==

COGNITIVE-LINGUISTIC FOUNDATIONS OF AGRAMMATISM: A PSYCHOLINGUISTIC APPROACH

Nazarova Sabrina Zafarjon qizi
4th-year student, Uzbek Language Department
Faculty of Philology, Namangan State University
Email: nazarovasabrina046@gmail.com

MAQOLA MALUMOTI	ANNOTATSIYA:
MAQOLA TARIXI: *Received:07.10.2025* *Revised: 08.10.2025* *Accepted:09.10.2025* **KALIT SO'ZLAR:** *agrammatism, psycholinguistic model, cognitive linguistics, Broca's aphasia, Levelt model, Garrett model, connectionist approach.*	*This article examines the cognitive-linguistic foundations of agrammatism within the framework of psycholinguistic models. Agrammatism is closely linked to Broca's aphasia and is characterized by disruptions in syntactic and morphological processes. The article discusses interpretations of agrammatism based on the classical psycholinguistic model, the Levelt model, the Garrett model, and connectionist approaches. Furthermore, it highlights that from a cognitive linguistics perspective, agrammatism can also be explained by limitations at the semantic and conceptual levels during speech production.*

Speech is the primary communicative activity of humans, relying on complex psycholinguistic and neurolinguistic processes for its normal functioning. Agrammatism is a speech disorder characterized by the disruption of grammatical structures, frequently manifesting in Broca's aphasia. In this condition, patients either omit or misuse affixes and auxiliary words, disrupt word order, and are compelled to use syntactically simplified sentences.

Psycholinguistics serves as a fundamental tool for explaining agrammatism. Various models help identify at which stage of speech production the disruption occurs, as

==

===

agrammatism is not merely a "grammar error" but is related to the processes by which the human brain produces speech.

Speech production is generally explained through three main stages:

- Conceptual (semantic) stage – forming the intended thought;
- Grammatical stage – selecting words and constructing syntactic and morphological structures;
- Phonological stage – developing the sound form and articulation.

It is precisely impairments in the second stage (grammatical) that cause agrammatism.

The following major psycholinguistic models will be examined:

1. **The Classical Psycholinguistic Model**.

The classical model interprets language production as a step-by-step process consisting of meaning, syntax, morphology, and phonology. Agrammatism arises as a result of impairments in the syntactic and morphological stages of this process.

Key characteristics include:

- Difficulties in word selection;
- Disruptions in forming syntactic structures;
- Incorrect use or omission of morphological affixes (tense, person, possession).

Sentences tend to be simple and telegraphic in form. For example:

Normal: *I went to school.*

Agrammatic: *I... school... go.*

2. **Levelt's Model**. W. Levelt (1989) explains speech production as a three-stage process:

a) **Conceptual stage** – the overall meaning of the utterance is formed. The speaker determines "what to talk about." For example, the main idea behind the sentence "I went to the park with my friends" is the action of going somewhere.

b) **Grammatical stage** – the syntactic and morphological structure of the sentence is constructed. In the example sentence, word order, case marking, possession, plurality, and tense forms are determined.

c) **Phonological stage** – planning the sound form of the utterance takes place.

From the perspective of agrammatism, impairments in the grammatical stage prevent patients from constructing complete sentences. Words are selected but placed incorrectly according to grammar. For example:

Normal: *The teacher gave the book.*

===

==

Agrammatic: *Teacher… give… book.*

Levelt's model interprets agrammatism as a disorder of structural processing.

3. **Garrett's Model**. This model further divides speech production into more detailed stages and expands upon Levelt's model. In this approach, the process of sentence formation consists of more than just three stages:

• **Functional stage** – key words (nouns, verbs) are selected and linked to their semantic roles.

• **Positional stage** – the selected words are organized within a syntactic structure.

• **Morphological stage** – grammatical affixes (tense, person, possession, case) are added.

• **Phonological stage** – the sound form of the utterance is developed.

Signs observed in agrammatism include:

• Incorrect placement of words;

• Omission or distortion of affixes;

• Incomplete formation of sentence structure.

4. **Connectionist Approaches**.

Language production occurs through neural networks in the brain and is based not on explicit grammatical rules but on statistical relationships.

In agrammatism, the following phenomena are observed:

• Weakening of neural network connections, resulting in impaired word selection and syntactic structures;

• Difficulty in forming complex syntactic structures;

• Use of simple, short sentences.

Example:

Normal: *We met in front of the store this morning.*

Agrammatic: *Today… store… meet.*

Cognitive linguistics explains agrammatism not only as a weakness but also as semantic and conceptual limitations. In the patient's speech, meaning is formed, but the ability to encode it into grammatical form is restricted. Therefore, the cognitive approach views agrammatism as a breakdown of mental processes in the mind.

In conclusion, explaining agrammatism through psycholinguistic models allows for a deeper theoretical understanding of its foundations. Each model offers a unique perspective on agrammatism: the classical model emphasizes general deficits in grammatical

==

==

processing, the Levelt model highlights impairments in the grammatical stage, and the Garrett model stresses disruptions across sequential stages. The connectionist approach, on the other hand, explains grammatical deficits based on the weakening of neural networks. Each of these models holds practical significance for in-depth study of agrammatism and for developing effective rehabilitation methods.

References:

1. Mary-Louise Kean. *Agrammatism*. New York – Academic Press: 1985.
2. Levelt W.J. *Speaking: From Intention to Articulation*. USA – MIT Press: 1989, 566 p.
3. Eric R. Kandel, James H. Schwartz, Thomas M. Jessell, Steven A. Siegelbaum, A. J. Hudspeth. *Principles of Neural Science*. USA – McGraw-Hill Education: 2013.
4. Garrett M.F. *Levels of Processing in Sentence Production*. USA – Academic Press: 1980.
5. Dell G.S. *Stages of Lexical Access in Language Production*. USA – Psychological Review: 1992.
6. Mark F. Bear, Barry W. Connors, Michael A. Paradiso. *Neuroscience: Exploring the Brain*. USA – Jones & Bartlett Learning: 2020, 975 p.
7. Michael S. Gazzaniga. *The Cognitive Neurosciences*. USA – MIT Press: 2018.
8. David Ludden. *Foundations of Psycholinguistics*. USA – Oxford University Press, 2015, 500 p.
9. Lise Menn. *Psycholinguistics: Introduction and Applications*. USA – Plural Publishing: 2017, 400 p.
10. David W. Carroll. *The Psychology of Language*. USA – Cengage Learning: 2013, 512 p.
11. Lise Menn, Loraine K. Obler. *Agrammatic Aphasia: A Cross-Language Narrative Sourcebook*. Netherlands – John Benjamins Publishing: 1990, 620 p.
12. Yosef Grodzinsky. *Agrammatism*. Germany – Springer: 1990, 288 p.
13. Leonard L. LaPointe. *Aphasia and Related Neurogenic Language Disorders*. USA – Thieme: 2012, 312 p.