

**Thursday, August 30<sup>th</sup>, 2pm ET**

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**The cortical organization of syntax**

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Syntax, the hierarchical structure of sentences, enables humans to express an infinite range of meanings through finite means. As such, the neurobiology of syntax has been intensely studied, with a primary focus on the inferior frontal gyrus (IFG), but with little convergence of evidence or consensus of ideas. We propose a novel, neural framework for syntax that integrates research in linguistics, psycholinguistics, and neuroscience. The key region is the posterior middle temporal gyrus (pMTG), coding syntactic word frames which enable the computation of combinatorial meaning via its connectivity with an anterior entity semantic system and a posterior event semantic system. Unlike other proposals, there is strong convergence of evidence on the pMTG as a syntactic hub: (i) it reliably activates for sentence structure independently of semantic content, (ii) does so regardless of the sensory-motor modality of expression (sound, orthography, and sign language) and (iii) damage to the pMTG impairs sentence comprehension as well as judgments of syntactic well-formedness. Further, the pMTG is optimally located at the nexus of phonological and semantic networks with which it must interface. Finally, we argue that the pMTG syntactic hub participates in both comprehension and production while the non-hierarchical morphosyntactic function of the IFG is primarily tied to production, illustrating this asymmetry through grammatical deficits in fluent aphasia.

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This lecture will be held at the University of South Carolina:  
**Room 140, Discovery I, 915 Greene Street, Columbia, SC 29208**  
Date: Thursday, August 30<sup>th</sup>, Time: **2pm – 3pm** Eastern Time

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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