

How Does the Brain Recover?



Randi Martin
Elma Schneider Professor, Psychology

CURRENT RESEARCH

Developing treatment methods to facilitate recovery for patients with stroke and dementia

Strokes are the leading cause of serious, long-term disability in the US with approximately 795,000 people suffering from a stroke each year. Thankfully, considerable recovery often occurs, even in individuals with large regions of damage following stroke. However, it is a major challenge to determine how this recovery occurs. Dr. Randi Martin, of Rice University, is motivated to learn and understand how short-term memory and language are organized in the brain. Therefore, she continues her neuropsychological research on brain damaged individuals with stroke or dementia as well as functional neuroimaging studies with healthy individuals to obtain basic knowledge about the mind and brain. In addition, her research is important for shedding light upon how the brain recovers following brain damage, thereby helping to develop treatment methods that could facilitate recovery or prevent degeneration in dementing disorders.

While many researchers now have knowledge of functional neuroimaging, their work is typically not informed by a century of findings from studies of brain damaged individuals. Dr. Martin's team however, represents a rare combination of expertise in basic theory of language and cognitive function coupled with expertise on the neural basis of these functions derived from both studies of brain damaged individuals and from functional neuroimaging. In addition to more basic research, Dr. Martin's work is unique in the direct attempt to facilitate recovery following stroke and in preventing decline in dementia using brain stimulation methods. Furthermore, Dr. Martin's years of experience and her extensive knowledge with both theory and neuropsychological research makes her lab one where students thrive...

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AFFILIATION



Rice University

EDUCATION

- B.A., in General Social Sciences, Mathematics, 1972 . University of Oregon
- M.A., in Psychology, 1977 . Johns Hopkins University
- Ph.D., in Psychology, 1979 . Johns Hopkins University

AWARDS

- Elected to Governing Board for Psychology Section . 2015-2018
- Chair of the Governing Board, Academy of Aphasia, 2012 - 2014
- Invited Keynote Address, 2011
- iv. 6. (Behavioral Neuroscience and Comparative Psychology) Fellow, 2005
- American Association for the Advancement of Science, Fellow, 2001

RESEARCH AREAS

Life Science, Neurological / Cognitive, Neurological / Cognitive

FUNDING REQUEST

Your contributions will support the continued research of Dr. Randi Martin as she researches the effects of brain stimulation in conjunction with behavioral treatment. Donations will support the necessary \$75K each year required for personnel, neuroimaging scans, and equipment. Three years of such funding would be necessary to complete the two current studies. In choosing to support her research, you will aid in finding the means to facilitate recovery from stroke and prevent declines in dementia.