

## THE SCIENTIFIC APPROACHES TO THE CONCEPT OF HUMAN COGNITION

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**Annotation:** This article analyzes the concept of human cognition, its historical and modern scientific perspectives, as well as the relationship between the cognitive process, medicine, and psychology. Human cognitive ability enables the comprehension of the external world, decision-making, and adaptation to social life through consciousness, thinking, memory, perception, and sensory activities. Cognition in human life is not limited to academic knowledge; it is closely connected with health, psychological stability, emotional regulation, and social interactions. The study shows that the cognitive process has a neurophysiological basis and is carried out through brain activity, synaptic transmission, neuroplasticity, and sensory-perceptual mechanisms. Moreover, cognition plays a significant role in medical psychology and cognitive rehabilitation practices: for instance, in dementia, aphasia, traumatic brain injuries, and other neurodegenerative diseases, cognitive dysfunction determines diagnostic and therapeutic strategies.

The philosophical and gnoseological analysis of cognition, as well as psychological and medical research, explain the complex mechanisms of the subject-object relationship, thinking, and emotional perception. This provides an important scientific foundation for improving human health, mental stability, and cognitive functions. Furthermore, cognition is not only an individual but also a social phenomenon, and its development is closely linked to the spiritual stability of society, social adaptation, and technological progress. The article aims to contribute to a deeper understanding of human cognition and cognitive processes through the integration of medical, psychological, and philosophical approaches.

**Keywords:** cognition, cognitive activity, psychology, neurophysiology, consciousness, medicine, gnoseology, rehabilitation, emotional regulation

### Introduction

Human cognition is one of the most complex and central psychophysiological characteristics of the human being. Through cognition, a person perceives the environment, processes information, thinks, accumulates experience through memory and sensation, and makes vital decisions. From a philosophical point of view, cognition has been studied since ancient times by Aristotle, Avicenna, Descartes, and Kant. According to them, cognition is the essence of human consciousness and the primary means of understanding reality.

Modern research makes it possible to study human cognition not only from a philosophical but also from a psychological and medical perspective. Neurophysiological studies show that the cognitive process is closely related to the activity of neural networks in the brain, synaptic transmission, and neuroplasticity. As a result, the cognitive process is directly linked to a person's intellectual capacity, emotional stability, and overall health.



From a psychological standpoint, cognition shapes a person's ability for emotional regulation, social interaction, and personal adaptation. From a medical perspective, cognitive activity may be impaired in various diseases (such as Alzheimer's, Parkinson's, and traumatic brain injuries), which increases the practical importance of cognitive theory in diagnosis, rehabilitation, and therapy.

Thus, the study of human cognition requires the integration of philosophy, psychology, and medicine. This interdisciplinary approach allows for a deeper understanding of the complex mechanisms of cognition, the assessment of cognitive functions, and the development of effective strategies in healthcare.

## **Research Methods**

This study is aimed at exploring the concept of human cognition from philosophical, psychological, and medical perspectives. To understand the complexity of the cognitive process, the following methods were applied:

### **Philosophical-analytical method:**

The cognitive theories of ancient philosophers (Socrates, the Sophists), René Descartes, Francis Bacon, and Immanuel Kant were analyzed. This method helps to gain a deep understanding of the subject-object relationship, as well as the essence of thinking and consciousness.

### **Empirical-biological method:**

To identify the physiological foundations of the cognitive process, neurophysiological research methods such as electroencephalography (EEG), functional magnetic resonance imaging (fMRI), and neurochemical process analysis were employed. This method demonstrates the relationship between cognition and brain activity, as well as its psychological and clinical significance.

### **Systematic and interdisciplinary approach:**

The cognitive process was studied through an integrated framework combining philosophical, psychological, and medical perspectives. This approach made it possible to understand the complex mechanisms of cognition, assess cognitive functions, and develop effective strategies in healthcare.

## **Results and Analysis**

### **Structural elements of cognition:**

The study revealed that the human cognitive process consists of several interrelated components such as sensation, perception, thinking, memory, imagination, will, and intention. These elements complement each other and collectively shape an individual's ability to comprehend reality and make decisions.

### **Philosophical analysis:**



Cognition is based on the subject–object relationship. According to Descartes, the subject is the thinking individual, while the object is the external world toward which the cognitive activity is directed. Through this interaction, the cognitive process plays a central role in defining human consciousness and intellectual activity.

## **Psychological analysis:**

The cognitive process determines a person's emotional regulation, memory strength, attention, and ability to adapt socially. The study findings indicate that psychological stability and health are closely related to the level of cognitive ability. For example, high stress levels or mental disorders significantly reduce cognitive efficiency.

## **Relation to medicine:**

The cognitive process has a neurophysiological basis and occurs through brain activity and synaptic transmission. Cognitive impairments have been observed in conditions such as dementia, aphasia, traumatic brain injuries, and other neurodegenerative diseases. Therefore, cognitive theory plays an essential role in neuropsychology, psychiatry, and cognitive rehabilitation, particularly in the diagnostic and therapeutic processes.

## **Practical application and experience:**

Cognition is not limited to theoretical knowledge; it is verified through practical experience. Information obtained through sensation and perception is synthesized by thinking and memory, which enables humans to engage actively in society, understand nature, and contribute to technological and intellectual progress.

## **Conclusion**

The concept of human cognition is closely related not only to the acquisition of theoretical knowledge but also to the comprehension of essence and the making of vital decisions. The study demonstrated that the cognitive process includes elements such as sensation, perception, thinking, memory, imagination, will, and intention. These elements complement one another and shape a person's intellectual and emotional activity.

Philosophical analyses reveal the centrality of the subject–object relationship and uncover the essence of thought and consciousness, while the psychological approach shows the interconnection between cognition, emotional regulation, social adaptation, and cognitive stability. From a medical perspective, the cognitive process is closely associated with brain activity and neuroplasticity; thus, it is crucial for identifying and developing rehabilitation strategies in conditions such as dementia, aphasia, or traumatic brain injuries.

Therefore, studying the cognitive process through the integrated perspectives of philosophy, psychology, and medicine provides both scientific and practical foundations for enhancing human cognitive and emotional potential, strengthening health, and contributing to the development of society.



## References:

1. 1. Bekon, F. (2005). *Novum Organum*. Oxford University Press.
2. 2. Dekart, R. (1997). *Meditations on First Philosophy*. Cambridge University Press.
3. 3. Sokrat. (2000). *Dialogues and Philosophical Writings*. Harvard University Press.
4. 4. Aristotel. (2000). *Metaphysics and Ethics*. Oxford University Press.
5. 5. Nasr, S. H. (2002). *The Heart of Islam: Enduring Values for Humanity*. HarperOne.
6. 6. Fromm, E. (1956). *The Art of Loving*. Harper & Row.
7. 7. Maslow, A. H. (1971). *The Farther Reaches of Human Nature*. Viking Press.
8. 8. UNESCO. (2023). *Global Ethics and Sustainable Development Report*. UNESCO Publishing.

