

*Co-sponsored by the University of South Carolina Linguistics Program*

# Hard Data Café

**Prof. Michael K. Tanenhaus**

*Department of Brain and Cognitive Sciences  
University of Rochester*

## **Fine-Grained Phonetic Detail in Spoken Word Recognition**

Despite considerable evidence to the contrary, it is widely assumed that some classes of speech sounds are perceived categorically in a way that exemplars from other types of non-speech categories are not. Yet, the articulation of many sounds, including consonants, varies systematically with position in a prosodic domain. A system that discarded sub-phonetic detail would thus be ignoring potentially useful information. I'll review recent data from eye-tracking studies demonstrating that spoken word recognition does, in fact, exploit fine-grained sub-phonetic detail to make probabilistic hypothesis about lexical candidates, including within-category variation for stop consonants--once the poster child for categorical perception. I'll conclude by presenting preliminary evidence from perceptual learning studies suggesting that listeners might make optimal use of the distributional information provided by within-category variation.

**April 11 at 12:15pm  
Walsh Conference Room  
2nd Floor Barnwell Building**

