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Furthering an Intercentric Environmental Ethic: Moving Beyond Anthropocentrism and Biocentrism to Focus on the Ecological and Spiritual Reality of Interconnection

ABSTRACT

Anthropogenic climate change is humanity's first truly global problem: it has many causes, will require many solutions, transcends all political boundaries, and makes demands of both individuals and communities. Current environmental ethics, designed with individuals and nations in mind rather than the whole of humanity are inadequate for addressing this problem. Anthropocentric ethical models helped create the climate crisis, while biocentric ethical models often fail to make adequate room for humanity to address its own needs. A more holistic environmental ethical approach is needed, one that centers the interconnected reality of each piece of the earth, including humanity's place in ecology. This interconnected reality is both an ecological fact, reflected in the way that earth's systems and species impact one another in ways big and small, and a spiritual truth, recognized by many Buddhist, indigenous, and Christian teachers, among others. This paper draws on the work of environmental ethicists and spiritual leaders such as Willis Jenkins, Holmes Rolston III, Buddhadasa Bhikku, Pope Francis, and others to advocate for an intercentric environmental ethic that builds on elements of existing biocentric and anthropocentric ethics while learning from the lived experience of billions of religious humans. This ethic sees value not only in each species, individual creature, and ecosystem, but also in the relationships between those entities and systems.

Keywords: *religion and ecology, climate change, Christian ethics, environmental ethics, interconnection, interdependence*

I. Introduction

Climate change is not just an environmental problem, but an everything problem, caused by and impacting every sector of society. It is unprecedented in its boundary-defying causes, solutions, and risks. Current Western ethical, theological, political, cultural, academic, and economic systems do not respond well to challenges that have no precedent, and were not designed to respond to such an all-encompassing threat as anthropogenic climate change. Contemporary human structures, including ethics, must be reconfigured and even replaced with new worldviews that value the earth's interconnectedness and acknowledge the resulting complexity of climate change.

Because all species, individuals, and ecosystems share a common source, coevolved together, and are locked in interdependent relationships with one another, it is the case that all species, individuals, and ecosystems hold value. Climate change requires an ethic not of anthropocentrism or even of biocentrism, but of interconnection, foregrounding the relationships between the earth's systems and the value of all that resides within them. This paper therefore proposes the development of an intercentric environmental and religious ethic.

Most current ethical approaches are certainly necessary for building a comprehensive approach to the climate threat, but none can accomplish the task on their own. It is short-sighted to locate value only in humanity via an anthropocentric ethical model, but also futile to locate value primarily in non-human nature via a biocentric ethical model. Both approaches neglect the ecological and spiritual webs of connection that exist, and limit our ability to understand the full threat that climate change poses to all things of value. A more holistic approach is needed.

The second section of this paper will examine the limitations of current ethical systems in addressing the climate crisis. Sections three and four will discuss the scientific and religious arguments for interconnection as the nature of reality, and discuss the importance of an intercentric ethic centered on that

interconnection. Section five will acknowledge questions and challenges that require further examination.

II. The Limits of Existing Ethical Systems

Within both the political field of environmental advocacy and the academic field of environmental ethics, there appears to be near-universal agreement that climate change is unprecedented, that current ethical systems were not designed with such a pervasive challenge in mind, and that a new approach is needed. In the documentary history of the environmental movement, *A Fierce Green Fire*, Jennifer Morgan of the World Resources Institute called climate change "the problem from hell," explaining: "There are so many sources of the problem. You can't just laser in and solve one specific piece and it's done. You have to go at the cars and the oil and the power plants AND the way that we farm and which food we eat. It's everywhere."[1] Ethicist Willis Jenkins has similarly explained why this kind of pervasive problem is too much for current ethics to handle:

> Ethics seems overwhelmed by climate change. None of our inherited moral traditions anticipate practical responsibilities for managing the sky, nor construct institutions of justice to discipline power across cultures and generations, nor imagine harming and loving neighbors through diffuse ecological flows.[2]

The complexity of climate change is as present in its effects and impacts on society and the earth as it is in its causes. As atmospheric scientist Katharine Hayhoe told attendees of the Trinity Institute theological conference "Water Justice" on March 24, 2017, climate change does not need to be one of society's most pressing priorities. Instead, all we have to do is look at those things that are already on our priority list and learn how climate change will impact them.

This section will examine several existing environmental ethical systems to show why they are insufficient for addressing climate change. In their attempt to be monolithic or universal, many ethical systems often build and then enforce artificial boundaries around the way they interpret the world.

These artificial boundaries can be useful for guiding human thinking, but that usefulness only exists as long as the thinker remembers that the boundaries are indeed artificial. Unfortunately, ethics' enforcement of these boundaries often comes across as rigid and strident, ultimately limiting their ability to highlight the interdependent nature of ecological reality or respond to boundary-crossing problems such as climate change. To be clear, this is not meant as a critique of the ethics themselves. None deserve to be wholly dismissed, and many will be used as building blocks in the formation of the larger intercentric ethic. The point is only that in and of themselves, they are too limited to address the modern ecological crisis.

The Limits of Anthropocentric Environmental Ethics

Anthropocentric ethics center humanity, arguing that the environment's worth is in its utilitarian value for homo sapiens. According to Clare Palmer: "Anthropocentric approaches do not necessarily suggest reckless exploitation of the environment; they may instead maintain that natural resources should be very carefully managed *for human benefit* [emphasis added]."[3]

One important and positive manifestation of anthropocentric environmental ethics is environmental justice, defined by the U.S. Environmental Protection Agency as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."[4] All too often, the same marginalized human communities bear the repeated brunt of environmental degradation, creating a compounded, exponentially harmful effect that denies their value both as individuals and as members of the human species. No environmental ethic can be complete with including an anthropocentric component of environmental justice.

Yet while an anthropocentric element of environmental justice is necessary to environmental ethics, it is not sufficient. Yes, the environment has value to humans—but it also has value in and of itself, as ecology demonstrates and as numerous biocentric ethicists have argued. To focus only on the environ-

ment's value to humans can imply that if humans ever invent the technology to harm the earth without harming themselves, or to move the entire species to another planet, then destruction of the earth would then become acceptable—and, given the arrogant nature of many common Western anthropocentric ideologies (such as market capitalism), quite likely. As ethicist Larry Rasmussen notes, no matter how much "sustainability" or "greening" is added to a neoliberal system of expanding markets and fossil fuel extraction, such a system itself is still ultimately destructive to both humans and the earth.[5]

What Rasmussen argues is needed instead is a fundamental revolution that restructures society around community and "ecological design," i.e., learning from and copying the earth systems that have worked since well before humans came on the scene.[6]

The Limits of Biocentric Environmental Ethics

While anthropocentrism is an incomplete environmental ethic, so too is biocentrism. Biocentrism locates value in the whole of nature rather than in humanity as a species, emphasizing nature's intrinsic or inherent value rather than its utilitarian value. Sierra Club founder John Muir wrote extensively about this intrinsic value, but it was Aldo Leopold who developed the first famous ethic around it, writing, "The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land. . . . In short, a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it."[7] The biocentric approach has particular appeal within the political environmental movement, as evidenced by the widespread successful use of wolves and polar bears in fundraising and public relations.

There is deep insight to the biocentric approach, but it too has its limits. According to Palmer, biocentrism is an approach in which "the community, rather than the individual, is the focus of moral significance."[8] Where anthropocentrism is wrong to focus solely on nature's utility, biocentrism is wrong to ignore or even simply downplay that value. It cannot be denied that humans

need to use the environment, necessitating a certain amount of (temporary, limited) destruction similar to that which other animals also inflict on their habitats. Not a single species on earth can survive without food and shelter obtained from nature; in this regard, human beings are no different than beavers building their dams or lions hunting their prey. An environmental ethic that does not actively acknowledge the necessity of use separates itself from reality as it is lived, and will never be put into practical use by humans seeking to meet their basic needs. What is truly needed to address climate change and the ecological crisis is an approach that finds both intrinsic and utilitarian value in nature, and thus recognizes the moral significance of the biotic community, the human individual, the relationships between and within them, and the ecosystems that make these relationships possible.

Another approach to biocentrism emphasizes value not in nature per se, but in the planet itself. This approach back began with James Lovelock's "Gaia hypothesis," that the earth "behaves like a single living organism."[9] Holmes Rolston III developed a similar view, arguing that valuing humans requires valuing animals, which in turn requires valuing all organisms, which in turn requires valuing species, then ecosystems, then the earth, and finally nature. Rolston's thesis was that value exists in each of these levels, whether or not there is anyone to do the valuing.[10] His biocentric arguments are spiritually moving and compelling, but such an ethic is of little practical use in addressing the current pressing climate crisis. Humans are responsible for creating climate change and will ultimately be responsible for responding to the crisis. Any ethic that seeks to effectively highlight the value of earth and nature will need to build on Rolston's point that value is found in every level of earth systems, while also taking into account how humans interpret value. Otherwise, the ethic will fall on deaf ears and be of no consequence to climate change.

The Limits of Pluralism

It could be argued that the existing ethics are not mutually exclusive—that the utilitarian value of the environment in anthropocentrism and the inher-

ent value of the environment in biocentrism can coexist if only we find a way to limit neoliberalism. While this is certainly in true in theory, it is not necessarily true in terms of lived reality.

At an introductory level, ethics, like most academic fields, is taught in terms of its component building blocks. Ideas are presented in their most distinct forms so that the student can learn them as individual concepts. Yet while it is possible to synthesize these initially divergent ideas or to hold them together in a form of ethical pluralism, such an approach is not emphasized in the introductory lessons to the field itself.[11] That synthesis only becomes the focus in advanced courses that most students will never take. Therefore, the environmental movement and political process are filled with students who took one or two ethics courses as part of a broader degree program. These activists and political staffers are inclined to focus on animal welfare or environmental justice, rather than balancing the concepts, because that is how they were taught. The result is that few public policies, church sermons, or cultural innovations are offered that are suitable for addressing the complexity and size of climate change. Critiques of ethical monism thus have an important point—and yet, there may be no other way to teach ethics to students who are new to the field and will not study it deeply.[12] This is not a failing of ethics or even of a specific class; it is the nature of introductory academia.

The solution is not the development of ethical pluralism, since most students will never learn more than one or two of many ethics allowed under such a system, but of a pluralistic ethic. Anthropocentrism and biocentrism need to be blended, not just balanced, so that they can be taught as a single ethic to those future practitioners and decision-makers who will only learn the fundamental building blocks. That single ethic is the ethic of intercentrism.

III. Earth's Interconnected Reality

Western society, and in particular Western academia, is filled with artificial boundaries and walls. These boundaries are often strictly enforced as if they were a reflection of reality, rather than something that society has super-

imposed on reality for navigation purposes. As a result, they ultimately serve to divorce humans from the interconnected nature of reality, defeating their intended purpose of helping us navigate the world and limiting our ability to respond to the climate crisis.

One example of this is the resistance that interdisciplinary academics face in their fields. Speaking as a guest lecturer in a recent Yale University course, one of the founders of the interdisciplinary field of ecological economics told students that he has received enormous pressure and personal stress from his economic colleagues for blurring disciplinary lines. I have heard previous sentiments from several other professors who also work in multiple fields.

When the academy sidelines interdisciplinary scholars like these, it does so not just at its own peril, but at that of the climate. To insist on using only one approach at a time to any given issue, especially climate change, ignores the larger complexity of that issue. This is a common problem in both the academy and the NGO world. As numerous anthropologists have observed, people are likely to look for solutions to problems that fit their organizational mission or personal worldview.[13] For example, scientists see problems as being hard science problems, politicians assume there are political solutions, and sociologists look only for social causes.[14]

Academic scholars, policymakers, activists, and cultural leaders must become trained to use all of these lenses at once, or they will miss the larger whole of the ecological crisis and come up short in their proposed solutions. The reality is that all things within the earth—its systems and every species and individual that resides within them—are interconnected and must be studied and valued as such. As John Muir famously said, "When we try to pick out anything by itself, we find it hitched to everything else in the universe."[15] What Muir identified in 1911 has been confirmed by countless scientists and religious leaders, both before and since.

Environmental Science

The earth and its many species and systems are defined by the myriad ways that they are locked together, influencing and depending upon one

another. This fact has been recognized since the pioneering ecological work of Alexander von Humboldt, Ernst Haeckel, and Charles Darwin,[16] and further confirmed by Rachel Carson's research into pesticides[17] and studies of coevolution by Paul Ehrlich and Peter Raven.[18] As Rolston explained in his ethical defense of the inherent value of ecosystems:

> Everything will be connected to many other things, sometimes by obligate associations, more often by partial and pliable dependencies; and, among other components, there will be no significant interactions. There will be shunts and criss-crossing pathways, cybernetic subsystems and feedback loops.… We cannot make sense of biomolecular life without understanding ecosystemic life, the one level as vital as the other.[19]

Coevolution is a particularly fascinating phenomenon of the dependencies that Rolston identified. This is the phenomenon that occurs when two species depend on one another so much for so long that they literally begin to evolve in response to one another. Examples include the shapes of hummingbird beaks and the flowers they consume, the emotional bond between humans and dogs, and the details of countless predator-prey relationships.[20]

Rolston's observations about the interconnection of ecosystems are also true of broader earth systems including the hydrosphere, atmosphere, geosphere, and biosphere. Though we separate these spheres from one another for ease of understanding, they are in fact permanently locked in relationship with one another. The rocks and soil of the geosphere are shaped by atmosphere's air and the hydrosphere's water in the process called weathering. The hydrosphere carries sediments and chemicals around the world, which are consumed by the biosphere. When the biosphere's plant life breathes, it creates the oxygen of the atmosphere. All four spheres combine when weathered rocks, air, water, and decomposed carbon matter combine to form soil, which in turn support different biological life. We may refer to the water cycle, rock cycle, soil cycle, nitrogen cycle, and carbon cycle as separate systems, but they are as interlocked together as the five Olympic rings.

Perhaps the finest example of planetary interdependence is climate change itself. The current anthropogenic warming trends are caused by the greenhouse gas emissions from society's transportation, agricultural, and industrial sectors. The behaviors that cause these emissions are temporarily locked in place because of cultures, politics, and national boundaries. They are influenced by art, traditions, tribalism, and spirituality; and they are reinforced by human relationships and the patterns of our individual daily lives. Not one piece of these human systems can be changed without impacting the others: If these industries and social systems were not connected before in human history, they are certainly connected now via the climate crisis that they have co-created.

The reason that we humans are so interconnected with our atmosphere and its climate is that, as an earth system, it is the climate's nature to be interconnected with the rest of the planet. When taking even an introductory physical science course, a typical student might find themselves struck by the presence of temperature in many different equations, from the Arrhenius equation that explains the reaction rates for many chemical processes (including how soils form) to the ideal gas law that governs the volume and pressure of gas, including the earth's atmosphere. Because the ideal gas law means temperature plays a role in air pressure, it thus also plays a role in the creation of precipitation patters like monsoons and hurricanes, and everything in human society that such weather events impact, from agriculture to the insurance industry to whether or not a child's outdoor birthday party will be cancelled. Temperature also plays a role in the rate of evapotranspiration, the stability of glaciers and ice sheets, determining what plants or animals can thrive in which locations, and even the pH of water. Therefore, whenever any individual emits fossil fuels that increase the planet's greenhouse effect and thus its temperature, that person has an impact—no matter how small—on countless other species and countless earth systems. The temperature-increasing actions of billions of individuals, cultures, nations, and corporations add up into a giant aggregate, resulting in the negative feedback loops of anthropogenic climate change that

demonstrate further global interconnection. When our cars and farms emit more carbon dioxide and methane, record levels of Arctic permafrost thaw. As the permafrost thaws, partially decomposed carbon in the soil also thaws, releasing more carbon and increasing temperatures even further.[21] In turn, bigger wildfires tear through forests, releasing the carbon stored in the trees. Temperatures continue to increase, meaning the Antarctic ice sheets dissolve and the earth's sea levels rise, wiping out thousands of lives and billions of dollars. With each release of carbon and further increase of temperature, more and more earth systems are affected, and it becomes harder and harder to restore the previous status quo.

All of this brings to mind Lovelock's Gaia hypothesis that the earth functions appears to function like an organism. Carbon, water, soil, nitrogen, and rock cycles no more exist independently from one another than do a human body's respiratory, circulatory, reproductive, and digestive systems. If one shuts down, there is a cascading effect and the larger whole ceases to exist—as do all the valuable living things within it. Another similarity between the earth and other organisms is that of consumption. When humans eat healthily and get enough exercise, their heart is healthier, their skin clearer, they are less likely to get cancer, they have more energy, and their reproductive systems are more fertile. One diet affects countless bodily function, but a diet of junk food can kill. Similarly, an unhealthy diet of fossil fuel can distort the atmosphere and poison the biosphere—yet when allowed to function naturally, the planet can at least partially heal itself over time.

Religion and Spirituality

While ecology has observed the planet's interconnected reality over the past two-and-a-half centuries, other ways of knowing observed that same reality thousands of years earlier. When it comes to the reality of interdependence, science is playing catch-up to the world's religions, including Buddhism, Native American Indian lifeways, and Christianity. This is especially relevant for climate change, given that, by some estimates, as much as 97.7%

of the world's population practice some form of religion—nearly the whole of humanity.[22] With numbers like that, if any solutions to climate change are to be found, then religious communities will not only be impacted by said solutions; they may also help provide and popularize them.

Since the life of Gautama Buddha, the "normative core"[23] of Buddhist ethics and philosophy has been that "the ethical person conceive[s] of their dependence on others."[24] This sense of interdependence is described via the jeweled net of Indra, a deity shared by Buddhism, Hinduism, and Jainism. Every node of the net is a jewel, which has a shiny surface that reflects all the other jewels around it, including their own reflection. Each image is a thousand different reflections, showing the depth of reality and its connections.

Interdependence surfaces repeatedly throughout Buddhism's 2,500-year history, beginning with the Buddha's teaching taught that all "the various elements that constitute reality" share a "dependent co-origination."[25] The Lotus Sutra, written 500 years later, proclaimed that Dharma rain falls everywhere and that Buddha-nature pervades all reality. More recently, in the twentieth century, the Thai monk Buddhadasa Bhikku beautifully wrote:

> The entire cosmos is a cooperative. The sun, the moon and the stars live together as a cooperative. The same is true for humans and animals, trees, and the earth. When we realize that the world is a mutual, interdependent, cooperative enterprise . . . then we can build a noble environment. If our lives are not based on this truth, then we shall perish.[26]

Most Native American Indian tribes also view the world with a similar sense of interconnection. According to scholar John Grim, indigenous communities do not build the same divisions as Western societies but rather integrate spiritual insights with "economics, arts, religion, medicine, education, [and] sciences."[27] To that end, many indigenous tribes expand their sense of relatives to include a relationship with all animals and plants, and even all the earth, including rocks and rivers. This is evident in the Lakota Sioux concept of *Mitákuye Oyás'iŋ*, roughly translated as "all my relations." The White Earth

Ojibwe activist Winona LaDuke chose the phrase "All Our Relations" as the title for her nonfiction book about Native American Indian resistance to environmental degradation.[28]

The Standing Rock Sioux scholar-activist Vine Deloria, Jr., has observed that part of the way Western society was able to so thoroughly devastate Native tribes was by imposing compartmentalization where only a sense of interconnection had previously existed. Tribal religion, according to Deloria, "integrated the functions of tribal society so that life was experienced as a unity. Christianity has proved to be a disintegrating force by . . . allowing the important movements of living [to] go their separate ways until life has become separated into a number of unrelated categories."[29]

While Deloria provides an accurate depiction of nineteenth century North American Christianity, the broader Christian religion has often fostered a sense of interconnection throughout its 2,000-year history, including in the present day. Academically, the academic field of religion and ecology remains heavily shaped and influenced by its Christian pioneer, the twentieth-century Roman Catholic priest and scholar Thomas Berry, who frequently pointed to the spiritual relationship between all things by saying: "The universe, and in particular planet earth, is a communion of subjects, not a collection of objects."[30] Religiously, the most notable global Christian leader to speak on the theme of interconnection is Pope Francis, who devoted an entire encyclical—one of the most prominent mediums for Roman Catholic doctrine—to the theme of climate change. The pope wrote,

> These ancient stories [from Genesis], full of symbolism, bear witness to a conviction which we today share, that everything is interconnected, and that genuine care for our own lives and our relationships with nature is inseparable from fraternity, justice and faithfulness to others . . .
>
> It cannot be emphasized enough how everything is interconnected. Time and space are not independent of one another, and not even atoms or subatomic particles can be considered in isola-

> tion. Just as the different aspects of the planet – physical, chemical and biological – are interrelated, so too living species are part of a network which we will never fully explore and understand… Everything is interconnected, and this invites us to develop a spirituality of that global solidarity which flows from the mystery of the Trinity.[31]

Pope Francis may be the most prominent recent Christian leader to connect Christian Scripture and doctrine with the interconnected reality of the earth, but he was not the first. He himself made this clear by quoting the Catechism of the Catholic Church: "God wills the interdependence of creatures. The sun and the moon, the cedar and the little flower, the eagle and the sparrow… Creatures exist only in dependence on each other, to complete each other, in the service of each other."[32] A contemporary of Pope Francis, former Episcopal Church Presiding Bishop Katharine Jefferts Schori (herself an oceanographer), has similarly taught that in both scientific and religious explanations for the world, "everything that is partakes of the same stuff—all that is, is related, connected, in ways ultimately beyond our full comprehension. The dusty interconnections remind us that the human being's true character ought to be one of humility, created of and connected to the earth—and the stars."[33]

Berry, Pope Francis, and Jefferts Schori are contemporary figures, but their theological arguments for interconnection are founded upon centuries of Christian tradition. In his thirteenth century hymn "Canticle of the Sun," Saint Francis of Assisi, the pope's namesake, gave numerous examples of how the different elements of the earth are interconnected through God: It is "by" the wind and air that "You [God] cherish all that You have made," and it is "Mother Earth who sustains and governs us, producing varied fruits with colored flowers and herbs."[34] Finally, multiple Christian denominations have for centuries held Ash Wednesday worship services that remind worshippers of the earthly sentiment from Genesis 3:19, "you are dust, and to dust you shall return."[35]

The sense of interdependence in various spiritual and religious traditions shows us that interconnection is not just a scientific observation; it is the lived reality of most human experience, arising from distinct traditions in every millennium and every corner of the globe. When something is that widely observed by that many people who have no influence on one another, it suggests that there may be a fundamental underlying truth at play. In this case, that truth is the reality of planetary interconnection.

Existing Environmental Ethics

Many of the ethical systems critiqued above do in fact acknowledge the existence of interconnection. Interdependence within the human community is an abiding part of environmental justice and, as noted above, broader interconnection is a central tenant of Rolston's search for value in nature.[36] Rasmussen makes a similar observation:

> All that exists, co-exists . . . We are all part of a larger organism, our cultures, and our cultures are all part of an even larger organism, the biosphere. Thus 'what we do for the earth, we do for ourselves.' This requires a holistic pragmatism that marries economics, physics, biology, and ethics.[37]

Yet while interdependence is acknowledged by many ethics, it is not their primary focus. This leads to the emphasis of value in some locations more than others as well as the inevitable formulation of walls and faulty pedagogies discussed above. The solution is not to include interdependency as one feature among many within environmental ethics, but to make it the primary focus of a climate ethic.

IV. The Intercentric Ethic

I have shown that interconnection is the fundamental nature of reality according to science and many world religions alike, as well as a central aspect of the causes of and solutions to climate change. I have also argued that current

ethical systems neglect interdependence as a primary focus, either because they were established before modern ecological understandings were discovered or because they still locate their primary value elsewhere. The work that remains is to bridge this divide and establish an environmental ethic focused on interdependence and interconnection, simultaneously locating and affirming value at every level of planetary function and life: the individual, the species, the ecosystem, and nature itself, both intrinsically and usefully. The nature of reality and of lived experience is, and thus the nature of ethics needs to be, that everything is bound up with everything else and no single strand can be pulled out as the primary strand.

The intercentric ethic, while centering the interdependence of all things (including but not limited to humans), also acknowledges the value in nature and in earth systems, the need for humans to use nature, the impact of every human activity upon other humans and upon the environment and the climate, the role that every single sector of society must play in addressing the ecological crisis, and perhaps most importantly, the limits of human knowledge and thus the importance of acting carefully to avoid unseen harms. Nothing short of this blended combination will be capable of responding to the interconnected causes and required solutions to climate change.

A key difference between the intercentric ethic and ethics stressing a different center, such as anthropocentrism or biocentrism, is that it neither denies nor ignore the inherent value of anything. Even if a creature were to somehow lack intrinsic value, it is impossible to sever that creature's connection to and impact on everything else in nature; therefore, the value of everything else is copied to and reflected in that creature. Every non-human element of nature has a useful value to humans, even if that value is only in its minor role of helping its coevolved ecosystem to flourish, thus supporting other elements of the ecosystem that humans more directly use. Similarly, humans have a useful value to nature. Not only can we be food to lions or sharks, but many other species—from dogs to microbes—coevolved with humans and thus owe their genetic makeup to human existence.[38, 39] Less obviously, it is now up to us to

clean up our past pollution and to protect biodiversity from our own worst impulses, including fossil fuel extraction and limitless growth.

Inherently, it is a pre-supposed first principle that humans have value; it would be futile to seek climate action based on an ethic that suggested otherwise, since few individuals and virtually no society is likely to stop acting in their own self-interest at least some of the time the same way that all other species do. Any response to climate change must take this into account. The intercentric ethic thus accepts weak anthropocentric ethics' inclusion of human needs, while rejecting anthropocentric ideologies that could allow humans to once again destroy the earth if new scientific or technological advances severed its usefulness to us. The intercentric ethic also foregrounds biocentric ethics' intrinsic value of nature by drawing upon the lived realities of Asian religions and indigenous lifeways that focus on interconnection, Rolston's analysis of the value in every ascending level of nature,[40] and the experiences of transcendental personal moments in nature described by ethicists far and wide, including Muir, Leopold, and Berry.[41]

By accepting the values found in both biocentrism and weak anthropocentrism, the intercentric ethic stitches together the positive statements of earlier ethical systems, blending them together and valuing the relationship between each value. This places them under one umbrella rather than a plurality of umbrellas, while leaving behind their more exclusionary expressions. To focus on (or to deny) any single strand of this interconnected web is to ignore the impact that it has on other strands, or that other stands have on it. This is why a focus on any centrism at all, other than intercentrism, is a futile denial of reality. No strand can exist on its own; therefore, every strand must be affirmed, setting aside biocentrism's neglect of human emotions, desires, and existential questions, as well as weak anthropocentrism's denial of the intrinsic value of the biotic community.[42]

Practicality and broad appeal are not traditional focuses of ethics as a field, but what would the purpose be of a climate ethic that failed to make an actual difference for climate action? As Willis Jenkins has argued, the best way

to form a viable ethic is to observe the moral responses of communities on the ground, because this is where true differences are made and practicality rules the day.[43] Therefore, one practical strength of the intercentric ethic is that it will likely have a broad appeal. Both anthropocentric and biocentric ethics are limited in their ability to reach wide audiences. Biocentrism can capture the imagination of millions in a way that anthropocentrism cannot, as evidenced by the environmental movement's success using images of polar bears and wolves to raise funds. On the other, biocentrism has a hard ceiling, as it excludes those humans whose own needs have not yet been met. Wildlife defenders and other ethicists often criticize anthropocentrism for its limits and its reliance on capitalism, whereas environmental justice advocates may criticize biocentrism for its privilege. Neither system ultimately catches on with the broader public, and the climate movement fails to play a central role in American politics. The intercentric ethic may be able to help solve this communication gap by speaking to both the values of biocentrism and to the lived reality of anthropocentric justice and economics. By showing the public that each individual's needs and spiritual health are bound up in the needs and inherent value of the larger biotic community, perhaps the urgency and personal relevance of the climate crisis can finally take a central place in Western discourse.

Another important consideration for any ethicist, especially in light of environmental justice and environmental racism, is the question: Who is this ethic for? When it comes to climate change, the intercentric ethic, as one that speaks to the interconnection of all people and all things, may ultimately need to exempt certain oppressed individuals or those who are struggling to survive, but it is for every nation and every sector of society that is in a position to look beyond themselves and see their connections to one another. This approach draws on the writing of Thomas Berry, who said that every human age has faced a "great work," a monumental transition requiring the energy of every sector of society.[44] For today's generation, that great work is climate change:

> All human institutions, professions, programs, and activities must now be judged primarily by the extent to which they inhibit, ignore,

> or foster a mutually enhancing human-earth relationship. The historical mission of our time is to reinvent the human at the species level with critical reflection, within the community of life systems in a timed developmental context.[45]

Climate change is not just an environmental problem, but an everything problem, impacting everyone and everything. Greenhouse gas emissions are caused by every sector of society and every nation on earth, undergirded by the guiding Western ideologies of market Gospel, limitless growth, and profit at all cost. In turn, everything valuable to human society is threatened: jobs, water, economic stability, agriculture, peace and security, public health, and life itself. If such an interconnected threat created by every sector of society is to be addressed, then every sector of society must be engaged in the solutions. This is Berry's great work, and this is the call of the intercentric ethic: The climate problem is interconnected, and thus so are its solutions. By acknowledging that everyone's values are at stake, the ethic calls everyone to the table to take part in the solution. Politicians, academics, pastors, artists, voters, engineers, parents, journalists, entertainers, women, men, children, whites, blacks, Americans, Asians—no one can be left out.

V. Potential Criticisms and Limitations of the Intercentric Ethic

While the intercentric ethic seeks to embrace and synthesize the positive elements of most other environmental ethics, no system or worldview is perfect. I have already noted that this ethic will have to be developed in such a way that it does not place undue expectations on marginalized communities. This section will examine several other potential criticisms of the intercentric ethic that merit further study and work.

The first challenge facing the intercentric ethic is its implementation: How should the ethic address situations when climate change brings competing centers of values into conflict with one another? For example, when resources are finite, should humans spend money to protect biodiversity from climate

change, or to build new infrastructure that may protect coastal communities from rising sea levels? Is it better to clean up pollution in a massive wilderness area where no people live but countless species thrive, or to focus the same resources on a smaller but more complicated urban area, helping more humans but less geographic space? Is it okay for humans to eat other animals now that agriculture has introduced other dietary options? Practical guidelines to these questions will need to be developed, but one immediate impact of the intercentric criteria is to change the criteria necessary to answer these questions. This paper is too limited in its scope and length to work out specific climate solutions and actions, but it does replace the dualisms of humans vs. animals and species vs. individuals with the new normative standards of interconnection and relationship.

A second, larger criticism of the intercentric ethic may be that it is a monistic ethic, singular in structure and universal in scope, and thus does not sufficiently honor the diversity of modern cultures and global contexts. Christiana Z. Peppard, a Christian ethicist who focuses on fresh water, has criticized such monistic ethics, writing: "In an era of profound diversity and plurality, it is insufficient to expound grand theories about humanity or human nature."[46] Instead of universal theories, Peppard proposes that ethicists "cultivate a resolute attention to the lives and needs of people who exist on the underside of history—an attention that begins with listening."[47] Similarly for Willis Jenkins, ethics in the face of climate change is not about developing a new moral framework, but about listening to the lived realities of frontline communities and learning from the ways that they draw upon their traditions to resist climate change. He writes: "Virtue reframes the challenge of climate change from solving a management problem to asking who humans are becoming within the roles and relations involved in global anthropogenic change—and who we should become."[48]

The intercentric ethic, while embracing the need for environmental justice and the results of the processes and traditions that Jenkins observes, is admittedly more traditional, crafting a moral framework centered around

interconnection first rather than building a process from which new ethics and actions may emerge. However, that framework is partially based on the lived realities Jenkins looks to, as seen above in the discussions of Native lifeways and Buddhist and Christian teachings. Moreover, in emphasizing the connections between all cultures, this ethic does not desire to erase those cultures, but instead seeks to help them bring their distinct, intact identity and voice to a common, global climate movement where they can show other communities how they too are connected.

While there is no universal culture, there is a universal truth that all cultures are connected. During a talk at Yale Divinity School in October 2017, the Rev. Jim Antal responded to the question posed to Jesus, "Who is my neighbor?" According to Antal, climate change means that everyone in the world is now one another's neighbor. What one person or culture does to worsen or mitigate the crisis will impact every other person or culture. Within this web of climate connection, marginalized communities have a special incentive to develop their own responses to the ecological crisis, given that these communities all too often bear a disproportionate share of catastrophic climate consequences.

With that in mind, the intercentric ethic does not dictate to any culture what specific response it must take to climate change, but it does reflect to the world the way in which all climate actions are woven together like Indra's net or locked together like the Olympic rings. For specific actions, intercentrically-minded ethicists should partner with other ethicists, especially those working in eco-justice and eco-womanism, to highlight the connections between their many valid works. With the interdependence of all climate responses in mind, such an approach could potentially guide privileged individuals to buy expensive green technology for their homes and encourage wealthy nations to fund the Paris Agreement's Green Climate Fund for developing nations, while also creating space for poorer communities to focus on their own survival first. This could mean the ethic supports the poor as they continue to eat large amounts of carbon-intensive subsidized meat or drive old, gas-guzzling vehicles because the current global structure gives them no other path to survival,

while also supporting their political and cultural leaders as they seek assistance from wealthier nations to change that system. The intercentric ethic may be monistic in its principles, but it opens the door to thousands of connected climate actions.

VI. Conclusion

Anthropogenic climate change has no center. Its causes are spread across ideologies, agriculture, transportation, industry, and more, just as its solutions will be found not just in politics and technology but also in art, culture, education, and religion. Therefore, any ethical system that seeks to respond to climate change must be focused on the interconnection of this complex, boundary-defying interdependence. If climate change has no center, then neither can the future of environmental ethics. If value is diffuse throughout all levels of life and reality, spread from one entity to the next through their interdependence and interconnection, then ethics must not neglect one form of value in its praise or protection of another. The time has come not just to balance anthropocentrism and biocentrism, but to merge them into an intercentric ethic, founded on science and world religions alike.

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