Article

Text as a Cognitive Structure

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Abstract: The present work is devoted to the consideration of texts as cognitive systems in Uzbek linguistics and discusses their semantic and structural properties as well as cultural connotations. Over the past half a century, there has been substantial development in text linguistics, the coordination of cognitive, pragmatic, and cultural approaches in text analysis is still in its infancy. This paper fills this gap by analyzing texts as representing mental models and connotations, and as invoking specific semiotic connections and intertexts. The research applies the regime of representative analysis to study how texts function as replicas of reality integrating cognitive schemas, mental frames, and cultural signs. Analytically, the study employs methodological theories from cognitive linguistics and text pragmatics to discover the semantic coherence, presuppositions, and conceptual metaphors in texts. As the outcome of the analyses, texts are shown to be not less cohesive, containing both local and long-distance semantic bonds affected by anaphora, deixis, and ellipsis. In addition, texts contain cultural and philosophical semiotics, they interconnect intertextually and favour the creation of conceptual metaphors. The study focuses on cognitive activities that occur while constructing/interpreting the text through mental models to understand the text input. I believe that the findings of this research can be applied to cognitive linguistics, post-cultural studies, and language acquisition: while offering a way to look at texts as cognitive, plastic texts. This particular point of view improves the comprehension of how aspects of language can express rich meanings, and language and cognition are related.

Keywords: text, representative analysis, cohesion, implication, mental models and frames, intertextuality, conceptual metaphor

1. Introduction

The view of text as an independent linguistic structure began in the 1940s. By the 1960s and 1970s, studying texts and their structural elements became one of the central issues in linguistic research, forming the basis for the emergence of a special branch of linguistics—text linguistics.

In linguistics, two main directions of text analysis can be distinguished: immanent analysis and representative analysis. In immanent analysis, the text is evaluated as an autonomous reality with a broad philosophical load. It should be noted that the majority of existing works in linguistics related to text and its analysis are research in the immanent direction, with the main focus on studying the components of the text and its semantic structure. In this approach, the text is regarded as a whole, which has a complex structure and consists of a linear sequence of linguistic signs, or as a collection of sentences in oral or written form that are semantically and grammatically interconnected. Unity and coherence are considered the main features of the text, with coherence resulting from the specific order of sentences within the text, and unity being ensured by the semantic integrity of the text.

It is known that in the language structure, lower-level units serve as the "building material" for higher-level units and are in a hierarchical relationship with each other. However, it should also be emphasized that higher-level units are not simply composed of the mere combination of lower-level units. Rather, they are formed through their syntagmatic relationships and transform into independent units with entirely new qualitative characteristics. A text, as a linguistic unit, is a whole formed by the combination of structural elements, sentences arranged in a specific order, which unite around a certain meaning to create semantic integrity.

2. Materials and Methods

In some studies dedicated to text research, it is emphasized that the text is considered a model of reality [1.89]. This is because the text reflects a certain bounded portion of reality depending on space and time. Particularly, in "literary texts, the way events, characters, space, and time are represented depends on the individual perspectives and positions chosen by the observer. A person, as a writer, poet, artist, or sculptor, first fulfills the role of an observer and later becomes the author of a specific work. Due to various viewpoints, the work's author gains the opportunity to perceive an object or phenomenon as a whole. The initial stage of the creative process involves searching for the optimal variant, observation, and ways to reflect a part of the world. Whatever position the observer chooses, their perceptions of the work will reflect that position" [1.89].

Indeed, according to representative analysis, the text is a specific form of representation of reality and the perception of the world. From this perspective, any representation of reality—any manifestation of the world around us as formed in human thought—is considered a text. Accordingly, any creative product that we can read, see, hear, feel, learn from, or understand, such as images, diagrams, drawings, and musical compositions, is also evaluated as a text. According to this approach, a text is not merely a linguistic sign, but rather a cultural sign that carries a specific cultural meaning and provides information about that culture, its past, and its present. For example, in the process of analyzing a text based on synergetic principles, K.I. Belousov agrees with M.A. Dimarsky's views: "a text in itself, as a whole, cannot be a sign in any sense—not in a linguistic or speech sense. A text is a special, expanded verbal form of the realization of speech activity" [2.36]. Adding to this, Belousov acknowledges that texts functioning as signs exist in different cultures. He states that the limited quantity of such texts serves as the basis for distinguishing them, adding: "This indicates that these texts are not linguistic signs, but cultural signs, and the very sign of limitation allows these texts to occupy a place in a different semiotic system" [3.12].

It should be noted that, regardless of the form of art through which elements of reality are expressed, the full transmission of certain emotions about reality is achieved through words. People exchange thoughts through words. Therefore, the exceptional writer and literary scholar P. Qodirov writes as follows to show the superiority of literary works over other forms of art: "The difference between a literary work and music, painting, and other fields of creativity lies in its creation through words, rather than through sounds, lines, and colors. Therefore, artistic language is one of the most fundamental indicators that defines the specific nature of any artistic work" [4.312]. Thus, in the context of linguistic structures, the text occupies a special place as the perfect tool for conveying information.

It is evident that, from a purely linguistic perspective, a text is merely the arrangement of structures that possess both semantic and formal autonomy. However, when it carries specific cultural, philosophical, pragmatic, or cognitive load, it moves beyond the linguistic field and becomes the object of fields such as cognitive science, pragmatics, and cultural studies. Representative analysis, however, allows for evaluating

the text in terms of the integration of all these fields. For this reason, Yu. M. Lotman emphasizes: "The text has a single textual meaning, and in this sense, it can be evaluated as a signal that cannot be divided into parts. 'Being a novel,' 'being a document,' 'being a prayer'—this means that the text performs a specific cultural function and expresses a certain unified meaning" [5.62].

3. Results

Therefore, the text is not just a sequence of sentences with semantic integrity but also a result of complex mental processes related to perception, understanding, and meaning creation. This shows that the text can be evaluated as a complex cognitive structure. In this approach to the text, it is understood as a multilayered construct that reflects the cognitive models and structures existing in the mind of both the author and the reader.

The approach to the text as a cognitive structure requires particular attention to the following aspects:

1. Semantic Relations and Coherence: In this case, the analysis focuses on the semantic and logical relationships between the parts of the text. This requires the use of elements such as anaphora, cataphora, and logical connections that serve to link sentences and paragraphs within the text. Semantic relations are the logical and content-based connections between different parts of the text, ensuring its integrity and making it understandable for the reader. These relations can be expressed either explicitly or implicitly. The following can be included in semantic relations:

o Logical relations: This refers to the cause-and-effect relationship that defines the connection between events; comparisons and contrasts that highlight similarities and differences between facts or opinions; generalization and specification, i.e., moving from general ideas to specific examples or vice versa.

o Topical relations: The repetition of key words (the repetition of main concepts and terms to ensure the integrity of the topic); the use of synonyms and antitheses to add variety to speech and clarify meaning.

o Referential relations (anaphora, cataphora): "Text reference ensures the continuity and consistency of the narrative, demonstrating anaphoric and cataphoric relations between its parts, as well as their retrospective and prospective connections. In the process of presenting information related to the topic of the text, reference must be made to information that has previously been stated or is expected to be disclosed." Text reference facilitates the summarization and reorganization of information, allowing for retrospective analysis and creating the conditions for analyzing and understanding new information in advance" [6.50].

Coherence – (from Latin cohaesus meaning "connected," "joined") is one of the key features that characterizes text/discourse and is one of the fundamental conditions of textuality. It refers to the lexical and grammatical organization of the text. Such organization ensures the text's integrity and serves to convey a unified meaning. Coherence is divided into lexical and grammatical coherence based on the nature of its organization.

Lexical coherence can be explained by the following:

• Repetition: The repeated use of a specific word or phrase to maintain semantic integrity.

• Synonymy: The use of synonyms to avoid monotony and achieve thematic generality.

• Antonymy: The use of opposites to achieve clarity and contrast.

Grammatical coherence is manifested in the following ways:

• Conjunctions: These link sentences within the text and show the semantic relationships between them.

• Deictic elements (pronouns, adverbs, modal words): These are used to connect parts of the text and ensure the sequence of ideas. Such deictic elements are collectively referred to as deixis in scientific literature and are recognized as a unique phenomenon that clearly reflects the connection between the linguistic system and context.

• Ellipsis: This phenomenon, used for information compression and concise expression in language, involves the omission of certain elements that do not affect the content of the text or whose formal expression is not mandatory. This is essential for presenting ideas in a concise and precise manner.

• Semantic Relation and Coherence are mutually complementary phenomena that together ensure the text's connectivity. In this case, semantic relations ensure the logical and conceptual connections between the elements of the text, while coherence controls the realization of these relationships within the language structure. Together, they ensure the text's logical consistency and coherence, providing the reader with the ability to track the author's thoughts and facilitate understanding.

2. Presupposition and Implication. In the semantic structure of a text, hidden meanings or conclusions are often present. To comprehend these, the reader (or listener) needs specific knowledge and mental effort. These unspoken expressions, which serve to provide additional information to the reader, play an important role in the text's semantic structure and are often referred to in academic discourse as "implicit expressions" or "hidden grammatical categories"[9.42.45]. As emphasized by Professor M. Hakimov, "The hidden expression of meaning, the subtext of a sentence, is closely connected to the cognitive activity of the participants in communication and their perceptions of the world. The broader the speaker's perception of the external world, the quicker they will understand the communicative situation. Therefore, the expression of information in the semantic structure of a text, whether overtly or covertly, and the provision of information that cannot be explicitly stated but conveyed in a subtext, is connected to the speaker's internal goals"[10.93].

• Researcher M. Gaziyeva, emphasizing that the content of any text is built on propositional and presuppositional thoughts, notes that this requires implicit knowledge from communication participants when understanding the text's meaning. She adds that hidden expressions may include phenomena such as "implication (the hidden, implicit expression of thought), presupposition (the indication of presupposed knowledge through a linguistic means), subtext (indication of thoughts belonging to certain participants of communication), inference (the formation of new thoughts in the listener based on the information in the text, as a major cognitive process of human thinking), and allusion"[11.143].

3. Mental Models and Frames. Based on the information expressed through the text, the reader (listener) forms mental models. These models are related to linguistic invariants. It is well known that the invariant structures of language allow for the identification of its environment. From this perspective, at the level of the text, invariance ensures the continuity and ongoing processes of text creation and comprehension, linking cognitive and linguistic activities based on the mechanisms of encoding and decoding. In the process of cognition, the differentiation of specific and general features of reality, as well as the formation of invariants and models based on general features, is rooted in the mental operations that constitute a set of cognitive structures[12.65]. As noted by Sh. Safarov, cognitive structures essentially serve as symbolic schemes for perceiving reality and linguistically representing the information arising from this perception. Therefore, it is important to distinguish cognitive structures such as frames, scripts, scenarios, and propositions, which allow for a clearer understanding of the role of the language system in linguistic thinking activities[13,35-53].

• D. Khudoyberganova, who studied the anthropocentric approach to text analysis, also highlights linguistic gestalt as one of the mental structures that ensures the linguistic manifestation of the concept. This is because linguistic gestalt is important not only in the creation of the text but also in revealing the cognitive states specific to its understanding and perceptual aspects. According to the scholar, "Perceiving a specific object (including the text itself) as a whole structure means understanding and imagining it as the unity of the relationships among its parts, rather than as a simple sum of its parts. This leads to a deeper understanding of the internal structure and essence of a real-world object."[14.51]. The mental units such as frames, scripts, scenarios, images, schemas, and symbols that form the gestalt structure in human consciousness demonstrate the process from part to whole in the text's semantic perception. These mental units, when combined, create the macro-proposition of the text, allowing for its interpretation by comparing it with existing knowledge in light of new insights.

4. Intertextuality. In many cases, the text may contain references to another text or cultural contexts. These references require the reader to recognize and understand them, which is considered a specific cognitive process. The term "intertextuality" was introduced into the field by French philologist Julia Kristeva, as noted in the "Dictionary of Literary Studies" created under the leadership of literary scholar D. Quronov. According to Kristeva, every text is a collection of quotations that transforms and absorbs previously existing texts. Analyzing the perspectives on intertextuality, the scholar emphasizes that "it is natural for a literary work to show traces of other texts when it is in a dialogic relationship with past and contemporary literature" 【15.119】. For example,

Thus, intertextuality not only requires the reader to have knowledge of the literary work and its characters but also demands the organization and conceptualization of knowledge about the culture, traditions, and values of the people..

5. Conceptual Metaphors. The text may contain cognitive metaphors that reflect deep cognitive structures and convey complex ideas through simple and easily understandable images. Metaphors as a cognitive schema highlight their importance not only as an artistic device in language and literature but also as a means of constructing and organizing human thought and knowledge. This concept was extensively discussed by George Lakoff and Mark Johnson in their famous work Metaphors We Live By (1980) 【16.387-415】. Professor D. Khudoyberganova, based on the theories of cognitive (conceptual) metaphors, defines "cognitive metaphor as a phenomenon specific to individual cognitive activity, where a second concept or judgment is categorized based on the knowledge structures of the first concept or judgment" 【17.49】, and supports this with an example from P. Qodirov's Humoyun and Akbar novel: "When Matvey Semonovich carefully took the large, bright red ruby, he sensed that its value was very high, where the use of the word 'high' in a metaphorical sense is based on the cognitive metaphor in the structure of PRICE IS VERTICAL LENGTH, which existed in the thesaurus of the text constructor in the situational context" 【18.49]

4. Discussion

The role of metaphors as cognitive schemas is reflected in the following aspects:
• Understanding abstract concepts. In this case, metaphors help people understand abstract concepts through clear and visible structures. For example, the metaphor "Time is money" allows us to understand time as a material resource. This metaphor portrays time as a valuable resource, motivating people to use their time effectively and to avoid "wasting" it. For instance, "He wasted his time," "He saves his time." Such metaphorical usage can be understood through the concepts of "spending," "saving," or "wasting" time.
• Perception of the world. As cognitive schemas, metaphors define how humans perceive the world around them. For example, the metaphor "Life is a journey" portrays

human life as a road or a journey, which in turn helps us better understand various life events and their meanings.

• Ensuring systematicity in language. As a cognitive schema, metaphors ensure systematicity in language. For example, the metaphor "A problem is a mountain" presents the problem as something difficult and complex to overcome. Therefore, we explain a problem using concepts like "overcoming," "getting past the obstacle," and so on.

The importance of metaphors as cognitive schemas lies in their ability to facilitate the understanding of complex and abstract concepts. Through them, people can perceive difficult concepts through simple and clear structures; the cognitive schemas formed through metaphors shape an individual's worldview. With their help, people define how they perceive the world and how they relate to it; they also bring about differences in perception and concepts across different cultures.

Therefore, understanding the importance of metaphors as cognitive schemas helps us gain a deeper understanding of human thought and language. Metaphors are not just an artistic tool in language, but also serve as a means of shaping thought. They are a powerful cognitive tool for understanding, perceiving, and organizing the world.

It seems that approaching the text as a cognitive structure helps to better understand the problems related to the reception and interpretation of information, the impact of knowledge and experience on understanding the content of the text, and the cognitive processes involved in creating and interpreting the text.

5. Conclusion

The ideas presented indicate that forming a "simple representation of the world" in the linguistic memory of certain speakers and expressing it through the medium of text plays a significant role in subjective observation. This is because the elements of the world are subjectively evaluated from the positions of "near" and "far." These positions often ensure the different perception of objects. Due to the observer's subjective position in time and space, the world's landscape in the human mind is somewhat simplified. This subjectivity contributes to the formation of a simplified representation of the world, allowing it to be seen as a unified whole. Moreover, the boundaries of the structures that have been traditionally evaluated as "texts" indicate, from a linguistic-cognitive, linguistic-pragmatic, linguistic-cultural, and overall representative perspective, that they are broader than we might have previously thought. This shows researchers that they need to evaluate texts from a new perspective.

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