



"INNOVATIVE ACHIEVEMENTS IN SCIENCE 2025"

THE RELATIONSHIP BETWEEN LANGUAGE AND COGNITION

Yodgorova Diyora Jo'rabek qizi

Alfraganus University, Faculty of Philology (Arabic and English Languages)

Abstract: *This scientific article provides a comprehensive analysis of the interrelation between language and cognition from linguistic, psychological, and cultural perspectives. The main objective of the study is to determine the role of language in shaping human cognition, the mechanisms through which cognition is expressed via language, and how these processes are manifested in cultural contexts. The article examines theoretical foundations such as the Sapir-Whorf hypothesis, Chomsky's theory, and Vygotsky's model, alongside the views of Uzbek thinkers including Alisher Navoi, Abdulla Avloniy, Cho'lpon, as well as modern Uzbek scholars. The analytical section discusses linguistic relativism, cognitive linguistics, and psycholinguistics to explore the formation of cognitive structures, decision-making processes, and cultural differences across languages. The findings reveal the complex, bidirectional relationship between language and cognition, offering theoretical and practical foundations for further research in Uzbek linguistics.*

Keywords: *Cognitive linguistics, Linguistic relativism, Universal grammar, Psycholinguistics, Cultural cognition, Language model, Cognitive structures, Worldview through language, Alisher Navoi, Abdulla Avloniy, Cho'lpon, Uzbek linguistics, Language and consciousness, Language and thinking.*

INTRODUCTION

The relationship between language and cognition is one of the most complex and multifaceted issues at the intersection of linguistics, psychology, philosophy, and cultural studies. Analyzing this relationship is essential not only for understanding the mechanisms of human thought formation but also for identifying the cognitive functions of language. Plato described language as the shadow of thought, while Aristotle regarded it as a tool of logical reasoning. These ancient philosophical views laid the foundation for modern linguistic and psychological studies. In the 20th century, Lev Vygotsky emphasized the central role of language in the development of human cognition, explaining the interaction between language and thought through his sociopsychological model (Source 1). According to him, language is a tool for transforming social experience into inner consciousness, and cognition is shaped through language. Benjamin Lee Whorf, however, proposed the theory of linguistic relativism, arguing that every language shapes a unique worldview (Source 2). In his view, language not only expresses thought but also defines it, as linguistic structures directly influence cognitive structures. In contrast, Noam Chomsky rejected this perspective and introduced the theory of universal grammar, claiming that human cognition exists independently of language and that language has an innate biological foundation (Source 3).

Uzbek thinkers also contributed significantly to this discourse. Alisher Navoi, in his *Muhokamat-ul-lug'atayn*, described language as the essence of thought, emphasizing that the richness and precision of language reflect the depth of cognition (Source 4). Similarly,



"INNOVATIVE ACHIEVEMENTS IN SCIENCE 2025"

Abdulla Avloniy, in *Milliy tarbiya*, interpreted language as a mirror of national thought and spirituality, asserting that it embodies the intellectual and cultural values of a nation (Source 5). Contemporary Uzbek linguist Rahmatjon qizi Jo'rayeva, from the perspective of cognitive linguistics, argues that language not only expresses thought but also shapes it (Source 6).

Based on these theoretical perspectives, this article analyzes the relationship between language and cognition, with special attention to its reflection in Uzbek literature and scholarship, as well as the expression of cultural cognition through language.

Theoretical Approaches

1. The Sapir-Whorf Hypothesis

Also known as the theory of linguistic relativism, this hypothesis, developed by Edward Sapir and Benjamin Lee Whorf, asserts that language determines how humans perceive reality. Each language possesses unique semantic and grammatical structures, which shape corresponding patterns of thought (Source 2). For instance, the multiple words for "snow" in Eskimo languages demonstrate how linguistic categories reflect cognitive and perceptual distinctions.

2. Chomsky's Theory

Noam Chomsky proposed a radically different perspective. His theory of universal grammar claims that language has a biologically determined deep structure, independent of cognition (Source 3). According to Chomsky, humans possess an innate linguistic capacity, making language a cognitive but biologically rooted system rather than a determinant of thought.

3. Vygotsky's Model

Lev Vygotsky explained the relationship between language and cognition through a sociopsychological framework. He argued that language initially serves as an external communication tool, later transforming into inner speech, which shapes thought (Source 1). Thus, language and cognition interact dynamically throughout human development.

4. The Views of Uzbek Thinkers

In Uzbek scholarship, the link between language and thought has been deeply explored. Alisher Navoi regarded language as the essence of thought, stressing that its richness and accuracy reflect intellectual depth (Source 4). Abdulla Avloniy emphasized language as a mirror of national consciousness and culture, highlighting its role as a tool of moral education (Source 5).

5. Contemporary Uzbek Linguistics

Modern Uzbek researchers, such as R.Q. Jo'rayeva, analyze language and cognition from a cognitive linguistic perspective. She maintains that language actively shapes cognitive processes and reflects national modes of thinking through semantic structures (Source 6).

Analytical Perspectives

1. Cultural Differences and Language Structures

Linguistic relativism highlights how language shapes cultural cognition. For example, the abundance of words for "snow" in Eskimo languages reflects their perception of the



"INNOVATIVE ACHIEVEMENTS IN SCIENCE 2025"

natural environment. Boroditsky's (2001) research demonstrated how grammatical gender influences cognition in German and Spanish: the word "bridge" is feminine in German and masculine in Spanish, leading to different metaphorical associations (Source 7).

2. Cognitive Experiments and Decision-Making

Cognitive linguistics explores the impact of language on decision-making. Experimental studies revealed that participants' choices varied depending on linguistic framing. For instance, the English expression "he broke the vase" highlights agency, while in Japanese the same event is expressed passively as "the vase broke," influencing perceptions of responsibility (Source 7).

3. Psycholinguistic Experiments

Vygotsky and later psycholinguists studied language and thought experimentally. Vygotsky observed that children first acquire language as an external communication tool, which later evolves into inner speech, shaping cognitive development (Source 1).

4. Language and Thought in Uzbek Literature

Uzbek literature reflects the deep connection between language and thought. Cho'lpon, in *Adabiyot nadir?*, defined language as the expression of free thought, asserting that intellectual freedom depends on linguistic freedom (Source 8). Ismat Xushev, meanwhile, emphasized the role of language as a mirror of national consciousness and political awareness, analyzing its function in shaping social and political thought (Source 9).

Conclusio

The relationship between language and cognition is complex, multifaceted, and bidirectional. This study demonstrated that:

- The Sapir-Whorf hypothesis highlights the direct influence of language on thought (Source 2).
- Chomsky's theory emphasizes the biological independence of language from cognition (Source 3).
- Vygotsky's model explains the dynamic interaction between language and thought (Source 1).

Uzbek thinkers such as Navoi, Avloniy, and Cho'lpon regarded language as a reflection of intellectual, cultural, and national consciousness. Modern Uzbek linguistics further explores cognitive and semantic dimensions of language. Therefore, the relationship between language and cognition should not be seen as one-sided but as a context-dependent, culturally enriched interaction, requiring integration across linguistics, psychology, and cultural studies.

Recommendations

1. Expanding cross-cultural research — Comparative studies of thought patterns in different languages can provide empirical support for linguistic relativism (Source 2).
2. Integrating cognitive linguistics and neuropsychology — Analyzing the link between language and cognition through brain activity and experimental methods is essential (Source 1).



"INNOVATIVE ACHIEVEMENTS IN SCIENCE 2025"

3. Developing Uzbek linguistic research on cognition — Investigating the semantic and syntactic structures of the Uzbek language to uncover national cognitive patterns, applying modern methods to the works of Navoi and Avloniy (Sources 4–5).

4. Methodological innovations in Uzbek language teaching — Designing CEFR-based approaches to evaluate the impact of language learning on cognition, especially in comparison with Arabic and English (Source 6).

REFERENCES:

1. Vygotsky, L.S. *Thought and Language*. Cambridge: MIT Press, 1986.
2. Whorf, B.L. *Language, Thought, and Reality: Selected Writings*. Cambridge: MIT Press, 1956.
3. Chomsky, N. *Aspects of the Theory of Syntax*. Cambridge: MIT Press, 1965.
4. Navoi, A. *Muhokamat-ul-lug‘atayn*. Tashkent: Fan, 1991.
5. Avloniy, A. *Milliy tarbiya*. Tashkent: Ma‘naviyat, 1999.
6. Jo‘rayeva, R.Q. “Til va tafakkur munosabatlarining ahamiyati.” *O‘zbek tilshunosligi jurnali*, 2022, no. 2, pp. 45–52.
7. Boroditsky, L. “Does Language Shape Thought?” *Cognitive Science*, vol. 25, no. 6, 2001, pp. 679–710.
8. Cho‘lpon, A. *Adabiyot nadir?* Tashkent: G‘afur G‘ulom Publishing House, 1990.
9. Xushev, I. “Til va tafakkur haqida mulohazalar.” *Ma‘rifat newspaper*, March 12, 2018.