

WRITING SAMPLE
IS BIOCENTRISM DEAD? UNRESOLVED PROBLEMS FOR LIFE-CENTERED ETHICS
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“It is not difficult to present life in an appealing light. It is much more difficult, however, to come up with a philosophically rigorous defense of biocentric value. – Nicholas Agar

ABSTRACT: Biocentrism, a prominent view in environmental ethics, is the view that all organisms are morally considerable. It is argued in this paper that biocentrism suffers two serious problems: the Origin Problem and the Normativity Problem. The Origin Problem contends that, contra biocentrism, an entity’s origin is not relevant to whether that entity has interests which are morally considerable. The Normativity Problem contends that, contra biocentrism, it does not follow from the fact that an entity has a good of its own that the entity is morally considerable. I show how these problems emerge in two works representative of the biocentrists’ position: Paul Taylor’s “Respect for Nature and Gary Varner’s “In Nature’s Interests?”. At minimum, if these criticisms are successful, they suggest where biocentrists should focus moving forward. If biocentrism really is dead, then the value of organisms needs a different expression in theories of environmental ethics.

To many, life is an attractive locus for moral considerability, so it is not surprising that biocentrism is a popular view in environmental ethics. Others remain unconvinced, yet may not be able to put their finger on just what about the view is problematic. In this paper, I carefully set out two reasons for having misgivings about biocentrism: the Origin Problem and the Normativity Problem. If successful, these criticisms suggest the areas where biocentrists should focus their argumentative efforts to revive it moving forward. If biocentrism really is dead, as is my suspicion, environmental philosophers should seek to capture the value of nonsentient organisms in a language other than one of moral considerability, and our obligations with respect to the environment will need another foundation.

Moral considerability – and what I take to be the analogous terms “moral status,” “moral standing,” and “being a member of the moral community” – plays an important conceptual role in ethical theory insofar as it proscribes the entities under its domain. Perhaps nowhere in ethics is the nature and scope of this concept more at play than in environmental ethics. I understand moral

considerability in the following way: an entity is morally considerable if and only if its good ought to be considered for its own sake by moral agents. Understood in this light, moral considerability is a “bridge concept” between *good*, in the sense of intrinsic or objective value, and *ought*, or moral obligation.

Biocentrism, also known as biocentric individualism, is the view that all living things are morally considerable. A cursory, (overly) simple argument for biocentrism is this:

1. All entities that have interests are morally considerable.
2. Biological organisms have interests.
3. Therefore, biological organisms are morally considerable.

The relevant properties which biocentrists identify as bases for attributing moral considerability to all organisms are similar, including having interests, a good of its own, autopoiesis, and biopreferences. Proponents of biocentrism include Mahatma Gandhi, Albert Schweitzer, Kenneth Goodpaster, Robin Attfield, Paul Taylor, Gary Varner, and Nicholas Agar. While there are nearly four decades worth of sustained biocentrist thought in environmental ethics, and while the view has become increasingly sophisticated, all versions have the same two fundamental problems: the Origin Problem and the Normativity Problem. However, rather than cover every biocentrists’ view, in this paper I’ll restrict discussion to these two problems and show how they arise in two prominent, recent defenses of biocentrism: Paul Taylor’s *Respect for Nature* and Gary Varner’s *In Natures Interests?*.

The Artifact *Reductio*, Origin Problem, and Normativity Problem

The seemingly innocuous simple argument just given suggests a parallel argument, the Artifact *Reductio*, which is highly problematic:

1. All entities that have interests are morally considerable.
2. Artifacts have interests.
3. Therefore, artifacts are morally considerable.
4. That artifacts are morally considerable is absurd.
5. Therefore, it is not the case that all entities that have interests are morally considerable.

In other words, just as we can speak intelligibly of water being in a plant's interests, so too can we speak of an oil change being in a car's interests. This is a *reductio ad absurdum* of the simple argument for biocentrism, because the idea that we could be obligated to a car is absurd. It is important to note that the *Artifact Reductio* is not an *external* critique of biocentrism; biocentrists themselves regard the moral considerability of artifacts as absurd. Biocentrists' strategy to circumvent the *Artifact Reductio* is to qualify their account of the property by which an entity is morally considerable in such a way that it applies to organisms but not to artifacts.

However, biocentrists' attempts to overcome the *Artifact Reductio* are open to the Origin Problem. The Origin Problem arises in attempts to grant moral considerability to living things and not artifacts on the basis of their different origins. While it seems to be an overly *ad hoc* effort to save biocentrism, the more serious problem is that this claim appears conflict with a strong intuition to the contrary: one's origins are irrelevant to one's moral status. In short, it's not "where you come from", but "who you are" that matters: each ought to be judged on her own merits, not her history.

Dale Jamieson gives legs to this idea in a clever thought experiment:

Imagine two organisms, duplicates in all respects. They have exactly the same requirements for nutrition, hydration, sleep, and so on. One was constructed by natural selection, the other by Haliburton Biotech Inc. While it might be reasonable to say that one is an artifact and the other is not, it seems weird to suppose that one has interests and the other does not. (2008, p. 146)

This thought experiment is supposed to show that it is arbitrary to say that one of these organisms has interests, and hence moral standing, while the other does not, when the two organisms are identical in all respects save their origin. Perhaps one is resistant to the claim that the Haliburton organism is an artifact. Imagine instead that, given likely future developments in robotics and artificial life, Haliburton creates nonconscious robots – say, quasi-organic solar panels capable of autopoiesis, growth, and reproduction – yet due to 'mutations' in the copying of the machine code, these robots change such that their good is no longer due to the maker of Haliburton, but is

nevertheless describable in objective terms. It is arbitrary to claim that an ordinary plant is morally considerable and that the post-Haliburton robot plant is not, yet this is precisely what biocentrists seek to do.

While biocentrists go to great lengths to show that organisms have interests, goods of their own, etc., they give no convincing reasons for *why* these goods produce obligations on the part of moral agents. This is the normativity problem. John O'Neill expresses this point well:

[W]hile it is the case that natural entities have intrinsic value in the strongest sense of the term, i.e., in the sense of value that exists independently of human valuations [what he calls "objective value" as discussed above], such value does not as such entail any obligations on the part of human beings. (O'Neill, 2003, p. 131).

In other words, the problem of normativity is that biocentrists do not establish the link between objective value and moral obligation, what John Nolt calls "the move from good to ought" (Nolt, 2006, p. 355 – 374). I'll now develop enough of Taylor's and Varner's defenses of biocentrism and show how the Origin and Normativity Problems arise for these authors' views.

Paul Taylor's *Respect for Nature*

Published in 1986, Paul Taylor's *Respect for Nature* is a seminal early contribution to the biocentrists' canon and environmental ethics more generally, and is still widely read in environmental ethics courses and beyond. Taylor's book was groundbreaking, but some of the key moves in his argument can be frustratingly opaque or undeveloped. As an early work, it should not be altogether surprising that Taylor's views are particularly susceptible to the origin and normativity problems.

The central notion in *Respect for Nature* is inherent worth. For Taylor, an entity has moral standing if it has what he calls inherent worth, and an entity has inherent worth if it has a good of its own. If something "is good for an entity or bad for it, without reference to any *other* entity, then the entity has a good of its own" (Taylor, 1986, p. 61). Giving the example of a butterfly, Taylor says:

Once we come to understand its life cycle and know the environmental conditions it needs to survive in a healthy state, we have no difficulty in speaking about what is beneficial to it and what might be harmful to it. (Taylor, 1986, p. 66).

A thriving, prosperous organism is one whose good has been fully realized, i.e. it develops normally into a healthy adult, successfully adapts to its surroundings, and maintains species-typical biological functions throughout its entire lifespan (Taylor, 1986, p. 65). Taylor claims that separating subjective value concepts – preference interests – from objective value concepts – the good of a being – means that “there is no problem understanding what it means to benefit or harm a plant, to be concerned about its good, and to act benevolently toward it” (Taylor, 1986, p. 67).

There is no serious problem *understanding* what it means to benefit or harm a plant, but does the good of such an entity make a claim on moral agents? Taylor argues as follows:

[I]f a moral agent is to recognize or acknowledge such a claim, the entity in question must not only be thought of as having a good of its own; it must also be regarded as having inherent worth. When so regarded, the entity is considered to be *worthy of respect* on the part of all moral agents. The attitude of respect is itself then seen to be the only suitable, appropriate, or fitting attitude to take toward the entity. (Taylor, 1986, 72)

Taylor’s argument moves from a being having a good of its own, to that being having inherent worth, and from that being having inherent worth to that being having moral status. Taylor’s core argument, which I’ll call the Respect Argument, seems to be:

1. All beings with a good of their own have inherent worth.
2. We ought to respect all beings with inherent worth.
3. Therefore, we ought to respect all beings with a good of their own.

Taylor explicitly distinguishes the logical difference between the good of an entity and inherent worth. The good of an entity is an “is-statement”, whereas the claim that the entity should or should not treat that entity in a certain way is an “ought-statement.” According to Taylor, only entities which have goods of their own have inherent worth; but what does inherent worth mean?

To say that an entity *X* has inherent worth is to say that:

A state of affairs in which the good of *X* is realized is better than an otherwise similar state of affairs in which it is not realized (or not realized to the same degree), (a) independently of

X's being valued, either intrinsically or instrumentally, by some human valuer, and (b) independently of *X*'s being in fact useful in furthering the ends of conscious beings or in furthering the realization of some other being's good, human or nonhuman, conscious or nonconscious. (Taylor, 1986, p. 75)¹

In other words, a world in which the goods of nonconscious organisms are realized is objectively better than a world in which such goods are not realized.

The Normativity Problem in Taylor

It should now be clear enough for present purposes what Taylor means by inherent worth and its relationship to a being having a good of its own. What about the crucial second premise in the Respect Argument? Taylor believes that two moral judgments are entailed by an entity's having inherent worth:

- (1) That the entity is deserving of moral concern and consideration, or in other words, that it is to be regarded as a moral subject, and
- (2) That all moral agents have a prima facie duty to promote or preserve the entity's good as an end in itself and for the sake of the entity whose good it is. (Taylor, 1986, p. 75)

Here, the Normativity Problem rears its head. It seems that we can recognize that a state of affairs in which *X*'s good is realized is better than when *X*'s good is not realized², but this certainly does not *entail* that (1) *X* is a moral subject or that (2) we have duties to *X*.

There are at least two ways of understanding Taylor here. The first is to consider these two entailments as a matter of definition of "inherent worth," which is supported by the passage quoted above where regarding an entity as having inherent worth simply means "the entity is considered to be *worthy of respect* on the part of all moral agents." Taylor thinks that an entity's moral

¹ Taylor's definition of inherent worth is essentially the same as O'Neill's definition of "objective value": "value that an object possesses independently of the valuations of valuers" (O'Neill, 2003, p. 132). Taylor notes that his concept of inherent worth is identical to Tom Regan's concept of inherent value. Note, however, that Taylor's concept of inherent value differs substantially from Regan's concept of inherent value.

² Perhaps even this grants too much, for it may be that the notion of good-simpliciter turns out to be empty, and that all good is good-for some entity or another. If this is the case, then comparative judgments like "better" are likewise empty if not quantified.

considerability and respect-worthiness is something that we should endorse once we take on the “biocentric outlook on nature”, which has four components:

1. The belief that humans are members of the Earth’s Community of Life in the same sense and on the same terms in which other living things are members of that Community.
2. The belief that the human species, along with all other species, are integral elements in a system of interdependence such that the survival of each living thing, as well as its chances of faring well or poorly, is determined not only by the physical conditions of its environment but also by its relations to other living things.
3. The belief that all organisms are teleological centers of life in the sense that each is a unique individual pursuing its own good in its own way.
4. The belief that humans are not inherently superior to other living things. (1986, pp. 99-156)

In other words, the justification for the moral status of all organisms is a kind of *performative justification* – “the proof of the pudding is in the eating” – in the sense that, if we take on the biocentric outlook, then it is something we should *just see* as being true or fitting.

A second way of understanding Taylor’s entailment claim is that it isn’t solely a matter of the definition of “inherent worth.” Rather, there seems to be a fairly substantial ought-premise which is never articulated or defended, but which is needed for the Respect Argument to succeed: we ought to realize (promote and protect) the good. However, the claim that the good is prior to right is a highly contentious and divisive claim in ethical theory, not one that can simply be assumed, or worse, left unarticulated. The priority of the good to the right, together with the definition of inherent worth, is what needs for the conclusion to be entailed by the premises in the Respect Argument. What reason does Taylor give to support this implicit premise? Again, it would seem to be something that one understands once one adopts the biocentric outlook.

So, it all boils down to the biocentric outlook. What reasons does Taylor give for adopting it? Taylor argues that the biocentric outlook satisfies well-established criteria for the acceptability of a philosophical world view, because it is: (a) comprehensive and complete, (b) systematically

ordered, coherent, and internally consistent, (c) free from obscurity, conceptual confusion, and semantic vacuity, and (d) consistent with all known empirical truths (1986, pp. 158-159). Taylor also notes that the ideal conditions in which one should adopt a world view such as the biocentric outlook include: (a) rationality of thought and judgment, (b) factual enlightenment, and (c) developed capacity for reality awareness. Nevertheless, Taylor notes that:

It must be emphasized here that the biocentric outlook has not been *proven*. It cannot be... Since world views are neither formal deductive systems nor explanatory scientific theories, neither pure logic nor the procedures of empirical confirmation are appropriate methods (1986, p. 167).

Taylor seems to be correct that selecting a worldview involves more than pure logic or empirical confirmation. In particular, I would think it should also appeal to plausible normative claims insofar as world views are partly normative. Perhaps I am incapable of adopting the biocentric outlook, particularly truly believing that humans, as rational agents, are not more valuable, morally speaking, than other living things. At any rate, Taylor never gives an argument that we *ought* to take up the biocentric outlook, just that it is rational to do so. It is simply one world view among many that is permissible to hold. Ultimately, Taylor never gives us reasons why we ought to be biocentrists; he never answers to the Normativity Problem.

The Origin Problem in Taylor

The Origin Problem also poses a problem for Taylor. Taylor attempts to cut off the Artifact *Reductio* early along the road. Taylor claims that each organism has a good of its own, and contrasts this with things that do not have a good of their own: “If we can say, truly or falsely, that something is good for an entity or bad for it, without reference to any *other* entity, then the entity has a good of its own” (Taylor, 1986, p. 61). A pile of sand and a machine do not have goods of their own. Speaking of the latter, Taylor says “if we say that keeping a machine well-oiled is good for it we must refer to the purpose for which the machine is used in order to support our claim” (Taylor, 1986, p.

61). Taylor's point is that the good of artifacts hinges on their relation to their maker or user; its good depends on a relation to some other entity. This is not so for organisms because they have goods of their own.

While seemingly plausible at first blush, Taylor's attempt to circumvent the Artifact *Reductio* fails because it gives rise to the Origin Problem. Taylor's response is problematic if it entails that no designed entities can have goods of their own. If God created organisms, one might think that then they would not have goods of their own, and that their goods would be relative to their maker. This need not be true of our world, but were it the case, then Taylor would have to admit that such created organisms do not have a good of their own, and hence do not have inherent worth, which is to say that no organisms are morally considerable. However, it seems quite plausible to say that God's creating all living things is consistent with God's creating living things with goods that are not subservient to God. God could create organisms with goods of their own, but also have purposes of his own in mind for those beings. But is this not also possible in our case? We could create synthetic organisms without their goods referring to our own.

Taylor's general response can account for what many regard as the morally relevant distinction between natural biological organisms and Genetically Modified Organisms (GMOs). This is because the genetic modifications typically made to organisms – for example frost and herbicide resistance – are put in place to further *our* ends, or at least are intended to do so. However, returning to Jamieson's Haliburton case discussed above, it does not seem plausible for Taylor to assert that the original biological organism has a good of its own whereas the Haliburton copy does not have a good of its own. *Exactly* the same things are good for both organisms in *exactly* the same way, and the goods of both the original and artifact are no more or any less relative to our ends. It remains open to Taylor to grant moral consideration to both. The merits of this bullet-biting strategy are discussed below (p. 17).

Gary Varner's Biocentric Individualism

Gary Varner's *In Nature's Interests?: Interests, Animal Rights, and Environmental Ethics*, is a defense of biocentrism which differs in numerous respects from Taylor's biocentrism, yet which seeks to maintain the core notion that all organisms are morally considerable. Like Taylor, Varner also seeks to avoid the Artifact *Reductio* – although he does note that sufficiently complex artifacts would have interests if they met his criteria for having desires, such as would be the case were there sentient robots – by developing a conception of interests that augments the traditional Mental State Theory of Individual Welfare (MSTW). Nonetheless, Varner's biocentrism suffers from the Origin and Normativity Problems. I will give enough exposition of Varner's view so that how these two problems apply to Varner's view can be seen, just as was done for Taylor.

Varner thinks that the MSTW, the view that all interests are explicable in terms of desires, is fundamentally flawed because it cannot account for clear cases in which something is clearly in an individual's welfare even if they do not desire it. One such case is the case of Maude, an intelligent mart young woman who is impartial across all phases of her life in the sense that she doesn't favor her present desire satisfaction over future satisfaction, yet nonetheless is a cigarette smoker. She is apprised of and understands the available evidence on how smoking will shorten her lifespan, yet does not desire to quit smoking. According to Varner, no sense can be made of the claim that "Maude's smoking is bad for her" on the MSTW, yet there clearly is a sense in which the claim is true, which means that the MSTW is false. Varner's strategy is to develop an account of interests which augments the MSTW in order to account for the problem cases, rather than reject it outright. He calls this account the Psycho-Biological Theory of Welfare (PBTW) in that it adds a biological notion of interests to the MSTW.

It is also important to note that Varner specifically formulates his view with an eye to overcoming the Artifact *Reductio*. That is, he is careful to formulate his conception of interests in

such a way that does not attribute interests to artifacts. Artifacts and organisms both have needs, such as a car needing oil, so a conception of interests which grants interests to nonconscious organisms must do so in a way that does not grant interests to all entities with needs, because all parties are in agreement that can-openers and thermometers cannot be morally considerable. Accordingly, Varner develops his PBTW to support the following two claims:

1. **The Empirical Claim:** Plants have needs in some sense in which artifacts do not.
2. **The Normative Claim:** This difference between plants and artifacts qualifies plants, but not artifacts, for direct moral consideration.

PBTW states that X is in an individual A 's interests if and only if:

1. A actually desires X , or
2. A would desire X if A were sufficiently informed and impartial across phases of A 's life, or [inclusive]
3. X would fulfill some biological function of some organ or subsystem [S] of A , where X is a biological function of S in A if and only if
 - a. X is a consequence of A 's having S and
 - b. A has S because achieving X was adaptive for A 's ancestors. (Varner, 1998, p. 68)

What is significant is that clause 3, the clause which augments the Mental State Criteria (clauses 1 & 2), attributes interests to nonconscious organisms.

Philosophical criticism of Varner's book has largely centered on this aspect of his argument, contending that the MSTW *can* account for Varner's problem cases. Nicholas Agar discusses this point at length (Agar, 2001, p. 63-77). The main point of his criticism is that externalist accounts of individual well-being satisfactorily account for the interests in Varner's three problem cases in a way that is consistent with the MSTW. If this is so, then the PBTW never gets off the ground. In other words, if the MSTW actually can account for cases such as Maude's case above, then the biological notion of interests (clause 3) is not needed to account for these interests; undercutting Varner's motivation for adding to the MSTW. Varner now admits as much: "the core argument of chapter three of *In Nature's Interests?* is utterly and fatally flawed" (Varner, 2003, p. 416), so I won't dwell on the issue further. Rather, I'll show how Varner's Empirical and Normative Claims run into the

Origin and Normativity Problems, respectively, as I don't believe these problems with Varner's account have been addressed in the literature.

The Origin Problem in Varner

PBTW's Clause 3 articulates what it means for nonconscious organisms to have interests. Note that it is explicitly designed to overcome the Artifact *Reductio* by developing a conception of interests which applies to all organisms yet not to can openers or thermometers, per the Empirical Claim. However, Varner's conception of interests overcomes the Artifact *Reductio* only to fall prey to the Origin Problem.

To see this, one may consider the case of an extant organism with a novel, beneficial mutation, such as a novel organ or subsystem S in an organism A .³ In such a case, there are no ancestors for which the fulfillment of S by X was adaptive. According to Varner's Biological Criterion of Welfare, it is not the case that X fulfilling S is in A 's interests. However, in the case of A 's offspring A_i , which has inherited the same novel feature S from A , the fulfillment of S by X is in A_i 's interests because it was adaptive for A_i 's ancestor A . However, it is a wildly implausible consequence of Varner's Biological Criterion of Welfare that fulfilling the self-same feature can be in the offspring's interests, yet not be in the interest of the ancestor for which the feature was adaptive in the first place! Whatever interests are, what's in one's interests is so because it is in *one's* interests, which do not depend on what was in the interests of one's ancestors.⁴ Varner has failed to articulate a tenable account of interests.

³ One might also consider the world's first organisms, which would have no ancestors, and per the PBTW, no interests at all. But do to difficulties surrounding the origin of life from abiotic forces, I won't pursue this case further.

⁴ Surely, it is easier for us *to recognize* what is in the interests of the members of a species by systematically studying that species through time, but not that interests arise from ancestor-descendent relations. It seems that Varner's PBTW confuses the discovery of interests, an epistemic matter, with what interests are, which is a metaphysical issue.

The Normativity Problem in Varner

Nonetheless, let us grant that all organisms have interests (and that artifacts do not). What reasons does Varner give for their moral considerability? The Normative Claim is not entailed by the PBTW or the Empirical Claim; argumentation is needed. Varner needs to bridge the good-ought gap. Varner intends to address this issue in the appropriately titled section, “Supporting the Normative Claim.”⁵ Varner makes two attempts to support the normative claim. The first, which I call the No Reason Not to Argue, is the argument that he explicitly endorses at the end of the “Supporting the Normative Claim” section. The second, which I call the Interests Argument, occurs at the beginning of his next chapter. However, both inadequately support the Normative Claim.

The No Reason Not to Argue occurs in the following passage:

The examples involving a cat’s desire to go outside and the mariners’ need for ascorbic acid lead us, in light of the account offered in the preceding section, to the conclusion that the fulfillment of the biological functions of the organs and subsystems of our bodies is in our interests, not just irrespective of our actually taking a conscious interest in their fulfillment, but even irrespective of our being capable of consciously taking an interest in their fulfillment. But if the fulfillment of the biological functions of our subsystems is in our interest irrespective of our even being capable of consciously taking an interest in their fulfillment, would not the fulfillment of those functions in plants be in their interest even though they are incapable of taking an interest in them? That is the best available argument for the expensive conception of moral standing represented in biocentric individualism. (Varner, 1998, pp. 73-74)

Frankly, if this is the best available argument for a biocentrist notion of moral considerability, then it should be much clearer than this. A key premise is a rhetorical question, and the most significant premise is implicit. The suggested argument seems to be something like this:

⁵ He begins with a consideration and rejection of Robin Attfield’s version of the Last Man Argument, an argument which originates with Richard Sylvan and is supposed to prove that nonsentient organisms deserve direct moral consideration (Attfield, 1981, pp. 39-40). Varner’s reason for rejecting this argument is because the intuition that the last man on earth should not cut down the last elm of its species appeals more to the rarity of the tree than the moral considerability of the tree. This is to say that the intuitions driving the conclusion of the last man argument can be explained by reasons other than the moral considerability of the tree. This all seems right to me, and I develop this general strategy as a more plausible way to think of our obligations with respect to organisms below (p. 20 and following).

1. Humans are morally considerable.
2. An adequate account of the moral considerability of humans includes biological interests in addition to psychological interests.⁶
3. Nonsentient organisms such as plants have biological interests.
4. Therefore, nonsentient organisms are morally considerable.

The first premise of this argument is taken for granted. The second premise is based on Varner's claim that MSTW is incomplete and requires the PBTW to account for some of our interests. The third premise is an implication of the PBTW. Nonetheless, the conclusion doesn't follow.

Consider the following counterexample: while it is the case that humans are morally considerable, and it may be the case that an adequate account of the moral considerability of humans includes both biological and psychological interests, and it surely is true that nonsentient organisms have biological interests, it does not follow that nonsentient organisms are morally considerable because the moral considerability of humans results from some combination of biological and psychological interests, not from biological interests alone. Therefore, it does not follow that nonsentient organisms are morally considerable. Also, consider the following invalid argument, identical in form:

1. Hershey milk chocolate bars are delicious.
2. An adequate account of the deliciousness of Hershey milk chocolate bars includes cacao in addition to sweetness.
3. Dark chocolate bars contain cacao.
4. Therefore, dark chocolate bars are delicious.

The conclusion does not follow. Dark chocolate bars are disgusting because they are too bitter; without sugar they are not delicious.⁷

⁶ Recall that Varner would now regard this premise as false, because he regards the core argument of the chapter which is supposed to justify it as unsound.

⁷ As an aside, the logical mistake here is formally identical to attempts in the Kantian tradition which aim to extend moral considerability to animals because they have some of the infrastructure of rationality, such as preference autonomy. Alan Wood (1998), amongst others, make this argument. As Jon Garthoff notes, this argument is parallel to the following argument: "if we value the interstate system in the United States because it enables efficient travel, then we are committed to valuing bridges, since they are an essential constituent of the interstate system by virtue of which it enhances efficiency." Garthoff objects that "this does not commit us to valuing bridges wherever they may be found; in particular, bridges not reachable by road from the interstate need not be valued, as they may not enhance efficiency" (Garthoff, 2011, p. 5). The fallacy of division is the same in both cases: just as we can't base the moral considerability of

To make the argument suggested by Varner valid, the premise “biological interests are sufficient for moral considerability” or “all beings with biological interests are morally considerable” needs to be added. However, this makes the argument circular because what the argument needs to show is *why* having biological interests makes a being morally considerable. Assuming that PBTW were satisfactory, Criterion 3 is *explanatory* of interests in the paradigm cases of morally considerable beings such as human beings; it explains why these biological interests matter from the moral point of view, whether or not the person desires them, but does it *justify* the Normative Claim? It is clear – at least in principle; we must learn about *S*’s adaptive role in *A*’s ancestry – what constitutes fulfilling an organism’s biological function(s), but no reason has been given as to why we ought to, even *prima facie*, consider the organism’s biological function(s). Allowing a culture of *Giardia lamblia* to enter my digestive tract will fulfill the organisms’ interests, but it by no means follows that I ought, *prima facie* or otherwise, to allow their interest to be satisfied.

Varner is somewhat clearer in the opening passage of Chapter 4 where he gives the Interests Argument:

The satisfaction of interests constitutes a fundamental moral value, because to say that a being has interests is to say that it has a welfare, or good of its own, that matters from the moral point of view. So if an action would satisfy an interest, that is a *prima facie* reason for performing it. On the other hand, the dissatisfaction of interests constitutes a fundamental moral disvalue. So if what I do sets back the interests of some other being, that is a *prima facie* reason for not doing it. (Varner, 1998, p. 77)

Here, the argument seems to be something like this:

1. To say that a being has interests is to say that it has a welfare, or a good of its own, that matters from the moral point of view.
2. Therefore, the satisfaction of interests constitutes a fundamental moral value.
3. Therefore, if an action would satisfy an interest, that is a *prima facie* reason for performing it.

animals on their having ‘parts’ of rationality, we can’t base the moral considerability of nonconscious organisms on having ‘parts’ of the welfare of sentients.

Varner assumes strong linkages between having interests or having a good of one's own and moral considerability. The core issue is more perspicuous here than in the No Reason Not to Argument, which makes it easier to see exactly what is problematic about both. To say that an organism's interests "matter from a moral point of view" or that "satisfying interests constitutes a fundamental moral value" begs exactly the question at issue. What needs to be established is the connection between the fact that a being has a good of its own, and that those goods matter from the moral point of view, i.e. that those goods must be promoted, and this is precisely what has not been established.

Tellingly, in a footnote just after the Interests Argument, Varner says "as I am using the term in this book, *an interest is, by definition, morally significant*" (Varner, 1998, p. 77n, emphasis added). Does Varner think that "all interests are morally significant" is analytically true? This is not the case, and no reason is given for why we might think it so. Just like Taylor, Varner assumes a substantive and controversial claim about the priority of the good over the right; in this case, we ought to satisfy (or at least not thwart) the biological interests of all organisms.

What's more, Varner criticizes Nicholas Agar's biocentrism on precisely these grounds in a more recent book review. Varner begins by noting that "Agar clearly thinks that we *ought* to ascribe intrinsic value to non-conscious organisms, but all he gives us is an explanation of why we *in fact tend to*" (Varner, 2003, p. 415).⁸ Varner's criticism is that "without the argument to normativity, anyone is free to opt out of the biocentric individualist stance." This is correct, but Varner's criticism applies to his defense of biocentrism as well.

⁸ Also, I'm suspicious of Varner and Agar's empirical claim here. The issue is not opting *out* of the biocentric individualist stance; this has it backwards. The issue is why anyone would opt *in* to the biocentric individualist stance, absent a convincing argument to normativity.

Is Biocentrism Dead?

I have argued that the Origin Problem and the Normativity Problem pose serious difficulties for biocentrism through a critique of two prominent contemporary defenses of biocentrism.⁹ Is biocentrism dead, and what are the implications if so? Perhaps biocentrism is not dead. At minimum, may this critique of biocentrism might prove helpful for biocentrists moving forward. Here are some constructive thoughts in that direction.

Overcoming the Origin Problem seems to require that biocentrists articulate the good of organisms in a way that does not hinge on their origins in order to distinguish organisms from artifacts because origin is an arbitrary criterion. I am skeptical that such a strategy can be developed. Biocentrists would need to use a plausible criterion and successfully sort organisms from artifacts, and these appear to be mutually exclusive. Perhaps future biocentrists will prove more imaginative than I.

There is, however, another avenue available for biocentrists to respond to the Artifact *Reductio* and the Origin Problem: bite the bullet. This strategy can be seen by reconsidering Jamieson's Haliburton thought experiment discussed above: one can simply grant that *both* the original organism and the Haliburton duplicate have interests, which is to say that *any* entity with a good of its own, natural organism or otherwise, is morally considerable. For example, if robots function autopoietically, the mere fact that they are *artifacts* might not concern the biocentrist. After all, the core claim is that "all organisms are morally considerable", not that "all *and only* organisms are morally considerable". The former claim is consistent with and entailed by the claim that "all entities with goods of their own are morally considerable", and biocentrism could be regarded as an implication of this more general conception which we might call "teleocentrism."

⁹ In a longer version of this paper, I flesh these critiques out more fully, and also apply them to Agar's *Life's Intrinsic Value: Science, Ethics, and Nature*, thereby showing the same problems to arise in three versions of biocentrism spanning three decades.

Leaving the property – candidates include “a good of their own”, “autopoiesis”, etc. – undetermined so that the different biocentrist conceptions of this property can be plugged in, the relevant argument for the moral considerability of organisms would then be standardized as follows:

1. All entities with property x are morally considerable.
2. All biological organisms have property x .
3. Therefore, all biological organisms are morally considerable.

This suggests a parallel argument for the moral considerability of some artifacts:

1. All entities with property x are morally considerable.
2. Some artifacts have property x .
3. Therefore, some artifacts are morally considerable.

The shared intuition of biocentrists and nonbiocentrists encapsulated in the Artifact *Reductio* is that granting moral considerability to simple artifacts such as cars and can openers is absurd. The biocentrist can maintain that granting moral considerability to complex, autopoietic artifacts is not absurd. This line of response is consistent with the main claim of biocentrism that “all organisms are morally considerable”, but is it *plausible*? The point at which one is willing to call a view “absurd” is somewhat subjective. Nonetheless, it is telling that those biocentrists who explicitly consider the implications of their view for artifacts and grant moral considerability to some artifacts tend to set the bar fairly high, and higher than is consistent with their own criterion of moral considerability.¹⁰ The fact that they do set the bar so high suggests that these authors are uncomfortable with coming too close to the Artifact *Reductio*.

For example, Nicholas Agar considers the possibility that computers of the future, perhaps by passing the Turing Test, can be counted as intelligent, and hence possessors of intrinsic value (Agar, 2001, pp. 56). This is an awfully high standard, especially considering that Agar considers the

¹⁰ Unfortunately, Taylor never considered the possibility of there being artifacts with goods of their own, so we don't know what he would think about this problem for biocentrism. Perhaps this was due to the state of technology at the time, a kind of failure of the imagination, as he wrote *Respect for Nature* in the early 1980's. However, with the current and foreseeable state of computer technology, genetic engineering, synthetic biology, and the like, this is no longer an issue which biocentrists can ignore. There is nothing in Taylor's view which *precludes* granting moral considerability to artifacts with goods of their own. But whether or not Taylor would accept this implication of his view or seek to revise it accordingly remains to be seen.

world's simplest known organism, the T4 bacteriophage, to possess intrinsic value, and hence moral considerability. Surely, future artifacts – if currently existing artifacts such as IBM's Watson, which recently beat three Jeopardy! Champions do not already meet the standard – will be not just *as* 'intelligent' as a T4 bacteriophage, but far, far *more* intelligent than one as synergy increases between the fields of artificial intelligence, robotics, and synthetic biology. Agar is compelled to grant premise 2, that “some artifacts have property x ”, where x is a level of representation or intelligence comparable to the simplest biological organism on pain of inconsistency. Agar says that we should use:

putative intuitive counterexamples... [to] probe conceptions of intelligence that would count the computer in. Responses to thought experiments will help us discover what discount rate to apply to the value carried by the familiar notion. (Agar, 2001, p. 56)

By my lights, granting moral considerability to these artifacts at the representational and intellectual level of bacteria or plants is putatively absurd and not independently plausible. Since the second premise can't be rejected by biocentrists because doing so would exclude organisms, the morally substantive first premise must be rejected. Perhaps a biocentrist still wishes to defend the argument as sound, in which case this line of objection fails, and the normativity problem moves in as a fail-safe.

The Normativity Problem seems particularly resilient. The Achilles' heel of biocentrism is its failure to articulate a cogent move from good to ought. Biocentrists dedicate the bulk of their efforts to trying to show that organisms have interests or goods of their own, and relatively little effort as to why this makes them morally considerable. Biocentrists advocate a variety of normative principles,¹¹ yet all take “axiological biocentrism” (each organism has a good of its own) as grounding “normative biocentrism” (the good of organisms obligate moral agents to them). All

¹¹ Some hold that we should maximize the good of all organisms: “biocentric consequentialism” (Attfield, 2003). Some grant moral considerability to all organisms, yet undercut this by prioritizing the value of human basic needs and projects: “axiological anthropocentrism” (Varner 1998). Others deny human superiority, holding the goods of slugs in equal esteem to our own: “biocentric egalitarianism” (Taylor, 1986).

seem to view the good as anterior to the right, yet these highly contentious issues in metaethics are simply glossed over and controversial claims are not only not defended, but they are not even explicitly articulated in most cases. Wrestling with these foundational issues could serve biocentrism well into the future.

If biocentrism really is dead, as is my suspicion, does this leave plants out to dry? If I am correct that the language of moral considerability is misapplied to organisms, is there a way in which the proposition “we ought not harm plants” is true? Focusing on the variety of value which nonsentient life has for us and other sentients, not life’s moral considerability, seems to capture what’s right about biocentrism without its problems. This seems to be the more common view in philosophy writ large. Christine Korsgaard expresses this view well:

So do we also have duties to plants? I don’t think so. Since a plant is not conscious, being a plant is not a way of being someone, so it is not a way of being someone that we share with them. (I do not know how to defend that point further.) Still, I can’t help thinking that the kind of thing Kant believed about our obligations with regard to natural objects generally is true of our obligations with regard to plants. Kant thought that we have no duty *to* other things found in nature, but that we have duties with regard to them, to treat them in ways that show a sensitivity to the fact that they are alive (in the case of plants and animals) and beautiful (Kant’s example is ‘beautiful crystal formations’). He thought that these duties are really grounded in a general duty not to do things which will have a bad effect on our own characters. This is an inadequate account of our obligations to animals, but it seems to me to be right in the case of plants. Is it crazy to say that there is something amiss with someone who destroys plant life wantonly, or who can see a plant drooping but still alive without wanting to give it a drink? Such a person shows a lack of reverence for life which is the basis of all value. (Korsgaard, 1996, p. 156)

Here, Korsgaard seems to disagree with Kant that there is an amphiboly between our moral psychology and our moral obligations in the case of animals. She argues that we do not simply have obligations regarding animals, but that we have obligations *to* animals because pain is a reason (Korsgaard, 1996, p. 145-160), yet there really is an amphiboly at work in the case of nonconscious life. Psychologically, we revere life, which she believes is the basis of all value (perhaps understood as a necessary but insufficient condition for moral considerability) but this is not to say that living things are possible objects of obligation.

There is a new, essentially anthropocentric kind of argument which purports to support biocentrism, and appears to fare better in overcoming the Normativity Problem. Some environmental ethicists argue that we should respect and promote the goods of natural entities as ends in themselves because of what so regarding them does for us. For example, John O'Neill argues that taking the goods of organisms as our own ends is constitutive of human flourishing (O'Neill, 1992, p. 24), and John Nolt argues that we have a duty of self-transcendence to value the goods of organisms because doing so optimizes hope (Nolt, 2010). These perfectionist arguments might seem to support biocentrism on the grounds that we ought to value and promote the good of some¹² organisms' good for their own sakes because doing so achieves these desired human ends.¹³

While I take no issue with these views per se, as they are akin to the Korsgaardian view discussed above in that they do not support biocentrism as a notion of moral considerability, the issue is whether one can motivate a conception of moral standing on a self-regarding motive. This type of argument claims that this can occur, but I believe that this is a mistake.

Counterfactually, if valuing the goods of all organisms as ends did *not* optimize hope or was not (partly) constitutive of human flourishing, then these arguments give us no reason to do so. A morally considerable being, in O'Neill's sense, is "a being whose good must be considered in making moral choices," and as I defined it above, an entity having moral standing if and only if that entities good ought to be considered by moral agents solely for its own sake.

The problem with this kind argument for biocentrism is that the 'solely' clause of moral considerability is violated. In these perfectionist arguments for biocentrism, my valuing an organism for its own sake is conditioned on how so doing makes me *feel* or what I gain personally from so

¹² Nolt argues that we can't develop self-transcendence towards *all* organisms, perhaps due to our own psychological limitations. He claims only that we ought to cultivate self-transcendence towards many organisms, which involves working for their good.

¹³ There are, of course, other arguments for biocentrism that are available as well, many of which I've already considered above and rejected as supporting the view. Here, I'm solely concerned with whether this sort of argument supports biocentrism.

regarding it. These arguments are essentially pragmatic reasons designed to convince others about why we ought to consider the good of nonconscious organisms (an obligation to oneself and to others), not arguments for the moral considerability of nonsentients.

Moral standing is an unconditional value based in the nature of the thing, not its effects on others.¹⁴ If a child promotes the good of her plush toy or Nintendog¹⁵ ‘for its own sake’ because so doing helps her foster the virtue of care, it is not by this promotion that her toys are properly understood of as objects of moral obligation. These views are onto something in that not responding in appropriate ways to merely living things is a kind of moral failure on our part, I contend only that such views do not support the moral considerability of organisms, and absent an independent argument to this effect, do not get us any closer to a philosophically rigorous account of biocentrism.

We do well here to keep our eyes on the prize. Biocentrism is a class of theories of environmental ethics grounded in the moral considerability of individual organisms, yet there are other theories of environmental ethics which can account for obligations with respect to plants without such intuitively implausible implications, and which do not rest on such problematic arguments. We ought to look elsewhere for plausible theoretical foundations of environmental ethics, and while it is surely too soon to pull the plug, biocentrism appears to be on life support.

¹⁴ I do not wish to claim, as did Kant, that acts in accordance with duty, such as acts motivated by human flourishing or hope, are of lesser moral worth (laudable) than acts from duty (good without qualification), but merely to point out that we cannot base moral consideration on the idiosyncrasies of our psychological motivations.

¹⁵ Nintendogs is a pet simulation videogame on Nintendo’s portable Nintendo DS system where children have to care for their virtual pet(s) in real-time.

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