

Thursday, October 26th, 2pm EDT

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**Neural basis of sentence structure complexity during speech production:
Lessons from natural language processing and lesion mapping**

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Lesion studies have made remarkable contributions to our understanding of the neurobiology of language by mapping communication deficits to damage in specific brain regions. The ability to string together words into a cohesive and structured arrangement capable of conveying thoughts and nuanced information is key to human speech production and its assessment cannot be reliably or entirely captured by constrained tasks, such as object naming or sentence completion, which have limited ecological validity. In this presentation, we will explore how novel computational methods can shed light on the neurobiology of sentence production and structuring. We will achieve this by combining Natural Language Processing (NLP), an automated computational algorithms to quantify syntactic structure, with cortical (voxel-based) and white matter (connectome-based) lesion-symptom mapping to identify brain regions with a crucial association with sentence production and syntactic complexity.

The lecture will be held at the Medical University of South Carolina, and broadcast live.

Viewing event at the University of South Carolina:

Room #140, Discovery I, 915 Greene Street, Columbia, SC 29208

Date: Thursday, October 26th, Time: **2pm – 3pm EDT**

The viewing event will be catered!

The lecture can also be followed online from your computer, tablet or smartphone, via the following GoToMeeting address (no password required):

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