



INTERRELATIONSHIP BETWEEN PERCEPTION AND ATTENTION PROCESSES

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Abstract. *This article analyzes the interrelation between perception and attention based on scientific sources. Perception enables the reception of information from the environment, while attention plays a key role in selecting and organizing this information. Research shows that the selectivity of attention directly affects the accuracy and speed of perception. When cognitive load increases, the decline in perceptual efficiency is explained by the limited capacity of attentional resources. The process of perception depends on the stability and distribution of attention, and these two processes function as a unified system.*

Keywords: *perception, attention, mental processes, information reception, stimulus selection, selective attention, attentional stability, cognitive processes, information processing, cognitive load, perceptual control, psychological activity.*

The process of human perception of the environment simultaneously activates several complex mental mechanisms. The most important of these are perception and attention, which constitute the main supporting system of the functioning of the mind. If perception is the process of receiving information from the world surrounding a person and transforming it into a holistic image, then attention performs the function of selecting, organizing and managing this information. Research in applied psychology and neuropsychology shows that these two processes cannot exist in isolation from each other: the quality of attention directly affects the clear and consistent course of perception, and the richness of perception directly affects the activity and stability of attention. In the modern cognitive approach, perception and attention are considered as a “dual mechanism”, and it is

emphasized that the speed of a person's information processing and their effectiveness in everyday activities depend on their harmonious functioning. The relationship between perception and attention has been studied in psychology for many years. Representatives of Gestalt psychology M. Wertheimer, K. Koffka and V. Keller, explaining the integrity of perception, emphasize the selective mechanism of attention in the formation of a perceptual image. According to them, any perceptual structure formed in the human mind cannot acquire a stable form if it is not supported by attentional resources. Also, the classic experiments of J. Bruner and L. Postman proved that the speed of stimulus recognition depends on the level of pre-focused attention. Bruner shows in his "expectation theory" that the activity of perception occurs in harmony with the cognitive orientation of attention. Research in the field of neurophysiology, in particular, M. Posner's three-component model of attention (signal selection, orientation and control), scientifically substantiates the fact that the process of perception is modulated precisely by the control system of attention. According to Posner's experiments, as the selectivity of attention increases, errors in perception decrease, and the efficiency of sensory signal extraction increases.

In cognitive psychology, the working memory model proposed by A. Bradley and G. Hitch provides a more in-depth explanation of the relationship between perception and attention. According to their model, information coming through perception is filtered by the central control system using attention and processed in working memory. The stability and distribution of attention play an important role in this process, since when cognitive load increases, the accuracy of perception begins to decrease. Also, according to the "resource theory" developed by Daniel Kahneman, attention is a limited cognitive resource that acts as an energy system that is distributed in the control of perception. When resources are insufficient, the cognitive process slows down or becomes unclear, which reduces the efficiency of human activity. In modern neuropsychology, fMRI studies (A. Treisman, S. Kastner) also confirm that the main structures that modulate perception — the

parietal areas and the prefrontal cortex — are directly related to attention, and when their activity increases, the accuracy of perception increases significantly. Such scientific results show that the interaction of perception and attention is a fundamental mechanism that determines the effectiveness of human mental activity. Perception and attention are two main psychological processes that are closely interconnected in human cognitive activity. As Gestalt psychologists have noted, the formation of a perceptual image directly relies on the mechanisms of selection and allocation of attention. Modern studies, including Posner's attention model and Kahneman's resource theory, scientifically substantiate that the limitation of attention has a significant impact on the accuracy and speed of the cognitive process. Also, neuropsychological studies show that the activity of the prefrontal and parietal areas determines the quality of perception, and when the cognitive load increases, the effectiveness of perception decreases. This evidence confirms that perception and attention do not operate separately, but as a single functional system. The processes of a person receiving information from the environment, processing it, and making conscious decisions rely on the interaction of these two mechanisms. Therefore, analyzing the interrelationship between perception and attention in the in-depth study of mental processes is of great importance not only theoretically, but also practically.

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