Program

Randi Martin, Rice University

The critical role of semantic working memory in language production and comprehension: Evidence from aphasia

Our model of verbal working memory includes separable components for maintaining semantic and phonological information, with early evidence from case studies of people with aphasia indicating a more critical role of semantic than phonological working memory in language processing. Recent evidence from large sample case series studies provides converging evidence of the greater importance of semantic than phonological working memory in supporting the elaboration of content during production and the integration of sentence elements across some distance during comprehension.

Learning outcomes:

1) Participants will be able to differentiate the behavioral characteristics that distinguish the semantic and phonological working memory deficits often observed in people with aphasia.

2) Participants will be able to describe individual variation in these working memory capacities affects these individuals’ ability to produce and understand language.

Bio

Randi Martin is the Elma Schneider Professor of Psychological Sciences and Director of the T. L. L. Temple Foundation Neuroplasticity Research Laboratory at Rice University. Her research encompasses language comprehension and production, working memory and executive function, semantic representations and semantic access, speech perception, and language recovery following stroke. She has advocated a model of verbal working memory that includes separate systems for maintaining phonological, semantic, and orthographic information, drawing on converging evidence from behavioral and neuroimaging studies of healthy and brain damaged
individuals with aphasia. She has served as the Chair of the Governing Board of the Academy of Aphasia and Chair of the Steering Committee for the Linguistics and Language Science Section of the American Association for the Advancement of Science (AAAS). She is currently President-elect for the Association for Psychological Sciences. She is a fellow of APA Divisions 1 and 3, APS, AAAS, and the Society of Experimental Psychologists. She is the past editor of the Journal of Experimental Psychology: Learning, Memory and Cognition (2006-2012) and past senior editor at Cognition (2018-2020). She co-founded the Women in Cognitive Science organization in 2001 and currently serves on its advisory board.

Tatiana Schnur

**Connected speech production: Insights from acute stroke**

When we speak, we usually do so with little error. Sounds correctly form words which correspond to the ideas we want to convey. Out of a spoken vocabulary of 40,000 words, how do we select and combine words, phrases and sentences to communicate? What are the cognitive and neural mechanisms that support these abilities and how do they break down and change after brain damage? My laboratory addresses these questions in adult brain-damaged populations using large-scale longitudinal data collection and methods drawn from psychological measurements of behavior, neuroimaging, and machine learning. As an example of recent work, I will discuss a collaboration with Dr. Maher assessing the degree to which participants at the acute stage of stroke effectively convey a message during connected speech production.

**Learning outcomes:**

1. To describe participant recruitment and discourse elicitation methods
2. To outline approaches which quantify higher level discourse properties

**Bio**

I was born in Washington, D.C. I went to the University of Virginia for college and graduated with a B.A. in Cognitive Science. I spent a following great couple years in the Institute of Neuroscience and Bioimaging at the San Raffaele Hospital, Milan, Italy. I received my Ph.D. in Cognition, Brain, and Behavior in the Psychology Department of Harvard University. I did my post-doctoral work in Philadelphia at the Moss Rehab Research Institute and at the University of Pennsylvania. I then moved further south (Houston) and am now a professor of Physical Medicine and Rehabilitation at the University of Texas Health Science Center. To learn about the research in my lab, please explore the SchnurLab website: [https://sites.google.com/site/ttschnur/home](https://sites.google.com/site/ttschnur/home).

Peggy Blake

**Apragmatism and the importance of the right hemisphere in communication**

While the left hemisphere controls basic language processing and has a critical role in effective and efficient communication, the right hemisphere plays an equally important role in effectively and efficiently interpreting and
conveying meaning within social contexts. Data from a systematic review of 50 years of research will be provided along with recent research on the social and vocational implications of right hemisphere communication disorders (apraxia) will be discussed.

**Learning outcomes:**
1) Attendees will be able to describe the effects of apraxia on social participation.
2) Attendees will be able to explain general patterns of research on right hemisphere communication over the past half-century.

**Bio**
Margaret Lehman Blake is a Professor and Chair of the Department of Communication Sciences and Disorders at the University of Houston. Her research focuses on cognitive-communication disorders associated with right hemisphere brain damage with the goal of understanding the underlying deficits and developing treatments. She is the author of The Right Hemisphere and Disorders of Cognition and Communication, a founding member of the International Right Hemisphere Collaborative, and the co-creator of www.RightHemisphere.org.

**Disclosure Statements**

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Randi Martin, PhD, Professor employed by Rice University

**Disclosure**
Dr. Martin has no relevant financial or nonfinancial relationships to disclose.

Tatiana Schnur, PhD, Associate Professor employed by Baylor College of Medicine

**Disclosure**
Dr. Schnur has no relevant financial or nonfinancial relationships to disclose.

Peggy Blake, Ph.D., CCC-SLP, Professor and Department Chair employed by the University of Houston

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