The Role of Conceptualization in Human Cognitive Activity

Abstract

The article analyzes the cognitive process of conceptualization, which is the process and the result of the mental construction of objects and phenomena. Conceptualization consists of the structuring of knowledge the awareness of specific information. Concepts, which are the result of conceptualization, form a separate system of interrelationships and subordination and thus compose the conceptosphere of national culture. A single concept can be expressed in several ways and at the same time a single word can express different concepts. The article emphasizes that the study of conceptualization strengthens the understanding of the role of concepts in forming a picture of the world. The result of conceptualization is not just a list of formed concepts, but also a conceptosphere as a system which includes both concepts and the connections between them.

Keywords: conceptualization; concept; conceptosphere; categorization; cognitive activity; meaning; sense

1 Introduction

The study of the specificity of concepts and the meaning of conceptualization in human cognitive activity is one of the main challenges of modern cognitive linguistics and linguoculturology. Along with categorization, conceptualization is a component of cognitive science and human cognition, thought, and experience are at the centre of it. In the context of conceptualization, language begins to be analyzed not as an exclusively symbolic system, but as the specific cognitive ability of a person for speech as a special activity.

In recent years, there has been a rapid increase in the number of studies of various aspects of human cognitive activity, which has raised the profile of this issue in the field of linguistics. Today, the study of mental categories that cannot be directly observed, such as knowledge, expectations, assumptions, intentions, representations, thoughts, beliefs, conclusions, etc., is becoming increasingly relevant. The phenomenon of concepts can also be attributed here.

The scientific investigations of Y. Borysova, Z. Verdiieva, M. Mamych, L. Nizhehorodtseva-Kyrychenko, N. Mekh, Z. Popova, O. Selivanova, Zh. Sokolovska, Y. Sternin, L. Strochenko and others can be considered as the most significant studies of concepts and the conceptosphere in recent years. In particular, the works of such researchers as M. Alefirenko, I. Holubovska, D. Lyakhachov, A. Prykhodko, Z. Popova, Y. Sternin, V. Teliia, R. Frumkina, W. Croft, E. Rosch, E. Smith, V. Sukharovskyi, J. Taylor, M. Schwartz, and others are dedicated to the problem of world conceptualization and its reflection in language.

However, despite numerous studies, the issue of human world conceptualization and the specifics of this cognitive process cannot be considered to have been fully studied, as a clear definition of
the notion “concept” has not yet been found. Neither has there been established a single approach to understanding the manner of concept formation. In this regard, the purpose of the article is to analyze the peculiarities of the conceptualization process as an aspect of human cognitive activity.

2 Research Methods

In order to achieve the research aims, the following main methods were used: analysis, synthesis, and generalization. They were used to highlight the latest research and publications, to describe the theoretical basis of the research, and to form conclusions. The descriptive method was also used in order to describe the results of the research.

3 Results and Discussion

3.1 The Notion of Concepts

Having analyzed the theoretical sources, it can be seen that a concept is considered to be a complex, multifaceted phenomenon which has a connection with cognitive processes and culture, while the ways of presenting concepts in language are different (Evans, 2007). Being one of the main categories of conceptual semantics, a concept is an ideal phenomenon that exists in the mind of an individual as a global, structured, multi-substrate mental unit. A concept is a multidimensional idealized entity that embodies the culturally determined ideas of specific people about the world and can be objectified with linguistic means (Terkulov, 2020).

From the perspective of psycholinguistics, a concept is understood as an imaginary product, similar to an established typical image, which can be used instead of this image. In particular, O. Zalevska considers a concept as “a basic perceptual–cognitive–affective formation of a dynamic nature, which spontaneously functions in the cognitive and communicative activity of a person and is subjected to the principles of the mental life of an individual, as a result of which it differs from notions and meanings in certain parameters” (Zalevskaia, 2003, p. 34). Zalevskaia viewed concepts as a single mental network, focusing on the fact that each concept acts as a correlate of cognitive, affective and sensory mental processes in the perception of an individual (Zalevskaia, 2003).

3.2 The Specificity of the Conceptualization Process

The formation of concepts is a consequence of the mental construction of objects and phenomena. This cognitive process is known as conceptualization. Most researchers consider conceptualization to be one of the main processes of human cognitive activity, the essence of which is the structuring of knowledge and awareness of specific information. The selection of meaningful components in human consciousness is the basis of it (Boldyrev, 2021; Maslova, 2019; Poliuzychn, 2019).

In addition, conceptualization is accompanied by the emergence of concepts, conceptual structures, and a conceptual system in the human psyche (Kubriakova et al., 1996, p. 94). Conceptualization as a process is mediated with the consciousness of the speaker’s personality and is determined by individual, social, national and cultural factors (Dobrovolskaia, 2020).

Human cognitive activity consists of the accumulation of new information and its modification (Schwarz-Friesel, 2015). According to O. Kubriakova, conceptualization involves the awareness of information about the surrounding world and the mental construction of objects and phenomena which appear in the surrounding reality. It results in the formation of peculiar ideas about the world as “meanings-concepts”, conceptual structures and the conceptual system as a whole, which become fixed in the mind (Kubriakova et al., 1996).

At the same time, conceptualization is also considered to be “the being of human consciousness” (Arkhipov, 2001, p. 13), “a process of knowledge construction from certain minimal conceptual units that is common to various forms of cognition” (Kubriakova et al., 1996, p. 93), etc.
3.3 Conceptualization and Categorization

Conceptualization is based on the cognitive process of categorization, since previously understood data are involved into the formation of concepts (Boldyrev, 2021; Nelson, 1983). Conceptualization is focused on the selection of meaningful units of human experience and structural types of knowledge, which are concepts, while categorization is connected with the integration of these units into categories, which are larger classes (Boldyrev, 2021; Kubriakova, 2004). Categorization is a way of obtaining a significant amount of information. In this manner, it organizes a person’s orientation in time and space and the successful decoding of information about the surrounding world, as it puts perceptual experience in first place. At the same time, the awareness of mental images requires the selection of senses that verbalize the reality (Nelson, 1983).

In the cognitive area of personality, categorization correlates with almost all cognitive abilities, as well as with the mental operations of identification, comparison, similarity establishing, etc. In fact, categorization entails the formation and distinguishing of the categories themselves, the division of the external and internal world of a person according to the meaningful characteristics of its existence and activity, the coordinated demonstration of various phenomena by combining them into a smaller number of categories, as well as the results of classification activities (Croft & Cruse, 2004).

As noted by P. Frumkina, categorization is aimed at explaining new facts through already known ones and structuring a picture of the world on the basis of generalization (Frumkina, 1992, p. 5). The resulting categories can be seen as “one of the cognitive forms of human thinking, which makes it possible to generalize its experience and to classify it” (Kubriakova et al., 1996, p. 45).

In cognitive linguistics, different approaches to the organization of categories are distinguished: classical, invariant and variant, prototypical, “family resemblance”, etc. All of them have different structure and content (Evans et al., 2022).

Such a range of ways of category formation can be justified by the fact that the knowledge that forms a conceptual system usually has different sources of formation. It may come from subjective and practical activity, theoretical and everyday cognition, inference, verbal and non-verbal communication, specific and sensory experience, social experience etc. This explains to some extent the variability of the types, structure and content of concepts, as well as the levels of their belonging, which, in turn, results in a multiplicity of categories, particularly linguistic ones (Boldyrev, 2021).

Therefore, language categorization is a multifaceted phenomenon which is the result of a combination of linguistic and encyclopedic knowledge, which is imprinted on a naive and scientific picture of the world. The possession of information about the organization of the physical and social world is the conceptual basis for language categorization. Therefore, categorization in language consists of the actualization of naive initial ideas about the essence of things and about the characteristics or features of objects. It can thus be said that the categorization of natural objects and events is reflected in the categorization of the language units that are used to name them (Manerko, 2020).

As O. Kubriakova notes, linguistic categorization aims to correct some conceptual structures and the forms of their objectification, in order to find a specific way of presentation for a certain content (Kubriakova, 2004). S. Katsnelson adds that “linguistic categories are mainly generalized mental forms that have a logical origin and compose a complete system. However, taking into account its logical nature, such a system of grammatical or logical and grammatical forms is not directly linguistic, but instead it forms the general basis of language” (Katsnel’son, 2001, p. 28).

The processes of categorization and conceptualization differ in their end results and purpose. Categorization aims to unite similar or identical units into larger classes (categories), whereas conceptualization consists of the distinguishing of the minimal meaningful units of human experience–knowledge structures and concepts. It follows that the notion of a language element is based on the categorization process, and that a concept is based on the conceptualization of the world. Categorization is a rational and logical phenomenon and is a universal human trait. Conceptual-
ization is a cognitive and evaluative phenomenon that reflects an ethno-specific understanding of a specific part of the non-verbal world (Prykhod'ko, 2008).

In the process of categorization, the speaker uses concepts that appear to them due to the unique human ability to distinguish stable, generalized features of phenomena from the common background of information about reality and to combine them accordingly. Therefore, we can claim that concepts are formed as a result of identifying or distinguishing objects and highlighting their characteristics, as well as actions directed at these objects and other operations related to them (Ladyka & Bohachuk, 2022).

It follows that the processes of categorization and conceptualization are very important in solving the problem of the correlation of the conceptual structures of human consciousness with the linguistic units that represent them.

3.4 The Role of Conceptualization in the Emergence of the Conceptosphere

The conceptualization of objects and phenomena appearing in the surrounding world contributes to the formation of structures of knowledge and experience, i.e. concepts, in human consciousness. They tend towards organization, constitute a separate system of interrelationships and subordination, and thereby form the conceptosphere of a national culture. A conceptosphere is common to all representatives of a culture and unites a nation on a mental level (Prykhod'ko, 2020).

Conceptualization can be seen as both a method and a result of senses formation. Human cognitive activity provokes the formation of new senses constantly and some of them are able to influence the peculiarities of the national linguistic culture.

The very idea of concepts correlates with ideas about the senses that an individual uses to implement cognitive activity and that represent experience and knowledge, the results of human activity and processes of mastering reality in the form of certain “quanta of knowledge” (Kubriakova et al., 1996, p. 90). In general, the essence of a concept reflects a multi-layered combination of linguistic and extralinguistic components. The analysis of concepts, that is, the reproduction of the components of the conceptual space in the linguistic and ethnocultural consciousness, implies the study of such components and their structuring (Dobrovol'skij, 2021).

As a result of an individual’s contact with their surrounding reality, a conceptual system is formed in his or her mind. This is the mental level, or the mental formation, in which the combination of all concepts and their ordered collection is concentrated (Maslova, 2019). A conceptual system is a picture of the world that reflects the relationship between an individual and the world and the most important conditions for the individual’s existence in this world. It can therefore be considered as a system of ideas and knowledge about the surrounding world that reflects the experience of an individual (Postovalova, 2022).

In a conceptual system, specific concepts that arise in the course of world cognition and which represent information about the surrounding world are distinguished. Simple concepts include those that consist of one word, while more complex ones include word combinations and sentences. The name of a concept is influenced by how successfully the conceptualization of the word, phrase or sentence that embodies the concept is conducted. A concept is a kind of mediator between reality and words, and a collection of concepts is therefore information about meaning that is stored in human semantic memory (Dymytrenko, 1999, p. 39; Dymytrenko & Stroieva, 2019).

The combination of concepts as semantic units, which represent the cultural peculiarities of the speakers’ perception of the world, constitutes the conceptosphere (conceptual area). The specificity of language conceptualization has been analyzed in the works of N. Arutiunova, O. Vorobiova, S. Zhabotynska, V. Maslova and others.

3.5 Words and Concepts

The ability to describe and define the essence of a concept is provided by language, particularly by language signs (Boldyrev, 2021; Kubriakova, 2004; Maslova, 2019). Z. Popova and Y. Sternin
equate words with a switch that “turns on a concept in a person’s consciousness, activates it and launches it into the thinking process, that is, enables its use in thinking activity” (Popova & Sternin, 2002, p. 39). V. Zhaivoroniuk supports the authors, stressing that “a word, as the name of reality, together with the whole set of specific linguistic signs, acts not only as a linguistic unit, but also as a conceptual unit, that is, a concept” (ZHaivoroniuk, 2004, p. 26).

In general, the issue of the relationship between a word and a concept is one of the leading questions in modern cognitive science, both in Ukraine and abroad. Some conceptual information is fixed in the ways of language expression, and some is represented in the human consciousness with cognitive structures such as images, drawings, schemes, etc. (Kubriakova, 2004; Maslova, 2019). In the human psyche, many fragments of reality are presented in the form of images and much of what can be seen and understood exists without the presence of a special designation, i.e. a word. In this regard, language, possessing a multitude of linguistic elements, is a means of modern linguistic research conducting.

A personality forms new knowledge mostly through language messages that give new shades to existing images of consciousness. This gives rise to the possibility of the endless formation of new knowledge.

As we have already mentioned, concepts are units of human consciousness and linguistic units express a large part of the conceptual space. The part of a concept which is fixed in the form of a linguistic sign is a unit of linguistic semantic space and forms a meaning.

Since a concept is a multidimensional notion, which can be explained by its three-unit structure, there is also a complexity in its modeling. The linguistic unit is the central part of the concept that “represents” its name. Things located around the centre are associative vectors. In this regard, V. Karasik and H. Slyshkin distinguish between the core and the periphery of concepts. The core consists of the closest and the most relevant associations of the speaker whereas all the more distant associations form the periphery of the concept (Karasik, 2023; Karasik & Slyshkin, 2001).

Conceptual features are expressed in the semantics of language. The multifacetedness of a concept is manifested in the fact that it may be represented by a large number of words which form the semantic field of the concept, in which the non-verbal experience of both an individual and humanity as a whole is represented. This experience is changeable, which can be caused both by gaining new knowledge about the environment and by changing human values. The meanings of words, phraseological combinations and texts are a source of knowledge about the inner content of certain concepts (Shilova, 2005).

3.6 Meanings, Concepts and Senses

According to M. Poliuzhin, words exist in the human brain in the form of concepts, and the semes contained in them convey the entire set of features of an object or phenomenon appearing in the real world. At the same time, meaning is a unique means of conveying a concept (Poliuzhyn, 2019). In the process of mental operations, the semes of the semantic structures of words become senses that form the corresponding meaningful fragments of the content of the concept together with the connotations.

As a unit of the semantic language space, i.e. an ordered set of meanings of a specific language, meaning includes a small number of those signs (semes) that are known to a certain society and are related to the functioning of the corresponding sound shell (lexemes). Therefore, we can conclude that meaning is a well-known and communicatively relevant part of a concept, which is fixed in the form of a linguistic sign for communication (Popova & Sternin, 2002).

A concept is a unit of the conceptosphere, an ordered unity of processed, categorized and standardized concepts, which are the units of the people’s thought (Popova & Sternin, 2002). This explains the fact that a concept, as a component of the conceptosphere, includes all the mental features of a given phenomenon, which are reflected in the consciousness of people at a separate stage of development.
A word does not describe a concept fully, but instead provides only a few main conceptual characteristics that correlate with a specific message, since a word in the act of speech cannot convey the meaning of a concept in its entirety (Poliuzhyn, 2019; Sternin, 2006).

Meaning as a phenomenon of human cognitive activity, based on some structure of knowledge, should be studied as a separate result of information processing (Tomenchuk, 2008, p. 25). Since it is traditionally believed that the information distinguished by an individual as the most important for existence is contained in dictionary definitions, there exists a practice of taking into account the consideration of dictionary definitions when studying the semantic characteristics of concepts verbalized with the language units (Kubriakova, 2004; Maslova, 2019; Tomenchuk, 2020).

According to R. Pavilonis, meaning is “a part of the human conceptual system that reflects the cognitive experience of the personality” (Pavilėnis, 1983, p. 100). Senses appear only in specific situations, in contrast to meaning, which is not associated with a context. Meaning is constructed from a set of semes, and sense consists of minimal meaningful units that fit intentionally. The role of such minimal meaningful units is to establish the connection and relationship between all the components of the communicative situation, which is necessary for the emergence of sense.

A concept is a unit of the conceptual system, whereas a meaning belongs to the semantic system of a language, acting as its element. The difference between a meaning and a concept is that a meaning, as an element of the semantic space, is attached to a linguistic sign, whereas a concept, as a component of the conceptosphere, is not associated with a specific sign. The specificity of the verbalization of concepts is that the same concept can be expressed with alternative means (Bessonova, 2019; Kubriakova, 2004). At the same time, the same word can express different concepts (Bessonova, 2019; Maslova, 2019; Poliuzhyn, 2019; Sternin, 2006).

The variety of synonyms, different definitions of the same word that verbalizes the concept, testifies to the fact that linguistic means convey only a part of a concept with their own meanings (Boldyrev, 2021; Popova & Sternin, 2002). Linguistic means are able to give only the most general ideas about the essence of a concept in the consciousness of representatives of a given language group, since the concept is not able to be fully expressed in language (Poliuzhyn, 2019). This leads to the conclusion that concepts are more capacious than linguistic expressions.

4 Conclusions and Directions for Further Research

The study of the conceptualization process strengthens the awareness of the role of concepts in forming a picture of the world and also reveals its diversity. Based on the processes of categorization, conceptualization aims to highlight certain minimal units in human experience that exist in the form of ideas and are realized in the form of concepts. The result of conceptualization is not just a set of formed concepts, but a conceptosphere as a system that unites both the concepts and the connections between them. A conceptual system unites the speakers of a certain language as a nation on the mental and cultural levels.

A potential direction for further research into the selected issues is to study the peculiarities of conceptualization within different national conceptospheres.

References


The role of conceptualization in human cognitive activity


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