
Conceptual Models of Ecological Metaphors in English Discourse

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Annotation *This article examines English ecological discourse metaphors from a linguocognitive perspective. The study is based on the assumption that metaphor is not merely a stylistic device, but a cognitive mechanism through which ecological reality is conceptualized and interpreted. The article identifies the dominant conceptual models that structure English ecological discourse and analyzes their metaphorical networks, frames, and slots. Special attention is paid to such models as NATURE IS A LIVING ORGANISM, THE PLANET IS A BODY, CLIMATE CHANGE IS WAR, THE EARTH IS HOME, and NATURE IS A SYSTEM. The research demonstrates that these metaphorical models play an important role in the cognitive organization of environmental knowledge and in the linguistic representation of ecological problems. The findings show that English ecological discourse relies on stable metaphorical patterns that make complex environmental phenomena more understandable, emotionally significant, and socially relevant. The results of the study may be used in cognitive linguistics, ecolinguistics, discourse analysis, and further comparative research on ecological metaphors.*

Keywords *Ecological discourse, ecological metaphor, linguocognitive analysis, conceptual model, metaphorical network, frame, slot, source domain, target domain, English language, cognitive linguistics, ecolinguistics*

Ingliz diskursidagi ekologik metaforalarning konseptual modellari

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Annotatsiya *Mazkur maqolada ingliz tilidagi ekologik diskurs metaforalari lingvokognitiv nuqtayi nazardan tahlil qilinadi. Tadqiqot metaforaning nafaqat uslubiy vosita, balki ekologik borliqni konseptuallashtirish va talqin qilishga xizmat qiluvchi kognitiv mexanizm ekanligi haqidagi qarashga asoslanadi. Maqolada ingliz ekologik diskursini strukturallashtiruvchi dominant konseptual modellar aniqlanadi hamda ularning metaforik tarmoqlari, freymlari va slotlari tahlil qilinadi. Xususan, NATURE IS A LIVING ORGANISM, THE PLANET IS A BODY, CLIMATE CHANGE IS WAR, THE EARTH IS HOME va NATURE IS A SYSTEM kabi modellar alohida ko'rib chiqiladi. Tadqiqot natijalari ushbu metaforik modellar ekologik bilimlarning kognitiv tashkil topishida va ekologik muammolarning til vositasida ifodalanishida muhim o'rin tutishini ko'rsatadi. Shuningdek, ingliz ekologik diskursi murakkab ekologik hodisalarni yanada tushunarli, emotsional jihatdan ta'sirchan va ijtimoiy ahamiyatli*

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qiluvchi barqaror metaforik qoliplarga tayanishi aniqlanadi. Tadqiqot natijalaridan kognitiv tilshunoslik, ekolingvistika, diskurs tahlili hamda ekologik metaforalarni qiyosiy o'rganishga doir keyingi izlanishlarda foydalanish mumkin.

Kalit so'zlar *Ekologik diskurs, ekologik metafora, lingvokognitiv tahlil, konseptual model, metaforik tarmoq, freym, slot, manba soha, nishon soha, ingliz tili, kognitiv tilshunoslik, ekolingvistika*

Концептуальные модели экологических метафор в английском дискурсе

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Аннотация *В данной статье метафоры английского экологического дискурса рассматриваются с лингвокогнитивной точки зрения. Исследование основывается на положении о том, что метафора представляет собой не только стилистическое средство, но и когнитивный механизм, посредством которого концептуализируется и интерпретируется экологическая реальность. В статье выявляются доминантные концептуальные модели, структурирующие английский экологический дискурс, а также анализируются их метафорические сети, фреймы и слоты. Особое внимание уделяется таким моделям, как NATURE IS A LIVING ORGANISM, THE PLANET IS A BODY, CLIMATE CHANGE IS WAR, THE EARTH IS HOME и NATURE IS A SYSTEM. Результаты исследования показывают, что данные метафорические модели играют важную роль в когнитивной организации экологических знаний и в языковой репрезентации экологических проблем. Установлено, что английский экологический дискурс опирается на устойчивые метафорические модели, которые делают сложные экологические явления более понятными, эмоционально значимыми и социально актуальными. Результаты исследования могут быть использованы в когнитивной лингвистике, эколлингвистике, дискурс-анализе, а также в дальнейших сопоставительных исследованиях экологических метафор.*

Ключевые слова *Экологический дискурс, экологическая метафора, лингвокогнитивный анализ, концептуальная модель, метафорическая сеть, фрейм, слот, исходная сфера, целевая сфера, английский язык, когнитивная лингвистика, эколлингвистика*

Introduction

In recent decades, ecological discourse has become one of the most dynamic areas of modern communication. Environmental

degradation, climate change, biodiversity loss, water scarcity, pollution, and ecological restoration are now discussed not only in scientific publications, but also in media

discourse, political speeches, public campaigns, educational materials, and everyday communication. As a result, ecological discourse has attracted increasing attention from linguists, especially those working in cognitive linguistics, discourse analysis, and ecolinguistics. One of the central reasons for this attention is the fact that ecological reality is very often represented through metaphor.

Literature review

In English discourse, the environment is described as ill, wounded, threatened, dying, recovering, resilient, or under attack. Such expressions are not random stylistic ornaments; they reveal the ways in which ecological reality is cognitively organized and interpreted. The study of ecological metaphors, therefore, is not only a matter of lexical semantics, but also a matter of conceptual modeling and linguocognitive analysis. This orientation is fully consistent with the cognitive view of metaphor proposed by Lakoff and Johnson, who argue that metaphor is "pervasive in everyday life, not just in language but in thought and action" (Lakoff, Johnson, 1980).

The linguocognitive study of English ecological discourse metaphors is especially productive because ecological discourse combines scientific terminology, evaluative language, public persuasion, and cultural worldviews. Environmental problems are often abstract, large-scale, and difficult to perceive directly. Therefore, speakers tend to conceptualize them by relying on more concrete and experientially familiar domains such as the body, disease, war, home, engineering, and natural movement. This makes ecological discourse a rich field for identifying dominant conceptual models, frame structures, and metaphorical networks. Such analysis allows the researcher to answer a number of important questions: How is nature conceptualized in English ecological discourse? Which metaphorical models dominate public and media representations of ecological issues? How do metaphorical networks expand around key ecological concepts? And how do

these networks reflect the cognitive and cultural structuring of ecological knowledge? These questions lie at the core of the present article.

The linguocognitive approach to metaphor is based on the idea that metaphor is not merely a linguistic figure, but a conceptual mechanism that structures human knowledge. Lakoff and Johnson state that "the essence of metaphor is understanding and experiencing one kind of thing in terms of another" (Lakoff, Johnson, 1980). This principle is particularly important for ecological discourse, where ecological target domains such as nature, climate, ecosystem, pollution, or sustainability are often interpreted through non-ecological source domains such as organism, war, journey, house, or machine. In this process, metaphor does not simply rename environmental reality; it reorganizes it cognitively. A river may become a vein, a forest may become a lung, the Earth may become a home, and climate change may become a war. Thus, ecological discourse is built not only on ecological facts but also on metaphorical conceptualizations that make those facts meaningful.

A key theoretical tool in linguocognitive analysis is the distinction between source domain and target domain. Zoltán Kövecses emphasizes that conceptual metaphors are structured around these two domains, where a more concrete domain helps organize the understanding of a more abstract one. He writes that conceptual metaphors consist of "a source domain and a target domain" (Kövecses, 2002). In ecological discourse, the target domain is usually the environment or an ecological process, while the source domain may be drawn from bodily experience, conflict, family, movement, or technological systems. For example, in the expression "the planet is sick", the source domain is illness and the target domain is the Earth. In "fight climate change", the source domain is war or conflict, and the target domain is climate change. This source-target mapping is central to

linguocognitive analysis because it shows how abstract ecological issues are understood through familiar conceptual frameworks.

Another key notion in linguocognitive analysis is the conceptual model. A conceptual model may be defined as a stable and recurrent cognitive pattern that generates multiple metaphorical expressions. In this sense, individual metaphorical units are surface realizations of broader cognitive structures. For instance, expressions such as “the Earth is sick”, “nature is recovering”, “ecosystems are dying”, and “the ocean is choking” can all be interpreted as manifestations of the conceptual model NATURE IS A LIVING ORGANISM. Similarly, “our common home”, “protect our home”, and “there is no planet B” belong to the model THE EARTH IS HOME. Linguocognitive analysis seeks to reconstruct such dominant models and to explain how they shape discourse. This approach makes it possible to move beyond the isolated description of metaphorical expressions and toward the analysis of systematic cognitive patterns.

The concepts of frame and slot are also essential in the linguocognitive study of metaphor. Within a metaphorical model, a frame represents a typical cognitive situation, while slots are the semantic positions within that situation. For example, within the model ENVIRONMENTAL PROBLEM IS DISEASE, one may identify the frame illness, which includes such slots as cause, symptom, diagnosis, treatment, and recovery. In the model CLIMATE CHANGE IS WAR, one may identify the frame conflict, which includes such slots as enemy, threat, defense, strategy, and victory. Although the frame-and-slot approach is especially elaborated in Russian metaphor studies, it is fully compatible with conceptual metaphor theory and is extremely useful in ecological discourse research because it allows one to reveal the internal semantic organization of metaphorical models. Research discussing Chudinov’s approach confirms that metaphorical models can be systematically represented through frame-slot structures and

that such models form a significant part of the linguistic worldview (Chudinov, 2003).

Another important contribution comes from ecolinguistics. Arran Stubbe’s theory is especially relevant because it connects metaphor with ecological worldview and discourse ethics. Stubbe argues that ecolinguistics examines the “stories we live by,” that is, the discursive patterns that shape how people think, speak, and act in relation to the living world (Stubbe, 2005). In ecological discourse, metaphors are among the most powerful of such stories. A metaphor such as “nature is a victim” encourages one way of thinking, while “nature is a system” or “Mother Nature” encourages another. The linguocognitive study of ecological metaphors, therefore, is not just about semantics; it is about uncovering the cognitive narratives through which environmental reality is culturally framed.

Ecological discourse is particularly rich in metaphors because environmental phenomena are often invisible, gradual, statistically described, or experientially distant. Climate change, biodiversity loss, soil degradation, atmospheric imbalance, and hydrological disruption are scientifically real but cognitively difficult for the general public to grasp directly. Metaphor solves this problem by transforming abstract ecological processes into familiar experiential structures. This is why ecological discourse in English often relies on embodied and socially familiar domains. A corpus-based ecological discourse study has shown that conceptual models such as conflict, journey, and living organism are especially productive in environmental discourse because they help communicate ideological and cognitive patterns more clearly.

From the linguocognitive point of view, ecological discourse can therefore be seen as a site where environmental knowledge is filtered through conceptual models. These models do not emerge accidentally. They are motivated by the interaction between linguistic convention, embodied experience, discourse tradition, and

cultural worldview. Some models are nearly universal because they arise from shared bodily experience. Others are historically and culturally more specific. In English ecological discourse, the most dominant models tend to cluster around four major zones: organism/body, war/struggle, home/family, and system/engineering. Each of these zones supports a large metaphorical network, and each network contains several frames and slots.

Dominant Conceptual Models in English Ecological Discourse

1. NATURE IS A LIVING ORGANISM

One of the most productive and conceptually powerful metaphorical models in English ecological discourse is NATURE IS A LIVING ORGANISM. This model is realized in expressions such as "the planet is sick", "the Earth is dying", "nature is recovering", "the ocean is choking", and "ecosystems are under stress". The source domain here is the living body or organism, while the target domain is nature, the Earth, or the ecological system. The reason this model is so cognitively strong is that bodily experience is immediate and universally intelligible. Speakers know what illness, pain, stress, and recovery mean because these experiences are grounded in their own bodies. When such terms are projected onto the environment, ecological degradation becomes more concrete and emotionally accessible.

This model can be further analyzed through the frame illness, which includes several important slots: cause of illness, symptom, degree of damage, treatment, and recovery. For instance, pollution or emissions may function as the cause, rising temperatures as the symptom, environmental collapse as the critical condition, ecological policy as the treatment, and restoration as recovery. This frame structure demonstrates that metaphorical modeling is not superficial; it carries an internally organized logic. Once the environment is conceptualized as a living organism, the whole semantic field of health becomes available for ecological discourse.

This increases coherence and allows discourse producers to build larger metaphorical networks around the same core model.

2. THE PLANET IS A BODY

Closely related to the previous model is THE PLANET IS A BODY. This model appears in expressions such as "the lungs of the Earth", "the veins of the planet", or "the skin of the Earth". Unlike the broader model of living organism, this one is more anatomically specific. It conceptualizes parts of the Earth or of ecosystems as body parts, thereby suggesting structural interdependence and vulnerability. Forests become lungs because they are associated with respiration and oxygen; rivers become veins because they circulate water through the land; topsoil may be conceptualized as skin because it protects the Earth's surface. This model is especially frequent in English environmental journalism and activist discourse because it combines scientific intelligibility with strong emotional resonance.

Cognitively, the model THE PLANET IS A BODY encourages the view that ecological damage is not external or distant, but bodily and intimate. If forests are the lungs of the Earth, then deforestation becomes equivalent to suffocation. If rivers are veins, then pollution becomes contamination of the planet's circulatory system. In this way, the model transforms abstract ecological processes into relational bodily events. It is precisely this kind of conceptual compression that makes metaphor so effective in ecological discourse.

3. CLIMATE CHANGE IS WAR

Another major model in English ecological discourse is CLIMATE CHANGE IS WAR or, more broadly, ENVIRONMENTAL PROBLEM IS STRUGGLE/CONFLICT. It is realized in expressions such as "fight climate change", "battle emissions", "combat pollution", and "war on carbon". A recent study of war metaphors in climate discourse notes that the war metaphor is one of the most popular patterns for discussing climate change,

framing environmental problems as enemies that must be fought against.

From a linguocognitive perspective, this model is based on the source domain of organized human conflict. The key frame here is warfare, with slots such as enemy, threat, defense, strategy, mobilization, and victory. Once climate change is conceptualized as an enemy, environmental action is interpreted as defense or combat. This model is particularly attractive in political and media discourse because it creates urgency and a sense of collective mission. However, it also simplifies ecological complexity by presenting climate change in binary terms: us versus the threat. This can be effective for mobilization, but it may obscure the systemic and gradual nature of ecological processes. Thus, the linguocognitive analysis of this model must account for both its persuasive power and its conceptual limitations.

4. *THE EARTH IS HOME*

The model *THE EARTH IS HOME* is another dominant pattern in English ecological discourse. It is reflected in phrases such as "our common home", "protect our only home", and "there is no planet B". The source domain is the human experience of home, while the target domain is the Earth or the environment. The home frame includes slots such as dwelling, protection, belonging, care, damage, and loss. This model is highly effective because home is one of the strongest domains of emotional attachment and moral responsibility. When the Earth is conceptualized as home, ecological destruction is no longer a distant technical issue; it becomes a form of damage to one's own living space.

Cognitively, this metaphor activates intimacy and co-responsibility. It places the speaker and the environment in the same conceptual space. This is one reason why it is frequently used in educational and activist discourse. Compared to the war model, the home model is less aggressive and more ethical. It frames environmental care as domestic responsibility rather than combat.

The coexistence of these two models in English ecological discourse shows that discourse producers choose between different cognitive frames depending on communicative goals.

5. *NATURE IS A SYSTEM / ECOSYSTEM MANAGEMENT IS ENGINEERING*

A further dominant pattern is based on the conceptualization of nature as a system or as something that can be designed, balanced, or managed. Expressions such as "ecosystem balance", "feedback loops", "system collapse", "resilience", and even "ecosystem engineers" show that English ecological discourse often borrows from the domains of engineering and systems theory. In a media report on reintroduced beavers, for instance, the animals are described as "ecosystem engineers," which metaphorically attributes to them a human professional role because they reshape habitats and hydrological structures. This is a clear example of metaphorical transfer from engineering/profession to animal ecological function.

This model is cognitively important because it reflects a specific environmental worldview: nature is seen as an interconnected mechanism whose components interact functionally. The frame structure here includes construction, maintenance, repair, balance, and structural interdependence. Unlike illness or home metaphors, this model sounds more technical and less emotional, but it remains deeply metaphorical because ecosystems are not literally machines or engineered systems. The prevalence of this model in scientific-popular discourse suggests that cognitive accessibility can be achieved not only through embodiment, but also through technocratic analogy.

Metaphorical Networks in English Ecological Discourse

The notion of metaphorical network is crucial because dominant conceptual models rarely appear in discourse as isolated units. Instead, they expand into clusters of related expressions. For example, the model *NATURE IS A LIVING ORGANISM* may generate a

network including "sick planet", "wounded Earth", "stressed ecosystems", "dying coral reefs", "healing forests", and "recovering wetlands". Each of these expressions belongs to the same broader cognitive field, even though the immediate lexical realizations differ. The model therefore acts as a generative center from which multiple metaphorical units emerge. This network-like quality confirms that ecological metaphors in English discourse are systematic and productive, not accidental.

Similarly, the model CLIMATE CHANGE IS WAR can generate a network including "fight climate change", "battle emissions", "combat pollution", "frontline communities", and "mobilize against environmental destruction". The home model creates another network: "our common home", "protect our home", "future generations' home", "a planet worth living on". In each case, one dominant conceptual model organizes a range of semantically related discourse units. This is why linguocognitive analysis must move from the level of isolated metaphorical expressions to the level of metaphorical systems.

The linguocognitive approach is especially valuable because it allows the researcher to explain not only what ecological metaphors mean, but why they recur and how they shape ecological consciousness. By identifying dominant conceptual models, frames, slots, and networks, the researcher can reconstruct the cognitive architecture of ecological discourse. Such reconstruction is important for several reasons.

First, it helps explain why certain metaphors are so persuasive. Illness, war, home, and body are powerful because they are grounded in core human experience. Second, it reveals how ecological discourse is ideologically framed. Different models imply different values: war suggests urgency and

combat; home suggests care and responsibility; engineering suggests management and control; organism suggests vulnerability and healing. Third, it makes cross-textual comparison possible, since the same model may recur across journalism, activism, policy, and educational discourse. Finally, it prepares the ground for contrastive research, since different languages may share the same general models but realize them through different lexical and cultural patterns.

Conclusion

The linguocognitive analysis of English ecological discourse metaphors demonstrates that ecological metaphor is a highly structured and conceptually productive phenomenon. English ecological discourse does not rely on random figurative language; rather, it is organized around a set of dominant conceptual models such as NATURE IS A LIVING ORGANISM, THE PLANET IS A BODY, CLIMATE CHANGE IS WAR, THE EARTH IS HOME, and NATURE IS A SYSTEM. These models generate extended metaphorical networks and are internally structured through frames and slots. Their function is to make ecological reality cognitively accessible, emotionally meaningful, and discursively persuasive.

Thus, the linguocognitive study of ecological metaphors reveals the deep connection between language, thought, and environmental worldview. It shows that ecological discourse is not only about describing the environment, but also about conceptualizing it. Through metaphor, English discourse gives form to environmental concern, organizes ecological knowledge, and shapes the ways in which speakers imagine the future of the planet. This is why linguocognitive analysis is indispensable for the study of ecological discourse and for broader research on environmental communication.

References:

1. Haugen, E. (1972). The ecology of language. In A. S. Dil (Ed.), *The ecology of language: Essays by Einar Haugen* (pp. 325–339). Stanford University Press.
2. Kövecses, Z. (2002). *Metaphor: A practical introduction*. Oxford University Press.
3. Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. University of Chicago Press.
4. Meisner, M. S. (2012). *Metaphors of nature*. University of Waterloo.
5. Stibbe, A. (2015). *Ecolinguistics: Language, ecology and the stories we live by*. Routledge.
6. Чудинов, А. П. (2003). *Метафорическая мозаика в современной политической коммуникации*. Уральский государственный педагогический университет.