



# Two (and a half) arguments for conserving biodiversity on aesthetic grounds

Stefan Linquist<sup>1</sup>

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## Abstract

*Defending Biodiversity* exposes various weaknesses in recent scientific and ethical defenses of species and ecosystem conservation in the hope that those arguments can be improved upon. Jennifer Welchman's critical review of our book embraces this challenge, focusing specifically on our discussion of aesthetic value. We argue that the best available defense of conservation on aesthetic grounds involves an analogy to great works of art. Welchman is sensitive to certain limitations in this approach. She is more sympathetic with the scientific cognitivist position that every species possesses aesthetic value in virtue of having a unique scientific description. Normatively, she appeals to the welfare of future generations, and the role that aesthetic experiences could play in human flourishing, to defend the conservation of biodiversity. In this essay I expose some ontological and practical problems with scientific cognitivism. Moreover, the appeal to future flourishing cannot justify biodiversity conservation because people's aesthetic appetites are more efficiently supplied by human artistic traditions (music, film, photography, and the like.) The argument from analogy to artwork thus stands as the best available justification for conserving at least some species and perhaps certain ecosystems on aesthetic grounds alone.

**Keywords** Environmental aesthetics · Biodiversity · Conservation · Scientific cognitivism · Defending biodiversity

Like Dr. Welchman I agree that the aesthetic value of at least some species provides a promising reason for conserving them. I open with this declaration because, in reading her commentary, one could easily get the opposite impression of our stance in *Defending Biodiversity*. I can see why someone might put a negative gloss on the final sentence of our chapter on aesthetic value. To quote the sentence in full: "This

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✉ Stefan Linquist  
linquist@uoguelph.ca

<sup>1</sup> Department of Philosophy, University of Guelph, Guelph, ON, Canada

issue remains an open field for investigation, and we think environmentalists ought to develop this line of argument before relying too heavily on it for support.” Admittedly, this isn’t the glowing vindication that some environmentalists might be hoping for. However, it is important to regard this statement in the broader context of our book. What we call the environmentalist agenda turns out to be such an aspirational doctrine that no line of argument supplies a comprehensive defense. This is perhaps the main message of *our book*, that different arguments support only specific parts of the environmentalist agenda, and often accepting one defence requires abandoning another. The other thing to note is that many of the popular arguments reviewed in our book turn out to be rather flimsy, so that they are probably not worthy of further development. So, context matters. Given the lofty objectives of the environmentalist agenda and considering the weakness of some of the standard arguments offered on its behalf, the conclusion that aesthetic defenses “ought to be further developed” is not necessarily a condemnation.

As I will outline in this short response, there are at least two quite distinct arguments on which conservation might be plausibly defended on aesthetic grounds. One is the argument that we outline in our book, which equates the moral commitment to conserve certain aesthetically valuable species with the commonly recognized commitment (at least in affluent Western societies) to conserve great artwork. Another is the argument Dr. Welchman prefers, based on the (allegedly) unique contribution made by the aesthetic appreciation of biodiversity to the flourishing of future humans. In addition to these is a third “half argument” (as I will describe it) which Dr. Welchman attributes to me and my coauthors, but which we did not in fact entertain in *Defending Biodiversity*. Allow me therefore to begin with a clarification of our position. I will then outline reasons for preferring our argument from analogy over Welchman’s appeal to future flourishing.

Dr. Welchman is correct that we embrace the Humean view that aesthetic judgments are not always mere expressions of personal taste. In our book, we attempt to motivate this idea by considering several hypothetical disagreements that might transpire over flavours of ice cream, the value of certain artworks, and the beauty of particular species. We propose that in the latter two cases a sincere aesthetic judgment can be—in some important sense—mistaken. This suggests that there is some fact of the matter underlying those judgments. But what sort of fact are we talking about here? To put the question differently, what sort of property (or properties) could aesthetic value be such that it is possible for someone to be incorrect in her judgment of it?

It seems obvious that aesthetic value is not “objective” in the mind-independent sense. I am relying here on a taxonomy that we develop in the opening chapter of *Defending Biodiversity* for classifying different types of intrinsic value, presented in Table 1 (below). Aesthetic value requires a conscious mind to come into existence, thus it qualifies in our framework as a form of relational intrinsic value. However, there are various types of relational value. Some objects, perhaps certain landscapes for example, are recognized as beautiful across all human cultures. Other aesthetic judgments are culturally specific. For example, the possum is considered something of an iconic marsupial in Australia, whereas in New Zealand it is mostly reviled. Finally, many items are regarded as aesthetically valuable only to individuals with

**Table 1** Categories of intrinsic value as outlined in *Defending Biodiversity*

Objective intrinsic value	Relational intrinsic value
A property of external objects that potentially could exist “in the world” independent of any conscious valuers who recognize that property	<p>A relational property emerging out of an interaction between an external object and some conscious valuer who perceives the object to be valuable in itself</p> <p>Degrees:</p> <p>(1) Pan-cultural: judgments of intrinsic value supervene on <i>culturally shared</i> features of humans.</p> <p>(2) Culturally specific: judgments of intrinsic value supervene on <i>culturally specific</i> features of humans.</p> <p>(3) Idiosyncratic: judgments of intrinsic value supervene on idiosyncratic features of <i>particular people</i></p>

certain psychological dispositions or personal histories. Hence, relational intrinsic value comes in varying degrees depending on which psychological properties it supervenes on. Some of those properties are pan-cultural, others are culturally specific, yet others are idiosyncratic.

The question we pose in *Defending Biodiversity* is as follows. If an ecological whole (i.e. a species or ecosystem) possesses a given degree of relational aesthetic value, does this provide a rationally compelling reason to conserve it?

There are a few things to note about our approach to this question. First, we recognize that some people are unlikely or even incapable of being swayed by considerations of aesthetic value. This is bound to be the case for culturally specific aesthetic values. For example, in my experience, people from the United States get a little misty at the sight of a bald eagle in a way that my fellow Canadians never do. (Perhaps this marks one of the few ways in which our cultures differ.) The point is that certain natural objects won't have the same aesthetic pull unless you belong to a particular cultural group. Hence, an argument which appeals to those values will have limited traction. In addition to these cultural differences, however, are various other factors that might cause members of even the same culture to disagree in their aesthetic judgments. For example, an unshakeable ideological commitment might prevent someone from recognizing the beauty of a certain species (such a person is incapable of a “disinterested” judgment, in the Kantian sense). Lack of exposure to nature is another factor that might prevent an appreciation of its aesthetic qualities. Likewise, socio-economic disadvantage can render the close attention to natural beauty an unimaginable extravagance. These qualifications are important to keep in mind when defending biodiversity on aesthetic grounds because, unlike scientific facts or general ethical principles, we shouldn't expect all judgments of aesthetic value to command universal assent.

To my mind, this realization removes some of the wind from the sails of scientific cognitivism.<sup>1</sup> I gather that part of the motivation for wielding “Science” as the arbitrator of aesthetic value is in the hope that this will somehow accredit aesthetic judgments the same objective standing as scientific facts. After all, you can’t really deny an established scientific fact. At least, not in the same way that you can deny a popular aesthetic judgment and still be taken seriously in polite company. So wouldn’t it be nice if aesthetic judgments could be elevated to this level? On our view this effort rests on an ontological confusion. Aesthetic values are relational, not objective facts. They are not the kinds of properties that the sciences of ecology and evolutionary biology are in the business of exploring.<sup>2</sup> Hence they will never attain the same level of cognitive assent. Like it or not, this is a basic reality that anyone defending conservation on aesthetic grounds must contend with.

Getting back to our position in *Defending Biodiversity*, there is a second assumption so pervasive throughout the book that it was perhaps not stated explicitly in our chapter on aesthetic value. Conservation decisions typically require difficult trade-offs. In part, this is an inevitable consequence of there being more species and regions that we would like to protect than limited resources will allow. Hence, saving one species or region often means sacrificing, or at least neglecting, another. Additional trade-offs stem from the opportunity costs associated with conserving land that could be used, in many cases, to improve people’s economic situation.

Again, this practical constraint has unfavorable implications for scientific cognitivism. As we outline this theory in *Defending Biodiversity*, scientific cognitivism proposes that the “what” and the “how” of aesthetic judgments are determined by such disciplines as evolutionary biology and ecology. These disciplines are thought to determine the “what” of aesthetic judgment by individuating aesthetic objects according to some “authentic” (read: mind independently objective) standard. Likewise, these disciplines supposedly provide a similarly authentic standard for aesthetically evaluating those organisms—i.e. they supposedly tell us “how” to appreciate them. Now, regardless of whether you find this idea plausible, it has a devastating implication for our ability to employ aesthetic criteria when making conservation decisions. Since all species receive a unique scientific description, they are all aesthetically valuable in their own way according to scientific cognitivism. Carlson (1984) attempts to dress up this implication with the label Positive Aesthetics, but let’s not be fooled by the friendly title. Since conservation decisions typically require trade-offs they call for a system of evaluation that facilitates discrimination. Positive Aesthetics holds that all species are aesthetically valuable in their own way and therefore provides no basis for comparing them. Since scientific cognitivism

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<sup>1</sup> I use the phrase scientific cognitivism in this essay to be consistent with Welchman’s essay. In *Defending Biodiversity* we use the label Natural Environmental Model to refer to the same position in environmental aesthetics.

<sup>2</sup> This point also becomes obvious when one takes a close look at the practice of those scientific disciplines, or considers what would happen if explicit aesthetic judgments were presented alongside ecological data in, say, a scientific report on some species at risk.

entails Positive Aesthetics, this theory is of no practical use for making conservation decisions.<sup>3</sup>

Welchman misunderstands our position on this issue. She quotes our statement in *Defending Biodiversity* that, “It does no good to be told, simply, that all species should be conserved because all are beautiful in their own way” (382). She proceeds to ask, “Why does it do no good? What does it prevent?” I have just outlined our answer to this question: scientific cognitivism precludes the environmentalist from employing aesthetic criteria in dealing with the trade-offs inherent in environmental decision-making. Instead, Welchman seems to be saying that the only person with something to lose in rejecting Positive Aesthetics is the “total-commitment” environmentalist. This is our label for an environmentalist whom is unwilling to compromise on any plank of the environmentalist agenda. I can see why Positive Aesthetics might sound appealing to the total-commitment environmentalist who hopes to conserve all species, in their natural habitats, unmodified by humans, and so on. Part of the worry, however, is that both positions are too radical to be of any practical guidance. Moreover, total-commitment environmentalism is not a tenable position in any case, since various planks of the environmentalist agenda are internally inconsistent (to repeat a primary message of our book). Welchman goes on to associate *ceteris paribus* environmentalism—our label for the more compromising sort of environmentalist—with a commitment to anthropocentrism, stating that, “*Ceteris paribus* environmentalists unwilling to accept this result [i.e. Positive Aesthetics] must necessarily reject any position or principle entailing that our own species’ intrinsic value might not be exceptional, including scientific cognitivist aesthetics.” I suppose my coauthors and I qualify as *ceteris paribus* environmentalists of some stripe. However, we certainly do not support the notion that humans alone possess intrinsic moral value. In *Defending Biodiversity* we accept the sentientist position that many non-human organisms have intrinsic moral value in virtue of their capacity for pain and suffering. We further propose that this thesis has interesting, but under-explored implications for conserving some non-sentient species and regions on which those sentient organisms depend. This is another promising avenue that we propose “requires further development.” But again, it is doubtful that any such argument will support the environmentalist agenda in its entirety.

Up to this point I have clarified our view on the ontology of aesthetic value and underscored a practical constraint that surrounds environmental decision making. I have also identified some negative implications for scientific cognitivism. Let me now turn to the argument we analyze in *Defending Biodiversity*, which is stated as follows in the book.

<sup>3</sup> The proponent of scientific cognitivism might argue that Positive Aesthetics is in fact compatible with environmental decision making, because some species can be identified as more aesthetically valuable than others on this view, even if all of them have it to some degree. But this relies on the questionable assumption that scientific disciplines provide not only the “what” and the “how” of aesthetic judgment, they also provide criteria for ranking. Either such criteria are built into scientific facts and theories or they are not. If they are, I submit that their presence is subtle and unwelcome. Ecologists themselves do not consider it a part of their discipline to be ranking species as more or less beautiful. If such judgments are not part of scientific practice, then Scientific Cognitivism is silent on how such ranking should be made. Either way, Scientific Cognitivism appears to be at odds with the practical demands of environmental decision making.

(P1) Certain species and ecosystems have the same type and degree of (relational) aesthetic value as certain great works of art.

(P2) Most people intuitively recognize that great works of art deserve an intermediate degree of moral significance. Specifically, it is generally considered wrong to destroy or decrease the aesthetic value of great artwork merely for economic gain, provided that a certain level of affluence is attained.

(C) It should, therefore, generally be considered wrong for members of affluent societies to destroy or decrease the aesthetic value of certain species or ecosystems merely for economic gain.

Dr. Welchman correctly notes that we draw on the work of Russow (1981) and Sober (1986) to support P1. However, her statement that, “the authors do an excellent job of pointing out important disanalogies that undermine Russow and Sober’s conclusions,” strikes me as odd since, on the contrary, we come out largely in agreement with their views. Namely, the extent to which environmentalists value rarity, authenticity, and context—three planks of the environmentalist agenda as we describe it—suggests that their valuation is aesthetic, not ethical. This leaves open the question of why great works of art or nature should be conserved, ethically speaking. Hence the normative premise (P2), which I return to momentarily.

Sticking with P1 for the moment, Dr. Welchman is uncomfortable with a possible implication of our argument:

If the public’s aesthetic appreciation for nature is as narrow and superficial as some fear, appeals to aesthetic values would only be efficacious for a minority of the species now at risk. Even these would be conserved for what environmentalists would surely consider the wrong kinds of reasons, reasons that took little or no account of the values central to the environmentalists’ agenda for species conservation.

Note that this statement conflates two distinct reasons for resisting the argument from analogy to artwork. The superficiality objection is a challenge to the normative premise. It states that aesthetic values in general are too frivolous to justify conservation, especially given that conservation often comes at a steep cost. We develop a detailed response to this objection which I do not have the space to recount here (see pp. 370–373 of *Defending Biodiversity*). My current point is that the question of whether aesthetic values turn out to be “narrow” is an entirely separate issue, pertaining instead to our descriptive premise. In *Defending Biodiversity* we acknowledge that in contemporary Western society only a handful of charismatic species are widely regarded as aesthetically valuable. As we point out, “One way to deal with this objection is to simply ‘bite the bullet’ and acknowledge that aesthetic value provides only limited support for conservation” (375). Perhaps this attitude sets us apart from some environmental philosophers who allow their preferred conclusion to decide which premises they deem acceptable. That said, we in fact make room for the possibility that a developed theory of biodiversity aesthetics might expand the

range of items that are recognized as beautiful. We develop no such theory ourselves however other philosophers have broken important ground on this front.

Let me add that our normative premise does not require a commitment to Utilitarianism. Hence, a species does not have to be appreciated by the majority of citizens in order to be worthy of protection on aesthetic grounds. This is yet another advantage of the argument from analogy to artwork. For example, most North Americans probably lack an appreciation for the canon of modern art. However, this does not undermine the idea that great works of modern art ought to be protected from damage or destruction. You don't have to appreciate the work of Jackson Pollock to recognize that it would be wrong to neglect it. Deciding which artworks are worthy of special consideration is a job rightfully left to the relevant experts. Although no formal institution exists for evaluating species or ecosystems, this does not mean that the relevant expertise is unavailable. Where we part company with Carlson and other scientific cognitivists is in thinking that these judgments are the province of scientific disciplines per se.

For reasons we find it hard to understand, Dr. Welchman suggests that we support the normative premise of our argument by appealing to future generations and the (alleged) duty to ensure that they are setup to flourish psychologically. In an apparent summary of our position, she states: "So if we accept the analogy between aesthetically significant artworks and aesthetically significant species, and if we could show that aesthetic values play a sufficiently important role in human flourishing to warrant the sacrifices required to conserve them for future generations (more about this below), it would follow that we would have a duty to future generations to try to conserve aesthetically valuable wildlife on their behalf." This is the "half argument" that I alluded to earlier, which sits somewhere between the view we actually defend and the one that Dr. Welchman prefers. In a moment I will critique her argument. Let me first explain that our normative premise does not rest on any claim about the relationship between aesthetic appreciation and the future of human flourishing. Rather, our normative assumption is defended using the method of reflective equilibrium. A fairly widely held intuition among members of affluent Western societies recognizes that great artworks deserve publically funded protection regardless of whether you or I happen to enjoy them. On pain of inconsistency, this same intuition ought to justify the conservation of exceptionally valuable species or regions given that they possess the same kind of value. Of course, this argument probably won't sway someone who steadfastly opposes public funding for the arts. But that is not necessarily a failure of the argument as much as it is an unfortunate psychological fact about certain members of our society (again, it is not a failing of aesthetic arguments that they don't sway every last person). Likewise in a society where funding for the arts is out of reach for socioeconomic reasons, then the argument loses traction. However, I see this as more of an advantage than a drawback. To quote a line from Elliott Sober, "It would be the height of condescension to expect a nation experiencing hunger and chronic disease to be inordinately concerned with the autonomous value of ecosystems or with creating and preserving works of art" (1986, p. 191).

To summarise the state of play, Dr. Welchman provides no serious challenge to the argument from the analogy to art as far as I can tell. Instead she misconstrues

our defense of this argument and sidesteps what we take to be the most pressing issues. Namely, how might particularly valuable species and regions be identified in practice and how might such judgments inform actual policy decisions? These are questions which, again, the environmentalist ought to develop before relying too heavily on the argument from aesthetic value for support.

Dr. Welchman presents in her commentary a very different argument for conserving biodiversity. Her normative premise appeals to the conditions under which, according to Rawls, public institutions are morally required to intervene in the affairs of citizens: “liberal public institutions may justifiably intervene in individuals’ affairs to the extent necessary to ensure fairness of access to the basic goods without which realizing any kind of minimally decent life is impossible.” This claim is hard to argue with. However, the next step of her argument is more difficult to swallow: “Given human psychology, we cannot flourish if we are denied ... aesthetically rewarding experiences.” This strikes me as a difficult claim to establish empirically, in part because it is so vague. What counts exactly as flourishing here? What is an aesthetically rewarding experience? How many, or what type of the latter are necessary for the former? I wouldn’t even know where to look for such purported facts about human psychology and it is a bit surprising to see a philosopher asserting them so boldly without even as a citation.

But it is the final step in her argument where I really take issue. Let us grant that aesthetically rewarding experiences are a basic human need (whatever that means). Why suppose that the conservation of biodiversity is an effective or unique way to supply those needs? Welchman makes an interesting suggestion here. She notes that humans by nature grow weary of the same aesthetic experiences time and again (my American friends with their bald eagles being a possible exception). Hence, the conservation of just a handful of species, which we happen to enjoy now, will not secure the aesthetic flourishing of future generations and their changing appetites. So, if we expand upon her normative premise so that it is within the purview of public institutions to secure not only the basic needs of current citizens, also of future citizens (I’m no political philosopher, but that strikes me as a bit of a slip); and if we insist that humans require a large supply of species in order to support the aesthetic needs of those future individuals—needs which are not only “basic” but apparently rather fickle; then it follows that a considerable diversity of species ought to be conserved by our public institutions.

There are a lot of moving parts. Let me focus on what I take to be the most glaring issue. Human aesthetic needs are potentially satisfied in all sorts of different ways that do not involve an appreciation of nature. The arts provide a continually renewing source of aesthetic nourishment and every culture in the world has an artistic tradition. To support her conclusion, Welchman would have to show that investment in biodiversity conservation is more efficient or otherwise superior than funding of the arts when it comes to satisfying this human need. There is considerable room for skepticism on this point. Conservation projects are not only costly because of the initial investment in land and ongoing maintenance. They also involve opportunity costs, which can be especially high in the developing world where economic opportunities are relatively scarce (Cannon 2018).



I suspect that holding a supply of currently unappreciated species in reserve just to satisfy a society's future aesthetic needs which, after all, can and will be nourished by other means, is not such a viable proposition once you crunch the numbers.

This is bad news for the environmentalist agenda. However, if our concern is primarily with human flourishing then perhaps this is good news. We can feasibly promote the flourishing of future generations by continuing to fund the arts. To play Devil's advocate, perhaps we should divert funding from conservation projects to promote this important cause. This outcome is reminiscent of an issue that arose earlier in the discussion between Odenbaugh and Newman (this volume) concerning ecosystem services. In many cases the particular service being provided by a "natural" species or ecosystem could be more efficiently delivered by a less diverse collection of introduced or modified organisms. This comparison reveals something important about Welchman's argument. By considering biodiversity as something that promotes human flourishing, we are effectively regarding it as yet another ecosystem service. Environmentalists who take this route must therefore be prepared to bite the bullet when the same service can be supplied more efficiently by some artificial means.

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