Anthropocentrism in Moin Dictionary: an Ecolinguistics Analysis of Animal Terminology

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Abstract: A growing body of evidence suggests that ecolinguistics is a promising critical approach to denaturalize all existential trajectories that have long alienated human from any multiaccentuality in nature. The purpose of this study is toidentify elements of anthropocentrism in Moin Monolingual Dictionary that facilitates the transform of *interactive network of relations in nature* into *human chauvinism*. Applying a critical analysis of the content of animal entries in this dictionary, the authors explain the materialization of cognitively and socially constructed signs supplying Persian users with anthropocentric messages indoctrinated in the definitions of animals and their ramifications for the biotic community. Findings indicates that animals are repressed in their representations; *economic externalities*, *presuppositions implied in definitions* and *physiology* are the most important criteria used to engineer semiotically anthropocentric simulacra of animals. These uniaccentual definitions do not criticize environmentally destructive cultural values and direct attention away from any alternative agency.

Keywords: ecolinguistics; anthropocentrism; language; Persian; dictionary

I.   Introduction

Critical Discourse Analysis (CDA) or its refurbished designation, Critical Discourse Studies (CDS) (VanDijk, 2002) suggest critical analysis, theory and application in multidisciplinary fields of scholarly activities. As a critical attitude within the humanities, CDS emphasizes "social equality and justice" (VanDijk, 2002) in an era called "linguistic turn" during which language is "being accorded a more central role within social phenomena" (Fairclough, 1992, p. 2). Such an approach was invigorated by resurgence in Linguistic Relativism (Subbiondo, 2015) and greeted by many social scientists who believe "language itself provides us with a way of structuring our experience of ourselves and the world" (Burr, 1995, p. 23).

Discourse Studies have long been obsessed with fundamental concepts like power and inequality (Gee, 2014b), their legitimization and the role of language in re-production of such discourses (Cap, 2013). Concentrating only on power relations between humans, these studies turned a blind eye to non-humans (O'Shea, 2021) and "the role of discourse in the domination by humans of other species has been almost completely neglected" (Stibbe, 2001); e.g. Fairclough demonstrates how language contributes to the domination of some people by others (Fairclough, 1992, p. 51), or as VanDijk puts it, "CDS scholars are typically interested in […] social *domination*, that is, the *power abuse* of one group over others, and how dominated groups may discursively *resist* such abuse" (VanDijk, 2002) [italics in original]. Strict orders to avoid deviation are even imposed:

As a criterion, we thus call any discourse unjust if it violates the internationally recognized *human rights* of *people* and contributes to social inequality. Typical examples are discourses that ultimately re-produce inequalities of *gender*, *race* or *class.* (VanDijk, 2002) [italics added]

Pioneers like Kheel(1995) who tried to showcase the role of discourse in the domination of humans over other species found themselves shunned by researchers who vociferously promote "anthroparchy" (Cudworth, 2008). Recent movements like Ecofeminism (Gaard, 2011; Cudworth, 2011, 2005; Plumwood, 1993) and Environmentalism (Ingold, 2000; Clark, 2012) contend that approaching social life with the 'lenses' of non-humans fundamentally alters both the subjects and objects of enquiry and the nature of enquiry itself. Sociologists have just recently entered the arena of animal domination (Sutherland and Judge, 2019); Berry's "oppression of human minorities and nonhuman animals" (Berry, 1997) is reminiscent of Singer's non-human slavery, who believes "objections to racism […] apply equally to speciesism" (Singer, 1990, p. 35).

The global community is currently grappling with environmental crises that demand unified action.We must abandon the simplistic binary of human-nature relationships, where humans are seen as active agents and nature as passive objects. Grounded in robust research and a critical lense, ecolinguistics possesses the potency to disseminate the linguistics barriers that perpetuate environmental crises.

Monolingual dictionaries allow their users to navigate diverse perspectives and explore nuances of languaging. With authentic definitions, these dictionaries shape and continue to shape human perceptions, practices and policies. Moreover, monolingual dictionaries play a pivotal role in preserving cultural heritage and promoting linguistic diversity, ensuring that future generations have access and appreciate the richness of their traditions. This study evaluates if and how Moin Dictionary, a repertoire from which people draw meanings, popularizes and promotes "destructive stories" (Stibbe, 2015, p.222) for the ecosystems by analysing the content of animal entries under the guidance of ecolinguistics. Deriving inspiration from the ecosophy of "diversity and harmony, interaction and coexistence" (He and Wei, 2018), we propose a dialectical ecological perspective that underscores both interconnectednessand individualityof all living beings. In the same vein, it is imperative that we conscientiously craft and employ suitable lexicons, as their definitions extend far beyond mere descriptions.

II.   Literature review

Since Galileo, nature has been perceived as a mathematically observable matter (Goff, 2019). This view later paved the way for nature's exploitation (Adams, 2010, p. 94), especially during the Industrial Revolution. Henceforth, the synthesis of nature, capital and work gave a new economic façade to civilizing progress. This new mode of production congealed the policies of "person-to-nature" and "person-to-person" relationships (Stibbe, 2015, p. 181); therefore, modes of production became not only economic but political (Pozdnyakova et al., 2019) The widening gap between "intrinsic value" and "functionality" for a productive goal necessitates the cessation of humans' dependence on nature (Stibbe, 2018). Therefore, nature becomes just a subsystem for human productive systems and economic policies gave nature, this alienated matter, an ideological content; an ideology which dawns on objective or "unthinking non-human" by subjective or "thinking human" (Kravchenko, 2020).

By 1950s, the crises of productive systems had started. Overextraction and overconsumption of natural resources far outstripped the scale and pace of their replacement by nature. Depletion of nonrenewable natural resources, irresponsible multiplication of human population, destruction of wildlife habitat, polluting technology and genetic pollution irreversibly disturbed the equilibrium of ecosystems and constancy of atmospheric conditions (Chen, 2016; Stibbe, 2013). All these blights were further exacerbated by the mantra of "cornutopianism" which offers blind faith in technology with no thought of ecological morality (Jonsson, 2014). This situation is reminiscent of what Iranian poet, Rumi (1207-1273), describes as "we are at the edge of the roof". But in this economized world, nature's passivity brooks no opposition; "they who destroy me destroy themselves" (Dussel, 1985, p. 115). Increasing dysfunctions in nature which have been the result of human's structural and instrumental violence against nature reached to appoint that many philosophers urged a new

approach in interaction with the periphery; an approach in which prosperity in ecosystems is not sacrificed if they are not aligned with human profitability.

Unprecedented degradation of natural heritage, coupled with the linguists' widespread discontent over the mainstream linguistic research, especially focusing on intrapersonal functions, eradicated the idea of what people actually do with language. Halliday warns that "there is a syndrome of grammatical features which conspire […] to construe reality in a certain way; and it is a way that is no longer good for our health as a species" (Halliday, 2001). More than seven decades earlier, Malinowski objected this uniaccentuality in linguistics studies:

The dilemma of contemporary linguistics has important implications. It really means the decision as to whether the science of language will become primarily an empirical study, carried out on living human beings within the context of their practical activities, or whether it will remain largely confined to deductive arguments, consisting of speculation based on written or printed evidence alone (Malinowsky, 1936).

Couto (2014), Zhou (2021), LeVasseur (2015) and Mühlhäusler (2003: Ch. 3) offer comprehensive explorations of the historical interplay between language and the environment. The birth of ecolinguistics is most often attributed to the Norwegian-American linguist Einar Haugen who pioneered this field by applying ecological principles to the study of language (Penz and Fill, 2022). Fill's seminal overview of ecolinguistics, published in 1993, represents a broad-ranging perspective on the field to investigate the intricate connections between languages and their social and natural contexts. Trampe (1990) approaches the field from a language-world-system and strongly believes that ecolinguistics should contribute to overcoming the ongoing ecological crisis. Bang and Døør (2007) introduced a dialectical approach to ecolinguistics, known as the Odense School of Ecolinguistics. This holistic perspective draws inspiration from Marxist theory and Eastern philosophies, including Daoism, Hinduism, and Buddhism. The evolution of ecolinguistics in China is characterized by harmonious discourse analysis, arguing that Western-centric frameworks are ill-suited to the Chinese culture (Huang and Zhao, 2021, p. 2). Ecological view of language evolution (Mufwene, 2001), Comparison of linguistic diversity to the diversity of biological species (Maffi, 2001), Linguistic human rights (Skutnabb-Kangas and Philipson 2008), Ecological discourse analysis (Alexander and Stibbe 2014) and Ecosystemic Linguistic (Couto 2018) are some of approaches that delve into the multifaceted connections between language and nature.

Chen (2019) provides a comprehensive review of lexicography, advocating for the application of critical approaches. He argues that the choice of vocabulary in explaining the meaning of a word, the choice of illustrative examples, and the order of senses comprise a text that is generally far away from the pressing issues of our time. Liu, Lyu and Zheng (2021) contend that at the fundamental level, many lexicographers, perhaps indulged in Western analytical thinking, still hold a fragmented view, rather than a systematic view of the components in a dictionary and its microstructure. They emphasize the need to recognize the complexity, holism, diversity and dynamism of dictionaries, akin to ecological systems. Heuberger (2003, 2008) investigates the role of anthropocentrism in dictionary compilation, while Gouws (2014) discusses the impact of new technologies on lexicography. To address the anti-sociocultural ideologies found in dictionaries (Tenorio, 2000) ecolexicography, originating from lexicography and ecolinguistics, was first proposed by Sarmento (2000) that focuses on the effects and results that each lexeme brings to dictionary users. Sarmento (2005) argues that the core concern of ecolexicography is what the role of words is in our world and how a word can create, maintain or destroy a world.

III.   Theoretical foundation

3.1 Ecolinguistics

Ecolinguistics is an umbrella concept normatively tailored to transforms divergences in linguistics studies into convergences (Chen, 2016). Concentrating on both langue and parole, ecolinguistics points out "the elephant of language" (Kravchenko, 2020), culminates in unecological language use and anthropocentrism which represent nature from the point of view of its usefulness for humans (Feng and Fan, 2012). Anthropocentrism is the "tendency to vastly exaggerate human dominance, understanding, power, autonomy and unity" (Sax, 2011) to have rights, morals, consciousness and deterministic laws reified. It advocates authoritative access to the inferior uncultured biotic community and their affordances. In addition to biotic community, even women, slaves and foreigners are viewed as part of periphery that exist to serve rational man. Using "species apartheid", Twine explains that current separateness from the others is the result of "differentiations" rather than "differences" between animal species (Twine, 2010, p. 2).

Inspired by Gaian imperatives (Primavesi, 2000), ecolinguistics tries to procreate a new order, a metanoic process to grant nature its functions, to re-possess its lost sense and essence and to permanently maintain its biotic health (Karnani and Annila, 2009; Lovelock, 2009).

Though cognitively and socially deterministic functions of language were first cogitated by Alexander Potebnja (1835-1891) who later inspired Lev S. Vygotsky (1896-1934), Edward Sapir (1884-1939) and Benjamin L. Whorf (1897–1941) were the first to introduce the socio-psychological hypothesis of linguistic relativity, exemplifying how patterns of language use in cultural contexts can affect thought (Subbiondo, 2015; Blomberg and Zlatev, 2021)

In 1866, Ernst Haeckel, a German biologist, coined the term "ecology" for which he did not intend even any implicit reference to language. For him, ecology was "The total science of the organism's relations to the surrounding environment to which we can count in a wider sense all conditions of existence" (Haeckel, 1866, p. 286). Decades later, the Norwegian-American linguist Einar Haugen ingeniously molded Haeckel's concept into the realm of linguistics. He initiated "the ecology of language" as "The study of interactions between any given language and its environment" (Haugen, 2001). Tired of merely describing circumstantial factors of language pioneered by people like Saussure (1857-1913), Hjelmslev (1899-1965) and Chomsky, Haugen tried to draw attentions to how language triggers the internalization of socially rooted and historically developed activity of signing, the basis of qualitative leap from animal to human psychology. In other words, "Haugen saw the value of the language ecology model in the requirement to describe not only the social and psychological situation of a language, but also the effect of this situation on the language itself" (Blackledge, 2008).

In this ecological perspective, relations between biotic community and humans are re-thought. Relations which are epiphany of an interconnected web of life, no part of which maybe said to be superior to the other (Broad, 2020). This critical alertness is formed within the praxis of everyone. Committed the idea of liberation of the biotic community, ecolinguistics seeks re-orientation in human's collective responses to the worsening situation of global ecological crises (Chen, 2016). It argues for those who cannot argue for themselves.

Totally, ecolinguistics can be identified by these characteristics:

(a) It is a dialectical approach: While openly admitting the influence of nature on human (Zhou, 2021), ecolinguists strongly assert that man, in turn, forces conditions in nature which facilitates his existence. If dialectic is the passage (dia-) from one horizon or frontier to another horizon or ambit (-logos), the world is continually comprehended as a dialectical process with a mobility that continually exceeds its limits (Dussel, 1985, p. 28) at the interpersonal and intrapersonal scales in "the dialectics of mastery-harmony, othering-connection and exploitation-idealism" (Milstein, 2009); so, in this approach, "language is not an autonomous prerogative" (Karmakar, 2020) and all complexities of biotic community in co-evolution are explained. Through dialogues or "ecological interactions" (Kramsch and Steffensen, 2008), the fusion of individuals, situations, and cultures with biotic community arises. Human and biotic community relations have long been tarred with the

brush of ambivalence and dissonance. Ecolinguistics tries to grant the biotic community their "legal identity" (Stilt, 2018); so, they are no longer treated as "things or property" (Wise, 2010).

(b) It analyzes processes, not objects: Ecolinguistics investigates "processes that took place in the minds of speakers and thus affected the community and its culture" (Steffensen and Fill, 2014). Ecolinguistics urges re-definition of millennia-long histories of energetical and material processes, micro and macro political and economic processes, information processes, cognitive processes, semiotic processes, and ecological processes to propound re-conceptualization of environmental crises and terminate language reifications (McGill, 2020). To do so, linguistics must be viewed as the philosophy of ideological signs where any signification is bathed by ideological agency and their perception is "ecological by nature" or "relational" (Gibson, 1979, p. 126). Over time, "distance senses" took precedence over "contact senses" (Morris, 1938, p. 32) and alienated human from biotic community. Ecolinguistics tries to reverse this process.

(c) It explains not describes: Unlike many contemporary traditions of linguistics whose findings are said to be apodictic, demonstrative and scientific, in ecolinguistics, it is believed that by merely describing phenomena we cannot unmask the causal dynamic relations that underlie them. In this holistic approach, emphasizing the interdependence of language, cultural diversity and biodiversity, ecolinguistics explores the characteristics of communication between one part of the biotic community and other parts (Stibbe, 2018; Steffensen and Fill, 2014). To do so, though features and manifestations, or phenotypes, are initially described, it is a genotypic explanation in nature to demonstrate us that language is "the constitutive element of human relationing. We do not use language as an instrument, but are formed as languaging beings" (Cooke, 2016)
Many books and papers on ecolinguistics and related fields of study unwillingly re-institutionalize anthropocentrism (Poirier and George, 2021) by using dualities like "human and non-human animal" (Adams, 2010), "human and environment" (Stibbe, 2015), "center and periphery" (Dussel, 1985) and similar expressions. In these dualisms, the human half is represented as "cultured, rational, spiritual and good" and the Other half is associated with "nature, uncultured evil and non-rationality". This otherness eradicates any agency, paves the way for distortion of the consequences of devastating behaviors, ethical justification and advantageous comparison. These linguistically mediated encounters determine cognitive and social organizations of consciousness. All consciousness, including human manifestation, is a virtual by-product of certain modes of general representation (Bogdan, 2010, p. 68). These dualisms, if cemented in everyday discourse, are highly dangerous for the Other. To ameliorate this situation and bring attention back to these muted perspectives, in this paper, we offer interrelating "biotic community" to maximize space for consciousness, empowerment and polyphony.

3.2Ecosophy

Arne Naess in 1973 introduced the concept of ecosophy. He explains that this term is a compound containing two elements: "eco-" as used in ecology and "-sophy" as used in philosophy (Naess, 1989, p. 37). Ecosophy is a philosophical world-view or system inspired by the conditions of life in the ecosphere (Naess, 1989, p. 38). He believes that "without an ecosophy, ecology can provide no principles for acting, no motive for political and individual efforts (Naess, 1989, p. 41). He and Liu (2020) believe that ecosophy is a guiding principle that directs investigations into the intricate connections between language and the environment within the realm of ecolinguistics. According to He and Liu (2020) and Zhang and Cheng (2024), ecosophy can apply not only to social ecosystems including international relations, but also to the natural and whole ecosystems. Each ecological discourse analysis should have its own ecosophy and it does not need to be completely original (Naess and Haukeland, 2002, p. 101). Stibbe (2015, pp. 13-16) proposed the ecosophy of "living!", which is based on the principles and teachings that encourage care for other people and species. He and Wei (2018) constructed the ecosophy of "diversity and harmony, interaction and coexistence", a combination of traditional Chinese culture and philosophy including Confucianism and Daoism, which advocates the diversification,

interaction and harmonious coexistence of systemic elements.

The ecological discourse analysis of animal definitions in Moin Dictionary can not only guide readers' ecological consciousness but also shows the importance of the content of animal entries, which is conducive to promoting the positive re-construction of non-humans. Therefore, this study employs the ecosophy of "diversity and harmony, interaction and coexistence" along with the theories of power and domination that have been used in Critical Studies (Poirier, 2021) to the issue of engineering common sense and rationalization of collective experiences for Persian Speakers in Moin Dictionary.

3.3 Lexical entries in Moin Dictionary

Through the centuries, lexicography has been busy with presenting phonological, lexical, semantic, grammatical and logical information pertaining to a word, and supplementing it with natural contexts of usage. Applying hybrid lexicographic and pedagogical approaches, lexicographers strive to formulate authentic definitions in such a way that lexical content can be presented and memorized easily in their associated semantic correlations. Human cultures are linguistics and human competence for cultural acquisition and transmission is mediated by the unique language capacity (Sinha, 2006). Definitions in dictionaries are "a type of framing" (Nerlich and Koteyko, 2009), or "instruments of re-producing ideological decoration" (Voloshinov, 1973, p. 10) that mold another reality outside themselves. Each entry foregrounds some aspects of reality while backgrounding other elements, engendering different reactions in readers (Nisbet and Mooney, 2007). Through these collective action frames, the domain of ideology coincides with the domain of signs; because signs emerge only in the process of interaction between individual's semiotically mediated consciousness and another (Scott, 2010). This is why (Voloshinov, 1973, p. 10) claims "Everything ideological possesses semiotic value". Definitions in dictionaries stablish new parameters for ideological evaluation, socially mediated learning processes and agency in selective environments. Over time, these evaluative judgments "diminish the cognitive resources necessary for sufficient involvement" (Busselle and Bilandzic, 2008) with others.

Internalization of culturally produced sign systems brings about behavioral transformations (Vygotsky, 1978, p. 7) because each sign is the materialization of the "energy of the mind" (Cassirer, 1944, p. 154) which are able to constitute the ecology of their users.

A word is a cache of gradual qualitative accretions of social changes and establishes "interactivity" (Harvey, Ramus and Steffensen, 2016) which is "sense-saturated coordination that contributes to human action" (Steffensen, 2013). The production relations established by using signs determine the forms and themes of agency in biospheres, legitimize the agents and separate humans from biotic community.

Moin Dictionary is compiled in a 12-year period and in six volumes. This monolingual dictionary also contains some Arabic and European lexical entries. Each entry includes spelling, pronunciation, lexical root, grammatical points, meaning(s), example(s), synonyms and antonyms as well as words coined by Persian Language Academy. In 1985, the last volume of the first edition of this dictionary was published.

Compiled by Mohammad Moin, a prominent Iranian linguist and lexicographer, Moin Dictionary (Moin, 2015) received a warm welcome by academicians, students and common users. In this work, dependable definitions, authentic pronunciations and practical guidelines for using standard language are provided and unanimously accepted as canonical. In the blink of an eye, Moin Dictionary was turned into the primary source for standardized speech, vocabulary mastery, second language learning and translation. This dictionary soon became an irreplaceable part of Persian culture and its developing society.

IV.   Research design

This study is a form of critical discourse analysis (Fairclough, 1992, 2014; Hodge and Kress, 1993; VanDijk, 2008) accoutred with the concept of sign prevalent in Marxism (Chandler, 2002; Culler 1981). CDA provides a lucid account of how discursive structures "enact, confirm, legitimate, reproduce or challenge relations of power and dominance" (VanDijk, 2015). In Marxism, signs are viewed as instruments for production; ideological products which are not only parts of socially mediated reality, but reflect and refract reality outside themselves

(Voloshinov, 1973, p. 9). In this school, understanding the relations between the world of signs and the world around signs requires us to think the relationship between sign and ideology to sustain a pattern of such belief systems across a wide range of issues and phenomena (Wayne, 2003, p. 36). In this arena, the meaning of signs are socially derived conventions rather than natural facts.

The domain of ideology coincides with the domain of sign and when materialized in social interactions, ideological chains are tailored, stretching from individual consciousness to individual consciousness, connecting them together and forming social ideological facts (Irvine, 2019). These production relations determine all forms and means of verbal communication.

4.1 Research questions

In this paper, dictionary entries are seen as ideological phenomena with their distinctive semiotic structures which facilitate the pre-conditioning of social communications. Applying a text-dependent micro-discourse analysis of the definition of all animals which mark frames in Moin Dictionary, we try to answer the following questions: How are animals socially constructed in Moin Dictionary? Do definitions, denotatively and/or connotatively, express or repress animals? How evaluative or attitudinal stances towards animals can be corrected in this dictionary?

4.2 Data collection

To answer the questions, all entries which are about animals are identified and their definitions are critically analyzed to see which criteria are particularly emphasized to introduce animals. Accordingly, nine criteria are recognized (Table 1) which condition the content and structure of definitions for Persian Speakers. Again, all definitions of animals are analyzed to calculate how many times identified criteria are employed to represent animal in this dictionary.

V.   Data analysis and discussion

Moin Dictionary has not only been a reference book and for many passionates about literature and research, it is like a breviary for a priest, read over and over, page by page before they start their literary and academic endeavor. Due to the importance of this dictionary in the social and cultural life of many Iranians, we try to answer whether it is culprit for many environmentally destructive behaviors or not. By analyzing animal entries, nine basic factors are identified which are used as starting points to define animals and engineers their representations. If definitions have component(s) to support anthropocentrism, for each case, the relevant factor is positively marked. Conversely, if animals' biological performance threatens humans' alleged supremacy, the relevant factor under study is negatively marked once for each case in definitions. In this section, basic factors are introduced and some examples are provided.

5.1 Economic externalities

The most notorious form of anthropocentrism embedded in Moin Dictionary is by concentrating on resultant gains and losses of animals encountered. For example, Pica is defined as:

"noisy animals which perch on the vantage points, outstandingly intelligent, secretive and mischievous; feeding on grains, fruits, insects, and eggs. This creature is generally unholy because it devours the eggs of other profitable species, pushing them to the verge of extinction […] Series of expedient measures must be taken to forestall their reproduction, e.g. by hunting or poisoning them."

When anthropocentrism is applied as a lever to harness human liaison with non-humans, their exploitation, captivity, and slaughter are automatically justified; this is why cows "are domesticated for milk and ploughing farming lands"; Peacocks' extravagant plumage with eye-spotted tail has ushered them into permanent confinement in zoos; See-see Partridge can also be hunted because "its delectable meat is by far better than partridge".

The atmosphere created by these definitions is quite antagonistic towards animals whose existence intimidates humans and at the same time are in possession of something treasured:

Stoat is "a carnivore mammal […] highly audacious and vicious that dines even on crabs and snakes […] It is often hunted for its hide which is of inestimable value. To have the hide intact, this animal should be poisoned […] its fur is highly warm and worn by dignitaries."

5.2 Presuppositions implied in definitions

Congruence with human temperament and mores is the hidden agenda to define animals and their biological performance in Moin Dictionary. Readers immediately foster markedly biased attitude towards animals, either belligerent or benevolent whether this special creature upsets human peace and tranquillity or not. For example, Gyrfalcon has "stunning coloration, striking bluish-grey plumage with golden rings around the eyes and extremely agile in hunting". Bed bugs are "human parasitic insects feeding exclusively on blood […] are mainly nocturnal, whose bites results in prominent blisters […] often find shelter in crevices and stink to high heaven."

5.3 Physiology

Physiological considerations have consistently brought about an anthropocentric evaluation system through which animals' physiognomy and posture are judged. Swan's splendor, horse's briskness, camel's stamina, lion's power and the magnet of gazelle eyes all represent a utopian vision for anthropocentric ideality of reality. A royal falcon is "a yellow eyed bird of prey with exceptional flight maneuverability with singular grace and beauty".

In contrast, different types of worms, bugs and mice are notoriously abominable for humans; in a more serious vein, crocodile's and hyena's bone-tattering jaws make your blood run cold.

5.4 Emphasizing abundance

Another conspicuous aspect of definitions is that as soon as a presupposition is institutionalized about animals, there is a mention of animals galore in habitats possessed by humans. If any animal could amply quench humans' scorching thirst for more, they are introduced as perennial resources for hunting and exploitation. But if animals' sheer existence is appalling for human, siren would go off, vociferously urging the readers not to fail to heed warnings of mortal threats posed by these creatures:

"Cobras are All fast-moving venomous snakes […] three extant families are recognized so far […] all of which have deadly venom […] mountains neighboringMashad are teeming with these terrestrial snakes." But Shrimp is defined as "Some decapod crustaceans with swimming mode of locomotion […] and are widespread and abundant […] hundreds of species inhabit in the Persian Gulf and the Oman Sea […] during the prawning season form large schools." Similarly, Falcon is defined as "birds of prey which include about 40 species and are widely distributed on all continents except Antarctica. Different genera of these birds are ubiquitously found in Iran and are tamed for hunting".

5.5 Embellishing and expanding human behavioral standards

In some definitions, humans have been portrayed as the unfailing source of virtue and righteousness but acquiesced to 'monkey business' to guarantee its superiority over the malignant Nature. 'Bravery', 'gallantry', 'agility', 'sharpness of eyes', 'serenity' and 'loyalty' are just some qualities which their attribution to animals depends on the alignment of animals' behavior with those of humans. Accordingly, mule is defined as "because of its forbearance, resistance to different types of disease, composure and stamina […] is the only roadworthy animal to innocuously pass through rocky roads". In stark contrast, humans, grudgingly have to cope with

'belligerence', 'atrocity', 'insatiable gluttony', and 'avarice' which insidiously infiltrate humans' behavior and thought.

5.6 Presuppositions suggested by habitat

Natural habitat of animals can help to germinate evangelical opinions germane to biological performance of animals. 'perching on the vantage points of trees', 'seas', 'oceans' and 'fresh water' have all imperishably been longed for by humans; in contrast, 'under the ground', 'dark places' or 'dank places' clearly connote places abhorred by human; e.g. Vipera "whose abode is in rockfalls on a bed of thorns"; Hamaj is "a type of mosquito that habitually perches on cows' and donkeys' shit"; but Nili-Ravi buffalo "lives in salubrious jungles with dense foliage."

5.7 Nomenclature representing bias

Anthropocentrism has even penetrated into the lexical structure of words representing animals. For example, 'ostrich' is stylized as "an assemblage of camel and hen", showing 'directionless' and 'irresolution':

all the vicissitudes of life, like an ostrich

got me stuck in a conundrum, out of reach

(Sanaei, 1080-1131)

Negative implications of words like 'mole' [blind mouse], 'dung beetle' and 'horsefly' are readily evident.

5.8 Disinterested definitions

Some definitions provided are unbiased without any trace of anthropocentrism. In this situation, animals are objectively defined, i.e. by verifiable expositions of appearance or physiological make-up. For example, Feral pigeon is "a type of pigeon with sapphire blue feathers."

5.9 Incomplete definitions

Sometimes in definitions provided, a hedge, depicting 'type of', 'kind of' are used; and readers are abandoned with no more details. Rarely are definitions provided in contrast with users' background knowledge; e.g., bats "have poor eye-sight; this why they are nocturnal hunters and rest during days."

Table 1 shows the frequency of anthropocentric factors which are identified and calculated in this dictionary.

Table 1: Frequency of anthropocentric factors in Moin Dictionary
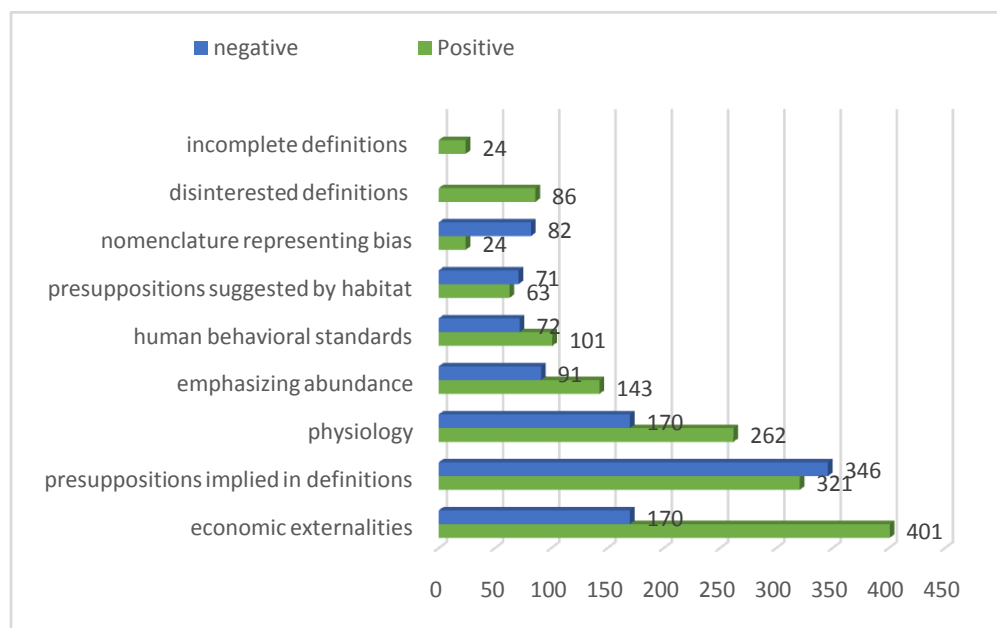
VI.   Analysis and discussion

Language, a cultural product, has long taken the "mediating function", by which "the individual actively modifies the stimulus situation as a part of the process of responding to it" (Vygotsky, 1978, p. 14). Through verbalizing perception, languaging crystalizes agency and polishes its functionality (Steffensen, 2011) to institutionalize "socially derived nature of subjectivity" (Cowley, 2019). Kumpferschimdt believes language provides manic subjects with a mechanism to relate to "the Other" to follow their pursuits (Kupferschmidt, 2016). Langland (1332-1386) implicitly clarifies this condition. He metaphorically uses the phrase "the world as a book" which carries implications of reading and interpreting the Other subjectively (Rudd, 2007). Langland believes that human's being in nature has been like standing on a height and conceitedly surveying the surrounding countryside springs. Forgetting that we are still part of the landscape has been the starting point of the ideological formation of dominated classes and periphery or "anthropocentrism".

According to the results, if 'incomplete definitions' and 'disinterested definitions' are put together, they totally comprise 110 cases and just negligible 4.5 percent of all definitions while a significant majority of animal definitions, approximately 2350 cases, conspicuously show elements of anthropocentrism.

In economics, an externality is the cost imposed on others who are not taken into account by the person taking action (Pigou, 1920; Corato and Maoz, 2019). Modern anthropocentric ways of knowing the biotic community turned them into inert and externalized objects exploited for human taste and interest. In Moin Dictionary, economic affordances provided by animals are the most blatant form of monophony. Definitions in this dictionary are evocative of "Treadmill of Production" (Pellow et al., 2008, p. 3) which emphasize incessant production of goods and services provided by animals. In this dictionary, animals produce commodities in terms of offspring, milk, eggs, fur and hide or services like pets, sport hunting and in zoos and aquaria. In this cost-benefit-analysis, whenever animals' sheer existence satisfies human needs, animals are positively represented, 401 cases, and if they do not directly favor human needs, they are denigrated, 170 cases.

In definitions, the focus is on the breeding capacity of animals as a limitless renewable resource of production. There is no habeas corpus in natural law and these instrumental relationships are framed by law, culturally reified and politically supported. In long term, the output of this approach is animals' extinction and degraded

quality of life. This outer wasteland mirrors an inner wasteland (MacGillis, 2013) which imposes externalities to the biotic community. However, exploitation of one group exacerbates the situation of other animals and justifies mistreatment with them.

In Moin Dictionary, some definitions of animals contain presuppositions which trigger special interaction between lexicon users and biotic community. This process of sense-making does not gestate automatically in an independent realm. This process can fully be explained through models of social interaction and social normativity (Gahrn-Andersen et al., 2019) and have consequences for human existence in a wider bio-ecology (Cowley, 2014). In Moin Dictionary, the biotic community are marginalized and anthropocentrism does not allow them to express any corrective feedback. Instead of co-acting arising from the coordinative dynamics between human and the biotic community, languaging provides us with "a capacity for harnessing the behaviors, attitudes and values of others" (Gahrn-Andersen et al., 2019). In our analysis, in 321 cases, definitions contain presuppositions which correspond with the principles of anthropocentrism and in 346 cases, users are expected to develop negative attitudes towards animals and their biotic performance. The higher frequency of negative presuppositions indicates that we humans desire to teach animals our ways, never think that they could teach us theirs.

In these definitions, there is no room for recognizing and dependence on biological agency; so, users of this dictionary perceive animals as "particular kinds of things" (Gahrn-Andersen, 2019). In this utilitarian configuration of animals and animal relations, situated experience draws on heteronomous resources; that is, normatives and values which are extrinsically informed (Gahrn-Andersen and Cowley, 2017). Animals defined in this lexicon, deprived of any co-creation, survive in a world of meaning which hinges on subjection and exploitation.

Human social relations also re-configure the biology and sociality of other species as they are incorporated into humans' experienced agency. Animal entries in Moin Dictionary function "as constraints on the dynamics of interpersonal communication" (Pattee and Rączaszek-Leonardi, 2012, p. 325). The way animals are represented is a dynamic process of "meaning making" (Zlatev, 2015). These definitions are not static products but are understood as "stretching from micro-scale of ongoing interaction and experience to the macro-scale of history and evolution" (Zlatev et al., 2018). Anthropocentrism leads to a distinction between biological facts and human values. In these definitions, animality connotes consistent emotional association with fear and unnerving beasts which are "not like us" (Qirko, 2021) in many attributes.

In this dictionary, in 262 cases, animal power and physics are represented positively and in 170 cases, represented negatively. If muscular power of animals is used for transportation, physical labor, pulling plow, powering mills and guarding, animals are good company. If animals are not in line with anthropocentric interests, their representations totally change. Scaly body, menacing glare, powerful chops, big paws, lethal venoms, deadly bites and sharp teeth, augmented with anecdotal ties with delinquency, make dictionary users feel panicked at the very thought of animal encounters. "The absence of choice" is the primary point of contact in these encounters. Physiological definitions overwhelm appreciation of animals as slaves or scary beasts.

Definitions in Moin Dictionary reinforce how biotic community is constituted by and through human hierarchies. The abundance of animals in their natural habitat is another realm to practice anthropocentrism. In Moin Dictionary, the abundance of animals is emphasized and positively represented 143 times because they provide a wide range of services from economic advantages to increased opportunities for exercise and outdoor activities. In stark contrast, if certain animals do not satisfy human needs and interests, they are introduced as pests. These creatures infest human habitats and disturb their equilibrium. In this case, animals' abundance is negatively represented 91 times.

In definitions, animals are reduced to widgets because Iranians are embracing Western life style which emphasizes more and more of everything; e.g. Western diet is characterized by eating more and consumption of animal protein. In this lexicon, animals are "machines of production" (Emel and Harvey, 2015) and therefore mechanized and large scale killing of animals in slaughterhouses (Miele, 2016) is legitimized. Users in this dictionary have no clue about the sufferings experienced by animals in intense factory farms, slaughterhouses

and research laboratories because of "institutionalized forgetting" (Fitzgerald, 2010). People are physically and psychologically removed from the animals that produce the products and services they consume (Charles, 2014). In Iran, like other parts of the world, killing of animals for food is now actively hidden from consumers' sight by animal food supply chain (Miele and Evans, 2010). By increased scale of production and slaughter and shorter life-span, animals become de-animalized, alienated from their own products (Miele, 2016). Culling or "selective slaughter of species" (Knobel et al., 2013) is also discussed. High profile culling programs are legitimated by an ideology which naturalizes the oppression of animals in any form.

Technology and science have distanced humans from natural world. This separation has left humans bereft of any instinctual connection to spiritual dimensions of life. So, the soul of the world is something unfamiliar to most humans. Some animal definitions in Moin Dictionary use animals as medium to appraise human behavioral standards. Traits like dignity, confidence, wisdom, alertness, engaging interaction, decorum and respect are communicated through animals to magnify the role of human as inexhaustible supply of all good. In the definitions, animals are in possession of positive behavioral attributes for 101 times and 72 times, they are negatively introduced. Characteristics like dishonesty, meanness, rudeness, arrogance and impatience create a toxic ambience in which nature is some nasty business against human sacred life. All these features are self-exonerating accounts for the imputations of motives.

Biotopes or habitats are uniform assemblage of animals, plants and organism. These bubbles of life, accompanied by physical characteristics such as climate, temperature, humidity, are evolved through millions of years of adaptation and co-habitation. Interaction between different organisms makes these systems balanced and stable. In Moin Dictionary, habitats are another arena to exert anthropocentrism. Whenever habitats are discussed, there is an explicit connection between human utopian and dystopian worlds and animals proper. If an animal's biological performance is acceptable anthropocentrically, their habitats are introduced in such a way that motivates the readers to share this habitat or once experience being there. In our analysis, habitats are introduced positively for 63 times and negatively 71 times. It seems that these positive and negative contents show human thirst to use, modify and transform natural habitats.

Attribution of blames to Others, diffusion of responsibility and disregard for the consequences of detrimental behavior are just some results of this duality. Through this duality, users experience prejudice and readily develop prejudiced judgements about animals. These discriminatory mechanisms impart positive or negative pronunciation, uniqueness, gender affiliations or racial associations with animals. In this anthropocentric approach, animals are commodified, turned into mirror to reflect human's sense of self-importance and entitlement. This narcissistic self-gratification emphasizes civilizing human, legitimizes the exploitation of animals and mutes their perspectives and agency.

In some words in Persian, the way words are formed function as an otherizing mechanism to form ingroups and outgroups. In this case, lexical structure of some animals provides a bridge between animals and certain good or evil traits. These particular traits are conducive to certain attitudes and performances. In this particular sample, in just 24 cases, internal lexical structure imparts positive sense but in 82 cases, nomenclature quickly foster a feeling of aversion towards offensive things.

VII.   Conclusion

The current chapter in the story of humanity is not an inspiring one. Humanity is experiencing unprecedented moral and environmental crises and unsustainable personal and collective actions contribute to devastation and endless suffering. This is because we have long been obsessed with a single story; "the prosperity story" (Korten, 2006) or "the story of human centrality" (Kingsnorth and Hine, 2009) which spans through centuries, cultures and continents. Ecolinguistics recounts a new story which puts an end to the story of "human exceptionalism" (Plumwood, 2007, p. 42). Ecolinguistics shows that modern enslavement is no longer based on race; Otherized groups like biotic community, marginalized societies, women and foreigners are commercialized and inherited. This new approach tries to bring the human back to share center-stage with all oppressed groups and terminate all hidden exploitations.

Ecolinguistics, drawing on ecology, philosophy, spirituality, religion, economic and political theories, demonstrates that knowledge is a moral burden and an ethical impetus for change. This collective change and awakening is achieved by embedding the discourse of biotic community in social relations; by introducing and understanding biotic community as co-producers of the relationships; as co-agents in the performativity of everyday life.

This paper touches upon the sensitive issue of animal definitions in Moin Dictionary owing to the flood of anthropocentrism gleaming images of utilitarian culture which are at odds with moral and environmental realities of Iranians. Definition of animals in Moin Dictionary manages to create a powerfully mediated experience of anthropocentrism and commodification of nature and helps Iranians to seek meaning in various aspects in their private and social life. These pseudo real experiences are hybrids of manic aspirations and collective expectations and have definite influences on their current conceptualization of biotic community and future interactions with them. In definitions, animals are humanized, are deprived of any right and agency; discursive mechanisms and linguistic devices are employed to have strong effect on what is transmitted and what is thought.

Ecolinguistics abolishes moralizing manipulations and euphemizing our grandiose narcissism; it shows that objectivity is human subjectivity and definitions in Moin Dictionary are subjective categorization of animals in a microcosm which seeks to re-produce domination. Ecolinguistic analysis of animal entries in Moin Dictionary shows that Iranians must adopt a new story; a more integrating story of animals and nature; that they must assume more inclusive identities and take more responsible direction towards their unsustainable lifestyle if they are to come safely down to earth "from the edge of the roof".

References

[1]   Adams, Carol J(2010). *The sexual politics of meat; a feminist-vegetarian critical theory.* London: Continuum.

[2]   Alexander, Richard & Stibbe, Arran (2014). From the analysis of ecological discourse to the ecological analysis of language. *Language Sciences,* 41, 104-110.

[3]   Bang, Jørgen C. & Døør, Jørgen (Eds.) (2007). *Language, ecology and society: A dialectical approach.* London: Bloomsbury.

[4]   Berry, Bonnie(1997). Human and NonHuman Animal Rights and Oppression: An Evolution Towards Equality. *Free Inquiry in Creative Sociology,* 25(2), 155-160.

[5]   Blackledge, Adrian (2008). Language Ecology and Language Ideology. In Nancy H. Hornberger (Ed.), *Encyclopedia of Language and Education*(pp. 27-40). Berlin: Springer Science + Buisiness Media.

[6]   Blomberg, Johan & Jordan Zlatev(2021). Metalinguistic relativity: Does one's ontology determine one's view on linguistic relativity? *Language & Communication,* 76, 35-46.

[7]   Bogdan, Radu(2010). *Our Own Mind: Sociocultural Grounds for Self-Consciousness.* Massachusetts: MIT Press.

[8]   Broad, Garrett M(2020). Using Focus Groups to Explore Public Perceptions of Legal Rights for Animals. *Anthrozoös,* 613-627.

[9]   Burr, Vivien(1995). *An Introduction to Social Constructionism.* London: Routledge.

[10]   Busselle, Rick & Helena Bilandzic(2008). Fictionality and Perceived Realism in Experiencing Stories: A model of Narrative Comprehension and Engagement. *Communication Theory,* 18(2), 255-280.

[11]   Cap, Piotr(2013). Proximization Theory and Critical Discourse Studies: A Promising Connection? *International Review of Pragmatics,* 5(2), 293-317.

[12]   Cassirer, Ernst (1944). *An Essay on Man.* New Haven, CT: Yale University Press.

[13]   Chandler, Daniel(2002). *The Basics.* London: Routledge.

[14]   Charles, Nickie(2014). Animals just love you the way you are: experiencing kinship across the species barrier. *Sociology,* 48(4), 715-730.

[15]   Chen, Sibo(2016). Language and Ecology: a Content Analysis of Ecolinguistics as an Emerging Research Field. *Ampersand,* 3(2016), 108-116.

[16]   Chen, Wenge (2019). Towards a Discourse Approach to Critical Lexicography. *International Journal of Lexicography*, 32(3), 362-388.

[17]   Clark, Jonathan L(2012). Ecological Biopower, Environmental Violence against Animals, and the 'Greening' of the Factory Farm. *Journal for Critical Animal Studies,* 10(4), 100-129.

[18]   Cooke, Michele(2016). The elephant in the room: Communication, chaos and the translation of truth.In Julia Richter, Cornelia Zwischenberger, Stefanie Kremmel & Karlheinz Spitzl (Eds.), *(Neu)kompositionen. Aspekte transkultureller Wissenschaft*, (pp. 60-76). Berlin: Frank & Timme.

[19]   Corato, Luca Di & Yishay, D Maoz(2019). Production externalities and investment caps: A welfare analysis under uncertainty. *Journal of Economic Dynamics and Control,* 106, 103719.

[20]   Couto, Hildo Honorió do (2014). Ecological approaches in linguistics: A historical overview. *Language Sciences,* 41, 122-128.

[21]   Couto, Hildo Honorió do (2018). Ecosystemic linguistics. In Alwin F. Fill & Hermine Penz (Eds.), *The Routledge handbook of ecolinguistics* (pp. 149-161). New York: Routledge.

[22]   Cowley, Stephen J(2014). Bio-ecology and language: a necessary unity. *Language Sciences,* 41, 60-70.

[23]   Cowley, Stephen J(2019). The Return of Languaging: Toward a new ecolinguistics. *Chinese Semiotic Studies,* 15(4), 483-512.

[24]   Cudworth, Erika(2005).*Developing Ecofeminism Theory: the Complexity of Difference.* Basingstoke: Palgrave.

[25]   Cudworth, Erika(2008). Most farmers prefer Blondes: the Dynamics of Anthroparchy in Animals' Becoming Meat. *Journal for Critical Animal Studies,* 6(1), 32-45.

[26]   Cudworth, Erika (2011). *Social Lives with Other Animals: Tales of Sex, Death and Love.* London: Palgrave.

[27]   Culler, Jonathan(1981). *The Pursuit of Signs: Semiotics, Literature, Deconstruction.* London: Routledge.

[28]   Dussel, Enrique (1985). *Philosophy of Liberation.* New York: Orbis Book.

[29]   Emel, Jody & Neo Harvey. 2015. *The Political Ecologies of Meat.* London: Earthscan.

[30]   Fairclough, Norman (1992). *Discourse and Social Change.* Cambridge: Polity Press.

[31]   Fairclough, Norman(2014). *Critical Language Awareness.* London: Routledge.

[32]   Feng, Ran-ran & An-hui Fan(2012). A brief analysis of the lettered words in Chinese from the perspective of Ecolinguistics. *International Conference on Future Computer Assisted Education* (pp. 194-199). IERI Procedia. 2(2012).

[33]   Fill, Alwin (1993). *Ökolinguistik. Eine Einführung*. Tübingen: Narr.

[34]   Fitzgerald, Amy J (2010). A soical history of slaughterhouse: from inception to the contemporary implications. *Human Ecology Review,* 17(1), 58-69.

[35]   Gaard, Greta(2011). Ecofeminism revisited: rejecting essentialism and re-placing species in a material feminist environment. *Feminist Formations,* 23(2), 26-53.

[36]   Gahrn-Andersen, Rasmus & Stephen J Cowley(2017). Phenomenology & Sociality: How Extended Normative Perturbations Give Rise to Social Agency. *Intellectica,* 67, 379-398.

[37]   Gahrn-Andersen, Rasmus (2019). But language too is material! *Phenomenology and the Cognitive Sciences,* 18(1), 169-183.

[38]   Gahrn-Andersen, Rasmus, Christian Mosbæk Johannessen, Matthew Isaac Harvey, Line Maria Simonsen, Sarah Bro Trasmund, Emanuela Marchetti & et al. (2019). Interactivity: Why, What and How? *RASK International Journal of Language and Communication,* 50, 113-136.

[39]   Gee, James Paul (2014b). *How to do Discourse Analysis: A Toolkit.* London: Routledge.

[40]   Gibson, James J(1979). *The Ecological Approach to Visual Perception.* New Jersey: Lawrence Erlbaum Associates Publishers.

[41]   Goff, Philip(2019). *Galileo's Error: Foundations for a New Science of Consciousness.* New Yok: Pantheon Books.

[42]   Gouws, Rufus H (2014). Article Structures: Moving from Printed to e-Dictionaries. *Lexikos,* 24, 155-177.

[43]   Haeckel, Ernst (1866). *Generelle Morphologie der Organismen.* Berlin: G. Reimer.

[44]   Halliday, Michael Alexander Kirkwood(2001). New ways of meaning: the challenge to applied linguistics. In Alwin Fill & Peter Mühlhäusler (Eds.), *The Ecolinguistics Reader. Language, Ecology and Environment* (pp. 175-202). London: Continuum.

[45]   Harvey, Matthew I, Gahrn-Andersen Rasmus & Sune V Steffensen(2016). Interactivity and enaction in human cognition. *Constructivist Foundations,* 11(2), 602-613.

[46]   Haugen, Einar(2001). The ecology of language. In Alwin Fill & Peter Mühlhäusler (Eds.), *The Ecolinguistics Reader. Language, Ecology and Environment*(pp. 57-66). London: Continuum.

[47]   He, Wei & Liu, Jiahuan (2020). Duoyuan hexie, jiaohu gongsheng: Shengtai zhexueguan de jiangou yufazhan [Diversity and harmony, interaction and co-existence: Construction and development ofecosophy]. *Shandong Waiyu Jiaoxue [Shandong Foreign Language Teaching]*, 41(1), 12-24.

[48]   He, Wei & Wei, Rong (2018). Duoyuan hexie, jiaohu gongsheng – Guoji shengtai huayu fenxi zhi shengtaizhexueguan jiangou [Diversity and harmony, interaction and co-existence – Ecosophy forinternational ecological discourse analysis]. *Waiyu Xuekan [Foreign Language Research],*40(6), 28-35.

[49]   Heuberger, Reinhard (2003). Anthropocentrism in Monolingual English Dictionaries: An Ecolinguistic Approach to the Lexicographic Treatment of Faunal Terminology.*AAA -Arbeiten aus Anglistik und Amerikanistik*, 28(1), 93-105.

[50]   Heuberger, Reinhard (2008). Anthropocentrism in English and German: A Comparative Lexical Study. InMartin Döring, Hermine Penz & Wilhelm Trampe (Eds.), *Language, Signs and Nature: Ecolinguistic Dimensions of Environmental Discourse. Essays in Honour of Alwin Fill*(pp. 183-193). Tübingen: Stauffenburg.

[51]   Hodge, Robert & Gunther Kress(1993). *Language and Ideology.* London: Routledge.

[52]   Huang, Guowen & Zhao, Ruihua (2021). Harmonious discourse analysis: Approaching peoples' problems in a Chinese context. *Language Sciences,* 85, 1-19.

[53]   Ingold, Tim(2000). *The Perception of the Environment: Essays on Livelihood, Dwelling and skill.* London and New York: Routledge.

[54]   Irvine, Judith T(2019). Regimenting Ideologies. *Language and communication,* 66, 67-71.

[55]   Jonsson, Fredrik Albritton(2014). The Origins of Cornucopianism: A Preliminary Geneaology. *Critical Historical Studies,* 1(1), 151-168.

[56]   Karmakar, Shubham(2020). Ecolinguistics: the integrity and diversity of language systems. *JadavpurJournal of Languages and Linguistics,* 58-69.

[57]   Karnani, Mahesh & Arto Annila(2009). Gaia again. *BioSystems,* 95, 82-87.

[58]   Kheel, Marti(1995). License to kill: an ecofeminist critique of hunters' discourse. In Carol J. Adams & Josephine Donovan (Eds.), *Animals & Women: Feminist Theoretical Explorations*(pp. 85-125). Durham: Duke University Press.

[59]   Kingsnorth, Paul & Dougald Hine(2009). *the Dark Mountain Project Manifesto.* http://dark-mountain.net/about/manifesto.

[60]   Knobel, Darryn L., Tiziana Lembo, Michelle Morters, Sunny E. Townsend, Sarah Cleaveland & Katie Hampson (2013). Dog Rabies and its Control. *Scientific Basis of the Disease and its Management,* 591-615.

[61]   Korten, David(2006). *The great turning: from Empire to Earth community*. San Francisco: Berrett-Koehler.

[62]   Kramsch, Claire, and Sune Vork Steffensen(2008). Ecological Perspectives on Second Language Acquisition and Socialization. In Nancy Hornbergen (Ed.), *Encyclopedia of Language and Education*(pp.17-32). Boston, MA: Springer.

[63]   Kravchenko, Alexander V(2020). On elephants in linguistics. In Michael En (Ed.), *Truth, trust and translation: A festschrift, love letter and thank you to Michele Cooke*(pp.11-16). Bern: Peter Lang.

[64]   Kupferschmidt, Philip Douglas(2016). The Bipolarity of Modern 'Man' in the Anthropocene: Ecomodernist Mania as Case for Unmanning Anthropocene Discourse. *The Trumpeter,* 32(2), 102-125.

[65]   LeVasseur, Todd (2015). Defining "ecolinguistics?": Challenging emic issues in an evolving environmental discipline. *Journal of Environmental Studies and Sciences,* 5, 21-28.

[66]   Liu, Xiqin, Lyu,Jing & Zheng, Dongping (2021). For a Better Dictionary: Revisiting Ecolexicography as a New Paradigm. *Lexikos*, 31, 283-321.

[67]   Lovelock, James(2009). *The vanishing face of Gaia, A final warning.* New York: Basic Books.

[68]   MacGillis, Miriam(2013). The Work of Genesis Farm: Interview with Sister Mirriam MacGillis. In Llewellyn Vaughan-Lee (Ed.), *Spiritual Ecology. The Cry of the EARTH*(pp. 82-97). Point Reyes, California: The Golden Sufi Center.

[69]   Maffi, Luisa (Ed.) (2001). *On biocultural diversity: Linking language, knowledge and the environment*. Washington: Smithsonian Institution Press.

[70]   Malinowsky, Bronislaw(1936). Review of M. M. Lewis (1936) Infant speech: A study of the beginnings of language. Kegan Paul, London. *Nature,* 140, 172-173.

[71]   McGill, Kenneth(2020). Language, labor and reification. *Language Sciences,* 80, 101299.

[72]   Miele, Mara & Adrian Evans(2010). When foods become animals, ruminations on ethics and responsibility in care-full spaces of consumption. *Ethics, Policy and Environment,* 13(2), 171-190.

[73]   Miele, Mara(2016). Killing Animals for Food: How Science, Religion and Technologies Affect the Public Debate About Religious Slaughter. *Food Ethics,* 1, 47-60.

[74]   Milstein, Tema(2009). Somethin' Tells Me It's All Happenning at the Zoo: Discourse, Power, and Conservationism. *Environmental Communication,* 3(1), 25-48.

[75]   Moin, Mohammad(2015). *Moin Monolingual Dictionary of Contemporary Persian*. Tehran: Amir Kabir.

[76]   Morris, Charles W(1938). *Foundations of the theory of signs.* Chicago: University of Chicago Press.

[77]   Mühlhäusler, Peter (2003). *Language of environment, environment of language: A course in ecolinguistics.* London: Battlebridge.

[78]   Naess, Aine & Haukeland, Per Ivar (2002). *Life's philosophy: Reason and feeling in a deeper world.* London: TheUniversity of Georgia Press.

[79]   Naess, Aine(1973). The shallow and the deep, long-range ecology movement. *Inquiry,* 16(1-4), 95-100.

[80]   Naess, Aine(1989). *Ecology, Community and lifestyle: Outline of an ecosophy*. Translated and revised by DavidRothenberg. Cambridge: Cambridge University Press.

[81]   Nerlich, Brigitte & Nelya Koteyko(2009). Compounds, Creativity and Complexity in Climate Change Communication: the case of 'Carbon Indulgences'. *Global Environmental Change,* 19(3), 345-353.

[82]   Nisbet, Matthew C & Chris Mooney(2007). Framing Science. *Science,* 315, 1167-1170.

[83]   O'Shea, Jant. 2021. Sentimentality or Prowess? Animal Advocacy and (Human) Physical Labor. *Journal for Critical Animal Studies,* 18(3), 4-26.

[84]   Pattee, Howard Hunt & Joanna Rączaszek-Leonardi(2012). *Laws, Language and Life.* Berlin: Springer.

[85]   Pellow, David Naguib, Kenneth Alan Gould & Allan Schnaiberg(2008). *Treadmill of Production: Injustice and Unsustainability in the Global Economy.* Boulder, CO: Paradigm Publishers.

[86]   Penz, Hermine & Fill, Alwin (2022). Ecolinguistics: History, today, and tomorrow. *Journal of World Languages,* 8(2), 232–253.

[87]   Pigou, Arthur C(1920). *The Economics of Welfare.* London: Palgrave Macmillan.

[88]   Plumwood, Val(1993). *Feminism and the Mastery of Nature.* London: Routledge.

[89]   Poirier, Nathan & Amber E. George(2021). Critiques and Reimaginings of Anthropocentrism. *Journal for Critical Animal Studies,* 18(2), 1-4.

[90]   Poirier, Nathan (2021). Alternative Animal Products: Protection Rhetoric or Protection Racket? *Journal for Critical Animal Studies,* 18(3), 27-54.

[91]   Pozdnyakova, Ulyana A, Vyacheslav V Golikov, Irina A Peters & Irina A Morozova(2019). Genesis of the Revolutionary Transition to Industry 4.0 in the 21st Century and Overview of Previous Industrial Revolutions. In Elena G Popkova, Julia V Ragulina & Aleksei V Bogoviz (Eds.), *Industry 4.0: Industrial Revolution of the 21st Century*(pp. 11-19). New York: Springer.

[92]   Primavesi, Anne(2000). *Sacred Gaia; holistic theology and earth system science.* New York: Routledge.

[93]   Qirko, Hector(2021). What is a 'critter'? Potential problems with the scientific community's use of informal language to describe non-human species. *Language and Ecology,* 1-9.

[94]   Rudd, Gillian(2007). In the Mirror of Middle Earth: Langland's use of the world as a book and what we can make of it. In Becket Fiona & Gifford Terry (Eds.), *CULTURE, CREATIVITY AND ENVIRONMENT; New Environmentalist Criticism*(pp. 99-114). Amsterdam: Rodopi.

[95]   Sarmento, Manoel Soares (2000). Ecolexicography: Words and Expressions We Should Live By.*Österreichische Linguistiktagung Graz, 8.–10. Dezember 2000. Akten des Symposiums 30 Jahre Sprache und Ökologie — Errungenschaften, Visionen.* Graz: Graz University.

[96]   Sarmento, Manoel Soares (2005). Por Uma Ecolexicografia. *Confluências,* 2, 84-97.

[97]   Sax, Boria(2011). What is this Quintessence of dust? The Concept of the 'Human' and its Origins. In Rob Boddice (Ed.), *Anthropocentrism: Humans, Animals, environments*(pp. 21-36). Leiden, Boston: Brill.

[98]   Scott, John(2010). Sociology and Sociological Imagination: Reflections on Disciplinarity and Intellectual Specialisation. In Judith Burnett, Syde Jeffers & Graham Thomas (Eds.), *New Social Connections: Sociology's Subjects and Objects*(pp. 14-30). Basingstoke: Palgrave.

[99]   Singer, Peter(1990). *Animal Liberation.* London: Random House.

[100]   Sinha, Chris(2006). Epigenetics, Semiotics, and the Mysteries of the Organism. *Biological Theory,* 1(2), 112-115.

[101]   Skutnabb-Kangas, Tove & Phillipson, Robert (2008). A human rights perspective on language ecology. In Angela Creese, Peter Martin & Nancy H. Hornberger (Eds.), *Ecology of language: Encyclopedia of language and education* (vol. 9, pp. 3–13). New York: Springer.

[102]   Steffensen, Sun Vork(2013). Human Interactivity: Problem-solving, solution-probing and verbal patterns in the wild. In Stephen Cowley& Frederic Vallee-Tourangeau (Eds.), *Cognition Beyond the Brain: Computation, Interactivity and Human Artifice*(pp. 195-221). Dordrecht: Springer.

[103]   Steffensen, Sune Vork & Alwin Fill(2014). Ecolinguistics: the state of the art and future horizons. *Language Sciences,* 41, 6-25.

[104]   Steffensen, Sune Vork(2011). Beyond mind: An extended ecology of languaging. In Stephen Cowley (Ed.), *Distributed Language* (pp. 185-210). Amsterdam: John Benjamins.

[105]   Stibbe, Arran(2001). Language, power and the social construction of animals. *Society and Animals,* 9(2), 145-161.

[106]   Stibbe, Arran(2013). An Ecolinguistic Approach to Critical Discourse Analysis. *Critical Discourse Studies,* 11(1), 117-128.

[107]   Stibbe, Arran(2015). *Ecolinguistics: Language, Ecology and the Stories We Live By.* London: Routledge.

[108]   Stibbe, Arran(2018). Positive Discourse Analysis: Rethinking Human Ecological Relationships. In Alwin Fill & Hermine Penz (Eds.), *The Routledge Handbook of Ecolinguistics* (pp. 165-178). New York and London: Routledge.

[109]   Stilt, Kristen(2018). Law. In Lori Gruen (ed.), *Critical terms for animal studies*, 197-209. Chicago: University of Chicago Press.

[110]   Subbiondo, Joseph L(2015). Language and Consciousness: the Perennial Relevance of Benjamin Lee Whorf. *Language & History*, 58(1), 55-63.

[111]   Sutherland, Brigdet & Paul Judge(2019). Animals in Advertising: War, Vulnerability, and the Return of the Repressed. *Journal for Critical Animal Studies,* 16(5), 3-28

[112]   Tenorio, Encarnación Hidalgo (2000). Gender, Sex and Stereotyping in The Collins Cobuild English Language Dictionary. *Australian Journal of Linguistics,* 20(2), 211-230

[113]   Trampe, Wilhelm (1990). *Ökologische Linguistik: Grundlagen einer ökologischen Sprach- und Wissenschaftstheorie*. Opladen: Westdeutscher Verlag.

[114]   Twine, Richard(2010). *Animals as Biotechnology: Ethics and Critical Animals Studies.* London: Earthscan.

[115]   VanDijk, Teun(2002). Political discourse and political cognition. In Paul Chilton & Christina Schäffner (Eds.), *Politics as Text and Talk: Analytical Approaches to Political Discourse*, (pp.203-237). Amsterdam: John Benjamins.

[116]   VanDijk, Teun(2008). *Discourse and Context: A Sociocognitive Approach.* Cambridge: Cambridge University Press.

[117]   VanDijk, Teun(2015). Critical Discourse Analysis. In Deborah Tannen, Heidi Hamilton & Deborah Schiffrin (Eds.), *The Handbook of Discourse Analysis*, (pp. 352-371). Oxford: Blackwell.

[118]   Voloshinov, Valentine N(1973). *Marxism and the Philosophy of Language.* New York: Seminar Press.

[119]   Vygotsky, Lev Semyonovich(1978). *Mind in Society: The Development of Higher Psychological Process.* London: Harvard University Press.

[120]   Wayne, Mike(2003). *Marxism and Media Studies: Key Concepts and Contemporary Trends.* London: Pluto Press.

[121]   Wise, Steven M(2010). Legal Personhood and the Nonhuman Rights Project. *Animal Law Review,* 17, 1-11.

[122]   Zhang, Jianxin & Cheng, Lulu (2024). Ambivalent or beneficial? An ecological discourse analysis of news reports on the adventures of China's wandering elephants.*Journal of World Languages*, 10(2), 430-455.

[123]   Zhou, Wenjuan(2021). Ecolinguistics: a Half-century Overview. *Journal of World Languages,* 7(3), 461-486.

[124]   Zlatev, Jordan(2015). Cognitive Semiotics. In Peter Pericles Trifonas (Ed.), *International Handbook of Semiotics*, (pp. 1043-1067). Dordrecht: Springer.

[125]   Zlatev, Jordan, Sun Vork Steffensen, Matthew Isaac Harvey & Michael Kimmel(2018). Introduction. *Cognitive Semantics,* 11(1), 1-6. doi: 10.1515/cogsem-2018-0006.