

75% This is an excellent piece of work that presents a clear & plausible line of reasoning for the claim that ecosystems have moral standing. You express a genuine interest in attempting to include both individuals & systems, as well as explore a way around the dichotomy between individualistic & holistic stances. You critically engage with relevant research, including Nussbaum's capabilities approach & successfully incorporate it into your argument. There is some need for counter-arguments to be evaluated but overall this is a well-written essay that reveals a very good understanding of the topic.

Q1. What light does environmental ethics throw on the extent of moral standing?

Western moral thinking, until the middle of the 20th Century at least, has been dominated by the view known as anthropocentrism. On this view moral standing is restricted exclusively to humans on the grounds that only humans have morally significant interests. Traditionally, anthropocentric theories either denied moral standing in non-human species altogether or assigned greater amounts of moral standing to humans over non-human animals and plants (Brennan, 2021). But anthropocentrism has faced three major challenges. Firstly, in 1949, Aldo Leopold (describing the complex relationships between animals, plants, soils, and seasons he observed whilst living on his Wisconsin farm) argued for a form of holistic ecocentrism, or in Leopold's own words a *land ethic*. Leopold wrote 'The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land. (Leopold, 1949, p.157) Leopold's bold claim was that the land as a whole, comprising of individual living and non-living things, has a moral standing of its own. Although his writing lacked a systematic ethical theory (Brennan, 2021) his words would inspire countless like minded thinkers, perhaps most notably the philosopher Arne Naess, founder of the *deep ecology* movement (Naess, 1973).

During the 1970's anthropocentrism suffered two further attacks. Firstly, from animal rights activists, mainly concerned with the horrific animal cruelty involved in factory farming and laboratory experiments carried out by the cosmetics and pharmaceutical industries. The philosopher, Peter Singer, claimed that moral considerability should be extended from humans to all sentient creatures, the view known as *sentientism*. Singer argued that all sentient creatures (humans and non-human animals) are entitled to 'equal consideration of interests' in virtue of the fact that they can suffer and feel pleasure (Singer, 1975, p.5). On his view, an interest in avoiding suffering (and feeling pleasure) grants sentient creatures moral standing. And secondly, from biocentrists. The philosopher Richard Routley argued that actions morally permissible under anthropocentrism are considered morally impermissible under a *new environmental ethic*. The existing liberal Western ethic, Routley argued, allows humans to disvalue and destroy the environment, so long as they do not hurt other humans or themselves (Routley, 1973, p.207). But Routley demonstrated, through his *Last Man* thought experiment, that by destroying every last non-human living thing around him, the *Last Man* still acts wrongly (Routley, 1973, p.207). Thus, Routley claimed, the living things he destroys have a value in of themselves, the view known as *biocentrism*. And so this relatively new field of environmental ethics began to shine a light on the inadequacy of existing anthropocentric theories of moral standing. I shall argue that theories that have sought to ground moral standing in the various capacities or interests of *individuals* (anthropocentrism, sentientism and biocentrism) have struggled to provide good reasons for valuing and protecting our collapsing ecosystems, comprised as they are of interlocking relationships *between* individuals and their environments. Such relationships are both local and global in nature and occur both today and across time. The capacities and interests of the individuals within these systems are so shaped by these systems as to make any attempt to separate living things from their environment incoherent. In addition, I shall argue that our reasons for valuing both living things and the environment cannot be satisfactorily expressed by theories of moral standing which continue to rely on a sharp distinction between what is alive (and has interests) and what is not (and has no interests), such as biocentrism. I will conclude that the concept of moral standing itself needs further expansion as it comes under increasing pressure to encompass both individuals and ecosystems. Nicely put.

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In his 1987 paper *The Good of Trees*, Robin Attfield argues that trees have interests and a good of their own. He writes 'nothing which has interests is to viewed wholly instrumentally, and that things which have interests characteristically have some value in their own right. If trees have a good which is not our good, then they also constitute a good: if they have their own form of flourishing, they are thereby of value in themselves. (Attfield, 1987, p.345) For Attfield, therefore, trees have moral standing. Attfield

He is a sentientist

rejects influential anthropocentric arguments including those of philosophers R. M. Hare and Joel Feinberg. Hare's moral argument was founded on his Golden Rule – do to others as we wish that they should do to us. Hare claimed that because trees lack consciousness they do not *care* if they are cut down and therefore they are not the sorts of things that can be harmed (Hare cited in Benson, 2000, p.94). Hare argued that *interests* can only be brought about by the presence and thwarting of desires which, on his view, remain uniquely human capacities. But Attfield argues that having conscious desires is not a necessary condition for suffering harm. For example, plants are clearly harmed by depriving them of food and water though they lack desires as such. Feinberg, Attfield tells us, also rejects the notion that trees have a good of their own because trees lack the cognition necessary for having goals, wishes, experiencing pleasure or pain. They lack a 'conative life' (Feinberg quoted in Attfield, 1987, p.332). Attfield points out, however, that even if trees do lack consciousness (Attfield thinks they do, though this remains contentious) this does not exclude them from having interests. As before, he argues plants possess latent tendencies (such as direction of growth and natural fulfilment) which grant them 'sufficient conditions of having interests' (Attfield, 1987, p.332). On Attfield's view having an interest in flourishing (and avoiding harm) grants trees a good of their own. In 1978 Kerfneith Goodpaster published his seminal paper *On being Morally Considerable*. In it, Goodpaster also rejects the standard anthropocentric criterion: 'For all A, X deserves moral consideration from A if and only if X is a rational human person or is a potential rational human person' (Goodpaster in Zimmerman, 2005, p.57) Goodpaster views it as self evident that we have good reasons not to treat imbeciles, who do not have any potential for rationality, as if they have 'no moral claims' at all (Goodpaster in Zimmerman, 2005, p.58) Indeed, most of us would readily agree that newborn babies and those on life support machines are due moral consideration despite their lack of 'rationality'. Instead, Goodpaster argues that 'being alive' (as opposed to flourishing) is the only 'plausible and non arbitrary criterion' for moral consideration (Goodpaster in Zimmerman, 2005, p.54). Goodpaster argues that because all living beings are subject to both beneficence and maleficence, this grants them interests, writing 'one cannot do good for or avoid harm to entities that have no interests.' (Goodpaster, 1980, p.282) But unlike sentientists who believe that only beings with subjective experiences have 'interests in the full sense of the term' (Singer, 1979, p.194) biocentrists, such as Attfield and Goodpaster, claim consciousness or sentience though *sufficient*, is not *necessary* for having interests. Goodpaster rejects the standard sentientist criterion: 'For all A, X deserves moral consideration from A if and only if X is capable of suffering pain (or experiencing enjoyment).' (Goodpaster in Zimmerman, 2005, p.58). He quotes Singer who writes '[i]f a being is not capable of suffering, or of experiencing enjoyment or happiness, there is nothing to be taken into account' (Goodpaster in Zimmerman, 2005, p.59). Goodpaster argues Singer is mistaken to claim 'there is nothing to be taken into account' if an organism is non-sentient but is clearly *alive*. Sentience, on Goodpaster's view is just another 'adaptive characteristic' (among many) which enables conscious biological organisms to avoid danger and survive. Though humans, understandably, have empathy for organisms like themselves which suffer (and feel pleasure), there is no reason to presume that the capacity to suffer (and feel pleasure) allows conscious organisms to *do better*, or *worse*, than non-conscious organisms such as trees or single cell organisms. Though Goodpaster successfully argues that having one's interests met makes a biological organism *do better* (and not having them met makes an organism *do worse*) it remains unclear if being alive is good per se? Might being alive, like being sentient, not be an altogether satisfactory basis for the granting of moral standing?

Robin Attfield has argued for the largely Aristotelian view that the realisation of one's own natural capacities, or *flourishing*, is a *good*. Thus a flourishing life is one that is *better*, whilst a life ceasing or failing to flourish is *worse*. In *The Good of Trees* Attfield proposes the following:

'Let the 'essential' capacities of an x be capacities in the absence of which from most members of a species that species would not be the species of x's, and let 'x' range over terms for living organisms. Then the flourishing of an x entails the development in it of the essential capacities of x's.' (Attfield, 1987, p.42)

'Plants and trees with their attendant *capacities* to grow, reproduce and be healthy grants them 'interests and needs of their own.' (Attfield, 1987, p.43)

Attfield agrees with Jonathon Glover, and many others, that because there are lives that fail to flourish or are not worth living, life itself cannot be an automatic good (Attfield, 1987, p.153). Instead he writes 'what can thrive, reach maturity, be endangered and be protected, has, I contend, a good itself.' (Attfield, 1987, p.330) But that good is not due, according to Attfield, to an organism's *eidos* or *telos* (purpose in reaching some goal), instead it turns on an organism's 'natural fulfilment' of its 'inherited capacities' (Attfield, 1987, p.331) This type of fulfilment, Attfield claims, grants an organism *intrinsic value*. I contend that this claim leads to two problems for biocentrism. Firstly, if intrinsic value turns on the natural fulfilment of inherited capacities, in a purely biological sense, then intrinsic value (and moral standing) is grounded in, and *only in*, the interests of the *individual* and not the interests of the wider community, species or ecosystem. Indeed Attfield argues that a species, or an ecosystem (understood as a mere aggregation of individual living things) lacks such natural fulfilment of inherited capacities and, therefore, only possesses instrumental value (Attfield, 2003, p.40). And secondly, anything which is not an individual *living* thing must also lack this type of fulfilment. Whilst a table (a human-made thing) or a rock (a non-living thing) may (probably) lack this type of fulfilment it remains unclear if other non-living things such as future generations or ecosystems do *in fact* lack natural fulfilment of their inherited capacities, especially if the natural fulfilment of inherited capacities is interpreted in wider terms, rather than narrow biological ones. Might there be another way to understand natural fulfilment of inherited capacities which does not rest on such narrow, biological terms? Both Leopold and Naess have argued that there is.

Good question

Leopold famously wrote 'A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise' (Leopold, 1949, p.173) He also wrote that a land ethic 'would affirm [soil, plants, and animals] right[s] to continued existence in a natural state' (Leopold, 1949, p.157) Thus a biotic community, on Leopold's view, is a community of living organisms together with their physical environment *over time*. Ecocentrism encompasses the view that ecosystems (such as rivers, forests and mountains), comprised of living and non-living things have a good of their own, independent of the good of the living things within those systems *at any particular point in time*. Naess, like Leopold, took the term *living* to mean something more expansive than being merely biologically alive. The first, and most important principle in Naess's *deep ecology* movement is 'biocentric egalitarianism' that is, the wellbeing and flourishing of all life. Naess maintains wellbeing and flourishing have intrinsic value or inherent worth (Naess, 1986, p.405), and this is broadly consistent with the views of many (not all) biocentrists. But his second principle, 'richness and diversity of life forms contribute to the realization of these values and are values [intrinsic values or inherent worth] in themselves' [emphasis mine] (Naess, 1986, p.405) is an important distinction between the ecocentrism of Naess and the biocentrism of Attfield. According to Naess ecosystems are frequently characterised by principles of diversity, complexity and autonomy (amongst others) (Naess, 1973, p.1). But is there intrinsic value, in say, diversity or complexity itself? Diversity and complexity, as intrinsically valuable in themselves, is defended by ecocentrists but denied by biocentrists such as Attfield.

Biodiversity, as every gardener knows, creates the resilience that enables living things to flourish. The Collins dictionary definition of biodiversity is 'the existence of a wide variety of plant and animal species in their natural environments (HarperCollins). When Routley's *Last Man* destroys the last living, non-human things on Earth, Routley tells us that intuitively we know he does wrong. Attfield discusses one of the many intuitions we might have for believing the last man acts wrongly. Might it be because he is decreasing diversity? In order to test his theory Attfield presents us with his own version of the last man thought experiment. He argues that the real reason the last man acts wrongly is because trees (and plants and habitats) ought to be preserved because of their *instrumental* value in, for example, stabilising ecosystems for the benefit of humans, animals and plants (Attfield, 1987, p.338) Diversity per se, on Attfield's view, does not have intrinsic value. Does this matter? I believe it does because it encourages us to view our planet's vital ecosystems as mere resources rather than as the complex relationships they actually are, each having profound value in their own right. Attfield asks us to consider a planet on which 'there are no conscious experiences' and asks if it would be made worse by becoming more 'uniform'? (Attfield, 1987, p.338) If the last man destroys all the diamond on this planet shortly before his own death, would he act wrongly? Attfield thinks we should not find this wrong as it is not diversity per se which has intrinsic value, rather he argues it is the experience of diversity (by sentient beings) which has value (Attfield, 1987, p. 338). Attfield holds, therefore, that it is the *loss of living species which is intrinsically undesirable* and not the loss of diversity as such (Attfield, 1987, p. 338). But thought experiments should always be treated with caution. If the loss of living species is intrinsically undesirable as Attfield claims, then its corollary, the *addition* of living species is *intrinsically desirable*. But how exactly does nature increase living

species? Attfield separates diversity from flourishing (on his view diversity lacks intrinsic value whilst flourishing has intrinsic value). But this is simply incoherent, there is no such separation in nature. Diversity *is* flourishing.

In order to see this more clearly, we first need to ask what flourishing actually is? In order to answer this Amartya Sen and Martha Nussbaum's capabilities approach is useful. Whereas ethical theories, such as biocentrism, claim that *flourishing* holds intrinsic value (and therefore grants moral standing to living things that *can* flourish), the capabilities approach claims that the *freedom to flourish* holds intrinsic value. This is a valuable distinction as it highlights the importance of the *potential* to flourish in addition to flourishing itself. The capabilities approach (generally) comprises of two main claims: 1. 'The freedom to achieve well-being is of primary moral importance' [and so holds intrinsic value] *emphasis mine*. 2. Well-being is understood in terms of 'capabilities and functionings' (Robeyns and Byskov, 2021). Capabilities consist of freedoms such as the capacity to *be* healthy, to *be able* to reproduce, or *be able* to live as a member of a community. These are what Attfield calls 'inherited capacities' and are essential for flourishing, *but are only one half of the story*. They are things which *can* be achieved by humans, animals or plants but are not necessarily achieved. Thus they are a measure of a human, animal or plant's *potential*. Functionings consist of capabilities which are *actually* achieved such as *being* healthy, *successfully* reproducing, or *actually* living as a member of a community. The distinction between capabilities and functionings is essential because it is possible to have capabilities without functionings. Also, on the capabilities approach, the notion of both capabilities and functionings can be applied to both systems and individuals (although it is important to stress that Sen and Nussbaum have limited the theory to individuals so far) (Kleist, IEP). For example, we might say that a forest (or an individual tree) has the capability (freedom or capacity) to grow, but find that in fact it does not do so, or does not do well. Perhaps the soil is degraded or it lacks mycorrhizal fungi. The 'inherited capacities' to *be* healthy or *be able* to reproduce are thus restricted by external factors. But, as Naess writes 'Diversity enhances the potentialities of survival, the chances of new modes of life, the richness of forms' (Naess, 1973, p.98) Thus if diversity is increased (or at least not allowed to decrease which is currently the case across so much of our planet) our forest (or tree) will do better. If nitrogen fixing plants and mycorrhizal fungi are introduced this *will* bring about an increase in functionings, that is, our forest (or tree) will *be* healthy, will *successfully* reproduce etc. Thus, on the capabilities view, in order to increase capabilities (the freedom to grow, be healthy etc) biodiversity must be increased. As a result functionings increase, and the *potentiality* of our forest (or tree) is finally achieved. On this view then, diversity is flourishing, and intrinsic value is grounded in the *freedom to flourish* of our forest and our tree.

Does the debate over which things possess intrinsic value matter? And how does this relate to the concept of moral standing? It matters, because at the heart of environmental ethics, there is an unresolved tension. On the one hand is the concept of *individual*. Whilst on the other, is the concept of the *whole*. Which of these world views we adopt has consequences for our moral beliefs, and ultimately, the things we take to have moral standing. Environmental ethics has expanded the class of morally considerable things from humans to animals to plants, and even ecosystems. But a persistent and problematic dualism in Western thinking, which sees the individual as separate from her environment and from others, leads to unsatisfactory accounts of both what it means to flourish and what it means to be a bearer of moral standing. Naess writes: 'An intrinsic relation between two things A and B is such that the relation belongs to the definitions or basic constitutions of A and B, so that without the relation, A and B are no longer the same things. The total-field model dissolves not only the man-in-environment concept, but every compact thing-in-milieu concept' (Naess, 1973, p.95) For example, on a dualistic Western model we might say that a human or a non-human animal is separate from her environment. She is a living organism whilst the water and soil in her environment are non-living. She holds intrinsic value, whilst the water and soil in her environment do not. But on a 'being-in-the-world' model, such as that proposed by the phenomenologist Merleau-Ponty, we see that this is incoherent. We might say that a human or a non-human animal *is* her environment. She is who she is (temporally) due to her ancestors multiple interactions with the environment, due to the constant discarding of unsuccessful evolutionary adaptations, her vision, taste and smell, her beliefs, desires and knowledge, are shaped (geographically and socially) by her environment. And if she were removed from her environment her beliefs and desires and knowledge would be altogether different. As Naess says, 'so that without the relation [the animal] and [the environment] are no longer the same thing' (Naess, 1973, p.95). Merleau-Ponty argues that knowledge, for example, is not an inner mental process, it is not a consequence of thinking or being rational, as it is so often thought to be in Western thinking. Instead knowledge is acquired through the richness and directness of 'being', that is, seeing, hearing, feeling and acting in the world (Merleau-Ponty, 1962, p.395). Merleau-Ponty's concept of 'being-in-

the-world' has important parallels with the views of many ecocentrists, particularly, Naess's total field model (Naess, 1973, p.95). Naess writes that 'the norms and tendencies of the Deep Ecology movement are not derived from ecology by logic or induction.' (Naess, p.98) Instead, they are 'inspired' by the joint experience of ecological field-workers. That is, they are inspired by being in the world, not merely thinking about the world. Biocentrism (as the most plausible alternative theory to ecocentrism) claims, on the other hand, that only living things count. Worse, many conservation scientists who produce reports for the UN, continue to exhibit anthropocentric beliefs. COP15, for example, relies on reports from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) many of whose members still perceive nature in purely instrumental terms, focusing on 'nature's contribution to people' (Alberro et al. 2022). Meanwhile cost benefit analyses and the monetarisation of nature continues, irrevocably damaging the environment. It has now been suggested that work by the IPBES ought to 'explicitly' include 'people's moral obligations to nature' (Alberro et al. 2022). But this requires a moral paradigm shift, and as we can see all about us, we cannot protect our planets failing ecosystems unless we believe them to be of inherent worth. The philosopher Katie McShane has emphasised the importance of aligning our norms for 'feelings' with our norms for 'actions' in her 2007 paper *Anthropocentrism vs. Non-anthropocentrism: Why Should We Care?* She argues that when environmentalists, such as Leopold, write about a 'love of the land' they are expressing a desire to love and cherish a particular place (McShane, 2007, p.178), or as she calls it the desire to be 'emotionally orientated towards things the right way' (McShane, 2007, p.174) Thus she criticises anthropocentrism, writing 'It's one thing to say that ethics shouldn't recommend love-of-nature to everyone; it's another thing to say that to love nature is to make a mistake.' (McShane, 2007, p.179) Likewise, when people express a profound love of place, landscapes or mountains they are not referring only to a list of biologically living things in that specific location, they are referring to everything that once lived and that will potentially one day live, as a consequence of our ability to value things 'the right way'.

Goodpaster claims 'living things deserve moral consideration and inanimate objects do not precisely because living things can intelligibly be said to have interests [...] Interests are crucial because the concept of morality is noncontingently related to beneficence or nonmaleficence, notions which misfire completely in the absence of entities capable of being benefited or harmed.' (Goodpaster, 1980, p.281) I have argued, however, that ecosystems (comprised of living and non-living things which are inseparable) do have interests in that they are subject to beneficence or non-maleficence, and as such, are the bearers of moral standing. There is no clear philosophical distinction (even if there is a biological one) between what is living and non-living. The individual biological organism does not have a 'boundary' which separates it from its environment. Whilst, therefore, we may well agree that capacities to grow, reproduce and be healthy grant individuals interests, this should not prevent us from extending the protection of moral standing to ecosystems. I have argued, in line with the capabilities approach, that intrinsic value and moral standing are grounded in the freedom to flourish. Whereas Attfield argues that individual interests cannot be extended to ecosystems (which have merely instrumental value), I have argued that individual interests, though sufficient, are not a necessary basis for moral standing. Many people do, in fact, deeply (not instrumentally) value mountains, rivers, forests and the environment around them. Katie McShane writes 'They are describing the kind of emotional bond that people often have with their friends or family.' (McShane, p. 178) But anthropocentrists, sentientists and biocentrists largely agree that moral standing can *only* be grounded in individual interests. I have argued this is based on outdated and problematic Western dualisms which are failing to cope with complex moral issues such as climate change, biodiversity loss and ecocide. Ecocentrism does not require an arbitrary line to be drawn between what is alive and what Goodpaster calls 'inanimate objects' (Goodpaster, 1980, p.281). Without ecosystems there would be no possibility of life either now, or in the past, or future. No possibility of flourishing or potential. Humans, animals, plants and ecosystems have inherent value, and this in turn, grants them moral standing.

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