Review

The quest for a relevant environmental pedagogy in the African context: Insights from *unhu/ubuntu* philosophy

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The quest for environmental sustainability and sustainable use of natural resources has become mandatory if humanity is to successfully manage the environmental fall-out consequent upon industrialisation and modernisation. Educational responses to the environmental crisis involve introducing environmental education or education for sustainable development and of late Climate Change Education for Sustainable Development in formal and non-formal educational contexts. Teaching and learning in these educational offerings is informed by international discourses encapsulated by Chapter 36 of Agenda 21 of 1992 Earth Summit and the United Nations Decade of Education for Sustainable Development, among others. These initiatives advocate incorporating indigenous ways of learning about environmental issues. The challenge, in post-colonial states like Zimbabwe, is that curricula still have 'alien' epistemological and pedagogical practices vitiating effective teaching and learning of environmental issues. There is need to ground environmental pedagogy in philosophies on indigenous cosmology and eco-wisdom so as to 'green' curricula. This article advocates a religio-cultural approach, embedded in the philosophy of *unhu/ubuntu*, for sustainable use of the environment. A phenomenological perspective is used in this study to explore indigenous beliefs and practices that could be used to reduce the wanton abuse of the natural environment.

Key words: *Unhu/ubuntu*, environmental pedagogy, eco-wisdom, animate, inanimate, cosmology.

INTRODUCTION

Gross environmental degradation due to reckless and uncoordinated extraction and use of natural resources is one of the greatest challenges facing Zimbabwe today. Leading the list of environmental challenges is: land degradation resulting from deforestation, uncontrolled extraction of faunal and floristic species, soil erosion, alluvial mineral extraction/panning activities, siltation of water courses and pollution. Surprisingly, this wanton destruction of the natural environment has been going on despite decades of mass education and campaigns, as well as, attempts to green the primary, secondary and tertiary education curricula. The sorry state of the

Zimbabwe's natural environment has been aggravated by the chaotic 'fast trek' land reform programme initiated by the government of the day from 2000 (Masaka, 2009). Fast trek land reform culminated in fast trek land degradation as conservation and sustainability issues were hardly prioritised in this process. It is against this background that this article contends that efforts to curb environmental degradation have failed because the conservation models being used are premised on imposed foreign traditions. The Christian and Western scientific oriented traditions dominant in the curricula are alien and therefore, far removed from the indigenous people's existential realities.

The convergence of these foreign traditions on the African soil has resulted in the formation of a society which is inward-looking and self-centred. A culture of individual success and socially imputed 'needs' has

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sidelined age old traditions of communal solidarity and virtues of simplicity, conviviality and being one with nature (Rahnema and Bowtree, 1997). In such a society, argues Sarnoff, cited in Tower (1992), aggrandising values of the West now overshadow the indigenous humanitarian values. These Western informed traditions of socio-economic progress have displaced local environmental stewardship characterised by humane and sustainable society-nature interactions, beneficial to the poor who rely most on the environment. Thus, the indigenous people's current attitude of irreverence towards nature ought to be understood in the context of the influx of foreign traditions.

In this regard, we posit that the grounding of Zimbabwean curricula in *unhu/ubuntu* philosophy is imperative as it can evoke some kind of environmental awareness which is written 'in people's hearts.' This is because the religio-cultural beliefs, practices and customs, in which the concept of *unhu/ubuntu* is rooted, are not written in books or other readable materials, but engraved in the people's hearts as part of their socialisation (Feris and Moitui, 2011). The moral order espoused in the *unhu/ubuntu* philosophy regulates people's conduct and enables them to recognise and revere the special relationship they have with the physical environment and other non-human species.

Foreign conceptualised environmental practices, laws and other technical and technological mechanisms, dominant in our curricula, have been found wanting in directing people towards a long-term sustainable use of the natural resources. To this end, we contend that the current Zimbabwean environmental crisis is fundamentally a religio-cultural problem that requires a religio-cultural remedy which is rooted in *unhu/ubuntu* philosophy. This article is, therefore, a quest for a contextualised environmental pedagogy which is rooted in the African philosophy of *unhu/ubuntu*. In other words, we uphold that environmental education**/**education for sustainable development (EE/ESD) shall remain incomplete until it includes cultural values and religious imperatives which melt in the philosophy of *unhu/ubuntu*. The United Nations Decade for Sustainable Development (UNDESD) (2005-2014) posits that such inclusion is in line with current global curricular interventions in EE/ESD emphasising culturally specific views of nature, society and the world which ensure that education does not ignore or inadvertently side-line non-Western views.

CONTEXTUALISING *UNHU/UBUNTU* AND ENVIRONMENTAL WELL-BEING IN THE AFRICAN (SHONA/NDEBELE) COSMOLOGY

The philosophy of *unhu/ubuntu*, like many other philosophies, is not immune to controversies and criticism. Because of lack of precise definition and/or its vagueness, some authorities often ask questions such

as, how philosophical is the philosophy of *unhu/ubuntu*? However, due to constraints related to space, we are unable to explore such debates. Given that there is no universally agreed definition of *unhu/ubuntu* philosophy, this study adapts a working definition that allows the smooth flow of this discussion.

In its narrow sense *unhu/ubuntu* reflects an indigenous philosophical perspective of African people that connotes and symbolises a collective responsibility among human beings to distribute the life force for common benefit (King and Miller, 2006). Similarly, Bennett and Patrick (2011) opine that *unhu/ubuntu* implies collective personhood, in which an individual becomes a person through other people. Translated to the vernacular it means *munhu munhu nevanhu/umuntu ngumuntu ngabantu*. In simple terms, *unhu/ubuntu* is a sense of collective solidarity that is internalised and manifests in activities and attitudes such as love, caring, tolerance, respect, empathy, accountability, responsibility, fairness, justice, compassion, unity, compromise, etc. By stressing the centrality of the other person in one's existence, *unhu/ubuntu* philosophy can be said to be allergic to any form of discrimination. We argue that this definition is narrow because it does not seem to take animate and inanimate objects into consideration. Even the 1999 Presidential Commission of Inquiry into Education and Training (CIET), commonly referred to as the Nziramasanga Commission, and Samkange's 1980 three maxims generally thought to shape the philosophy of *unhuism/ubuntuism*, saliently summarised in Nyanga et al. (2011) adopted this narrow view.

In its broad sense, *unhu/ubuntu* is a celebration of being in its tripartite manifestation, that is, the human, natural and spiritual forms (King and Miller, 2006). *Unhu/Ubuntu* philosophy is thus a life force that helps to uphold and maintain the equilibrium of natural, spiritual and human forces in the cosmos. As such, it is a way of living that contributes positively to the welfare of all members that make up the universe. Due to its theocentric and/or spiritual world view, the philosophy perceives the cosmos as inhabited by mutually dependent, visible and invisible, tangible and intangible, as well as, animate and inanimate members. In promoting this interdependence, the philosophy, as observed by Bennett and Patrick (2011), is non-legal in nature and in that emphasis is on communal responsibility rather than individual rights. *Unhuism/Ubuntuism* is therefore a cosmological formulation that leads to adaptive attitudes towards the cosmos.

This study is based on the broader view of *unhu/ubuntu*. In its tripartite form, the philosophy gives a complete and unique system of thought that explains the universe, how resources in this universe interrelate and how human beings fit into the complete picture. The philosophy is applicable to issues of sustainability as it mirrors centuries-old approach to life which cannot be

expunged from the people's culture. Our discussion is also informed by Masolo's observation, cited in Shumba (2011) that *unhu/ubuntu* reflects on life experiences and histories of communities in sub-Saharan Africa. Masolo in Shumba (2011: 84) stresses that as an African philosophy, *unhu/ubuntu* is about "resistance to the Western philosophical discourses that deny Africa its contribution to world knowledge and civilisation." As such, it is of immeasurable significance to ESD.

Unhu/Ubuntu philosophy, in this broader perspective, confers human beings with a code of conduct with other non-human species within the cosmos. Thus, for an individual to be labelled virtuous, he or she must demonstrate utter respect for taboos, omens, symbolic (sacred) objects, beliefs and practices that govern his or her relationship with other human beings and nature. African religio-cultural beliefs and practices (*unhu/ubuntu* subsumed) have, through myths and several other mechanisms, managed to represent the voice of nature to humanity. Various rituals have celebrated and consecrated humanity's ties to the non-human world, reminding them of their delicate and inescapable partnership with animate and inanimate objects. *Unhuism/ubuntuism* continuously reminds human beings about their place in the cosmos, their obligations to other people and other life forms. Through *unhuism/ubuntuism*, nature is made sense of in a way that directly connects it to the fundamental values of human existence.

Since *unhuism/ubuntuism* cannot be separated from the people's world view, Africans see their experiences with nature as having a spiritual dimension. Their religion is a religion of nature and their supreme being, therefore, an eco-centric deity. Moral teachings regarding the treatment of nature occupy the epicentre of *unhuism/ubuntuism*. From the perspective of the Shona/Ndebele world view, "the abuse and exploitation of nature for immediate gains are unjust, immoral and unethical" (Dwivedi, 1996: 151). If this is the real cosmological view of African (Shona/Ndebele) people, why then is their natural environment in a sorry state? This question can be answered by exploring the current eco-pedagogical practices in Zimbabwe.

Current eco-pedagogical practices vis-à-vis the state of the environment

Current eco-pedagogical practices in formal, informal and non-formal education ought to be understood from a specific religio-cultural and historical perspective. In doing this, we need to be cognisant of White's observation, cited by Dwivedi (1996: 152), that "what people do to their environment depends upon how they see themselves in relation to nature." Similarly, Bowie (2006: 107) says, "Our actions are determined by what we think, by our values and belief systems." In this regard, the sorry state of our natural environment can be explained in

terms of the marginalisation of African world view (cosmology) and therefore the philosophy of *unhu/ubuntu* in everyday life and in the curriculum. This marginalisation is a by-product of colonialism, scientific and technological developments, Christianity and ethnocentrism and/or cultural prejudice. The expansion of European influence, especially from the 19th century, saw the gradual transformation of the world, in this case, African communities, toward a materialistic culture backed by scientific and technological innovations of the West. Unfortunately these developments have resulted in cultural bankruptcy and the diminishing of *unhu/ubuntu* as the religio-cultural traditions that buttress this philosophy were demonised and sidelined.

Europeans were convinced that in order to humanise Africans, deAfricanisation was necessary. As such, everything African, particularly religion, language, dress, mannerism, attitudes to nature, etc, was condemned as immoral, uncivilised, demonic, devilish and barbaric (Bourdillon, 1977). The further the culture was from the European norms and customs, the more the condemnation. Missionary activities, especially education and evangelism, were used as the primary vehicles in transmitting Euro-centric traditions which are diametrically opposed to the indigenous value system enshrined in *unhuism/ubuntuism*. This culminated in an environmental pedagogy that is Euro-centric and in support of scientific industrial capitalism which is compatible with Europe's dominant religion, Christianity. An example from the history of land use and related resource utilisation in Zimbabwe serves to show the hegemonic and yet environmentally destructive nature of Western science and epistemology that colonialism bequeathed us and which sadly, thirty two years after attaining independence, our environmental curricula are yet to fully exorcise.

In 1926, Lord Alvord, an American missionary, was made the Chief Agriculturalist for the instruction of Natives in the then Southern Rhodesia. As an evangelist development worker, he considered the practices of indigenous farmers as primitive, wasteful and destructive agriculture (Page and Page, 1991). In his drive to modernise native farming practices and introduce 'proper agriculture', he insisted on mono-cropping in place of mixed cropping, deep ploughing, and removal of all trees from crop fields and wood land. Working from a West-centric view and in particular his mid-United States of America background, he thought grassland was more important than woodland in protection against erosion. In advocating the complete clearance of trees, he hoped to turn the countryside to 'parkland'. He advocated the planting of one crop in neat rows instead of the erstwhile practices of broadcasting and leaving standing trees in the fields. He worked for an increased quantity of cash crops relative to subsistence crops. The adoption of Alvord's 'modern agriculture' is now widely held to have led to marked soil erosion and land degradation, which

negatively affects the ability of communal farmers to grow enough food and use the land sustainably today (Page and Page, 1991). It is worth noting that currently recommended environmentally friendly practices such as permaculture, zero tillage, conservation farming using planting holes and mixed cropping are actually a reversion to the methods that were once demonised as primitive and unscientific.

The Eurocentric traditions ingrained within our present environmental pedagogical practices perceive the earth as nothing more than the space for human sustenance and technological domination. The dominance of Western traditions within curricula has meant the suppression and marginalisation of eco-friendly indigenous traditions within such curricula. This means the current Zimbabwean philosophical foundations of education tend to be monolithic, that is, steeped in the European culture and traditions perpetuated through the Newtonian-Cartesian paradigm. According to Goduka (2000), this paradigm presents a narrow, static and instrumental view of reason that excludes other ways of knowing and making judgements. The Cartesian rationality revolves around logical deductions, strict rules of evidence, denunciation of subjectivities and other truths based on indigenous knowledge and spirituality (Goduka, 2000). The paradigm considers itself as the only legitimate avenue for the invariant construction, transmission and attainment of valid knowledge.

In this rationality based paradigm, any aspect of indigenous knowledge entrenched in the community's religio-cultural traditions and does not conform to the Eurocentric Cartesian forms of rationality, is considered irrational, primitive, abhorrent and immoral. Given the colonial history of Zimbabwe, it is not surprising that the formal and informal environment pedagogical practices stress the Western 'atomised' cosmology that regards human and non-human constituents of the universe as separate and independent. Thus, it can be posited that the withered state of our environment is a testimony to the maladaptive and dysfunctional nature of an environmental pedagogy centred on 'atomised' cosmology. There is need to analyse in some detail, this dysfunctional pedagogy.

The mastery hypothesis postulated by Chidester (1987) and Kinsley (1996) reiterates that the 'atomised' cosmology supports the control, domination and exploitation of nature. In Western traditions, the value of natural environment is only realised when the resources can be transformed to human use. Thus, the Western traditions that dominate the curricula have colluded in desacralising, degrading and dominating nature by stripping off its gods, goddesses and spirits. White, cited by Kinsley (1996: 105), posits that by condemning the animistic nature of the natural objects, Western traditions transmitted largely through education have "made it possible to exploit nature in a mood of indifference to the feelings of natural objects."

Western traditions, especially Christianity, have promoted a desacralised view of nature that laid the foundation for scientific and technological exploitation of natural resources without limits. These traditions, being conveyed through the curricula, have promoted the anti-nature perceptions of the world and a view of the universe that portrays a transcendent deity who creates the universe but does not invest himself in it in a way that makes it sacred. To this end, Arnold Toynbee, cited in Kinsley (1996), says:

Man was divorced from his natural environment, which was divested of its former aura of divinity. Man was licensed to exploit an environment that was no longer sacrosanct. The salutary respect and awe with which man had originally regarded his environment was thus dispelled by Judaic monotheism in the versions of its Israelite originators and of Christians and Muslims.

The same point was emphasised and elaborated by Lynn White, cited by Kinsley (1996), who avers that:

To a Christian, a tree can be no more than a physical fact. The whole concept of the sacred grove is alien to Christianity and to the ethos of the West. For nearly two millennia Christian missionaries have been chopping down sacred groves which are idolatrous because they assume spirit in nature.

These observations are based, inter alia, on biblical passages like Gen.1: 26-29; Gen. 9: 1-3; and Ps. 8: 5-8. The passages depict the world as having been created primarily, if not exclusively, for humankind. They also present a very strong anthropocentric view of reality in which God is primarily interested in human beings and as having delegated to them mastery over his creation. In this regard, we submit that the stewardship motif in some biblical passages have historically not found much expression in the light of a domineering motif that is inherently and arrogantly hierarchical by placing humanity at the centre of the universe. This view erroneously assumes that nature cannot function without human beings, yet evidence suggests that ecosystems work better without human interference. No wonder that to some, stewardship serves as a justification for domination and exploitation when juxtaposed against the domineering tradition.

The implication for environmental teaching and learning is that indigenous knowledge is relegated thereby effectively marginalising learners with an indigenous background to passive recipients who contribute little, if any at all, to meaning-making. The teacher who has accessed Western knowledge in schools tends to become the dominant source of what goes as 'knowledge'. As a result, a top down technicist approach to instruction on environmental issues predominates. This contrasts with currently held constructive epistemology in

EE/ESD stressing pedagogical approaches where both the learner and the teacher get involved in collective meaning-making and are both learners.

In view of these arguments, we posit that the first step in addressing this environmental crisis is to interrogate any environmental curriculum that presents nature as having no other reason to exist except to serve human interests. A holistic environmental pedagogy that is grounded and mediated through the lenses of *unhu/ubuntu* philosophy can then be introduced. Such curricula provide Africans with alternatives to notions of rationality undergirded by the Newtonian-Cartesian paradigm and Western 'atomised' cosmology.

THE TELEOLOGY OF AFRICAN (SHONA/NDEBELE) COSMOLOGY

In this discussion, cosmology is understood as a conception of the nature of the universe and its operations, and of the place of human beings and other creatures within that universe (Bowie, 2006; Bourdillon, 1990). All world communities have cosmologies, that is, stories, myths, or theories that explain the origin and nature of the universe, as well as, ways in which different peoples in different cultures understand the world of their experience. These cosmologies have a special function of orientating human beings to the universe. Thus, Mathews, cited in Bowie (2006:108), says:

[A] Cosmology serves to orient a community to its world, in the sense that it defines, for the community in question, the place of humankind in the cosmic scheme of things. Such cosmic orientation tells members of the community, in the broadest possible terms, who they are and where they stand in relation to the rest of creation.

The African cosmology is world affirming in that it requires harmonious co-existence among human beings, animate and inanimate objects. It promotes horizontal relationships among these members of the universe. Contours of *unhuism/ubuntuism* are multifarious in this cosmology. In this cosmology, there is a direct but complex relationship between human beings and the environment in which they live. In this regard, Rappaport in Bowie (2006: 110) says:

Nature is seen by humans through a screen of beliefs, knowledge, and purposes, and it is in terms of their images of nature, rather than of the actual structure of nature, that they act...

The animistic view of the universe, as populated by spirits, promotes environmental awareness and conscience as compared to the Western economic model which classifies natural resources as useful or useless. To this end, we argue that the modern scientific cosmology fails to offer an integrated model of the universe that incorporates and values both human beings and the ecosystem. In contrast, the traditional cosmology affirms the sacredness of the universe in which human beings are decentred from the destructive role of masters and manipulators of the non-human creation. In African cosmology, the sacrality of living objects is inseparably interconnected through myths, taboos, omens and rituals. Any individual who acts contrary to and disrupts this order is labelled uncouth or lacking in terms of *unhu/ubuntu*. In this regard, the teleology of this cosmology functions as a repository of unparalleled ecological wisdom and intelligence. Through beliefs, myths, taboos, omens and the sacred, the voice of nature to humanity is well represented and through these religio-cultural practices, Africans celebrate and consecrate their ties to the non-human species.

African, and in particular, the Shona/Ndebele cosmology has two broad tiers: the supernatural (spiritual) and natural (physical). The former is constituted by the Supreme Being, ancestors, and other spiritual forces and the later comprises human beings, non-human species, plants and other inanimate objects. It is important to note that this dichotomy is more apparent than real as the two worlds are intimately interrelated, interconnected and interdependent. Occupants of these worlds are thought to have a divine origin, hence their sacredness. The principle of the sanctity of life is clearly ingrained in this cosmology. The sacredness of this creation implies that no damage may be inflicted on other species without adequate justification. Human and non-human species are of equal value and all have the same right to existence. Human beings have no special privilege or authority over other creatures, rather they have greater responsibility.

In the teleology of the African cosmology, human life on earth is not viewed as a sojourn into foreign territory. As such, the central motif is not solely theological (about God and salvation of souls), but also ecological in that human spirit is understood to be rooted in the biophysical order and the Supreme Deity's presence in the physical world is celebrated. Dudley (1996) notes that in this cosmology humans, spiritual beings/forces and nature form a consciously interacting and interrelating cosmic community. Thus, all species and objects of nature are thought to be sentient. In the interest of peaceful co-existence, there are rules and all members of this cosmology are expected to play their roles. Given this state of affair, we posit that this cosmology is *unhucological/ubuntucological,* in that, human beings can only be labelled virtuous by demonstrating friendship and tolerance among themselves and with other sentient natural objects. The *unhu/ubuntu* philosophy embedded in this cosmology provides a complete and unique system of thought that explains people's relationship with non-human forms of life. African cosmology is therefore an oasis of eco-wisdom.

The notions of eco-wisdom

African people's ecological intelligence and wisdom is aptly captured in their belief structures, particularly, beliefs in omens, taboos, rituals and the sacred. These beliefs help people to interact with nature virtuously, morally, ethically and justly, that is, in a way that shows *unhu/ubuntu* (Rusinga and Maposa, 2010). These belief structures create and enforce a somewhat vague caste system aimed at promoting the sustainable use of the natural resources. According to Madhav Gadgil (ecologist) and Kailash Malhotra (anthropologist), cited by Dwivedi (1996), the caste system serves to discipline the society by partitioning the use of natural resources according to specific status/caste, age, sex, kinship, etc. This creates an ecological space in which competition for resources is reduced. Rusinga and Maposa (2010) echo similar sentiments by positing that through belief structures the indigenous people use natural resources in a systematic way by following taboos associated with the sacred.

The dichotomisation of animals, trees, caves, rocks, rivers, wells, etc, into sacred (tabooed) and non-sacred (not tabooed), enables human beings to use natural resources selectively, systematically and sustainably. Dietary laws that have given rise to three categories of food; that is, the permitted foods, the forbidden foods, and foods not eaten at all, also promote the sustainable utilisation of natural resources. This categorisation of foods restricts access and regulates gluttonous competition for these resources because, if unchecked, competition leads to extinction. Food restrictions also follow totemic beliefs and even conditions such as pregnancy and illness. In short, there is eco-wisdom in taboos that govern human treatment of animate and inanimate objects.

The philosophy of *unhu/ubuntu* undergirds these beliefs hence our submission that *unhu/ubuntu* promotes reverence towards tabooed objects or animals. Tatira (2000) avers that among the Shona an act that breaches taboos *(zviera)* may trigger supernatural retaliation. Taboos that transmit hygienic values for sustainable use of the environment include those that forbid urinating in water bodies and killing of frogs. Even in Shona folklore, small and defenceless animals are presented more favourably than big and powerful ones (Fortune, 1988). Taboos that forbid activities like hunting and farming on land considered sacred helps the grooves to maintain their nature preserve. Hunting is also limited to winter season because during summer most animals will be suckling or in foal. Daneel (1998, 1999) notes that among the Shona, there are prohibitions with regard to the killing of animals considered to be the 'emissaries' from the ancestors, for example, bateleur eagles, pythons, baboons, tortoise, etc. Threatened species like pangolins, anti-bears and bush babies are dully protected. Following this, Masaka (2009) remarked that taboos reflect the dislike of cruelty to non-human animals and the environment in general.

Trees are sustainably utilised because they are divided into usable and unusable. Some trees are thought of as harbouring spirits or symbolising ancestral protection. Such trees grow to form sacred grooves/bushes known in some parts of Zimbabwe as *Marambatemwa*, meaning that which cannot be chopped (Daneel, 1998, 1999). Other trees are protected because of their medicinal value and for ritual purposes, for example, *Ficus sycomorus/sycamore* fig *(muonde/Umkhiwa)*, *Mobola plum (muchakata), Parinari curatellifolia (musosa wafa),* and *Gardenia globiflora (mutara).* There are rules that regulate the harvesting of wild fruits, a case in point being loquats *(mazhanje/mashuku)*. Water sources are also protected by rules that forbid the use of detergents and cooking utensils. Rules regarding the use of marshlands, springs, fountains and belief in mermaid spirits show society's consciousness of their environment. All these taboos help to reduce pollution. These taboos are designed to enforce positive and sustainable attitudes towards the environment. The philosophy of *unhu/ubuntu* promotes a strict observance of these taboos thereby enabling people to avoid indiscriminate killing and harvesting of natural resources. The religio-cultural restrictions foster *unhu/ubuntu* so that people are able to regulate patterns of natural resource utilisation.

Implications for environmental pedagogy

Although, we have interspersed our discussion so far with suggestions for improved environmental teaching and learning, there is need to recast the main strands of argument that we posit with regards to implications of an *unhu/ubuntu* guided curriculum on environmental pedagogy. History has repeatedly shown that human beings, Africans and the Shona/Ndebele in particular, have little respect for artificial boundaries and rules regarded as not sacrosanct. This should not be taken to mean that they are not law abiding, but as an indication of the centrality of divinely veneered oral history and traditions in dictating and shaping their mindsets and behaviour. To this end, we contend that sustainable utilisation, management and conservation of natural resources are typical religio-cultural and moral issues. Thus, the infusion of *unhu/ubuntu* philosophy, the flagship of Afro-centric beliefs and practices, in all the discourses relating to environmental pedagogy is imperative if the current ecological crisis is to be halted and redressed. The philosophy of *unhu/ubuntu* ought to be incorporated into the EE/ESD curricula as a strategy for conservation. *Unhuism/ubuntuism* may offer a unique set of ethical values that guides human beings in their day to day interaction with the environment. Gelfand (1973) alludes to this idea by suggesting that through *unhu/ubuntu* individual likes and dislikes are subordinated

because the Shona believe that *murao ndishe*, meaning traditional custom is the ruler of the people. The religio-cultural dimension to sustainable use of natural resources is vital in that it is the vehicle through which the indigenous people make sense of nature in a way that directly connect it to the fundamental values of human existence.

The Western Cartesian philosophical model, which is the foundation to most of our environmental pedagogy, is not rooted in people's culture and hence it lacks any intrinsic value. This model, initially enforced through missionary activities, was meant to justify colonisation of Africa and the slave trade. Economism and capitalism embellished in this philosophy tend to reduce every object to its market value and hence, it entails the commoditisation of resources. For Shumba (2011), the philosophy brought about enclosures in the environment which reflect dominance thinking. This is the thinking that a particular race's well-being depends on controlling and exploiting other human beings and the environment. This monolithic approach translates into an equally monolithic environmental pedagogy that is not only alien but exclusive.

Curriculum designers need to take into cognisance of the fact that, since time immemorial, Africans had culture-specific ecological education that was ingrained in their spirituality long before the coming of Europeans. Due to its inclination towards indigenous African beliefs and practices, *unhuism/ubuntuism*, can be a potential resource for EE/ESD. In this regard, it is important to recognise that current global perspectives emanating from the 1992 United Nations Conference on Environment and Development (UNCED) or the Earth Summit and other subsequent international initiatives emphasise an ecological approach to the environment and the need for environmental sustainability which resonates with indigenous knowledge (IK) perspectives, such as, *unhuism/ubuntuism*. The ecological thrust represents the search for a new epistemology for science that recognises the global or holistic interlinkages existing between nature and humanity, between cultures and societies, between generations and between different regions of the world. The ecological approach emphasises the need to use local IK of flora, fauna and agricultural practices for environmental sustainability. Hence the use of local languages and culture is recognised as important. Grass roots participation limits the loss of species, the disappearance of skills and cultural memory loss. The intimate relationship between people and environment which the African religio-cultural perspective encapsulates augurs well for learning through problem solving and action competence approaches that characterise environmental pedagogy.

Thus, any strategy for sustainable utilisation of natural resources in Africa must not ignore the spiritual dimension of our environment. In connection to this, Dwivedi (1996) avers that world religions offer a unique set of moral values and rules to guide human interaction with the natural environment. It needs to be noted that although religions can provide arsenals to protect the environment, the arsenals will remain rhetorical unless secular institutions, the government and international organisations acknowledge and incorporate the role of religion in environmental study and education. In this regard, we call upon curriculum planners to come up with a synthesis of the key concepts and precepts primarily from African Traditional Religion and other world religions regarding conservation that could be used as the basis for a global environmental ethic.

Education must assume a new role of reawakening and revitalising ecological education which is relevant to people in a specific culture. The educational process in traditional cultures, ingrained in the philosophy of *unhu/ubuntu*, relate the components of what is learned to the totality of life. For Goduka (2000), such educational activity is not only linked to the mind and thought processes; rather, it is also connected to the learner's culture, emotions, spirituality, as well as, his or her biophysical environments. Such education was embarked on by some Zimbabwean communities soon after independence by organisations such as, the Association of Zimbabwean Traditional Ecologists (AZTREC) through community rituals like *mafukidzanyika* (clothing the country), in order to green the environment (Daneel, 1998). Cue can be taken from such cultural activities, worked and modified to suit the formal environmental curriculum. In this regard, it is our submission that *unhu/ubuntu* religio-cultural precepts can serve to 're-orient' and 're-shape' educational practices and learning processes influencing the development of knowledge, skills and attitudes, which enables people to act in an environmentally responsible way within their communities.

CONCLUSION

The teleology of the African (Shona/Ndebele) cosmology shows that human beings are one with nature, nature being the larger whole and humankind only a constituent. In this cosmos, human beings stand within the universe, not separate from it, but depend upon it, without dominating it. Abuse and exploitation of nature for selfish gains is immoral, unethical, unjust and sacrilegious. The intimate and ultimate relationship between humanity and nature resonate in the philosophy of *unhu/ubuntu*. This philosophy advocates a holistic approach to education in which human character is developed and fine-tuned for sustainable lifestyles. Humanitarian values are promoted at the expense of aggrandising values for the good of human beings and sentient objects. It stands in sharp contrast to the Western 'atomised' cosmology which promotes commoditisation of all resources, human and non-human. Eco-wisdom that reverberates in African

cosmology, culminating in the reverence of the natural environment, needs to be incorporated into our environmental pedagogy if the ecological crisis is to be halted and if education for sustainable utilisation of natural resources is to be achieved in the context of Africa. Incorporation of African notions of eco-wisdom is the foundation for eco-justice. Eco-wisdom from other traditions also needs to be embraced because research has shown that no tradition, literary or oral, is superior to others and universally valid. It is a truism that all knowledge is partial and complementary, be it Western Cartesian, Confucian or Afro-centric *unhuism/ubuntuism.* Compromised curricula, riding on the back of an authentic environmental pedagogy in which the Western traditions complement the indigenous traditions, could be the answer to the environmental crisis.

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