

## Space as a Semantic Unit of a Language Consciousness

### Пространство как семантическая единица языкового сознания

**Vitalii Shymko<sup>1</sup>**

Dr. in Psychology,  
Professor

E-mail: [shymko@outlook.com](mailto:shymko@outlook.com)

<https://orcid.org/0000-0003-4937-6976>

**Виталий Шимко<sup>1</sup>**

доктор психологических наук,  
профессор

**Anzhela Babadzhanova<sup>2</sup>**

Ph.D. in Psychology

E-mail: [babadjanova.a@gmail.com](mailto:babadjanova.a@gmail.com)

<https://orcid.org/0000-0002-5430-6342>

**Анжела Бабаджанова<sup>2</sup>**

кандидат психологических наук

<sup>1</sup>*Pereiaslav-Khmelnytskyi  
Hryhorii Skovoroda  
State Pedagogical University*  
✉ 30, Sukhomlynskyi Str.,  
Pereiaslav, Kyiv Reg., 08401

<sup>1</sup>*ГВУЗ «Переяслав-  
Хмельницкий государственный  
педагогический университет  
имени Григория Сковороды»*  
✉ ул. Сухомлинского, 30,  
Переяслав, Киевская обл., 08401

<sup>2</sup>*«Prostranstvo» Group of Companies*  
✉ 1, Arkadiyska Alley, Odesa,  
Ukraine, 65009

<sup>2</sup>*«Пространство», Группа компаний*  
✉ Аркадийская аллея, 1, Одесса,  
Украина, 65009

*Original manuscript received October 25, 2019*

*Revised manuscript accepted March 28, 2020*

#### **ABSTRACT**

**Objective.** Conceptualization of the definition of space as a semantic unit of language consciousness.

**Materials & Methods.** A structural-ontological approach is used in the work, the methodology of which has been tested and applied in order to analyze the subject matter area of psychology, psycholinguistics and other social sciences, as well as in interdisciplinary studies of complex systems. Mathematical representations of space as a set of parallel series of events (Alexandrov) were used as the initial theoretical basis of the structural-ontological analysis. In this case, understanding of an event was considered in the context of the definition adopted in computer science – a change in the object properties registered by the observer.

**Results.** The negative nature of space realizes itself in the subject-object structure, the components interaction of which is characterized by a change – a key property of the system under study. Observer's registration of changes is accompanied by spatial focusing (situational concretization of the field of changes) and relating of its results with the field of potentially distinguishable changes (subjective knowledge about «changing world»). The indicated correlation performs the function of space identification in terms of recognizing its properties and their subjective significance, depending on the features of the observer's motivational sphere. As a result, the correction of the actual affective dynamics of the observer is carried out, which structures the current perception of space according to principle of the semantic fractal. Fractalization is a formation of such a subjective perception of space, which supposes the establishment of semantic accordance between the situational field of changes, on the one hand, and the worldview, as well as the motivational characteristics of the observer, on the other.

**Conclusions.** Performed structural-ontological analysis of the system formed by the interaction of the perceptual function of the psyche and the semantic field of the language made it possible to conceptualize the space as a field of changes potentially distinguishable by the observer, structurally organized according to the principle of the semantic fractal. The compositional features of the fractalization process consist in fact that the semantic fractal of space is relevant to the product of the difference between the situational field of changes and the field of potentially distinguishable changes, adjusted by the current configuration of the observer's value-needs hierarchy and reduced by his actual affective dynamics.

**Key words:** space, semantics, language consciousness, structural ontology, changes, semantic field of language, perception.

## Introduction

The concept of *space* belongs to the transcendental category. Its meaning eludes of structured understanding and is perceived mainly intuitively. For all the conventionalism and obviousness of this phenomenon, it is not so simple to give it a concise definition that would not leave a feeling of incompleteness and would not require additional

semantic props. Dozens of definitions contain concretizing comments that thematically conceptualize the space and place it in a particular context (three-dimensional space, sacred space, space of achievements, legal space, information space, economic space, language space, etc.). However, attempts to contextualize and signify space, «packing» it into something else, in fact, are reductionist and even paradoxical. Namely, there is no such a context that is not being a *content* in relation to the global *container*, which is space. In the case of space, it is not a superordinate concept or even a generic one. Space, in every sense, is fundamental.

The scale of the phenomenon under consideration is such that it is necessary to add only another one ontological category (*energy*) for the astrophysical conceptualization of the Universe or, at least, the fundamental description of the mystery of its origin. Although, the single one concept is enough for the latter purpose. In modern cosmology, space is postulated as negative energy or «inside-out energy». Thus, according to the views of Stephen Hawking, the space of the Universe is a huge accumulator of negative energy, each point of which is permanently expanding (Hawking, 2018). It will need a hardworking fantasy to imagine what is being described. However, even the wildest imagination, perhaps, will not be enough for the applied research use of such a concept. The purpose of this article is the conceptualization of the definition of space as a semantic unit of language consciousness. Respective endeavor is implemented as the development of the author's methodological discourse on the functional definition of the mind (Shymko, 2018a, 2018b, 2019a). Latter problem, in turn, relates to one of the key theoretical questions in the field of natural language processing (NLP) as a leading component of the development of artificial general intelligence (AGI).

Obviously, in the indicated target context, we were interested in such a conceptualization of space that would equally explicitly take into account the subjectivity of the observer and reflect the objectivity of the space itself. For this reason, for the initial analytical foundations, we could not accept the philosophical definitions of space, such as «the way of existence of the objective world» (Stepin, 2001), «the fundamental way of being» (Humanitarian Encyclopedia, 2020), «the uncountable large three-dimensional area in which all material objects are located» (Dictionarycom, 2020), etc. Such definitions either exclude the subject,

or contain it in an implicit form. Therefore, we took advantage of the help of hard sciences, in particular, the mathematical understanding of space as «a plurality of parallel series of events» (Aleksandrov, 1979). Moreover, *the event* was understood as «property changes recorded by the observer in the message from the object» (Wikipedia, 2020a). As we can see, this point of view provides the presence of the *subject-object* structure, the interaction of the components of which is characterized by *a change*.

### **Methods and techniques of the research**

The particular methodological complexity in the definitive studies of language consciousness units is associated, in fact, with language (Shymko, 2018c). Semantic cracks, gaps and ambiguities of verbal formulations, as well as the fundamental negativity of language – cause distortions in the work of thinking, which modern psychology conceptualizes as a verbal-logical. The structuring effect of language onto understanding (we consider it as a thinking operation) is carried out through logical syntax. However, in addition to syntax, there are at least two large «players» in formal logic – semantics and pragmatics. The intersection of listed factors (considering the breadth of the empirical variability of their components), together with such phenomenon as the entropy of the language, practically does not leave chances to verbal-logical thinking to be systemic.

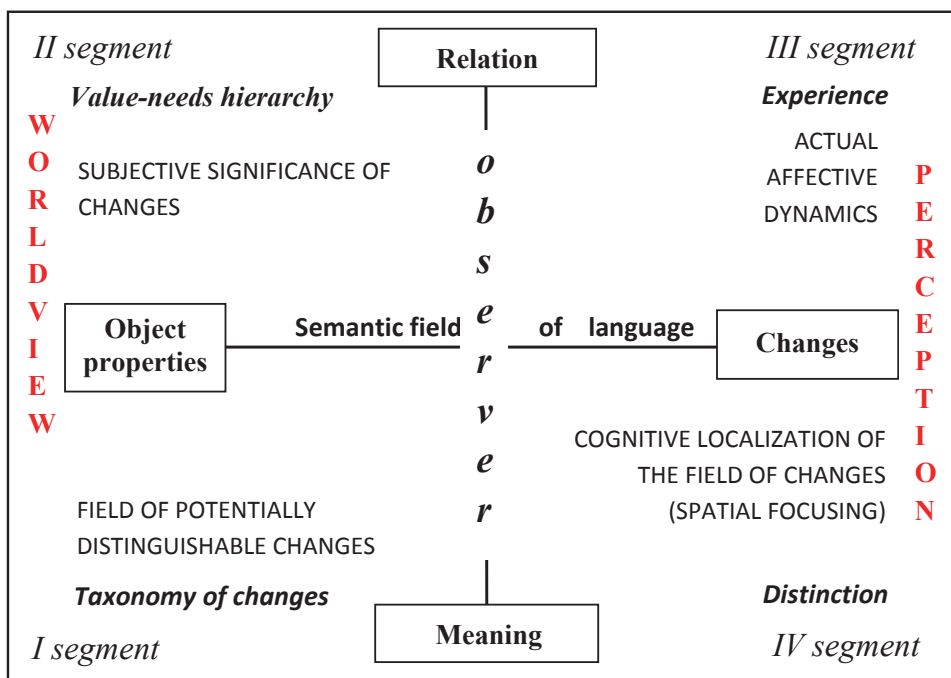
In search of a solution to the described problem, alternative to the natural language – mathematics – can be used. Mathematization of thinking allows to get around a lot of the distorting factors of a natural language, but not to fix them. Mathematical language is super-abstracted from the reality being studied, acquiring epistemological farsightedness and losing ontological completeness. In particular, the category of *reality* loses its mathematical sense (as well as the practical possibility of its formulation and/or description) and, in fact, is replaced by *space*, i.e. system category of a higher order. Moreover, the ideas formulated in a mathematical language cannot always be «translated» into a natural language. For example, modern astrophysics also does not find sense in the classical question of the «edge» of the Universe, mathematically describing its spatial properties as simultaneously

«finite and limitless» (Sutter, 2018). Certainly, the translation of such position from mathematical to natural language is perceived, to put it mildly, contradictory.

To study *space* as a semantic unit of language consciousness, we used a structural-ontological approach. Appropriate method was originally developed for the purpose of systemic analysis of the subject matter field of psychology, psycholinguistics and other social sciences and later it was successfully adapted for the interdisciplinary study of complex systems. Theoretical foundations, procedural rules and practical application examples of the method in studies of various problems (differential psycholinguistics, formal semantics, personality socialization, intelligent agents functioning, organizational culture, urbanistic trends, etc.) are presented in a series of publications (Shymko, 2019b). The method of structural-ontological analysis is aimed, on the one hand, to minimize verbal-logical distortions of thinking. On the other hand, it is purposed to maintain the breadth of the contact front with the ontology under study, provided by natural language tools. The indicated is realized through the development of verbal-logical discourse in accordance with a specific scenario for constructing structural-ontological matrices. Thus, the use of the method allows achieving effect of «mathematization» verbally implemented thinking, which ensures the wholeness and consistency of the generated methodological view.

The systemic conceptualization of space as a semantic unit of language consciousness is represented using the structural-ontological matrix (Figure 1). At the same time, we remind that as the initial basis, we used the understanding of space as a plurality of parallel series of events – property changes in a message from object. As we have already noted, appropriate procedural aspects of the construction of matrices were disclosed by us in the mentioned above publications, to which we address the interested fellow readers. However, there is a certain nuance in the case under consideration that we have not previously addressed to, and therefore it requires proper clarification. So, usually the matrix axes are represented by dichotomies reflecting the properties of *material of the system* and its *primary process*. In the current study it is difficult to use the techniques demonstrated by us earlier to identify these system-forming factors. Namely, it is nearly impossible to distinguish the super-system, answering the procedural question: WHERE is the organization of the material of the studied system being realized? In other words,

*space* is the ultimate category in our study. However, we do not accept the possibility of a certain over-space existence. For example, the modern physical «String Theory» is based on the idea of implicit presence of several additional spatial dimensions. However, such a hypothetical assumption is made in an attempt to explain the phenomena of the physical world that fundamentally go beyond the range of direct human perception ability. Our interest lies in understanding space exactly in the context of subjective phenomena of language consciousness.



**Figure 1.** *The structural-ontological matrix of space as a semantic unit of language consciousness*

In the case under consideration, a way out of the predicament can be found by emphasizing the question: HOW does the primary process have an organizing effect on the material? We associate the primary process with *the perception* (of space) by the observer; therefore, we use the cognitive (meaning) and affective (relation) sides of the perceptual function of the psyche as a dichotomy (vertical axis of the matrix, Fig. 1). The first one distinguishes and figuratively shapes the perceived changes; the second one also participates in the

construction of the images, but through the processes of experiences. In view of the foregoing, the material of the system should be associated with the «bearers» of changes, i.e. with the objects themselves, or more precisely – their verbal relevancies in the observer`s language consciousness (hereinafter in this text, by objects and their properties we mean corresponding categories forming *the semantic field of the language*). Therefore, the horizontal axis of the matrix (Fig. 1) is represented by such dichotomies as: *objects properties* and their variable characteristics or, in fact, *changes*. At the same time we emphasize that we do not postulate the objects properties as some kind of unchangeable parameters. We proceed from the fact that these properties are conditionally constant characteristics, the essence of constancy of which is in repeatability. Thus, the object is determined by the repeatability of properties. In other words, object is represented by all and everything that is being repeated.

Separately pay attention to fact that *the objects properties* are identifying parameters. Their change leads to the transformation of one object into another. It is important to consider that such a *transformation* also acts as an autonomous object, as well as interactions between different objects. That is, an unlimited range of units of language consciousness, including not only static, but also process, dynamic and other semantic constructs is meant by us as *objects*, which will be discussed below. On the other hand, *changes* are any fluctuations recorded by the observer. This includes both the deviations allowed by the objects properties and the events transforming them (objects), as well as *exclusive changes* (which are not relevant to objects, to the best of observer`s knowledge, but which are distinguishable and registered neoplasms by him). *Change of changes* must be picked out as a separate category. Namely, the repeatability (regularity, typicality, etc.) of various changes in object acts as an independent object. In fact, here it is about the objectivity of process phenomena, or, more simply, the process is also an object.

## **Results and Discussions**

Structural-ontological analysis of the system under study (space as a semantic unit of language consciousness) suggests the necessity

of describing the composite and structural characteristics of appropriate matrix (Fig. 1). The first segment is formed by the signification and containing (memorization) of information about the objects properties. As we noted, it comes about an indefinitely wide «library» of parameters of the objects, their transformations, interactions and other processes, including their specificity, patterns and rules, as well as exceptions to them, etc. It is important to take into account that the integral principle of this data set (which is relevant to the worldview scale of the subject) is knowledge not only about the objects themselves, but about the changes that happened to them (objects) and/or can occur. We clarify that we also attribute to the objects the observer himself in his bodily-physical, intellectual-processing, and emotional-sensual differentiation and totality.

So what changes can happen to objects? *Firstly*, it is the changes that were and are present in the direct experience of subject. *Secondly*, it is changes that are known to observer not from personal experience, but from alternative sources of information (education, communication, diverse media content, etc.). *Thirdly*, it is changes localized in the subject's expectations, his fantasies, thoughts, anticipations, etc. *Fourthly*, it is the changes in the changes themselves, which we discussed above. *Fifthly*, any at least partially socialized subject has experience of *exclusive changes*, which we also mentioned. Such experience occurs in situations that are unique to observer's previous experience and current state of awareness. Noteworthy, that every known change was once exclusive for the subject. In other words, the observer *knows that he is not aware* of the content and quantity of some changes that hypothetically can occur. Such «*knowledge of ignorance*» is also an object that is part of the worldview taxonomy of changes. All the categories listed above form the potential for changes (the first segment of the matrix), which in the future we will designate as *potentially distinguishable changes*.

Thus, the first segment of the matrix reflects the subjective concept of space, that is, the observer's idea of what space is and what it can potentially be. At the same time, on the basis of the above considerations, we propose to make adjustments to the definition of Aleksandrov (1979) and, instead of the mathematical term «*plurality*», use the physical concept «*field*», as well as abandon the principle of *parallel series*. Thus, a *plurality* is one of the key concepts of



mathematics, which means a set, a collection of any objects (elements of a plurality) that have a common characteristic inherent to all of them (Wikipedia, 2020b). Already at this stage of the structural-ontological analysis, it is obvious both the heterogeneity of the space-constituting elements and their potential mutual intersections. The last point does not exclude, but fundamentally goes beyond the semantic framework of *parallelism* and *series*. The organization of space, in our opinion, is similar to the probabilistic principles of the functioning of the electrons cloud. The indicated above, coupled with the quota of the uncertainty factor in the subjective material of space (the phenomenon «knowledge of ignorance» described above) leads to a justification for using the category of the physical *field*, understood as «a distributed dynamic system with an infinite number of freedom degrees» (Wikipedia, 2020c). So, at this stage of our reasoning, **space is presented as a field of changes potentially distinguishable by the observer.**

As we noted, the field of potentially distinguishable changes in information terms is commensurate with the observer's worldview. In this regard, in understanding space as a semantic unit, in our opinion, it is appropriate to single out such a category of language consciousness as the subjective picture of «the changing world». This category provides the potential readiness of the observer to distinguish changes. In this case, of course, the actual space is reduced to the situational (current) field of changes (fourth segment, Fig. 1). We intentionally do not touch on a whole range of *psychophysical* features and patterns of space perception, which is a separate fundamental research problem. We only note the key methodological aspect for our thinking – **the localization of the current field of changes must be fundamentally distinguished from the perception of the changes themselves.** Namely, situational concretization of the field of changes occurs in the process of registration by the observer of its incentives (indicating changes). We propose to call this process, which is closely interconnected with the changes distinction (but not identical to it!) – *a spatial focusing* and consider it as an autonomous component of perception. The thesis of the autonomy of spatial focusing obviously stems from situations where the observing subject does not record any changes, while continuing to distinguish the space.

We assume that spatial focusing is carried out similarly to the well-known perceptual figure/backdrop mechanism, but is not identical

to it. So, the field of potentially distinguishable changes acts as a «backdrop», sorting with which allows one to localize the field of current changes or, in other words, to carry out spatial focusing (first and fourth segments, Fig. 2). The indicated correlation performs the function of space *identification* in the sense of recognizing its properties or, put it differently, concretizing the current potential of changes. We draw attention to the simultaneous combination of negative and anticipatory characteristics of the described phenomenon.

So, spatial focusing is associated with the concretization of the field of probable changes, which is always wider than the front of current changes. If such a field is subjectively perceived as filled or exhausted (changes  $\geq$  space), then the observer feels spatial disorientation or loss of the function of space perception occurs. In all other cases, space is characterized by the properties «not coming fullness». As can be seen, our reasoning is conceptually complementary to the ideas of S. Hawking cited at the beginning of this publication about the «energy negativity» of space.

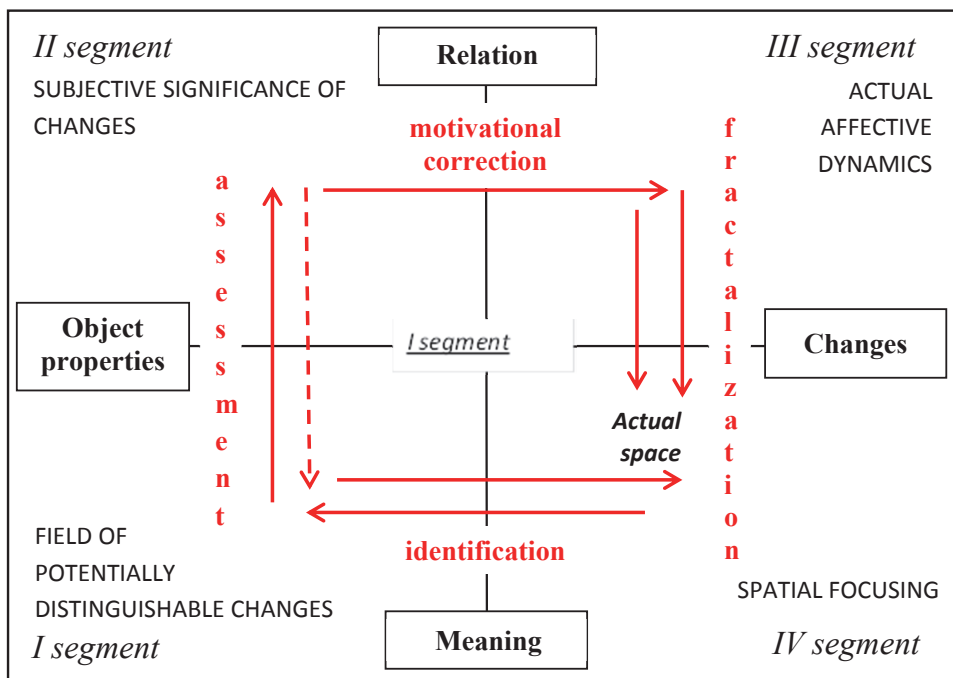


Figure 2. Subject-object structure of the semantic fractal of space

Another negative aspect of spatial focusing, in our opinion, is its reflex nature and, as a result, significant unconsciousness. Namely, we proceed from the assumption that the process of localizing the current field of changes is part of the complex mechanism of *the orienting reflex* (StudFiles, 2020). At the same time, the partial ability of the observer to situation-dependent focusing on space *per se* (i.e., on the field of changes, and not on the changes themselves) does not affect the identification of space described above. This process occurs unconsciously and therefore ungovernably. We assume that the *assessment* of the identified space is also carried out unconsciously as a result of interconnection of its characteristics with the observer's value-needs hierarchy (first and second segments, Fig. 2). At this stage, the subjective significance of the changes and their correlation with the current parameters of the motivational sphere is formed (second and third segments, Fig. 2). This, in turn, causes «interference» in the *actual affective dynamics*, which is not only given to the observer in his own emotional experiences, but also through them has a corrective effect on the spatial focusing carried out here and now (the third and fourth segments, Fig. 2)

We assume that this subject-object influence is realized according to the principle of semantic fractal. In this regard, considering the issue of the semantics of space, we propose to single out the process of *fractalization*. Let us clarify at the same time that the concept of a semantic fractal combines two fundamental ideas: 1) non-linear similarity of a part and a whole; 2) hierarchical ordering of structural components (Voloshinov, 2002; Nikolaeva, 2014; Tarasenko, 2002 and others). The patterns of this process are determined by the individual cognitive and intentional characteristics of the observer and can be experimentally identified and measured. In other words, the fractalization is the formation of a subjective perception of space by the principle of establishing a semantic correspondence between the situational field of changes, on the one hand, and the worldview, as well as the motivational characteristics of the observer, on the other hand. Thus, **space is a field of changes potentially distinguishable by the observer, structurally organized according to the principle of semantic fractal.**

The compositional features of the fractalization process are presented by us using the logical equation (formula 1).

$$Fr = \frac{(Fs - Fp) * Ii}{|As|} \quad (1)$$

In the above formula, fractalization (Fr) determined as a derivative of the difference between the situational field of changes (Fs) and the field of potentially distinguishable changes (Fp), adjusted by the current configuration of the observer's value-needs hierarchy (Ii – the index of intentionality) and reduced by his actual affective dynamics (As). We note that spatial focusing (Fs – Fp) is a deliberately negative value (since situational space is usually smaller than potentially distinguishable changes) and reflects the negativism of this phenomenon argued above. The condition under which  $(Fs - Fp) \geq 0$  is not considered by us as compatible with the observer's ability to perceive and be aware of space. We also pay attention to the value module  $|As|$ , the meaning of which is that actual emotional experiences have a reducing effect on cognitive in nature spatial focusing, regardless of the sign of situational affect.

## Conclusions

Summarizing the results of this article, we focus on the following most significant aspects of the conceptualization of space as a semantic unit of language consciousness.

The negative nature of space realizes itself in the subject-object structure, the interaction of the components of which is characterized by *change* – a key property of the system under study. Observer's registration of changes is accompanied by spatial focusing (situational specification of the field of changes) and correlation of its results with the field of potentially distinguishable changes (subjective knowledge of the «changing world»). The indicated correlation performs the function of space *identification* in terms of recognizing its properties and their subjective significance, depending on the characteristics of the observer's motivational sphere. As a result, the correction of the actual affective dynamics of the observer is carried out, which structures the current perception of space on the basis of the semantic fractal. Fractalization is the formation of such a subjective perception of space, which involves establishing a semantic correspondence between the situational field of changes, on the one hand, as well as worldview and the motivational characteristics of the observer, on the other hand.

In conclusion, we note that the existence of the described fractalization patterns is indirectly confirmed by the structure of procedures and interpretative models of psychodiagnostic studies using such experimental tools as the Rorschach test, Psychogeometric test, Luscher color selection method, etc. At the same time, non-linear specifics of observer's spatial characteristics perception of the psychodiagnostic incentives and his perception peculiarities of space per se, surely, could be different. Obviously the proper clarification of the matter is needed through conducting of a separate comprehensive investigation. We plan to hold such an empirical research as part of an urban and linguistic survey of the city space phenomenon (Shymko, 2019c).

## References

- Aleksandrov, A.D. (1979). O filosofskom sodержanii teorii otnositelnosti [On the philosophical content of the theory of relativity]. *Eynshhteyn i filosofskie problemy fiziki XX veka – Einstein and the philosophical problems of twentieth-century physics* (pp. 117–137). Moscow: Nauka [in Russian].
- Dictionarycom. (2020). Space [Online]. [16 February 2020]. Available from: <https://www.dictionary.com/browse/space>
- Humanitarian Encyclopedia. (2020). Prostranstvo [Space]. [Online]. [13 February 2020]. Available from: <https://gtmarket.ru/concepts/6948> [in Russian].
- Nikolaeva, E.V. (2014). *Fraktalyi gorodskoy kulturyi [Fractals of urban culture]*. St. Petersburg. Strata [in Russian].
- Stepin, V.S. (2001). *Novaya filosofskaya entsiklopediya [New philosophical encyclopedia]* (Vols. 1–4). Moscow. Myisl. [in Russian].
- Hawking, S. (2018). *Brief answers to the big questions*. Spacetime publications.
- Shymko, V. (2018a). In Pursuit of the Functional Definition of a Mind: The Inevitability of the Language Ontology. *Psiholingvistika – Psycholinguistics*, 23 (1), 327–346. <https://doi.org/10.5281/zenodo.1211593>
- Shymko, V. (2018b). In Pursuit of the Functional Definition of a Mind: the Pivotal Role of a Discourse. *Psiholingvistika – Psycholinguistics*, 24 (1), 403–424. <https://doi.org/10.31470/2309-1797-2018-24-1-403-424>
- Shymko, V. (2018c) *S chego nachinaetsya sistemnoe vospriyatie, ili Chem otlichaetsya steyk ot singulyarnosti? [How does systemic perception begin, or what is the difference between a steak and a singularity?]*. [Online]. [13 February 2020]. <https://doi.org/10.5281/zenodo.1880669> [in Russian].
- Shymko, V. (2019a). Natural Language Understanding: Methodological Conceptualization. *Psiholingvistika – Psycholinguistics*, 25 (1), 431–443. <https://doi.org/10.31470/2309-1797-2019-25-1-431-443>
- Shymko, V. (2019b). *Structural ontology of the cognition with Dr. Shymko: Zenodo.org*. [Online]. [10 October 2019]. <https://zenodo.org/communities/structural-ontology/>
- Shymko, V. (2019c). *Gorodskoe prostranstvo: strukturno-ontologicheskyy eskiz [Urban space: structural-ontological sketch]*. [Online]. [13 February 2020]. <http://doi.org/10.5281/zenodo.3520459> [in Russian].

- StudFiles (2020). *Orientirovochnyy refleks i vnimanie [Orientational reflex and attention]*. [Online]. [16 February 2020]. Available from: <https://studfile.net/preview/3537475/page:12/> [in Russian].
- Sutter, P.M. (2018). *Your Place in the Universe: Understanding Our Big, Messy Existence*. Prometheus Books.
- Tarasenko, V.V. (2002). *Fraktalnaya logika [Fractal logic]*. Moscow: Progress-Tradition. [in Russian].
- Voloshinov, A.V. (2002). Ob estetike fraktalov i fraktalnosti iskusstva [On the aesthetics of fractals and fractality of art]. *Sinergeticheskaya paradigma – Synergetic paradigm* (pp. 213–246). Moscow. Progress-Traditsiya [in Russian].
- Wikipedia. (2020a). Event (philosophy). [Online]. [13 February 2020]. Available from: [https://en.wikipedia.org/wiki/Event\\_\(philosophy\)](https://en.wikipedia.org/wiki/Event_(philosophy))
- Wikipedia. (2020b). Set (mathematics) [Online]. [16 February 2020]. Available from: [https://en.wikipedia.org/wiki/Set\\_\(mathematics\)](https://en.wikipedia.org/wiki/Set_(mathematics))
- Wikipedia. (2020c). Field (physics). [Online]. [16 February 2020]. Available from: [https://en.wikipedia.org/wiki/Field\\_\(physics\)](https://en.wikipedia.org/wiki/Field_(physics))

#### **АННОТАЦИЯ**

**Цель исследования.** Концептуализация определения пространства как семантической единицы языкового сознания.

**Методики исследования.** В работе использован структурно-онтологический подход, методология которого апробирована и применяется в целях анализа предметной области психологии, психолингвистики и других социальных наук, а также в междисциплинарных исследованиях сложных систем. В качестве исходных теоретических оснований проведенного структурно-онтологического анализа использованы математические представления о пространстве, как о множестве параллельных рядов событий (Александров). При этом событие рассматривали в контексте дефиниции, принятой в информатике – изменение свойств, зафиксированное наблюдателем в сообщении от объекта.

**Результаты.** Негативная природа пространства реализует себя в субъект-объектной структуре, взаимодействие компонентов которой характеризуется изменением – ключевым свойством изучаемой системы. Регистрация наблюдателем изменений сопровождается пространственной фокусировкой (ситуативная конкретизация поля изменений) и соотносением ее результатов с полем потенциально различаемых изменений (субъективным знанием об «изменяющемся мире»). Указанное соотношение выполняет функцию идентификации пространства в плане опознания его свойств и их субъективной значимости в зависимости от особенностей мотивационной сферы наблюдателя. В результате осуществляется коррекция актуальной аффективной динамики наблюдателя, что структурирует текущее восприятие пространства по принципу семантического фрактала. Фрактализация заключается в формировании такого субъективного восприятия пространства, которое предполагает установления смыслового

соответствия между ситуативным полем изменений, с одной стороны, и мировоззренческими, а также мотивационным характеристикам наблюдателя, с другой.

**Выводы.** Проведенный структурно-онтологический анализ системы, образуемой взаимодействием перцептивной функции психики и семантического поля языка, позволил концептуализировать пространство, как – поле потенциально различаемых наблюдателем изменений, структурно организованное по принципу семантического фрактала. Композиционные особенности процесса фрактализации заключаются в том, что семантический фрактал пространства релевантен произведению разницы между ситуативным полем изменений и полем потенциально различаемых изменений, скорректированному текущей конфигурацией ценностно-потребностной иерархии наблюдателя и редуцированному его актуальной аффективной динамикой.

**Ключевые слова:** пространство, семантика, языковое сознание, структурная онтология, изменения, семантическое поле языка, перцепция.

### **Шимко Віталій & Бабаджанова Анжела. Простір як семантична одиниця мовної свідомості**

#### **АНОТАЦІЯ**

**Мета дослідження.** Концептуалізація визначення простору як семантичної одиниці мовної свідомості.

**Методики дослідження.** У роботі використаний структурно-онтологічний підхід, методологія якого апробована і застосовується з метою аналізу предметної області психології, психолінгвістики та інших соціальних наук, а також в міждисциплінарних дослідженнях складних систем. В якості вихідних теоретичних підстав проведеного структурного-онтологічного аналізу використані математичні уявлення про простір, як множину паралельних рядів подій (Александров). При цьому поняття події розглядалось в контексті дефініції, прийнятої в інформатиці – зміни властивостей, які зафіксовані спостерігачем в повідомленні від об'єкта.

**Результати.** Негативна природа простору реалізує себе в суб'єкт-об'єктній структурі, взаємодія компонентів якої характеризується зміною – ключовою властивістю системи, що вивчається. Реєстрація спостерігачем змін супроводжується просторовим фокусуванням (ситуативна конкретизація поля змін) і співвіднесенням його результатів з полем потенційно розрізняваних змін (суб'єктивним знанням про «світі, що змінюється»). Зазначене співвідношення виконує функцію ідентифікації простору в плані упізнання його властивостей і їх суб'єктивної значимості в залежності від особливостей мотиваційної сфери спостерігача. В результаті здійснюється корекція актуальної афективної динаміки спостерігача, що структурує поточне сприйняття простору за принципом семантичного фракталу. Фракталізація полягає в формуванні такого суб'єктивного сприйняття простору, яке передбачає встановлення

змістовної відповідності між ситуативним полем змін, з одного боку, і світоглядними, а також мотиваційним характеристикам спостерігача, з іншого.

**Висновки.** Проведений структурно-онтологічний аналіз системи, утвореної взаємодією перцептивної функції психіки і семантичного поля мови, дозволив концептуалізувати простір, як – поле потенційно розрізняваних спостерігачем змін, яке структурно організоване за принципом семантичного фракталу. Композиційні особливості процесу фракталізації полягають в тому, що семантичний фрактал простору є релевантним до похідної різниці між ситуативним полем змін і полем потенційно розрізняваних змін, скоригованої поточною конфігурацією ціннісно-потребової ієрархії спостерігача і редукованою його актуальною афективною динамікою.

**Ключові слова:** простір, семантика, мовна свідомість, структурна онтологія, зміни, семантичне поле мови, перцепція.

