FORMATION AND CHARACTERISTICS OF INNER SPEECH

Rakhmonova Marjona Jinaydullo qizi,
Independent researcher (PhD)
Alisher Navo'i Tashkent State University of
Uzbek Language and Literature
mrsrakhmonova@gmail.com

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Annotation. *This article discusses the specific characteristics of inner speech. It should be noted that inner speech is considered a specific form of silent internal communication, and this speech aspect is studied psycholinguistically in the presented article. Various scientists have expressed various opinions about the aspects characteristic of inner speech, some of which are given as examples in the article. We have studied outer speech and its types very well, starting from school textbooks. Inner speech has not been studied enough in Uzbek linguistics. We have only partially studied inner speech in the form of monologues. It is precisely the topic of inner speech that we set ourselves the goal of studying from the point of view of linguistics and psycholinguistics. The reason is that when we study language and speech, we must also learn that these phenomena do not arise by themselves, simply from the movement of the speech organs, but that states in the mind serve as the basis for them.*

Keywords: *inner speech, egocentric speech, metacognition, metacognitive knowledge, speech, external speech, communication, dreaming, speaking, writing, etc.*

Annotatsiya*. Mazkur maqolada ichki nutqning o'ziga xos xususiyatlari muhokama qilinadi. Ta'kidlash joizki, ichki nutq jim, ichki kommunikatsiyaning o'ziga xos shakli sifatida qaraladi va ushbu nutq jihati maqolada psixolingvistik nuqtai nazardan o'rganiladi. Ichki nutqqa xos jihatlar haqida turli olimlar turlicha fikrlar bildirgan bo'lib, ularning ayrimlari maqolada misol sifatida keltiriladi. Biz tashqi nutq va uning turlarini maktab darsliklaridan boshlab yaxshi o'rganib chiqqanmiz. O'zbek tilshunosligida esa ichki nutq yetarli darajada o'rganilmagan. Biz ichki nutqni faqat qisman monolog shaklida o'rganib kelganmiz. Aynan ichki nutq mavzusini lingvistik va psixolingvistik nuqtai nazardan o'rganishni o'z oldimizga maqsad qilib qo'ydik. Sababi, til va nutqni o'rganar ekanmiz, bu hodisalar o'z-o'zidan, faqat nutq a'zolarining harakati natijasida yuzaga kelmasligini, balki ongdagi jarayonlar ularga asos bo'lib xizmat qilishini ham anglashimiz zarur.*

Kalit so'zlar*: ichki nutq, egotsentrik nutq, metakognitsiya, metakognitiv bilim, nutq, tashqi nutq, kommunikatsiya, xayol surish, gapirish, yozish va boshqalar.*

Аннотация*. В данной статье рассматриваются специфические особенности внутренней речи. Следует отметить, что внутренняя речь рассматривается как особая форма беззвучной внутренней коммуникации, и данный аспект речи изучается в статье с психолингвистической точки зрения. Различные ученые высказывали разные мнения относительно характеристик внутренней речи, некоторые из которых приводятся в статье в качестве примеров. Внешнюю речь и её виды мы достаточно хорошо изучили, начиная со школьных учебников. В узбекском языкознании внутренняя речь изучена недостаточно. До настоящего времени она рассматривалась лишь частично, преимущественно в форме монолога. Именно поэтому мы поставили перед собой цель изучить внутреннюю речь с точки зрения лингвистики и психолингвистики. Это обусловлено тем, что при изучении языка и речи необходимо учитывать, что данные явления возникают не сами по себе, не только в результате движения речевых органов, а основываются на процессах, происходящих в сознании.*

Ключевые слова: *внутренняя речь, эгоцентрическая речь, метакогниция, метакогнитивное знание, речь, внешняя речь, коммуникация, воображение, говорение, письмо и др.*

Introduction. As the communication process begins, language and consciousness come into play in a person, and under the influence of language and consciousness, inner speech arises. This, in turn, serves as the basis for the further development of our thoughts. It is often said that “our language” is related to outer speech, but our real language, our true identity lies at the heart of inner speech. Through inner speech, the child develops his concepts and conclusions, forms his personality and builds his world. Special experimental studies show that the feedback mechanism of the speech process is used in receptive types of speech activity, primarily in the listening process. According to him, in the process of listening (perception, understanding and analysis of speech), the “motor activity” of inner speech is activated in a person. In the process of speech perception, it occurs in two main types: increased muscle tone in the organs of the peripheral (articular) speech apparatus and in the form of specific small movements of these organs (tongue movements). We spend most of our conscious life in the process of activity, as if we were talking to ourselves. Even when we dream, we sometimes seem to be engaged in this inner conversation. Providing information about this situation sheds light on the relationship between language and consciousness. However, the nature and function of inner speech are not clear. Like other phenomena associated with consciousness, inner speech is not easy to investigate, and its study poses a number of problems in scientific methodology. The study of inner speech is part of the study of auditory imagery in general, and the problematic aspect of this issue, as Hubbard points out, is the existence of inner speech, the form in which it manifests itself, and how we can study it. With these ideas in mind, Hubbard examines research findings from data that include subjective reports, comparisons of performance with and without auditory imagery, brain imaging studies, and clinical studies of auditory imagery pathologies. Inner speech represents a commentary that reflects any significant aspect of ourselves and our world. In this way, it “takes the mind outside.” Although self-talk has been studied in specific situations, such as self-regulation and various mental states such as anxiety, there is very little information about inner speech that occurs naturally in everyday life. Inner speech is the activity of talking silently to oneself. It is often equated with the phonological loop of short-term memory, which is more active when a person needs to remember information he has heard for a short time. However, inner speech plays a key role in self-regulation (for example, planning, problem-solving, self-motivation), normal language functions such as reading and writing, performing tasks, remembering the goals of actions, and practicing. Scientists emphasize that a quarter of people's conscious life consists of inner speech. This indicates

that inner speech constitutes the most important mental activity of a person throughout his life.

Literature review. The study of children's inner speech began in Europe in the 1960s and has since been widely studied by linguists and psycholinguists around the world. In his experiments conducted in the 2000s, researcher A. Winsler noted that children's speech moves to the second stage from the age of 3-4, that is, they begin to talk to themselves [11, p 192]. This, in turn, is called "inner speech". In this case, if a child imitates the adults around him in his speech, it means that he is trying to regulate the behavior of adults towards him. In addition, inner speech in children serves to recode the events that are happening around him and affecting him. Initially, inner speech in children can be very extensive or even unlimited. Because they prefer inner speech to talking to someone who criticizes them. This leads to a weakening of self-confidence in children. Adults are mainly required to encourage children instead of criticizing them. Inner speech is also a primary factor for children in the process of processing cognitive knowledge and decoding in the brain.

The development of speech in preschool children is inextricably linked with their activity and communication. Changes in the content and form of a child's sentences are associated with changes in his communication forms. The transition from situational speech, characteristic of early childhood, to a form of non-situational communication oriented to non-situational - personal communication, places certain demands on children's speech. These demands include new aspects of the child's speech, the features necessary for solving various communicative problems. The speech of a child of kindergarten age begins to fulfill the function of establishing social contacts. For this, the child's inner speech must gain content and acquire a monological character. Inner speech is a key part of cognitive development in children. Initially, inner speech, which appears mixed with outer speech, is something we adults should ignore and ignore, even if we hear it, and even if we do, we should not tell children about it. The reason is that children consider inner speech to be their “secret”. Violation of boundaries by adults can cause them negative psychological states such as shame, strong resentment, stress, nervousness, confusion. Sometimes children also express their dreams in their inner speech. In such a case, we can share endless joy with them if we try to fulfill their dreams and “surprise” them. However, in some cases, children may not have inner speech. In such a situation, parents can help children, that is, form inner speech by performing various exercises. J. Healy provides detailed information about this in his work “Your Child’s Growing Mind” (2004) [3 p 11]. He says that you can start forming inner speech in a child through a simple process: take pieces of paper painted in different colors, stick them on a board (or a board) and name the colors one by one (for example, red or blue). The child repeats it after us. After a while, he

repeats it again. This helps the child control his movements. The brain is instructed to perform the exercise faster. This exercise teaches the child to think about the same situation and process. J. Healy cites the phrase “magic words” in his book and emphasizes that these words should be taught to a child from the age of 4, and at that time the child can understand the meaning of the words well. These words were “I can do it”, “I will do it”, “I will do it later” and other similar phrases that increase confidence. Another method is to “think out loud” about a task, activity or a problematic situation that you are planning, that is, you are thinking, in fact it is internal speech, but in order for the child to develop a skill, repeat your internal speech out loud as if you were talking to yourself. For example, “What should I make for breakfast?”, “Are there any eggs at home?”, “I won’t have time if I don’t move quickly.” J. Haley says that by performing these practices, it is possible to awaken the child’s brain. Through these exercises, we further strengthen the connections between speech, thinking, and the brain in a child. Basically, if these exercises are started between the ages of 3-5, then by the age of 9 to 12, this practice is fully mastered by the child and children begin to think in the same way as their peers. Late development or lack of development of inner speech in children is more common in children with impulsive tendencies. Such children cannot concentrate. At first glance, they seem hyperactive, but their movements are actually chaotic and aimless. In such children, inner speech turns into a full-fledged movement without passing through the brain. They can get up from their seats during class, go to someone's place and sit, write any words on the board, and draw all kinds of pictures. Because their thinking ability is very weak. However, we cannot call such children psychologically unhealthy. When working with impulsive children, Healy advises them to first ask themselves 5 questions and teach them to answer these questions: What should I do? How can I do this more effectively? What should I do first? Are we following the rules? Have I completed the work on the plan? By finding answers to these questions, the child learns to plan and organize. First, the child says these questions out loud, and then begins to think about these questions, that is, to bring them into an internal, individual state. Through this, inner speech is formed in him and begins to regulate his actions. J. Healy calls this method a “problem-solving technique” [3, p 17]. If we analyze this complex process philosophically, it consists of the intersection of language, consciousness, thinking, images and imagination, communication, and self-knowledge. At this point, let's stop at metacognition. Metacognition is the process of thinking about thinking, that is, organizing our thoughts and ideas, and is considered part of inner speech. In children, the process of metacognition is formed along with inner speech. In metacognition, children process the knowledge they have acquired in the brain to form skills. Metacognitive knowledge is the reception, management (regulation) of information received directly and indirectly in the management of intellectual activity. Metacognitive

knowledge provides intellectual control over directly received information and serves to develop metacognitive knowledge. Studies have shown that children with metacognitive knowledge have higher intellectual abilities when they are admitted to school. Metacognitive knowledge develops a child's thinking skills and develops metacognitive processes. In the process of completing tasks, the child learns to concentrate, sort information, and evaluate his own activities. The concept of metacognition, first introduced into science by J. Flavell in 1976, is being studied in depth today. The results of studies show that metacognition is the processing of a person's acquired knowledge in the brain. In the process of processing knowledge, inner speech is activated directly in the brain. Through internal analysis and descriptions, a person develops skills in relation to the acquired knowledge [1, p. 7].

Scientists such as L. Heavey and R. Hulburt conducted experiments with university students to study inner speech. They asked students to record their inner conversations and present them to researchers. During the experiment, Heavey and Hulburt used the descriptive experimental method. The conclusion from the results is that people are engaged in inner speech for about 20% of their lives, that is, at this time inner speech is activated in the human brain. In the remaining situations, inner speech is passive [4, p 49]. In 2011, A. Morin and conducted experiments aimed at studying inner speech. In their experiments, they studied the relationship between inner speech and outer speech and their interaction with each other. The conclusion from experience is that for most people, inner speech is reduced to discussions with oneself about self-evaluation, feelings, appearance, and relationships [10, p 53].

The Self-Talk Scale (STS), developed by M.Brinthaupt et al. in 2009, is based on the four main functions of inner speech, by asking participants how often they talk to themselves, that is, using external speech, a list is compiled according to the types of inner speech frequency. It was as follows:

1) self-criticism through self-blame as a result of negative conclusions in everyday life;

2) self-motivation through self-talk about positive daily events, further confirming one's actions and thoughts;

3) self-control through analysis of daily actions;

4) self-evaluation or a certain social situation based on social relationships.

Researchers emphasize that the above 4 conclusions are not the exact content of inner speech, but rather its main functions. The Self-Talk Scale (STS) mainly describes in detail the relationship between inner speech and cognitive and non-cognitive factors. The scientific research paper analyzes the executive, thinking, emotional, and impulsive (impulsive thoughts and impulsive actions) functions of inner speech from a cognitive

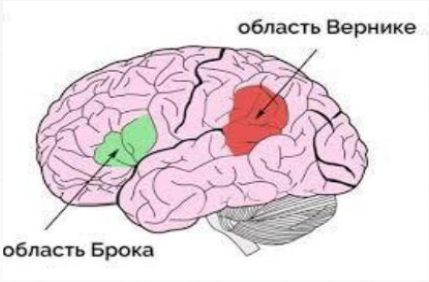
perspective. According to the collected data and the hypotheses, thinking and executive functions are considered cognitive factors of inner speech and are related to its self-control function. It was concluded that factors such as non-cognitive emotionality and impulsivity are mainly related to the affective (Latin: aftectus - mental excitement, passion) function of inner speech - a strong emotional state (fear, horror, anger, etc.) that quickly arises on the basis of various external or internal influences and is short-lived, often in the form of an "explosion". In scientific research, along with impulsivity, a strong nervous state that is mainly noticeable in children - capriciousness or a state of excessive stubbornness, impatience (Turkish: impulsiveness) - was also studied in connection with inner speech. In such a case, inner speech in children does not work at all, that is, it does not exist. During any conversation or situation, they impatiently start their whims without listening to their interlocutor, analyzing his thoughts and drawing conclusions, and under strong nervous tension, a mood of discontent is also noticeable in their external appearance. The difference between this state and impulsivity is that the mind works in impulsivity, that is, unreasoned actions are not performed. A mood of discontent is formed as a result of haste and putting oneself above everyone else, and this state can last for a long time. According to the results of the experiments conducted in the study, the frequency of external speech can also be measured using the methods used in the experiments for STS. However, the researchers warned the participants selected for the experiment that they would have to answer the questions based only on their inner speech, and this revealed that inner speech is as individual and unrepeatable for each person as behavior [1, P. 31-37].

Methodology. This study is the result of scientific research, which used theoretical and comparative analysis, empirical observation methods, and the principle of a descriptive approach. Scientific sources that cover the issues of inner speech and its formation were systematically studied using the content analysis method. The scientific results identified in the research process were summarized from the point of view of the function of inner speech in human cognitive activity and its role in speech activity and analyzed based on logical conclusions.

Discussion and results. The question of whether inner speech is a form of speech or a state of thought is still one of the problematic questions in the world of psycholinguistics. “No matter how difficult it is to study inner speech, scientists around the world have tried to describe it many times. Finally, the conclusions of most scientists end with the idea that “inner speech is a monologue in which the speaker and the listener are the same person.” Inner speech includes both the inner voice that we hear during reading and the muscle movements of the speech organs that accompany reading and are called subvocalization.” L. Vygotsky about inner speech Inner speech is not an internal aspect of outer speech - it is a separate process in itself. It still remains speech, that is,

thought related to words. But if in outer speech a thought is embodied in words, then words do not participate in inner speech. "Inner speech is a situation that reveals a person's identity, but this situation is only apparent to him. It is a oscillating, mobile, changing (unstable) phenomenon between words and thoughts, a more or less stable, to a certain extent, firmly defined component of verbal thought," he says [12, p 186].

Internal monologue is distinguished from external speech by its openness and transparency. The states of silence and internal speech of people have been studied extensively in the fields of linguistics and psychology. However, there is still no general conclusion. Therefore, although internal speech is not exactly the same as external speech, they are very close to each other, and one serves as the basis for the other. Some of the features of external speech are also reflected in internal speech. Some are not. For example, the inner speech is created in the same dialect and language as the external speech. The volume of internal speech and external speech in the same situation may not be the same. Because usually, the volume of a person's internal speech can be large and chaotic. The reason is that the thoughts in our brain first move into internal speech and then are brought into order and sorted. After that, only our complete conclusions are reflected in external speech. In addition, we can say that the inner speech of people with speech disorders that are not related to the brain is no different from that of healthy people. Such people have problems with their speech organs. They mainly have impaired external speech, while their inner speech is fluent. This is because the movement of the speech organs is not noticeable in inner speech. However, there are exceptions. We know that the cerebral hemispheres (right and left hemispheres) perform certain functions to control each of a person's movements. The right hemisphere controls feelings and emotions in a person. The left hemisphere performs functions such as speech formation, thinking, and controlling the speech organs. When this left hemisphere is injured, a person experiences disorders in both internal and external speech. The left hemisphere contains Broca's and Wernicke's centers, which also perform different functions. Broca's area is a separate part of the cerebral cortex, which consists of muscles that control the pronunciation and articulation of words. Wernicke's area is a part of the brain that consists of muscles that ensure the understanding of speech. The right hemisphere has a greater influence on external speech, because the tone of speech is formed in the right hemisphere, and as a result of its damage, confusion may occur in the tone of our speech, the correct choice of words (see Figure 1).



Conclusion. In humans, the process of inner speech usually occurs in parallel with thinking. The difference between these two states is that inner speech has a certain goal and order. In imagination, there is a confusion of topics and thoughts, confusion and infinity. Psychologist S. Sechinov, describing inner speech, says that it should not be viewed simply as a "tone" in the brain. The psychologist gives the example of five-year-old children simply talking loudly while engaged in some game activity and emphasizes that in this case the child does not even know that he is talking loudly and that this is not his thinking, but because he is so absorbed in the game that he mixes his inner speech with his outer speech, not taking into account the surroundings. In this case, the people around him and their attitude become unimportant for the child, because he thinks that he is talking in inner speech. When a child is asked about this situation or is told to repeat his words to himself, he is surprised and may even say that the interlocutor is a "genius" who can read his thoughts. This is because he has unknowingly confused inner and outer speech. Studies show that our inner speech improves and "grows" more as we grow older. In any situation, our inner speech acts as a "filter" for our thoughts, that is, before our thoughts in the mind are released into outer speech, they are adapted to the external situation, the interlocutor and the topic through inner speech. The connection between language and thinking is directly observed in inner speech. Interlanguage is an important universal mechanism of human mental activity, which appears as an intermediate stage between thought and expressed speech (in speech creation) and between expressed speech and its mental image (in speech perception), ensuring the transition of a latent thought into syntactically fragmented speech and vice versa.

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