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NEUROLINGUISTIC STUDY OF VERBAL COMMUNICATION

Alpanova Shirin
Associate (PhD) Andijan State University, Department of Uzbek Linguistics

ABSTRACT	***KEYWORDS***
The article aims to introduce the basic rules and functions of neurolinguistics, the history of this field, specific neurolinguistic research, methodology and scientific paradigms, language and communication, thinking, neurophysiological processes.	Neurolinguistics, neurology, psychology, neuropsychology, speech agnosia, apraxia, dysarthria,alexia, agraphy, psychotherapy, speech activity, cognitology, communication,consciousness, hemispheres, aphasia

Introduction

The science of neurolinguistics related to the process of speech activity is one of the slowly developing disciplines of applied linguistics in Uzbek linguistics today. The teachings of language and thought are its methodological basis.

The peculiarity of the applied directions in linguistics is that they are closely related to each other. Research cannot be limited to only one area of applied linguistics. The orientation of applied linguistics to the inner world of the language carrier recognizes that every nation, not just a nation, but every individual's linguistic thinking - the linguistic landscape of the world - is unique.[1] "Without language, there is no relationship between people. There is no society without attitude, neither is humanity. It is impossible to think without language, that is, to understand the being and the self in it, "said A.A. Reformatskiy.[2]

The thinking that emerges and develops during a person's labor activity is a reflection of the being that surrounds him. The inextricable link between language and thinking occurs because of the need for people to engage in productive activities, exchange ideas, and act together. Language and thinking cannot exist without each other. Thinking is the opposite of an objective being, and language is a way of expressing, reinforcing an idea, and conveying it to others.

Neurolinguistics is a science that emerged at the intersection of neurology, psychology, and linguistics and studied the language system in relation to the brain substrate of language behavior. Neurolinguistics tries to understand how speech is created in everyone's brain. Therefore, neurophysiological theory is combined with linguistic theory.

[1] Alpanova Sh. Reflection of mood in the Uzbek language. –T .: "Akademnashr" .2019. - B.8.
[2] Reformatsky A.A. Introduction to linguistics. - M .: 1967. - P.7.

The study of speech and communication after brain injury is the most common research topic in neurolinguistics. In recent years, phase forms of linguistic behavioral disorders have also become of interest to neurolinguistics: speech agnosia and apraxia, dysarthria, alexia, and agraphy.

It is also inextricably linked with neurolinguistics, psycholinguistics, pragmatics, cognitology, psychoanalysis. The research resulted in the development of neurolinguistic programming theory and technology aimed at studying and applying optimization techniques through the speech effects of the cerebral hemispheres, the centers responsible for the mind and subconscious area. This technology is used to mobilize the deep reserves of the brain needed in the psychotherapeutic treatment of mental illness. Used when it is necessary to change a person's behavior in an acceptable direction. Neurolinguistic programming is taught in many foreign business schools. The purpose of neurolinguistics is to provide an understanding of the evolving modern science associated with the study of experimental linguistics and its brain procedures.

Man reflects being in his mind. Reflection is done using the sensory organs. The sensory organs transmit certain information about the external world to the brain. The brain generalizes this information. It appears that the process of reflecting the objective world occurs through the central nervous system, the brain.3 Man has the ability to reflect in the mind by distinguishing general and specific features of things and events in the material world.4 This process is called an intellectual act. It consists of three phases: planning the activity, implementing it, and comparing the result achieved with the intended goal.5

The tasks that neurolinguistics must perform are as follows:

• Identify what changes occur in language and communication after various brain injuries;
• Learn how to develop communication and language skills;
• Learn how children communicate and use language;
• Observe and explain brain processes related to language and communication.

The most important and fundamental stage in the formation of neurolinguistics is associated with the name of A.R. Luria. While dealing with the treatment of soldiers and officers who suffered brain injuries during World War II, the results of the analysis gathered a vast amount of material that led to the emergence of a new science - neurolinguistics. In his opinion, before raising the issue of compatibility of brain injuries with speech pathology, it is necessary to address issues such as the structure of speech activity, communication behavior, the underlying psychological processes.

A.R. Luria's neurolinguistic concept is based on three sources: linguistics, psychology, and physiology. The linguistic source goes back to the work of Baudouin de Courtenay and his students. The basis of Baudouin's concept is that the real problem posed by linguistic research is to shed light on the fact that human beings are human beings with the ability to communicate, not a language separate from them. He admits that "there are people who have a linguistic mindset, not some kind of language that flies in the air." In his view, mental phenomena and the physiological substrate are inseparable. They are present in the living brain, and when the brain "dies" they also disappear. "[3].

Baudouin's ideas were developed by L.V. Shcherba. He states the following in his book "On the three aspects of linguistic phenomena and experiments in linguistics" ("On the three aspects of linguistic phenomena and the experience of linguistics"):

[3] I.A. Baudouin de Courtenay. Selected Works on General Linguistics. - M .: Publishing house of the Academy of Sciences of the USSR, 1963

1. The speech structure of a person is not just the sum of an individual's speech experience, but a psychophysiological phenomenon. The psychophysiological structure itself is a social product along with the speech activity conditioned by it. Even the smallest changes in the living conditions of a socio-linguistic group affect the change in speech activity.
2. Linguistic phenomena consist of processes of speech and comprehension, systems separated from language materials (texts) and language materials.
L.V. Shcherba emphasizes the need to focus linguists' attention on "unprocessed language materials", ie children's speech, speech pathology, various speech errors, emphasizing the need to study "real speech", the real facts of human speech (communication) behavior [4]. These ideas later became the basis for psycholinguistics and neurolinguistics.
The scientist who specializes in neurolinguistic problems is R.O. Jacobson. In addition to analyzing the various manifestations of aphasia, he applied a completely new approach to aphasiology - the linguistic approach. Until then, linguistic facts (phonological, morphological, syntactic, etc.) were ignored, and mainly psychophysiological indicators of aphasia, such as sensory-motor, were analyzed.Jacobson introduced into linguistics a dichotomy of selection based on the paradigmatic relationship of units and combinations that reflect their external relations, such as neighborliness, connection - syntagmatics. According to him, various disorders in the brain lead to disruption of various mechanisms in the construction of language structure.
The psychological foundations of neurolinguistics are determined by the theoretical and methodological views of LS Vygotsky. Its main rules are:
1) psyche - this is a function, a human feature as a material being; it has a certain physical form, i.e. the brain;
2) The human psyche is social. The solution of its features should be sought not in biology (like behaviorists), nor in the independent "law of the soul" (like the psychologists of the old European school), but in the history of mankind, society.
The physiological foundations of neurolinguistics are linked to N.A. Bernstein's theory of physiological activity. In his view, human activity is purposeful, that is, their actions are goal-oriented and organized on that basis. Mechanisms such as movement, control, correction are carried out by the multiplicity of our nervous system. There are so many levels that behavioral correction can only be done at a high level, not all of them.
A similar situation is observed in speech behavior (communication behavior). In people who are fluent in their mother tongue, the highest level of communicative behavior is the text, the level of the whole sentence. It controls speech production in general, the level of content expression. When composing text, words appear to appear spontaneously, but the level of word selection from the semantic field is high when words need to be selected, or when they seem to be forgotten. This shows that the concept of high level is relative, variable. Each of the lower levels can remain high.
Apparently, the development of aphasiology and its directions, the study of human communication behavior on the basis of brain activity, contributed to the emergence and development of neurolinguistics. According to the problem of determining the level of participation of the cerebral hemispheres in speech activity, current neurolinguistic views are divided into two major groups: A.R. Luria's Moscow School of Neurolinguistics under T.V. Akhutina and St. Petersburg Neurolinguistic

[4] L.V. Shcherba. On the threefold aspect of linguistic phenomena and on the experiment in linguistics. // Language system and speech activity. -L., 1974. -S. 24-39

Schools under T.V. Chernigovskaya. The Moscow School denies the involvement of the right hemispheres in speech activity. Representatives of the St. Petersburg school, on the other hand, put forward the idea that different mechanisms of language are distributed between the right and left hemispheres of the brain. It can be said that modern neurolinguistics is approaching psycholinguistics and cognitive sciences with its scientific problems.

Thus, human communicative competence, as a function of the brain, encompasses important social situations in their communication, serving the complex mechanisms and processes involved in the formation of speech and its comprehension - speech communication. Thus, neuropsychological analysis of speech and changes in coding as a result of impaired brain function - in the process of sentence formation and comprehension - decoding, that is, "the organization of human communication competence in the brain" is the subject of neurolinguistic research. In this respect, neurolinguistics approaches psycholinguistics. Both learn speech activity. Neurologists are actively using neuropsychological methods, focusing more on the role of the brain. In particular, A.R. Luria argues that human perception of the universe is based not only on the senses, but also on rational cognition.[5]

A.R. Luria combined a systematic analysis of speech disorders with theoretical concepts of linguistics and psycholinguistics. In this regard, G. Paul says: "Mental states occur in one heart in accordance with the general laws of individual psychology." [6]

L.V. Shcherba distinguishes speech organization (psychophysiological organization of the individual), language system and language material (speech activity) and calls it “the generality of the phenomena of speech and comprehension”. This three-member system of L.V. Shcherba was perfected by A.A. Leontev. AA Leontev defines "language ability" - the reflection of the language system in the mind of the person speaking the language, the "language process", ie the speech itself, which is the means of language ability, and the "language standard" - the system in which language exists outside the individual separated as.[7]

Man is involved in the process of realizing existence throughout his life. The need for knowledge is satisfied in many ways through language.11 Hence, a person's cultural, spiritual, and intellectual image is expressed through his language (speech). From this point of view, speech disorders are one of the cases where language parameters can help in assessing a person’s condition. In some situations (during stress, depression) the physiological changes that occur in humans may not be noticeable, but these changes are certainly reflected in their speech. Such changes can be identified based on language criteria.

[5] Luria A.R. Language and Consciousness. - M .: Nauka, 1979 .-- P.28.
[6] Paul G. Principles of the history of language. - M .: Nauka, 1960 .-- P.36.
[7] Leontiev A.N. Problems of the development of the psyche. M., 1972, p. 13.