

Understanding Brain Functioning

March 22, 2012



Brenda Milner greatly expanded our understanding of brain functioning through her study of the cognitive deficits associated with temporal and frontal lobe injury. Her most famous work involved a series of experiments with patient H.M., a patient who had most of his medial temporal lobe removed in order to control his severe epilepsy. Although the surgery was successful in controlling his seizures it left him with anterograde amnesia. Milner's experiments with H.M. not only identified specific brain areas responsible for memory functioning, but also indicated that the brain had more than one memory acquisition system. Her research demonstrated lateralization of function within the brain and provided evidence that functional reorganization can occur after brain damage. Her more recent work focuses on understanding the neural substrates responsible for second language learning and on identifying brain areas responsible for higher-order language processing. Milner is a Companion of the Order of Canada, a fellow of the Royal Society of Canada and the Royal Society of London. She is a recipient of an Association for Psychological Science (APS) [William James Fellow Award](#) for her lifetime of significant intellectual contributions to the basic science of psychology, as well as the [Pearl Meister Greengard Prize](#) and the Balzan Prize.

Watch [Inside the Psychologist's Studio with Brenda Milner](#).