DELIBERATING ON ENVIRONMENTAL EDUCATION AND ITS PRACTICES DURING THE COVID-19 PANDEMIC

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The article deliberates on the epistemological debate that exists in the field of environmental education in the context of the present pandemic situation. Humans have always considered themselves to be the most evolved species so far so that the relationship they shared with their environment was also being defined by them as a phenomenon that existed because humans existed. Although, the contrary view existed but the anthropocentric worldview dominated even after being challenged by the other worldviews. The advent of the pandemic situation affected the human life more than any other life on earth. Moreover, the basic needs required for human survival during the pandemic conflicted with the practices that have been prescribed through the anthropocentric view in environmental education. This raises crucial questions on the worldview that had been predominating the field. Hence, the article revisits and deliberates on the existing perspectives of environmental education and its practices taking the context of COVID-19. pandemic. The two major positions/worldviews underlying the core of environmental education — anthropocentric and the eco-centric have been discussed taking relevant cases and arguments. The article corroborates the need for operationalising the eco-centric view in environmental education.

Keywords: Environmental education, anthropocentric, eco-centric.

The Context

The COVID-19 pandemic will be earmarked as a period in human history that has brought about a paradigm shift in the way humans controlled the world and associated practices. Humans almost lost control over their own lives, and the freedom to explore and engage with the world around them was restricted. It is thus perceived more as a period of survival than that of living. Humans have always considered themselves to be the most evolved species in terms of the development of the brain and managing other species in their environment. In fact, relationship the humans shared with their environment was also being defined by humans themselves as a phenomenon that existed because humans existed. Although the pandemic made us realise that it was noumena (an idea in philosophy that reality existed irrespective of the observer and is beyond human experience), the relationship was not comprehensible only the way humans perceived, but there was more to it. The humans could not see that they were also a part of the 'noumena' that we refer to as 'the environment' in a phenomenal sense. This is the epistemological debate that existed in environmental education that I feel surfaced with the pandemic situation. Thus, this article revisits and deliberates on the existing perspectives of environmental education and its practices in the context of the COVID-19 pandemic.

Environmental Education and the Worldviews

Environmental education is a multidisciplinary as well as a transdisciplinary field that draws in from other disciplines. It has the prime objective of creating awareness and sensitivity amongst people towards their environment. The definition of environmental education as given in the Belgrade Charter is aligned to these goals that see environmental education as a process for the development of a world population that is aware and concerned about the environment and the issue in it. The definition also specifically states that environmental education should also develop along with knowledge, motivation, commitment and skills to apply that knowledge for addressing the problems and preventing new ones. It emphasises both individual and collective action (UNESCO-UNEP, 1976). Tilbury (1997) also defines environmental education as essentially an education involving the head (knowledge), heart (responsibility), and hand (skills). Thus, another interesting facet about environmental education is that it is a practice/action-based field with an exceedingly small core that is constituted largely of discourses, perspectives, and worldviews established through various policies or international initiatives in the form of conventions/ conferences. The core of a discipline generally has central concepts and formal theories around certain subject matter that is claimed to be universal, but environmental education being interdisciplinary, has a larger peripheral space. The peripheral space is occupied by the practices/ actions emerging from the worldviews that influence the field and the insights gained from various disciplines. This is also a more dynamic and contested space as it comprises all the debates and discourses emerging from one or more disciplines. Such as, whether at the school level, environmental education should be seen from an interdisciplinary approach which implies it to be a separate subject in the curriculum, or from a multidisciplinary approach which implies that it should be infused in all other subject areas of the school curriculum. Both approaches come from different stances based on theories of child development or learning and have their specific implications.

The two major positions/worldviews underlying environmental education are the anthropocentric position/worldview and the eco-centric position/worldview. John Arthur Passmore gave anthropocentrism as a concept in his book *Man's responsibility for nature: Ecological Problems and Western Traditions* (1974) that places humans as the only and most important entity in the entire universe. This perspective asserts that nature has its value only to the extent it is valuable to human beings, and its existence is for serving humans. Thus, the view visualises humans as the managers and controllers of nature. Hence, this worldview looks at the environment and its processes totally from the human perspective. Whereas the concept of ecocentrism focuses on the interaction between humans and nature. Its roots are found in the classical text — A Sand County Almanac: And Sketches Here and There (1949) by Aldo Leopold, where he emphasized that the entire universe is significant as a whole and that humans were only a part of it. It affirms that there exists a harmony amongst various components of nature of which humans too are a part and hence implies that human action within optimal limits

contributes to the environment rather than disrupting its processes.

If we look at the various international initiatives, we find that both worldviews existed. These international initiatives, whether in the form of declarations, charters or summits, had reflections of either of the worldviews. Some focused entirely on the human needs and survival taking an anthropocentric worldview {The Stockholm Declaration, 1972; The World Conservation Strategy (International Union for Conservation of Nature and Natural Resources, 1980); The Rio Declaration (Earth Summit, 1992); United Nations' Sustainable Development Goals, 2015} whereas others did acknowledge the intrinsic value of nature taking an eco-centric position {The World Charter for Nature, 1982; Our Common Future (The World Commission on Environment and Development, 1987); The Earth Charter 2000 (World Summit on Sustainable Development, 2000)}. Although the coexistence of both worldviews thus got echoed in various government policies and actions too, the idea of sustainable development that emerged eventually was specifically critiqued for being anthropocentric. Though sustainable development asserts for environment protection along with economic and social development, it is for the future generation of humans and hence is considered to be deeply anthropocentric (Ganowicz, 2016). The basic premise in sustainable development is to utilize the natural resources for human consumption and development in such a way that it remains available in the long run too. Hence, the idea of conservation is for the benefit of the human rather than for nature to sustain itself. It aligns with the anthropocentric view in reiterating that nature is for serving human interests primarily and that humans are the real managers of nature. In the same context, Fisher (1997) argues that sustainable development is a concept used to justify what humans do for their growth with certain goals, strategies and perspectives. Another aspect on which sustainable development is critiqued is that although it includes both nature and development, more emphasis is given on development for humans than on conservation of nature (Sachs, 1997).

The above discussion shows the dominance of the anthropocentric worldview that even sustained after being challenged by other worldviews. In response to the above scenario, Washington et al. (2017) proposes that the academicians should take the lead in establishing the eco-centric view. A similar vision was entrusted in the past on environmental education by International Union for Conservation of Nature (IUCN), 1980 in its section 13, which is as follows; "A new ethic, embracing plants and animals as well as people, is required for human societies to live in harmony with the natural world on which they depend for survival and well-being. The long-term task of environmental education is to foster or reinforce attitudes and behavior compatible with this new ethic."

The case of *Valley of Flowers* would help us to understand the two positions better. As we all know, *Valley of Flowers* is situated in Uttarakhand that was notified as a National Park in 1982. Since it got the National Park status, as a conservation attempt, livestock grazing was banned in it. This led to a controversy as the scientists at the Forest Research Institute (FRI) contended that due to the ban on grazing, the weed *Polygonum polystichum* increased, adversely

affecting the plant diversity. Botanists and environmentalists believed that processes like 'grazing' were essential natural processes for self-regulation; i.e., they helped the environment regulate itself. Hence, in this case, the animals that visited the valley were grazing, specifically, the weed *Polygonum polystichum,* controlled the growth of this weed and, in turn, helped the biodiversity of the valley flourish. They indicated 'overgrazing' affected the conservation of important species in the region and not grazing.

Thus, this case indicates that the environment has self-regulatory mechanisms. This is aligned to the eco-centric view of environmental education that perceives the environment from an ecological perspective as a holistic system (Leopold, 1949). Ecocentrism realizes the intrinsic value in all lifeforms and ecosystems themselves, including their abiotic component and various processes; as in this case, it was 'grazing' that was regulating the diversity found in the valley. Hence, it is considered the widest of all the worldviews, including biocentrism that focuses on inherent value to all living things and zoocentrism that sees value in animals. On the other hand, anthropocentrism values other lifeforms and ecosystems as they are valuable for human well-being, preferences, and interests. Also, it sees individual humans and the human species as more valuable than all other organisms. Ecocentrism goes beyond by including environmental systems as wholes and their abiotic aspects. It also goes beyond on account of explicitly including flora and the ecological contexts for organisms. Thus, it affirms that humans are part of the ecological system, as other organisms are interrelated through various processes that regulate the system. This approach sees the environment as an independent dynamic system made of various components that are mutually dependent on each other. Thus, environmentalists with this approach claim that 'no action is the best action.' They argue that the human intervention beyond a point disrupts the self-regulatory mechanism in the environment, leading to various issues that remain unresolved. The human intervention is based on the other anthropocentric approach that sees humans as placed in the center of the environment as the most important species capable of sustaining the environment. The later approach defeats the idea that the environment is self-sustainable and could only be realized when one sees it holistically rather than reducing it into its components. As has also been stated by Kopnina and Coci (2017, p.3), *the studies of environmental values indicate that people with eco-centric orientation are more likely to act upon their values in order to protect the environment* (Kortenkamp & Moore, 2001; Stern, 2017; Stern, 1994). Also, anthropocentrism is considered as one of the main drivers of the current ecological crisis (Washington et al., 2017). In fact, environmentalists consider the eco-centric as a worldview that is essential for achieving sustainability. As Washington et al. (2017) assert; "...a fully sustainable future is doubtful without an eco-centric value shift that recognizes the intrinsic value of nature and a corresponding Earth jurisprudence."

Thus, the two main worldviews, anthropocentric and eco-centric, differ in terms of values that they attach with nature which are instrumental and intrinsic, respectively. As we have already discussed, 'instrumental' is a term that signifies the way nature was useful to humans. Hence,

the anthropocentric view relies on the instrumental value of nature, that is, all actions are taken as they are useful for humans (Casas and Burgess, 2012; Donnelly and Bishop, 2007). The term 'intrinsic' has certain complexities that have made environmentalists see other worldviews, too, between the two major ones. Intrinsic primarily refers to seeing the value in nature and the obvious question is who is seeing this value. Callicott (1992) argues that humans see value in nature and that the value of nature depends on humans. He refers to this as another worldview called anthropogenic view, which means that human beings generate the values. The caveat to this view is that it does not mean that the value attached should only benefit humans. Anthropogenic is different from anthropocentric, such as appreciating the patterns in nature or the rhythms or aesthetic value of nature may not be beneficial for humans yet, humans value it. Thus, environmentalists acknowledge anthropogenic as a significant worldview that, unlike anthropocentric view, transcends selfish human interest and thus is referred to as non-anthropocentric by Hargrove (2003). Cocks and Simpson (1995) refer to the view of extreme eco-philosophers who challenge the idea that values are ascribed by humans only and that nature has value independent of humans. This is precisely the noumena-phenomena dichotomy that has been referred to earlier in this article. Rolston (2008) also claims that intrinsic value means the value that was inherent in the living. But, on the other hand, environmentalists Norton (1984) and Callicott (1992) argue that the values that humans did not attribute were meaningless. Hence, they reclaim the idea of an 'anthropogenic view' to make nature and its value comprehensible for humans. Thus, the value of nature, whether instrumental or intrinsic, is perceived by humans. It is the humans who are thinking beings, and the value of nature assigned by them has major implications for the environment. Similarly, environmentalists from an anthropocentric view also see it in two ways: strong anthropocentrism and weak anthropocentrism. They defend that the instrumental perspective of nature (VanDeVeer & Pierce, 2003) was strong anthropocentric, whereas there existed weak anthropocentric that was more related to values assigned to nature. They believe that weak anthropocentric as a worldview was closer to the eco-centric view and was aligned to the benefit of both nature and humans (Norton, 1995). Although they find the intrinsic value of nature as a common element between the two, we need to understand that the eco-centric view was also based on the premise of a self-regulatory aspect of nature of which humans are a part.

In this context, an environmentalist James Lovelock (1972), has hypothesised the idea of 'Gaia'. The Gaia hypothesis proposes that all organisms and their inorganic surroundings on earth are closely integrated to form a single and self-regulating complex system, maintaining life conditions on the planet. So, he perceives earth as a Supra organism. The fundamental basis of the Gaia hypothesis is that the earth functions as a single organism. Just as an organism controls its internal systems for its benefit, so too does the earth sustain itself in a condition of homeostasis. This means that the earth regulates the atmosphere, the lithosphere (the earth), and the hydrosphere (the oceans, rivers, and water vapor) in a way that optimizes conditions for itself. This hypothesis thus

establishes that the earth and its environment are self-regulatory, and humans are part of it. Although the Gaia hypothesis is challenged and critiqued on several grounds, yet the idea has an implied understanding that humans too are one of the components of the environment. Hence, the processes as well as the changes in the environment were beyond the control of humans. In fact, it claims that the changes in the environment were responses to the changes taking place in it, including those that were due to human action. Rowe (1994) provides a similar argument when he mentions that "all organisms are evolved from earth, sustained by earth. Thus earth, not an organism, is the metaphor for life. earth, not humanity, is the Life-center, the creativity-center. earth is the whole of which we are subservient parts. Such a fundamental philosophy gives ecological awareness and sensitivity an enfolding, material focus" (https://is.gd/rkSgP5). He sees ecocentrism as a 'universal belief system' and based on a 'scientific rationale.'

Rowe (1994) acknowledges it as a value shift i.e., ecocentrism being a change in the focus from humans to the earth by imagining earth as a symbol of life. Ecocentrism considers earth or the ecosphere as a being rather than focusing on any one species such as humans. Thus, according to him, ecocentrism gives more value to earth than humans that are merely a part of it.

Another interesting example to support the idea of self-regulation has been depicted in M. Night Shyamalan's Science fiction movie *The Happening* (2008 film). The movie shows that overpopulation in cities led trees to give out certain gases. These gases released by the trees affected humans' neurological systems in such a way that they start getting suicidal tendencies. Thus, the overpopulation of humans is being controlled through the release of gases by trees. Although it is fiction emerging from the writer's imaginative thinking, the idea is based on the possibility of earth regulating itself and its components.

If we look at the practical implications of both worldviews, we see that environmentalists have submitted that both may lead to similar experiences/ actions. Such as 'planting a tree may be an action taken by people with both worldviews. But, the person with an anthropocentric view may be looking at the instrumental value of the tree in terms of its products or benefits for humans whereas a person with an eco-centric view may focus on the ecological role of the tree. Hence, the intent of the action may be different and influenced by the respective worldview. Similarly, the subsequent actions may be different such as, the person with an anthropocentric view may use the tree excessively without giving it time to replenish itself. Whereas the person with an eco-centric view may be more concerned about the tree and the micro-ecosystem that it would have created around itself. Considering that the worldviews may not always have a direct influence on the actions, but Cocks and Simpson (2015, pp. 222–223) assert that the distinction is important for people engaging with environmental education as:

- The motive or intent and the motivation may be different in both cases.
- It has been seen that overlooking this distinction may lead to by default a predominance of one view, that is, the anthropocentric view.
- Not focusing on the distinctions between the worldviews may lead

to foreclosing of the debates and deliberations in the field.

- The discussion or deliberation on the two contrasting worldviews expands the conceptual understanding of academia and helps them look for alternative experiential possibilities.
- The discussion on the plurality of worldviews is considered relevant knowledge for everyone as it helps people reflect on their stance.

Environmental education has always been witnessing this debate of whether to prescribe action or no action was the best action. It reflects the implications of anthropocentric and eco-centric views, respectively. The anthropocentric view focuses on environmental education as action and practice-oriented discipline where the premise is that specific actions may lead to conservation of the environment. Thus, the focus is on conserving nature for humans. Hence, Cocks and Simpson (2015) go to the extent of referring to anthropocentrism as a philosophical elaboration of the term conservation. Callicott (1986), an environmental philosopher, highlights the significance of environmental ethics and that for environmental ethics to be consistent, they should have moral consideration. According to him, ecocentrism is the most consistent ethical theory as it provides moral consideration to the whole ecosystem. Its practical implication is that it limits human behavior that might, beyond a point, have an adverse effect on the environment and helps them live in harmony with its environment. (P. 392). This reiterates the discussion above that overgrazing in which humans may involve their domesticated animals may affect the biodiversity and not simply grazing. The next section deliberates on some of the indigenous practices that have contributed towards the conservation and sustenance of the environment in its natural form to a large extent.

Living in consonance with nature: A synoptic view of the indigenous ideas

In earlier times, people were completely dependent on the local ecosystem for their living. This helped them to develop unique insights into their environment. They were informally able to accumulate a multitude of knowledge about the environment and its concerns in various forms. The indigenous tribes worldwide have folk knowledge that has proved to be valuable for humankind to form a balanced relationship between them and their natural environment which continued to provide consistent support for their survival in every condition. Indigenous peoples' knowledge, conservation related beliefs and values, environmentally adaptive and sensitive land use, resource management practices, and determined defense of territory and natural resources have enabled many of them to inhabit the natural habitats for centuries without destroying their ecosystems and biodiversity (Sterens, 1997).

Similarly, in India, many ancient communities had developed a deep relation, respect, and reverence for the natural environment and planet earth. The lifestyle and belief of conserving the environment date back to ancient Vedic times wherein all the four Vedas and Puranas have in some way expressed the power of all-natural entities. For example, today we know with scientific proof that the sun is the ultimate energy source that regulates the flow of energy in the biosphere.

But this was probably well realized by the indigenous tribes and societies because they worshipped Sun as God, which was incredibly significant in Vedic worship. Similarly, flora and fauna have also been regarded as sacred. The tribal pockets in Dindori, Balaghat of Madhya Pradesh, Bilaspur of Chhattisgarh State, and many other tribes conserve plants in their natural habitat (Rai and Nath, 2003). Plants and trees like Sandalwood, Tulsi (*Basil*), Bael (*Aegle marmelos*), Banyan (*Ficus benghalensis)*, etc., holds special importance in various religious practices (Kaur, 2015). Plants like *Acorus calamus*, stem bark of *Bunchania lanzan*, etc., were conversed by the tribal herbal healer in the forest because it is used as an antidote of snakebite and hence considered holy (Rai and Nath, 2003). They believe that all flora-fauna and other natural entities have awareness and can experience joy and pain (Sahni, 2008). Many animals and birds like cows, bulls, peacocks, eagles, etc., are considered holy. They have symbolic significance in India as vehicles of God. Likewise, all rivers like Ganga, Brahmaputra, Godavari, etc., are worshiped in many cultures, and scientifically, we know that the river water has many minerals and properties which are good for health. Natural entities like mountains (*Vidhyanchal parvat*, Himalaya parvat in North, *Velliangiri parvat* at the Western Ghats, etc.) that inhabit huge biodiversity in their respective areas have been valued for their immense number of natural resources. Indigenous culture and practices were supported majorly by bio-centric and eco-centric values under which they give value to all living beings. They treated every creature on this planet, including the microbes, as of great and equal importance. This faith attached the feeling of sacredness to all forms of life. This shows that they believed in keeping the harmony between humans and the environment, which motivated them and generations to maintain the ecological balance.

Thus, through various rituals, customs, and practices, a rich tradition of love and a sense of belonging had been evolved among all sections of ethnic tribes. According to Chapple (1998), it was understood by indigenous people that the well-being of the environment is dependent on the protection and preservation of the environment. Hence as discussed above, in ancient times, the gurus and the traditional societies had formed a culture of living in synchronization with the natural surroundings. They promoted such guidelines and directives for all people of the societies, which became the way of living for them. This was broadly reflected in the knowledge, lifestyle, and attitude of ancient societies' population towards the plants and animals, rivers, land, rain, air, sun, moon, etc. The knowledge, beliefs, customs, and religious practices around the concept of food value, medicinal use, sacred species, sacred landscapes and other elements of the environment has been communicated through education by formal, non-formal, informal agencies like gurukuls, school, colleges, universities, family, mass media, etc. in all eras. Presently, when the entire world is going through COVID-19 pandemic, environmental imbalance, and degradation, it is all significant for us to understand and practice the indigenous ideas!

Deliberations during COVID-19 Pandemic

The COVID-19 pandemic time can be seen as a phase that has affected human life more than any other life on earth. Humans have been

confined to their homes and have witnessed flora and fauna restoring their spaces in an environment that humans had inhabited. There is no denying that most people appreciated this as a phenomenon, captured it, and disseminated it through social media. But the question arises that whether this appreciation for nature would persist after the pandemic gets over or humans would again reconquer those spaces, being oblivious to the fact that the spaces were shared by other beings of nature too. Cocks and Simpson (2015) mention that the experiences of feelings such as awe, respect, and love towards nature may require an eco-centric perspective. However, at the same time, they admit that the feelings may not have a direct correlation with the environmental perspective, considering that every experience has an element of subjectivity in it (Dewey 1938). There are past experiences of every individual that may influence his/her present experiences that makes his/her experience unique and different from others. Also, as discussed earlier, the reactions may be the same in people with both perspectives, but the intent and motivation behind the same feeling or action may differ. Hence, it is difficult to analyse the feelings people have been expressing and sharing about nature during this phase. Similarly, if we look at the practices, we find that the basic needs required for survival during the pandemic conflicted with the practices that have been prescribed through the anthropocentric view in environmental education. Such as, during the pandemic, people are advised to wash their hands after each hour and that too for at least 20 seconds. This implies that water use has increased substantially, and the efforts to monitor this increase are not a priority, as is human survival. Similarly, to make social (physical) distancing possible, personal transport was encouraged rather than the use of public transport, which contradicted what was prescribed for controlling air pollution. In the same way, to combat this deadly disease, the production of masks and sanitizers was all of a sudden increased without evaluating this practice against any norms that the environmentalists may prescribe. Also, the masks' disposal and the kinds of material they were made of in terms of biodegradability were also not much questioned or pondered upon. Thus, we see that the actions are taken or practices being followed based on the anthropocentric view were provisional and not holistic enough to persist the changes/challenges in the environment. It gives us an opportunity to rethink our actions and align them to the eco-centric view's larger perspective. Washington et al. (2017) gave several examples of how anthropocentric view permeated various approaches and strategies both in governance and academia. They give preference to the term ''ecosystem services' and analyse it as an anthropocentric term that projects nature as a service provider for humans, whether for habitat, nutrients, or energy. They also critically examine the use of economists' term 'sustainability and see it as an anthropocentric term, as discussed earlier, focusing on the minimum biophysical requirements for human survival. The article quotes several environmentalists — Miller (2014); Doak et al. (2015); Batavia and Nelson (2016) who have challenged the 'new conservation' approach for being anthropocentric, also reiterated that this view places humans at a different pedestal.

While deliberating on the fate of the pandemic, medical researchers are also hypothesizing based on the cyclical processes of nature.

They anticipate that the infection rate may go down when around 70 per cent of the human population in a particular region would get infected. This is based on the idea of 'herd immunity' that is, when a large population of members in a community get infected and develop natural immunity against a particular pathogen, the pathogen may not have a big pool of hosts. This decreases the rate of the transmission of the pathogen automatically. Hence, medical practitioners also depend on the natural processes that are prevalent within a community. As expressed by Washington (2013), ecocentrism as a worldview is a reminder that the ecosphere and all life forms are interdependent. He has highlighted the importance of nature's ecosystem processes and that both humans and non-humans were dependent on these processes. These processes are self-regulatory and maintain the balance in nature without any deliberate intervention by humans.

Conclusion

In the contemporary world, we witness that people in rural and tribal areas are living in harmony with their environment and are engaged in the natural processes. Their actions and practices are embedded within the natural processes of their environment. An understanding of these practices can contribute in a large way to operationalising the eco-centric view of environmental education. The underlying idea, however, remains eco-centric worldview is based on ecological thinking. The implications of this discussion include the epistemological assumptions that we attach to environmental education concerning the two major worldviews. Also, it stimulates us to re-envision environmental education and its practices as whether to be an amalgamation of proposed prescriptions that are scientifically derived or implemented. The other alternative is to leave it as an open-ended domain where the teachers, environmentalists, and other stakeholders can have their worldview of environmental education and can evolve their practices that are spatially and temporally contextualised. Within the eco-centric worldview, we may also expect to establish a correlation between the emergence of COVID-19 and environmental changes. If this were possible, we would realize a new world and a discourse on environmental education where humans see themselves as part of the environment!

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