

## ETHICAL, ENVIRONMENTAL AND EPISTEMOLOGICAL ISSUES UNDERLYING INTERVENTION TO HELP WILD ANIMALS

*QUESTÕES ÉTICAS, AMBIENTAIS E EPISTEMOLÓGICAS SUBJACENTES ÀS INTERVENÇÕES PARA AJUDAR ANIMAIS SELVAGENS*

DOI:

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**ABSTRACT:** This article analyzes some arguments in favor of helping animals who suffer in nature in the light of abolitionist environmentalism. According to several authors, wild animals should be recipients of moral consideration. This reasoning is indisputably correct, and several pro-intervention arguments are quite rich on a philosophical level. However, many arguments that seek to refute the ecological risks underlying intervention to help these animals are either digressive or lack solid ecological/scientific foundations. Population dynamics present shocking figures about lives whose existence is brief and full of suffering. But it also unveils the complexity inherent to ecological processes and the possible unforeseen consequences of intervention in nature, including potentially speciesist practices. Most natural ecosystems today have already undergone a high degree of anthropogenic disturbance. This makes the outcomes of interventions even more unpredictable. Epistemological issues are also addressed, including the alleged dichotomy between moral agents and moral patients and the anthropocentric bias underlying intervention. Therefore, it is suggested that positive rights for wild animals be strengthened through greater investment in existing welfare practices, along with other cutting-edge ideas such as granting them property rights. A new legislation, law enforcement and animal abolitionist education play a key role in this paradigm shift.

**KEY-WORDS:** Abolitionist Environmentalism; Education; Morality; Selective speciesism; Sentience.

**RESUMO:** Este artigo analisa alguns argumentos favoráveis a intervir para ajudar animais que sofrem na natureza à luz do ambientalismo abolicionista. Segundo diversos autores, os animais selvagens também merecem consideração moral. Essa tese é evidentemente correta e vários argumentos pró-intervenção são muito ricos em termos filosóficos. Contudo, muitos argumentos que buscam refutar os riscos ecológicos subjacentes às intervenções para ajudar tais animais são digressivos ou carecem de fundamentos ecológicos/científicos sólidos. A dinâmica de populações traz dados aterradores sobre vidas cuja existência é breve e repleta de sofrimentos. Mas também desvela a complexidade inerente aos processos ecológicos e às possíveis consequências imprevistas de intervenções na natureza, incluindo práticas potencialmente especistas. A maioria dos ecossistemas naturais, hoje, já sofreu um alto grau de perturbação antropogênica. Isso torna os resultados das intervenções ainda mais imprevisíveis. Questões epistemológicas também são abordadas, como a suposta dicotomia entre agentes e pacientes morais e o viés antropocêntrico subjacente à intervenção. Sugere-se, portanto, que direitos positivos aos animais selvagens sejam fortalecidos por meio de maiores

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investimentos em práticas de bem-estar já existentes juntamente com ideias inovadoras, como a concessão de direitos de propriedade. Uma nova legislação, um maior rigor na aplicação da lei e uma educação abolicionista animal desempenham um papel crucial nessa mudança de paradigma.

**PALAVRAS-CHAVE:** Ambientalismo abolicionista; Educação; Moralidade; Especismo seletivo; Senciência.

**SUMMARY:** 1 Introduction. 2 Arguments pro intervention in nature in the view of Torres Aldave. Seção. 3 The case for intervention in nature as defended by Oscar Horta. 4 Population dynamics and intervention, a concise overview. 5 Chaos, Cosmos, *Chaosm* and Environmental Ethics. 6 Educating towards an Animal Abolitionist Environmentalism. 7 Final considerations. 8 References.

*[May my mind] grant me the serenity to accept the things I cannot change; the courage to change the things I can; and the wisdom to know the difference.*

Excerpt from *The Serenity Prayer* - Reinhold Niebuhr (1892-1971)

## 1 Introduction

In times of progressive expansion of rights for nonhuman animals (Francione, 2000; Regan, 2001; Singer, 1979; Wise, 2004) several authors claim that we should extend positive rights to wild animals who suffer in nature (Cunha, 2022; Faria, 2023; Horta, 2017; Torres Aldave, 2015). According to them, there is a widespread belief that these animals enjoy a good life, but this view does not correspond to reality. Therefore, and having in mind that they deserve moral consideration, there are strong reasons to intervene in nature to reduce their suffering.

This article discusses the reasons why although the first premise is undoubtedly correct, and the second one gets close to reality, the outcoming proposal poses possible problems of both ecological and ethical character. To accomplish this, some arguments from two philosophers who defend the interventionist thesis – Mikel Torres Aldave (2015) and Oscar Horta (2017) – were analyzed.

Their justification – which focus mainly on the balance between happiness and suffering and good lives versus lives full of disvalue – is very rich on a theoretical and philosophical level. Yet, although valuable from a moral perspective, the claims offered to refute the dangers of intervention focus mainly on weighing individual interests against collective and ecosystem interests. This line of argument has shown to be digressive and sometimes redundant or based on inappropriate dichotomies, especially

in respect to the core of the matter which is, to me, the lack of predictability concerning outcomes from intervention. In sum, the authors meander and move away from strictly ecological reasons for refuting intervention. They state that it is impossible to say that post-intervention scenarios will be worse, but absence of evidence is not evidence of absence of possible harms.

My point is that one may oppose intervention not because the harms undergone by nonhuman<sup>2</sup> animals should be of no concern for us. Nor because intervention in nature should be carried out only for the sake of human interests, but because of ethical and ecological cost benefit outcomes which may include selective speciesism. Analogously, a doctor may oppose a surgical intervention not because it's not indicated, but based on the patient's records which unveil a high risk of death if the surgery is performed. This is my anti-speciesist environmentalist position.

Ecology as a natural science was founded on a holistic vision: interconnectedness between biotic and abiotic components, feedback mechanisms, emergent properties, etc, are phenomena whose complexity cannot be easily described or predicted. Nature is dialectical (Barlow, 1992; Capra, 1996; Clapham, 1973; Odum, 1985; Scheffler, 1976). Therefore, it makes little sense to assume that even minimal interventions are safe, particularly in the present time when the biosphere is jeopardized by a myriad of anthropogenic deleterious interferences.

Humans have a powerful ability to alter their environment. Sometimes it is possible to reverse some of these changes. But it is at least difficult and often impossible to predict the ramifications of these changes on the total ecosystem before they are made, especially in a time when the fitness of many ecosystems is deteriorating at an alarming rate (Clapham, 1973, p.233;237). Furthermore, what types of intervention would be considered minimal?

Although agreeing that all animals deserve moral consideration, and should have positive rights, those who advocate intervention seem too confident in science,

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<sup>2</sup> The word animal will be used in this text to refer to nonhuman animals. However, words are much more than a mere form of expression: they are "prisoners" of the paradigm that gave rise to them. The "nonhuman animal" nomenclature maintains the dichotomous reasoning – us and them – and reflects a discontinuous and fragmented way of thinking. De Waal (2017, p.27-28) says that this grates on him, since it lumps millions of species together by an absence, as if they were missing something: poor things, they are nonhuman; but they are also nonpenguin, nonhyena, and a whole lot more.

particularly regarding the accuracy/predictability of mathematical models concerning natural phenomena. Yet, even if models were fairly accurate, where should we begin? What criteria would be used to decide which animals should be saved? Would they be charismatic individuals/species, like gazelles or zebras, or animals such as reptiles, mollusks, or insects? Science shows that animal sentience is present in many phyla (Gittins, 2019) and consciousness may have emerged as early as the Cambrian period (Barron & Klein, 2016). How to evade selective speciesism? Can we provide ethically sound alternative food for predators? Regarding suffering, pleasure (and neutral moments): how can we accurately and unequivocally identify and measure such feelings, taking into account the differences that exist between species and between individuals? Are they actually measurable?

Regardless of whether these problems can one day be solved, the idea that we should help animals in the wild may have other adverse effects: reinforcing selective speciesism, a cultural trait widespread in our Western society. One emblematic context is prey-predator relationships. In Brazil capuchin monkeys (family Cebidae) are potential prey for “sucuris”, big snakes like anacondas (genus *Eunectes*; family Boidae). Two episodes that went viral on social media, involving anaconda attacks on these monkeys, show that humans (mainly tourists) have a predisposition to save these mammals, ignoring the reptiles' need for food<sup>3</sup>.

Direct contact with wildlife may pose serious ethical dilemmas. As a lay person I would not hesitate in saving a monkey from such a gruesome and mortal embrace. As a biologist I would refrain from doing it, for I was taught not to interfere with food chains. This learned attitude is devoid of individual moral considerations and aims solely at securing the health of the ecosystem as a whole. Nevertheless, as also a social scientist, I learned that I would commit selective speciesism by trying to save the monkey, deciding when, how, and what the anaconda should eat. I would be assigning greater moral value to the monkey based on kinship, on our phylogenetical proximity. Furthermore, I could be condemning that apex predator to starvation, or even death, because that primate may have been one of his/her last attempts at getting a meal. However, this is what currently happens because we have little or no empathy for reptiles and other animals considered distant from us.

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<sup>3</sup> This information can be found in Libni (2023) and Johnson (2025).

Another possible detrimental effect is trivializing the possession of “rescued” wild animals as pets<sup>4</sup>. Worrying cases that rapidly spread on social media involve direct or indirect victims of hunting or the blatant loss of territory caused by the expansion of animal agriculture and other human interferences. Authorities responsible for enforcing wildlife legislation are, in many cases, required to collect these animals from their owners who often profit from the situation sharing videos and pictures on social media to gain fame and/or money. These episodes have created great animosity between such authorities – also responsible for combating wildlife trafficking, etc – and the public.

It is undeniable that mainstream science and environmentalism are truly speciesist (Brügger, 2019). Nonetheless, concerning this debate, I defend that we should focus mainly on negative duties. Human beings must abstain from doing many things. One of the most urgent is to stop, or at least minimize, harming, restricting freedom, or promoting changes in the natural environment of animals and plants, whether directly or indirectly. A corollary of this is that we should not interfere in their lives, under normal situations, even if the intention is to protect them: our choices about which organisms should be saved or assisted run the risk of being arbitrary and may violate the principle of impartiality, opening the door to injustice as some forms of selective speciesism. Besides, unpredicted effects in the ecosystem may trigger situations that pose more tribulations to countless sentient beings.

In this context, I stress the paramount role of a new education, legislation, law enforcement and public policies in strengthening the rights of all animals in order to build an anti-speciesist cultural paradigm.

Positive rights such as greater assistance in extreme environmental situations – either of natural or anthropogenic origin – and property rights to wild animals (Bradshaw, 2018) are also some elemental steps in this *démarche*.

## **2 Arguments pro intervention in nature in the view of Torres Aldave**

Mikel Torres Aldave (2015, p.40) proposes refuting eight arguments against intervening in nature for the benefit of animals. He begins his text by stating that “no

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<sup>4</sup> This information can be found in Toledo (2025).

one should be rewarded or punished for things that are beyond their control". The author holds that granting equal (or similar) moral consideration to wild animals leads to the moral evaluation of predation because, in their natural habitats, animals constantly kill each other. He then asks: if we as moral agents have an obligation to regulate our behavior toward animals, shouldn't we also have an obligation to regulate how animals treat each other?

I believe the answer to this question is no. First because the punishments and rewards mentioned by the author are not governed by moral/ ethical considerations, but by the rule of necessity. Human animals in industrial societies and even domesticated nonhuman animals – who do not directly depend on food chains for their survival – can act morally. These categories of animals are capable to leave the realm of necessity and can act within the scope of freedom of their choices, such as refraining from killing to survive. Besides, as the most cutting-edge evolutionary cognition science avows, there isn't an absolute dichotomy between moral agents and moral patients: morality did not arise in humans (Bekoff, 2007; De Waal, 2017; Brügger, 2018a).

Torres Aldave (2015, p.42) quotes Regan (1983) who rejects intervening in nature to prevent rights violations that occur there. The author argues that since Regan believes animals are not moral agents, they have no obligation to respect the rights of other animals, including their right to life. Therefore, predation does not pose a moral problem.

It is possible to agree with Regan, but for somewhat different reasons: at the time of his considerations, knowledge about animal sentience and cognition was not as solid as it is now. Philosopher Paul Taylor (1981, p.11) also stated that animals are, in his own words, "morally deficient". Therefore, few or no questions would have been raised about the possibility of moral action in nonhuman animals until recently.

It is true that the agencies of animals are very different from ours, in ways, qualities, forms, intensities, etc. And it is worth noting that they have no duties in the prevailing interpretation of this concept, just like newborn human babies or humans in a coma (Singer, 2002, p.54). Nonetheless, they can act morally in many circumstances (Bekoff, 2007; De Waal 2017; Balcombe, 2016), especially if they are not subjected to the rigors of a food chain. On the other hand, humans who have no other options, such

as strict hunter-gatherers, are also incapable of “acting morally” when it comes to avoiding violating the right to life of other sentient beings if they depend on it for their survival.

Torres Aldave (2015, p.42) claims that Regan does not understand the problem correctly because it is not being stated that animals have a moral duty to respect the rights of other animals. For the author, the question is whether we as moral agents have a duty to intervene in nature so that animals do not harm each other. However, the author uses impertinent examples to disqualify Regan's thesis. For example, the case of a dog attacking a baby. Such a comparison is inappropriate because the issue is not about being a moral agent or a moral patient, but the need to attack another sentient creature to survive. Dogs are domesticated animals. Under normal circumstances they would not attack a baby to satisfy their hunger, unless, perhaps, if they were rewilded. So, we should, yes, intervene in the case of this hypothetical baby attack.

This kind of debate is valid from a philosophical perspective, but it does not address the core of the question: the ethical and ecological risks of intervening in nature. Instead of giving credit to Simmons (2009), who does not recommend intervention, the author quotes Cowen (2003) who states that this position is only valid for certain forms of intervention with a high probability of triggering an ecological catastrophe.

Supporting Cowen's plea, Torres Aldave (2015, p.43) holds that if we could reasonably calculate and evaluate the consequences of modest intervention actions or policies, then small-scale ones would be morally acceptable. He also claims that the opposing argument fails to explain why the supposed ecological balance should be the prevailing value: since change and instability are common phenomena in nature, it is also unclear how we should define the concept of ecological catastrophe.

While it is possible to agree with some of these premises, how can we be sure not to cause further harm? How to accurately calculate the risks and consequences of an intervention? The question is not whether an intervention is morally acceptable but whether it is ecologically unacceptable in the sense of causing more suffering and distress. Furthermore, the line between small and large-scale interventions can be

quite blurred. Nature is dialectical: a small intervention can have significant repercussions across space and time.

It is worth noting that the dynamic and fragile ecological balance so profoundly disturbed today by humans is already causing immense anguish and torment for countless numbers of animals. Furthermore, the assertion that it is not possible to define what constitutes an ecological catastrophe is quite unwise. The anthropogenic climate change scenario that we are experiencing today constitutes a representative example (Brügger, 2021).

Regarding Torres Aldave's (2015, p.44) discussion of the issue of natural selection, it is easy to agree that the moral consideration an individual deserves should not be determined exclusively by the role that he or she plays in preserving an ecosystem. Even the current Brazilian Constitution inadvertently addresses a pro-animal abolitionist environmentalism by prohibiting cruelty in its article 225, paragraph I, item 7. This means that the value of an animal goes beyond its ecological function.

The central point here is raised by Rolston: predation, although bad for the prey, is a fine-tuned phenomenon in ecosystem terms. And most importantly for this debate: what is a disvalue for preys is a value for predators. In terms of subjective experiences, the suffering of the prey is compensated by the pleasure of predators. Rolston recognizes that biological good, *per se*, does not necessarily have moral value and argues that interfering with predation can impoverish the capabilities of the animals themselves (Rolston, 1980, apud Aldave Torres, 2015, p.45).

For Torres Aldave (2015, p.44-45), the main problem with the natural selection argument is that it inappropriately mixes two different issues: the well-being of individual animals and the general capabilities of a species. And that morality should focus primarily on promoting the well-being of individuals rather than improving the capabilities of species.

However, the well-being of predators, mentioned by Rolston (1980), does not only concern a collective perspective, or capabilities: well-being, or suffering, are sensations and emotions experienced by individuals, not by species.

Furthermore, the central issue is not about weighing the moral value of individuals' subjective psychological experiences or the general capabilities of a

species. It is about the dangers underlying the disruption of complex and intertwined phenomena that can have dire implications for local/global processes. Such transfigurations can cause even greater and unpredictable adversities that sentient beings will have to deal with.

Finally, about the claim that natural selection would not be morally acceptable for human beings, this is undeniably true today. Yet, in the past, this certainly affected not only our species, but other now extinct hominids: it is essentially, once again, a matter of survival in trophic chains. Abstaining from killing can only happen in the realm of freedom of choice.

Torres Aldave (2015, p.46) addresses the topic of “special obligations” and cites DeGrazia (1996), Scruton (1996), Simmons (2009) and Donaldson & Kymlicka (2011). Here I follow the author when he states that duties should be related to the morally relevant capabilities of any animal. Special relationships, such as those we have with domesticated animals, should not be the only factor creating moral obligations.

Still, this is another digressive argument regarding intervention. In this specific case, the central point is that we should intervene in the case of domestic animals to prevent their predation on wildlife. The reason is the same as mentioned before: they are not subject to the harshness of food chains. Besides we, as a species and moral agents, are directly responsible for their existence and the control of their populations.

In concluding this topic, the author criticizes different positions of help, mixing hypothetical situations involving humans, domesticated and wild animals because they all have moral value. But humans, for instance, are not natural prey for wild animals. Attacks on humans are usually accidents or, at worst, occur due to a scarcity of prey, a situation often resulting from anthropogenic interventions. Torres Aldave seeks to reaffirm his point by mentioning the case of environments that have been previously altered by human actions. But these are clearly much less controversial situations.

Torres Aldave (2015, p.47) concludes this item by stating that “natural actions can be immoral and moral actions can be unnatural”. Yet, such controversies would not apply to nonhuman animals, since, for the author, they are moral patients *tout court*. Nevertheless, it is worth mentioning in this context a natural action that tend towards

immorality: the case of orcas who eat only the tongues and/or livers of whales and other marine animals, leaving them to die, as these are probably *charcuterie*<sup>5</sup>.

It is 'bad biology' to deny the existence of emotions, empathy, and moral behavior in animals. There are countless studies that attest to the ability of animals to experience not only simple emotional states as joy, anguish, or fear, but also to establish rules of social coexistence and behaviors linked to honor, mourning and justice. Many even have a sense of humor (Bekoff, 2007). And since there is a biological and cultural evolutionary *continuum* between us and other animal species, something like a "protospeciesism"<sup>6</sup> may exist in nonhuman animals (Brügger, 2018a, p.11).

Ryder (2011, p.40–43), who coined the term speciesism, questions the appropriateness of talking about speciesism in relation to species other than humans. Nonetheless, he asks whether this term is applicable only to us and says that sometimes speciesism could be used to describe a positive discrimination. He also proposes eight types of speciesism and analyzes four ways to refer to this concept: whether it is used to describe a belief or a practice; to specify whether the agent is human or nonhuman; to report discrimination against nonhumans or humans; or to specify whether the discrimination is positive or negative.

Torres Aldave's final arguments in favor of interventionism are based on the capabilities approach proposed by Martha Nussbaum (2004). According to him, Nussbaum claims duties towards domesticated animals, but for wild animals this is not always granted, although she defends duties of assistance in contexts of natural disasters. Nussbaum (2004; 2006) thinks that negative and positive duties toward wild animals can be reconciled by adopting what she calls an intelligent paternalism, one that takes into account the different ways in which distinct animal species flourish. Torres Aldave concludes that despite her initial reservations, Nussbaum's capabilities approach openly recommends intervention in nature to protect the basic capabilities of wild animals, albeit in a restrained manner. He also affirms that Nussbaum's theory

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<sup>5</sup> This information can be found in Pare (2023).

<sup>6</sup> See, for instance, the case of humpback whales that disrupt orca hunts to save seals in: PITMAN, Robert L; DURBAN, John W. "Save the Seal!", **Natural History**, nov. 2009, p. 48; TOWERS, Jared, VISSER, Ingrid, and PRIGOLLINI, Vanessa. Testing the waters: Attempts by wild killer whales (*Orcinus orca*) to provision people (*Homo sapiens*). **Journal of Comparative Psychology**. jun. 2025. Accesses: 03 mar.2026. DOI: 10.1037/com0000422.

of animal rights is superior to those that reject interventionist practices, since the claims against intervention fail. Furthermore, Nussbaum's moral theory is right in not granting moral consideration to animals solely based on historical or personal relationships. And it has obvious advantages over utilitarianism since it would not involve the elimination of entire species of predators, as Singer postulates (Torres Aldave, 2015, p.49-52).

Notwithstanding, Nussbaum does not seem to openly advocate intervention in nature here, but only in certain cases and contexts. Therefore, her "intelligent paternalism" does not indicate, in general, a significant innovation regarding practices already conducted by environmentalism *stricto sensu*, although the underlying ethical reasons are different. Concerning the "elimination of entire predator species", attributed to Singer (Torres Aldave, 2015, p.50), the author should have pointed out in which of Singer's works such an unreasonable proposal is supposedly defended<sup>7</sup>.

In short, Torres Aldave (2015, p.52) concludes by stating that sentient animals deserve the same – or at least similar – moral consideration as humans; that there are no good arguments for rejecting intervention in nature to prevent the unnecessary and unjustified suffering that wild animals endure in it; that the same reasons that support the idea that we have moral obligations towards domestic animals apply in the case of wild animals; and that a good theory of the moral consideration of animals must openly advocate intervention. Therefore, the capabilities approach developed by Nussbaum is an adequate theoretical framework for addressing the problem of predation – and the moral consideration that wild animals deserve – although her theory should avoid the ambiguity from which it suffers with respect to interventionist practices.

### **3 The case for intervention in nature as defended by Oscar Horta**

Horta (2017, p.1-3) also examines the main objections to intervention to help animals in nature and, like the previous author, opposes the idea that these will always

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<sup>7</sup> The two references quoted by the author are: Food for Thought. David Rosinger, reply by Peter Singer. **The New York Review**, 14 jun. 1973. Available at: <https://www.nybooks.com/articles/1973/06/14/food-for-thought/>. Access: 03/03/2026; and SINGER, Peter. **Liberación animal**, Madrid: Trotta, 1990, 1999. I completely agree with Singer's position in his response to David Rosinger.

have bad consequences. According to him, population dynamics explain why suffering prevails over well-being in nature. Therefore, we must reject the idyllic vision of animals living in the wild. He argues that supporting intervention in nature solely on behalf of humans is a form of speciesism and not all environmentalists need to oppose intervention, as long as we accept that nonhuman animals, as individuals, are holders of relevant values.

As in the preceding discussion, those are engaging ideas and premises to ponder. However, the crux of the problem lies in another sphere. Many biologists would welcome Nussbaum's theory of capabilities, for example, to bestow moral value to animals as individuals. But would they be pro intervention?

Horta (2017, p.4-7) addresses the “weak and strong versions” of objections against intervention in nature in relation to different standpoints on how life fares in the wild. But the author resorts to dichotomies such as the “idyllic view” versus “natural hell” that do not adequately translate what really happens in natural ecosystems. It is temerous to claim that suffering far outweighs well-being in nature, because it would be necessary to immerse oneself into different *Umwelten*<sup>8</sup> to experience the amounts of pleasure and pain suffered by each species and each individual. Is it plausible? But the main point is that the premises set out by the author do not necessarily lead to the conclusions that he defends. The wish to put an end to the terrible torments that animals suffer in nature does not make intervention a feasible task in the sense of not causing even more harm: an intervention in favor of some animals may incur selective speciesism because, by helping some, we may condemn others to suffering. A holistic view is imperative when it comes to the ecological domain.

The author also raises interesting questions such as whether virtue and care ethicists make different judgments of the extent to which “natural hell for some” is good or bad, or whether utilitarians and those holding other normative views should evaluate similarly what happens in nature. Yet, these remarks do not clarify the ecological issues at stake.

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<sup>8</sup> *Umwelt* is a German word for surroundings /environment. According to Uexküll (2010), the notion of *Umwelt* concerns the self-centered and subjective world of an organism, which represents only a tiny fraction of all possible worlds; each organism feels the world in its own way, and such particular universes are as diverse as the animals themselves. In contrast to the concept of ecological niche, the idea of *Umwelt* starts from an essentially zoocentric perspective.

Based on studies of population dynamics, Horta (2017, p.8-9) states that most animals invest little or nothing in the survival of their offspring, which greatly reduces their chances of survival. Many simply starve to death or are devoured shortly after becoming sentient.

Even considering the possibility that some of these animals may have a low degree of sentience, as the author contemplates, this is certainly a cruel situation from an individual point of view. These vulnerable animals likely suffer, unfortunately, regardless of their level of sentience. However, what would be a possible solution?

Again, weighing suffering versus pleasure to decide whether an intervention would be beneficial or not is an immeasurable task. In addition to the questions already raised – relating to different universes of sentience of each species and individual – we would have to master a myriad of other information. This includes when (time), where (territory delimitation), which species and numbers of individuals would be targeted, etc. We should also take into account the abundance of these populations, among other data. Is it realistic, deeming that these are just some of the issues at stake?

We must realize that predators who devour defenseless beings need to survive and thrive. Feeling compassion for prey and no empathy for predators – who have no other choice – is a form of selective speciesism. Even if it were possible to “play God” and prevent the death of those beings whose lives are so devoid of positive experiences, where will their predators get food from?

Or suppose we admit that only animals who will become food for others should come into existence: how could we calculate the ideal number of those who would be born to feed others and eliminate or reduce the number of those who simply die of hunger, disease, etc.? If we decide that no sentient being should be born to be eaten, what kind of intervention will be necessary so that their predators can find food in plant sources? To achieve this, they would need to undergo a paramount change in their evolutionary trajectory to adapt to herbivory, something that (naturally) happened, for instance, with giant panda bears<sup>9</sup>. These and other hurdles are not addressed by the author.

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<sup>9</sup> This information can be found in Nie et al. (2019).

Another contention discussed by the author is the so-called “speciesist argument”. According to it, we have no reason to intervene in nature to help nonhuman animals because what happens to them should be of little or no concern to us. To disqualify this assertion, Horta (2017, p.9-11) refutes three statements that are basically unscientific or outdated, which makes it easy to disentitle them.

Again, in the speciesist argument the premise is correct, if we fear worse consequences. But the conclusion is fallacious for those who believe that what happens to animals should be a cause of great concern to us. Regarding the three aforementioned statements, in addition to being flawed, they do not answer why we should not intervene in nature, considering both ecological and selective speciesist perspectives.

The author then addresses environmental and preservationist issues. Notwithstanding, the crucial point seems to be evaded because it does not lie in whether nature has intrinsic value (Horta, 2017, p.13). Even if appreciated from a sheer instrumental value standpoint, the conclusion would be the same: interfering with trophic chains may launch damage that is potentially difficult to repair and cause unexpected misery to sentient beings.

The discussion comes closer to the core of the matter when it is stated that most forms of biocentrism would support intervention as long as other living entities were not harmed in ways more significant than those prevented by the intervention. The author also mentions that for environmentalists who think that animals, as individuals, deserve moral consideration, there will be circumstances in which they would support helping them, even if it conflicts with some of the values they see in nature (Horta, 2017, p.14).

Nevertheless, for anti-speciesist environmentalists the question is not whether the value of natural processes outweighs the interests of sentient beings. Denying moral value to individual animals (classical environmentalist viewpoint) is not the sole explanation for opposing interventionist practices. Still, Horta (2017, p.15) has a point when he criticizes ecocentrists who intervene in ways that are deleterious to nonhuman animals. The killing of non-native animals is a prime example, as is the unethical, bizarre, and dangerous idea of reintroducing “de-extinct” animals to restore previously existing ecosystems.

In consonance with Torres Aldave, Horta (2017, p.14-16) suggests that we have little reason to oppose intervention in areas already significantly affected by human action, such as urban, suburban, and industrial areas. He proposes that those contexts can be promising starting points to develop pilot programs<sup>10</sup>.

Any biologist would agree that intervention in such environments would be potentially far less detrimental than in pristine ones. But, here too, there may be selective speciesism. Even “small-scale” interventions can affect ecological succession<sup>11</sup> causing pioneer and specialized species to engage in competition. Besides, environmental/ecosystem conditions can vary a lot. For instance, as says Clapham (1973, p.230), in communities as stable as rainforests, the species composing it become highly specialized to a very precise set of environmental factors. Consequently, one experience may not provide reliable data for other contexts.

Still, the author concludes that the preservationist thesis does not demonstrate that intervention is incorrect. And even if disvalue can never be eradicated, it would be good to eliminate as much disvalue as possible (Horta, 2017, p.18). The problem is that most of the reasoning presented in this session is digressive, leaving the heart of the matter unexplored.

Horta (2017, p.19) then cites examples of help for animals that are already carried out by traditional environmentalism, including those driven by anthropocentric interests. Mass vaccination to prevent diseases that can be transmitted to humans or domesticated animals is one of them. The author suggests that their success can guide the implementation of policies that benefit nonhuman animals themselves. This is a sound thought, even considering that these policies have nothing to do with the concept of wild animals as recipients of moral consideration.

Yet, it is worth quoting some ideas that follow on from the previous discussion:

On a still broader scale, environmental management or engineering efforts can affect the number of individuals who come into existence just to die shortly afterwards. This happens when, due to certain interventions, alterations on the primary production of energy available in a certain

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<sup>10</sup> Another not helpful example is the hypothetical allocation of an unbuilt urban area, where some animals live, to house homeless people (Horta, 2017, p.16): most people, including environmentalists, would agree with this choice, especially since there would not be many ecological values to preserve.

<sup>11</sup> Ecological succession is basically the process by which the structure of biological communities (species composition) changes (succeeds one another) over time. Each community creates conditions that allow new communities to thrive and the process often leads to more stable and complex ecosystems.

biocenosis occur, when changes in ecosystems favor the prevalence of those animals who reproduce by having few offspring over those who have large clutches, or when trophic chains are kept short rather than being enlarged. Programs aimed at the conservation of big herbivores can cause this effect (...) (Horta, 2017, p.19-20).

The author states that these actions demonstrate that the “argument from helplessness” (p.18) cannot succeed against intervention. The question, for him, is how to act in a way that implies less, rather than more, animal suffering and premature death.

Nevertheless, this is precisely the “million dollar” ecological question, because these are proposals for major changes.

Horta (2017, p.21) also claims that

According to a Bayesian approach, we could try to calculate the odds that such catastrophic effects would take place, multiply the cipher we would assign to that probability by the disvalue of the negative effects that could obtain, and weigh the results of such calculus against the positive value that we could expect to be derived from intervention.

The author then refers to two scenarios – “real world” and “massive death” – and states that contrary to what we might think, the course of events that would result if some unforeseen catastrophes were to occur would not be very different from the actual world. Some “massive death” scenarios may have undesirable effects for humans, but from the perspective of nonhuman animals, the one being examined here, both scenarios are quite similar because the “real world” is already catastrophic (Horta, 2017, p.21).

It is significant to note that Horta seems to rely excessively on hegemonic science when it comes to solving the problems he presents. Despite repudiating the instrumental aspect of this science – which subjugates sentient beings such as animals – the author seems to be unaware of its limits in understanding complex systems. This is crucial because uncritical use of this paradigm has resulted in inaccuracies and distortions with detrimental effects on animals, the environment and human health (Brügger, 2023, p.23-48).

The Bayesian approach mentioned above, for example, can present substantial imprecisions when it comes to non-linear ecological processes where there is a lot of complexity involved. Whole ecosystems require theories based on systemic and holistic views that involve concepts such as self-organization, among others. Mathematical

models are very useful tools, but they have limitations in their predictive accuracy. Those related to climate change are good examples.

The author agrees that there is some truth about the unintended consequences of intervention. But he refutes the claim that “nature knows best”, a line of reasoning similar to the “unexpected consequences” argument. To justify his thesis, he says that “nature does not have the purpose of making those who live in it happy. Actually, nature has no purpose at all (...). So, it is wrong to claim that nature knows best when it comes to preventing animal suffering and death” (Horta, 2017, p.22).

Nonetheless, why should we know best than nature? Indeed, nature itself has no morality. Therefore, the claim that “nonhuman animals suffer terrible harms in natural environments, in particular due to reproductive strategies that tend to maximize suffering and premature death” (Horta, 2017, p.23) seems a little contradictory. What nature does is to maximize reproductive success. Suffering exists. But it is a lamentable side effect of this morally devoid strategy.

Another statement that is not easy to agree with concerns the idea that intervening in nature for the good of nonhuman animals is counterintuitive (Horta, 2017, p.24): this is usually common sense, especially when it comes to animals that are “cute” or “closer” to us, such as mammals or birds. Typically, these speciesist attitudes have nothing to do with the sentience or capabilities of the animals being helped.

Horta (2017, p.24-25) concludes his paper by emphasizing some important ideas. One that any anti-speciesist environmentalist would support is: “we should promote those forms of intervention that are being already carried out today and make them widely visible in order to question the idea that it is not possible to aid animals in nature”. Examples of those include rescuing trapped animals and investing in rescue centers for injured, sick, or orphaned animals, among others.

However, this is “old school” even in established environmentalism: the difference lies in the magnitude of these policies and the underlying paradigm. Another idea we must agree on is to oppose interventions that can increase animal suffering and death, even if they favor other environmentalist or anthropocentric purposes.

The author also reinforces the idea that pilot programs aimed at reducing the suffering of certain animals in relatively isolated ecosystems would be currently

feasible and would provide significant knowledge for the future. Yet, this is not necessarily an easy task due to the complex structures of different ecosystems, as argued earlier.

Finally, some potentially imprudent ideas are also defended in his conclusions:

We should do research on the various ways in which suffering and death are caused in nature and on the ways to reduce it. Some of the questions that could be addressed right now include what kind of interventions result in ecosystems with shorter or longer trophic chains, as well as with a prevalence of animals with high or low mortality rates in early ages; how policies affecting nutrient availability and primary production in different ecosystems can affect overall proportions of positive well-being and suffering by changing the number of animals that come into existence; and what estimates we can make of the extent to which small animals such as many invertebrates, tadpoles, and different fish species are sentient at those ages at which most of them die (work in life history theory is already being carried out to estimate the proportion of animals that die at different ages within each species) (Horta, 2017, p.25).

The author argues that this kind of research should become mainstream and taken seriously in academia, especially among scholars working in ecology and animal welfare science.

#### **4 Population dynamics and intervention, a concise overview**

Population dynamics is essentially the study of populations as systems in constant activity. The term refers to the investigation of variations in the number of individuals in a population, the factors that influence them, as well as the performance, distribution, and abundance of these populations. This includes the examination of loss and replacement rates of individuals and any regulatory processes that tend to maintain population size in equilibrium or prevent large-scale variations.

For such analysis, it is fundamental to consider the environmental influences on the studied population – such as temperature, humidity, food availability, competition for resources, territory delimitation, presence of refuges, susceptibility to pathogens and predators – as well as the interactions among these factors.

As there can be significant differences between populations of the same species, it is indispensable to understand the biology of the individuals in the analyzed population. Aspects such as size, life cycle, habits, behavior, female-to-male ratio, cooperation (such as parental care), and age composition are essential information. It is equally important to identify the key factors that influence population fluctuations

and cycles. These factors can be dependent, inversely dependent, or independent of population density.

The abundance of prey, for example, directly influences predation effort. In addition to births and deaths, it is necessary to consider the effects of immigration and emigration on population gains and losses. Such processes impact the entire community, given the complexity of intra and interspecific interactions. Thus, population and environment should be regarded as a single, complex, functional entity: the ecosystem.

Furthermore, researchers in the field must not only identify the qualitative aspects of interactions but also describe them quantitatively, which makes the task even more challenging. For example, several species – notably birds and mammals – exhibit complex behavioral patterns in resource competition, which sometimes regulates their populations at lower levels than expected. Another challenge is the irregular spatial distribution of populations, which makes it difficult to generalize data on density.

In the reproductive field, losses and gains can be significant. A large number of insects lay hundreds of eggs; frogs, toads, and certain fish lay thousands or even millions. The pre-reproductive mortality rate necessary to maintain population equilibrium depends on the species' reproductive capacity. To put it very simply: if a female produces 20 offspring, 90% must die before reproduction; if she produces 200, the rate rises to 99%; and if it's 2,000, it reaches 99.9%. These are some generic numbers related to life history strategies (which can vary a lot) "employed" by different species in relation to reproduction and survival. It is important to emphasize that actual estimates depend on the inclusion of other factors, such as how many eggs or offspring are produced per female and during what period of their lives, the duration of the reproductive period, and the time of development to adulthood. The efficiency in using available environmental resources is another important issue.

Many studies in this area are conducted in laboratories. The theoretical approach uses mathematical logic to explore the implications of a set of initial chosen conditions, assumptions, and hypotheses – a deductive method. In contrast, the inductive approach is based on direct observation of real populations, seeking explanations for observed phenomena. The deductive method seeks to mathematically

understand factors that can be controlled to generate models that approximate reality. This approach facilitates the search for factors that contribute to explaining fluctuations. Yet, long series of observations are often necessary until the models become plausible. And many a time it is difficult to detect in the field some theoretically postulated trends regarding issues such as population growth rates.

The preceding paragraphs are a very brief summary of the complexity involved in population dynamics studies. For advocates of veganism and the abolition of the exploitation and suffering of sentient beings, this reality is particularly challenging because intervening in what is undeniably cruel can generate even more undesirable consequences from a holistic perspective.

We live today in an intensely human-modified world. Natural disasters exacerbated by climate change, combined with other anthropogenic interventions that cause enormous changes in natural ecosystems – such as defaunation – lead to highly unpredictable chain of events.

The biologist Maurício Graipel<sup>12</sup> emphasizes that we have raised greenhouse gas levels, including CO<sub>2</sub>, far beyond what would be expected, generating unprecedented unpredictability regarding glacial cycles, with unknown consequences for the evolution of species. We have altered the dynamics of ecosystems and rainfall. We have inverted the logic of the predominance of balanced ecosystems (climax), changing the species composition in almost all parts of the world; we have driven species to extinction, with unknown consequences for the ecology of populations and communities. More than ever, we have compromised the predictability of mathematical models that attempt to approximate population dynamics studies to plausible conditions (M. Graipel, personal communication, July 24, 2025).

We try to compensate for our mistakes by carrying out management practices that may be inadequate because we do not know the spatio-temporal dynamics of populations under the altered conditions we have promoted. This can be chaotic.

## **5 Chaos, Cosmos, *Chaosm* and Environmental Ethics**

The authors quoted in sessions II and III are right when they criticize the romanticized view in our culture of fairness and harmony reigning in nature. However,

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<sup>12</sup> The session about population dynamics was based on Solomon (1980).

this view is not prevalent either in the biological sciences or in the critical social sciences. The brilliant geographer Carlos Walter Porto Gonçalves has extensively discussed this question which is also at the heart of society-nature and culture-nature dichotomies. Quoting Edgard Morin, he states that eco-organization is nourished and regenerated by the antagonism between the excess of life and the excess of death. But death is not only disruptive and destructive. It also nourishes and regulates. And natural selection operates not only on genes, but on everything that can strengthen chains, cycles, or circuits. Morin highlights the ability of ecosystems to produce and invent new reorganizations and emphasizes the interdependence between each part of this whole. Each living being is unique, but at the same time an existential requirement for the other. Selfishness produces generosity. Ultimately, nature is not a place of endless struggles of all against all, nor a place of goodness and harmony. Neither chaos nor cosmos. In Morin's view it is a *chaosm* (Gonçalves, 1989, p.61-74). Dichotomies such as “idyllic view” versus “natural hell” do not stand.

Still, we do have obligations to nature and other life forms. Let's examine, very briefly, some of Paul Taylor's moral rules of conduct on how we should treat nonhuman organisms, concerning positive and negative duties.

Since for this author nonhuman life has inherent value – and individual living beings are teleological centers of life – he develops a profound argumentation aiming at resolving conflicts of interest between us and other forms of life. Although these conflicts are not properly resolved, Taylor's ethical principles of duties are precious pillars to illuminate the present debate.

Perhaps the most significant moral rules from which duties derive in Taylor's biocentrism are the following: 1) Non-maleficence: which prohibits harmful and/or destructive acts against living organisms, both at individual and population levels, or biological communities. 2) Non-interference: which implies not to interfere with ecosystems, communities, and organisms. It aims to preserve nature and basically opposes wild nature management; 3) Restitutive Justice: imposes a duty to realign the pendulum of justice when harm has been caused by humans to other life forms. Since in our modern society everyone has benefited (even if indirectly) from the wholesale destruction of other organisms, we all owe some restitution to nature. The first two

rules correspond to negative duties, while the third implies a positive duty of assistance.

Other principles such as Distributive Justice and Minimum Wrong also shed significant lights on our duties towards nature and nonhuman animals: the first seeks to achieve a fair (since equal is only idealistic) sharing of the planet's resources between humans and nonhumans. The Minimum Wrong principle is closely linked to the previous ones as it states that we should achieve our goals in the least costly manner possible. In short, we must minimize the amount of damage done to other organisms. In many cases restitution is required. As stated before, this set of moral principles is not free from conflicts. Given that Taylor admits inversions of priorities between negative and positive duties this debate can become quite complex.

In this context it is worth quoting the renowned biologist Edward Wilson. He and other outstanding biologists claim that half the Earth is the amount of land we need to set aside as permanent protected areas to stave off a mass extinction crisis and ensure the survival of the millions of other species with which we share the planet<sup>13</sup>.

The idea of granting animals the right to property, quoted before (Bradshaw, 2018), seems to be in line with and advance Wilson's proposal. This may seem literally outlandish, but property rights are already conceded to nonhuman entities as corporations<sup>14</sup>. For Bradshaw, although this right would be granted at the ecosystem level, each individual animal would be a recipient of this gift in a shared common territory. An important aspect of this proposal is that as land owners, animals could be assisted by human attorneys<sup>15</sup> to maintain their property's rights if governments, for instance, tried to dispose of their land to potentially deleterious uses.

Finally, Taylor was not an animal rights advocate and argued that animals and plants cannot have rights. As the philosopher Roger Scruton (cited by Torres Aldave) – who writes that only humans have duties and therefore rights<sup>16</sup> – Taylor's standpoint is

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<sup>13</sup> This information can be found in Hiss (2014).

<sup>14</sup> See, for example, the excellent documentary by Achbar and Abbott (2003).

<sup>15</sup> Although there is still controversy, Brazilian jurisprudence has already admitted that pets can be considered plaintiffs in legal proceedings, according to article 2, § 3 of Decree 24,645/1934. See, for instance, Governo do Paraná (2025).

<sup>16</sup> This information can be consulted in Scruton and Tyler (2001).

that both animals and plants lack the capabilities to exercise them. For him, a being's concept of good is not coextensive with sentience or the capacity to feel pain. Still, the principle of moral consideration prescribes that every individual deserves consideration, which means that every organism is unique and irreplaceable. And conceiving it as a center of life, one is able to look at the world from its perspective<sup>17</sup>. Interestingly, Taylor approaches here to the concept of *Umwelt* proposed by the biologist Jakob von Uexküll (2010).

## 6 Educating towards an Animal Abolitionist Environmentalism

As stated before, traditional environmentalism is speciesist<sup>18</sup>: it is dominated by the same instrumental rationality that permeates virtually every field of knowledge in the West. This is because, both historically and epistemologically, conservation ethics has little or no affinity with the issue of animal rights (Brügger, 2019).

The silence that marks classical conservationist ethics regarding the individual lives of animals is the result of the epistemological divorce between science and ethics. A consequence of this separation was precisely to make it impossible to see our "objects" of study in terms of final causes (ends):

The quantification of nature, which led to its explication in terms of mathematical structures, separated reality from all inherent ends and, consequently, separated the true from the good, science from ethics. No matter how science may now define the objectivity of nature and the interrelations among its parts, it cannot scientifically conceive it in terms of 'final causes'. And no matter how constitutive may be the role of the subject as point of observation, measurement, and calculation, this subject cannot play its scientific role as ethical, aesthetic or political agent (Marcuse, 1968, p.146-147).

Other authors emphasize that the dominant scientific paradigm eliminated the importance of the qualitative aspects of science, restricting it to the study of phenomena that could be quantified and measured (Capra, 1996). This epistemological trait of mechanistic, instrumental science helped to support the Cartesian thesis of the

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<sup>17</sup> This summary of ideas by philosopher Paul Taylor was prepared based on Taylor (1981;1987) and College of Charleston (n.d.).

<sup>18</sup> See, for instance, HOWARD, Walter E. An Ecologist's View of Animal Rights. **The American Biology Teacher**, Oakland, v. 56, n. 4, p. 202–205, apr.1994. Available at: <https://online.ucpress.edu/abt/article-abstract/56/4/202/15179/An-Ecologist-s-View-of-Animal-Rights?r-edirectedFrom=fulltext>. Access: 03 mar.2026. DOI: <https://doi.org/10.2307/4449796>.

animal-machine, making animal suffering “immeasurable”, and therefore, “non-existent”:

True knowledge and reason demand domination over – if not liberation from – the senses. (...) What nature (including man) may be striving for is scientifically rational only in terms of the general laws of motion – physical, chemical, or biological” (Marcuse, 1968, p.147).

This is how nonhuman animals have become mere resources, objects, or things over which we supposedly have rights of use, life, and death. Typical examples are animals born in factory farms, in breeding facilities (such as for vivisection), or considered pests. Since they are not in danger of extinction, disposing of their lives became an irreproachable practice. In the case of wild animals, what changes is only their potential instrumental value as agents that fulfill (or not) ecological functions.

It is also important to emphasize that conservation ethics was consolidated in a historical period when studies on animal sentience were anecdotal and incipient. Yet,

Charles Darwin wrote extensively about human and animal emotions, and many a scientist in the nineteenth century was eager to find intelligence in animals. It remains a mystery why these efforts were temporarily suspended. And we voluntarily hung a millstone around the neck of biology – which is how the great evolutionist Ernst Mayr (1982) characterized the Cartesian view of animals as dumb automatons (De Waal, 2017, p.4).

Today, new findings regarding animal cognition emerge almost every week:

We hear that rats may regret their own decisions, that crows manufacture tools, that octopuses recognize human faces, and that special neurons allow monkeys to learn from each other’s mistakes. We speak openly about culture in animals and about their empathy and friendships. Nothing is off limits anymore, not even the rationality that was once considered humanity’s trademark. (De Waal, 2017, p.4).

This is why the animal rights issue is a burgeoning topic in the academic universe. Still, there are some hurdles: animal rights advocates are often accused of ignoring the importance of species and ecosystems, focusing solely on the well-being of individuals. This allegation is at the core of the present debate.

Nonetheless, weaving the animal rights question into conventional environmentalism creates a privileged theoretical framework that strengthens the conservationist struggle. This framework can go beyond the rationality of strict conservationism by recognizing the sentient and conscious capabilities of nonhuman animals along with ecosystem values. It adds a moral element that transcends anthropocentric and economic points of view such as the so-called “environmental

services". It broadens and enriches the prevailing hegemonic vision by introducing an ethical element that has been lost in the trajectory of modern science: the intrinsic value not only of life in general, but of each individual sentient being.

This ethical position is aligned with the most recent scientific trends that attest to the value of sentience and self-awareness in animals from an evolutionary perspective. Including nonhuman animals in our moral community means understanding that such attributes constitute an inseparable part of the evolutionary process of the entire biosphere, including our own species (Bekoff, 2007; Balcombe, 2010, De Waal, 2017).

Formal education values do not hover above those of our society: they reproduce and legitimize society-nature dichotomies and the instrumental paradigm. Productivism, economic growth, exploitation of nature, and discrimination against indigenous peoples are emblematic examples. And from kindergartens to universities, speciesism and animal exploitation is openly and proudly promoted in every field of knowledge. Another avenue for shaping values that follows this same trend is the media. Major newspapers and television networks amplify and reinforce this dominant view (Brügger, 2018b).

Even the so-called environmental education, heir to the dominant conservationist rationality, has been unable to transcend this paradigm and embrace animal rights. This "modality" of education has been reduced to its natural and technical dimensions, and to "hands-on" practices, instead of fostering discussions aimed at forming new values and attitudes. This is training, not education. We also need to realize that by appending the adjective "environmental" to education we acknowledge that mainstream education is non-environmental. This points to – in addition to an inconvenient truth – the need to be attentive to other adjectives: just as "environmental" has remained trapped in an instrumental rationality, the adjective "humane", for example, remains confined to the anthropocentric/speciesist foundation of our culture. This debate unveils the obvious: the dominant values in our society have historically obstructed the incorporation of new ethically and scientifically sound theoretical frameworks. Even our current Western languages are full of racist and speciesist terms. Languages are not merely a form of expression: they emerged from the broader paradigm that gave rise to them.

In short: education *tout court* must dispense with any adjectives and needs to be founded on a set of precepts that build a counter-hegemonic rationality. One of the first notions that need to be repealed is the view of animals as objects, tools, or commodities. Instead of this anachronistic view, we must incorporate rights related to the most basic interests of all sentient beings: not to be imprisoned, enslaved, tortured, or killed.

Given that animal sentience is now anchored in robust scientific evidence, treating animals as properties, things, or resources for humans should no longer be a matter of cultural consensus or belief. But for this science-backed view to become dominant, we need a new education that embraces this information. While welfare-oriented practices can alleviate animal suffering today, no reformist/welfare-oriented education will be ever able to bring about the paradigm shift we need: changing the status of animals from property to subjects of rights. And as the classical conservationist view abandoned any commitment to compassion for animals, respect and compassion are also essential values. As Goodall (1999, p.270) states: while some people are, unfortunately, really sadistic, most people who are cruel to animals simply haven't understood their true nature.

Education is never neutral. This can happen simply by addressing one topic and not another, or by selecting one aspect of a fact and not another. We must always keep in mind for what purpose and to whom we are directing our information, and what kind of world it helps to build.

## **7 Final Considerations**

The authors analyzed here make an important contribution to the animal rights movement when they shed light on their suffering in nature. It is imperative to agree that many animals do endure terrible tribulations whether by predation, starvation, or simply by dying hours or days after birth, making such lives unworthy to live from an individual perspective.

To alleviate these and other cruel processes, the authors embrace the idea that we have a moral obligation to intervene to help these animals, as long as such interventions do not cause more harm than if they were not carried out.

However, as discussed, this is precisely the heart of the problem: how to act in a way that benefits certain individuals or species, without harming others? When it comes to the feasibility of intervention in nature, there is a plethora of assertions about moral aspects, but the debate does not address crucial issues underlying the negative ecological backlashes that may arise: ecosystemic/trophic chain damages which may trigger unforeseen ordeals that many sentient creatures will have to face and, very possibly, selective speciesism.

It is worth punctuating that nonhuman animals have evolved long before us: *Homo sapiens* is a very recent species on the planet. Except for autochthonous peoples, no other species has had its relationship with the environment so marked by ruptures of all kinds as ours. No other animal has found itself as unprepared to face the vicissitudes of natural processes as we are, increasingly trapped in the artificial bubbles of industrialized societies where colors, odors, and sensations have been sterilized on screens of all sizes. In contrast, unlike most humans inhabiting the planet today, nonhuman animals have always been connected to their natural evolutionary environments, even those severely affected by anthropogenic interventions. Therefore, it may be unrealistic to assume that nonhumans have more difficulty to deal with deleterious events than us.

The belief that animals are so vulnerable may be attributed to the lack of scientific information about their cognitive processes (which generate knowledge), culture, intelligence, and sentience. Every species and individual animal, including us, prioritize knowledge needed to survive (Balcombe, 2016; Bekoff, 2007; De Waal, 2017). And in this sense, they are far ahead of us.

Engel (2002) provides numerous examples of animals' knowledge of medicinal plants and other treatments used to improve their health. These include clay ingestion (geophagia), diets that treat worm infestations, diarrhea and weight loss, dental care, and topical use of medicinal substances. This intention to self-medicate shows that animals, such as vertebrates and even insects, are concerned with quality of life and capable of associating an action with its consequence. This concept of animals actively managing their health contrasts sharply with the prevailing view that animals passively endure the ravages of pathogens, poisons, and injuries that befall them, and rely solely on responses from their own immune systems or help from humans.

The web of life has been molded by millions of years of evolution and has been organized in a most complex fashion that consists of many interdependent parts, each of which is important to the proper functioning of the whole. Tampering with such a complex structure can lead to disastrous results. We, with our massive and often troublesome brain, are compulsive manipulators (Scheffler, 1976, p.282)<sup>19</sup>.

Anthropogenic interventions have historically caused major changes in the dynamics of ecosystems, including the biomass composition of wild animals (Bar-on et al., 2018; WWF, 2024; Mureau et al., 2025). Today, in the Anthropocene<sup>20</sup>, we must be extremely cautious in our actions to avoid further harm and suffering to wild animals. This is because many ecosystems can no longer offer the same ecological opportunities as in the past. As a result, more and more homeless animals venture into urban areas in search for food, shelter, and water. Interestingly, this same colonization process also turned native peoples in various parts of the world into refugees and beggars.

Other observations are pertinent to this discussion. From an epistemological standpoint, the authors analyzed seem to rely excessively on the hegemonic paradigm of science. Maybe the most problematic examples are: 1) calculations of number of individuals who should (or should not) be born to be spared from suffering; 2) measurements of feelings such as joy, happiness, sadness, boredom, and the list goes far<sup>21</sup>. Even with ethics and morality in mind as goals, this unrestrained optimism in Cartesian science seems unwise because predictability is not always a strong trait of science. Things get more complicated when we move on to the subjective and therefore (strictly speaking) immeasurable realm of feelings. Because each *Umwelt* is unique, it is virtually impossible to accurately gauge moments of pleasure or suffering to decide which lives are worth living.

Still on the epistemological level, there is another issue to underline: intervention, not prevention, is our society's standard response to the most diverse problems it faces, from human health to environmental issues. Our Western colonialist

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<sup>19</sup> In my view, the “compulsive manipulators” to whom the author refers are mainly members of our industrial society, not mankind in general.

<sup>20</sup> The term Anthropocene was initially proposed in the 1980s by biologist Eugene F. Stoermer, but was popularized in 2000 when Nobel Prize winner Paul Crutzen added his voice to Stoermer's theory. See, for instance: International Geosphere-Biosphere Programme (2010).

<sup>21</sup> According to Bekoff (2007, p.31-33), Darwin described more than twenty different kinds of emotions in mammals. See also Balcombe (2010) and De Waal (2017).

cultural heritage based on anthropocentrism, scientism, productivism, etc, prioritizes technical solutions (intervention) over ethical ones (paradigm shifts)<sup>22</sup>. Regarding this debate, there is more: intervention seems to seek to correct nature, to mold it in our image and likeness, to transform the wild, amoral, inhospitable nature into a “civilized” one. Just as “God” was shaped in our image, we now aspire to mold nature – the true divinity – in the likeness of the only species supposedly endowed with moral, spiritual, and rational gifts: *Homo sapiens*. Science, as a human creation, can be narcissistic and used as a corset to domesticate and educate the depraved nature. Science, however, also proves that no such dichotomy or gap exists.

So, what paths should we follow? I have discussed to some extent the role of education, which, for me, is the most significant way to lasting paradigm shift. But to strengthen the idea that nonhuman animals should be morally considered, we also need ethically and scientifically sound public policies and legislation. Scientific evidence about animal sentience and cognition obligates revoking speciesism: we need a new legislation and law enforcement to ensure the rights and protection all animals deserve.

Steven Wise (2004) argues that legislation must express a community's current sense of justice, not that of another era, and judges can no longer be shackled to the past. By prohibiting cruelty towards sentient and vulnerable beings, laws reflect public values, new scientific discoveries, and the parameters for building a just and supportive society.

In this article I used the term animal rights in a broad sense, meaning that they have intrinsic value and that humans have a moral duty to respect their interests. Consequently, animals should have the legal right not to be imprisoned, tortured, or killed, except, of course, in special circumstances, such as in cases of self-defense.

We should focus primarily on negative duties. We need to stop doing so many things. And one of the most urgent is to refrain from raising animals to consume their flesh and bodily secretions. This non-action could prevent the destruction of the habitats of millions of wild animals, and would greatly alleviate the climate crisis, among a myriad of other social, ethical, and environmental problems (Brügger, 2021).

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<sup>22</sup> One emblematic context is climate change: we are not acting on its causes (Brügger, 2021).

In this context, it is worth stressing that the animals exploited and slaughtered for human consumption are “children”<sup>23</sup>. These sentient creatures are brought into existence by us to live short lives full of disvalue. They either have no legal (positive or negative) rights, either these rights are not implemented. In short, we have made practically no progress in terms of the negative rights quoted previously.

Masson (2014) who discusses concepts such as cruelty, hatred, and indifference, comes to the regrettable conclusion that – although having potential for altruism – we are potentially the most aggressive species on the planet. Examining the roots of morality based on the notion of good and evil present in nonhuman animals, he argues that the use of our extraordinary intellectual power has become disconnected from our needs and has exposed us to even greater dangers, instead of protecting us. He highlights that this process began with the domestication of animals, which has brought to the fore a latent cruelty in humans.

Preventing the destruction of wildlife habitats is indeed a difficult challenge, especially from an economic perspective. However, laws prohibiting hunting and possessing wild animals as pets are much more achievable short-term goals that would greatly benefit them. Wild animals hunted for trophies or to become pets are subjected to all sorts of abuse. Many other – wild and domesticated, like dogs used in hunting – are harmed and killed in these processes. And as argues Brink et al. (2019), this is also the gruesome situation of animals categorized as pests.

Moreover, I fear that the idea of helping or saving wild animals may support the spurious attitudes of some digital influencers who have sought to trivialize the ownership of wild animals as pets. By encouraging the ownership of wild animals, they stimulate crime and foment hatred against institutions that combat wildlife crimes, such as hunting and trafficking<sup>24</sup>. In many cases, monetizing this type of content is the only goal these influencers with millions of followers have in mind, regardless of their subsequent negative consequences.

There is yet another undesirable side effect: instead of adopting abandoned or sheltered animals, such as dogs and cats – especially no-breed ones – the followers of

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<sup>23</sup> This information is discussed in Loria (2016).

<sup>24</sup> This information can be found in Macedo and Castro (2025).

these influencers begin to covet wild animals. This is the apology of selfishness (and potentially crime) to the detriment of altruism. This highlights an urgent and undeniable need for intervention: preventing domesticated animals, like our pets, from becoming predators of wildlife by ethically controlling their populations to a minimum.

As also argued before, it is disconcerting to witness lay people defend the idea that preys should be saved from their predators, as in the example of anacondas devouring monkeys. But even less critical cases are not exempt of conflict, such as feeding predators with products from livestock farming, or the systematic feeding of wild animals in quite normal environmental conditions. These attitudes may jeopardize their autonomy and create health problems to them, as individuals. Focusing too much on the individual may give rise to distorted views about what is best for them: as Engel (2002) points out, wild animals such as bears and monkeys quickly succumb to the 'easy life', like us, if given that opportunity, and enjoy canned goods and industrialized superfluities of all kinds.

Interestingly, most people who are shocked by the phenomenon of predation are not vegans, nor vegetarians. They are carnists<sup>25</sup> – carnivores by choice/ideology – who criticize obligate carnivores. In terms of paradigm, these people do not see any problem in respect to their attitudes because they have not been educated in anti-speciesism. This shows how insufficient scientific education is. Still, sometimes is not wise to “throw the baby out with the bathwater”: laws prohibiting to interfere with wildlife, even if anchored in anthropocentric and instrumental reasons, may make sense outside the purely ecological context<sup>26</sup> and prevent speciesism. Another curious aspect of this debate is that some defenders of the interventionist thesis are not vegans or advocate for animal rights<sup>27</sup>.

Education, not training, raises awareness concerning the need for change and is the most genuine way to transform values. A pro-animal rights education would also

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<sup>25</sup> For the concept of carnism, see Joy (2010).

<sup>26</sup> One example is article 29 of Brazilian law 9.605/1998 which defines as a crime the killing, persecution, hunting, capture or use of wild fauna specimens, whether native or on a migratory route, without the appropriate permission, license or authorization from the competent authority.

<sup>27</sup> It is interesting that some defenders of intervention, such as Roger Scruton and Martha Nussbaum, are not vegans and/or are against some basic negative rights for animals, such as not being killed. See, for instance, Steinbauer (n.d.); Mounk; Nussbaum (2024).

make commonplace already existing quotidian interventions like rescuing animals of all species from lethal situations, such as drowning in swimming pools, or being left to die trapped in closed rooms (Brügger, 2020). Attitudes like these would become the norm, rather than the exception, and would be in line with the cautious interventions suggested by the authors analyzed here.

However, education is not a “silver bullet”. Here, the coercive universe of laws and public policies can promote a revolution in public information and help transform paradigms in the long run.

In terms of positive legal rights, a cutting-edge proposal mentioned before is to grant property rights to wild animals. Even without delving into the details of this proposal, the idea has merit as it subverts the thesis of animals as property and proposes that they should have the right to property. Extending property rights to animals would allow them to own land, water, and natural resources in a time wildlife populations have suffered staggering losses, and stand to lose far more (Bradshaw, 2018).

Finally, we should significantly increase investment and resources in public policies aimed at helping wild animals that find themselves in undisputable situations of unnecessary, avoidable, and unjustified suffering. In my view, these are typically cases of animals who are victims of extreme environmental conditions, whether natural or anthropogenic. Yet, as already discussed, this does not open up a truly new horizon beyond what already happens through conventional environmentalism. The difference lies in the theoretical and ethical motivations which, however, certainly count a lot.

One of the most important missions of our time is to overcome speciesism, the gateway to countless risks and evils that plague the entire web of life. Ryder (2011, p.13) states that it may sound obvious, but the essence of morality is about making others happy. And who are these “others”? All sentient beings.

Unfortunately, the current state of the art of science, combined with the difficulties arising from the changes we have promoted in the ecosphere, makes it very difficult, even impossible, to undertake interventions without incurring selective speciesism and damage to ecosystems.

Animals are our collective ancestral “soul”. Everything we are we have inherited from them. Let us dissolve the differences between each particular *Umwelt* and amalgamate this kaleidoscope of sentience and cognition into a greater whole where respect and a sense of belonging to a single tribe prevail. But to achieve this, we must also recognize the limits of our power to modify the world.

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