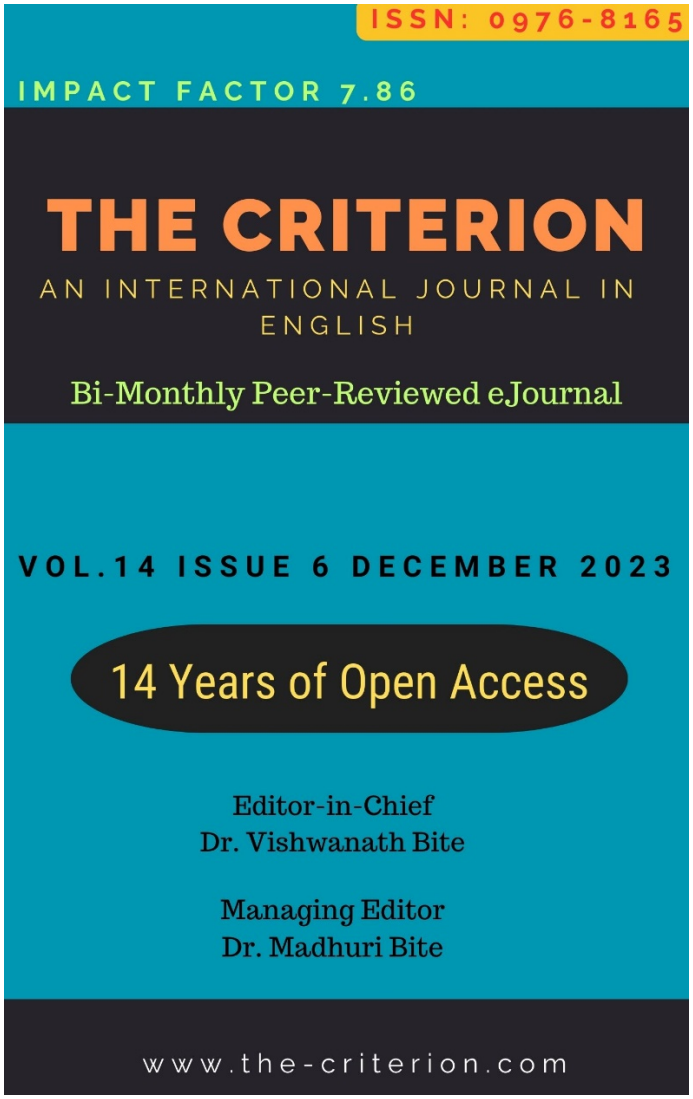

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Eco-pharmacopoeia, Animal and Plant Lore in Malawian Folktales

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Abstract:

This paper is a content analysis of animal and plant lore in folktales in the context of metaphorical constructs and utilised for medicinal and cathartic purposes. Human-animal and/or nature interactions provide therapy and catharsis for the health of communities. The paper argues that the utilisation of animal and plant lore in indigenous eco-pharmacopoeia reflects the people's cosmovision in which the spiritual and physical environments are entangled. Folklore, that includes folktales, proverbs, folksongs, myths and legends provide a platform for the rumination of the people's environmental embeddedness. The people's knowledge of medicines is rooted in their conceptualisations of botany, phytology, zoology and zoolatry. African women and men have experiential knowledge about their local environments with special affinities to medicinal plants and parts of different species of animals. Although colonialism vilified African medicines made from parts of plants and animals as primitive, many Africans, educated and illiterate, rich and poor, still find traditional medicines administered by *asing'anga* (diviner-priest-healers) effective alternatives to Western medicines. Eco-pharmacopoeia, the utilisation of indigenous ecological knowledge in medicinal thought and medicine-making, is embedded in the people's mythopoeia, consciousness of myth-making. The paper concludes that there are many African communities that find herbal medicines and indigenous healing mechanisms wholesome and that emphasis on Afro-ecophilosophy would help the youth in indigenous environmental thought.

Keywords: eco-pharmacopoeia, zoology, botany, folklore, medicines, metaphor.

Introduction

Trends in interdisciplinarity and crossdisciplinarity of fields of study in the zeitgeist culture inform an epoch that resists the monopoly of knowledge in the sciences. Recourse to indigenous ways of healing and indigenous ecological knowledge as supplements to modern science provides

an interface between nature and culture. The use to which I put the word "pharmacopoeia" is in line with the World Health Organisation (2013) as "derived from ancient Greek *pharmakopoiia* from *pharmakon,* 'drug' followed by the verb-stem *-poi*, 'make' and finally, the abstract noun ending in *-ia*" and together meaning "drug-making" or "to make a drug" (3). In Greek, the word *pharmakon* means a drug while *poiein* means to make or create and from time immemorial indigenous peoples have been active participants in making drugs based on their affiliations to the land and genealogies. The prefix *eco-* attached to *pharmacopoeia* is derived from Greek *oikos* meaning house or place to live (Howarth 1996). Howarth further notes that "[e]cology is a science strongly connected to a history of verbal expression. ln the medicine rites of early people, shamans sang, chanted, and danced stories to heal disease or prevent disaster, which they saw as states of disharmony or imbalance in nature" (71). Although spiritualists and mediums use incantations in order exorcise evil spirits believed to inhabit human bodies and causing diseases, forests are the warehouses eco-pharmacopoeia.

Malawi's *National Environmental Policy* (2004) indicates that Malawi "has closed forest resources covering about 30 percent of the land area, abundant water resources and a remarkably diverse flora and fauna, of which the uniquely rich and diverse fish resources stand out" (1). What this entails is that the country's biodiversity is beneficially exploitable. In this vein, biodiversity provides "food, shelter, medicine, income, cultural and spiritual" benefits to humans (*National Biodiversity Strategy and Action Plan* 2006: v). Indigenous eco-pharmacopoeia and traditional biotechnology are informed by the people's environmental embeddedness manifested through culture. In the words of Arnold in his *Culture and Anarchy* (2001), "Culture being a pursuit of our total perfection by means of getting to know, on all the matters which most concern us, the best which has been thought and said [or known] in the world" (2). Folklore is within what constitutes Arnold's definition of culture and it is supposed to provide the basis of indigenous environmental education in Africa that would buffer Western mechanistic philosophies.

From the perspective of ecosemiotics, this paper examines indigenous eco-pharmacopoeia, animal and plant lore utilised for cure of human ailments and catharsis in selected Malawian folktales. In its Greek connotation, the word "catharsis" is rooted in "purgation" with a wide semantic range of meanings such as cure or therapy, purification and clarification of emotions (Cuddon 2013:108). The mirth derived from the use of tricksters in folktales does not only provide

emotional release (outlet) and survival mechanisms, but it also critiques characters who behave contrary to societal mores. Tian and Wang (2022) explain that "ecosemiotics is the interdisciplinary combination of ecology and semiotics mainly focusing on cultural factors. The discipline connotation of ecosemiotics or semiotic ecology is mainly the study of the combination of nature and culture, and each discipline has its own focus. Ecosemiotics focuses on semiotics from the perspective of ecology, while semiotic ecology focuses on ecology from the perspective of semiotics" (131). The combination of ecology and semiotics entails that ecosemiotics applies concepts from both ecology and semiotics in the analysis and interpretation of nature and culture in literary texts. Living organisms produce and comprehend signs in what is termed semiosis; thus, biologically determined. In traditional setups, healers are conversant with symptoms of various diseases that could be interpreted in terms of semiotics. Sebeok (2001) enlightens that in "Western medical science, […] *semeiotics* [constitutes] a branch of medicine for the study of *symptoms* – a *symptom* being, in effect, a *semeion* 'mark, sign' that stands for something other than itself" (4, original italics). Thus, ecology and semiotics converge in ecosemiotics.

Maran (2020) postulates that "[e]cosemiotics as a branch of semiotics emerged in the mid-1990s to scrutinise semiosic or sign-mediated aspects of ecology (including relations between human culture and ecosystems). It has been defined as 'the study of sign processes which relate organisms to their natural environment' (Nöth 2001: 71), or as the semiotic discipline investigating 'human relationships to nature which have a semiosic (sign-mediated) basis' (Kull 1998: 351)" (3). Local communities and their cultures are embedded in their environments and they use signs to interpret cultural and/or natural phenomena. Maran (2020) further suggests that "[t]he focus of ecosemiotics is thus on the interactions between environmental conditions and semiotic processes and the diversity of life stories, meaning-making strategies and narratives that spring from these intertwinings" (6). Symptoms of different kinds of diseases are mediated by signs that indigenous people have learned through their experiences of many years of interacting with the human and non-human worlds in which the relationship between nature and culture is ineluctable.

Morris (2009) explains that "Malawian people neither advocate the control and domination of nature, nor the celebration of the wilderness in its own right, but have always acknowledged the close interdependence of humans and nature, including its wildlife" (242). Since the term "wilderness" in the Western postulation implies places deep in the forests or jungles impenetrable

by humans or where humans are visitors, the African context is different. The interconnectedness of humans and nature and/or wildlife is intricately intertwined with the people's cosmovision with a unitary view of the physical and spiritual environments. Forests are the warehouses of indigenous people's knowledge of medicines and biotechnology.

This paper, therefore, focuses on four Malawian folktales to analyse human-nature interconnectedness and people's knowledge of medicines. In *The Power of Animals* (1998), Morris posits that there are "three medical traditions that coexist[..] throughout the world. […] an empirical herbalist tradition, based on belief in the intrinsic efficacy of certain plant and animal substances; a cosmological tradition, which saw the human subject as a microcosm of the world and in which health was seen as restoring a balance or mix between certain vital 'humours' or principles; and a tradition that was focused on 'communal rituals of affliction' and involved spirit healing" (214). The various traditional medicines administered to cure ailments such as splitting headache (*mutu wa ching'alang'ala*), gonorrhoea (*mabomu*), rheumatism (*chibayo*) and syphilis (*chizonono*), to exorcise spirit possession as in *nantongwe* (the Lhomwe) and *vimbuza* (the Tumbuka), to fortify the body against being bewitched (*kukhwima*), to protect properties against thieves (*kusirika*) and to increase fortune (*mwayi*) involve plants and animals.

The python, the chief's sickness and healing

From time immemorial, snakes are known for cunning and deception. Their peeled off skins are signs of wonder in nature construed through the lenses of culture. Traditional healers' closeness to snakes and their skins calls for admiration from people seeking therapeutic attention. Mdoka (2023) observes that "Snakes periodically shed their skins and this natural phenomenon carries cultural meanings […]. The snake's shed skin can also be used for medicinal purposes and some traditional medicine people use skins of snakes to inspire reverence from their customers" (242). The spitting cobra or black mamba, puff adder and python are some of the snakes closely associated with indigenous pharmacopoeia and the folktale to which I now turn, puts this into perspective.

The folktale, "Ngalawira: The Magic Snake," depicts the chief who suffers from "an eye disease" and having failed to be cured by "many medicine men" a diviner tells the chief to take his people "to a pond where they should sing a certain song" and that "a water spirit would come to cure" him (Singano and Roscoe 60). First, the "pond" referred to in this folktale is a body of water

not only housing aquatic life, but itself water is also the basis of all life and the bulk of protoplasm is water, that is, liquid. The second vital aspect of the chief's healing ritual involves singing "a certain song" in which different groups of people take part in turn concluding with children whose singing has produced the desired effects. In Africa, folksongs play various roles including entertainment, didacticism for initiating boys and girls into the adult world and exorcising human ailments caused by evil spirits. When the evil spirit is believed to be in the form of an animal, that animal carries symbolic significance in the exorcism as in the Lomwe *nantongwe*. Boeder (2013) explains the roles of animals in different forms of exorcising evil spirits:

> […] *nantongwe wa phanya* (possession by a big mouse); *nantongwe wa nsato* (python); *nantongwe wa nangwale* (antelope); *nantongwe wa nkhunda* (dove) and *nantongwe wa nsomba* (fish). It is not known exactly why these particular animals were involved, but this step was important because the animal was a medium through which the spirit passed (29).

Animals are carriers of cultural signs. Their songs, sounds, behaviours and bodies, help shape human action and behaviour. This passage cited above serves to illustrate why in the folktale being probed "a water spirit would come to cure" (Singano Roscoe 60) the sick chief. This kind of cure is cosmological with a unitary view of the world in which humans are integral part of nature understood through cultural signs. Finally, when "all the babies that could crawl […] go to the pond" (Singano and Roscoe 60) and sing, their singing is fervent and it is heard:

Atate athu atiuza kuti tidzaitenge	Our father has sent us to get it
Njoka yozizwitsa, njoka yozizwitsa	The magic snake, the magic snake
Iwo akudwara diso	He is suffering from an eye disease
Njoka yozizwitsa, njoka yozizwitsa	The magic snake, the magic snake
Iwo atiuza kuti tidzaitenge	He has sent us to get it
Njoka yozizwitsa, njoka yozizwitsa	The magic snake, the magic snake

(Singano and Roscoe 60)

The eye disease the chief is suffering from, in local terms, could be described as a splitting headache that impairs vision (*mutu waukulu walowa m'maso).* Babies and children are signs of innocence and their interaction with nature reflects the prelapsarian bliss, where the serpent engages the human in a primordial dialogue. Although some snakes are land-dwelling and tree-climbing and some of them live in hollows and caves, others are aquatic. No sooner do the crawling babies finish singing the song in the folktale than the pond water begins to move in the form of waves accompanied by a whirlwind. As a result, a "huge snake rose from the pond, and the infants led it to the village. The chief was afraid when he saw the snake but he did not run away. The snake coiled itself around the chief's body and began to lick his eyes. The chief was cured" (Singano and Roscoe 60-61). That the chief's eye disease in which many medicine men and women have failed to cure until the children's song at the pond lures the snake to his home to cure him, is a test of endurance is embedded in mythopoeia.

Roscoe (1981) observes that "[m]uch of Africa is still a land of myth […] of people who continue to stay close enough to the earth to hear its pastoral symphonies and to feel strongly the spin of Fate's wheel and to learn to endure" (250). A python is a totemic animal among indigenous Malawians and its presence in a pond, points to its association with water, the essence of life. From an ecosemiotics perspective the pond "becomes a composition of various environmental resources and affordances with a number of perceivable interfaces and a variety of species that relate with the habitat based on their biological organisation and needs" (Maran 2020:21). The efficacy of healing songs in folklore cannot be overemphasised. The snake's acceptance to be led by children to the chief's home rests on the healing potency richly textured with rituals and myths. Oral literature is the 'touchstone' of African literature and culture. The phrase *Njoka yozizwitsa* rendered in English as "magic snake" would have been *njoka ya matsenga*, in which case, the word *matsenga* (magic) does not inspire veneration for the snake among the people. But *kuzizitswa* or *kudabwitsa* evokes wonder which is connected with the representation of nature in culture in a song with a religious fervour; the snake reflects the people's zoolatry.

Both the folktale "Ngalawira: The Magic Snake" and the song the children sing can be interpreted through ecosemiotics in which animals are used as signs to make sense of the environment. As Africans, we should not lose sense of our genealogical affiliations to our land and our culture. If we do, Amouzou (2007) rightly observes, "in one or two decades to come, the double consciousness and cultural hybridity imposed on the continent by the white man, will create

a situation whereby the African writers and critics will consider their profession as an overseas department of European literature, forgetting that African literature has a tradition of its own, an audience to address, and interests to defend" (334). After being hypnotised by the colonial and missionary system of education in Africa which denigrated African values, reclaiming the African cultural heritage begins by showcasing oral literature and indigenous knowledge systems that juxtapose as supplements to Western schematisation and monopoly of science. The therapeutic essence of songs in Malawi is attested to not only in the Lhomwe *nantongwe* and Tumbuka *vimbuza* ritualised healing songs, but it is also reflected in the people's interconnectedness to animals.

Through folktales, culture instils in children good citizenship skills and responsibility. Songs help children to retain the moral behind every folktale. In some healing rituals, children participate in eating food at the sick person's house. This is locally known as *sadaka* or *kumeta*, cleansing or purification rite intended to placate the spirits of the dead that might have entered the sick person's body. The water used for washing hands before and after eating the food is collected in pots and the sick person later uses it in taking a bath as a sign that evil spirits have been washed away and thus, purging the disease. This is part of Malawi's rich cultural heritage. According to the Malawi National Commission for UNESCO (2011), the Intangible Cultural Heritage is classified in five main domains, namely, "(a) oral traditions and expressions, including language as a vehicle of the intangible cultural heritage, (b) performing arts, (c) social practices, rituals and festive events, (d) knowledge and practices concerning nature and the universe, and (e) traditional craftsmanship" (12). These domains are richly textured with untapped indigenous lore loaded with different levels of communication focusing on the nature/culture polarity.

The therapeutic essence of human-animal relationships

A positive human-animal relationship sometimes results from a healthy rapport that humans express towards animals which the latter correspondingly reciprocate. In the folktale entitled "The Suitor," a young man who falls in love with the chief's daughter is disenchanted when her father forbids him to marry her because of his poverty and low station in life. In his disenchantment, the "suitor" of the folktale's title goes into the forest to find tranquil in loneliness. While in the forest, the young man hears "a call for help coming from a very deep hole" (Singano and Roscoe 67). Twice the young man lowers his rope into this geological underground enclosure

and he pulls out a lion and a python, respectively. Both the lion and the python thank the young man for rescuing them but each one warns him, "There is still a man inside that hole […]. Do not pull the man out of the hole […] for human beings are naturally evil" (Singano and Roscoe 67). Ignoring the warning, the suitor lowers down his rope into the hole and pulls out a man who does not utter even a single word of appreciation but goes he goes way ignoring his rescuer. Signs of the atrocious actions of humans are written all over the surface of the earth.

In repaying the suitor's kindness, the lion builds a house for him in the forest and brings the girl he loves into the forest and she becomes his wife. The chief's daughter having been reported missing from the village, the man the suitor rescued from the cave betrays him to her father, whereupon he is arrested. The python inflicts the girl's father with a sickness telling the suitor, "I will enter the belly of the chief, so he will become very sick. Only when you give medicine to him will he recover" (Singano and Roscoe 68). When the chief falls "seriously ill, many witchdoctors tried to cure him but none succeeded [… and he] seemed to be dying when the suitor offered to give him medicine" (Singano and Roscoe 68). Human-animal relationships are reciprocally positive in this folktale to drive home the moral "Men can indeed be more dangerous than beasts" (Singano and Roscoe 68). By constructing a shelter and bringing the woman he desires into the forest for the suitor, the lion demonstrates leadership.

The efficacy of the medicine administered by the suitor on the python's advice, reflects the spiritual powers that are closely associated with pythons. Morris (2018) explains that "[e]very person in the rural areas of Malawi is essentially a practising herbalist, and knows a variety of herbs to treat common ailments" (64). What this entails is that herbalism in Malawi is a practice that people not only in rural areas do, but in urban areas as well participate in varying degrees. Although the bulk of medicines are plants, parts of some animals are also used as medicines.

Morris (2009) argues that "rural Malawians […] do not make a radical distinction between the spiritual (unseen) and the material aspects of life, and that the natural world, specifically plants and animals, are seen as real entities, not simply pegs for symbolic forms or hierophanies of spirit, and that they are thus believed to have inherent powers and causal agency" (253). The python's inflicting of a serious illness to the girl's father in "The Suitor" reflects the snake's spiritual powers and intervention in human affairs. Observation shows that "[s]ince time immemorial the snake, probably more than any other animal, has been associated with religion and magical powers. […] it has also traditionally become a symbol of healing" (*Acta*

Theologica Supplementum 7, 2005:189). The two Malawian folktales, "Ngalawira: The Magic Snake" and "The Suitor" reveal how human illnesses in the traditional setting can be explained in terms of spiritual causative agents. This explains why in some cases, medicines are administered to the accompaniment of sacrifices in order to placate the spirits that might have entered the sick person's body. In "The Suitor" when the python tells the suitor "I will enter the belly of the chief" (Singano and Roscoe 68), in order to cause the chief's illness, the python does so in the spirit form rather than physical.

The suitor does not only become one with the lion and the python, but he also becomes one with the forest where he dwells with multifarious species. The forest is thus, not a wilderness, but it becomes the suitor's home living amidst ecological diversity. In culture, there are various sings reflected in nature and/or environment. Sings in nature are culturally loaded with different meanings that involve interpretations utilising ecosemiotics. Maran (2020) suggests that "[e]cosemiotics builds its argumentation on the excluded middle and interplays between culture and the ecosystem, humans and other animals, signs and matter, freedom and causality" (7). The interchanges between culture and the local environment and between the human and the non-human worlds are mediated by signs. The chief's rejection of the suitor to marry his daughter in the folktale, "The Suitor," the chief violates the rights of both the man and his daughter who have fallen in love beyond the strict boundaries of poverty and riches, commoner and royalty. The lion and the python bridge these gaps by facilitating the union of the suitor and the girl with sign-mediated interconnectedness in relation to the niches of these animals assigned by culture.

When the lion builds a house for the suitor in the forest and brings his wife there to live, they adapt to the forest environment. However, after being cured by the suitor's medicine and the chief orders the execution of the "man who so cruelly betrayed a friend who helped him" (Singano and Roscoe 68) get out of the deep hole in the forest, the suitor officially marries the chief's daughter and given part of the kingdom to rule. Therefore, changes in environmental factors mediated by the lion and the python in "The Suitor," bring changes in the identity of the suitor. Folklore and heritage are the repository of culture that reflect the people's environmental consciousness in which the spiritual environment and the physical environment are utilised in a shared cosmovision of the interconnectedness of ecological entities juxtaposing "self, culture and nature" mediated by signs that facilitate communication. Raudsepp (2011) observes that:

> Self, culture and nature relate to each other as inclusive opposites: necessarily differentiated, yet forming united systems (Valsiner 1998). We can describe nature as part of culture (domesticated, culturally regulated nature) and human culture as part of nature (the naturalisation of culture); self as part of collective

> culture and culture as part of the self ('individual culture'). Boundaries between culture and nature are flexible (Nöth 2007) due to human semiotic freedom and meaning-making capacity (78).

What manifests as "collective culture" and it is reflected in "individual culture" constitutes many years of experiential knowledge of interacting with the environment the culmination of which is a unitary view of the cosmos in which humans are integral part of nature in the arena of diversity. For Kull (2011), "[d]iversity, or heterogeneity, is a fundamental value. It is more general than any measurable value. Diversity results from the capacity of living beings to make a difference, to recognise, to distinguish" (71). The search for medicines to cure human illnesses underpins the realisation of the significance of life and remaining alive and the pairing up of species, human and non-human, is a natural sign for bequeathing life. Human-animal interaction is mediated by signs in nature and the local environment the meaningful interpretation of which resides in culture.

"An eye for an eye:" a sign from the animal world?

It is the disposition of humans to retaliate in the face of aggression in order to prevent further oppression and injustice. Based on theopoeisis, "the sacred immanence of the natural world" (Morris 2021:13) in literary texts, "an eye for an eye" is derived from *Leviticus 24:19-24*. However, *Matthew 5:38-39*, which contradicts the Law of Moses by providing for turning one's left cheek for someone who has already stricken one's right cheek, giving the remaining robe to someone who has stollen one's robe, promotes the Law of oppression. That individuals should continue suffering from oppression in addition to the injustice they have already encountered finds is ambivalent in folklore, seemingly in favour of the Law of Moses by humans and in favour of Christ-like behaviour for animals. This view is reflected in the folktale entitled "Friends."

In this folktale the two "friends" of the title are men who share boundaries of their gardens. In an area where there is a lot of human-animal conflict because animals such as baboons, hedgehogs, monkeys and pigs, among others, destroy people's crops, one man uses his friend's spear in attacking a pig, but the pig runs away with the spear:

> "Give me back my spear," demanded the neighbour.
>
> "I'll make you another one," offered his friend.

"I want the same spear, no other," insisted the man.

So, the unlucky friend began to search for the missing spear.

(Singano and Roscoe 77)

The fact the missing spear is a home-made entails indigenous people's craftsmanship and the owner's insistence that "I want the same spear, no other," signifies hard-heartedness. After wandering in the forest for several days in his search for the missing spear, the man meets an old woman who advises him that the pigs' chief will show him several missing spears the pigs have collected and that an insect will guide him to identify his exact spear. When he meets the pigs, boars and sows, the man asks them about his missing spear. Thereupon all the spears are gathered for him to choose his exact spear failing which he will be killed. He notices a flying insect, an agreed sing, settle on a spear. The man chooses correctly and is allowed to go home by the pigs. The 'humane' behaviour of the pigs reflects the rethinking of the concept of "human" in indigenous lore and therefore, in tandem with the ideas of posthumanism. Cuddon (2013) explicates that "posthumanism denotes a philosophical position concerned with reconceptualising what it means to be human" (551). The guidance from the insect to choose the correct spear and the harmony provided by the pigs in dealing with man who shot one of their colleagues, are signs of sound personhood of the animals. Seen through zoosemiotics, zoological semiotics, signs in nature find meanings in culture. For the pigs, the spear symbolises reconciliation. Moreover, if the man dies, the pigs will have no food because they depend on crops in the interconnectedness of ecological entities.

On his way home, the man sees animals "playing a strange ball game" in which "Each animal caught the ball in its mouth and swallowed it. When the ball appeared from behind, another animal swallowed it" (Singano and Roscoe 77). Being interested in the game, the animals give him "medicine which [would] enable him to play the game successfully" (*ibid.* 77). Back home, the man returns the spear to his friend but in desiring to play the strange game, he swallows the ball. The ball not come out behind him because he has been denied knowledge of the medicine that works the magic. In demanding exactly the same ball which his friend swallowed the chief directs that the man be killed so that the ball is returned to the owner. For humans, the ball is a sign of retribution. Traditionally, there are medicines that cause people to pass out faeces or urine, a

disease locally known as *kamatira*. This is the culturally loaded with meaning for the man's failure to pass out the ball from his behind since does not the medicine for releasing the ball.

Morris (2018) notes that "[i]n Malawi, *Mankhwala* [medicines] covers a wide variety of substances believed to possess an inherent potency and efficacy, and covers various charms and protective medicines as well as medicines in the normal sense" (Morris 2018:48). Knowledge of these medicines is derived from being taught by experienced elders symbolised by the old woman as well as well-wishers in times of need symbolised by the animals in "Friends." Sometimes knowledge of medicines is based on dreams (*kulotetsedwa*) from the spirits of the ancestors. Above all, as Marla Morris (2021) succinctly puts it, animals "are our teachers. They understand what we cannot. They understand what is not palatable. They intuit what we cannot. Somewhere along the way humans have lost their way. […]. Animals do not commit the atrocities and horrors that we do." (21). The intertwined interplay of the human and non-human worlds and the indigenous metaphysical cosmos reflects what Tønnessen (2011) describes in these words:

> The premise is that in order to understand the natural world, we should start out by grasping what makes sense to the living (and in living systems). The result is a pluralist, phenomenologically oriented outlook informed by biosemiotics. Deep ecologist Arne Næss (1985) stressed the need to develop one's 'ecological self' through identification with others (93).

While ecosemiotics, biosemiotics and zoosemiotics, *inter alia*, are recent developments coming in the wake of Western theorisation in the communication processes and behavioural patterns observed in nature and culture, African eco-philosophy has always been there since the advent of 'man' on earth. Indigenous ecological knowledge has been premised on the understanding of all forms of biota and human interactions with them. An experientially informed indigenous community finds solace from the local environment and its signs that are interpreted to give meaning to human existence and provide conditions that propel the life of coexistence between the human and the non-human worlds. Deep ecology's formulation of "self-identification" with other ecological entities in order to maintain an ecological wholeness is reflected in folklore.

Symbiotic human-animal relationships do not only heal the environment, but such relationships have life renewing processes through *ecopoiesis* defined by Kopytin *et.al.* (2021) as

"a generative process whereby human beings together with nature shape the world and themselves, bring new forms and meanings of life from the mode of possibility into the mode of existence. It is an eco-human propensity for biological and cultural creation and a factor in the co-evolution of human beings and nature" (4). With the generative potential of knowledge in indigenous oral cultural forms, that provide an interface between indigeneity and modern science, knowledge of the sciences cannot be the monopoly of a single domain. Lynn White Jr (1996) elucidates that "Our [Western] science is the heir to all the sciences of the past, especially perhaps to the work of the great Islamic scientists […], who so often outdid the ancient Greeks in skill and perspicacity: al-Razi in medicine, for example; or ibn-al-Haytham in optics; or Omar Khayym in mathematics" (6). The science astuteness of "all the sciences of the past" which Western science has inherited includes knowledge of the toxicity of some animal and plant excretions which is the domain of indigenous lore.

The Malawian folktales being probed in this paper engage with various ways through which nature is conceptualised from cultural perspectives. By creating different kinds of medicines from plants and parts of animals, nature is perceived through culture as quintessentially syncretising indigenous environmental knowledge with animals as agentive factors. Kopytin *et.al.* (2021) explain that the term *ecopoiesis* is used to denote "an ecological way of being in both the natural and cultural realms, implying the interaction and co-creation that takes place between different forms and systems of life and between communities" (4). The various terrestrial and aquatic plants and animals depicted in folktales reflect not only the different niches these have in the ecosystem, but the centrality of the use of traditional medicines related to plants and animals in these folktales entails a significant interplay between nature and culture that call for restorative ethics. Siewers (2011) explains that "Ecopoiesis often refers in the natural sciences to physical shaping of ecosystems through, for example, ecological restoration" (40). If people find medicines from flora and fauna, they are sure to protect the environment. In the contemporary culture Kopytin and Yu (2021), observe, many people find traditional medicines better alternatives to modern medicines:

> Nowadays, there is a significant increase in the use of various eco-therapeutic, nature-assisted environmental therapies in different clinical and non-clinical populations for therapeutic, rehabilitation, and preventive

> purposes. As global culture becomes more urbanised, clinicians are increasingly looking for strategies to bring the beneficial aspects of interactions with nature into a client's life (36).

This bears testimony to the observation that during the COVID-19 pandemic some Malawians had recourse to different kinds of plants believed to have medicinal efficacy including the leaves of *Eucalyptus globulus* locally known as *bulugama*. This reflects the people's closeness to nature. Morris (1998) notes that "[i]n Malawi there is a close and intimate relationship between plants and medicine, as elsewhere in Africa" (215). Indigenous ecological knowledge from which knowledge of ecological therapy is derived is key in supplementing modern science. The folktales "Ngalawira: The Magic Snake", "The Suitor" and "Friends" focus on human-animal interconnectedness where medicines are pivotal to the plot development. Morris (2000) explains that knowledge about medicines is gained through "communication with the ancestral spirits [and it] is made not only through sacrificial offerings and dreams but also through possession rites" (245). Eco-pharmacopoeia is so deeply rooted among indigenous people's that it is ineluctable from their knowledge of myths.

The Anthropocene and the cultural perspective

We live in an era of unprecedented events that include landslides, earthquakes, floods, cyclones, abrupt changes in weather patterns, acid rains and prolonged droughts among others. These events point to the signs of "the Anthropocene" defined as "the epoch at which […] human impacts on the planet's basic ecological systems have passed a dangerous, if imponderable threshold" (Clark 2015: x). Anthropogenic or human-induced environmental problems are multi-layered and uncertain. The uncertainty and multiplicity these environmental problems serve to illustrate the folktale to which I now turn, entitled "The Drought." In this folktale, as the title suggests, drought has befallen the animal kingdom. Mdoka (2023) argues that the Anthropocene comprises "globally terrifying environmental catastrophes that thwart the normal functioning of ecosystems" (211) and that it "is not just here with us instantaneously; it has primordial contexts" (212), in the accidental invention of fire in the Chewa Kaphirintiwa creation myth, for example. At a global scale, fire resulted in iron smelting, the making of arrows, spears, axes and hoes that culminated in agriculture with industrialisation at the helm.

Amidst drought in the folktale under discussion, the animals decide to use herbal medicines as a way of providing water to the communities. Two animals, duiker and buck, respectively, are sent to a "medicine man" and each is advised "You will get water if you cut down the *Muti Njee* tree" (Singano and Roscoe 64), but both forget the name of the tree and wrongly think it is *M'phakasa* tree and *Mtondo* tree, respectively (*ibid.* 64). Finally, tortoise offers himself and goes to the medicine man. He remembers the *Muti Njee* tree and informs the other animals and they begin to cut down the tree so that "the first blow of the axe brought a sprinkling of water. As the animals worked faster and faster, more and more water came until at last the tree crashed down and a large pool of water surrounded it" (Singano and Roscoe 64). Three lessons could be drawn from this episode in the folktale. First, drought is a collective problem that requires unity to handle. Second, not everybody can retain the knowledge of medicinal plants because like the duiker and buck, we forget the medicinal plants, roots and barks that are already prepared for us. This is illustrated by the proverb *Kumbire adanka nawo* (Literally, dig for me, he/she went with all the medicine) meaning "When a famous healer dies, he/she goes with his/her knowledge of medicinal herbs" (Chakanza 135). It is the responsibility of those who live with the healer to learn from him/her the knowledge of medicinal herbs. Thirdly, in times where unity is needed most in order to find a solution to a communal problem, there are those citizens, symbolised by hare, who undermine developmental efforts because they think they are clever enough to benefit from such projects through crooked means.

In "The Drought," hare refuses to participate in the search for water and all the animals agree to prevent him and his wife from drinking water from the communal pool. The pool has, therefore, to be guarded against society tricksters and when zebra and buffalo are assigned to guard the well/pool, they are duped by hare. Hare promises each of the guards that if they allow him to drink water from the well, he will give them honey; but hare is quick to say, *Tannga n'todya ayimange* ("It is best to eat this when you are tied to a tree") (Singano and Roscoe 65). Honey has a lot of health benefits to humans and the bees themselves are beneficial to the environment; knowledge deeply-ingrained in indigenous people.

Cortes *et.al.* (2011) provide scientific evidence that "Honey, a natural substance produced by honeybees, is composed of a complex mixture of carbohydrates, water, and a small amount of proteins, vitamins and minerals, and phenolic compounds. Fructose, glucose and maltose are

among the various types of sugars present in honey" (303; also see Taghavidad 2011, Scepankova *et.al.* 2017). The medicinal value of honey is based on the fact that honeybees collect nectar and other powdery natural substances including pollen from different types of plants and flowers. Language is a signifying system and when hare tells the guards at the well/pool, *Tannga n'todya ayimange* (You can only eat my honey when you are tied to a tree), they cannot resist the temptation considering the many benefits of honey as a metaphor of that which nourishes.

In "The Drought", every animal that guards the well is cheated and hare drinks the water when the guard is tied to a tree until tortoise finds a solution. When tortoise guards the well despite the jeering of the other animals:

> He smeared his shell with all the shining things that he could find and then hid in the pool. When the hare arrived, he was surprised to see no watchman. "I have outwitted them all!" he scoffed, and he bathed and drew water. Just as he was about to leave, he saw something glittering in water. The tortoise moved a little, and the sparkling attracted the hare even more. He drew off his clothes and dived into the pool. But as the hare reached out his fingers to grasp the glittering object, the tortoise turned and caught the fingers in a biting grip (Singano and Roscoe 65).

The glittering or sparkling object in the water is signifying and hare imagines different kinds of meanings about it. The hare and tortoise are some of the significant tricksters in African folklore and besides being sources of entertainment and creative agency, these animals serve as archetypes of mischief and cunning. Although the tortoise sometimes tricks the hare, usually, the hare always finds his way out of a difficult situation. Hare also dupes elephant, rhino, leopard and buffalo, the African megafauna whose good attributes are employed in philosophical formulations and strategies. The various body parts of these animals are also used in different kinds of medicines. Animals are not only vehicles through which indigenous people traverse the environment, but they are also sources of medicinal knowledge and therefore, a bridge between nature and culture.

It is worth noting that ecology as prefixed to such theories as ecocriticism and ecosemiotics, for example, to the study of literature and environment and/or nature has met with criticism from professional ecologists and scientists. In "Ecocriticism, Literary Theory, and the Truth of Ecology"

(1999), for example, Dana Phillips expresses scepticism about ecocritics' knowledge about "the truth of Ecology" as the title suggests. "Truth" is, however, relative to our own conceptions and only the dead know the whole truth. For the living, "truth" is a reflection from natural phenomena and conceptualised in metaphors since "human *thought processes* are largely metaphorical" (Lakoff and Anderson 1980:6, original italics). Nature is expressed in human language as a metaphor, and generally, all the animals depicted in folktales are metaphors. Data in science as the focal point of analysis corresponds with metaphor in literature.

Howarth (1996) acknowledges that "[w]e know nature through images and words, a process that makes the question of truth in science or literature inescapable, and whether we find validity through data or metaphor, the two modes of analysis are parallel" (77). As we move into interdisciplinary analysis and interpretation of the relationships between the human and the non-human worlds, and the interconnectedness of organisms in the ecosystem our niches become interlocked. As Siewers (2011) notes "the term *ecology* itself in its retro-etymology can be read 'the story of home' or […] 'the image of home'" (59), the implication of which is that interpreting literature through the lens of ecology remains relevant. For the ancient Romans, the word *humanitas*, from which "humanities" is derived was meant "the formation of living beings [humans] that do not behave like animals" (Posner 2011:21) but Malawian folklore informs us that some animals are better behaved than some humans.

Conclusion

Although decolonisation in Africa does not imply a return to iron age period, picking what was primitivised by the coloniser and finding sense in them revitalises our cultural values. The quest for medicines among humans throughout the world entails the search for survival and continuity in a hostile environment. People's attitudes towards pythons as associated with spirits and their participation in the drama of human existence and healing inform a worldview in which the natural environment and the physical environment form an entangled web of interconnections. That animals are teachers that replicate people's lessons in terms of their desires and fears is attested to by the didact nature of animal tales. Since the desire for fecundity is innate in human beings, fauna and flora are symbolic of that fruitfulness. The medicinal value of honey and herbal medicines in improving the body's immune system cannot be overemphasised. This includes the consumption of natural vegetables, insects, larvae/maggots and fruits. These sustained the health

of indigenous people. Despite the vilification of the word 'indigenous' in the colonial discourse, just as the word 'Christian' was born out of scorn in Antioch but it has now gained world acclaim. Indigenousness shall not come to us thinking that we are indigenous. Therefore, indigenous people's communication systems and the use to which they put the natural environment inform a philanthropic environmental ethic that dignifies nature while raising humans who are environmental trustees.

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