The Value of Existence, Beyond Life:

Towards a More Versatile Environmental Ethic

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ABSTRACT

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This paper argues that those that subscribe to "Biocentrism", specifically the Biocentrism argued for by Paul Taylor, ought to adopt "Ontocentrism" instead. Biocentrism, the theory that all and only living things are morally considerable, fails to account for important moral differences between living things. It cannot justify, without ad-hoc addition, the intuition that a man is worth more than a pig, and a pig is worth more than a mouse. It similarly fails to account for the status of larger systems such as ecosystems, and lastly it fails to account for the status of non-biological entities and artificial life. Ontocentrism, the theory that all existing things, broadly construed, are morally considerable, ought to be adopted because it can account for these things without being ad-hoc and arbitrary.

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Introduction

Deciding *what* we ought to treat as morally valuable is critical to constructing ethical systems, but so too is deciding *how much* we value different sorts of entities. These problems are taken here to concern *moral considerability* and *moral standing*, respectively. Moral considerability is a binary matter, indicating whether or not an entity ought to be given consideration in moral deliberations. In contrast, moral standing is a matter of degree, indicating the relative value or weighting of morally considerable entities in ethical judgements. These two matters seem to go together, however: knowing that both monkeys and mice are morally considerable is (arguably) only useful if we can also justify our intuitions that monkeys hold greater moral standing. Biocentrism, the theory that all and only biological entities are morally considerable, has been criticized for its inability to account directly for moral standing, even in cases regarding humans. This paper criticizes the responses of Biocentrists to this issue and proposes that the problem concerns Biocentrism itself: Biocentrism should be replaced with "Ontocentrism," which holds that *all* existing things (not just biological entities) are morally considerable, where "things" is understood to mean both matter and the various forms it takes. In this context, "to exist" is to be a potentially identifiable definite entity or property in the universe which is subject to creation or destruction.

This theory, coupled with a notion of extrinsic value that tracks the effect entities have on each other's value, produces a framework wherein an entity's moral standing is a function of the numerical count of morally considerable entities implicated in its structure. This count is here understood as its 'complexity'. In doing so, without positing any ad-hoc additions or pre-baked human privileging, Ontocentrism's framework can answer moral problems ranging from the question of the value of humans versus pigs, all the way up to the value of ecosystems, resources, artificial intelligence and artificial life. It is informed by the scientific and Darwinian views of the universe, and so will also be argued to be the most compatible with modern science. In terms of Reflective Equilibrium, Ontocentrism fares better than Biocentrism, and so should be adopted.

0 – Methodology

In what follows I shall go into detail describing some major claims and intuitions that arise in the history of Biocentrism and environmental ethics, primarily focusing on Taylor's influential work. In doing so I will draw out several key requirements of a good moral theory, given the arguably legitimate intuitions that Taylor and various related schools of thought introduce as considerations integral to environmental ethics. Such considerations will be used later to evaluate the suitability of Ontocentrism through the method of Reflective Equilibrium. This method shall be appealed to due to the object of this paper's connection to the problem of subjectivity in ethics – the problem of selecting a neutral standpoint with which to discuss ethics in as objective a manner as possible. With that in mind, I take it that finding a neutral ground for positions such as anthropocentrism and biocentrism, is critical. Ultimately, I shall argue that the latter half of these important intuitions are not satisfied by Taylor's Biocentrism but are met by Ontocentrism and so Ontocentrism ought to be adopted. Despite Ontocentrism's greater satisfaction of the relevant intuitions, it still falls short of some. This short-fall will be argued to be a necessary concession given the other benefits that this theory provides.

This paper thus argues for Ontocentrism over Biocentrism by appeal to its theoretical virtues as opposed to arguing directly for Ontocentrism's primary axiom: existence is good. This axiom is assumed provisionally for the sake of showing that the conclusions it produces are capable of satisfying the aforementioned intuitions. Although the issue of axiom selection is not within the scope of this paper, it will be touched on briefly as a part of a series of objections at the end of the paper.

I – Intuitions Relevant to Environmental Ethics

i - The Intuitions of Biocentrism

This paper mainly targets adherents of Biocentrism:

Biocentrism: The view that all and only living things are morally considerable.

Biocentrism is popularly attributed to Paul Taylor's 1981 work "Respect for Nature". There he argues that human privileging cannot be justified since there is no morally relevant difference between humans and other living things. Just as racism is bad because there is no morally relevant difference between races, anthropocentrism, sentientism, and speciesism are bad because there is no morally relevant difference between living things. Not only are all living things morally considerable, but they are *equally* so – they carry the same moral standing. This stance is more specifically known as "Biocentric Egalitarianism," and is grounded in the notion that all living things are equally teleological centres of life and so can have things go better or worse for them. In Taylor's opinion, privileging humans would be ad-hoc and arbitrary: while we humans may exhibit rationality and creativity, such attributes are important only to humans, and so cannot be arbitrarily privileged (Taylor, 1986, p.96). Moreover, Taylor argues that anthropocentrists ought to adopt Biocentrism since it is more consistent with contemporary science and a Darwinian understanding of the world - since it is more empirically grounded than a theory which requires drawing upon non-natural facts to give humanity a privileged position. If we were to give humans a privileged position, it cannot be by appeal to something like the divinity of humans, nor the presence of rationality, but rather by appeal to a grounded understanding of humanity's position in the universe, as informed by modern science. Biocentrism takes the facts of biology in order to reveal a common thread between living things. Anthropocentrism, by contrast, gives humans high moral standing only by arbitrary stipulation.

We can thus draw from Taylor a few requirements of a good moral theory:

R1 – *Non-anthropocentric* – A good moral theory cannot start with an unsubstantiated assumption of human supremacy.

R2 – *Non-arbitrary* – Whatever a moral theory picks out as important cannot be arbitrarily chosen due to human preference of it.

R3 – *Environmental* – A good moral theory must respect the value of life by ascribing moral considerability to all living things—it must be an "environmental ethics," in the broadest sense of environment.

R4 – *Scientifically Informed* – A good moral theory must be informed by modern science.

ii - The Intuitions Regarding Biosystems

Aldo Leopold's Land Ethics presents a different school of environmental ethics that takes biotic wholes to be the primary bearers of moral considerability. Known as holism, this theory contrasts with the individualism found in Taylor's biocentric egalitarianism: something is wrong or right depending

solely on its effect on the biotic whole. A main intuition found here is that an environmental ethics is incomplete if it cannot see the forest through the trees - if it cannot properly account for the higher level ethical phenomena that occurs at the level of species, of ecosystems, and of the earth itself. To these I would add the wholes such as families, institutions, cities, and other higher levels of human organization, which are also important when describing the ethical landscape.

Leopold's theory was criticized as being 'ecofascist' in that it could very easily justify the removal of humans on the grounds that humans are detrimental to the biotic whole. Authors such as Calicott and Næss have noted these criticisms and have proposed different principles to account for the moral considerability of individuals. Particularly, Næss developed a theory known as "Deep Ecology" which incorporated the value of wholes and individuals. Næss takes it that individuals ought not to be seen as separate entities, but rather as components in a web. By making this move Næss can speak of the environment as the extended self of any given individual.

Calicott, conversely, proposed that certain secondary principles can be added to holism to allow for a non-misanthropic theory. Calicott solves the problem by positing that members of venerable or personal communities are to be allotted greater standing because such communities produce more interests.

In this paper, however, I shift the conceptual terms away from these arguments between holists and individualists. This is due to the specific features and conceptual background of the Ontocentrism that I am pursuing, detailed in section II. This Ontocentrism does not quite simply align with mereological considerations of parts versus wholes, since the issue for it is the relative scope of information needed to describe living systems. It turns out that various levels of systems are treated as equal but nested within one another, as more or less dense with morally considerable entities—there is a sort of layering or multiplicity of considerations, beyond simply part versus whole. In terms of classic arguments between holists and individualists, Ontocentrism would roughly qualify as a sort of aggregate individualism. For our purposes here it is best to translate Leopold's intuition of holism into a requirement that we pay attention to life on an overall systems level.

Conceptually translated in this way, we can draw out another reasonable requirement for a good environmental theory:

R5 – *Biosystems* – A good moral theory must make sense of the moral considerability and standing of various nested systems such as species and ecosystems (and perhaps cities and nations as well).

iii - The Intuitions Regarding Inequality Among Species

Another vein of problems exists regarding the egalitarianism inherent in biocentrist thinking. While Taylor's version of Biocentrism holds that all biological entities have *equal* intrinsic value and thus equal moral standing, authors such as David Schmidtz have argued that such a Biocentric Egalitarianism is inconsistent with the obvious requirement that individual humans have greater moral standing than individuals of other species. Further, such an egalitarianism cannot justify our intuition that it is better to experiment on a mouse rather than a monkey, given the choice. He refers to this blindness towards difference as a lack of respect for nature itself. Authors such as Ferkany, Bognar and Brooks have responded to this criticism by suggesting that certain further principles can be introduced, such as self-defense, capability based rights, or human preservation to make sense of Biocentric Egalitarianism. These further principles take the consequences of biocentric theory and augment them so that the theory can cope with the requirement that humans be given their due privilege. Just as holism

had the problem of subjugating the individual to the whole, un-modified biocentrism subjugates the greater organisms to the lesser. If we are to be consistent with our intuitions that there is something about greater forms of life that gives them more moral weight, then we need a theory which can make sense of why the food chain itself can be justified.

Taylor *could* respond that eating the least complex forms of life kills the fewest lives overall. Although he does not actually make this argument himself, the idea is that to eat cows is to create a demand for further death in the plant world. This account would work for the most part, if we are to set aside the question of why we should promote complex life at all if it requires the most individual deaths. What it does not work against, however, is the more specific problem of experimentation. This numerical account cannot tell us why, when given the choice, we ought to experiment on a mouse instead of a monkey (Bognar 2011). They are equally teleological centres of life in the Biocentric Egalitarian view, and so the only way to account for this intuition within the biocentric framework is by arbitrary fiat – by the introduction of things like 'levels' of sentience, or otherwise by giving varying degrees of value to certain capacities.

It should be noted that there exist flavors of biocentrism that do not attempt to be egalitarian (Agar 1995; Attfield 1991; Bognar 2011), but I think such non-egalitarian versions have their own issues that may equally apply to egalitarian biocentrism. If egalitarian biocentrism cannot justify the difference between species without introducing foreign concepts and principles, then non-egalitarian sorts of biocentrism are simply egalitarian biocentrism which has bit the arbitrary bullet (spelling this out in detail would require another paper, but see references for support of this point). The key issue here is that the principle "Life is Good" cannot, on its own, give grounds for inferring that different types of life may have to be treated differently. It may be able to do so given various caveats and secondary principles, but these principles are ultimately external additions as opposed to the results of inference from that minimal basic centre of value.

Even Taylor says that we might need to treat cows better because they have some sentience, but this is paramount to adding a quality that only humans might value, and cannot, by Taylor's own standards, be given any real priority over the agility of the monkey, or the strength of a tree (1994, 33). We may play the game of adding enough carefully chosen properties into our system, such that it all works out the way we want it to, but this results in a cluttered and dissonant system, complete with unquantifiable abstractions (French 1995, 44; Anderson 1993).

In other words, if we are to arrive at a position that acknowledges differences and inequality between species, there must be some principled basis for this, and it cannot be arbitrary or anthropocentric. But, as just mentioned, the critics of Taylor find that his treatment of this issue remains arbitrary and perhaps anthropocentric. Taylor's best response to this problem is to admit that complexity may be a way past it—that the more complex an organism is, the higher its standing. However, the claim here is that Taylor's concept of complexity does not escape anthropocentrism. In effect, the Ontocentrism proposed below allows for a distinctly non-anthropocentric conception of complexity that suggests a way of remedying this sort of problem with Taylor's biocentrism, by, in effect, finding a very different 'centre' for complexity measures.

Thus, to sum up the consideration being driven at here, we can state it as:

R6 – *Respects Differences* – A good moral theory must be able to explain why humans have a greater moral standing than pigs, why pigs have a greater moral standing than mice, and so on. Although it cannot start with this as an assumption, it must possess this as a concrete implication.

iv - *The Intuitions Regarding Artificial Life*

On a different front, technology now threatens to stretch Biocentrism even further. Some authors have suggested that AIs in the future may need to be treated as morally considerable (Anderson, 2013; Gunkel, 2014). The reasons given for this vary, but largely it amounts to there being no obvious morally significant difference between a human and an AI that is convincingly human. Similarly, there is no clear difference between a 'natural' organism, and one that is artificial. If we were to hold constant what the person or AI do, as far as mental processes and receptivity, it seems unclear how we could justify the difference. Moreover, given debates about what morality, if any, we should imprint upon AI, establishing an ethical framework which can make sense of the moral considerability of AIs and humans on neutral terms is critical. This leads to another requirement:

R7 – *Bio-neutral* – A good moral theory must not exclude entities from moral considerability just because they are not instantiated in a particular way (e.g., just because they are not biological).

v - *The Intuitions Regarding Intuitions*

Lastly, authors such as John Basl have taken Biocentrism to task over the inconsistency of its position regarding non-living objects. In *The Death of the Ethic of Life*, Basl argues that Biocentrism amounts to "Teleocentrism" – the view that all and only things with a teleology are morally considerable. Biocentrism is therefore inconsistent, since it should also be committed to the moral considerability of artifacts insofar as they can be assigned purposes. In making this argument Basl also appeals to some of the above requirements, specifically the requirement of non-arbitrariness. In essence, Basl charges Biocentrism with being a misnomer and suggests that, by appeal to Reflective Equilibrium, we ought reject Teleocentrism due to some of its unintuitive implications. Thus, we can see another requirement in the issue that Basl raises: Our theories must be consistent with themselves and with our intuitions. This requirement is often known as the "Method of Equilibrium" and was named so by John Rawls (1971). It is this form of argument that John Basl's book ultimately appeals to.

R8 – *Reflective Equilibrium* – A good moral theory ought to maximize correspondence between intuitions and theoretical claims. It ought to do this with minimal ad-hoc additions or exclusions.

II - Ontocentrism's History and Structure

i - *Ontocentrism's History*

The origins of ontocentric thinking are debatable, as some might want to trace it all the way back to Spinoza, if not earlier and elsewhere. For the purposes of this paper, the history of Ontocentrism will be treated as largely starting in the 20th century in the work of Wilhelm Ostwald (c.1900) and Norbert Weiner (1949). Terrell Ward Bynum refers to this school of thought as "Flourishing Ethics" due to the focus placed upon flourishing in spite of entropy.

Wilhelm Ostwald was a German chemist whose work coincides with debates surrounding the relationship of matter to energy. Ostwald was in the camp that said that energy is primary and matter is derivative. In taking this energy-centered outlook, Ostwald conceived of a tweak one might make to Kant's categorical imperative. Since everything is energy, and entropy is the greatest villain to organized energy, then there must be a moral principle such that one ought to never generate entropy

unnecessarily, or with wanton disregard. Ostwald referred to this principle as the "Energetic Imperative". He further argued that Kant's imperative was in fact secondary to the energetic imperative as the categorical imperative was meant to combat injustice and immorality – frictions in the social world. To eliminate such frictions is to eliminate sources of unnecessary entropy.

Ostwald's thinking would go largely unremarked for some period of time before being picked up once more by Robert Bruce Lindsay who also formulated a version of the Energetic Imperative that he calls the Thermodynamic Imperative. Norbert Weiner, a man who some call the father of cybernetics, also picked up on this line of thinking around the same time. Besides his many contributions to computer science, Wiener also took certain stances on ethics.

Wiener took it that the greatest natural evil was entropy, and that countering this evil must be within the scope of ethics. Bynum states that if we agree with Wiener that entropy is the enemy of all things, then we must also agree that "the overall focus of ethics can and should be shifted away from the narrow anthropocentric goal of only human flourishing to the broader, and more reasonable, goal of the flourishing of life, ecosystems and just civilizations, even well-behaved cybernetic machines that participate in the very fabric of those civilizations" (Bynum 2006, 170).

Stated in other terms, the goal of ethics ought to be maximizing the area under the graph describing momentary complexity across time (Fig 1). Under this view, the complexity of existence is taken to have increased over time. At the same time, however, it is taken that this organized existence will peter off due to the limitations imposed by entropy. Making the most of the potential of the universe before it passes is thus the objective.
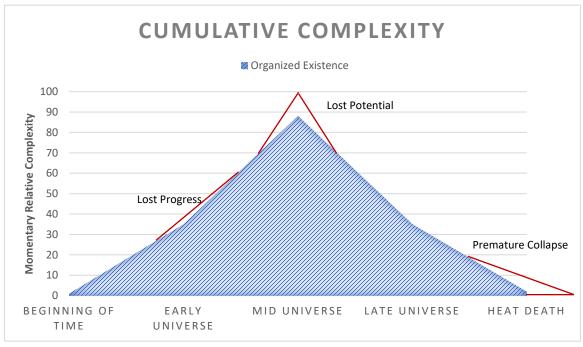

Figure 1 (Produced for this paper)

Norbert Wiener arguably was the first to create a relatively robust ontocentric framework, but it did not garner much attention for some time. It is unclear to what degree ontocentric thinking developed following Wiener, but suffice to say it currently takes its most robust form in Luciano Floridi's "Information Ethics".

Floridi's theory parses value in terms of the information equivalents of objects. Any entity can, in principle, be given an informational equivalent that describes the entirety of its complexity at all observable levels of abstraction. Although such a task may be daunting if not practically impossible, there is a finite amount of information that such a description would entail. For Floridi, this amount of information correspondingly determines the amount of moral subjects associated with that entity. He calls these informational objects. Informational objects are a universal class of things that have arisen out of the chaotic early universe, taking increasingly complex forms. The protection and promotion of the flourishing of these entities is what Ontocentrism basically amounts to. As he puts it: "All entities, even when interpreted as only clusters of information, still have a minimal moral worth qua information objects and so may deserve to be respected" (Floridi 2002). Floridi argues for this point, in part, by criticizing the Kantian understanding of intrinsic value on the grounds that it cannot account for moral phenomena such as the sanctity of a corpse. This inability, he argues, can be resolved if one allows that non-living objects can have moral worth in virtue of their informational nature. Regardless of whether this argument succeeds, the key thing being drawn out is that there can be non-living things worthy of moral care and respect.

Despite the elegance of Floridi's formulation, the form of Ontocentrism that shall be defended and utilized here will not rely on previous formulations except in spirit. The form I shall appeal to will be detailed in the following section.

ii - *Ontocentrism's Structure*

To avoid getting bogged down in the strengths and weaknesses of other ontocentric frameworks, I now briefly outline the sort of Ontocentrism I am suggesting here.

Ontocentrism: The view that all existing things, broadly construed, are morally considerable.

Ontocentrism holds that all existing things – all facets of the universe, no matter how big or small – are morally considerable. This includes fundamental sub-atomic entities all the way up the mereological ladder to bricks, plants, animals, humans, societies, ecosystems, planets, solar systems, and so on. The considerability of the individual parts does not equate to the whole in the same way that the properties of individual parts needn't equate to the properties of a whole. Consequently, material mass is not the metric for intrinsic value, rather it is the 'ontological density' of a thing's being – its complexity.

A human is clearly worth more than a boulder thousands of times their mass because the sheer amount of intricate systems within humans, as well as the intricate relationships in which people often find themselves, put humans far ahead of the boulder which lacks any such interesting characteristics. Whatever sort of complexity the boulder has by virtue of its stability as matter, the human would have as well in proportion to their mass. What the human would have that the boulder would not, however, is further layers of organization above the quantum mechanical and chemical. They would have proteins, cells, organs, informational patterns in the brain, and so on. All these things would, by virtue of their presence, add to the total complexity that is a human, and to the human's value over the boulder.

Thus, Ontocentrism posits that a real analysis of value is not complete until all relevant phenomena are accounted for, or at the very least the phenomena which we can in principle identify as relevant. The satisfaction of R2 requires that one be non-arbitrary about what phenomena to take as morally considerable, and the way Ontocentrism does this is by admitting *all* detectable phenomena without prejudice. As mentioned, to understand the value of a human one must be cognizant of the

myriad of phenomena that constitutes a human, and only by virtue of that be justified in assigning the human high moral standing.

The loss of a human, when analyzed *only* as such, in isolation, is but the tip of the iceberg of loss. It is therefore no wonder that such an 'isolating analysis' cannot justify the privilege of humans over boulders and pigs – why an analysis that fails to satisfy R1 can only trivially satisfy R6. While one's humanity is an important detail not to leave out, it is nevertheless an abstraction, and as such cannot be given inherent priority over any other abstracted facet of being. Being human is not just a label, but rather it is a myriad of different intricate systems and relationships. Only by realizing that within a human there is much to lose may we understand why humans are taken to be of immense value.

It is important to note, however, that the ontocentric analysis is not complete without the assignment of extrinsic value – something to account for the effect of entities on each other. This corresponds to the amount of complexity a thing promotes or destroys and would thus be expressed in the same units. We can imagine some particular mosquito which will ultimately cause the death of a human. The extrinsic value the mosquito has would be negative, corresponding to the loss of the morally considerable things that that human is, and would ex hypothesi outweigh its intrinsic value – its own set of morally considerable things; as such, the mosquito would either need to be prevented from doing harm, or otherwise be destroyed if there is no other option. Coexistence, and thus preservation, is always a preferred strategy under the ontocentric framework. Taken in Floridi's terms: all things, when seen at an informational level of abstraction, have at least some minimal but overridable moral considerability.

Lastly, it must be noted that the primary weakness of Ontocentrism lies in the vast amount of empirical phenomenological work that needs to be done in order to put it properly into action. Assigning moral standing and extrinsic value can only be as successful as our ability to describe complexity and predict events. Thus, an inherent limitation is the sheer complexity of the subject matter. As such, pending serious advances in description and prediction, Ontocentrism is saddled with an awareness of its own limitations; informed guesses need to be made – rules need to be followed, and more information must always be sought.

Nevertheless, there are no easy answers we can gain by appealing to simple abstractions; instead, meaningful ethical work must be done by diligently attending to the real intricacy found in the subject phenomena – intricacy which can and must be discovered by appeal to empirical endeavor. Nothing short of a fine-grained analysis of moral standing may do so correctly, and Ontocentrism is exactly such an analysis. A further discussion of what such an endeavor would entail can be found in the objections section of this paper.

III - Comparing Ontocentrism and Biocentrism

As mentioned above, this paper analyzes a few problems that Biocentrism faces and argues that the various tensions can be resolved if one allows their analysis of value to be more neutral – if one adopts Ontocentrism. The way the argument proceeds is by assuming Ontocentrism for the sake of demonstrating the elegance of its analyses. Consequently, providing an exhaustive defense of ontocentric axioms is not within the scope of this paper. If the reader is not already vaguely persuaded by Biocentrism, or otherwise takes it that existence itself categorically cannot be intrinsically valuable, then this paper will not be much help in persuading them.

The problems studied in relation to the above requirements are: (I) The Problem of Blunt Egalitarianism – R6, (II) The Problem of Complex Wholes – R5, and (III) The Problem of Artificial Life and Artifacts - R7. To address these problems, I will show how an ontocentric framework can

accommodate the relevant intuitions without running into the contradictions or inadequacies plaguing Biocentrism.

The extremes of human chauvinism and blunt egalitarianism will be avoided in the first section, the extremes of ecofascism and radical individualism will be avoided in the second, and the lack of a robust structure to account for non-living things will be resolved in the third. Overall, it shall be argued that (IV) the various requirements outlined in the context section are satisfied by Ontocentrism, but not by Biocentrism, and so Ontocentrism ought to be adopted through Reflective Equilibrium – R8.

i - The Problem of Blunt Egalitarianism

Biocentrism has been charged with being inconsistent with the intuition that a man is worth more than a pig, and so on. It has been charged with misanthropy due to the lack of resources it has in accounting for the varying moral standing of biological entities. David Schmidtz remarks on this in the following way: "Failing to respect what makes living things different is not a way of respecting them. It is, instead, a way of being indiscriminate" (2011, 129.)

Those for and against Biocentrism often disagree on what is morally considerable, but what they do often agree on is that something without interests cannot be morally considerable. That is, something which isn't alive needn't be respected in any way. Unfortunately, it is precisely this extra movement towards valuing all existing things, broadly construed, that would settle this debate and make sense of an egalitarian ethic that nevertheless makes room for human privileging in our judgements.

Without a retreat from dealing exclusively with higher level abstractions, such as 'humanity,' 'sentience' or 'life', we cannot hope to escape the blunt egalitarianism that Biocentrism ultimately entails. It is blunt in the sense that the conceptual tool of Biocentrism is not precise enough to get at the phenomena it is describing, because it puts all living beings on a par, and thus faces difficulties justifying differences between the moral standing of morally considerable entities.

Thus far I have characterized Taylor's Biocentrism as monist about intrinsic value. However, Taylor, in response to criticisms such as those above, may respond that other things are of intrinsic value, such as love or rationality, and these typically are used to justify discriminations in moral standing. Although this extra addition may be effective against Schmidtz, it is not effective in evading the charge of ad-hoc-ness. It fares no better than other authors' appeals to self-defense, capability based rights, or human preservation (Ferkany, 2011; Bognar, 2011; Brooks, 2011). The positing of these other specific values is not an extension of Biocentrism, but rather only a patching of it using foreign materials. Taylor himself notes that the privileging of such things would violate R2, and so he rejects that any discriminations can ultimately be made.

The ontocentric analysis that will be given here basically amounts to pointing out that, if you grant moral considerability to all things equally, but understand them in the ontocentric framework outlined above, humans end up just simply having more morally considerable things within their being. This is especially true when we also take in to account human relations to other things, which would include love and rationality.

Thus, without violating R1 or R2, Ontocentrism is capable of satisfying R6. Furthermore, the human capacity for creation far outweighs most any individual in the natural world. Consequently, although other living things also carry a great intrinsic value, a human is worth more intrinsically and extrinsically than individual members of most if not all other species – a human has a greater moral standing. This method of analyzing the problem fares better than any biocentric account that appeals to something like sheer biomass or individual count – any account that arises directly from Biocentrism itself. Such a biocentric attempt at quantification would be committed to the claim that something like

whales or fungal supercolonies are the most valuable things in existence. As such, nothing short of a general analysis of complexity, and thus existence content, can make sense of the intuitively correct privileging of humans over pigs. Once that metric is used, however, an ontocentric framework is inevitably the result. To calculate complexity is quite simply to apply an ontocentric framework, and so while biocentrists could simply adopt complexity as a tweak, in doing so they become ontocentrists in all but name – they take non-living entities into account in their calculus of moral standing.

ii - The Problem of Complex Wholes

Another problem for Biocentrism is making the conceptual leap from the individual to the greater system of which it is a part, whether that be the species, the ecosystem, the society, or even the whole biosphere itself. Mirroring the reply to the problem before, all that is needed to address this problem is the valuing of things that do not themselves have interests in any strict sense of the word. I say 'strict sense' because some, like John Basl, take it that even inanimate objects can have a welfare in virtue of their teleology. Furthermore, given the universe's arguable tendency towards increasing complexity, all stable entities might be granted a minimal teleology in virtue of their temporary resistance to entropy, but I digress.

Applying the ontocentric framework can make sense of the status of wholes because it is not pinned down to any entity or property centered perspective. It grants moral considerability to any structure or property that can be referred to. The whole that is picked out needn't have any special characteristics other than being the potential subject of a reference. Thus, a complex form of life can be considered to enjoy greater moral standing than a disorganized pile of the living cells which composed it. Moreover, a fortiori, an ecosystem or species understandably has more value than an individual component in that web, due to its complexity.

The issue, however, becomes complicated due to the greater complexity involved in wholes, and as such we are often limited in practical scenarios to only talking of the parts that compose them – the parts about which we have a more sturdy understanding. In any case, this ontocentric solution fares better than the biocentric solution due to it not being a brute matter of individuals versus collectives, but rather a real analysis of what complexity goes into each, and how the health of one can be translated into the health of the other.

iii - The Problem of Artificial Life and Artifacts

Another major problem is that Biocentrism is ill equipped to address the moral status of artifacts. Not only does the creation of new artificial forms of life create difficulties in the biocentric picture due to the way they are compared to existing biological things, but such cases also expose the fact that life itself is a problematic thing to define. Indeed, philosophers like Basl have argued that Biocentrism is actually just Teleocentrism, and as such extends far beyond the normal limits of biology. Even inanimate artifacts can be considered to have a good of their own – a teleology - and as such Biocentrism is either incomplete or otherwise confused. John Basl argues that it is confused, and that Teleocentrism must be discarded, however his reasoning for this is less than solid.

The problem in his reasoning seems to arise from only paying attention to the concept of moral considerability, without allowing the concept of moral standing to enter the discussion. He posits a few conditions of adequacy, such as non-arbitrariness - R2, and Intuitiveness – R8, and suggests that Teleocentrism cannot satisfy them while simultaneously excluding artifacts, and so Teleocentrism must

be discarded. I aim to show how Ontocentrism does meet Basl's conditions of adequacy, and certainly more so than the competing theories.

Basl argues that there is no intrinsic obligation to preserve inanimate objects, but simultaneously appeals to the intuition that more complex objects are to be granted a greater standing than less complex ones. Basl states "I intuitively think we should preserve the computer over the corkscrew, but this is only because I recognize the value of computers" (2019, 177), but then moves on without much attention being paid to this. Much like the biocentrists in the preceding problems, Basl's biases, while not disagreeable, seem to require an undue amount of ad-hoc addition in order to justify the evaluations they imply. Not only this, but a theory which is unable to account for corkscrews will be completely unprepared to account for things like strong AI.

Ontocentrism structurally cannot have such an issue, as all kinds of phenomena are granted moral considerability and moral standing in proportion to their complexity. Admittedly, the fact that Ontocentrism includes inanimate objects is taken to be a negative by many, however the value ascribed to such objects is, as explained above, far outweighed by what we traditionally would be tempted to call morally considerable. Moreover, even granting the unintuitiveness of this aspect, I argue that it is a necessary concession when taken in Reflective Equilibrium.

iv - Ontocentrism in Reflective Equilibrium

I will now argue that if we carry out the method of Reflective Equilibrium, as Basl does, but we take into account a larger set of intuitions, the reasonable move is to adopt Ontocentrism. Basl does not take into account moral standing and instead focuses his criticisms on the notion of moral considerability. In doing so, he successfully, to my mind, argues that Biocentrism is a misnomer. Had he taken into account more of the intuitions at play, however, besides the intuition that things like corkscrews and rocks cannot carry a moral status, his analysis might have taken that intuition to be a necessary concession.

In particular, the intuitions that he should have taken into account are the ones mentioned in the previous sections. There is a strong intuition that moral considerability is insufficient for environmental ethics, and so moral standing must be allowed to vary in certain ways (R5). There exists a strong intuition that higher level structures like ecosystems must be taken to be morally considerable due to their prominence in practical environmental considerations (R6). Lastly, there exists a strong intuition that artificial life ought to be granted moral considerability despite it not being biological (R7). All of these intuitions must be made sense of in a way that does not violate the requirements of non-anthropocentrism (R1), of non-arbitrariness (R2), of being environmental (R3), and of being informed (R4). Thus, unless we wish to perform an ad-hoc discounting or accounting of artificial life, ecosystems, and degrees of moral standing, we need some theory that can bring all of these issues into an equilibrium.

Ontocentrism achieves all of this because, first and foremost, it is non-arbitrary. The central value that it centers upon is not pleasure, happiness, life, or any other property that not all things necessarily share, but rather it centers upon existence. Existence is a state that is common to all things, and arguably is a more basic teleological goal than life. The universe sifts itself into increasing amounts of local order and complexity. Living things do this more, but non-living things also do this by virtue of their stability. Thus, existence is taken to be primary due to it being the most basic state that entities in the universe may tend towards, barring chaos. Although it is still humans making this theory, in satisfying the condition of non-arbitrariness by appeal to good-faith observation, Ontocentrism also satisfies the condition of non-anthropocentrism. There is no starting point that hinges on our superiority.

Despite not taking anthropocentrism as an assumption, however, Ontocentrism manages to nevertheless grant humanity a high, if not the highest, amount of moral standing. Moreover, it manages to assign moral standing in a way that tracks our various estimates of moral considerability. Since a human is more complex than a pig which is more complex than a mouse, moral standing is assigned to them in a way that vindicates our intuitive assumptions. Ontocentrism thus succeeds in making sense of relative value where biocentric egalitarianism failed. Moreover, Basl's remark that a computer is more valuable than a corkscrew is also made sense of, and furthermore Ontocentrism can deflate his criticism that treating such things as though they had equal status to a human is unintuitive. Corkscrews and computers do not have equal status because, although they both enjoy moral considerability, they hold less moral standing than a human. The corkscrew is not the computer's equal for the same reason that the computer is not the human's equal. Thus, although we still run into the difficulty of the unintuitiveness of including non-living entities in our moral calculations, this unintuitiveness is ameliorated by the fact that this does not mean our calculations must now involve giving full human rights to corkscrews. All that is required is allowing that such objects have a minimal amount of moral standing which is overridable when weighed against the considerability of other greater sets of entities. All that is required is that one does not destroy such entities with wanton disregard for the waste. Often the human experience garnered is enough to make this calculation, such as in the case of a firework. We value the firework not just for the complexity of its making, nor just for the complexity intrinsic to its explosion, but rather also with view to the complexity of experience that that explosion causes in the on-lookers. The explosion itself and the experience are what allow us to justify the loss of the unexploded firework.

This neutrality towards what sorts of entities may count as morally considerable also makes quick work of the bio-systems and bio-neutral requirements mentioned above. Since there is no class of entities such that a member of that class is inherently better than a member of any other class, there is no difficulty in admitting ecosystems and artificial life. We can make sense of their value by pointing to the complexity contained within them. Just because something is called an ecosystem or a computer, that does not, in of itself, make it any less than something called a human. It is the complexity that these referents denote which really fills out the details of their moral standing.

As an example, we can consider the place of modern AI in all of this. Current AI is not anywhere close to matching the complexity of a human, or even a small beetle. Thus, assuming that there is a backup to safeguard the extrinsic value of a given AI, it is conceivable that it would be better to delete the information of an AI than it is to squish a small beetle. As AI grows in complexity, however, so too will it grow in moral standing – in moral value. There may come a time where an AI does match the complexity of a dog or a pig, in which case it is incumbent upon us to treat it accordingly. At that point it may become a greater moral crime to choose such an animal over an AI. Lastly, if AI ever matches or exceeds humans in terms of complexity, then it would seem that AI would be owed the maximum moral status, complete with rights. At such levels of complexity, the analysis maxes out the metric and thus becomes impossible to calculate. Such an AI would enjoy equal rights to humans for the same reason humans enjoy equal rights to each other; there is no existing analysis which can properly deal with the magnitudes of value at play, and so one ought to err on the side of caution and respect. In such cases a person is forced, quite rightly, into an appeal to egalitarian abstractions.

In all, Ontocentrism has a framework which is capable of addressing a wide variety ethical issues while nevertheless only requiring one foundational assumption; "Existence is Good." By taking this as an axiom, what results is a framework that is simultaneously egalitarian and capable of justifying relative value. It is egalitarian in the sense that any facet of the universe, when brought into abstraction, is of equal value to any other facet. It is capable of justifying relative value in that any facet of the

universe, when not abstracted away from the real complexity it entails, may be compared to the complexity entailed by some other facet. In carrying out this comparison one identifies the amount of morally considerable entities at play, and so can make a moral decision based on that. This metric can equally be applied to ecosystems and artificial life, and thus allows us to make sense of their intuitive place in the moral universe. All of this is gained, but what is lost is the notion that non-living things do not carry any inherent moral import. This unintuitive feature is a necessary concession however, given the balance of things.

IV – Objections: Dealing with Ontocentrism's Skeletons

Ontocentrism is not without its own share of objections and confusions. I shall briefly mention here four problems that often arise, give a brief word about how they might be resolved, but then set them aside as important issues that require their own treatment.

i - The Charge of Hypocrisy

Firstly, a common objection that is raised is:
Ontocentrism doesn't fare much better than Radical Holism in avoiding ecofascism.
If the elimination of humanity were required for the benefit of the flourishing of the universe, then it seems that humanity would still be disposable. This objection, while important, does not go much further than being an objection to consequentialism generally, and so its response will likely mirror the debates had in that area. It is a far-fetched scenario to begin with, but, even if it were granted, it could not also be the case that people had perfect knowledge of this at the time. Such a judgement would require a predictive ability far greater than what is possible. Even when we limit it to the price of one human life as opposed to the death of many, we struggle to be able to make such a judgement. On the face of it, it would be incumbent upon us to make such a trade, but at the same time such a trade may have other implications which could destabilize the highly valuable entity that is humanity. To know for certain that such an action would not have farther-reaching consequences would be impossible, and so leaning on the institution of best practice – of rights and responsibilities afforded to sufficiently complex beings - is what is usually recommended. In essence, the response given here mirrors the one given by rule utilitarianism.
One of the forefathers of ontocentric thinking – Wilhelm Ostwald – believed principles such as the categorical imperative to be subcategories of what he called the energetic imperative (c.1900). Since social tension is a type of friction, and friction creates inefficiency, then a principle designed to eliminate such friction is a good one. Thus, barring an unattainably good reason to believe there will be greater overall complexity in the absence of humans, or otherwise some religious belief in the malignancy of humanity, there is no reason why Ontocentrism should ever result in ecofascist conclusions.

ii - The Charge of Ineffectualness

Another major criticism has to do with the limitations inherent to Ontocentrism. Namely;
Ontocentrism requires a perfect descriptive and predictive ability in order to be fully applied. Such an ability is out of the realm of possibility, at least for now, and so therefore Ontocentrism is useless.

It is true that Ontocentrism, under ideal conditions, involves an ability to perfectly assign intrinsic and extrinsic value. In order for its decisions to fully maximize universal flourishing, its decisions must be informed by the true nature and consequences of all things. This, however, does not mean that a less informed ethic cannot nevertheless be ontocentric. If we endeavour to assign complexity in the most neutral way, and we take heed of our best scientific and sociological predictions, ontocentric thinking can still be applied. We know without calculation that there is more to a man than there is to a pig and more to a pig than there is to a mouse. With some calculation we can know that there is more to a dolphin than there is to a shark, and we can know that there is more to a coral than there is to a rock. We know that a species in an ecosystem is not isolatable, but rather that it is a branch which holds up various other components in that ecosystem. We can safely assume that its removal will be destructive in the same way we can assume that a murderer left uncontested will destroy value in the world – a murderer will likely murder. Thus, although we cannot say for certain what chaotic effects our actions may have, we can make decisions based on an informed respect for all existing things. The goal that humanity arguably strives for is itself enriched by being framed in terms of Ontocentrism. A world where humans can have the complex lives we have wrought and where the biological world can flourish is one worth having. The answer to which type of being should exist is almost always "Both!"

iii - ***The Charge of Smuggling in Anthropos***

Next, people often criticize Ontocentrism as a failed attempt at escaping Anthropocentrism.
Ontocentrism is fundamentally anthropocentric.
For all its talk about being a purely neutral and thus non-anthropocentric theory, Ontocentrism smuggles in the privileging of humans. Not only does it place humans at the very top of the ladder of value, but it also passes off human judgements of ontological considerability as being an objective account of the complexity and value of things.

This is certainly a soft spot for Ontocentrism, and the response requires careful consideration of what exactly it is that I am proposing. Firstly, the place of humans in the pecking order is by no means an intended consequence, but rather simply an accidental consequence. Nothing about Ontocentrism is based on the special status of humans, where humanity itself is seen as one way of life – of existence - among uncountable equals. The thing that makes humanity have high moral standing is the fact of what it entails in terms of other existing things. Humans have many other ways of life and existence contained within themselves, within their gut biota, within their brain circuitry, or in the very chemistry of their being. Humans are immensely valuable in the same way that a beautiful ecosystem is immensely valuable. The fact that we often forget this in both cases does not deny their common beauty. At such levels of complexity, and thus moral standing, the risk-reward calculation favors a sort of conservationism due to what is at stake. It is for this reason that human intuitions regarding relative value and complexity are the best that we have. The goal is to be completely neutral in our attempts to pick out all facets of being and this is done by joyfully utilizing the lenses of differing interpretations. It is thus assumed that the entities at stake can be discovered by anyone who gives it dutiful attention through these lenses. Anything that is left unaccounted for ought to be due to intrinsic human limitations, not due to a biased disregard of interpretations, or worse: laziness.

Despite the difficulties associated with highly complex phenomena, there is room for work to be done in assigning complexity values to more basic things. Such an endeavor would require a rigorous study of the quantity of potential descriptions any given thing can have. These descriptions, admittedly, would be produced by humans. Consequently, the results would have to be controlled for things like level of education, culture, occupation and personality – the results would have to control for

interpretations. Given this you could produce a single averaged value which could then be compared to the value of other moral subjects that have gone through the same process. Assuming a good-faith attitude on the part of the participants, the quantity of referents that could be picked out would scale along with our intuitions involving complexity. This hypothesis is testable and may even produce basic test cases with which we may engage in more exact ethical calculation.

It is incumbent on us to put in the work of giving proper recognition to all corners of existence. While our vision and creativity may fail us, there is no one else around that can correct our mistakes. Our good-faith judgements are the best we can hope for given that, almost as a truism, whatever judgements we produce will ultimately be our own. As such, maybe Ontocentrism isn't fully non-anthropocentric, but it certainly is as far from anthropocentric as any theory can get.

iv - The Charge of Equivocation

Lastly, and perhaps most difficultly, there is an issue that is often brought up regarding terminology:

> *Ontocentrism plays fast and loose with words like "value" "existence" and "complexity". These are all loaded terms with their own history of definition, but Ontocentrism uses them interchangeably.*

"Existence", "Complexity", and "Value" are key concepts in Ontocentrism, and indeed it is a common pitfall to use these terms interchangeably. To disentangle them, I will now appeal to a more general account of measurement. Specifically, I will map the concepts of the thing being measured, the measure being used, and the measurement attained, on to the concepts of existence, complexity, and value, respectively. Furthermore, I will discuss some literature in the philosophy of complexity and measurement in order to better clarify the concept of complexity in the ontocentric context.

Ontocentrism's approach to measurement lies somewhere between the realist and the information-theoretic views of measurement. Realism about measurement takes it that there is an objective state of the world which measurement attempts to best approximate. The thing being measured is out there, but is only imperfectly accessible to us. The measure being used might be arbitrary, just as a metre ultimately is, but the ratios produced in the application of this measure are constant. Whether or not metres are real, there is a fact about how many metres high a certain tree is.

The information theoretic approach to measurement takes it that getting a measurement – an output – is a matter of applying a measure – an "information machine" – to the thing being measured – the input (Finkelstein 1977). What exactly the output is depends on what school of thought one asks. While originally the information theoretic approach appealed to analogies between measurement and communication, with Shannon and Weaver's conceptualization of information to mediate, Van Frassen has recently forgone this appeal to Shannon information in favor of an appeal to background theory (2008). In this, the space of information is occupied by possible states of an object, and to measure is simply to locate the object within a subset of that space.

Thus, to return to the matter at hand, Ontocentrism takes it that the object of analysis in ethics is ultimately existence in its many forms – the noumena. The measure that ontocentrism prescribes for quantifying existence is complexity. The measurement thus produced by quantifying existence is value, and its unit is bytes. Complexity is meant here to be a measure of the ontology of the object, however it should be noted that defining and quantifying such structural complexity is an ongoing endeavor with many contributors (Antunes & Fortnow 2003; Antunes et al. 2006; Adriaans 2008; Bennet 1988; Birkhoff 1950; Gell-Mann, Lloyd 2003; Koppel 1987; Vitányi 2006; Wolpert & Macready 2007).

As it is understood in this paper, complexity is a measure of description and would be theoretically quantifiable in bytes. The more such information, the more complex an entity is taken to be. Assuming one takes into account all levels of abstraction, the complexity measure, once applied, produces a set of information which is taken to be a best approximation of an entities value. Despite our best efforts, nuances may still be left out, but it is important to make this be due to physical limitations rather than due to a lack of care.

That the measurements we obtain in ethics are often crude or entirely estimated does not discount the fact that we are ultimately still engaged in estimating value. Whereas Anthropocentrism rested upon the assumption of great value in humans, biocentrism rested upon the assumption of great value in all living things. Ontocentrism, not content with these vague estimations, takes it that we must be more diligent in our measurement of value. To crudely approximate value is to leave one's position unable to account for the ethical phenomena that occurs in the details – in nuance. We must be honest in the fact that we are assigning different standing to different living things, and furthermore, in admitting this, we must realize that nothing short of a detailed and careful value measurement is acceptable. Whereas in the past we could waive such considerations due to the complexity of the subject matter relative to our capabilities, our position in the world and our greatly enhanced capacity for information processing makes it so we can no longer excuse ourselves of care. We must look closely at the subjects of our ethical analysis so that we do not, in a rushed measurement, leave out the value that is due to them.

Conclusion

To conclude, I have argued that Ontocentrism satisfies the conditions set out by Paul Taylor – the conditions he used to argue for his own theory. Furthermore, I have argued that Ontocentrism satisfies other conditions that Biocentrism cannot. Ontocentrism is capable of directly making sense of relative value, it is capable of incorporating higher level systems into its calculation, and it is undisturbed by the advances in technology which may or may not come. Ontocentrism satisfies more intuitions at the cost of conceding one unintuitive premise: non-living things are morally considerable. I argue that this concession is a reasonable one to make, and thus those who subscribe to Biocentrism ought to adopt Ontocentrism instead – they ought to value existence.

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