



## Salient features of Neuro psychology in medicine

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### Editorial

Neuropsychology is that the discipline which investigates the relations between brain processes and mechanisms on one hand, and cognition and behavioral control on the opposite. The term neuropsychology features a long history, but it had been only within the 1960s that an autonomous field of scientific inquiry thereupon name was formally established on the occasion of the inspiration of a world scientific journal called Neuropsychologia. The subsequent evolution of neuropsychology occurred by way of the refinement of the anatomico-clinical approach in brain-injured patients and therefore the development of experiments aimed toward establishing correlations between mental performances and brain organizations in healthy humans.

Neuropsychology is a branch of psychology that is concerned with how a person's cognition and behavior are related to the brain and the rest of the nervous system. Professionals in this branch of psychology often focus on how injuries or illnesses of the brain affect cognitive and behavioral functions. Neuropsychology may be a relatively new discipline within the sector of psychology.

Aristotle reinforced this specialise in the guts which originated in Egypt. He believed the guts to be on top of things of mental processes, and looked on the brain, thanks to its inert nature, as a mechanism for cooling the warmth generated by the heart. Hippocrates viewed the brain as the seat of the soul. He drew a connection between the brain and behaviors of the body, writing: "The brain exercises the best power within the man.

Aside from moving the main target from the heart because the "seat of the soul" to the brain. Philosopher Descartes expanded upon this concept and is most generally known for his work on the mind-body problem. Often Descartes's ideas were looked upon as overly philosophical and lacking in sufficient scientific foundation. Descartes focused much of his anatomical experimentation on the brain, paying special attention to the pineal gland – which he argued was the actual "seat of the soul." It was within the mid-17th century that another major contributor to the sector of neuropsychology emerged.

Thomas Willis studied at Oxford University and took a physiological approach to the brain and behavior. It was Willis who coined the words 'hemisphere' and 'lobe' when pertaining to the brain. He was one of the earliest to use the words 'neurology' and 'psychology'. Clinical neuropsychology may be a sub-field of psychology concerned with the engineering of brain-behaviour relationships. Clinical neuropsychologists use this knowledge in the assessment, diagnosis, treatment, and or rehabilitation of patients across the lifespan with neurological, medical, neurodevelopmental and psychiatric conditions, as well as other cognitive and learning disorders.

The branch of neuropsychology related to children and children is pediatric neuropsychology. Neuropsychological tests are intrinsically performance-based. They are structured to require individuals to exercise their skills in the presence of an examiner/observer. Self-reports of functioning, also as observations of behavior while performing testing, are critically important pieces of data, as described below. Self-reports of functioning are often suffering from the presence of neuropsychiatric conditions, and don't have an equivalent value as performance under standard conditions, which is compared with normative standards.

Neuropsychology emerged in the later part of the 19th century, and as brain science continued to advance through the 20th century, scientists came to understand that certain parts of the brain control certain bodily functions. We also now know that chemicals such as neurotransmitters and hormones can affect the way signals are relayed both within the brain and from the brain to other areas of the body. This gives neurologists a powerful window into the workings of the mind, and this awareness has brought about the birth of modern neuropsychology.

Neuropsychology is primarily concerned with assessing conditions that affect brain health, such as Alzheimer's and traumatic brain injury, and with evaluating how neurological functioning can affect mental health. Clinical neuropsychologists conduct psychometric assessments to measure neurological health. They may also review brain scans, consult with medical doctors, and rely on laboratory tests to diagnose and treat brain conditions. One treatment approach, neurofeedback, observes brain activity in real time. The therapist then offers feedback to the client on how to improve or change brain activity for better mental health. Some neuropsychologists also treat learning difficulties such as dyslexia.

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