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**THE COGNITIVE APPROACH TO THE PROBLEM OF  
COMPREHENSION IN DIALOGICAL DISCOURSE**

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***Abstract***

The article discusses the problems of comprehension in dialogical discourse from the perspective of modern linguistics. The study is based on the anthropocentric theory of language and the interpretive function of the language, which in combination with cognitive and communicative functions explains the dynamics of speech interaction, the processes of comprehension in dialogue, the change in the individual worldview of communicants - their knowledge, ideas, opinions at all stages of communication. The interpretive function of the language deals with cognitive mechanisms and language tools for successful comprehension and persuasion in the dialogue. The combination of three language functions in the study of language interaction determines the integrity of the research based on the conceptual interaction of various levels. The integration of the knowledge of the speaker (the producer of the discourse) and the interlocutor (the interpreter of the discourse) at all levels ensures cooperation in communication and reveals the interdependence of the shared knowledge of communicants. Violation of the integrity of communication leads to communicative errors and failures. The multidimensional nature of discursive activity presupposes the “matrix” format of its structure, which comprises all the conceptual structures involved in generating and comprehending discourse. Comprehension can be achieved if the speaker’s language behavior and that of the interlocutor correlate, i.e. one of the prerequisites for cooperativeness in dialogue is the conceptual match at linguistic, thematic, sociocultural and other levels. Cognitive dissonance in terms of structure or content leads to misunderstanding in the dialogical discourse.

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**Keywords:** Comprehension, anthropocentrism, interpretive function, cognitive mechanism, knowledge, discursive matrix.



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## **1. Introduction**

An important aspect of the process of speech interaction is the problem of comprehension. In the study of speech actions, much attention was paid to the speaker's language behavior. Language comprehension issues are studied by separate branches of science: psycholinguistics, hermeneutics, semiosociopsychology and others. The studies on the problem of comprehension/non-comprehension, different research methods employed have led to an abundance of terms, scholarly traditions and approaches to the study of this phenomenon. The focus of the theory of argumentation, hermeneutics, pragmalinguistics, and the theory of verbal interaction fell primarily on the conditions for successful communication, while non-comprehension was regarded as one of the factors of communicative failure. Comprehension was reduced mainly to its definition as a universal mental operation associated with the assimilation of new content, its inclusion in the system of established ideas and beliefs. The "interpretive approach", which took shape in the 1970-1980s, was important for linguistics. The focus of the interpretive approach on elucidating the interpretation mechanisms in communication led to the revival and transfer of hermeneutics ideas to cognitive linguistics (Dem'jankov, 2018, p. 9; Kotlyarova, & Nefyodova, 2017; Makeeva, & Grigorieva, 2015).

## **2. Problem Statement**

In this article we look at this phenomenon from the perspective of modern linguistics. The problems of comprehension are an integral part of the theory of speech communication and the theory of discourse and the theory of speech genres that are closely associated with it. These are actively developing directions in linguistics which primarily deal with interpersonal interaction. The discourse is multilateral, and the limitations of any attempts to reflect its modeling are quite obvious, reducing the discourse to one or two dimensions. In this regard, the paper attempts to analyze the process of comprehension in dialogical discourse in an integrative format, i.e. identify those factors that directly affect the formation and interpretation of the speaker's language behavior and identify the cognitive dominant and cognitive mechanisms of speech production that help transform the picture of the interlocutor's world in accordance with the speaker's intention.

## **3. Research Questions**

The main issues to be addressed in the article are identification of the types of knowledge necessary for communicants for successful language interaction, their interconnection and interdependence in the cognitive structure of discourse, modeling of comprehension in discourse in the context of the selected cognitive mechanisms, speech tactics and their language representation. In our opinion, the solution of the problem is related to the need to form and improve discursive and genre competencies, which largely determine the effectiveness of human interaction in everyday communication.

#### **4. Purpose of the Study**

The research aims to describe the types of knowledge, cognitive mechanisms and language tools that facilitate the interlocutor's comprehension of the speaker's intentions by making changes in the communicant's worldview and "smoothing out acute angles in communication". Also, the paper aims identify cognitive mechanisms that deepen discrepancies in the conceptual systems of interlocutors. This goal makes it possible to consider the discursive activity of an individual and the problems of comprehension in dialogue from the perspective of interdependence of cognitive, communicative, sociocultural, ethnic, linguistic and other parameters of verbal communication.

#### **5. Research Methods**

In this paper, anthropocentricity is considered as the main methodological principle, the concept of which assumes that "a person does not reproduce linguistic meanings and forms in a ready-made form, <...> but creates meanings and chooses the language in each concrete act of verbal communication" (Boldyrev, 2015, p. 5). Being one of the basic characteristics of the language, anthropocentricity is manifested in its functions - cognitive, communicative, and interpretive.

Cognitive science with its ability to study speech interaction as a set of knowledge necessary for successful interaction, combining cognitive, communicative and interpretive functions of the language in modeling the speech process makes it possible to present language communication in an integrative format. In other words, it is an integrated phenomenon, complementing the system of cognitive mechanisms of speech exposure with mechanisms of comprehension and speech interpretation. The process of conceptual integration as a person's cognitive ability results in the creation of new knowledge structures from several "given" structures. The multidimensional nature of discursive activity presupposes the matrix format of its organization, which includes all the conceptual structures involved in the generation of one or another type of discourse.

We introduce the concept of "discursive matrix" which comprises a set of "coordinates" - thematic, scenario-based, interactive, sociocultural, ethnocultural, personal, phatic, linguistic - representing the semiotic structures involved in production of different types of discourse. The matrix connects all components of speech interaction into a single integrated system that explains the communicant's choice of the language means and allows predicting the speech behavior of individuals in certain situations. The discursive matrix is used to identify, describe and systematize the structures, representing different types of knowledge, as well as their impact on language strategies in discourse.

#### **6. Findings**

In the context of the three functions of the language - cognitive, communicative, and interpretive - comprehension implies that communicants have a shared knowledge system to decode the meaning of linguistic units and interpret the meanings of discursive utterances. The interpretative potential of discursive genres allows for different interpretations of the events represented by the speaker within the framework of the conceptual system of the interlocutor. The specificity of the situation of discourse generation is the response of the interlocutor to the occurrence of a problematic situation, in its broad

sense. The speech act is subordinate to the expression of a certain meaning and is controlled by the mechanisms that are used in the language system to convey it, one way or another. When communicants analyze the “meanings of discourse,” they associate them with the language forms that express these meanings, either explicitly or implicitly. Obviously, a linguistic sign without a meaning inferred by an interlocutor ceases to be a sign. In Ch. Pearce’s theory of signs, a sign is something which stands in a well-defined relation to the object and its interpretant. In other words, an interpretant can be understood as a sign’s effect on the mind, or on anything that acts like a mind. This effect called by Charles Pearce as an interpretant can cause certain emotions (emotional interpretants), determine an action (energy or dynamic interpretants), or affect the train of thought or behavior (logical, normal or final interpretants). The interpretant is opposed to the communicative intention of the speaker. In this case, the speaker’s intention and the interlocutor’s interpretants become pragmatic components of the discourse. On the one hand, the interpretant establishes the link between the sign and the code, i.e., with the system in which it exists (language), and on the other hand, there is a link between the sign and the context of its use.

The speech interaction scenario involves the interaction of cognitive, semantic, semiotic, pragmatic, psycholinguistic, cultural, and other constituents that are a kind of filters and “information refraction vectors” in the communication process. The content produced in communication undergoes multiple changes under the influence of these “vectors”: there is a reduction and transformation of language structures; adaptation of the outgoing message in accordance with the status, age, gender and other characteristics of the interlocutor in communication. The interlocutor perceives the produced information in accordance with their picture of the world. Thus, **comprehension is a specific way of perceiving the external and internal human world. Comprehension is a process, during which a link between new properties of the object of knowledge and those already known to the subject are formed. It involves creating the “operational” meaning of the new properties of the object and finding their place and role in the system of mental activity.**

In order to comprehend new information (unfamiliar facts, events, etc.), one must always solve a certain mental problem, since comprehension of the new “knowledge” occurs in the process of mental activity and becomes its outcome. In communication the speaker passes the content to the interlocutor and imposes his/her assessment of the discourse situation. The information perceived by the interlocutor is superimposed on the knowledge available in one’s picture of the world. However, speech interaction is not limited to “decoding” this information. The interlocutor has to interpret the meaning that the speaker wants to convey. However, there is a possibility that the meaning that the interlocutor elicits from the speaker’s message may not partially or fully match the meaning conveyed by the speaker. Thus, in speech interaction, it is the interlocutor who is supposed to adequately perceive the conveyed message, while the speaker’s job is to choose the language means that best express their intention.

In the process of communication, the speaker’s knowledge and that of the interlocutor are constantly overlapping. The process of comprehension for the interlocutor comprises a sequence of the following stages:

- (1) The interlocutor “grasps” thematic concepts referring to the static frame (data structure representing a stereotyped situation) in the knowledge system.
- (2) The interlocutor compares the static structure of the frame with the message conveyed.

(3) The interlocutor decodes the message, using certain cognitive mechanisms of the meaning of the utterance.

(4) The interlocutor “recognizes” the speaker’s intention, i.e. fills in a pragmatic gap.

Speech interaction in discursive genres is based on creating, conveying and comprehending meanings using specific cognitive and linguistic means. In speech communication, various phenomena of mutual understanding, disagreement, efficiency, cooperativity and conflict management are explained by the degree of conceptual interaction. When initiating a conversation, the speaker matches thematic concepts with language concepts corresponding to the sociocultural situation in which the speaker interacts, and the discursive person with whom communication occurs. In the structure of the discursive matrix, the speaker selects the concepts that most closely correspond to the purpose of communication. In comprehending the author’s speech, these “coordinates” most accurately represent the speech strategies and tactics of the speaker. An incorrectly chosen or misinterpreted element of any of the presented “coordinates” can lead to misunderstanding and even conflict in dialogue. The cognitive dissonance, which, as a rule, is characteristic for the beginning of a conversation, can be leveled during the conversation (in which case the interaction is marked by a cooperative mode), or worsened (in this case the interaction turns into a conflict). The nature of the speech interaction is greatly influenced by the mode, attitudes and mood of the communicants, which, in turn, also determines the characterization and classification of speech interaction from cooperative to varying degrees of conflict. However, knowledge of all these factors refers to sociocultural and personal coordinates, which allows us to consider the above mentioned pragmalinguistic parameters as cognitive ones.

Basing on the concept of “cognitive dissonance” (introduced into psychology by Leon Festinger), Dem’jankov, (2013) explained the work of some mechanisms of language comprehension and showed the process of text perception and comprehension of the meanings embedded in it through “comprehension modules”. As one of the comprehension modules, the author identified knowledge of the language. Aligning this provision with N.N. Boldyrev’s ideas about the conformity of the conceptual systems of the communicants in the dialogue, we show the options for matching and mismatching various discursive “coordinates” resulting in comprehension or non-comprehension in the dialogue.

Linguistic-cognitive mechanisms used to interpret discourse in the context of mutual interaction are represented in the language by cognitive structures and operations, cognitive models of knowledge correlation at various levels (Babina, 2017; Boldyrev & Dubrovskaya, 2019; Chemodurova, 2019; Grigorieva, 2019; Kiose, 2018; Nikonova, 2019; Sharandin, 2017, 2019).

Comprehension in discourse is a two-way process, due to both cognitive abilities of both the interlocutor and the speaker. The condition and projection of the coupled discourse modeling is the similarity of the initial reference situation of the speaker’s discourse with some conceivable, supposed way of the reference situation of the interlocutor. Thus, the conceptual system of the initiator of the dialogue has knowledge of a specific subject, event, idea to be communicated, and also knowledge of the supposed conceptual system of the interlocutor, their personal qualities, sociocultural, ethnocultural, and linguistic features. In other words, the role of the interlocutor in comprehending the meaning of the discourse produced by the speaker is no less important than the role of the interlocutor in decoding the meaning of what is being expressed. For complete interpretation of the speaker’s language behavior, a

conceptual match of the language knowledge of the speaker and the interlocutor is necessary, i.e. one of the conditions for cooperativeness in dialogue is conceptual match at linguistic, thematic, sociocultural and other levels. Lack of comprehension can be caused by either the speaker, or the interlocutor.

In the individual cognitive systems of communicants, through shared knowledge and personal experience of cognizing the world, the semantics of lexemes acquires certain specificity. In the process of communication, various fragments of personal experience and, accordingly, different characteristics of objects that are not reflected by the semantics of this word in the language system can appear. For example, in H. Mann's novel "Der Untertan" the workers at the Gesling paper mill treated the buttons cut from rags as a thing to give to their boss. For the son of the owner, Diderich, they were an object that can be exchanged at the shopkeeper for a candy: "*Sein kleiner Sohn ließ sich oft von den Frauen welche verstecken, dafür, dass er sie nicht angab, die einige mitnahmen. Eines Tages hatte er so viele beisammen, dass ihm der Gedanke kam, sie beim Krämer gegen Bonbons umzutauschen*" (Mann, 1968, p. 6).

The individual nature of the meanings elicited in the process of communication (concept representation and interpretation was described in detail in (Boldyrev, 2018) may be the reason for their "misinterpretation" by the interlocutor. Success or failure in communication, mutual understanding and correct interpretation of the message conveyed largely depend on adequate "adjustment" of the conceptual systems of communicants relative to each other. As a rule, the cognitive background of the interlocutors should contain knowledge about the individual characteristics of the worldview and the cognitive activity of each other. Communication failure in dialogue may occur if communicants' worldviews do not overlap, or one of the communicants lacks knowledge about the subject of the message expressed by the speaker. In other words, there is no structural or substantial matching between the conceptual systems of the dialogue participants or an adequate assessment of the conceptual system of the interlocutor (Boldyrev, 2017; Boldyrev & Grigorieva, 2018, p. 16). This can be illustrated by the story of one of the guests of the veteran's house from Yu. Polyakov's novel "The Gypsum Trumpeter, or the End of the Film". One of the characters, Kokotov, fails to interpret the message, because he lacks knowledge about the subject of the message - a computer game or the language used to describe the scenario of this game - and has to turn to his colleague for an explanation of such words as Foki, Xena, flutter, etc.

The analysis of examples of colloquial discursive genres shows the importance of the degree of shared knowledge and linguistic experience for successful mental and verbal interaction. For example, "*Mach's wie ich, erwiderte Rosa, schaff dir ein Kind an. "Da hast du was zum Lieben und hast deine Ruhe dabei*" (Remarque, 2014, p. 83). Rosa's advice to a young man Robbie to have a child is based on personal experience and knowledge about the role of children in human life. Limited knowledge leads to incorrect, inadequate interpretation of the information received and, consequently, to communicative failures.

At the level of the interactive "coordinate", misinterpretation is possible due to the incorrect interpretation of the speaker's intentions. One of the examples of misinterpretation of the interlocutor's words and his everyday behavior is Chervyakov's response to General Brizzhalov's words in A.P. Chekhov's story of "Death of an Official". It seemed to Chervyakov that the General was angry for spraying him while sneezing, that his apology sounded insufficient, and he reduced the situation to

absurdity, thereby causing the General's anger: "Sorry, Your Illustrious Highness, I've sprayed you ... It was by accident ..." "No problem ..." "For God's sake, I'm sorry. I didn't mean to do it!" "Come on, sit down, please! Don't disturb me. I'm listening!" (Chekhov, 2019, p. 116-118). Chervyakov kept making attempts to apologize for several days and as a result the General got very angry and kicked him out. Thus, the misinterpretation of the words and behavior of the General led Chervyakov to death.

In this case, it is worth considering the phenomenon of transposition, i.e. the use of semantic and grammatical language means not in accordance with their main meaning. Provided the interpretation of the meaning of the utterance is not appropriate, the interlocutor may not understand the speaker's intentions. It can be illustrated by a non-standard usage of interrogative utterances, the interpretive potential of which is quite large. Using an interrogative utterance in the discursive genre of "request", the speaker does not expect the interlocutor to respond verbally, but expects them to take certain actions.

The incorrect interpretation of the additional meanings of linguistic units can be a source of incorrect interpretation of the speaker's intentions. The phrase "very smart" is not always a compliment; sometimes it may have a negative connotation, while the phrase "too smart" can even be interpreted as a threat. We consider an example from the speech of the popular stand-up comedian M. Zadornov. While traveling by train, he went into a restaurant car and sat at a table, which was full of dirty dishes. Turning to the waitress, he said: "Would you mind cleaning the table?" "No, I wouldn't," the waitress answered. In this example, mutual misunderstanding and, as a result, a comic situation is created due to the uncertainty of the meaning of the request, which, depending on the intention, can be perceived both as a question (as the waitress obviously took it) and as a polite request (with such an intention it was probably spoken by M. Zadornov).

The analysis revealed the following ways of facilitating speech communication:

- the cognitive mechanism of generalization, which allows the speaker to identify himself/herself with a group of people and, thus, influence the interlocutor's worldview, making him/her compare their opinions with those of not only the speaker, but the whole community of individuals;
- the cognitive mechanism of profiling the speaker's status, indicating his/her personal experience and knowledge in a certain field. In the argumentative discourse, appeal to sociocultural knowledge manifested by the opinions and quotes of outstanding personalities is widely used;
- the cognitive mechanisms of comparison with literary characters, mythical heroes, and the experience of third parties is used.
- the cognitive mechanism of perspectivization, which allows one to focus the interlocutor's attention on the concepts of less significance for the interlocutor;
- the cognitive mechanism of activation of the interlocutor's knowledge, the application of which is carried out using reminder tactics.

## 7. Conclusion

Thus, comprehension is based on the integrative nature of the discursive format, which consists in the interdependence of the different types of knowledge used by speakers: thematic, sociocultural, phatic, interactive, and linguistic. Disruption of interaction at some of these levels leads to cognitive mismatch and disagreement of communicants.

The meaning of the utterance is directly dependent on the intention of the speaker, which is a direct component and cognitive dominant of speech interaction. Important for cooperative speech interaction is the conceptual match of the intentions and goals of the communicants. The integrated nature of the speech interaction in a cooperative discourse is characterized by the conceptual match of the speaker' and the interlocutor's systems in a structural and meaningful ways, the correspondence of the principles and mechanisms of the formation and comprehension of language behaviour. Moreover, the role of the speaker in the perception of a speech message by the interlocutor is as important as that of the interlocutor. Apperception as an appeal to memory, past human experience, knowledge of a sociocultural, ethnocultural, and personal nature are important both in production of discourse and in its comprehension. Lack of understanding of the principles and mechanisms of the formation of meanings of utterances is one of the causes of miscommunication. If the speaker expresses the wrong anticipation of the interlocutor's conceptual system, it can lead to complete or partial misunderstanding in the dialogue.

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