

## THE RELATIONSHIP OF COGNITIVE LINGUISTICS WITH OTHER DISCIPLINES: COGNITIVE PSYCHOLOGY

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### **Annotation**

This article explores the intricate relationship between cognitive linguistics and cognitive psychology, emphasizing their interdisciplinary synergy in understanding the nexus of language, thought, and cognitive processes. Cognitive linguistics, as a field within cognitive sciences, examines how language reflects and shapes human perception, comprehension, and production, while cognitive psychology delves into the mechanisms of memory, attention, and problem-solving that underpin these processes. The study highlights key areas of convergence, including the influence of language on thought (e.g., through the Sapir-Whorf hypothesis), the role of metaphors in conceptual thinking, and the psychological mechanisms of language comprehension and processing. It also underscores the practical applications of this interdisciplinary approach in education, language learning, treatment of speech disorders, and the development of artificial intelligence (AI) and natural language processing (NLP) systems. By integrating theoretical insights with real-world implications, the article demonstrates how the collaboration between cognitive linguistics and cognitive psychology deepens our understanding of human cognition and language, paving the way for advancements in technology, pedagogy, and medical interventions. Future research is expected to further expand these opportunities through enhanced integration with fields like cognitive neuroscience.

### **Keywords**

Cognitive linguistics, cognitive psychology, language and thought, Sapir-Whorf hypothesis, conceptual metaphors, language comprehension, psycholinguistics, neurolinguistics, artificial intelligence, natural language processing, language learning, speech disorders, education, cognitive processes, interdisciplinary research.

### **Introduction**

In the 21st century, the study of human thinking, understanding its cognitive processes, and investigating its relationship with language requires an interdisciplinary approach. In this process, cognitive linguistics and cognitive psychology attract attention as two main areas that are inextricably linked. Cognitive linguistics is aimed at understanding and explaining human speech activity, while cognitive psychology studies human consciousness and cognitive processes from a psychological perspective.

The relevance of this topic is explained by the following aspects:

- Identifying the interaction between language and thinking – language is not only a means of communication, but also an expression of human thinking, which serves as a system for storing and processing knowledge.
- The importance of interdisciplinary research – in modern sciences, the boundary between psychology and linguistics is increasingly disappearing, and language phenomena are studied not only linguistically, but also psychologically and neurobiologically.
- The development of artificial intelligence and cognitive technologies – advanced technologies for understanding and processing human language, such as natural language processing (NLP), the creation of language models based on neural networks, are increasing the importance of psycholinguistic research.

### **The role of cognitive linguistics and cognitive psychology in the system of modern sciences**

Cognitive linguistics is a direction that emerged within the cognitive sciences and studies the processes of perception, understanding and production of human language based on theories of knowledge. It is closely related to the following areas:

- **Psycholinguistics** – studies the mechanisms of speech formation, understanding and processing.
- **Neurolinguistics** – studies the relationship between the human brain and language, speech disorders and methods of their treatment.
- **Artificial intelligence and NLP** – deals with the creation of language models and automatic translation systems using knowledge from cognitive linguistics.

Cognitive psychology studies human cognitive processes, including memory, attention, learning, and problem-solving. Its main goal is to understand how the human mind works and to develop various psychological models on this basis.

Today, cognitive linguistics and cognitive psychology are inextricably linked, and their convergence is observed in the following main areas:

1. The relationship between language and thinking - how a person understands, stores, and processes information.
2. Metaphors and conceptual thinking - the relationship between cognitive psychology and linguistics through the analysis of metaphor theories.
3. Language comprehension and processing processes - the study of how the mechanisms of language reception, storage, and retrieval occur psychologically.

### **The importance of research conducted within these two disciplines**

Research conducted in the fields of cognitive linguistics and cognitive psychology is important in the following aspects:

- Understanding the processes of language learning - how people learn new languages, how cognitive processes in the brain occur in this process, which strategies are effective.
- Researching speech disorders - neuropsychological research has made a significant contribution to the study of diseases such as aphasia and dyslexia and the development of methods for their elimination.
- Creating artificial intelligence systems - by understanding the human ability to work with language, natural language processing algorithms are developed for machines.

Therefore, studying the relationship between cognitive linguistics and cognitive psychology is one of the important directions of scientific development, helping to understand human thinking more deeply.

### **The relationship between cognitive linguistics and cognitive psychology**

Cognitive linguistics and cognitive psychology have many common research areas, mainly dealing with the study of language-related aspects of human thinking. These two disciplines are important in shedding light on such issues as how language is perceived, the formation of language concepts, and how information is processed in the human mind.

#### **1. The relationship between language and thinking**

Language is the main means of expression of human thinking and plays an important role in its formation and development. Therefore, cognitive linguistics and cognitive psychology study the relationship between language and thinking based on the following aspects:

- The influence of language on cognitive processes - how people perceive the environment can be related to their language system. For example, according to the Sapir-Whorf hypothesis, language affects the way people think.
- The relationship between language and memory - how people remember words and concepts and how they retrieve them.

- Language and attention mechanisms – what centers of attention are active when a person learns a language or performs speech activity.

## **2. Metaphors and conceptual thinking**

One of the most important research areas in cognitive psychology and linguistics is the issue of metaphors and conceptual thinking. The theory of conceptual metaphor, developed by proponents of cognitive linguistics, in particular George Lakoff and Mark Johnson, emphasizes that metaphors are the basis of human thinking.

For example, the following expressions are formed through the conceptual metaphor “Time is money”:

- I wasted my time.
- He gave me a lot of time.
- He ran out of time.

From the point of view of cognitive psychology, metaphors help shape human cognitive processes and serve as a key tool in understanding new knowledge.

## **3. Language comprehension and processing processes**

Cognitive linguistics and psychology analyze how the human brain processes language, understands it, and remembers it. There are the following research areas in this regard:

- Psycholinguistics – studies the processes of word perception, sentence processing, and speech production.
- Neurolinguistics – analyzes the relationship between language and the brain and identifies the neurobiological foundations of speech activity using modern methods such as fMRI and EEG.
- Experimental psychology – seeks answers to questions such as how a person understands meanings and how he understands the connections between words.

### **Practical applications of cognitive linguistics and cognitive psychology**

In addition to scientific research, cognitive linguistics and cognitive psychology are also widely used in various practical areas. These disciplines are interconnected and have an impact on the following areas in real life:

#### **1. Education and language learning**

The combination of cognitive psychology and linguistics helps to improve teaching methodologies and the process of learning a second language:

- How memory strategies (coding and memorization methods) work in language learning.
- How learning occurs in one's native language and in a second language.
- Language teaching methods – developing effective teaching methods using visual, auditory and tactile methods.

## 2. Treatment of speech disorders

Based on cognitive psychology and neurolinguistics, areas of treatment for speech disorders in humans are developing:

- Aphasia – difficulty understanding or pronouncing words as a result of brain damage.
- Dyslexia – a disorder of reading and writing skills.
- Autism spectrum disorders - working with people who have language and communication problems.

## 3. Artificial Intelligence and Natural Language Processing (NLP)

Research results from cognitive linguistics and psychology are being applied in the field of artificial intelligence.

- Machine translation – automatic translation systems are being developed based on how the human brain understands words.
- Voice assistants (Siri, Alexa, Google Assistant) – creating mechanisms for understanding and responding to human speech.
- Chatbots and communication systems – artificial intelligence systems that can communicate in natural language are being developed.

## Conclusion

It follows that cognitive linguistics and cognitive psychology are disciplines that deeply study the interrelationship of human thinking and speech activity, and their integration is of great importance in the fields of education, medicine and technology. The development of these disciplines allows for a deeper understanding of human speech processes and their effective use.

Also, the practical application of cognitive linguistics and psychology is leading to significant results in the fields of artificial intelligence, neurology and pedagogy. In the future, joint research of these disciplines is expected to create new opportunities for a deeper study of human thinking and its development.

## Cognitive linguistics and its main concepts

Cognitive linguistics is a science that studies the language-related aspects of human thinking, analyzing how the human brain processes language systems and speech activity. Unlike traditional linguistics, this direction studies language not only grammatically and syntactically, but also as a cognitive model that is directly related to human cognitive processes.

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