own lives. On pages 85-86 of ARWL, Cochrane discusses cases involving direct conflicts of interest in continued living between humans and animals, and states that humans can kill animals to survive. According to Cochrane, what justifies killing animals in these cases is that the animal with the lesser interest in continued living, in this case the fish, should lose to the animal, in this case the human, with a stronger interest in continued living.

However, this reasoning by Cochrane is questionable given his position that all sentient animals have inherent or intrinsic moral worth. As Cochrane states on p. 26 of SP, an important part of an individual possessing intrinsic or inherent moral worth is that it should not be treated as a thing "for the usefulness of others" (p. 26, SP). But in eating its flesh and negating its right to life, this is precisely how I am treating the fish, as an object to satisfy my own interests. If all sentient animals have inherent or intrinsic value and have EQUAL moral worth or value, as Cochrane repeatedly emphasizes, then how can we justify killing the fish to satisfy our own human interests? I really believe there is a problem here that is not resolved merely by pointing to a purportedly weaker interest that the fish has for life (note that this is among the most important interests the

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fish has). Presumably all beings with intrinsic value have it to the same degree, and so it remains unclear how a being with intrinsic value can be used as an object by another being, particularly when its most fundamental interests, like the interest in continued living, are involved. One could argue that different animals have different degrees of intrinsic value, but if so, why not simply accept degrees or levels of moral status?

Given the evidence that fish are sentient beings (Braithwaite, 2010; Millot, et al. 2014; Vila Pouca and Brown, 2017), they have intrinsic value and moral worth that according to Cochrane is equal to that of any other sentient being. In other words, according to Cochrane's sentientist position, the fish's possession of inherent or intrinsic value should entail that its fundamental interest in life cannot be overridden to satisfy the interests of others. Cochrane's position would thus prohibit the parents from saving their children and themselves from starvation. Surely this is a morally problematic position that contravenes what most morally conscientious people would consider morally responsible behavior. Note that Cochrane cannot justify killing the fish because this would create more overall welfare, because he holds a rights-based, and not a utilitarian, moral view, according to which the fish has equal moral rights as an individual being and is not merely a receptacle for independent sources of value. Neither could he argue that killing the fish is justified because it is self-defense, for the fish are not threatening the family. And it would not help Cochrane to point out that he maintains that the right of sentient animals to life is only a "prima-facie" right, so that it is possible for it to be overridden (2018, p. 29). Unless he presents compelling reasons—which he does not—to explain why one of the most ostensibly important rights a sentient animal with intrinsic value has, namely the right to life, can be legitimately overridden for the sake of satisfying the interests of other animals, maintaining that the right to life is merely a prima-facie right is not helpful. What makes this dilemma so difficult for Cochrane is that he insists that the interests of animals with intrinsic value cannot be sacrificed for the sake of the interests of other animals and that all sentient animals have equal moral value (2018, pp. 26-27). In brief, it would be fair to say that there is a significant unresolved tension when Cochrane claims both 1) that all sentient animals have inherent or intrinsic moral worth as well as equal moral worth and 2) that it is justifiable to treat a being with intrinsic worth as an object even when one of its most important interests is involved.

Another problematic consequence of Cochrane's position is that it does not allow us to justify the greatly

inequitable use of resources and labor to promote the well-being of some sentient animals over others. If we maintain that all sentient animals have equal moral worth and that we must treat their interests with equal moral concern, then we cannot simply engage in a grossly inequitable use of resources and labor to satisfy human interests while neglecting the needs of animals. We cannot, for instance, simply assume without justification that we can use many more resources and labor for the sake of humans over other sentient animals. Spending far more resources in medical research on human illnesses than on illnesses that afflict frogs, squirrels, snakes, or chameleons, for example, is clear discrimination in the provision of welfare and a *violation of distributive justice concerning health care*. The issue here goes beyond providing some animals with veterinarian care. If we truly believe that the moral worth of all sentient animals is the same as that of humans and if at least their basic interests—and surely their interests in avoiding death and illness qualify as basic interests—should receive the same level of moral concern, then we should try to equalize the provision of medical welfare for sentient animals and humans, for neglecting to do so would be a serious moral failure. Note that if Cochrane points out that human interests in health and life are stronger than animal interests in these areas, it does not follow that their (animal) interests are minor or not important. Even if we cannot address all of their medical needs, this does not justify the grossly disproportionate use of resources and labor we routinely employ to satisfy the medical interests of humans over animals. Further, if we sincerely embraced Cochrane's position regarding the moral equality of all sentient beings, given the sheer number of sentient beings—which easily number in the billions—we would be burdened with unimaginably heavy positive obligations to them. Though difficulty in implementation is not in itself a decisive reason for rejecting moral obligations, there are limits to what can reasonably be expected of moral agents, particularly given the existence of real-world scarcity of resources and labor.

### THE NEED FOR A TAXONOMY OF LMS

It is indeed remarkable that the criticisms and observations we have made of Cochrane's position all point in the same direction, namely, towards acknowledging levels of moral status (LMS). The variability of sentience certainly coheres with differentiation in moral status, particularly if, as we will see below, we can establish that such variability has moral relevance. The necessity to refer to an animal's capacities, needs, and other interests—in order to evaluate the interspecies comparative weight and significance of any of its particular interests—also points to the

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need to identify an animal's level of moral status, which can serve as a useful guide for knowing how to evaluate similar interests of radically different animals. And concerning the extremely burdensome implications of Cochrane's strong egalitarian position regarding sentient animals, recognizing LMS would greatly ameliorate the extent of our positive obligations to them. By accepting levels of moral status and rejecting the notion that the interests of all sentient animals merit the same level of moral concern, we would avoid very onerous positive obligations to sentient animals with simpler forms of sentience, such as crustaceans like crabs and lobsters (Elwood, et al., 2009; Elwood and Appel, 2009).

These observations provide reasons for recognizing LMS. Particularly for those concerned with integrating sentient animals into political communities, whether at a national or international level, there are multiple reasons for having a taxonomy of LMS. But before identifying in more precise terms what these reasons are, we should note two background conditions relevant for the implementation of the political integration of sentient animals. First, there is a scarcity of natural resources and human labor that we can devote to the project of achieving political justice for animals. We are already living in a world of ecological overshoot, in which we use the equivalent of 1.6 earths to provide the resources we use and absorb the wastes we produce (Global Footprint Network, 2021). That is, we are using the earth's resources and waste absorption capacities at a faster rate than the earth can regenerate, so that it takes one year and eight months for our planet to restore what we use in one year (Global Footprint Network, 2021). With a growing global population, this excessive use of the earth's regenerative biocapacities is likely to get worse, so that the issue of *prioritizing the use* of natural resources needed to provide the basic survival needs of human and nonhuman animals cannot be avoided. Moreover, human labor to address the needs of sentient animals is also limited, so that we cannot assume that we can attend equally to the needs of all sentient animals. Even if we could somehow, perhaps through conservation, population control, or new technologies, manage to extend available natural resources, we would still be seriously hindered by inherent limitations in human labor. In brief, because we do not have the natural resources or human labor necessary to satisfy even the basic survival needs of all sentient animals, a system of LMS is crucially important for knowing how to parcel out the limited resources and labor at our disposal.

Second, the political integration of sentient animals into political communities involves introducing institutional reforms and legal statutes, that is, political integration involves implementing general guidelines governing our

interactions with animals of a given kind, and not identifying specific ways of dealing with particular animals based on their individual characteristics. Since legal statutes generally apply to groups and not individuals, from a pragmatic standpoint it might be wise to start legal initiatives by focusing on the capacities and features of cognitively complex species of animals. By identifying the level of moral status of a species, we get a synoptic account of the nature of their species-specific needs and vulnerabilities as well as a general preliminary indication of the limited resources and labor we should devote to them in comparison to other species. A pragmatic focus on cognitively complex species in legal initiatives does not commit us to a view of moral status based on species membership, it only suggests a possibly useful strategic approach. These observations are supported by the fact that, worldwide, the most systematic attempts to pass legislation involving protections and entitlements for animals are species-based, i.e., they center on granting protections to certain sentient animals based on their complex species-specific capacities.<sup>7</sup>

Despite the ostensive advantages of recognizing LMS, theories identifying LMS have not been widely accepted in animal ethics and it is not difficult to see why. The justificatory strategy of most theories of LMS is that some animals have greater moral value than others—and therefore a higher level of moral status—because they possess capacities deemed more morally significant or valuable, such as rationality, moral agency, or autonomy. The traditional objection to these value-based theories of LMS is that they posit a hierarchy of moral value among animals that is anthropocentrically based, i.e., grounded on capacities that humans excel at and value. Therefore, the objection continues, these theories are speciesist and unjustifiably devalue the moral worth of non-human animals. However, it is not necessary to base a theory of LMS on differential moral value or worth. I propose a theory of LMS based on the greater vulnerability and needs of some animals compared to others. In this theory, an animal's level of moral status corresponds not to its level of moral value or worth, but to the kind and magnitude of moral concern we should have for it given its *vulnerabilities and needs*. Moral concern is understood in terms of the resources, time, labor, and care that are needed to protect an animal from the harms to which it is susceptible given its species-specific capacities and requirements for flourishing. Granting higher moral status and concern for an animal involves prioritizing the allocation of the goods needed to protect it from the greater potential harms arising from its species-specific capacities and the nonsatisfaction of its needs relative to an animal who is susceptible to fewer harms and has fewer

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developmental and nurturance needs. This moral prioritizing would be reflected in the rights and protections that the animal merits.<sup>8</sup> While I cannot provide here a detailed account of this theory of LMS, below I identify some of its prominent features.

### **A THEORY OF LMS BASED ON VULNERABILITIES AND NEEDS**

According to a vulnerabilities- and needs-based theory of LMS, sentient animals, including humans, that are cognitively, affectively, and socially complex generally merit a higher level of moral concern, and therefore status, than simple sentient animals because they: (1) are vulnerable to more forms of harm, (2) would be harmed more by losing, or being unable to attain, their species-specific goods if they were killed or irreparably harmed, and (3) have greater developmental and nurturance needs which if not satisfied would generate multiple distinctive harms. My theory of LMS is grounded on the normative principle that, considered as individual animals worthy of moral consideration, it is morally preferable to cause less harm to *individual sentient animals* than more. Since the three criteria that ground distinctions in moral status are all based on having greater moral concern for animals who will suffer relatively greater harms if their well-being and needs are not prioritized relative to animals with lower moral status, these three criteria satisfy this normative principle.<sup>9</sup>

Concerning the first of these three criteria, if one being is capable of both physical and psychological suffering, this is a *prima facie* reason for granting it greater moral concern and care than a less complex being who can only experience physical pain.<sup>10</sup> Frogs and chimpanzees, for example, share a set of physical vulnerabilities based on their sentience and physiological structures, but chimpanzees have an additional set of vulnerabilities based on their emotional and psychological capacities. Chimpanzees are more vulnerable given their ability to experience additional forms of suffering, such as persistent life-long psychological trauma or disruption of their social relationships, that are qualitatively distinct from the physical pain that frogs can experience. The more complex cognitive, social, and psychological capacities of animals like chimpanzees and dolphins give rise to vulnerabilities that justify granting them greater moral concern and care, including special protections against confinement, respect for their practical autonomy,<sup>11</sup> and avoidance of disruption of their social relationships to conspecifics. Their greater vulnerabilities, in short, justify granting them a higher level of moral status, which involves granting them more extensive protections and entitlements. This greater moral attention and care involves

employing more scarce resources and labor to address vulnerabilities that we need not be concerned with when dealing with simpler animals like crabs, frogs, and sardines. Of course, we still have obligations to these simpler animals, but they are not as extensive as those we have to complex animals such as chimpanzees, elephants, dolphins, and humans.

In addition to being susceptible to more kinds of harm, animals like humans, dolphins, and chimpanzees also satisfy the second criterion for possessing higher moral status, namely, they lose more upon death or irreparable harm.<sup>12</sup> Because complex sentient animals like humans are more likely to have significant ongoing social relationships to conspecifics, a more highly developed sense of the future, and more future-oriented desires, they are vulnerable to losing more upon death than simple sentient animals such as snakes, crabs, and goldfish. Moreover, they are also more vulnerable to losing more if they are seriously impaired and cannot exercise their species-specific capacities. If a highly complex sentient animal is rendered comatose or is severely cognitively impaired, for example, they lose more than simple sentient animals in terms of unfulfilled desires, social relationships, and life plans.

Regarding the third criterion, complex sentient animals clearly have greater developmental and nurturance needs than simple sentient animals. Elephants, orangutans, and chimpanzees, for example, have long and involved parenting and socialization periods in which the young are taught to act appropriately with members of their family and group, avoid dangers, find food, and form alliances and cooperate with others (Sukumar, 2003; Payne and Cede Prudente, 2008; Stanton, 2020). These are intensely social animals who can suffer psychological damage from isolation and removal from their natural habitats and social networks and can be more traumatized than simple sentient animals by confinement in laboratory settings, zoos, and animal parks. Concerning humans, they need extensive parental guidance in their early years and require many years of education to achieve literacy, attain basic sociocultural and technical knowledge, and learn to function properly in society. They face significant hinderances in their lives if they do not have access to the educational resources and the guidance needed to develop their species-specific capacities. Further, humans arguably need social respect to flourish, and it is also important for them to be politically empowered so they can influence political decisions that affect their economic, social, and physical well-being. In short, complex sentient animals can suffer a greater range of harms because of the nonsatisfaction of their more extensive developmental and ongoing nurturance needs.

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According to a vulnerability- and needs-based theory of LMS, the harms to which an animal is vulnerable should be understood holistically. When determining an animal's moral status, we should look at all of the different forms of harm to which the animal is susceptible, including physical, cognitive, affective, and sociopolitical harms. This theory does not focus on just one or another form of harm but considers all of the kinds of harm to which an animal is vulnerable. For an animal to have a high level of moral status, it does not suffice to show, for example, that it is physically highly vulnerable. This feature of the theory rules out classifying simple vulnerable animals such as sardines as having a high level of moral status because they are highly physically vulnerable to predation. Because the purpose of this theory of LMS is to assist in the allocation of scarce resources and labor to minimize harm to sentient animals, it makes sense to attend to all the different kinds of harms to which an animal is susceptible, rather than attending to only some of these.

This theory of LMS takes into account vulnerabilities based on susceptibility to harms that deprive one of achieving or enjoying one's species-specific goods. Such harms include the nonsatisfaction of basic developmental or nurturance needs, the loss of goods associated with one's species, and systemic sociopolitical conditions that impede the exercise of one's basic species-specific capacities. So even though there is a sense in which billionaire Bill Gates is vulnerable to a great loss of wealth, for instance, this would not count in this theory as a vulnerability that justifies granting him a high level of moral status. The kind of vulnerabilities that justify his possessing high moral status are those that impede his functioning as the kind of being that he is, i.e., relevant vulnerabilities are those that hinder his physical health as well as his basic psychological, social, and political well-being. What makes him and other humans particularly vulnerable animals is their susceptibility to a wide range of harms as well as the broad kinds of needs humans have. Humans, for example, are vulnerable to the harms of not receiving an education, of social and political discrimination based on race, sexual orientation, political beliefs, or religion, and of being deprived of medical care or nutrition adequate for human beings. Because humans and other complex sentient animals are vulnerable to a wider range of harms than simple sentient beings like frogs or crabs, they merit a higher level of moral concern and status. Providing all sentient animals with the same level of moral concern and status would lead to greater harms to those animals whose complexity gives rise to conditions involving more forms of vulnerability and need.

Compared to value-based theories of LMS, a vulnerabilities- and needs-based theory is better able to deal with arguments such as the argument from species overlap, since it is not based on claims that the possession of certain capacities confers greater moral value or worth to some sentient animals. A well-known objection to value-based theories of LMS is that the capacities that ground the attribution of higher moral status for the members of a group are often not possessed, or not possessed equally, by all members of that group. Thus, if we employ rationality or moral agency as capacities that justify higher moral status for humans, one can object that some humans, such as severely cognitively impaired humans, do not possess these capacities. A vulnerabilities- and needs-based theory, however, can deal with the case of severely cognitively disabled humans by pointing out that, since it is vulnerabilities and needs (and not some allegedly privileged capacity) that ground moral status in this theory, they would not lose their high level of moral status. On the contrary, given their circumstances, they could be seen as human beings who need certain resources and care to be able to deal with the challenges they face. Surely this perspective conforms better with the way most people see severely cognitively disabled humans than the view that their moral status should be the same as that of a nonhuman animal with similar cognitive capacities.

Another advantage of a vulnerability- and needs-based theory of LMS is that it facilitates the extension of legal protections to sentient animals by providing a sound rationale for initially focusing on complex sentient animals. Attempts to extend legal rights for animals have understandably focused on more cognitively, affectively, and socially complex animals, since courts of law are more likely to see how protections and entitlements granted to humans can plausibly be applied to complex animals rather than simple sentient animals. Yet by refusing to acknowledge LMS and insisting that the interests of *all* sentient animals should be granted *equal* moral consideration, ethicists and attorneys risk defending an incoherent position that is strongly egalitarian regarding all sentient animals but relies on vulnerabilities and needs deriving from cognitive and affective complexity that characterizes only a few animals. Lastly, an additional advantage of a vulnerability- and needs-based theory of LMS is that it justifies the differential use of the limited resources and labor at our disposal to address the needs and interests of more psychologically and cognitively complex sentient beings. I believe most morally reflective people would approve prioritizing scarce resources and labor to address the needs of more vulnerable and needy beings. But animal ethicists like Cochrane

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who maintain that all sentient beings have the same moral value have difficulty integrating this view, given their radical egalitarian position regarding the equal moral worth and equal consideration of interests of all sentient beings.

The primary function of a theory of LMS is to provide a synoptic view of the level of moral concern and care—understood in terms of the allocation of scarce resources and labor—that sentient animals should receive in the formulation of social policies and legal statutes. Knowing how to prioritize scarce natural resources and labor to address the needs of numerous species of sentient animals is of central importance for identifying the political entitlements and protections they merit. Here I do not have the space to provide a detailed account of the levels of moral status that such a theory might consist of or to discuss the evidence supporting the specific species of animals that might fit into each level. However, as a preliminary suggestion, I propose four levels of moral status comprised of four groups: humans, animal persons, animal selves, and simple sentient animals. Animal persons include animals that have such capacities as introspective self-awareness, episodic memory, practical autonomy, complex emotions, and awareness of other minds. The group of animals that exhibit these capacities is extremely limited, and arguably includes chimpanzees, bonobos, and other great apes, bottlenose dolphins, and possibly elephants. Animal selves include animals that have such capacities as a rudimentary sense of self, a basic sense of the future and the past, practical autonomy, and basic emotions. Animals in this category might include cats, dogs, cows, and pigs. The fourth level of moral status includes animals that possess simple sentient capacities for bodily self-awareness and for pain and perhaps pleasure. Animals in this category would have a very constrained sense of the past and future and a minimal capacity for emotions. Animals in this fourth level of moral status would include snakes, toads, crabs, and sardines. As research in animal cognition continues, we might find it necessary to reclassify some nonhuman animal species into a different level of moral status.

As we have observed, a theory of LMS is a useful theoretical tool for the morally principled differential allocation of resources and labor for addressing vulnerabilities and needs of sentient animals. However, there is an important exception to using moral status as a guide for the allocation of resources and labor. Because animals in nature flourish in ecosystems in which there is a high degree of interdependence, in some cases the well-being of less

complex animals may be of greater importance for the flourishing of an ecosystem than the survival of more complex sentient animals. In these cases, it may be justifiable to allocate more resources and labor to protect the members of a species based on their importance to an ecosystem. The rationale for this differential allocation would be based on prevention of extensive forms of harm to the more complex animal species that would occur if the ecosystem were to collapse.

It may strike some readers as ironic to categorize the species with the greatest capacity to harm others, namely, human beings, as the most vulnerable. I would respond that there are innumerable ways in which a being can be *circumstantially vulnerable*: they could be cancer patients undergoing chemotherapy, they could be an animal in the animal industry, they could be refugees fleeing a war zone, they could be a sardine hunted by a dolphin, etc., etc. And, of course, they could be an animal that in certain circumstances is vulnerable to human cruelty or thoughtlessness. It is not the point of my taxonomy of moral status to capture circumstantial vulnerabilities, but those based on capacities and features that are inherent to beings with moral status. Even in a just well-ordered society, humans and more cognitively, socially, and psychologically complex animals would still be more vulnerable in the ways specified in my taxonomy than simpler animals. In any case, ultimately the acceptability of my taxonomy depends on whether it provides a plausible way to understand the inherent needs and vulnerabilities of animals so that we can direct our limited resources and labor to minimize harm to them. My taxonomy is compatible with additional efforts to identify the various circumstantial vulnerabilities that may afflict particular animals.

In conclusion, the recognition of sentient animals as political subjects is an important moral goal and represents an advance in our understanding of the nature of political communities. However, in articulating a morally principled and feasible perspective for achieving this goal, philosophers should recognize the great variability in the capacity for sentience and the moral significance of this variability. A system of LMS that is vulnerability- and needs-based avoids traditional objections to value-based systems of LMS and, by serving as a useful theoretical tool to ground differentiated entitlements and protections of sentient animals, would allow us to prioritize the limited resources and labor at our disposal in a morally justifiable way.

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## NOTES

<sup>1</sup> Other influential works dealing with the political turn in animal ethics include Donaldson and Kymlicka (2011), Garner (2013), and O’Sullivan (2011). I focus here on Cochrane’s text not only to keep this article a manageable length, but also because of its prominence and its fuller development of an interest-based theory of rights based on sentience. But it is worthwhile to note that many of my arguments also apply to “sentientist egalitarians” who take sentience as a necessary and sufficient basis for granting all sentient animals equal moral consideration and status.

<sup>2</sup> Here “species-specific” capacities are simply those that an individual member of a species typically possesses. I am not making the essentialist claim that all and only members of particular species possess distinctive interests that are “species-specific.” I would like to thank one of the anonymous reviewers of this journal for this clarification.

<sup>3</sup> The principle of ECOI was popularized by Peter Singer. His articulation of the principles states that we should “give equal weight in our moral deliberations to the like interests of all those affected by our actions” (Singer, 1993, p. 21).

<sup>4</sup> Some of the points in this section were inspired by Zuolo’s arguments presented in his excellent and important article, Zuolo (2019).

<sup>5</sup> Note that these observations do not apply to humans only, for cognitively complex nonhuman animals, such as dogs and dolphins, can very likely recognize whether pain is maliciously inflicted or benevolently motivated (e.g., when treating an injury).

<sup>6</sup> The connection between psychological complexity and what is lost upon death has been noted, among others, by Singer (1993), McMahan (2002), Belshaw (2016), and Bradley (2016).

<sup>7</sup> In the U.S., the Nonhuman Rights Project has advocated certain rights for great apes, elephants, dolphins, and whales. Even though arguments before courts of law have been made by lawyers on behalf of individual animal clients, the justification for granting rights to animals has been based on their species-specific capacities (Nonhuman Rights Project, 2021). In the European Union, arguments supporting legislation concerning animal rights have also relied on their species-specific capacities (Simonin & Gavinelli, 2019).

<sup>8</sup> Prioritizing moral concern for beings with higher moral status also includes deciding in their favor, *ceteris paribus*, regarding their survival relative to beings with a lower level of moral status.

<sup>9</sup> For a related account of a taxonomy of LMS, see Emilio M. Valadez, “Against Value Hierarchies in Animal Ethics: The Vulnerabilities Account of Moral Status,” Unpublished paper, 2021.

<sup>10</sup> I am assuming that we have no compelling reason to think that the simpler animal’s capacity for physical suffering is necessarily greater than that of the more complex animal.

Indeed, given the vastly greater number of neurons of the more developed and larger brains of complex animals, it seems likely that their capacity for physical suffering might very well be phenomenologically greater than that of simpler animals. In any case, my position does not depend on the truth of the latter claim, since in my view moral status is based on a holistic account of an animal’s vulnerabilities and needs.

<sup>11</sup> Steven Wise defines practical autonomy as a complex capacity that an animal has if it can desire, can act intentionally to fulfill these desires, and has a sufficiently complex sense of self to understand that it is she or he who is trying to satisfy those desires (Wise, 2002, p. 32). Wise has argued before courts of law that this rudimentary form of autonomy is sufficient to grant certain animals personhood and basic liberty rights.

<sup>12</sup> For a discussion of the badness of death for some sentient animals, see McMahan (2002), Belshaw (2016), and Bradley (2016). Peter Singer (1993) also recognized some of the connections between psychological complexity and death. Note that we need not assume that the goods that complex animals lose upon death or irreparable harm are in themselves necessarily more valuable than the goods attainable by simple sentient animals. It suffices for my purposes to maintain that the former goods are more numerous and more varied in kind and that their loss represents more deprivations and thus that the individual losing them is correspondingly harmed more.

## REFERENCES

- Advocates for Animals (2005). *Cephalopods and Decapod Crustaceans: Their Capacity to Experience Pain and Suffering*. <https://onekindplanet.org/uploads/publications/cephalopods-decapod-crustaceans.pdf>. Accessed July 5, 2021.
- Belshaw, C. (2016). Death, Pain, and Animal Life. In Tatjana Visak and Robert Garner, (Eds.), *The Ethics of Killing Animals*, (pp. 32-50). New York: Oxford University Press.
- Beran, M., Perdue, B. M., Futch S. E., Smith J. D., Evans T. A., & Parrish, A. E. (2015). Go when you know: Chimpanzees’ confidence movements reflect their responses in a computerized memory task. *Cognition*, 142, 236-246. <http://dx.doi.org/10.1016/j.cognition.2015.05.023>  
Accessed July 10, 2021.
- Beran, M., Menzel, C., Parrish, A.E., Perdue, B.M., Sayers, K., Smith, J.D., & Washburn, D. (2016). Primate cognition: attention, episodic memory, prospective memory, self-control, and metacognition as examples of cognitive control in nonhuman primates. *Wiley interdisciplinary reviews. Cognitive science*, 7 5, 294-316.
- Bermudez, J. L. (1998). *The Paradox of Self-consciousness*. Cambridge, MA: Cambridge University Press.
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- BioExpedition. (2015). Chuckwalla. Retrieved from <https://www.bioexpedition.com/chuckwalla/> Accessed June 29, 2021
- Birch, J., Schnell, A. K., Clayton, N. S. (2020). Dimensions of Animal Consciousness, *Trends in Cognitive Science, Vol. 24 (10)*. 789-801. <https://doi.org/10.1016/j.tics.2020.07.007> Accessed July 10, 2021.
- Birkett, L. P., & Newton-Fisher, N. E. (2011). How Abnormal Is the Behaviour of Captive, Zoo-Living Chimpanzees? *PLoS ONE, 6(6)*. <https://doi.org/10.1371/journal.pone.0020101> Accessed June 28, 2021.
- Boesch, C., Hohmann, G., & Marchant, L. (2002). *Behavioural Diversity in Chimpanzees and Bonobos*. Cambridge: Cambridge University Press.
- Bradley, B. (2016). Is Death Bad for a Cow? In Tatjana Visak and Robert Garner, (Eds.), *The Ethics of Killing Animals*, (pp. 51-64). New York: Oxford University Press.
- Bradshaw, G. A. (2009). *Elephants on the edge: What animals teach us about humanity*. Yale University Press.
- Braithwaite, V. (2010). *Do fish feel pain?* Oxford: Oxford University Press.
- Broom, D. M. (2014). *Sentience and Animal Welfare*. CABI.
- Broom, D. M. (2019). Sentience. In J. C. Choe (Ed.), *Encyclopedia of Animal Behavior* 2<sup>nd</sup> ed., Vol. 1. Elsevier Academic Press.
- Cochrane, A. (2018). *Sentientist Politics: A Theory of Global Inter-Species Justice*. Oxford: Oxford University Press.
- DeGrazia, D. (2009). Self-awareness in animals. In Robert Lurz (Ed.), *The Philosophy of Animal Minds*, (pp. 201-217). Cambridge: Cambridge University Press.
- Donaldson, S. & Kymlicka, W. (2011). *Zoopolis: A Political Theory of Animal Rights*. Oxford: Oxford University Press.
- Elwood, R. W., Barr, S., & Patterson, L. (2009) Pain and stress in crustaceans? *Applied Animal Behaviour Science, 118(3-4)*, 128-136. <https://doi.org/10.1016/j.applanim.2009.02.018> Accessed June 10, 2021.
- Elwood, R. W., & Appel, M. (2009). Pain experience in hermit crabs? *Animal Behaviour, 77 (5)*, 1243-1246. <https://doi.org/10.1016/j.anbehav.2009.01.028> Accessed July 2, 2021.
- Ferdowsian, H. R., Durham, D. L., Kimwele, K., Godelieve, K., Oтали, E., Akugizibwe, T., Mulcahy, J. B., Ajarova, L. & Johnson, C. M. (2011). Signs of Mood and Anxiety Disorders in Chimpanzees. *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0019855> Accessed June 30, 2021.
- Foote, A. L., & Crystal, J. D. (2007). Metacognition in the rat. *Current biology: CB, 17(6)*, 551–555. <https://doi.org/10.1016/j.cub.2007.01.061> Accessed July 1, 2021.
- Garner, R. (2013). *A Theory of Justice for Animals: Animal Rights in a Nonideal World*. New York: Oxford University Press.
- Global Footprint Network: Advancing the Science of Sustainability, <https://www.footprintnetwork.org/our-work/ecological-footprint/> Accessed June 20, 2021.
- Goodall, J. (2001). *The Chimpanzees of Gombe*. Cambridge: Harvard University Press.
- Herman, L. (2002). Exploring the Cognitive World of the Bottlenose Dolphin. In M. Bekoff, C. Allen, & G. Burghardt (Eds.), *The Cognitive Animal*, (pp. 275-283). Cambridge: MIT Press.
- Irwin, L. N. (2020). Renewed Perspective on the Deep Roots and Broad Distribution of Animal Consciousness. *Frontiers in Systems Neuroscience*. <https://doi.org/10.3389/fnsys.2020.00057> Accessed June 20, 2021.
- Jones, R. C. (2013). Science, sentience, and animal welfare. *Biology and Philosophy 28*:1–30 <https://doi.org/10.1007/s10539-012-9351-1> Accessed July 1, 2021.
- McMahan, J. (2002). *The Ethics of Killing*. Oxford: Oxford University Press.
- Mikhalevich, I. & Powell, R. (2020) Minds without spines: Evolutionarily inclusive animal ethics. *Animal Sentience 29(1)*, (pp.1-25). doi: 10.51291/2377-7478.1527 Accessed June 1, 2021.
- Millot, S., Cerqueira, M., Castanheira, M. F., Overli, O., Martins, C., I., M., & Oliveira, R., F. (2014). Use of conditioned place preference/avoidance tests to assess affective states in fish. *Applied Animal Behaviour Science, 154*, 104-111 <https://doi.org/10.1016/j.applanim.2014.02.004> Accessed June 11, 2021.
- Morell, V. (2020). Newfound brain structure explains why some birds are so smart—and maybe even self-aware. *Science*. <https://doi.org/10.1126/science.abe9577> Accessed June 1, 2021.
- Nishida, T. (1968). The social group of wild chimpanzees in the Mahale Mountains. *Primates, 9 (3)*, 167-224. doi:10.1007/BF01730971 Accessed July 12, 2021.
- Nonhuman Rights Project (2021). The Power of Persistence in the Fight for Nonhuman Rights. <https://www.nonhumanrights.org/progress/> Accessed July 26, 2021.
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- O'Sullivan, S. (2011). *Animal, Equality, and Democracy*. London: Palgrave Macmillan.
- Payne, J. and Prudente, J. C. (2008). *Orangutans: Behavior, Ecology, and Conservation*. Cambridge: MIT Press.
- Perry C.J. & Barron A.B. (2012). Honey bees avoiding decisions: evidence for metacognition in an invertebrate? *Conference Abstract: Tenth International Congress of Neuroethology*. doi: 10.3389/conf.fnbeh.2012.27.00174 Accessed July 1, 2021.
- Schwartz, B. & Evans, S. (2001). Episodic Memory in Primates. *American Journal of Primatology*, 55(2), 71-85. doi: 10.1002/ajp.1041 Accessed July 14, 2021.
- Shalev, A., Liberzon, I. & Marmar, C. (2017). Post-Traumatic Stress Disorder. *New England Journal of Medicine*, 376(25), 2459-2469. doi:10.1056/NEJMra1612499 Accessed July 26, 2021.
- Simonin, D. and Gavinelli, A. (2019). The European Union legislation on animal welfare: state of play, enforcement and future activities. In Sophie Hild & Louis Schweitzer (Eds.) *Animal Welfare: From Science to Law*, (pp. 59-70). Paris: La Fondation Droit Animal, Éthique et Sciences.
- Singer, P. (1993). *Practical Ethics*. Cambridge: Cambridge University Press.
- Smith, J. D. (2010). Inaugurating the Study of Animal Metacognition. *International Journal of Comparative Psychology*, 23(3), 401-413.
- Stanford, C. (2001). *Significant Others: The Ape-Human Continuum and the Quest for Human Nature*. New York: Basic Books.
- Stanton, M. A., Lonsdorf, E., Murray, C., & Pusey, A., (2020). Consequences of maternal loss before and after weaning in male and female wild chimpanzees," *Behavioral Ecology and Sociobiology*, 74 (22). <https://doi.org/10.1007/s00265-020-2804-7> Accessed July 3, 2021.
- Sukumar, R. (2003). *The Living Elephants: Evolutionary Ecology, Behavior, and Conservation*. Oxford: Oxford University Press.
- Team, B. (2020). How Long Can a Ball Python Go Without Eating in Captivity? Terrarium Quest.com. <https://www.terrariumquest.com/ball-python/how-long-without-eating/> Accessed May 13, 2020.
- Turner, G. (2018). The Silverback Gorilla's Diet. *Sciencing.com*. <https://sciencing.com/silverback-gorillas-diet-6548298.html>. Accessed 13 May 2022.
- Vila Pouca, C. & Brown, C. (2017). Contemporary topics in fish cognition and behaviour. *Current Opinion in Behavioral Sciences*. 16, 46-52. <https://doi.org/10.1016/j.cobeha.2017.03.002> Accessed June 30, 2021.
- Wise, S. (2002). *Drawing the Line*. Cambridge, MA: Perseus Books.
- Zuolo, F. (2017). Equality, its Basis and Moral Status: Challenging the Principle of Equal Consideration of Interests. *International Journal of Philosophical Studies*, Vol. 25 (2), 170-188. <http://dx.doi.org/10.1080/09672559.2017.1286679> Accessed July 4, 2021.
- Zuolo, F. (2019). Misadventures of Sentience: Animals and the Basis of Equality. *Animals*, 9(12):1044, <https://doi.org/10.3390/ani9121044>. Accessed July 18, 2021.
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