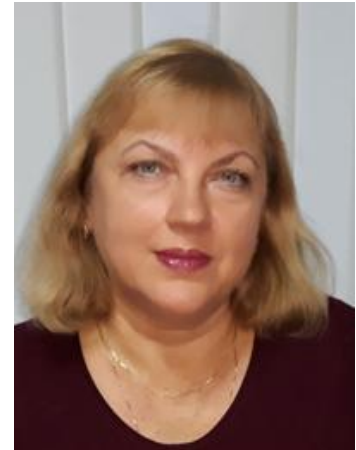


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## SEMANTIC-COGNITIVE METAPHORICAL MODEL: PROPERTIES, PARAMETERS, AND CONSTRUCTION TECHNIQUE

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### **Abstract**

*The paper deals with the metaphorical model as a semantic-cognitive construction based on the author's conception of metaphorical modelling. The aim of the research is to characterize such a model of metaphorization, that involves the disclosure of its essence, description of properties, parameters, and construction technique.*

*Semantic-cognitive metaphorical modelling is the construction of metaphorization models that reflect national stereotypes of figurative analogic and associative thinking of an ethnocultural community or individual perceptions of the world of a particular native speaker at a particular stage of historical development. A semantic-cognitive metaphorical model is a regular scheme of verbalization of notions correlated in analogic and associative terms available in the minds of native speakers. It includes the original and new ideographic domains and the semantic-cognitive motivator – this description of the metaphorical model actualizes the denotative-conceptual domains of the source and purpose of metaphorization and the integrating feature that motivates the process of metaphorical nomination. The semantic-cognitive metaphorical model is a three-component structure: the original denotative-conceptual domain (metaphor motivating) → the new denotative-conceptual domain (metaphorically motivated) | semantic-cognitive motivator (motivating feature of metaphorical nomination). The term 'semantic-cognitive metaphorical motivator' is introduced to denote the semantic component that connects the derivative and derived meanings and expresses the motivational relations of the original and new denotative-conceptual domains, which is a mental and semantic element that integrates different entities that are similar in some respect. It serves as a motivating feature of metaphorization as a metaphorical projection from the original conceptual domain to a new one, an indicator of metaphorical motivation.*

*The developed methodology of constructing and describing metaphorical models as semantic-cognitive structures is universal, since it can be used as an independent operational mechanism in the semantic-cognitive analysis of individual facts of metaphorization or in the corpus-based study of metaphor in a particular language (texts, discourses), as well as an obligatory stage of the semantic-cognitive study of metaphorical concepts.*

**Keywords:** *metaphor, metaphorization, semantic-cognitive metaphorical model, metaphorical motivation, source and target domains of metaphorization, semantic-cognitive metaphorical motivator.*

### **1. Introduction.**

Metaphors are essential in the process of human cognition of reality, as they enable us to identify similarities between various objects and phenomena, to apply knowledge and experience gained in one area to comprehend another area. The conceptual system of native speakers contains a certain set of metaphorical projections that seem to be built into everyday thinking, so they are an integral part of the cultural paradigm of the ethnic group and are easily understood by members of the language group.

Human thinking has the important for metaphorization ability to analyse perceived objects and situations, compare different entities, and draw analogies between similar ideas about certain realities. Metaphorization is based on the comparison of some real objects by their analogy or a certain associative connection between them. Metaphorical nominations, that arise as a result of a creative cognitive process directly influenced by language and the way of conceptualizing reality inherent in a particular ethnic culture, are gradually accumulated by an ethnic group in the course of its historical development. As a result, a metaphorical worldview is formed and gradually modified, and it reveals a certain stereotypical nature of national thinking. This means that the figurative mental and verbal activity of native speakers is carried out according to certain, relatively limited number of schemes and models.

### **2. Literature Review.**

In linguometaphorology, there are two main approaches to metaphorical modelling: semantic (Kudryavtseva (2004), Kustova (2004), Laguta (2003), Ponomaryova (2005), Tropina (2003), and others) and cognitive (Baranov, Mikhailova, Satarov, Shypova (2004), Baranov (2014), Chudinov (2003), and others).

In linguistic and metaphorological studies of semantic modelling, the understanding of metaphor as a model is based on the notion of semantic parallelism. In different works, metaphorical models, considered as samples, schemes of meaning-making, include components of different nature and number, but the allocation of conceptual domains (semantic / ideographic fields, lexical-semantic / thematic groups, etc.), which include word formation and derivative meanings that motivate the metaphorical transfer of features, is similar. The metaphorical model is generally interpreted as a regular correlation between the denotative and conceptual domains of the motivating and motivated meanings of words connected by a common semantic element.

The positive feature of semantic research in the field of metaphorical modelling is the aspiration for a detailed consideration of the facts of secondary nomination based on component analysis, which makes it possible to comprehend better the essence of metaphor formation processes. However, firstly, the descriptions of metaphorical models are usually based on a relatively small amount of material (individual contexts and lexical and grammatical word classes), and sometimes are selective in nature; secondly, they are characterized by the complexity of structuring and ambiguity of model parameterization, which does not contribute to the development of a unified methodology for describing and classifying metaphorical models.

In linguistic and metaphorological studies on the cognitive modelling of metaphorization, there are two main methods of constructing and describing metaphorical models. According to the descriptive theory (Baranov, 2004, 2014), a metaphorical model is understood as a thematic field of signifying descriptors. In the cognitive discourse theory (Chudinov, 2003), a metaphorical model is considered to be a connection scheme between the conceptual domains of the source and target of a metaphorical projection, and which exists in the minds of native speakers. Cognitive metaphorical models are described as structured frames and slots of the source and target domains.

The advantages of the cognitive modelling of metaphorization include a clear tendency towards completeness and multidimensionality of description, detailed systematisation, and the use of corpus-based methods, which involves a significant amount of linguistic facts under study. In addition, despite the fact that the authors of descriptive and cognitive-discourse theories manifest them as cognitive, there is a clear intention to combine the cognitive and semantic aspects, which brings them closer to the idea of considering metaphor as both a mental and linguistic phenomenon. Meanwhile, the descriptions of metaphorical models made by other researchers within these conceptual studies contain some drawbacks: a broad understanding of metaphor, including similes, periphrases, metonymies, phraseological units, although this approach is generally characteristic of cognitive semantics; mixing of the terminology of linguocultural studies, linguistic cognitive science, and linguistic semantics; lack of terminological unity, often even in the works by the same author; discrepancies in the description of frame-slot structures of the same metaphorical models; the practical absence of formulated basics for metaphorical projection; the complexity of structuring models, which does not create conditions for unifying the results of the studies for the purpose of general description.

A comparison of semantic-cognitive approaches to metaphor modelling has demonstrated that they have common features: understanding metaphor as a modelled object; using the term 'metaphorical model' ('metaphorization model'); identifying similar parameters of the metaphorical model and using terminology that correlates within their meta-languages.

### ***3. Aim and Objectives.***

The aim of the paper is to describe the metaphorical model based on the author's conception of a semantic-cognitive metaphorical modelling. It has determined the following objectives to achieve:

- to reveal the essence of the metaphorical model as a semantic-cognitive structure;
- to describe the properties of a semantic-cognitive metaphorical model;
- to present the specifics of metaphorical motivation;
- to characterize the parameters of a semantic-cognitive metaphorical model as a three-component structure;
- to describe the methodology for building a semantic-cognitive metaphorical model.

### ***4. Methods.***

Modelling is well known as a scientific method to elaborate the properties and structure of a certain real or imaginary object under the study of the properties and structure of its built model. The modelling methodology suggests an impressive prospect for research, yet it is obviously not the only source of knowledge about a particular object.

Later in the twentieth century, modelling became one of the basic methods to study metaphor, as the active study of metaphorization had scholars understand metaphor as an object to be modelled. According to the semantic approach to metaphorical modelling, a

metaphorical model is a typical correlation between the semantic (ideographic) domains of the motivating and motivated meaning-holding components reflected through integrating semantic feature. As provided by the cognitive approach, a metaphorical model is a sustainable relevance between the source and target domains fixed in the nationally specific linguistic and cultural tradition (Kravtsova, 2018).

The analysis of existing methods for metaphorical modelling made it possible for us to develop some specified ones for a semantic-cognitive metaphorical modelling. The suggested approach to metaphorization modelling implies building the metaphorization models that reflect the national stereotypes of figurative analogous and associative thinking specific for an ethnic and cultural community or individual world mapping of a native speaker at a particular period of historical development. A semantic-cognitive metaphorical model is a regular scheme existing in the minds of native speakers to verbalize the correlated analogous notions and associative ideas.

According to the suggested conception of metaphorical modelling, the methodology for building a semantic-cognitive metaphorical model involves the following stages: 1) applying the language (speech) data to collect the facts of metaphorization, which are the object of research; 2) establishing the denotative and conceptual domains of both metaphor sources and targets; 3) identifying the semantic-cognitive metaphorical motivators; 4) building three-component metaphorical models: denotative and conceptual source domain (metaphor motivating) → denotative and conceptual target domain (metaphorically motivated) | semantic-cognitive motivator (metaphorically nominated motivating property); 5) comparing all the semantic-cognitive models built as to determine their properties (regularity and productivity).

It should be noted that semantic-cognitive metaphorical modelling can be applied not only to language metaphors recorded in explanatory and semantic dictionaries that reflect the peculiarities of collective figurative thinking, but also to metaphors existing within particular texts that demonstrate the specifics of an individual figurative worldview. Thus, the results of a corpus-based literary discourse metaphors study (Kravtsova, 2011, 2014) disproves the popular opinion that “metaphorical transfer occurs in certain directions just in common use (“usus”)” (Sklyarevskaya, 1993, p. 20) and “metaphorization of nominations in literary speech proceeds somewhat illogically, arbitrarily” (Laguta, 2003, p. 134). We consider that the formation of speech (occasional) metaphors is based on systemic patterns and does not exceed the general linguistic systematicity, whereas identifying and describing these processes are more complicated as compared to the analysis of the facts about common metaphorization patterns.

## **5. Results and Discussion.**

### **5.1. Essence of a semantic-cognitive metaphorical model.**

According to our conception of metaphorical modelling, metaphor is a mental and verbal construct that is intended to characterize and nominate an object created on the basis of its analogue or associative similarity with the other object that has already got named in the process of human cognitive activity. Metaphorization is a cognitive and semantic mechanism that helps forward to identify properties in common between different realities based on the analogous and associative complexes that exist in the consciousness of representatives of a particular ethnic culture. However, the nature of metaphor is considered in two aspects: on the one hand, it is an object of meaning-making, and on the other hand, it is an object of meaning perception. This property of metaphor is an important factor that makes the metaphorization modelling intricate, for the processes of creating metaphor (metaphor encoding) and understanding it (metaphor decoding) may not coincide. Thus, the

scholar should have a good knowledge of language and its semantic patterns as well as some certain intuitive feeling to reconstruct the metaphor semantic meaning as it is a product of the mental and verbal activity of a metaphor maker. Actually, the results of metaphorization as a cognitive process can be empirically observed in language (speech) use only, and metaphors as linguistic units are explications of human cognitive abilities.

Semantic-cognitive metaphorical model is a three-component structure that includes the source and new denotative and conceptual domains (for example, “physical properties of a person → atmospheric phenomena”) and a semantic-cognitive motivator which is interpreted as a conceptual and semantic element that integrates different entities similar in some way. The method of representing the domains of metaphorization (source and target) makes it possible to understand the system of logical and conceptual relations between the motivating (motivator) and motivated (getting motivated) meanings. However, there are actualized the source domains (denotative and conceptual ones of the motivating meaning) and target domains (denotative and conceptual ones of the motivated meaning) common to semantic-cognitive modelling. In addition, as typical for cognitive studies, there are eliminated the differences between the parts of speech (in studies on semantics, the description is usually based on the data of a certain part of speech).

### ***5.2. Characteristics of the semantic-cognitive metaphorical model.***

Almost all linguists who study the specifics and patterns of metaphorical modeling (Baranov (2004, 2014), Chudinov (2003), Tropina (2003), and others), when characterizing metaphorization models, usually point to such properties as regularity and productivity. Those are actually borrowed from morphological derivatology as the very notion of the model and its main components. In morphological derivatology, regularity is understood as the repetitiveness of formal and semantic relations of word-formation correlative words when there are several words formed on the same pattern, and productivity is understood as the ability to serve as a model for the forming of new words.

Semantic derivatology interprets regularity as the conditionality of the secondary meaning of a word that is a part of a certain lexical and semantic range by the general semantic characteristic of the entire range, i.e., the primary meanings of the corresponding lexical units, or the reproducibility of secondary meanings according to a known model. Cognitive linguistic and metaphorological studies usually clarifies regularity as the repetition of metaphors of a certain conceptual domain.

It should be noted that opinions differ as to which metaphorical model can be considered regular. Some linguists (Tropina (2003) among others) consider a model regular if there are at least two motivationally similar secondary meanings. Other scholars (Chudinov (2003) among others) consider regularity as a characteristic of a model if it includes a significant number of similar cases and the emergence of one meaning on the basis of another is motivated and predictable, i.e. modeled.

Semantic linguistic and metaphorological studies determine regularity by the presence of at least two similar cases of metaphor formation, while in linguistic and cognitive works on metaphorization modeling, it is mainly about a significant number of typical semantic transformations, which is primarily due to the approach to the research material: to a greater extent linguistic semantics studies metaphors within a single lexical and grammatical class or relatively few facts of metaphorization. At the same time linguistic cognitive science, as a rule, widely uses corpus-based research methods, i.e., the study is carried out on a large volume of metaphorical nominations.

As we can see, the issue of the number of metaphors of one denotative-conceptual domain, which makes the model regular, remains generally controversial. In our opinion, a

metaphorical model has such characteristic as regularity if it is reproducible and does not cause difficulties in the perception of native speakers. Regarding the quantitative factor in determining the regularity of a model, we note that a metaphorical model is regular if it is steadily repeated in a language or an idiolect, i.e., if there are two or more facts (Kravtsova, 2011, 2014).

The amorphous nature of the notion of regularity of a metaphorical model has led to the fact that in some researches (e.g., Chudinov (2003)), when describing a significant number of metaphorical models, frequency is introduced as characteristic, which correlates with regularity, but indicates a large number of similar derived meanings.

The productivity of a metaphorical model is usually understood as its ability to serve as a model for the formation of new metaphorical meanings (Baranov, Mikhailova, Satarov, Shypova (2004), Baranov (2014), Chudinov (2003)). A sign of the productivity of the metaphorization model is the formation of new meanings in lexemes by analogy with the figurative meanings already existing in other words of the same semantic (nominative) field, recorded in the dictionary (Kuksa, 2007, p. 8). Thus, the productivity of a metaphorical model is conditioned by its ability to produce new meanings at a particular synchronic cut, i.e. we can speak about the productivity of the model in a particular period of historical development of the language. However, in some researches (Tropina (2003) among others), the productivity of the model is determined by the completeness of coverage of units with a given set of properties, which means that the quantitative indicator is used again and, accordingly, the notion of regularity is duplicated.

The notion of regularity is closely related to the notion of productivity: productive models are simultaneously regular, but regular models can be both productive and unproductive (their regularity in this case is explained by their productivity in the past).

Thus, the metaphorical model has the properties of regularity and productivity, which characterize its reproducibility and semantic activity in different historical periods of development of a particular ethno-cultural community.

### ***5.3. Specificity of metaphorical motivation.***

Semantic, including metaphorical, motivation, which reflects the relationship between the motivating (derivative) and motivated (derivative) meanings of a polysemant, is the basis of secondary nomination and the development of polysemy. The problem is that while semantic derivation, unlike morphological derivation, the motivational relations between the motivating and motivated meanings have no formal expression. That is why there is still no common understanding of semantic motivation (Kustova (2004), Tropina (2003), and others), and the notion of metaphorical motivation needs to be substantially clarified.

Until recently, metaphorical motivation was understood as one of the types of motivational relations in morphological derivation, although the views on its essence differed significantly. It was interpreted as the formation of derivatives based on the metaphorical meaning of the word-former or as the emergence of a figurative meaning in the motivated word on the basis of the non-figurative (direct) meaning of the motivating word. On this basis, the essence of metaphorical motivation was defined as the ratio of the motivating (derivative) and motivated (derivative) words, when the motivated word acquires a figurative (metaphorical) meaning, but there were disagreements about the nature of the motivating word.

There is also a controversy in the interpretation of metaphorical motivation represented in the studies of semantic derivatology and linguistic metaphorology. Metaphorical motivation is understood as: “the removal of one semantic component from the lexical meaning of the derivative word while neutralizing other semes and forming a new,

figurative meaning of the derivative” (Shirshov, 1991, p. 61); “such a motivational relation between the derivative and the original word when the semantics of the derivative word is based on the associative, potential semantics of the original word, and in the process of word formation itself, the rank of the motivationally relevant seme changes” (Tashlykova, 1994, p. 174). Thus, metaphorical motivation is considered as a relation of derivative and derived meanings or words (as in morphological word formation). At the same time, the study of metaphorization and metaphorical nomination requires new approaches.

According to our conception, metaphorical motivation is the relation of the original denotative-conceptual domain (direct, primary meaning) and the new denotative-conceptual domain (figurative, secondary meaning) based on the commonality of semantic-cognitive feature(s) in different objects of reality that are similar in analogous-associative terms. Metaphorization can be based on an analog or associative figurative representation of reality in the minds of native speakers. For example, the metaphorical meaning of the word *whisper* “quiet noise, rustle, murmur, etc.” (*whisper of waves*) is a projection of the direct meaning “quiet speech in which sounds are uttered without the participation of the vocal cords” (*child’s whisper*) (Slovník ukraïnskoi movy, 2010–2021), where metaphorization is carried out on the motivational feature “sound”, and, accordingly, the integral seme “quiet sound” is actualized. The metaphorical meanings of the word *scream* – the usual “extreme manifestation of despair, anxiety, strong emotional experience, etc.” (*scream of the soul*) and the occasional “a strong sharp sound made by something” (*the scream of a locomotive* (V. Inber)) are motivated by the direct meaning “a strong sharp sound of a voice; a scream” (*a woman’s scream*) (Ibid.), but the linguistic metaphor is formed on the motivational feature “measure”, as a result of which the potential seme “extreme manifestation of something” is actualized, and the speech metaphor is formed on the feature “sound” with the actualization of the integral seme “strong sharp sound”. Linguistic (usual) metaphorization is characterized by the transfer of meanings mainly by analogy, and speech (occasional) metaphorization is based on associations, which confirms the results of our study. The meaning of a word acts as a generalized reflection of the object it denotes, which implies that not all the features and characteristics inherent or attributed by native speakers to a certain reality are fixed in the meaning, but only the most essential, basic, more frequently used ones; metaphorization can reveal both essential and non-essential (peripheral, potential) features of an object or phenomenon.

Some linguists (Usminskij (1996) among others) also note that motivation can be multidimensional. Thus, Usminskij (1996) identified the most frequent motivating features of tropes (metaphors, similes, etc.): auditory; taste; tactile; visual in color; visual in shape; visual in dynamic feature; relative with logical-sensory modulation; relative without logical-sensory modulation; relative based on the intersection of valences; combined. However, he drew attention to the fact that visual features, when combined with others, can dominate them when decoding, for example, occasional metaphors.

Our analysis of the metaphor of artistic discourse (based on the works of prose poets of the first half of the twentieth century – A. Akhmatova (1989, 2017), A. Belyi (1996), Z. Hippus (1991), V. Inber (1965), M. Kuzmin (1989), B. Pasternak (1990, 1991), I. Selvinsky (1971–1974), M. Tsvetaeva (1988)) made it possible to identify the following types of metaphorical motivation, such as:

1) formative: *везі хмар*; *куполи хмар* (A. Belyi); *голови беріз*; *грива хвиль* (V. Inber); *руки плюща*; *крила брів* (M. Tsvetaeva);

2) coloristic: *сиві хмари*; *сніжне срібло* (A. Belyi); *золото листя*; *мідь гілок* (V. Inber); *сивина морів*; *очей свинець* (M. Tsvetaeva);

3) acoustic (sound): *дощові голоси; говір моря* (Z. Hippus); *голосиста пилка; шепотять колосся* (V. Inber); *шеніт піни; гортанні струмки* (I. Selvinsky);

4) dynamic (movement, development): (рух, розвиток): *бал заметілей; хоровод вихрів* (A. Akhmatova); *сонні трави; спить ковила* (Z. Hippus); *біг хвилин; мчать роки* (I. Selvinsky);

5) realization (expression): *шеніт кохання; подих мистецтва* (A. Akhmatova); *мовлення серця; серце байдуже* (Z. Hippus); *птах натхнення; горіння душі* (V. Inber);

6) quantitative (quantitative): *дощ віршів; град телеграм* (A. Akhmatova); *родина рокит* (A. Belyi); *згряя дівчат* (I. Selvinsky); *море сліз* (M. Tsvetaeva);

7) parametric (measure, degree): *море листя; фонтани вогню* (A. Belyi); *жар пристрастей, попіл каяття; вогонь, пожежа гніву* (V. Inber); *лава ненависті; вогонь шаленості* (M. Tsvetaeva);

8) correlative (correlation): *хоровод кипарисів* (A. Akhmatova); *тканина часів* (Z. Hippus); *нитки подій* (V. Inber);

9) consistency: *скло неба* (A. Akhmatova); *атлас хмар; оксамитова темрява* (A. Belyi); *скляне небо* (M. Kuzmin);

10) situational (state): *душа втомлена; душа звільнена* (Z. Hippus); *хворі берези; агонія горобини* (B. Pasternak); *подих душі* (M. Tsvetaeva);

11) evaluative: *ласка інею; сніг ласкавий* (A. Akhmatova); *море посміхається; душить життя* (Z. Hippus); *храм душі* (M. Tsvetaeva);

12) temporal (temporal): *сивини справ; сивини дум* (M. Tsvetaeva);

13) functional: *лабораторія думки* (V. Inber); *морська купель; купель моря* (M. Tsvetaeva).

Consequently, as a result of the semantic-cognitive analysis of a significant corpus of metaphors in literary discourse, the following types of metaphorical motivation have been identified: formative, colourative, acoustic, dynamic, realization, quantitative, parametric, correlation, consistency, temporal, situational, functional, and evaluative. However, there are still many unresolved issues in this area that require further research, which will contribute to the development of a general typology of motivational features of metaphorization and, accordingly, the establishment of certain types of metaphorical motivation.

#### ***5.4. Denotative and conceptual domains as a source and target of metaphorical projection.***

The creation of new metaphors or reinterpretation of already known metaphorical images is based on ideographic domains that have a common (objective) significance for a certain ethnic group or a unique (subjective) significance and popularity for an individual. The reference to specific source domains has an evaluative effect, since replacing direct names with figurative and metaphorical ones gives them a different flavour and emphasizes the most essential properties of the metaphorized notions.

The study of the productivity of certain classes of words as “suppliers of metaphors” and the regularity of replenishment of conceptual (semantic) domains with metaphorical names (Chudinov (2003), Laguta (2003), Sklyarevskaya (1993), and others) contributes to the establishment of different sources of metaphorization (donor domains), although such typologies are usually developed on the basis of a specific lexical and grammatical category of words (most often nouns) or a limited number of texts.

Our paper presents the developed classification of source and target domains of metaphorical projection (based on a significant corpus of metaphors of different partial language affiliation), based on the analysis of linguistic studies in the field of metaphorical modelling (Baranov (2004, 2014), Chudinov (2003), Laguta (2003), Sklyarevskaya (1993),



and others), ideographic dictionaries, and our own observations on the facts of metaphorization in artistic discourse (works of prose poets of the first half of the twentieth century). These source and target domains of metaphorical projection are combined into the following conceptual megadomains: Human, Society, Animal World, Plant World, Inorganic World, Artefact, and Time. Let us consider in more detail one of these megadomains – Human (anthropomorphic metaphors), where the following source domains are distinguished:

1) human physical properties: a) appearance (*beard, eyelashes, curls, blush, gray hair, bearded, curly, bald, muscular, gray, thin, etc.*): *кучері берези; липа кучерява* (Z. Gippius); *мороз сивий* (V. Inber); *рум'янець зорі* (M. Kuzmin); *борода туману* (I. Selvinsky); b) parts of the human body (*side, mouth, head, lips, leg, face, eyes, finger, arm, hip, body, etc.*): *тіло землі* (A. Akhmatova); *обличчя небес; очі пожежі* (Z. Gippius); *стегно вежі; голови беріз* (V. Inber); c) speech / voice (*chatter, muttering, speaking, voice, shout, whisper, talkative, silent, mute, chatter, babble, mutter, speak, shout, silent, etc.*): *шепіт лиха* (A. Akhmatova); *белькіт води* (A. Belyi); *говір моря; голос автомобіля* (Z. Gippius); *крик почуттів* (M. Tsvetaeva); d) physical actions of a person (*running, stepping, running, throwing, blinking, swimming, walking, etc.*): *посмішка зорі; біжать роки* (A. Belyi); *біг хмар* (V. Inber); *роки неслися* (I. Selvinsky); *крок душі* (M. Tsvetaeva); e) physical sensations of a person (*bitter, cold, bitter, sour, sweet, warm, etc.*): *гірке почуття* (A. Akhmatova); *кисле обличчя; тепле почуття* (A. Belyi); *холод душі* (Z. Gippius); *солодкий сон* (V. Inber); f) physical states of a person (*fatigue, laziness, torment, groaning, tired, rest, moan, get tired, etc.*): *стогін серця* (A. Akhmatova); *втомлене сонце* (A. Belyi); *душа втомилася* (Z. Gippius); *змучене серце* (I. Selvinsky);

2) human physiological properties: a) internal human organs (*aorta, artery, throat, larynx, capillary, blood, lungs, muscle, heart, tongue, gums, etc.*): *черевомостів; серце тайги* (A. Akhmatova); *трамвайні аорти; торговельні артерії; гортань рупора; ясна стін; черевомілончелі* (V. Inber); b) human physiological processes (*life, sip, cry, look, breathe, hungry, sweaty, full, look, breathe, live, cry, sweat, sob, sob, hear, etc.*): *сльози зірок; пітне сонце; дихає вітерець; ридав рояль* (A. Belyi); *дихання рік; душа жива; серце плаче; сміявся місяць* (Z. Gippius); c) physiological states of a person (*insomnia, fever, weakness, sleep, convulsion, trembling, weak, sleepy, doze, fall asleep, wake up, sleep, tremble, etc.*): *душевне тремтіння* (A. Belyi); *душа сонна; спить душа* (Z. Gippius); *судорога крана; п'яний вітер* (B. Pasternak); *сонна вода; дримає тиха вода* (I. Selvinsky); d) diseases (*agony, madness, fever, delirium, swelling, cut, wound, bruise, scar, illness, feverish, deaf, dumb, blind, sick, nauseous, delirious, etc.*): *безумство світів* (A. Belyi); *душа поранена* (Z. Gippius); *хворе сонце* (V. Inber); *рани рік* (M. Kuzmin); *шрам хмар* (B. Pasternak);

3) mental properties of a person: a) memory (*memories, remembrance, forgetting, remembering*): *пам'ять серця* (A. Akhmatova); *спогади душі* (V. Inber); *пам'ять зорі* (M. Kuzmin); *пам'ять людства* (I. Selvinsky); b) thinking / intellect (*reflection, thought, thoughtful, wise, ponder, know*): *мудре серце* (A. Akhmatova); *задумливий хміль* (A. Belyi); *думки століть* (B. Pasternak); *задумливі птахи* (I. Selvinsky); *думи серця* (M. Tsvetaeva);

4) spiritual (psychological) properties of a person: a) the spiritual essence of a person (*spirit, soul*): *душа поезії* (A. Akhmatova); *дух століть; дух минулого* (A. Belyi); *душа віршів* (Z. Gippius); *дух гуртожитків* (I. Selvinsky); b) character traits (*ruthless, timid, greedy, cruel, angry, meek, affectionate, lazy, cautious, submissive, shy, strict, attentive, stubborn, etc.*): *зле сонце* (A. Belyi); *серце жадібне, душа покійна; лагідна*

*душа; уперта душа; зле життя* (Z. Gippius); c) feelings (*longing, passionate, lustful, love, hate, fall out of love, long, etc.*): *серце любить; серце тужить* (A. Akhmatova); *жагуче тягнуться гілки* (A. Belyi); *душа розлюбила* (Z. Gippius); *хтиві хвилі* (I. Selvinsky); d) emotions / experiences (*fright, joy, sadness, sorrow, cheerful, angry, gloomy, touched, sad, excited, indignant, angry, etc.*): *схвильований вітер; розчулені небеса* (A. Belyi); *сумна душа; похмура небо* (Z. Gippius); *веселий вітер* (M. Kuzmin); *гнівні хвилі; душа розгнівана* (M. Tsvetaeva); e) desire (*wish, whim, caprice, capricious, wish, dream, strive, ask, wait, etc.*): *бажання серця* (Z. Gippius); *бажання душі* (V. Inber); *каприз долі; примхливе небо* (B. Pasternak).

The semantic-cognitive study of metaphor has identified characteristic denotative and conceptual domains as the source and goal of metaphorical projection (Kravtsova, 2014, 2022): 1) the megadomain Human: physical, physiological, mental and spiritual properties of a person; 2) the megadomain Society: social groups; social relations; art (also as a source domain Army); 3) the megadomain Animal World: species of animals (as a source domain also “animal population,” “physical properties of animals,” “animal habitat”); 4) megadomain Plant World: species of plants; plant population; physical properties of plants (also as a source domain Plant Physiology); 5) megadomain Inorganic World: physical phenomena; atmospheric phenomena; space, earth and water objects; minerals (also as a source domain Gemstones); 6) megadomain Artefact: buildings; clothes; tools; equipment; military attributes; religious objects (also as a source domain Household Utensils, Food Products", Foundry Products; as a target domain – Settlement, Printed and Handwritten Products); 7) megadomain Time: periods of time (also as a target domain Properties of Time).

Identification of the source domains and target domains of metaphorization drawing on different material will help to establish trends and patterns of the modelling of the metaphorical worldview of an ethnic group in a given historical period and to establish a general scientific understanding of its evolution.

### **5.5. Metaphorical motivator as an indicator of metaphorization.**

The motivational features of metaphorization, or the grounds of metaphorical transfer, have repeatedly attracted the attention of different researchers (Laguta (2003), Sklyarevskaya (1993), Usminskij (1996), and others).

It should be noted that in traditional linguistic semantics to denote the semantic component that carries out the motivational connections of the original and derivative meanings of a polysemant, the notion of ‘semantic core’ was introduced (i.e. to denote a semantic element common to all meanings of a word) (Shmelev, 1973, p. 79). But semantic commonality may not be inherent in all meanings of a polysemous word, since the motivational connections in polysemy are quite different (Kudryavtseva (2004), Tropina (2003), and others). Later, different terminological designations were introduced for such an element that connects the original and derived, including metaphorical, meaning, namely: ‘associative element’ (Shmelev, 1973), ‘semantic formant’ (Tropina, 2003), ‘semantic motivator’ (Kudryavtseva, 2004), ‘associative feature’ (Kuksa, 2007), etc. Thus, in modern linguistic semantics (semantic derivatology) there is still no commonly used term for such motivational features, which indicates that this problem has not been solved and that there is necessity for its further development.

In some linguistic works on metaphorical nomination (Laguta (2003), Usminskij (1996), and others) different scholars try to establish the types of features that motivate metaphorization. For example, Laguta, when analysing substantive metaphors based modern explanatory dictionaries data, identified a number of such motivational features: 1) formative

(size, height, depth, length, fullness, size, height, shape, width); 2) odorative (smell); 3) colour (colour, tone, paint, breed); 4) taste; 5) weight (weight, mass, volume); 6) sound (volume, range, timbre); 7) time (age, time, duration); 8) temperature; 9) tactile (hardness, softness); 10) consistency (fullness, material, condition, composition, essence); 11) functional (purpose, goal, reason for use); 12) realization, characterizing the manifestations of the object (activity, intensity, value, reaction, mode, result, force, consequence); 13) dynamic, reflecting the course of action (rhythm, tempo); 14) quantitative, indicating the discreteness of the combination of correlated objects (dose, calibre, measure) or their syncretism (quantity); 15) relational, characterizing the commonality relations of correlated objects (place, position, ratio, direction, proximity, order); 16) subjective and psychological (feelings, experiences) (Laguta, 2003, p. 137). This classification is quite complete and reflects the typical connections of the original and derivative meanings in the metaphorization. Most linguists recognize that the most regular and universal is metaphorization based on the similarity of formative, metrical, consistency, and chromatic features.

In our work, when describing the results of metaphorization, we use the term 'metaphor' to denote a semantic component that connects the original (metaphor motivating, direct meaning) and derived (metaphorically motivated, metaphor itself) meaning and expresses the motivational relations of the original and new denotative and conceptual domains. The term 'semantic-cognitive metaphorical motivator' is introduced, which is understood as a mental and semantic element that integrates different entities that are similar in some respect. It serves as a motivating feature of metaphorization being a metaphorical projection from the original denotative and conceptual domain to a new one, an indicator of metaphorical motivation, which we present in the most general formulation (sound, dynamics, colour, shape, etc.). This terminological designation actualizes certain motivational relations of the original and new denotative and conceptual domains involved in metaphorization: metaphor motivating → metaphor | semantic cognitive metaphorical motivator, and also reflects the systemic relations of cognitive and linguistic structures, emphasizing the essence of metaphor as a phenomenon of language and thinking. It should be noted that in our previous works for terminological designation of this notion we used the term 'semantic-cognitive formant' (Kravtsova, 2011, 2014), where the term 'formant' was borrowed from morphological derivatology to describe semantic derivation, one of the processes of which is metaphorization. But in morphological derivatology, 'a formant' is the smallest word-forming unit in formal and semantic terms, by means of which a word is motivated, and it differs from the motivator. In semantic derivatology, which has been formed relatively recently, this term does not fully reflect the motivational relations of the motivating and motivated meanings, since the motivating feature is not a formal indicator of semantic, in particular metaphorical derivation and therefore cannot be distinguished as 'a difference' between motivating and motivated.

The analysis of linguistic works on metaphorical nomination and collected factual material (usual and occasional metaphors extracted from literary texts) made it possible to identify the following main types of semantic-cognitive metaphorical motivators: 1) shape (outline, structure); 2) colour (tone, shade, colour); 3) sound (pitch, strength, tempo, rhythm, quality of sound); 4) dynamics (movement, action, movement, development); 5) quantity (set, small number, aggregate); 6) measure (size, degree of something); 7) correlation (order, arrangement, connection); 8) manifestation of an object (detection, intensity, activity, reaction to something, realization); 9) consistency (density, transparency, hardness, hardness); 10) state (type, character); 11) time (duration, continuity, sequence); 12) functionality (purpose, goal); 13) evaluation (positive / negative evaluation).

Thus, obtained by different linguists (Laguta (2003), Sklyarevskaya (1993), Usminskij (1996), and others) data and the results of our analysis clearly show that the motivational features identified in different sources, making up the basis of metaphorization, largely coincide, which proves the objectivity of the studies. However, there are still many debatable and unsolved issues that require further research, which will contribute to the development of a general typology of features that motivate the processes of metaphorical nomination.

Despite a large number of linguometaphorological works on metaphorical modelling, there are still many debatable issues regarding the essence of metaphor, metaphorization process/mechanism, metaphorical nomination, metaphorical motivation, its types, metaphorical model, its parameterization, and construction technique.

## 6. Conclusions.

Semantic-cognitive metaphorical modelling is the construction of metaphorization models that reflect national stereotypes of figurative analogic and associative thinking of an ethnocultural community or individual perceptions of the world of a particular native speaker at a particular stage of historical development.

A semantic-cognitive metaphorical model is a regular scheme of verbalization of notions correlated in analogic and associative terms existing in the minds of native speakers. It has such properties as regularity and productivity. A regular model is the one that can be reproduced and does not cause difficulties in the perception by native speakers. The productivity of a metaphorical model is conditioned by its ability to produce new meanings at a particular synchronic cut.

A semantic-cognitive metaphorical model includes the original and new ideographic domains and the semantic-cognitive motivator – this description of the metaphorical model actualizes the denotative-conceptual source and target domains of of metaphorization as well as the integrating feature that motivates the process of metaphorical nomination. Metaphorical motivation is the relation of the original denotative-conceptual domain (*metaphor motivating*) and the new denotative-conceptual domain (*metaphorically motivated*) based on the commonality of semantic-cognitive feature(s) in different objects of reality that correlate in analogous-associative terms. A semantic-cognitive metaphorical model is a mental and semantic element that integrates different entities that are similar in some respect. It serves as a motivating feature of metaphorization being a metaphorical projection from the original conceptual domain to a new one, an indicator of metaphorical motivation.

The semantic-cognitive metaphorical model has a three-component structure: the original denotative-conceptual domain (*metaphor motivating*) → the new denotative-conceptual domain (*metaphorically motivated*) | semantic-cognitive motivator (a motivating feature of metaphorical nomination).

The developed methodology of constructing and describing metaphorical models as semantic-cognitive structures is of universal nature, since it can be used as an independent operational mechanism in the semantic-cognitive analysis of individual facts of metaphorization or in the corpus-based study of metaphor in a particular language (texts, discourses), as well as an obligatory stage of the semantic-cognitive study of metaphorical concepts.

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### Бібліографічний опис:

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### Анотація

У статті розглядається метафорична модель як семантико-когнітивна структура згідно з авторською концепцією метафоричного моделювання. Метою наукової розвідки є характеристика такої моделі метафоризації, що передбачає розкриття її сутності, опис властивостей, параметрів і методики побудови.

Семантико-когнітивне метафоричне моделювання являє собою створення моделей метафоризації, які відбивають національні стереотипи образного аналогового й асоціативного мислення будь-якої етнокультурної спільноти або індивідуальні уявлення про світ певного носія мови на конкретному етапі історичного розвитку. Семантико-когнітивна метафорична модель – це наявна у свідомості носіїв мови регулярна схема вербалізації корелятивних в аналогово-асоціативному плані понять. Вона вміщує вихідну й нову ідеографічні сфери та семантико-когнітивний мотивант (при такому описі метафоричної моделі актуалізуються денотативно-поняттєві сфери джерела й мети метафоризації, а також інтегрувальна їхня ознака, що мотивує процес метафоричної номінації). Семантико-когнітивна метафорична модель є трикомпонентною структурою: вихідна денотативно-поняттєва сфера (метафоричний мотиватор) → нова денотативно-поняттєва сфера (метафоричний мотиват) | семантико-когнітивний мотивант (мотивувальна ознака метафоричної номінації). Для позначення смислового компонента, що пов'язує твірне й похідне значення та виражає мотиваційні відношення вихідної й нової денотативно-поняттєвих сфер, уведений термін 'семантико-когнітивний метафоричний мотивант', який є ментально-смисловим елементом, що інтегрує різні сутності, подібні в якому-небудь аспекті. Він слугує мотивувальною ознакою метафоризації як метафоричної проєкції з вихідної поняттєвої сфери до нової, показником метафоричної мотивації.

Розроблена методика побудови й опису метафоричних моделей як семантико-когнітивних структур є універсальною, оскільки її можна використовувати як самостійний операційний механізм під час семантико-когнітивного аналізу окремих фактів метафоризації або в корпусному дослідженні метафорики конкретної мови (текстів, дискурсів), а також як обов'язковий етап семантико-когнітивного дослідження метафоричних концептів.

**Ключові слова:** метафора, метафоризація, семантико-когнітивна метафорична модель, метафорична мотивація, сфера-джерело та сфера-мета метафоризації, семантико-когнітивний метафоричний мотивант.