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Kangaroos and Dragons: how much is a species worth?

Canguros y dragones: ¿cuánto vale una especie?

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Resumen

El artículo aborda el conflicto moral entre los derechos individuales de los animales y el valor de la conservación de especies, utilizando como ejemplo el caso del sacrificio de canguros para salvar a los dragones sin orejas en Australia. El autor argumenta que las especies no poseen un valor final no derivado y, por tanto, no pueden justificar la violación de los derechos de los individuos. Aunque reconoce el valor instrumental y contributivo de las especies, rechaza argumentos filosóficos que defienden su valor no derivado, como el *replication argument* y el *last person argument*. El texto concluye que, si bien existen deberes importantes hacia la conservación, estos no deben violar los derechos

individuales, como en el caso de la matanza de canguros, la cual debe ser abolida.

Palabras clave: ética animal, conservación de especies, derechos individuales, valor no derivado, conflictos morales.

Abstract

The article explores the moral conflict between individual animal rights and the value of species conservation, using the culling of kangaroos to save earless dragons in Australia as a case study. The author argues that species do not possess nonderivative final value and thus cannot justify the infringement of individual rights. While recognizing the instrumental and contributory value of species, the paper rejects philosophical arguments that claim species have nonderivative value, such as the replication argument and the last person argument. The author concludes that while there are important conservation duties, they should not violate individual rights, as exemplified by the kangaroo culling practice, which must be abolished.

Key words: animal ethics, species conservation, individual rights, nonderivative value, moral conflicts.

1. Introduction

Moral problems that involve the duties towards nonhuman entities have been present in moral philosophy since ancient times. One of the central problems in this line of enquiry is how to weigh the moral demands that individual animals have on our behavior and the moral duties related to the conservation of the ecosystem. Are we allowed, and if so, up to what extent, to harm or wrong individual animals to reach the goal of conservation of an

ecosystem or of a species? This question is clearly, not only of central theoretical importance, but of the utmost practical as well.

During the last half century there has been a lot of work on two important trends in Anglo-Saxon academic philosophy. Philosophers have, on one side, developed theories in Animal Ethics, one of their main theses being that many animals deserve moral consideration or moral rights similar to humans. On their view, species do not deserve much moral consideration, only individuals do (Cavalieri, 2001; Francione, 2000; Regan, 1983; Rowlands, 2009; Singer, 2002), a view that is often defended also by animal right activists. Philosophers have, on the other side, also developed theories in Environmental Ethics, one of their main theses being that ecosystems and species deserve moral consideration, a view that is also often defended by ecologists and environmental activists. On their view, individual animals deserve less moral consideration than the ecosystems they inhabit or the species they are members of (Callicott, 1986; Rolston, 1988).

In this paper, I will use ideas and arguments from these two groups of theories to answer the question: what ought we do when we must decide between the moral value of a species and the moral rights of individual animals? My main thesis is that considerations solely about a species cannot trump moral rights. I will argue that this conclusion is compatible with views that conceive animal species (particularly endangered species) and biodiversity as having moral value and argue for important duties of conservation. In doing so I assume that individual animals have moral rights, a thesis that has been extensively defended in the literature, and which I presume anyone interested in the debate agrees to some extent. So, my main thesis clearly side with the animal ethics view of the debate, but I hope my arguments will be

of interest not just for those on that side, but to the ones on the other, not just because I present new challenges to their view, but because I do concede what I presume to be some of their must important intuitions and belief and argue they are compatible with my thesis.

The paper is structured in the following way. Section 2 describes a real case scenario that will be used as my main example, this section also introduces my main argument. In section 3 I will discuss what a species is from the perspective of philosophy of biology. Section 4 discusses what kind of value a species has. In section 5 I will discuss and reject some arguments for why species have nonderivative value. In section 6 I will discuss some implications.

2. The extinction of Australian dragons

The Australian fires during the summer of 2019 shock the world. They burned for almost six months and consumed tens of millions of acres (Cave, 2020). Experts estimate that 1 billion animals died (Zaveri & Rueb, 2020), while the Australian government acknowledges that 113 species of animals will need urgent help to survive (Hobson & Simpson, 2020). Experts also claim that most animals died and continue to die during the aftermath of the fires. Fortunately, people were eager to help by sending money and volunteering in rehabilitation efforts. Volunteers for the Animal Rescue Craft guild sewed hundreds of pouches for orphan kangaroo joeys (Andrew, 2020). Also, the Australian government deployed help immediately and committed fifty million Australian dollars in resources to combat the crisis (Morton, 2020).

On top of that, two million Australian dollars were used to save a threatened species of small lizards called 'earless dragons'(Evans, 2020).

Many were surprised when, despite all of this, the Australian Capital Territory (ACT) announced the culling of Eastern Grey Kangaroo (*Macropus Giganteus*) will still occur during 2020. The practice of culling is heavily criticized by animal activists[1](Kangaroos, n.d.), but the government argues that this practice is necessary. Authorities argue the overpopulation of kangaroos has important social, economic, and environmental impacts. According to the ACT legislation that regulates culling (Nature Conservation (Eastern Grey Kangaroo) Controlled Native Species Management Plan 2017, 2017)[2], the purpose of culling is the conservation of the native grassy ecosystems[3]. According to official data, 11,130 kangaroos were culled during 2015. The ACT government argumentation centers on the impact on the ecosystems of kangaroos' overconsumption of grass, mainly: 1) lack of grass will cause kangaroos starvation during droughts, and 2) lack of grass is correlated with loss of biodiversity. These are the two most popular justifications for culling according to a 2019 poll (ACT Government, 2019b). Although the evidence for both impacts is contestable, the rhetoric of the government has been to focus on the danger that overpopulation of kangaroos presents to

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[1] Australian Society for Kangaroos (Dimond et al., 2012: 12).

[2] Management plan from now on.

[3] The Management plan claims that "the aim of the culling program is focused primarily on endangered ecosystems rather than individually threatened species" although they also claim that "Maintaining and restring the ecological integrity of these grassy ecosystems and therefore habitat for threatened species, as well as other grassland depend species, is the primary reason for reducing [kangaroo's] grazing pressure".

endangered native species, particularly earless dragons (ACT Government, 2019a). "Dragons need the longer grass to shelter from predators and to provide habitat for the insects on which they feed"(Nature Conservation (Eastern Grey Kangaroo) Controlled Native Species Management Plan 2017: 18).[4]

Earless dragons (*Tympanocryptis Pinguicolla*) are a species of small lizards (15 cm when fully grown) that (apparently) likes to flirt with extinction. This species was believed to be extinct from 1963 to 1991 when it was found again (Cogger et al., 2000), and has probably gone extinct again now as new taxonomical work has reclassified much of its former population as members of another species (Melville et al., 2019).

Given the facts, the number of animals at risk, and the number of resources devoted to this issue, it is worth asking: is the culling of kangaroos justified by the preservation of dragons?

My argument is quite simple, and it can be present in the following general form: Unless object Y has nonderivative final value, it is impermissible to sacrifice the welfare of an individual with a right for it not to be harmed solely[5] for the survival of Y. Kangaroos have a right not to be harmed, and the species of earless dragons does not have nonderivative final value. Therefore, it is

[4] These conclusions are based on unpublished data by the ACT Parks and on a study that argues dryness due to lack of grass is not correlated with "reduction in survival across years", according to this study "Dry conditions have been shown to be an ultimate factor in forcing a lizard population to abandon reproduction altogether" (Queiroz & Gauthier, 1990: 30), so the conclusions of the Draft are at least contentious.

[5] By 'solely' I mean considerations just about the object. If an object does not have nonderivative final value, there is no value involved in considerations solely about it.

impermissible to cull kangaroos solely to save the species of earless dragons. The argument is clearly valid.

Clarifications are in order, as I use the terms by following Ronnow-Rassmusen's (2015), an object has nonderivative value if the value it has does not derive from another value. People may value a beautiful painting not because they value beauty in itself, but because pleasure is valuable, and looking at the painting produces that for them. So, the value the painting has is derivative. A related notion is that of final value, the same painting may have final value because it is valued for its own sake, for how pleasurable it is to look at it, in contrast to the wall it hangs on, because the wall may only have instrumental value: the value it gets for providing the means to enjoy the painting.

Coming back to my main argument. I will focus my efforts on justifying the latter two premises, I do so because I take it as given that a right to something trumps any consideration that does not directly involve something that has nonderivative final value. No right should be regarded as such if considerations solely regarding objects without nonderivative final value allows us to infringe it: it wouldn't make sense to say someone has the right their welfare if it is allowed to infringe this right to protect the wall the painting is hanging from or the painting itself. It would not make sense to protect the wall because the wall does not have instrumental value, and other things with such value can be provided for the same end. On the same note, if what people value is not the beauty of the painting, but the pleasure of looking at it, and an equivalent pleasure can be provided[6], then I take it that

[6] It could be objected that I'm assuming that when the value is derivative or non-final, an object with equivalent value can be provided such that no net lose of

believing someone to have a right to their welfare at least implies that such a right prohibits us from harming them in such a situation.

To answer the question of culling, we need to figure out what moral considerations, values, and rights, are relevant for each side. Let us start with the moral rights of both kangaroos and dragons.

Since the publication of *Animal Liberation* (Singer, 2002) the field of animal ethics has developed many compelling arguments for why animals have moral rights. I will not replicate such arguments, partly because I have nothing new to add and partly because I take it that most reasonable people agree to some extent with this thesis. What is actually contentious is what are those rights and which animals have them: it is not clear if all animals have a moral right to a legal defense when in need, or if animals that apparently do not feel pain have a right for wellbeing. Nonetheless, kangaroos and earless dragon fit all the major suggested criteria for right holders: sentience, being subjects of a life, basic rationality, and consciousness. Philosophers have argued that these are good properties to delineate which entities can have rights. On the matter of which rights they have, one of the strongest arguments for why they have a right to their welfare is that they have interests in continuing to live a good life, while killing or harming them will deprive them of that. Therefore, most animal ethicists would agree that kangaroos and earless dragons have a right not to be killed or harmed without a strong justification.

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value comes as a result. I do so because if this is not the case, then there are considerations regarding nonderivative final value involved, and this are ruled out by my statement.

3. What is a species?

Before figuring out what value a species has, we have to figure out what a species is. Species are conceived in taxonomy as the basic unit of classification and the fundamental taxonomic rank. The other commonly used taxonomic ranks are domain, kingdom, phylum, class, order, family, and genus. These other ranks are usually thought to be only "passive aggregates composed of actively evolving species" (Ereshefsky, 2004: 80). And so, species are thought to be the units of both evolution and classification of life.[7] Nonetheless, there is no agreement in the philosophy of biology about what a species is.[8] There are six major groups of definitions:

- Reproductive: The most inclusive population of individuals who can interbreed and produce fertile offspring.
- Phylogenetic or evolutionary: The least inclusive population of individuals who share an ancestor and can be taxonomically distinguished from other such populations.

[7] Although, the history of taxonomy is more complex, according to some authors "Preexisting taxonomies came to be interpreted as the result of evolution, and evolutionary principles were developed to justify long-standing taxonomic practices"(Ereshefsky, 2004: 80).

[8] There is an ambiguity here (Melville et al., 2019) between the concepts of species taxa and species category. Species taxa are the species that biologists study: Eastern grey kangaroos and Earless dragons. Species category is the class of all species taxa. The question is not about what species taxa there are, but about what is it that they share so that they are all part of the species category.

- Ecological: The most inclusive population that occupies a different ecological niche from other populations of its lineage.
- Genetical: A population who has genotypic similarity that can be taxonomically distinguished from other such populations.
- Morphological: A population that has shared anatomic features that can be differentiated from other populations.
- Form of a life: A population of individuals who share a common biological "way in the world", which includes how they reproduce, how they move, how they avoid predators and how they take care of themselves. (Sandler, 2012: 4; Timmerman, 2018: 685)

None of these definitions is without problems, as shown by interesting borderline cases.[9] It is also important to note that each definition picks out and leaves out different populations, so each definition has pragmatical advantages in the proper scenario. Ecologist care more about the ecological concept of species, because they are interested in how a population interacts with an ecosystem way more than they are interested on the genetic history between them. Evolutionary biologists care more about the evolutionary history of a species, they are interested in how a

[9] The reproductive definition is the most widely used. To exemplify some of its problems consider the following case. Red junglefowl (Gallus gallus) and grey junglefowl (Gallus sonneratii) are consider two different species, because they do not interbreed in the wild due both to geographical separation and to differences in appearances and courtship behavior. Nonetheless when these impediments are overcome in captivity, their offspring hybrids cannot interbreed with other hybrids, but they have been shown to be able to interbreed with members of both species (Greene, 2012: 589-590).

population evolves from one another and not that much in the role they play in each ecosystem. These considerations speak in favor of *species pluralism*, the idea that there is a plurality of species concepts, and against *species monism*.[10]

4. Species have derivative final value

There have been many proposals to explain the value of species, let us consider four for the moment:

- Instrumental value: species make a *causal* contribution in value. Species are used to get scientific knowledge and for educational purposes, they also contribute to the health of ecosystem and to the survival of other species and organisms. (Thomson, 1997: 294n)
- Projected value: species have value that is projected by valuers. The paradigmatic example is aesthetic value. Philosophers argue that there is something more about aesthetic value than pleasure it provokes on us, and some of them argue that aesthetic value is not found in objects but projected onto objects by valuers (Greene, 2012). There are other examples of projected value, like the value a scientist projects onto a species discovered by her.
- Constitutive value: species make a *non-additive* contribution of value. Some philosophers argue that all

[10] From this it is also easy to construct an argument for *species conventionalism*, the idea that the concept of species is just a useful convention, and against *species realism*, the idea that the concept of species is based on *real* categories or features that biological organisms have. And from species conventionalism an argument against the nonderivative final value of species could also be presented.

species have value, even those that do not causally contribute to anything of value and do not have any characteristics that valuers appreciate, e. g. snail darters, because they contribute to biodiversity and biodiversity is valuable (Bradley, 2001).

- Intrinsic individual value: species have value due to the intrinsic properties of their members (Russow, 1999).[11]

Many people believe that these proposals are missing something. All these proposals appeal to something besides a species, and so they argue for the derivative value of species (Ronnow-Rasmussen, 2015). Nonetheless some philosophers believe that species should not just be protected because they are related to other things that have value. They argue that the proper moral duties owed to species are due to the nonderivative value they have:[12] intuitively we do not protect species solely because that will benefit other animals or because that will benefit us, but because they are valuable for their own sake (Gorke, 2003).

I will argue that species do not have nonderivative value. First, notice that given the definitions we have of species, it would be quite hard to explain why species have nonderivative value. Consider the morphological definition: it hard to explain why a

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[11] There is an important ambiguity here, something is claimed to have intrinsic value if it "supervenes" on intrinsic properties, so contrasting the intrinsic value of the *individuals* of a species with the nonderivative value of the *species* may seem mistaken. I will argue in what follows that this only seems so because we conflate the individuals as a group with the entity that is the species as such, the intrinsic properties that the individuals have is not an intrinsic property of the species.

[12] There is an ambiguity here, many authors argue that what must be shown is the *intrinsic* value of species. I adopt Ronnow-Rassmusen's (2015) definitions of intrinsic and nonderivative value, under these definitions what needs to be shown is the *nonderivative* value of species.

population that has *any* morphological feature that defines a species should be valued. Why should we value that there is a population that has the features of a mosquito? Or why should we value there is a population of mammals an almost imperceptible body characteristic that is of no scientific interest and without any impact on their environment?

Even if someone could come up with an answer to this question, they would have to face what I call the *overflow* objections.

The first kind of objection is the *overflow of duties objection*. The objection goes as follows. Assume that species have value, if we have the duty to maximize or promote value, it follows that we should, *ceteris paribus,* create more of these populations (Russow, 1981). Therefore, if we are species conventionalists, we should believe that taxonomists have a duty to convene there are more species. And if we are species realist, we should believe that biologists have a duty to create organisms that belong to new species.

There are two ways to reply to this objection. It could be argued that we do not have a duty to promote the nonderivative value of species, maybe the kind of value species have is a deontological value that calls for respect and preservation but not for promotion. It could also be argued that we have the duty to maximize the value of species, but it is outweighed by the duty to preserve the value that already exists (Cohen, 2011). Nonetheless, anyone who would appeal to these replies would have an even harder case. They would have to argue on top of why species have nonderivative value, why species have the kind of value that blocks the overflow of duties objection. The existence of these latter kinds of value is already contentious in the literature, so I take it to

be, at least very hard to argue for the existence of this kind of value to be nonderivative *and* present in species.

The second kind of objection is the *overflow of entities objection*. If we have a duty to preserve *every* species, we have a duty to preserve even man-made species and so we have the same duty to preserve earless dragons as we have to preserve a new species created in a lab or a species that has evolved as a consequence of domestication. Another version of this objection is that we do not have a duty to preserve every population that shares a trait: all the odd-eyed cats, all the white lions, or all the descendants of the dogs who personified Lassie on tv. A further version of this objection is to point out that species is only one taxonomic rank. The fact that it is the most important in taxonomy is not reason enough to show that we only have obligations to it. On this line, philosophers have argued that if we owe obligations to species then we also owe obligations to subspecies (Baxter, 2005) and also to higher taxa (Powell, 2012).

The natural reply to these objections is to restrict in some way the kind of value that species have so that it does not overflow to entities we do not want it to. Philosophers have argued that there could be some particular value in entities that have not been modified by humans (Elliot, 1982), or that have not required the intervention of humans to exist (Baxter, 2005). People could also argue that even if they adopt the phylogenetic definition, there is some relevant distinction between biological species and all other populations that share a common ancestor. But notice that we value populations that have required human intervention to exist. We value domestic dogs and cats, and many people find blue-eyed humans attractive. Maybe the value of these latter kind of populations is different from that of species, but it will be hard to

come up with a convincing argument for why mountain lions and domestic cats should be preserved due to their value, but lab rats should not. Again, I just want to point out that this makes the case for the nonderivative value of species even harder.

5. Do species have nonderivative final value?

Many people would not be convinced by these objections, as they may believe that an argument can be devised to show the nonderivative value of species. Let us look at some arguments that have been suggested in the literature.

Some philosophers have tried to use the *replication argument* (Elliot, 1982). This argument starts with a thought experiment. Imagine that one day you hear in the news that the original species of earless dragon has been extinct since 1963 and the new individuals discovered in 1991 where either a replication made by humans using genetic data, or an evolution of another species that happens to be indiscernible from prior earless dragons.[13] Many people have the intuition that there is something wrong in this situation. There seems to be something to lament or condemn about the fact that the species went extinct. And so, the argument goes, even if the species still exists, something of final value was lost; the new species does not have as much value as the original had (Sandler, 2012). This lost final value cannot be explained by anything other than the species itself, because, by hypothesis,

[13] According to new data we may have four different species of earless dragons from what previously was thought to be one, the distinctions are based on genetic information and not on observable treats, so this assumption is not unrealistic (Melville et al., 2019).

everything else is the same except the fact that there is a new species different but indiscernible from the previous one[14]. Therefore, species have nonderivative value.

Other philosophers have suggested a *last person argument* (O'Neill, 2013) . This argument also starts with a thought experiment. Imagine you are the last entity with nonderivative value in the planet and you will die in the following hour, you have to decide if you will use that time to destroy the species of earless dragons. Many people have the intuition that it would be wrong to destroy that species, but if that is so, that must be because the species of earless dragons has some final value even once you are gone. This value cannot be explained by reference to anything else that has nonderivative value because by hypothesis entities with nonderivative value will disappear in an hour. Therefore, species have nonderivative value.

Both arguments are highly controversial in the literature. Some philosophers have pointed out that they do not share the intuitions that the arguments use, and so the arguments are not compelling. Others have pointed out that it is not enough to point out that we have an intuition. Intuitions must be argued for, otherwise they are doing little more than restating the claim that species have nonderivative value without explaining why it is so (Sandler, 2012).

The literature has also pointed out problems with the axiology of these arguments. It is not clear if these arguments allow us to conclude that species have nonderivative value or just that

[14] People could reach a similar conclusion by appealing to the view in Cohen (2011).

they have final value[15]. On a similar line it has been pointed out that these arguments go way too fast. They draw axiological conclusions from deontic intuitions without further explanation; they start with the intuition that there is something wrong and then go on to assert that there must be some value to explain it. Consider the last person argument. Virtue ethics may be able to explain why destroying a species of bacteria is wrong without appealing to any value in that species but just to the character traits of the destroyer. On top of that, we can point out that the thought experiment is flawed from the start: individual animals have nonderivative value, so we do not need to postulate the nonderivative value of the species on top of the value of the individual members. This latter value is enough to explain why the destruction of the species is wrong. Notice also that it is hard to draw an intuitive line between them. Whenever we imagine a species of animals, we imagine a group of animals and so in any though experiment it is not clear if our intuitions are tracking the value of the animals or the value of the species.

The *axiological jump* and the *intuitive blurriness* problems are also present in the replication argument. I share the intuition that there is something bad in the (hypothetical) extinction of earless dragons in 1961, but I am not sure that I have that intuition because the species has nonderivative value and not because there is something wrong with what happened to the individual earless dragons who were the last members of the species, because probably the reason they did not have any descent was not that they were busy being too happy to have any time to reproduce. On

[15] Last person arguments are usually thought to be related to final value, while replication arguments are usually thought to be related to nonderivative value.

top of that I am not sure we need to postulate the nonderivative value of either the species or the individuals to explain what is wrong. Maybe all that is wrong is the fact that a group of animals died without the possibility of having offspring, something that sounds plausible in the human case, but solution I will not argue for in here. For these reasons I reject these two arguments.

A different strategy has been used in the literature. Most major ethical theories concur that interests are something that should be considered; entities that have interest have a *prima facie* reason for them to be promoted or respected. So, the strategy is to show that species have interests. We could suggest that it is in the interest of any species a) to persist over time, b) to maintain (or increase) its population size and c) to adapt to new environmental conditions.

This suggestion has been challenged by pointing out that to have interests an entity needs to be sentient, or at least conscious. This means that the idea that species have interests is nonsensical. But this objection can be met by pointing out that we use interest in two different ways:

> Preference-interest: kangaroos *have an* interest in eating grass.
> Welfare interest: *It is in* the kangaroo interest not to eat all the grass. (DeGrazia, 1998; Regan, 1983; Taylor, 2011).

The first kind is related to what entities want, desire or like. The second kind is related to what would be good for an entity. For an entity to have welfare-interest it does not need to have mental states, it only needs to have a good. This move shows that the concept of species having interest is conceptually coherent.

But it is not enough to show that it is coherent to believe that species have interests. Philosophers would still need to show why

we should care about them. Notice that unlike preference-interest, there is not obvious reasons why we should *prima facie* care about welfare-interest. Consider the case of a car. We can use the language of interest to describe what is good for the car: to not have flat tires, to be properly oiled, to not overheat, and so on. But none of that implies we should care for the car as we care for a tree, a kangaroo, or a human (Jamieson, 2008).

Philosophers have tried to meet this second objection by pointing out why we care about the welfare-interests of nonconscious creatures. We care about trees, and not about cars, because trees are goal-directed entities. Even if things cannot go bad *according to them,* things can go bad *for* them. We know there are certain things that are good or bad for a tree if it is going to survive or reproduce, and some would even claim trees are entities with an organism that has the goal of surviving and reproducing. This is how we know that to tear off its bark is not in its interests and that we should not do it. Tearing off its bark is not bad because the tree feels pain, but because it needs its bark in order for things to go well for it. We know that both because we know the role the bark plays in the organism of the tree and because we know evolution has selected this trait as something useful for it. The core idea of this proposal is that we can make sense of what is good for an entity appealing to its psychology, but also by appealing to its etiology or to its evolutionary history (Sandler, 2012).

If evolutionary history can ground what is in the interest of an entity and why we should care about those interests, then (a), (b), and (c) are interests of species that we should consider, because they can be grounded in the evolutionary history of each species (Rolston, 1988).

This line of argument surely will not convince anyone that is not a biocentrist (Jamieson, 2008; Taylor, 2011), because they do not believe that trees or creatures without preference interests deserve direct moral consideration. Nonetheless, this argument can be rejected on other grounds. It overstates the role that species play in evolution. When we talk about species being the unit of evolution, we do not mean that they literally evolve. We talk in this way because it is easier to understand evolution when we trace how species change and not how their individual populations or individuals do. But evolution does not select for the traits that species have, but for the traits that their members have. It is not species that compete for resources or that adapt to the environment, it is their individuals that do. Members of a species compete between each other, and sub-species come to change so much that they become a new species. It is more insightful and precise to claim individuals are the subjects of evolutions, and not species. Therefore, it cannot be argued by appealing to evolutionary history that we should care about the interests of species in a way that does not equate them with those interest with the interest of the individual members of a species, something that the one arguing against my thesis needs. For this reason, I reject this argument.

Notice the difference between the first two arguments that we considered and this last one. The former appealed to the uniqueness of what species are and tried to show why, intuitively, we should care about them. One of my objections was that our intuition seemed to be tracking the entities which we cared about from the beginning, and not these different entities. Because our intuition has such a hard time grabbing onto these entities, this latter argument appealed to the similarities between the entities

we already care about and species. But this time the problem is that the uniqueness about species will not allow the argument to work. Because they are unique, we can find relevant differences that explain why we should not consider them as having nonderivative value. The latter argument made several moves to avoid this from happening, but I argued it failed in the end.

Philosophers can select the properties that are unique to species to argue why we should value them, but then they are exposed to the objection that there is no reason to care for a property so different from the ones we usually value. Or, they could select a property that is shared with other entities that we value, but then they open themselves to the objection that this property is not important and the properties they do not share are enough to show why the analogy does not work.

I have presented three challenges to the idea that species have nonderivative value. First, they are nonstandard entities in morality. It would be hard to show why morality should care about them. Second, a view that cares about them will overflow morality. A view that incorporates direct duties of preservation to species will also incorporate other duties and other entities to morality. Third, there is a strong dilemma in any argument for the nonderivative value of species.

Nonetheless, people may still feel that all these problems can be overcome. The idea that species have nonderivative value is, at the end of the day, a persistent one. To ease our worries, I can only say two things. First, we can justify many preservation obligations on the derivative value of species and on the moral rights that their members have. Second, maybe we want to justify why species have nonderivative value because we were taught that they have it. Many of us have been taught to value species with stories like

Noah's ark. It is no coincidence that, according to some authors (Rolston, 1988), there is not much reference to moral obligations to endangered species in mainstream western philosophical thought before the twentieth century, except for references to Noah's ark story. On top of this, many of our attitudes and ideas about the natural world were developed before Darwin's theory. It is not unlikely that our unscrutinized intuitions developed in a society that assume species are entities that are hardly affected by time: highly unlikely to go extinct and that do not evolve, this would explain why we have such strong feelings when we ear that a species is gone. It makes sense to resist the pressure against ideas we hold dear, but if they do not resist the pressure when rationally scrutinized and if we find that they were conceived when we did not know enough to form an informed judgment, it only makes sense that we abandon them.

6. Should we cull kangaroos to save earless dragons from extinction?

The species of earless dragons do not have nonderivative value, and so considerations solely about the species cannot justify culling; the extinction of earless dragons is not a reason to justify the culling of kangaroos. Because this is one of the main reasons that the ACT government has presented for the culling of kangaroos, my argument implies that this practice should be revised and likely abolished.

I would like to show how my argument is compatible with preservation duties. My argument does not block *any* duty we have to preserve earless dragons, it only shows that culling

kangaroos is not one of those duties. I will exemplify this with a couple of thought experiments.

Imagine first that we have the option to build a protective fence to prevent the kangaroos from eating the grass. If we build the fence there will be enough grass so that there will be a new generation of 100 earless dragons[16] if we don´t they will surely go extint, but because kangaroos will have less grass the next generation of kangaroos will have 100 individuals less than it would have had if we had not built the fence, but none will die [17]. If we do not build the fence, the species of earless dragons will go extinct, but not because dragons will die, but because they will just stop reproducing.[18] Everything else remains the same.

I think that we should build the fence. I do not think we need to get into complicate debates in population ethics to justify this intuition. We can assign roughly the same value to the existence of a new kangaroo and the existence of a new earless dragon[19]. We

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[16] There is empirical evidence mentioned in the Management Plan that building a fence is correlated with the growth of the population of earless dragons.

[17] There is evidence that the reproductive system of kangaroos has evolved so that they can stop their population from growing when there are not enough recourses for them, kangaroos can even suspend their pregnancy. (Simons, 2013)

[18] There is evidence that this is the actual mechanism that is causing their extinction. Studies have found that the rate of survival across years has not been reduced and experts believe that lack of grass forces lizard to abandon reproduction altogether (Dimond et al., 2012).

[19] This value can be zero if we agree with the intuition of neutrality (Frick, 2017). On the other hand, people could argue that the value of a new earless dragon has more value because their population is smaller (Hurka, 2016). I would reply that if their population were the same size, the life of one kangaroo would have more value that the life of one earless dragon, both because her life would be longer and because she could get more out of life (Vallentyne, 2005). Therefore, unless a further argument is advanced, even if Hurka's view is correct it does not follow that there is more value on the side of earless dragons.

can also concede that there are no rights that are being violated, or that, if there are, in both options the same amount of rights are being violated[20] and so rights violation is not enough to decide between the options. Finally, there are no considerations about character traits or ethics of care that are enough to incline the balance to the kangaroos' side. And so, the projective, contributory, or intrinsic value of the species of earless dragons is a tie breaker in this case.[21]

Consider another thought experiment. In this case if we do not build the fence not only 100 earless dragons will not come to exist, but on top of that many animals that depend on the existence of earless dragons will die. I will concede that the right these animals have to a good life is enough reason to build the fence.[22] In this case the instrumental value of the species of earless dragons has tipped the balance.[23]

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[20] There may be reasons to believe that individuals have rights before they exist (Parfit, 1984), but the morality of this case is not decided by the truth of falsehood of that view.

[21] I want to acknowledge that there may be some way to argue that we should not build the fence, people could argue from a *rule of noninterference* that we do not have a right to build the fence (Taylor, 2011), or people could argue that the life of a kangaroos has more has more value than the life of an earless dragon (Vallentyne, 2005). I do not believe that in this case these arguments will succeed but arguing for this would be too much of a tangent.

[22] There is no evidence that I know of that this is true in the case of earless dragons the fact that in the last study it appears that there were less than 20 individuals in each population on 2009 suggests that the ecosystem will not be affected by their extinction.

[23] In real life it is likely that there are more lives lost on the side of kangaroos, according to the Management plan only in 2016, 1989 kangaroos where culled in Canberra Nature Park for conservation reasons. On top of this the definition the legislation uses of 'humane' death allows for suffering in various ways (Council, 2008), so an argument from pain would tip the balance even more to the kangaroos' side.

7. Conclusiones

I have argued against the view that considerations solely about the extinction of a species are enough to justify the violation of the rights of individual animals. To do so I presented a case as for why unless species have nonderivative final value the rights of individuals trump conservation practices that harm them. After that I presented several arguments that support that a species does not have nonderivative value. Finally, I also showed how this view is compatible with other duties of preservation and intuitions by ecologists and environmental activists.

Finally, I want to restate: the whole practice of culling of kangaroos must be abolished. I used the example of kangaroos as a taste case to argue for a wider thesis that I strongly believe in: it is immoral to violate the rights of individuals solely to save an species from extinction. This was an exercise on philosophical argumentation that I hope will be useful in decisions that do fit with the relevant hypothesis. Nonetheless, there is enough evidence to presume the main motivation for the slaughter of kangaroos has little to do with preservation, and the presumed arguments that I have put effort on objecting to have been used mainly as excuses to try to justify this horrific act.

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