

## NATURE AS METAPHOR – AN ECOSEMIOTIC APPROACH TO SUSTAINABLE EDUCATION

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***Abstract:** The paper examines a selection of metaphors for nature in relation to which it uncovers implications behind correlated worldviews subsumable to the ecological (sustainable) or mechanistic (reductionist) paradigms. Knowing how to interpret such metaphors and understanding their limits is of utmost importance in developing a new set of ecological competencies. In order to counteract the significant ecological challenges we are currently facing, we must transform unsustainable ways of seeing the world which dominate our way of thinking/speaking. For this purpose, the discussion highlights the effects and relevance of conceptual schemas and metaphorical language related to Nature from an ecosemiotic standpoint. We argue that English language education has the potential to convey some highly relevant aspects of sense-making (semiotic) and communicational practices. As a special niche of English for Specific Purposes, ESP for the life sciences and natural sciences affords optimal opportunities for developing eco-literacy.*

***Keywords:** Ecosemiotics, sustainable education, eco-literacy, ESP, language learning.*

### **Introduction**

Newly developing fields of study across the humanities such as ecosemiotics and ecolinguistics are becoming source domains for novel eco-narratives, conceptual metaphors and ways of thinking which promote ethical relationships and attitudes towards our shared habitat – planet Earth. In recent ecosemiotic accounts, metaphors are viewed as cultural artefacts which are interdependent not only with our cultural environment, but also with our actual natural environment. Ecosemiotics is defined by Kull (1998:5) as the semiotics of relationships between nature and culture and “the development of nature(s) in culture(s)”. This promises to become a relevant field, including research on semiotic aspects such as the

meaning and function of nature, as well as developing the nature-culture relationship and sense-making modalities between us and (the rest of) nature (Kull, 1998:5).

In new ecological approaches to language studies, it is essential to substantiate sustainable conceptual schemas by understanding profoundly interlinked concepts that highlight systems thinking, feedback processing, and collaborative modes of conducting learning (Dragoescu Urlica, Coroama-Dorneanu, & Kamberi, 2018:147; Dragoescu Urlica, 2018). This attempt is corroborated with the identification of new metaphors coming to the foreground, mostly organized around organic aspects and the organismic paradigm (Helford, 2000; Keulartz, 2007). By analogy with living organisms, metaphors “we live by” are those that shape our conceptual systems, while dead metaphors do not play relevant roles in our cultural modeling of the world, thus being cast to the category of metaphors we do not live by (Lakoff and Johnson, 1980:55). Metaphors thus reflect natural cycles of life, as they emerge, evolve, live and die (Kövecses, 2005:103).

### **Material and method**

The paper takes an ecolinguistic approach to developing sustainable communication in the language class, considering the ecology of language and communication in its pedagogical dimension (Bogusławska-Tafelska, 2013; Coroama & al., 2018; Dragoescu Urlica, 2019:753). The illustrative discussion on framing the natural world from a cultural point of view also takes an ecosemiotic approach. The method includes a qualitative analysis of a corpus of metaphors used in conceptualizations of nature. The implications and connotations of metaphors belonging to the larger worldviews of organicism and mechanism reveal diverging conceptual schemas or worldviews. Starting from the ground methodology provided by cognitive linguistics, a more integrated outlook on nature metaphors is accomplished from an eco-semiotic standpoint. Despite the fact semiotics is sometimes considered a standpoint rather than a set of methods (Deely, 1990:12), the ecosemiotic framework opens up extended points of view which can function as an applied model for developing sustainable communication in the language class and beyond.

### **1. Ecosemiotic accounts of Nature metaphors**

In the cognitive linguistic approach, metaphors are seen as conceptual devices which express various ways of conceptualizing reality

and which carry underlying implications as they contain embedded assumptions (Lakoff and Johnson, 1980). Since the conceptual linguistic turn, metaphors have largely been considered important cognitive tools which may be employed to understand new knowledge or to conceptualize new ways of seeing the world and express these in a more direct way. In this sense, Kamberi (2014) has investigated metaphors used in foreign education to assess the value of language teaching/learning in relation to decoding metaphorically-encoded meaning. The study showed that students were confident in using various metaphors to express their ideas, perceptions and satisfaction levels, and also to describe their feelings about their teachers, courses and personal states of mind. The metaphor strategy applied in the study provided useful feedback to the teacher in evaluating the language course, the instructional outcomes, and students' perceptions. This type of research has also informed our qualitative analysis in that we are better able to understand how students interpret the world through conceptual metaphors they encounter and choose to employ. It also speaks about the resulting attitudes correlated to the students' perceptions, while generating particular feedback options.

This stands proof that metaphors also carry a normative function in that they determine the way we act, based on the conceptual systems we have built. In this case, metaphors enable us to make a "normative leap" from framing perceptions to enacting values (Keulartz, 2007:28). In addition, the mechanisms which help us make sense of the world may further be employed as devices that facilitate not only communication, but also negotiation between different discursive modalities (Hellsten, 2002; Keulartz, 2007:27-28). This aspect demonstrates the practical utility of learning to interpret and (de)construct conceptual metaphors in that it helps teach thinking skills and sustainable attitudes towards life in general, as shown with students of ESP in the area of Life Sciences – Agriculture, Horticulture, Biotechnologies, etc. (Dragoescu Urlica, Coroama-Dorneanu, Kamberi, & Malenko, 2019:758).

Among the limits of metaphors, however, is that they tend to highlight a certain set of features in a restricted manner, whereas other aspects are disregarded. This unilateral focus may bring about unintended consequences in our ways of seeing facts of the world, leading to "monocultural" types of communities, even on a global level. On the contrary, we should be aware that a metaphor is generally valid for certain purposes and remains accurate only in certain respects and in limited contexts (Lakoff and Johnson, 1980:165). Nonetheless, analogies may generate networks of cross-domain correspondences or mappings where

not all the pieces fit into the analogy at large (Kövecses, 2010). Given our particular case in point, i.e. reflecting our views of Nature through metaphors, Ebenreck (1996:14) cautions us to be more aware of “alternate metaphoric constructions of the Earth” instead of taking any one metaphor as the ultimate metaphor valid in all cases.

Moreover, another danger in dealing with metaphorical conceptualization is taking them literally and considering singular aspects, which are partly accurate on a certain level of truth, as the whole truth (Meisner, 1995:13). As a result, when we fail to grasp that a certain limited aspect is targeted by a particular metaphor, we are at risk of conditioning our own ways of seeing the world with potentially more serious side effects. In sum, metaphor systems affect our worldviews and have the power of molding belief systems, thus generating new realities. These unilateralist and literalist perils may be evaded by adopting a phenomenological way of looking at something from different standpoints at the same time, by “cultivating awareness of alternative frames” (Schön & Rein 1994:207). Keulartz (2007:28) defends this type of pluralism as “a normative value in itself” by exploring an array of nature metaphors employed in framing ecological restoration and the functioning of their cognitive, discursive, and normative effects.

There is a large diversity of metaphors for nature, as well as a wide range of cognitive, discursive, and normative functions they supply, thereby determining our discursive modes, attitudes and ethical stances (Harré et al. 1999). For instance, nature has metaphorically been seen as a human being (self, mother, friend, enemy, judge, monarch, partner, selective breeder), or a super-human figure (a god or a goddess), a network (web, community), a machine or built object (engine, computer, spaceship, storehouse, pharmacy, bank, art object), a certain place (paradise, garden, home), a means of communication such as a book or code (Philippon 2004:16; Keulartz, 2007:28).

One way of setting these metaphors apart has been to split them into two large paradigms which have framed reality into major belief systems: the organicist paradigm, on the one hand, and the mechanistic worldview, on the other hand. Organicism views nature as an organism, underwritten by metaphors like homeostasis and self-regulating feedback (Lovelock, 1979). More recently, biosemiotics and ecosemiotics are inscribed within in this tradition, with significant consequences for treating the planet in a sustainable manner, based on an attitude of responsiveness (feedback) rather than utilitarianism. On the other hand, the mechanistic and materialistic metaphors devised during the 17th c.

scientific revolution had significant effects as to the alienation from nature and the decline in humanistic values we are facing today (Keulartz, 2007:29-30).

All things considered, the limits of any metaphorical transfer should be carefully examined. Even ecological projects risk acting in the blind if the set of metaphors they propose is not operational or operates in materialist/reductionist terms. Modern economy has become a new target source of metaphors which has impacted the natural philosophy of movements which target nature management. New Ecology, for instance, views nature as a resource having cash value to be disposed of, which also carries reductionist implications (Keulartz, 2007:31). Economic metaphors like “producers”, “consumers”, “biological richness” or “biomass yield” have had destructive consequences by conceptualizing the transformation of nature into a chain of factories or an assembly line (Worster 1977). What is more, even militaristic metaphors borrowed from invasion biology have recently been sourced into ecology (Keulartz, 2007:41). For example, seeing non-native species in opposition with “indigenous” ones or as “alien” “invaders” to be eradicated has been criticized for the nationalistic and xenophobic undertones (Chew and Laubichler 2003). What all these metaphors have in common, whether mechanistic, economic, or militaristic, is the anthropocentric view which justifies the diminishment of nature instead of cultivating an awareness of its intrinsic value (Keulartz, 2007:31).

However, faced with the detrimental effects of the above mentioned metaphors, ecological restoration initiatives have been spurred by conceptualizations of nature as a work of art which needs restoring to its original state. Despite efforts of correcting harm done in the past, this type of environmental engineering which takes art as a metaphor for nature has been criticized for framing ecological restoration more in the guise of art forgery than art reproduction (Keulartz, 2007:33). This controversy is a question of nature-culture which can be settled by illuminating the whole conceptualization scheme of the art-nature analogy. One question would be why we temper with nature by trying to beautify it if we accept that it is already a form of art.

In this line of thought, nature as “our home”, as implied in the etymology of the word *ecology* may carry mixed implications regarding the domestication of nature. While the ethic of care may also be implied in this conceptual metaphor, developing a sense of feeling “at home” in a larger community or on the planet does not necessarily imply that we will also take the trouble of housekeeping. On the other hand, it may also carry

anthropocentric undertones that humans are the owners of the Earth and we can do whatever we wish in the homes which belong to us. Furthermore, the idea of redecorating the “house” of nature may be decoded as corrective or home-management aspects role (Meisner, 1995:14). Finally, seeing nature as a physical structure within which humans reside tends to impart a reifying quality to this metaphor, rather than considering human nature as constitutive of Nature at large, including a participatory outlook.

On the other hand, the metaphor of Nature as a living being is favoured by ecosemiotic accounts. Phrases like “healthy ecosystem”, “nourishing/healing/poisoning the Earth”, “violence against mother Earth” have surfaced around the quasi-literal interpretation of “Gaia” as a living organism (Lovelock, 1979). Nonetheless, Meisner (1995:14) wonders whether developing this imagery is sufficient to inspire less destructive relations between humans and Nature. The author cites cybernetic metaphors inspired by the techno-scientific revolution in phylogenetic line with the mechanistic metaphors of Nature. For example, phrases such as “fixing the machinery of nature” or “repairing the ecosystem” are backed by conceptualizations of Nature as a computer or a generic self-regulating system (Meisner, 1995:11, 16). Meisner (1995:16) puts forth an “ecocentric sensibility” that requires a new language, including a new set of metaphors to “evoke positive feelings about Nature and suggest a conception that leads to humility, respect, and non-exploitive ways of living”.

In short, we ought to cultivate less anthropocentric and more sustainable ways of perceiving the world around us. In language classes and beyond, sustainable education aims at enabling learners to become “ecologically literate” (Capra 1997:297), which ultimately relies on employing accurate conceptual schemes to reflect the organization of ecological communities which can then be used by analogy to create sustainable human communities.

### **3. Conclusions**

The aim of this study was to show how we can use a more sustainable approach to metaphor processing, by employing tools provided by ecosemiotics, which would be of great use in language teaching. Nonetheless, the question of decoding the meaning of metaphors is not the only one to be addressed from the perspective of ecosemiotics. We must also seek to evaluate metaphors in terms of the conceptual relationships they epitomize and the ecological effects they may generate. All nature

metaphors instantiate a particular organization of Nature, as well as the kind of relationship we tend to cultivate with it. As shown above, while some metaphors construct Nature as an integrated whole, others conceptualize it as an assemblage of parts or as a resource. The paper has discussed the importance of understanding the fundamental differences and implications embedded in such metaphors. As a result, drawing on linguistic aspects and metaphorical language, the reorganization of conceptual structures would be conducive to the development of eco-literacy and other ecolinguistic competences.

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