

Oksana MAKOVSKA,
Mykhailo VAKHOTSKYI,
Буковинський державний медичний
університет,
Чернівці (Україна),
oxanamakovska@yandex.ua

**MAIN ISSUES OF COGNITIVE
LINGUISTICS AS A SCIENCE**

Ключові слова: когнітивна лінгвістика, кате-
горизація, концептуалізація, відтворення об'єктивної
реальності.

Маковська Оксана, Вахоцький Михайло.
**Основні питання когнітивної лінгвістики як
науки.**

Основною ціллю статті є висвітлення положень про когнітивну лінгвістику як науку, принципів і теоретичних парадигм, які є специфічними саме для даної галузі. Для когнітивних наук, які вивчають, як функціонує людська свідомість і мозок, мова виступає об'єктом дослідження першорядної важливості: людина, при цьому, насправді є чи не єдиним суб'єктом, здатним впорядкувати цю особливо складну високоорганізовану систему. Вчені багатьох дисциплін, що займаються дослідженням пізнання, зацікавлені також і у лінгвістиці: психологи, філософи, антропологи, спеціалісти з нейронаук і штучного інтелекту роблять спроби кожен зі свого боку охарактеризувати місце мови у природних або штучних процесах пізнання і вивчити особливості її функціонування.

In the mid-twentieth century structuralism as a linguistic trend seemed to be exhausted and scientists returned back to the study of language on the principles of anthropocentrism. The exploration of human thoughts, experience, cognition and their verbalization became a key issue of modern language science. Language functioning is investigated as a special cognitive ability of men and not as a sign system. Three areas, developed under the influence of anthropocentrism, can be distinguished in linguistics:

1) Cognitive linguistics is a direction, which explores the relationship between language and consciousness, the role of language in the conceptualization and categorization of the world, cognitive processes and synthesis of human experience, the relationship between certain cognitive abilities of human language and forms of their interaction. Language is a cognitive mechanism, system of signs, which transforms information and is specifically codified.

2) Functional linguistics (functionalism) is a set of schools and trends that have emerged as one of the branches of structural linguistics, characterized by their overwhelming focusing on the functioning of language as a means of communication. The basic principle of func-

tional linguistics consists in the understanding of language as an integrated system of expressive means.

3) Generative linguistics (transformational-generative grammar, chomskyan linguistics) – the most popular from the late 1950s trend in world linguistics, which aims at developing and introducing linguistic theory similar to natural sciences; its founder and leader is Noam Chomsky (USA). The purpose of Chomsky's linguistic theory is to explain the fact of impressively rapid assimilation of native language by the child on the basis of insufficient external stimulus, i.e., the information that can be taken from the speech of others. At the core of human language ability there is an innate, biologically caused component that defines the parameters of human thought and, in particular, the structure of language knowledge.

Cognitive linguistics is the study of the mind through language and the study of language as a cognitive function. Cognitive linguistics has two main goals: 1) to study how cognitive mechanisms (memory, categorization, attention, and imagery) are used during language behavior; and 2) to develop psychologically viable models of language that cover broad ranges of linguistic

phenomena, including idioms and figurative language. Research in cognitive linguistics is multidisciplinary; evidence is drawn from text analysis, language acquisition, language change, psycholinguistic experimentation, and brain imaging, among other sources.

The most influential linguists working upon these fields of study and focusing centrally on cognitive principles and organization were Wallace Chafe, Charles Fillmore, George Lakoff, Ronald Langacker, Leonard Talmy, Eleanor Rosch, William Croft, D. Alan Cruse, Sydney M. Lamb, Paul Allen Miller; among the domestic linguists-scientists Yu. Stepanov, R. Frumkina, I. Melchuk, V. Zhaivoronok, N. Arutiunova, V. Karasyk, V. Zusman, S. Askoldov, S. Liapin, H. Slyshkin, V. Manakin, I. Holubovska, V. Maslova should be noted; they suppose that the main task of cognitive linguistics is to find out and explain how the knowledge about world is organized in human consciousness, how the notions about world are created and fixed.

The *purpose* of this paper is to provide a general orientation in cognitive linguistics, an understanding of its central themes and assumptions, and exposure to its empirical methods. It is also important to trace some major commitments that make cognitive linguistics a distinct and worthwhile enterprise. The areas of research and theory construction which characterize cognitive linguistics and make it one of the most lively, exciting and promising schools of thought and practice in modern cognitive science have to be briefly surveyed too.

Cognitive science meets the parameters of research of interdisciplinary nature, so the study of cognitive linguistics implies the fulfillment of such *objectives*: 1) review and analyze major trends and prospects of development of this branch in modern linguistics; 2) confirm anthropocentric nature of cognitive linguistics; 3) describe its main principles; 4) characterize basic processes stimulated / regulated by cognitive linguistics.

Main part of the research. The label "Cognitive Linguistics" has been given to an approach to the study of language that began in the 1970s and has become more and more fruitful since the 1980s. Most of the research has focused on semantics, but morphology and syntax also figure significantly, plus other linguistic areas like language acquisition, phonology, and historical linguistics. As W. Croft and D. Cruse¹ together with Wellesley College researchers² state there are three major hypotheses which guide the cognitive approach to language:

- language is not an autonomous cognitive faculty, but depends on and is embedded in our general cognitive faculties;

- grammar is conceptualization, i.e. linguistic structures are closely connected to our non-linguistic concepts of the world; for instance, syntactic functions like subject and objects mirror the participants in an event that we witness.

- knowledge of language emerges from language use; in effect, this means that we are not genetically equipped with an abstract and universal grammar which only needs input from the language which we are exposed to as children, but that the language acquisition process is closely connected to pairings of non-linguistic situations with linguistic expressions which we encounter at an early age.

Establishment and development of cognitive linguistics was stipulated by a dynamic interdisciplinary investigation of the nature and origins of thought and language. Cognitive scientists seek answers to fundamental questions about the mental processes: How is it that we can learn and remember? Sense the world around us? What is the relationship between the mind and the brain? How has evolution shaped the mind? Could a computer think? Linguistics is the study of questions relating the structure, history, philosophy, psychology, and use of language: What are the properties of languages and how are they acquired? How did language evolve and how have languages changed over time? How is language organized in the brain?³

Answers to these questions are found by using techniques and expertise from a number of different disciplines including psychology, linguistics, computer science, philosophy, and cognitive neuroscience. Despite differences in methods of investigation, cognitive scientists have a commitment to a set of ideas: that the mind is a function of the brain, that thinking is a kind of computation, that language and cognition can best be understood as a set of specialized processes and representations. More recently, greater attention has been given to the impact of evolution on thought and language⁴.

Cognitive linguistics sees language as embedded in the overall cognitive capacities of man, topics of special interest for cognitive linguistics include: the structural characteristics of natural language categorization (such as prototypicality, systematic polysemy, cognitive models, mental imagery, and metaphor); the functional principles of linguistic organization (such as iconicity and naturalness); the conceptual interface between syntax and semantics (as

explored by cognitive grammar and construction grammar); the experiential and pragmatic background of language-in-use; and the relationship between language and thought, including questions about relativism and conceptual universals. Crucially there is no single, uniform doctrine according to which these research topics are pursued by cognitive linguistics. In this sense, cognitive linguistics is a flexible framework rather than a single theory of language. In terms of category structure (one of the standard topics for analysis in cognitive linguistics), as D. Geeraerts and H. Cuyckens⁵ believe that cognitive linguistics may be considered as a category, having a family resemblance structure: it constitutes a cluster of many partially overlapping approaches rather than a single well-defined theory.

One of the most important principles of cognitive linguistics is that meaning is central to language to the extent that it should be the primary focus. The structures of language are strongly connected to the semantics, they seek to depict. Linguistic specialists seek to understand how semantics and syntax work together, to understand the relationship between language and thinking. They also try to understand how language influences, how people form concepts^{6,7}. Cognitive linguists seek to understand how memory, categorization, imagery and attention affect language. They try to create psychological models for language that cover various linguistic phenomena, such as figurative language. This area of study covers multiple disciplines, such as brain, imaging and language acquisition. Cognitive linguists rely on empirical observation, neuroscience and experimental psychology. They see grammar as coming from the properties of neural systems. They also study and theorize about the functional principles of linguistic organization⁸.

Developing the question of main principles we can not ignore an issue "New Directions in Cognitive Linguistics"⁹, in which the authors single out four principles of cognitive linguistics: "Perhaps the most fundamental distinguishing characteristic of cognitive linguistics as a research paradigm is the hypothesis that grammatical structures and processes in the mind are instances of general cognitive abilities. In other words language is not an autonomous cognitive faculty. A second principle which has guided much work in this field of science is that grammar is symbolic and thus meaning is an essential part of grammar. The third and fourth principles focus on meaning and differentiate cognitive semantics from formal, logic-based, truth-conditional semantics. It denotes that meaning is encyclopedic. Everything we know about the real

world experience denoted by the word or construction plays a role in its meaning. Memory is involved in the organization of knowledge and the production of utterances. Categorization is involved in all of the above, since it plays a central and pervasive role in human cognition. All of these are essential for understanding the nature of language"¹⁰.

One of the most central human cognitive capabilities is the ability to generalize or as D. Geeraerts and H. Cuyckens say "the ability to schematize is one the most important cognitive human skills, since it involves the recognition of core commonalities, abstracting away from less important (for the cognitive task at hand) details which may differ from one concept or cognitive experience to another"¹¹. This ability may be operative in any domain or combination of domains of cognition. The relationships of schematicity thus established are one of the main kinds of relationships that structure the "inventory of conventional linguistic units" which constitute a language^{12,13}.

Basic processes used by cognitive linguistics are those by means of which schematization and arrangement of reality is provided: they are categorization, conceptualization, verbalization, frame representation of knowledge.

Categorization is defined by linguists^{14,15} as the most basic cognitive process. It is the ordering of phenomena according to similarity with the purpose of guiding our interaction with the environment. Categories are formed in accordance with a functional and adaptive structuring of reality. At the culture level categories come to be formed by becoming coded in language. The process of cultural category formation is functional in nature since it is based on a speech community's adaptation to its environment. Semantic change reveals a great deal about this process as it shows how reality can be construed in alternate ways to facilitate this adaptation due to the fact that the semantic structure of a language is the product of conceptualization processes¹⁶. In the course of the examination of conceptual structure and identification of the main principles of conceptualization of the reality one should bear in mind that categorization is a step-by-step process: first an individual's perception of the world is conceptualized, and then this conceptual representation is revealed in the language. The sensitive perception is based on the reflection of reality objects and phenomena in the human mind shaped as different concepts in the lexical meaning of words. In other words, the semantics of linguistic units "grasps" a particular part of reality. Obviously the language and lexis in particular is a means of objective world reflection. Consequently the lexical meaning of word presents

a specific part of human knowledge about the object or phenomenon and is related to the word use in typical situations and contexts^{17,18}.

The process opposite to categorization is conceptualization – presentation of objective reality from larger structure to the smallest one.

Conceptual system reflects the totality of human knowledge obtained in the course of the people's cognitive activity and shaped as separate concepts, which correlate with lexical items. Thus, any area of human activity is reflected in the conceptual structures. Studying of this part of the conceptual system is aimed at the detection of the minimal units (concepts) which form the basis for the categorization of these linguistic units as language representations of the concepts¹⁹. Cognitive conceptualization of human experience is based on the principle, according to which human ability to learn languages, is a product of general cognitive processes in the brain. The repetition of cognitive experience leads to establishment of cognitive structures, which are later involved into the interpretation of new knowledge. And language reflects presence of such universal experience²⁰.

R. Dirven²¹ notes that conceptual categories which are laid down in a language are linguistic categories or linguistic signs. Any linguistic sign has a form and meaning, which roughly speaking is identical with a concept. A meaning or concept relates to some entity in our experienced world. A more comprehensive view of language as a system of signs must also include the human "conceptualizer" and the world as it is experienced.

Conclusions. Cognitive linguistics undoubtedly became a new vector in modern science. It enabled the researchers to investigate the connection of language with thinking and to prove that lexical unit names, expresses, reflects and accumulates the acquired experience or knowledge. Most scientists agree: the main principle of cognitive linguistics is that meaning is an essential part of language, its primary focus; one of the most important human cognitive skills is the capability to generalize or, in other words, to schematize. In cognitive linguistics this ability results in two interconnected processes – categorization and conceptualization which are opposite to each other, i.e. represent objective reality from larger structures to smaller ones and vice versa. They schematize the world reflecting its universal arranged structure.

REFERENCES:

¹ Croft W. *Cognitive Linguistics* // William Croft, D. Alan Cruse. – Cambridge: Cambridge University Press, 2004. – 356 p.

² *Cognitive Linguistics*. – Режим доступу: http://www.iaawiki.tu-dortmund.de/index.php?title=Cognitive_Linguistics

³ *Cognitive and Linguistic Sciences is the Study of How the Mind Works*. – Режим доступу: <http://www.wellesley.edu/cogsci>

⁴ *Cognitive and Linguistic Sciences is the Study of How the Mind Works*. – Режим доступу: <http://www.wellesley.edu/cogsci>

⁵ Geeraerts D. *Introducing Cognitive Linguistics*. *The Oxford Handbook of Cognitive Linguistics* / Dirk Geeraerts, Hubert Cuyckens. – Oxford University Press, 2010.

⁶ Kemmer S. *About Cognitive Linguistics* / Suzanne Kemmer 2007. – Режим доступу: <http://www.cognitivelinguistics.org/cl.shtml>

⁷ Asgari T. *The Study of Image Schemas in Hafez Poems: Cognitive Perspective* / Tayebeh Asgari // *International Journal of Language and Linguistics*. – 2013. – N 4. – Vol. 1. – P. 182–190.

⁸ Asgari T. *The Study of Image Schemas in Hafez Poems: Cognitive Perspective* / Tayebeh Asgari // *International Journal of Language and Linguistics*. – 2013. – N 4. – Vol. 1. – P. 182–190.

⁹ *New Directions in Cognitive Linguistics* / ed. by Vyvyan Evans, Stéphaie Pourcel: John Benjamins PC. – Philadelphia, 2009. – 520 p.

¹⁰ *New Directions in Cognitive Linguistics* / ed. by Vyvyan Evans, Stéphaie Pourcel: John Benjamins PC. – Philadelphia, 2009. – 520 p.

¹¹ Geeraerts D. *The Oxford Handbook of Cognitive Linguistics* / Dirk Geeraerts, Hubert Cuyckens. – Oxford University Press, 2010.

¹² Geeraerts D. *Advances in Cognitive Sociolinguistics* / Dirk Geeraerts, Gitte Kristiansen, Yves Peirsman. – Berlin-New York: Walter de Gruyter, 2007. – 334 p.

¹³ Lewandowska-Tomaszczyk B. *Cognitive Linguistics Today* / Barbara Lewandowska-Tomaszczyk, Kamila Turewicz. – 2002. – 704 p.

¹⁴ Györi G. *Basic Level Categories and Meaning in Language* / Gábor Györi // *Argumentum*. – 2013. – № 9. – P. 149–161.

¹⁵ Gunina N.A. *Cognitive Semantics of the English Verbs of Sound* / N.A. Gunina // *Вопросы современной науки и практики / Университет им. В.И. Вернадского*. – 2010. – № 10-12(31). – P. 342–348.

¹⁶ Györi G. *Basic Level Categories and Meaning in Language* / Gábor Györi // *Argumentum*. – 2013. – № 9. – P. 149–161.

¹⁷ Gunina N.A. *Cognitive Semantics of the English Verbs of Sound* / N.A. Gunina // *Вопросы современной науки и практики / Университет им. В.И. Вернадского*. – 2010. – № 10-12(31). – P. 342–348.

¹⁸ Кубрякова, Е.С. *Части речи с когнитивной точки зрения* / Е.С. Кубрякова. – М. : Изд-во ин-та языкознания РАН, 1997. – 331 с.

¹⁹ Gunina N.A. *Cognitive Semantics of the English Verbs of Sound* / N.A. Gunina // *Вопросы современной науки и практики / Университет им.*

В.И. Вернадского. – 2010. – № 10-12(31). – P. 342–348.

²⁰ Corrigan R. Formulaic language // Roberta Corrigan, Edith A. Moravcsik, Hamid Ouali. – Philadelphia, 2009. – Vol. 2. – 305 p.

²¹ Dirven R. Cognitive Exploration of Language and Linguistics / René Dirven, Marjolyn Verspoor. – Philadelphia, 2004. – 277 p.

Makovska Oksana, Vakhotskyi Mykhailo.
PROBLÈMES PRINCIPAUX DE LA LINGUISTIQUE COGNITIVE COMME SCIENCE.

L'article a pour objectif de présenter la linguistique cognitive, en caractérisant les types de faits, les problématiques et les paradigmes théoriques qui relèvent de façon spécifique d'une linguistique cognitive. Pour les sciences de la cognition, qui étudient le fonctionnement de l'esprit et du cerveau, le langage constitue un objet d'investigation de première importance: l'espèce humaine est en effet la seule à disposer de cette "faculté supérieure" particulièrement complexe. Plusieurs disciplines engagées dans l'étude de la cognition s'intéressent donc au langage: psychologues, philosophes, anthropologues, spécialistes de neurosciences ou d'intelligence artificielle s'attachent, chacun dans son ordre, à caractériser la place de la langue dans la cognition naturelle ou artificielle, et à en étudier le fonctionnement.

Mots-clés: linguistique cognitive, catégorisation, conceptualisation, présentation de la réalité objective.

Маковская Оксана, Вахоцкий Михаил.
ОСНОВНЫЕ ВОПРОСЫ КОГНИТИВНОЙ ЛИНГВИСТИКИ КАК НАУКИ.

Основной целью статьи является освещение положений о когнитивной лингвистике как науке, принципов и теоретических парадигм, которые являются специфическими именно для данной отрасли. Для когнитивных наук, изучающих, как функционирует человеческое сознание и мозг, язык выступает объектом исследования первостепенной важности: человек, при этом, на самом деле является единственным субъектом, способным упорядочить эту особенно сложную высокоорганизованную систему. Ученые многих дисциплин, занимающихся исследованием познания, заинтересованы также и в лингвистике: психологи, философы, антропологи, специалисты по нейронаукам и искусственному интеллекту делают попытки каждый со своей стороны охарактеризовать место языка в природных или искусственных процессах познания и изучить особенности его функционирования.

Ключевые слова: когнитивная лингвистика, категоризация, концептуализация, презентация объективной реальности.