ECOCENTRISM AS THEORETICAL FRAMEWORK FOR ENVIRONMENTAL SUSTAINABILITY

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Abstract

Philosophical response to the environmental crisis has led to the emergence of two theoretical models; anthropocentrism and ecocentrism. Whereas the former seeks care for the environment from the perspective of nature's instrumental value to mankind, the latter approaches human relation to nonhuman nature on the merits of the latter's inherent value. On our choice of which of these theories to build our environmental ethic depends how far humanity advances in facing the ominous challenge of environmental sustainability. This article exposes the ecocentric framework with the objective of outlining its essential elements, thereby making it accessible to philosophers and scientists alike. Building on this exposition, the argument is made that the ecocentric framework provides the radically new dimension in moral theory without which every prospect of an effective environmental ethic of sustainability falters in want of an appropriate philosophical foundation. The article concludes as a defence of and recommendation for greater appropriation of ecocentrism in environmental sustainability research.

Key Words: ecocentrism, environment, ethics, nature, philosophy, sustainability

Introduction

In the face of urgent need to halt the depleting of natural resources, the loss of biodiversity, the menace of climate change and the grim spectre of global environmental degradation, environmental philosophy has emerged as the theoretical foundation for all sustainability studies and projects aimed, as it were, at preserving the Earth's systems from the devastating impact of the so-called Anthropocene era (Steffen et al., 2007) and checkmating our civilization's environmental footprint from exceeding critical planetary boundaries (Meadows et al., 1972; Rockstrom et al, 2009; Steffen et al, 2015; Richardson et al, 2023). In a bid to confront this unprecedented civilizational challenge, most environmental studies have however remained at the level of ethics of resource rights, conservation rhetoric and sustainability politics. Indeed, history exposes the dominance of an anthropocentric approach in science and technology, in economics and government thinking, in academia and among the world's religious traditions (Taylor et al., 2016).

The ambivalent recognition of ecocentrism by the United Nations and its constituent organizations testifies to our civilizational infatuation with anthropocentrism. For example, an ecocentric position was taken in *Our Common Future* (WCED, 1987) which called for the conservation of nature as a moral obligation, and in The Earth Charter (WSSD, 2002) which recognized that all beings are interdependent and every form of life has value regardless of its worth to human beings. But a relapse to anthropocentrism had resurfaced in The Rio Declaration (UNCED, 1992) which stated in its Principle 1 that "human beings are at the centre of concerns for sustainable development". And a continuation of anthropocentrism manifests in the failure of UNEP's *Environmental Assessment of Ogoniland* (2011) to see the destruction

of nature as wrongdoing on its own irrespective of nature's instrumental value to the Ogoni community (Tete, 2022).

Similarly, despite the UN's Education for Sustainable Development mantra, a lack of a deep and holistically scientific environmental content in the school curriculum capable of enhancing the development of ecological culture has been observed (Anzorova et al., 2021). Also, this failure has been associated with a preoccupation with curriculum contents that prepare students to be employable in the global capitalist economy, implying that environmental degradation is legitimatised and raised above reproach in the pursuit of profit (Theobald and Rochan, 2009).

The above scenario epitomises what Leopold (1949) decried as the failure of conservation science to develop a philosophical orientation, an ethical dimension. The progress to be made consist in a transition from an environmental ethics of resource use, risks to human communities, just distribution, and human rights issues related to environmental damage, etc, to what ecocentric thinkers describe as an ethic of human relation of respect and duty towards the environment, a kind of "primary" environmental ethics, as opposed to one that is merely "secondary", according to Rolston III (1988). This distinction underscores the ethical challenge of moving from anthropocentric to nonanthropocentric frameworks in environmental research.

This article seeks to clarify the ecocentric perspective by identifying various elements that constitute its theoretical framework and thus to show what it promises, in contradistinction to the classical anthropocentric framework of moral philosophy. The goal is to give greater access to the significance of ecocentrism in sustainability research and thus to set the stage for upturning "the flawed assumptions" of anthropocentrism by "putting the environment back into philosophy", which, as Hargrove (1987) noted, is the primary task of environmental philosophy.

Ecocentrism: Conceptual Exposition

Ecocentrism is the broadest term for worldviews that recognize intrinsic value in all lifeforms and ecosystems themselves, including their abiotic components (Washington et al., 2017). At the heart of ecocentrism "is an axiology that identifies biotic communities as worthy of moral consideration. It is a form of holism whose ethical good is based on the health and flourishing of the ecological entity as a whole" (Keller, 2019). As Ezedike (2020) puts it, "ecocentrism puts all beings in the ecosystem in one moral universe". In contrast, anthropocentrism is the viewpoint that humans are the only, or primary, holders of moral standing (Padwe, 2024). Despite being the dominant Western viewpoint from ancient to modern times, anthropocentrism has been subject to profound criticism in postmodern and posthuman thought (Rae, 2014). Some thinkers (Leopold, 1949; Naes, 1973; Katz, 1999; Kopnina et al., 2018) have judged anthropocentrism the central problem of environmental ethics, while others have considered it a misunderstood or even non-existent problem (Artfield, 1992; Hayward, 1997).

Callicott (1999) explains that, as a perspective in environmental philosophy, "ecocentrism sprung from Aldo Leopold's *Land Ethic,* which he advanced as an alternative to anthropocentrism in his *Sand County Almanac.* The *Land Ethic* is a clear-cut example of an ecocentric philosophy since it is centred on the whole ecological (or biotic) communities rather than their individual members. Ecocentrism, as defined by Rowe (1994), underscores a value-shift from *Homo sapiens* to planet earth. A scientific rationale backs the value-shift. All organisms are evolved from Earth and sustained by Earth, and therefore earth is the life-centre, not humanity. humanity is but a part of the whole that Earth is. Perspectives favourable to ecocentrism have also been found in a diverse range of traditions, including the Copernican

Revolution, Darwinian evolution, Freudian psychoanalysis, Foucault's geo-historical analysis, Nietzsche's revaluation of rationality, and Whitehead's metaphysics of interconnectedness of actual entities in the becoming of reality, among others. Building on Leopold's foundational work of moving from conservation science to ecological ethics, Callicott (1989, 1994, 1999, 2013) has expounded the philosophical and scientific rationality of ecocentrism, thereby igniting a robust philosophical debate and attracting a remarkable critical fire (Ouderkirk and Hill, 2002).

Essential Elements of Ecocentrism

From the foregoing the point has been made about the distinctiveness of ecocentrism. Its marked contrast to the anthropocentrism of classical philosophy and modern science has also been pointed out. We must now outline specifically the essential elements that characterise this critical perspective of environmental philosophy in order to underscore its significance as theoretical framework for critical progress in sustainability research. The following are some of such essential elements:

(i) Intrinsic Value for and Moral Consideration to Nature

In contrast to traditional moral theory which made consciousness and rationality the bottom line for moral standing, ecocentric thinkers hold that intrinsic value should be the standard for moral consideration. Leopold argues that refusal to grant moral accretion to nonhuman nature is the result of failure to advance moral conscience from people to land. Taylor argues that there is no justification for considering humanity (on account of consciousness and rationality) more deserving of moral attention than other members of the ecosystem who (on account of their manifold values) are needed by man more than man is needed by them. Sullivan (Ryder) gives the name speciesism to this baseless preference to our kind and our specifically human traits to the neglect of nonhuman nature in the assignment of moral consideration. Naess designates the environmental ethic that results from this human-centred perspective "shallow" and calls for a "deep" ecology that can afford to deemphasize human interests for the protection of nonhuman interests.

Rolston argues that axiology logically determines ethics, and therefore nature's non-instrumental value calls for ethical duties towards the natural world, for "out of value comes duty". Rejecting basing moral consideration on consciousness, Rolston says it is naïve, Newtonian, and not yet Einsteinian, for one species to take itself as absolute and to value everything else as relative to its utility (in Zimmermann, 1993). Rolston (in Armstrong and Botzler) argues that the basis for the "appropriate respect and duty" towards the environment which environmental ethics seeks is the discovery of "values in the natural world", "ecological values", which "seem to be there apart from humans being there". Delimiting the notion of "intrinsic value" to mean being "valuable for its own sake, for itself, but not valuable in itself, that is, completely of any consciousness", Callicott (1989) concedes that nature has intrinsic values that call for ethical consideration, though maintains that it takes the consciousness of the human valuer to recognise these values, though their existence precedes their coming into the ambience of conscious valuation.

All these build up into the argument that basing morality on values rather than consciousness offers a broader platform for the sustenance of life on earth and the earth system as a whole. Thus, a basic trait of ecocentrism is the concession that nonhuman nature has intrinsic value prior to and independent of their instrumental value to humankind, and that on account of this value status a moral standing also must be accorded every member of the ecosystem. For while it would sound absurd, as Donner (in Ouderkirk and Hill, 2002) has observed, to say that it matters to a rock or to the Amazon rain forest what is done to it, it does not seem absurd to ask

whether rain forests have value in themselves, values that should not be destroyed. The intrinsic value theory helps ecocentrism escape anthropocentrism's circumscription to an ethics premised on ratiocination, which naturally leads to a bifurcation of man and nature, which fails to provide a moral basis for environmental protection beyond human economic and cultural interests.

(ii) Humility and Respect for Life and Nature

Closely related to the ecocentric emphasis on nature's intrinsic value is ecocentric demand for human respect and humility towards nature. Leopold considered this demand urgent in consideration of the arrogance and self-defeatist conqueror disposition of Homo sapiens. Humility on the part of homo sapiens is generally a creedal demand of all forms of posthumanism, of which ecocetrism is a category. As Oberauer (2021) puts it, "a posthuman perspective requires humility", it "requires us to let go our ego", "it requires us to let go our sense of self-importance", to reconsider "our true place in the world", and indeed "to step off our self-made pedestal". Accordingly, we find a call for human humility before nature as a critical part of the ecocentric framework. Leopold's call for a change of mindset on the part of homo sapiens, from seeing himself as the conqueror of the land community to a plain member and citizen, is perhaps the most decisive expression of the ecocentric demand for humility in human relation to the environment. Carson (1962) similarly discountenanced how science and technology has brought "no humility before the vast forces with which they tamper" and regrets that the civilizational concept of "control of nature" is "conceived in arrogance", which led in particular to the "chemical assault" unleashed on innocent birds by farmers through the use of DDT. A doctrine of respect for all forms of life is similarly found in Schweitzer (1925) who makes this the substance of an ethic of "reverence for life". Taylor (1986) likewise calls for respect for nature, maintaining that human life is not more important than all other forms of life. He thus makes a biocentric virtue ethics a ladder to ecocentrism. Without this ecological moral virtue of humility before nature and respect for life ecocentrism would stand impossible.

(iii) Move from Classical Economics to Environmental Economics

Leopold had at the core of his Land Ethic a call for a new economics that did not treat land as commodity and this touches on the now increasingly prospective idea of environmental economics. The idea can be found even in Passmore, who, despite holding to traditional anthropocentric perspectives, concedes that modern economics must be reappraised for its capitalist framework which "has defined costs too narrowly" and "does not concern itself with the remote consequences of its actions". The idea gets more mature in Rees (1988) who in response to the UN's Our Common Future (1987), calls for a reappraisal of classical "economic myths" of economic production in light of "ecological realities" of ecological consumption. Rees argues that the materialist reductionism at the philosophical background of modern economics and its logic of cost benefit analysis must be reviewed as an essential theoretical groundwork for an effective environmental ethic. Likewise, Francis calls for the reappraisal of the fiscalism of techno-economic regime and its myopic pursuit of material well-being to the destruction of the environment. Wright and Nyberg (2015) similarly argue for the imperative of environmental economics, while attributing the environmental crisis to capitalism's inherent contradictions, its "creative self-destruction". The common denominator here is the idea connatural to the ecocentric perspective, namely, that environmental protection calls for a new, environmental economics which, unlike classical economics, factors the environment into its accounting, thus activating a kind of environmental accounting (Santra, 2012).

(iv) Simple Living: Reappraisal of Lifestyle

The crankshaft of all ecocentrism is a "reappraisal" of human relation to nature that culminates in what Naess calls "simple living". Reminiscent of Nietzsche's "revaluation of values", this

reappraisal begins with rethinking our thoughts about "things unnatural, tame and confined" as Leopold puts it, "in terms of things natural, wild, and free". It implies a readiness to admit to some unsettling review of our prevailing cultural stereotypes and collective sense of rationality and logic which has resulted in our environmental rubble. Hargrove delved into philosophy's history to point out the flawed assumptions in classical Greek philosophy (from Protagoras who said that "man is the measure of all things" to Plato who said the world of sense observation was unreal and to Aristotle who placed all things at the teleological whims and caprices of man) which paved way for the philosophical dualism and scientific mechanism of the Cartesian and Newtonian worldviews that have engendered "the wrong kind of science" which has produced today's environmental debacle. White (1967) similarly called for a reappraisal of the dogma of creation and the related unecological exaltation of man as Imago Dei with a mandate to dominate nature, to which Francis (2015) has recently responded with a call for a new hermeneutic of Genesis. Schaefer (2009) likewise recommends reconstructing patristic and medieval resources and adopting them into real life situations.

The last of Naess' eight principles of deep ecology is an action clause: "Those who subscribe to the foregoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes." For Naess, the reappraisal of the shallow ecology of anthropocentrism leads to embracing the urgency of deep ecology and its fundamental demand for simple living. Lifestyle reappraisal and attitudinal change in fact constitute the practical implementation of ecocentrism. Leopold noted that those who have had the necessary theoretical reappraisal of human relation to nonhuman nature should also have "a little healthy contempt for a plethora of material blessings", a transition to simple living. Francis considers simple living the only pathway to overcoming the fiscalism of the techno-economic regime and their destructive impact on the life of the earth and the poor.

Ecological Holism: Ecocentrism's Fundamental Principle

Holism implies, basically, that wholes are greater than merely the sum of their parts. At a higher level of things, there are properties and qualities that cannot be explained by its cumulative parts. Holism is usually contrasted with the reductionism, usually associated with the rise of Western science. It stands in opposition to the dualism of the Cartesian universe, and the atomic mechanism of Newtonian physics according to which "physical reality is divisible into ultimate constituents or units – particles" (Matthews, 2014). Holism in contemporary philosophy is therefore often motivated by disillusionment about the atomistic or reductionist worldview. Thus from the background of quantum mechanics Capra (1983) envisions a new worldview emerging from modern physics which, he says, "can be characterized by words like 'organic', 'holistic', and 'ecological'. He brands it "a systems view" according to which "the universe is no longer seen as a machine, made up of a multitude of objects, but it has to be pictured as one indivisible, dynamic whole whose parts are essentially interrelated".

Ecological holism means that a species is not merely a set of individuals, but an entity in itself, that can have certain qualities such as being "endangered" (Nelson 2010). Ecological holism is the holism of the ecological community consistent with the needs that the current environmental crisis sets for us. Worster (1994) describes ecological holism as the view "in which all nature is approached as a single indivisible unity". It is primarily about the interconnectedness and interdependence of all part of the ecosystem. Ecological holism is the most definitive trait of ecocentrism as readable in its essential elements outlined above. From Leopold to Carson and from Callicott and Rolston to Naess, ecocentrism boils down to ecological holism. Ecological holism is marked by the contention that all members of the

ecosystem is important and should be treated as such, and that ecosystemic wellbeing axiologically precedes while also including the wellbeing of constituent members.

Why Ecocentrism is Essential for Environmental Sustainability

Here we come to the critical summary question of justification for judging an ecocentric framework essential for achieving environmental sustainability. The first point to note here is the failure of the anthropocentric worldview evident in the progressive self-destruction of the current civilizational model. Such works as Limits to Growth (1972), Our Common Future (1987) and the argument by Richardson et al (2023) that we have exceeded six out of nine planetary boundaries all point to the failure of anthropocentrism as a framework human relation to the natural environment. The reason is that the treatment the environment gets from the mechanistic and despotic civilizational model characteristic of the anthropocentric framework lacks the environmental ethic vision which promises room for the wellbeing of nonhuman nature. A new framework of environmental ethic is therefore in urgent demand. And in this regard, environmental philosophy, which, considering philosophy's role as the primary source of Western civilization, has the task to make the enquiry, points to ecocentrism.

Put differently, a new ethic is needed to save the Earth and its systems from a looming ecocide since current anthropocentric civilization proves unsustainable in light of global environmental degradation, and yet, no other framework of environmental ethic so far fits into the requirements of the new ethic as does ecocentrism. Leopold's repeated insistence that the conqueror (anthropocentric) relation of homo sapiens (humankind) to the environment (biotic community) to which homo sapiens is a native, a plain member and citizen, is self-defeatist was a classical outline of the theoretical traits of the new ethic in demand and what the Land Ethic lacks can be supplied from the interventions of other thinkers. What ecocentrism promises here is to usher in a civilization of ecological posthumanism which takes environmentalism beyond humanism and, as Ferrando (2019) avers, "challenges biocentrism, sentiocentrism, vitalism, … blurring the boundaries between the animate and the inanimate, in a quantum approach to the physics of existence". Ecocentrism proposes a kind of ecological postcolonialism, an undoing in human civilization of the colonial thinking about land which has led historically to global environmental degradation (Liboiron, 2021; Grünsch, 2024). A legal dimension to this new ethics, earth jurisprudence, has been advocated and has in significant measure been adopted in the form of environmental policy and law in many societies, as a legal protection of nonhuman nature ahead of the rather reluctant reception of ecocentrism into academia, ethics and culture (Berry, 1999; Burdon, 2011; Gupta, 2024).

The converging postulation of ecocentric thinkers despite their divergence on secondary details is that current threats to environmental sustainability cannot be checkmated by merely prudential prescriptions, but call for a new Copernican revolution in ethics that brings nonhuman nature into the sphere of moral consideration, inaugurating an ethics of "love, respect and duty" towards nature; and this is ecocentrism. In the words of Wehrden et al (2016), what is "of primary importance for achieving a sustainable future" is research that aim at "harmonizing people and nature", (that is, founded on ecocentric ethics). This terra incognita of classical moral theory is the novel theoretical framework urgently needed for environmental sustainability.

Evaluation and Conclusion

Ecocentrism has been thought to be theoretically groundless (Passmore 1974, Artfield 1992), ecofascist (Regan, 1983) and even 'anti-human' (Smith, 2014). But Callicott (1989, 1994, 1999, 2001, 2013) has stood up to its conceptual defence, leveraging insights from Hume, Smith, Darwin, quantum physics, and land-use practices in various cultural traditions, and

making the decisive reply that "while the land ethic [and its ecocentrism], certainly, does not cancel human morality, neither does it leave it unaffected". Rowe's (1994) response clarifies the point, namely, that "ecocentrism is not an argument that all organisms have equivalent value nor a putdown of social justice struggles in favour of ecojustice, but that it takes ethics beyond homocentric problems to embrace the bigger challenge of ecological reality".

Hayward (1997) argues furthermore that criticism of anthropocentrism can be counterproductive in failing to distinguish between legitimate and illegitimate human interests, contending that anthropocentrism is a misunderstood problem. Watson (1983) descends on ecocentrism in his critique of anti-anthropocentrism, arguing that it is human nature to interfere with the ecosystem in the way only humans do, and insisting that anthropocentrism is inescapable to the extent that the entire burden of ecological responsibility is placed on humankind alone and not shared with other species. Callicott likewise calls for a plausible limit to nonanthropocentrism, discountenancing arguments for the rights of trees and rocks as blurring the line between plausibility and absurdity. He argues that human consciousness remains the framework for determining any kind of value in nature, intrinsic or instrumental.

A critical assessment of the intrinsic value debate would admit its deep philosophical dimensions, moving from axiology and ethics to epistemology and metaphysics. Looking through the arguments it seems sensible to think that nature's value exists (ontologically) prior to human consciousness (cognition) of their existence, and that value transcends sentiency and having life. I therefore agree with Rolston that these intrinsic values of species and ecosystems are largely discoverable in nature (objective). I agree with Callicott that they are not homocentric but I disagree with him that they are conferred by the conscious valuer (subjective). I agree instead with Soule that they are neither conferred as such, nor revocable as such. And I see with Kopnina et al (2018) that anthropocentrism and its human chauvinism is the real problem to environmental sustainability, and not just a misunderstood problem.

Though these philosophical debates assure the theoretical integrity of environmental philosophy, they should not amount to entertaining trifling speculations to the neglect of our unabating environmental crisis. Instead, the extension in ethics characteristic of ecocentrism which, as Callicott has noted, calls not only for a "patient theoretical analysis" but also a "sensitive practical interpretation", beckons for attention as a turning point for environmental sustainability. Moreover, it is helpful to recognise that environmental ethics is not a highway marked with pavements and street lights but rather a novel, interdisciplinary and transdisciplinary venture, characterized philosophically by eclecticism, which would not exclude some measure of anthropocentrism in its demand for non-anthropocentrism, so that a soft ecocentrism which we might call anthropocentric non-anthropocentrism evolves as the solution to an otherwise endless debate between the new and the old ethics.

The ambivalence in both academia and governmental organizations in embracing ecocentrism thus stands out as an outdated theoretical bias that must now surrender to philosophy's obstinate demand for critical thinking. Embracing ecocentrism would have enriched UNEP's Environmental Assessment of Ogoniland (2011), and the assessment would not have reduced the largescale devastation of land, sea and air to a mere destruction of resources, nor fail in its recommendations to provide policy frameworks for critical change of environmental behaviour that might be uneasy for the society but promising for environmental sustainability. Despite developments in environmental technology and remediation engineering, embracing ecocentrism remains paramount otherwise the science of remediation becomes a vicious cycle and environmental degradation remains unabated. Embracing ecocentrism calls for humility in reappraising the science and technology and economics on which the current world order is structured and urgently demands adoption of "compensation for growth" or eco-compensation

strategies for enforcing a new vision of humanity as environmental citizens (Hadjichambis & Reis, 2020; Levinson et al, 2020). Progress already being made in China through the enforcement of payment for ecosystems services (PES) which uses user fees, taxes and subsidies to integrate and reconcile economic development and environmental protection indicate that embracing ecocentrism is possible (Cheng et al, 2022). Above all, embracing ecocentrism challenges governments and corporations to humbly reappraise current notions of progress and development and have them redefined beyond the GDP (Redefining Progress, 2008; Gaukroger et al, 2022).

In conclusion, ecocentrism is tough and it is partly a token of its toughness that its reception by humanity has largely been evasive and at best ambivalent. Ecocentrism demands a reconciliation with nature based on the ecological reality that humanity is part of nature and the philosophical urgency to accept nature into our framework of moral consideration. Challenging as ecocentrism is, it promises a better deal for both humanity and nonhuman nature than the manipulative, "pollute, deny", "clean-up and pollute again" vicious cycle of anthropocentrism, which has been the experience of Ogoniland and other oil-host communities in Nigeria's delta region. This survey of ecocentrism underscores the point that effectiveness in the sustainability project demands an alternative theoretical framework to anthropocentrism, and that, despite its challenges, ecocentrism promises to fill that gap.

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