



## METADATA

**Title:** Concepts in the science of memory

**Other Titles:** A short essay of concepts, phenomena and mechanisms

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**Subject:** MEDICINE AND HEALTH SCIENCES, LIFE SCIENCES, BIOLOGICAL SCIENCES

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### Abstract

The book analyzes all the basic concepts used in the field of memory. The uniqueness of this handbook lies in its analysis of concepts covering all levels of organization of the phenomenon of memory, from the (traditional) level of behavior to the most modern concepts of neurobiology concerning cellular and network neural activity, as well as the molecular interactions in nerve cells that constitute the neurobiological basis of the phenomenon of memory. Various pathological conditions of memory functions are also included and analyzed. The following chapter titles are given as examples: Implicit Memory, Sensory Memory, Amnesia, Amygdala, Retrieval, Representation, Dementia, Calcium, Autobiographical Memory, Autobiographical Network, Experiential Memory, Short-Term Memory, Old Age, Declarative

Memory, Learning and Fear Extinction, Active Memory, Cognitive and Memory Enhancers, Epimale, Hippocampus, Area Cells, Forgetfulness, Learning, Memory, Mnemonic Systems, Memory Imprint, Neurotransmitters, Alzheimer's Disease, Sharp Waves - Ripples, Consolidation, Hippocampal CA1 Field, Plasticity, Perspective Memory, Synapsis and Synaptic Transmission, NMDA Receptor. The decision to write a book in the form of an analysis of specific fundamental concepts in the broader field of memory functions stems precisely from the urgent need for a user-friendly and readily available handbook that introduces the reader directly to the concepts (from behavior to the molecular level), analyzing them briefly and comprehensively. There is a complete lack of similar works in the Greek-language literature.

