

The Basic Images of the Elements in the Semantic and Phraseological Space of Different Linguistic Cultures

Olga Prokhorova – Igor Chekulai – Jerome Baghana – Vladimir Pugach – Zhazira Issayeva

DOI: 10.18355/XL.2026.19.01.10

Abstract

The article is dedicated to the problem of reflecting the natural phenomena's semantic peculiarities in a language. The investigation is conducted in line with the comparative semantic analysis of the language phenomena. The results show that, though formally unrelated from the ontological point of view, the concepts denoting the four basic elements – fire, water, earth, air – reveal similar associative features, allowing us to speak of them as the mental entities of the same plane. The conventional association of these entities being opposed in pairs, where fire is considered to be the antipode of water and earth is opposed to air through the concept of sky, needs some definite corrections as, for instance, water may be opposed to air due to their being fluent substances, and earth may create metonymical relations with fire through the concepts of volcano, magma, lava and the like. The metaphorical models may pertain to different spheres of human relations, such as emotions and facial expressions. The names of the four elements and the main metaphorical models reflecting them in most cases of their speech actualization transform some value content through evaluative lexical units and speech constructions. The results achieved in this investigation may be important for further development of the cognitive linguistics and comparative semantics of the language.

Key words: elements, metaphor, model, association, value, evaluation

Introduction

People never really think about the fundamentals of the big world they live in. Every second of our lives, we breathe in air and don't even notice it. We tread on the firm or soft ground and want to drop this contact when we are tired of walking. After coming to the seaside, we realize the greatness of the sea, and the impression vanishes with every day we spend there, let alone the people who are the residents of this seaside. It is remarkable that in the English linguistic culture all these basic things of our everyday living – earth, fire, water and air – have received the terminological and everyday signification as “the elements”, as they are elementary, given to us as something so trivial that usually we simply do not notice them.

These elements have been known since Aristotle's time. The fact has been reflected in many scientific editions (for instance, (Sokolowski 1970: 263)) and has caused different scientific speculations as to the essence of the phenomenon of the elements in Aristotle's interpretation of this (for instance, (Crowley 2008: 225-227)). It may seem strange, but the conception of the four substances as the main spheres of human existence in its naïve, antic form was spread in the scientific, or, to be more exact, in the ‘learned’ world as some idea of the main natural manifestations in somewhat metaphorical form, but it has remained stable to the present time. The most reliable proof of it is the theme of the four elements in the well-known Hollywood blockbuster “The Fifth Element”.

No less remarkable is the fact that in Russian linguistic culture, these elementary notions are commonly called “стихии”, that is, something disorganized, not dependent on the people's will, given to them by higher forces. These concepts have found their use in fine literature and in the “noble” style of oral communication. As a

good example of such usage, we think it is proper to show here a fragment of A. Amphitheatrov's jocular dedication to the famous Russian writer Alexander Kuprin, who was known for his active life:

*«Спустился ты на дно морское,
Поднялся ты за облака.
Из четырёх стихий в покое
Лишь огонь оставил ты пока.»*

If we compare these two conceptual interpretations of the same things in the two linguistic cultures, it becomes evident that, essentially, they are not so much the antonyms of each other as they are in complementary relations to one another. These notions are unique in that they represent the dialectical unity of the common and the opposite within the same phenomena. Being common and fundamental notions, they are rarely used in their literal sense, denoting different substances vitally important to the life of every human being, but they are subject to the most substantial scientific investigations. The main reason for conducting such studies are, first, the need to improve these elements' normal state as the result of some natural or artificial deterioration of the human habitat (such as the nuclear power plants' accidents, global warming and melting polar ice and the like) or their amelioration (for instance, planning the canals or soil fertilization for the agricultural needs), or some natural phenomena are given special attention in cases when there are certain hazards for the whole human race, as nowadays in connection with the Sars and Covid-19 viruses.

All these considerations provide grounds for explaining the following peculiarity of linguistic semantic investigations. Those majoring in linguistic semantics prefer the spheres of feelings and emotions, animalistic and floristic nominations, human spheres of life (such as health, privacy, justice, war, family and so on), abstract notions as the objects of their studies, and only occasionally such an object is directly or some other way concerned with the named basic elements of human existence, and the scientific works on such topics are not so numerous, especially in the Western scientific literature on the semantics of the natural languages.

Yet, the following questions seem quite natural: is the semantic investigation of the elements of great necessity, or, maybe, the topic is too shallow to be the object of any noteworthy investigation? To find whether the semantic and, respectively, phraseological potentials of the basic elements of nature are great enough to form a certain paradigm of research is what the present research is intended for.

Research methods

A preliminary analysis of works on the subject of this article shows that they are not numerous. This may seem surprising, as most existing studies on metaphors of the four elements are written from a literary perspective (e.g., Veteikis 2002)). More precisely, while there is a substantial body of work dealing with cognitive metaphoric models of specific elements, their properties, and particular manifestations, the interrelation of the elements is rarely, if ever, examined from a linguistic standpoint. This is not unexpected, given that cognitive science has shown a significant shift toward practical applications in urban planning, mass media, and even space exploration (Aldana-Martin et al., 2021). Consequently, the elements, as a fundamental source of material, are often viewed primarily as semiotic resources in these processes (e.g. Rundblad, 2008).

Nevertheless, several interesting studies on the semantics of the elements can be found, but they typically examine them in isolation, without considering their conceptual ties. Research on different metaphoric models of the elements themselves and their prototypical forms of representation appears to be the most recurrent scientific topic in this area. It is easy to see that these investigations often emerge as scholarly responses to pressing contemporary issues. For instance, Elena Semino's research explores the effectiveness of metaphors modeling Covid-19 as fire. Indeed,

realizations such as Covid-19 is a forest fire, or people are firewood of disease, found across various media, demonstrate significant illocutionary force (Nerlich, 2020). In another article, she compares the pandemic to an avalanche (Semino, 2021), a commendable metaphor also linked to elements like water and earth (via mountains). Overall, one might conclude that contemporary scrutiny focuses less on the elements per se and more on their particular, often catastrophic, manifestations. For example, David J. Hauser and Megan E. Fleming explore catastrophic metaphorical representations of the elements (Hauser & Fleming, 2021), while other authors deal with natural metaphors, including names of the elements (e.g. Wei, 2020).

To navigate this diversity, a clear methodological paradigm is necessary to identify the most important features of the object under study. In our view, the most appropriate methodological framework for this investigation is a combination of conceptual analysis and cognitive modeling. We believe this approach will yield the most objective results when analyzing a complex phenomenon such as the interrelation among different elements. Furthermore, for a study of correlated concepts, we consider it essential to incorporate comparative methods to achieve truly objective and tangible results.

Several specific methods will be employed to analyze the phenomenon. Among them is componential analysis, which is also used to research the constituent lexemes of the studied lexical items. This method, widely applied by Russian and foreign scholars to study various semantic groups, assumes that word meaning is analyzable and can be decomposed into elementary semantic components or features. Componential analysis can also be approached through transformational procedures, where the sameness or difference of transforms indicates the sameness or difference in the componential structure of a lexical unit.

Alongside componential analysis, corpus analysis is crucial. As Baker (2006) notes, "using corpora and corpus processes uncover linguistic patterns which can enable us to make sense of the ways that language is used in constructions." The preference for this methodology is justified by several arguments. First, it is an effective method for establishing accurate data, as the use of quantitative techniques allows for the collection of extensive information about lexemes themselves – their combinability, frequency across discourse types, and representative samples of naturally occurring language (Baker, 2006). Second, electronic corpora are often annotated with additional linguistic information, most commonly part-of-speech tags, enabling large-scale grammatical analyses (Baker, 2006). This is particularly valuable given the inseparable interconnection between grammar and semantics in lexeme analysis.

Literature review

Much attention is paid to the study of the elements in general and the way of language representation of it in different languages, both in domestic and foreign philosophy, psychology, and linguistics. A special space among the works that deal with the issues of analyzing the studied phenomenon belongs to the research of its essential features.

The elements were studied in the works of philosophers of different historical periods (Plato, Aristotle, Hippocrates, F. Miletskiy, Heraclitus, Empedocles, R. Bacon and others) from the philosophical point of view. A lot of research on the elements is conducted by psychologists, among them A.R. Luria, M. Csikszentmihalyi, G. Kelly, J. Bruner, and others.

Most linguistic works are devoted to the description of the essence of the elements. The analysis of different aspects of the functioning of the denoting elements lexemes in various contexts, the conditions of actualizing the metaphorical meaning in

different syntactic structures, etc. (G. Lakoff, M. Johnson, N. Arutyunova, E. Wolf, R. Langacker, L. Talmy, P. Brown, S. Levinson, A. Wierzbicka, J. Lyons, etc.).

It seems that it was precisely the understanding of elements as cognitively grounded phenomena that led to the development of the foundations of their conceptual categorization in cognitive linguistics. In particular, in the study of how natural elements are structured in human cognition, such essential issues as the relationship between sensory experience and conceptualization, the role of cultural models in shaping elemental categories, and the mechanisms by which language encodes these categories receive a fundamentally new interpretation. This approach demonstrates that elemental categorization is not purely physical or objective but is mediated by culturally and experientially constructed cognitive models. As George Lakoff notes in his analysis of conceptual categorization, “Australian aboriginal language Dyirbal, which has a category, *balan*, that actually includes women, fire, and dangerous things ... This is not simply a matter of categorization by common properties” (Lakoff, 1987: 5). This example shows that elements such as fire are not simply natural substances but are embedded within broader symbolic and cognitive frameworks that shape their meaning in language and thought. At the same time, new content is invested in such key components of elemental conceptualization as the perceiving subject, the natural object, the experiential basis, the interpretive mode, and the normative framework through which elements are evaluated and understood in discourse.

Most of these investigations are carried out without corpus data. The researchers who conduct their research based on the method of corpus analysis in combination with some others, e.g. componential, transformational analysis, allow them to attract their attention not only to a simple description of the functioning of the linguistic phenomenon under study but to prove its existence by taking into account the accurate statistical data (Baker, 2006). The corpus analysis allows us to implement the theses worked out by pragma and cognitive linguistics using linguistic and extralinguistic information for analyzing and describing the considered language phenomenon.

Despite the relevance of the research topic, there are still methodological and theoretical gaps in understanding the mechanisms of the formation of the studied phenomenon, the rules for choosing this or that lexeme in the linear order of the construction, and the linguistic and extralinguistic factors that determine their choice and thus form metaphorical structures.

Finding and discussion

The human mind has been made so that it is constantly looking for the harmony of the thing which this human perceives, and when this person does not find this harmony, he or she is very disappointed. In that way it has invented the cardinal points on the almost perfectly ball of the globe, the four seasons divided into three months each. The main question in the final run is whether the allocation of the four elements is just another way to encode the universe in a queerly built human consciousness, or whether it reflects the objective picture of the world. This question needs an effort of representatives of different scientific branches, both studying natural and humanitarian phenomena and by no means can be solved within this paper. Anyway, a linguist can determine whether these elements are interrelated within a human society, both in its regional “headquarters” and across different word views. As our research has shown, the main metaphorical models of the semantic structure of all four elements are, to varying degrees, homogeneous across different linguistic cultures.

One of the most well-known and highly popular works in the present-day period of developing the theory of concepts in philosophy and linguistics is the well-known work of George Lakoff titled “Women, Fire and Dangerous Things” (Lakoff, 1987). Remarkably, such an element as *fire* finds its place in this title, though the other three

elements seem to be more widespread in genuine natural conditions. This is not surprising, as fire, as a certain state of matter, possesses a somewhat dialectical essence. Fire creates, and at the same time fire destroys. A modern human being cannot live without fire, as he or she constantly needs it to cook food, to be warmed in a colder period of the year; fire is the main driving force in mechanical vehicles, without which our life cannot be imagined, as fire is the main source of energy supply on Earth and in outer space. And at the same time, people always beware of fire, as it may cause irreparable damage and even the death of thousands, as it happens during periods of war or serious tectonic processes or other imminent social and natural cataclysms. Thus, we see a universal attitude toward the concept of fire across linguistic cultures, combining both positive and negative attitudes.

The problem of expressing the attitude of a speaker to a certain phenomenon of reality and social life is rather ambiguous, as such an attitude may be different in different situations where the linguistic unit reflecting this phenomenon, either in the form of a separate word, word-combination and sometimes in the form of a full-scale utterance, represents such a complex in a qualifying respect phenomenon. From this standpoint FIRE is a very good example of such a phenomenon in modern English, as one lexeme contains at least eight different specific senses, such as: a) simply a kind of matter (compare Russian *огонь как вид плазмы*); b) a pile of leaves, brunches and the like to provide warmth or to cook meal in the open air (russ. *костёр*); c) the same but in a stove of different sizes (russ. *огонь/очаг*); d) as a military term, denoting an action produced with weapons different from those cutting or piercing, using bullets, shells or other quick-moving metallic items to bring material and human damage to an enemy (russ. *огонь/огнестрельный*); e) a source of light russ. *огонь/огонёк*); f) a strong feeling (russ. *огонь/пламя*); g) facial (especially eyes) expression of the previous sense; h) a natural or artificial calamity russ. *огонь/пожар*). Depending on the situation, these senses may vary further through metonymic or metaphorical transformations, which is inherent to most of the languages we have analyzed in this research. Let us consider the following examples:

(1) *«Искры верхнедонского пожара перекинулись и в соседний Хоперский округ»* (Sholokhov, 1975: 345).

Here, the metaphoric model *fire* → *rebellion* is realized in a descriptive sense, but the author's negative attitude to the fact of the rebellion is strongly implied. It shows one more important characteristic of this concept – namely, that it may produce a controversial attitudinal effect depending on the event to which this concept is attached for its characterization. For instance, in the following case:

(2) *«Мы на горе всем буржуйам мировой пожар раздуем»* (Блок, 1960: 351).

The positive attitude to the revolution represented by the noun *пожар* is explicit because the source of such fire is expressed by the pronoun «мы» (we).

Of interest are different metaphoric models with FIRE as a target domain:

(3a) *«Аксинья ходила на цыпочках, говорила шепотом, но в глазах, присыпанный пеплом страха, чуть приметно тлел уголек, оставшийся от зажженного Гришкой пожара»* (Sholokhov, 1985: 71).

A strong metaphoric model *Love is fire* in this case, is surely of universal character, as it can be reflected in different linguistic cultures, for instance:

(3b) “Burn yourself with the fire of love to enjoy the fiery, burning beauty of love.” (Debasish Mridha) – English.

(3c) “Pomyśl, że jeśli ona zechce opuścić Aulusów dla ciebie, oni nie mają prawa jej wstrzymać, wiedz zaś o tym, że nie tylko sam gorejesz, bo i w niej Eros rozniecił płomień...” (Sienkiewicz, 1896: 31) – Polish.

This lexeme, in its meaning of “the intense lighting of the vast space,” is also often used to describe certain natural phenomena or events of artificial character happening in the sky:

(4a) «**Пожар** в утреннем небе»: В Петербурге в День защитника Отечества небо озарилось алым цветом (Fire in the morning sky, n.d.)

There are cases that are not numerous, yet they need to be revealed as a necessary supplement to what has already been described. We mean the case when some vast natural space, such as a meadow, a forest, etc. is described in terms of fire, as in the following example:

(4b) «Как легкий прозрачный дым, колебалось над вершинами деревьев зыбкое марево, и казалось, будто охвачены леса невиданным зеленым пожаром» (Успенский, 1965: 413).

The metaphorical models with fire as the target domain seem rather ambiguous when all the particular models are taken into account. That is why we are forced to define some general models of this kind. Such is the model, which may be presented as emotion is fire, but it includes several sub-models that differ in structural and semantic peculiarities. namely, they are as follows:

a facial expression of emotion/emotive manner of speech is a fiery substance:

(5a) «полковник попробовал легонько отстранить григория, но тот стоял на ногах твердо. в глазах его вспыхивали и гасли голубоватые искорки» (of anger) (sholokhov, 1986: 247).

while analyzing the metaphors of fire in the English and Indonesian proverbs, N.L. aqromi points out that this substance is a source-domain only for such a strong emotion as anger (Aqromi 2019: 95-96);

An emotive manner of speech is a fiery substance:

(5b) “A cheap cotton shirt, with frayed collar and a bosom discoloured with what I took to be ancient blood-stains, was put on me amid a running and apologetic fire of comment” (London, 1992: 13).

Of no less importance for human civilization is another element, water. Though all four elements are equal, we may justly consider this element “conceptually” to be an antipode of fire. If fire burns or scorches, water cools and soothes; if fire is associated with intense light, water is often associated with some dark depth; if fire often is the last stage of human existence, water is the initial stage of birth, a source of cleanness, especially at the beginning of the day. It is the energy of every life on Earth:

(6) “**L’eau qui vaut son poids d’or, l’eau dont la moindre goutte tire du sable l’étincelle verte d’un brin d’herbe**” (Saint-Exupéry, 1939: 102).

At the same time, both fire and water are associated with bodily comfort. In today’s conception of a wealthy life, a fireplace and a water-pool owned privately are in the list of the main symbols of prosperity and well-being. But if one cannot enter the fire without damage, water is the substance that seems to be most appropriate to find absolute calmness, even if life itself disappears in it. As in the following example:

(7) “*War es nicht das beste, noch einmal um sich zu blicken und dann hinunter in das stille Wasser zu gehen, um nach einem kurzen Leiden befreit und hinübergerettet zu sein in die Ruhe? Ach, Ruhe, Ruhe war es ja, was er wollte!*” (Mann, 1898: 40).

One of the most extensively used metaphorical universal models is the one that may be termed as time flows like water. Water is the most appropriate matter to visualize the flow of individual time, as it is incessant like water in a quiet flow of a vast river expanse, and like an individual time perception, it may become faster or slower due to different depths and shallows in the river of the Life. Like these river stops, the critical moments happen in the life of an individual whose life is viewed as a flow of a river:

(8) *What on earth did such a woman do with her life, back-watered like this?* (Galsworthy, 1996: 182).

We consider a certain fact concerning water as a substance closely connected with a man as interesting from the point of view of moral evaluation. That water is

considered the main substance indubitably associated with not only the bodily cleanness, but with truthfulness and chastity as well. That is why the metaphorical use of the word-combination clear water is a universal model, marked in most languages where the water semantics has been the object of linguistic semantic study. If water is clean, one is a clean, just and righteous person, and the person is the devil's spawn if water is filthy. This is also true when the valuation of feelings and emotions occurs in discourse. Numerous examples prove the fact:

(9a) ... *thinking how obscurity rids the mind of the irk of envy and spite; how it sets running in the veins the free waters of generosity and magnanimity* (Woolf, 1977: 65).

(9b) *Czul rozkosz, jaką sprawiał mu sam jej widok, i napawał się nią jakby ożuwczą wodą po długim pragnieniu* (Sienkiewicz, 1896: 169).

(9c) *Яноуская за апошнія дні унікала мяне, а калі мы сустракаліся - адвартала пацямнелія, сумныя, як асенняя вада, вочы* (Karatkevich, n.d).

As water is the main substance to clean somebody from filth, it is closely associated with such concepts as washing and cleanness and thus may substitute them when used metaphorically, as in:

(9d) - *Di che cosa? - diceva colui: - una mano lava l'altra, e tutt'e due lavano il viso* (Manzoni, 1933: 235).

(9e) *В этом рассказе было что-то грязное, такое же, как и все вокруг, так что мне все время хотелось вымыть руки* (Kaverin, 1981: 329).

A special place among different phenomena that are directly tied with water are such notions as river, sea, lake, ocean, which deserve a separate investigation that will exceed the limits of a simple article like this one. That is why we would like to concentrate our attention on such a 'watery' form as rain. Like other representants of water in natural milieu, depending on the evaluative coloring of the situation, it may be both highly desirable as a means to stop excessive heat and highly unacceptable when warmth, quietness and tranquility are required. The last thesis explains how rain is represented as unpleasant, undesirable, and abhorrent in the phraseological picture across different linguistic cultures. But no less numerous are cases when rain is viewed as rather an ambiguous datum from the axiological point of view of human relations. Thus, one easily finds such idioms as *Как дождём/водой смыло* in Russian, *After rain comes fair weather* in English and *Z toho mračna nebude děst'* in Czech.

One Czech proverb, namely *Dostat se z dešti pod okap*, which can be translated as "to get from bad into worse," is of interest because it gives us a word-for-word translation of "to get from drizzling into a heavy rain". It could hardly be noticed but for the fact that it has its Russian and Ukrainian equivalents *попасть из огня в поल्या/потрапити з-під вогню та в полум'я*. Having the same general semantic pattern of negative evaluation and worsening the situation, they reveal specific semantic traits of different elements (different degrees of rain versus quite the opposite substances like fire and water). The phenomenon can hardly be grounded, yet it seems appropriate to suppose that such a difference is explained by the peculiarities of cultural character in the perception of the world, which, to a certain degree, account for the peculiarities of the metaphorical models.

If the cognitive opposition of fire and water is based on a set of interrelated factors affecting the somatic sphere of a human being, another opposition of earth and air may be constructed on purely spiritual factors. It is hardly clear whether this opposition is primary, as these elements are opposed by the semantic feature of color. The general evaluative contrast of these concepts may be explained by the existence of such an evaluative metaphor as good is bright, bad is dark. It seems rather problematic to estimate whether this metaphoric model is of universal character, as there may exist certain world outlooks and religious traditions that miss this color

opposition, but this presumption needs its further investigation. Yet, one can state after Ch. Forceville and Th. Renckens that this evaluative metaphorical model embraces, at least, modern Western and Eastern society and, respectively, the language pictures word view within these societies (Forceville, Reckens 2013).

This consideration seems of great importance, but it by no means embraces all the semantic characteristic features and, respectively, their further manifestations in speech of the phenomena in question. Moreover, there is another important metaphorical opposition in which earth becomes a synonym for something reliable and stable, while air represents something ephemeral, lacking substantial support. It is enough to compare the following English phraseological units: *have one's feet (firm) on the ground* and *it's up in the air* (usually of some unreliable news or other kind of information). It is one of the main models on which G. Lakoff and M. Johnson build their foundation for cognitive metaphor theory (Lakoff, Johnson 1980: 20). Thus, earth as a structure of knowledge has a rich metaphorical pattern. We agree with Paul Thibodeau, Matias Berretta, and Cindy Frantz that the most recurrent, and at the same time, some kind of embodiment of different conceptual interpretations of Earth is the metaphorical model that Earth is (our) home (Thibodeau et al. 2017). But the paradox of the situation is that, in reality, we speak of different mental entities: the Earth is first and foremost associated with the planet, while we cannot define the exact content of the substance reflected in the structure of knowledge termed 'Earth' as an element. If water and air as notion may be described in chemical terms (a water molecule consists of two atoms of hydrogen and one atom of oxygen, and air contains 78.08% nitrogen, 20.95% oxygen, 0.93% argon, 0.04% carbon dioxide, and small amounts of other gases), and the chemical content of fire may be defined in approximate terms, is not clear whether earth as an element is soil, or sand, or clay, or rock. It makes this concept stand out in the row of other element concepts.

One thing that should be noted as rather important in this investigation is that a specific prototype representing the main concept of the element, like a river, a lake, an ocean, or rain in the case of water, or air as well. It is the concept of wind in any of its representation forms. The "wind-set" of the metaphoric transformations usually implies their target domains as some development, motion, or change, often of progressive character, though a neutral or even undesirable evaluative effect may result if a strong representation of wind is used in a lexical or phraseological unit. For instance, we have rather an indefinable from the evaluative point of view but strong from the expressive one in the following case:

(10a) *On comprend que rien ne pouvait, dans la disposition où il se trouvait, être plus désagréable à Bazin que l'arrivée de d'Artagnan, laquelle pouvait rejeter son maître dans le tourbillon des idées mondaines qui l'avaient si longtemps entraîné* (Dumas, 1994: 306).

Rather unusual metaphoric pictures of different winds in their evaluative usage can be seen in the example below. It is remarkable that here another metaphorical pattern of the evaluative associations with different cardinal points plays its part as well:

(10b) *Als de hengsels knarsen, terwijl de wind uit 't noorden blaast, is 't die kant dien gij nemen moet, doch met omzichtigheid, want Noordenwind is oorlogswind; blaast hij uit 't Zuiden, ga dan maar blijgemoed: 't is minnewind; uit het Oosten, loop dan gezwind: 't is licht en en vroolijkheid; uit het Westen, ga traagzaam, want die wind brengt regen en tranen* (De Coster, 1896: 262).

One more consideration seems both important and at the same time unusual to concentrate a scholar's attention on. The fact is meant that the previous content of the article might have created the illusion that the opposite pairs fire: water and earth: air are clear-cut, and there may not be any additional associative relations between them. Yet, Hamad Al-Azary, Christina L. Gagné and Thomas L. Spalding show sufficiently enough that there exists one more general metaphoric model between the semantic

spaces of water and air that becomes concretized in such particular models as air motion is water motion, moving in air is moving in water, and air travel is sea travel (Al-Azary et al. 2020). Both are the fluent substances, and that is why their metaphorical potentials can overlap. For instance, both water and air may be circularly turbulent (cf. *typhoon/whirlwind* and *whirlpool* in English), and both lexemes may be used interchangeably to characterize the like events or actions:

(11a) *The heinous attack along with pleasure made me happy since losing the ability to control myself, I let my drift or be absorbed in the whirlwind of destiny?* (Daily Mirror, n.d.).

(11b) *These two women dragged me into their **whirlpool** of sin* (Ibid.).

Compare the similar correlation in the Russian popular song:

(11c) *Ты помнишь, **плыли** в вышине,*

И вдруг погасли две звезды? (Derbenev, n.d.a),

Here, the model “air motion is water motion” (“the stars swim”) is realized. In this way, a human life is associated with a flow of a river, with turns and straight directions.

It may seem that the main association of earth is something stable and not moving from its place. But further analysis of the metaphorical models pertaining to the concept of earth reveals phenomena that make this concept closer to such “fluent” structures of knowledge as water and fire. And this is the structure of knowledge as a volcano. As a “sprawling” of the Earth, a volcano is a constituent part of it, but, unlike a stable, it is, in many respects, the “mother” of a fiery mountain; this concept destroys the principal differences between the two seemingly incompatible notions. The essential feature of a volcano is fire as a phenomenon, and this predetermines their frequent use instead of each other, as in the following example:

(12) *“W dzień odkrywał się przerażający i złowrogi widok. W środku olbrzymie miasto na wzgórzach, zmienione w huczący **wulkan**, naokół zaś, aż do Gór Albańskich...”* (Sienkiewicz, 1896: 347).

Like fire, a volcano can be the means of expressing strong feelings, but its emotional range is rather limited. This is almost exclusively the emotion of love. There are hundreds of poetic pieces in which the strength of love is compared with the force of a volcano. For instance, the following example presents two extracts from the well-known Russian-language song, in which the symbolic metaphor of a soul tormented by an unhappy love serves as a compositional framework for the whole text. In the example below, the first part closes the first stance and the second one closes the whole song, thus making thus the theme of a volcano as a violent and uncontrolled passion:

(13) *«В моей душе неосторожно вы*

*Разбудили **вулкан** <...>*

Видишь, гибнет, сердце гибнет

*В **огнедышащей** лаве любви!»* (Derbenev, n.d.b).

Eminent as it is, a volcano can sometimes be interpreted rather frivolously just to show an ironical attitude to something which is, so to say, “volcanize” it, that is, to liken this thing, event, attribute etc. to a volcano. For instance, in V. Katayev’s novel “A Small Farm in the Steppe” in the episode describing a revolutionary demonstration in Naples one of the characters (according to the author’s intention the world-known writer Maxim Gorky) remarks ironically about the Italians taking part in the demonstration:

– Пошумели и перестали, – со злой улыбкой сказал Алексей Максимович, прислушиваясь, и немного погодя прибавил: – **Вулканический народ. Вроде своего Везувия. Дымят, а не действуют** (Катаев, 1956: 6).

The result of the analysis of the target component and the patterns in general allows us to represent the findings in the following figures:

Figure 1: Frequency of usage of the target component, denoting elements in English and Russian languages:

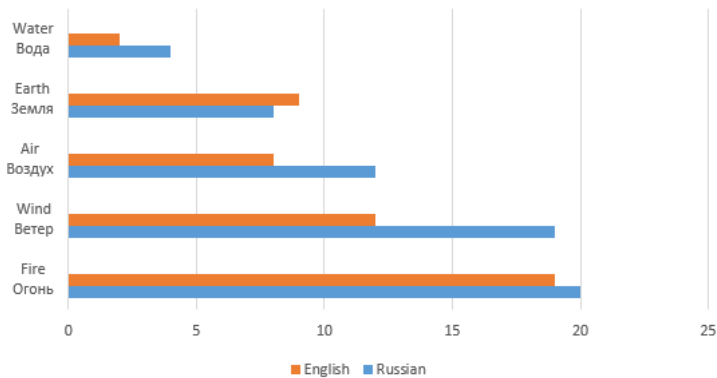
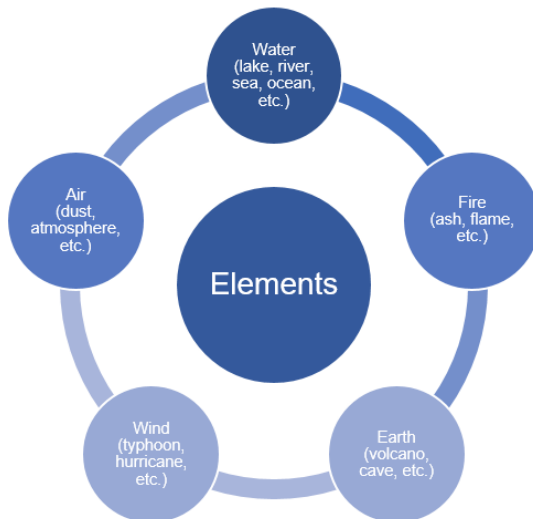


Figure 2: The components which may represent the parts of the elements:



There is another important item that should be laid a special emphasis on within our research. That is an axiological quality¹ of different metaphors based on the use of the four main elements and their manifestations in the form of different objects and their qualities generally representing the named elements. The axiological component of any study of metaphor is sure to be connected with values represented in the form of evaluations, and it is remarkable that any object manifesting this or that natural element may have both positive and negative evaluative attitude depending on the specific conditions of semiosis. Some of them have already been mentioned above. Thus, fire is represented by flame, sparkles, smoke, ashes; it may give warmth in the cold, but it can devour a massive filled with herbs, trees and living beings. Water may save one from thirst and even death, it is a substance without which any biological form is impossible to live without; but it can be dangerous as well during floods or other natural or artificial calamity involving great masses of water. Air and earth may be said to exist as the substances interchanging each other as far as their evaluative potential is concerned. One might say that they represent “the war” of the aesthetical or spiritual evaluation as opposed to the material one. If one means that the thing in question have little to do with the gross, blatant material world involved in calculation, he speaks of this thing as “heavenly”, “ethereal”, “not belonging to this mundane world” thus referring it to an “airy” evaluative domain. But if one speaks of something as being “solid”, “reliable”, “tangible and sure”, ‘not based on ephemeral possibilities’, then he speaks of it as “standing firm on the ground”. Thus, in our opinion, the problem of the elements’ semantics of value and evaluation as the two conceptually coordinated entities seems to be of considerable importance to those studying the semantic characteristic features of the elements and, consequently, needs a further detailed and thorough investigation.

Conclusion

As the general results of our investigation show, the elements semantically are not simply juxtapositions of different basic representations of matter within the human mind with their reflection in different languages. They are closely interrelated by the associative ties both of the primary, non-metaphoric character and by the coordinated metaphorical models at the same time. Besides, the examples of their syntagmatic occurrence in different languages show that irrespectively of the peculiarities of each particular linguistic mentality of different nations they reveal similar systemic ties between these materially different notions. In our opinion, that means that there exist very promising perspectives of further complex cognitive semantic researches of natural objects and phenomena in the spectrum of comparative linguistic studies.

The problem has one more important research conclusion which in the case of its consistent development may bring those majoring in the language semantics to a very promising trend in this sphere of the language units’ content studies. Starting with the assumption that any object or phenomenon of the reality may be categorized in a certain way (the way different inanimate things of the objective reality are categorized as belonging to one of the four elements), what evaluative lexical and phraseological units characterize a certain notion, one may come to compiling a linguistic data corpus of such units with further development of the investigation into the corpus of their usage in actual syntactic patterns thus coming to describing the set of typical situations with this object as an actant of a situation. Then one may trace the stages

¹ We are not going to develop specially on the problem of axiology and its classification, as the problem needs a more profound investigation that can be given within a framework of the present article. We will say briefly that this philosophical branch of science deals with value as a general notion and its particular representations, such as aesthetic, ethic, utilitarian, social, material, hedonistic, spiritual and the like.

and the general mechanisms of the conceptualization of a certain phenomenon of reality belonging to a certain category of thinking.

Summing up, we may say that a detailed study of the semantic phenomena connected with the nominations of the natural phenomena is of no less importance than such fundamental problems of cognitive semantics as the theories of categorization, cognitive metaphor and metonymy if it takes modern methods and algorithms as an instrument of investigation. But such a study achieves a twofold effect if it is properly combined with the traditional methods of the linguistic semantics.

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Words: 7157

Characters: 45 839 (25 standard pages)

Prof. Olga N. Prokhorova
Belgorod State University
308015, Belgorod, Studencheskaia Street, 14
Russia
prokhorova@bsuedu.ru
ORCID: 0000-0001-9441-819X

Prof. Igor V. Chekulai
Belgorod State University
308015, Belgorod, Studencheskaia Street, 14
Russia
chekulai@bsuedu.ru
ORCID: 0000-0001-8599-1699

Prof. Jerome Baghana
Belgorod State University
308015, Belgorod, Studencheskaia Street, 14
Russia
baghana@bsuedu.ru
ORCID: 0000-0001-6061-3288

Assoc. Prof. Vladimir S. Pugach
Belgorod State University
308015, Belgorod, Studencheskaia Street, 14
Russia
baghana@bsuedu.ru
ORCID: 0000-0001-5909-5217

Assoc. Prof. Zhazira I. Issayeva (*corresponding auhor*)
Khoja Akhmet Yassawi International Kazakh-Turkish Univeristy
Bekzat Sattarhanov Street No:29
Turkestan / Kazakhstan
zhazira.isayeva@ayu.edu.kz
ORCID: 0000-0001-9801-8943