

## ***Linguistics***

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### **Universal, Discrete and Multidimensional Phenomena in Cognitive Linguistics**

*The article represents an attempt at describing the essence of cognitive linguistics - the real face of modern linguistic science. Analysis of the well-known theories made possible to identify some new vectors: analysis of the semantic frame from the point of view of the relation between the contours of the individual and collective consciousness; analysis of the semantic frame from the point of view of the relation between subjective and objective factors; analysis of the concepts of validity, dependency and heredity within the frame premises; analysis of the concepts of reliability of the structure, adequacy and relevance of the relationships between the elements, integrity and completeness of the structure; analysis of one of the most complex dynamic processes – expansion of the frame system.*

*The process of formation of the system of semantic frames is viewed in the article as some “ritual of interaction” implying the process of transforming individual knowledge and experience into collective knowledge and experience.*

*Keywords: concept, semantic frame, the individual and collective consciousness, subjective and objective factors.*

Cognitive linguistics determines the face of modern linguistic science. This direction in linguistics is relatively new, that's why many problems are evidenced in it – problems associated with theory (contradictoriness of approaches) and methodologies (ambiguity in methods) are implied.

Despite the fact that cognitive linguistics is rich in theoretical and practical works exploring different avenues in the analysis of the sphere of knowledge representation, this direction remains a space for future research, marked by incompleteness of specification of the essence of the system of universal, discrete and multidimensional constructions.

Analysis of the theories relevant to the problem of knowledge representation reveal ambiguity:

- In defining the specificity of the relationship between the contours of the individual and collective consciousness in the semantic frame;
- In determining the essence of validity, dependency and heredity within the premises of the semantic frame;
- In defining the criteria for reliability, integrity and completeness of the structure;
- In determining the essence of adequacy and relevance of the relations between the elements within the premises of the semantic frame;
- In describing the specificity of one of the most complex dynamic processes – expansion of the system of semantic frames.

In our opinion, some ambiguity and incompleteness associated with the problem of knowledge representation stems from the synergism of cognitive linguistics. Linguists dealing with the problem of knowledge representation have to find answers to their questions in different scientific fields. Sometimes it's impossible to find clear and unambiguous answers within the premises of one particular scientific field.

Cognitive linguistics is associated with the theoretical postulates of psycholinguistics. It is in psycholinguistics where the existence of nonverbal thinking and the existence of the conceptual sphere, comprising constantly changing and renewing quanta of knowledge were substantiated.

Some of the theoretical achievements of psycholinguistics turned out to be the basis for the development of the methodology of cognitive linguistics. The main thesis of the mentioned methodology can be summarized as: through the analysis of the semantics

of linguistic signs it is possible to penetrate the conceptual sphere of people. It is in the conceptual sphere where it is possible to find out what was important for different nations at different periods of their history and what remained outside their field of vision.

Having been developed on the basis of the mentioned methodology, the methods of cognitive linguistics now allow us to discover national markers and the entire diversity of the individual conceptual spheres.

The basic postulate of the approach we adhere to can be boiled down to the following: thinking is non-verbal – people think in concepts, belonging to human consciousness and being the global unit of mental activity. Ordered set of concepts in the human mind mold conceptual sphere. Access to the conceptual sphere as well as to the conceptual content of consciousness is provided by the language.

We fully agree with the following statements:

- Semantics of linguistic units objectifies concepts, so analysis of the semantics of linguistic units provides access to the content of concepts;
- Concept is the unit of the conceptual sphere, while meaning is the unit of the semantic space of the language;
- Meaning is the element of linguistic consciousness, while concept is the element of cognitive consciousness;
- Meaning, being tied to the concept for communication purposes is considered to be its part;
- Both meaning and concept are the phenomena of cognitive nature.

We share the following views:

- When named, the concept comprises psycholinguistic and lexicographic meanings;
- Psycholinguistic meaning is anchored in the word in the consciousness of the native speaker;
- This meaning is identified by experimental methods, while “lexicographic” meaning is briefly formulated in different types of dictionaries;
- The concept has no “binding relationship” with the word or other language means of verbalization;

- The concept can be verbalized as well as can be not verbalized by language means;
- Communicatively relevant part of the concept is verbalized in the act of speech;
- The reasons for verbalization or lack of verbalization of the concept are of a communicative nature.

It should be mentioned that in terms of volume of content the concept is considered to be greater than both psycholinguistic and lexicographic meanings.

The presence or absence of verbalization of the concept does not affect its existence or nonexistence in human consciousness – both verbalized and non-verbalized concepts are the units of thought. There are numerous non-verbalized concepts in the human mind. Concepts associated with an individual's consciousness are not subject to verbalization at all.

The presence of a large number of nominations of a particular concept indicates nominative density of this segment of the language system. Nominative density reflects the relevance of the verbalized concept for people.

A concept possesses the structure that is not rigid. This “possession” represents a necessary condition for the existence of the concept and its integration in the conceptual sphere. Concepts are organized according to the field principle. The structure of the concept is molded by cognitive signs differing in the degree of vividness in the consciousness of people.

The method of semantic-cognitive analysis assumes that in the process of lingua-cognitive research, in other words, in the process of cognitive interpretation we move from the content of meanings to the content of concepts. Cognitive interpretation is the stage of semantic-cognitive analysis. Due to the mentioned type of analysis, this research goes beyond the framework of linguistic semantics.

Semantic-cognitive approach provides the two possibilities of applying the obtained data:

- Cognitive semasiology – “a return to the language”. This direction implies the use of the obtained cognitive knowledge to explain phenomena and processes in the semantics of the language, deep analysis of lexical and grammatical semantics;
- Linguistic conceptology - movement towards consciousness. This direction

implies modeling concepts as units of the national conceptual sphere, national culture.

Linguistic conceptology aims at identifying a complete repertoire of the language tools representing the concept as well as at describing the semantics of these units; words, phrases, associative fields and texts are implied. Linguistic conceptology is focused on the cognitive interpretation of the results of linguistic research as well as on the modeling the content of the concept - global mental unit marked by national, social, age, gender and territorial signs. The place of the concept in the conceptual sphere is determined by cognitive interpretation.

The conceptual sphere is the domain of knowledge, composed of concepts and molded by all the potential of the concepts of people. The conceptual sphere is broader than the semantic sphere. It should be mentioned that conceptual sphere is quite ordered. The concepts molding the conceptual sphere are in systemic relations of similarity, differences and hierarchies with other concepts. The systemic nature of the relations between concepts seems to be absolutely natural, because thinking itself implies categorization of objects of thought, in other words, categorization presupposes arranging its objects.

The semantic-cognitive approach shows that the research path “from language to concept” is quite reliable - analysis of linguistic means reveals signs of concepts and shows simple and effective way to modeling concepts.

What is the essence of the cognitive picture of the world? – The cognitive picture of the world is considered to be the mental image of reality formed by national cognitive consciousness, more precisely, a cognitive picture of the world is the totality of the conceptual sphere and stereotypes set by culture.

Being common and stable, national cognitive picture of the world is an abstraction as well as cognitive-psychological reality manifested in the cognitive activity, physical and verbal behavior of the people. A national cognitive picture of the world is based on the uniformity of the behavior of the people in stereotyped situations, on the general ideas and judgments of the people about reality.

The conceptual sphere determines the mentality of the people - particular the perception and understanding of reality. Mental units, molding the national conceptual sphere, form cognitive stereotypes.

Sometimes concepts determine mental stereotypes but sometimes national mentality directs the dynamics of generating concepts, more precisely, existing stereotypes determine the content of emerging concepts.

The human conceptual sphere is the sphere of thought. It is the information base of the cognitive consciousness of the people as well of the individual. The conceptual sphere ensures orderliness and the systemic nature of the cognitive picture of the world. It provides an understanding of the reality perceived by man.

A person lives in a world of stereotypes, values and ideas. These phenomenological coordinates of his existence represent the world of concepts. So we can say that a person lives, communicates, thinks and acts in the world of concepts. Stereotypes, values and ideas represent projective, reduced forms of concepts. The latter can be interpreted as secondary and derivative forms of human existence in the world.

By imposing on the world the “net” of concepts, we can notice national markers of the world picture and the mentality of native speakers. The concept combines sensory and rational aspects; it displays dynamic and static features of a particular object or phenomenon. Being a highly organized unit, the concept combines various aspects of perception in their unity and integrity.

The structure of the concept represents a specific organization of the parts that make up the organic whole. This organic whole reflects a conceptual awareness of reality and hierarchical distribution of its components.

The hierarchical distribution of “significance” in the contour of the whole determines the center and periphery of the entity. All the properties of perception are reflected in the concept and create a multidimensional holistic entity.

A concept is a discrete, universal and multidimensional phenomenon being able to penetrate into the most diverse spheres and aspects of human existence in the world. Concepts are semantic quanta of human existence in the world, being able to transform into various specialized formations, in other words, into various, “gestalts” of being.

So, concepts are multidimensional variants/invariants, centers of transformations of diverse functional structures belonging to multilevel and multidimensional aspects of existence. Concepts are self-organizing multidimensional idealized formations embedded in the meaning of a sign.

Concepts are molecular structures - the limits of content divisibility. Just as a molecule, concepts are both similar to and different from the substance consisting of such molecules; in other words, concepts are similar to and different from the result of their synthesis. These definitions are valid only when the concept is interpreted as quantum of being. The essential thing in the concept is the multidimensionality and discrete integrity of the meaning existing in the long-term memory of people, in the continuous cultural and historical space.

The areal of the concept denotes a field in which the results of projecting the concept can be observed.

It should be mentioned that concepts can be connected by external relationships with other concepts. External relationships of the concepts with the other ones are the property of the entity.

The process of structuring the concept in the mind of a person, and then in his language and speech, implies a process of modeling semantic frames.

A semantic frame is a conceptual model of the knowledge representation structure. It also reveals specificity of the organization of human memory (Lehrer A. & Kittay E. F., 1992).

The basis of the human thinking process is the accumulated structures in ones memory – semantic frames. A semantic frame is considered to be the unit manifested the knowledge about the relations between phenomena (Minsky M., 1986).

A semantic frame is a scheme needed for representation of stereotypical perception. This scheme makes possible to express the wide variety of knowledge about the universe (Gaines, B. R. & Shaw, M. L. G., 1997).

One of the markers of the semantic frame is the existence of the contours of individual and collective consciousness in it.

In the semantic frame, the relationship between the markers of individual and collective consciousness represents the relationship between the whole and the part. In the semantic frame the elements determined by individual and collective consciousness are interrelated and interdependent.

While interpreting the semantic frame as the unit determined by collective conscious-

ness, we don't deny the existence of the factor of the individual consciousness in the continuum of the semantic frame.

Time and space markers appear both in collective and individual consciousness. While discussing the genesis of the collective consciousness, we adhere to the idea of the organic integration of the simple into the complex.

We consider collective consciousness to be a slot of vital importance for the semantic frame. We interpret the semantic frame as the composition of the ideas, beliefs and feelings relevant to the phenomenon of collective consciousness. The validity of the semantic frame is based on the general regularities identified as a result of analyzing ideas, beliefs and feelings relevant to the phenomenon of individual consciousness.

From this point of view, the semantic frame can be considered to be an ideal that is determined by specific time and space markers.

Thus, the semantic frame is the objectification of public consciousness. However, it should be mentioned that the purpose of frame semantics cannot be restricted to the description and arrangement of the reality.

Frame semantics makes possible to identify specificity of the relations between the phenomena of the reality.

The desire to obtain objective regularities made the cognitive perspective one of the most important directions of modern linguistic thought. The cognitive perspective implies an analysis of causal relations as well as analysis of the elements determined by the time and space markers.

The process of constructing the semantic frames and scenarios implies a detailed analysis of the co-existence of objective and subjective factors. The mentioned type of analysis gives possibility to research the social determination of the individual psychology.

At first glance, semantic frames and scenarios are marked by extraordinary, almost mystical firmness and order. Does this order restrict free individuality?

The dramaturgy of mental models (scenarios) creates a predetermined, safe and orderly world. Freedom and mandatoriness are correlative concepts in semantic frames and scenarios.



The mentioned units are characterized by the coexistence of the individual and the non-individual. Constructing the universe in the form of the arranged integrity is the ability of consciousness.

If we consider the system of semantic frames to be the combination of interactive elements, the result of division/segmentation of the existing integrity (social, cultural) will be the description of the forms of the constructed world.

Semantic frames mold the system - the repertory grid, considered to be some kind of matrix of knowledge (Marsden, D. & Littler, D., 2000).

Analysis of several systems of semantic frames constructed by us reveal some definite regularity:

The continuum of the semantic frame is subject to contextual limitations. The semantic frame is understandable, in other words, valid only in the context of these rules. The circulation of symbols and values is typical of the continuum of the semantic frame.

It should be noted that semantic framing is not based only on solidarity - the rules of social interaction. On the contrary, semantic frames constructed in different times and spaces violate the rules. Violation of the rules is the rule itself.

Thus, we interpret the semantic frame not as the space of rules and limitations, but as the resource of some predictable and anticipated actions. This resource comprises the combination of stereotypical expectations.

In a broad sense, the semantic frame is the perspective of perceiving a phenomenon, a structure of knowledge to present stereotypical situations.

The key factors to evaluate the strategy of element distribution in the system of semantic frames are:

- Reliability of the structure - adequacy of the elements integrated in the frame system;
- Relevance of the relations between the elements integrated in the frame system;
- Integrity and completeness of the structure.

The relations between the elements of the system of semantic frames are marked by:

- Association;
- Dependency;
- Generalization;
- Heredity.

Objects can be stable, static and temporary. Temporariness determines the duration of absence or presence of the element in the system of semantic frames.

Modeling dynamic process is of vital importance for modeling the system of semantic frames. In the context of frame semantics the mentioned dynamic process implies the process of expansion of the system of semantic frames.

The system should be expanded, but this process should not violate the “conceptual frame”, in other words, there must be the “inhibitor arc”.

If the system of the semantic frame is in its terminal (final) condition, it means that the “inhibitor arc” is observable and the system of semantic frames cannot be subsequently decomposed.

What are the factors that make the semantic frame and this scenario acceptable and valid for common sense? - From our point of view, these factors are:

- Specificity of the roles in the semantic frame and scenario;
- The essence of succession (continuity).

In standard situations of interaction the role strengthens expectations. Social interaction is also strengthened due to the resource comprising values and ideas formed in the past. So, the specificity of the roles and transposition of the resources from the past to the present make it possible to realize where the semantic frame begins and where it ends.

The semantic frame integrates all the defined rules of actions. These rules are independent and objective. It can be said that “obedience” to these rules creates a sense of certain social coercion in the semantic frames and scenarios.

Can validity be considered to be the constant marker of the semantic frame? The semantic frame remains valid only in concrete time and space.

We interpret the system of semantic frames as the construct of some “moral order”.

This construct represents a manifestation of the coexistence of the individual and the collective within the premises of the integrity (Newell A., 1990).

The process of the formation of the frame system can be viewed as some “ritual of interaction” implying the process of transforming the individual knowledge and experience into the collective knowledge and experience.

The process of analysis of the frame continuum implies the process of identifying regularities being the main organizing force of the semantic frame elements. This force transforms the individual into the collective.

The creation of multidimensional models (semantic frames) is one of the hypostasis of development of cognitive linguistics and the highest stage of abstraction of conceptual knowledge.

To sum up, the social context shapes and transforms the meaning of the elements of the semantic frame. Space has a substantial impact on the continuum of the semantic frame. Certain rules of participation in social situations create the “beginning” as well as the “end” of the semantic frame, in other words, certain rules of participation in social situations create specific contour of the semantic frame.

The system of frames can be transformed. This transformation disrupts the system, but accelerates reproduction of new social experience. We interpret the process of transformation as the result of continuous (permanent) reproduction (interpretation and reinterpretation) of the reality.

Life experiences, perception of reality, individual actions, are structured – the “order of interaction” reproduced in actions creates a peculiar continuum, in other words, the tier of frames. The tier of semantic frames combines individual actions with social structures.

Changes occurring in the system of semantic frames may cause chaos. But the thing is that, some kind of regularity can be observed beyond the chaos, more precisely, absolutely deterministic system can be seen beyond any chaotic system. The system of semantic frames is absolutely deterministic and its determinism implies predictability of trajectories.

The process of molding universal, discrete and multidimensional models is one of the hypostasis of the development of cognitive linguistics and the highest stage of abstraction of the conceptual knowledge.

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