Department of Communication Sciences & Disorders Colloquium Series

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Friday, October 18, 2019, 12:30 PM - 2:00 PM
PCD 1147

Listening in on auditory processing using speech

Abstract

Healthy, hearing adults communicate so easily via spoken language that it is easy to overlook the complex challenges that speech presents to the auditory system. The work I will present draws from a program of research in which we are using the challenges of speech communication to advance a broad and general understanding of the auditory system, as well as speech-centric processing. I will describe psychophysics, learning and neuroimaging data that reveal the dynamic nature of speech perception, and its fundamental connection to auditory selective attention and learning. Throughout, I will make the case that examining auditory processing through the lens of speech perception and reveal new basic science insights, and advance understanding of clinical disorders that impact communication like dyslexia, tinnitus, schizophrenia, and autism. [Work supported by NIH, NSF, DoD, BSF]

Biography

Lori L. Holt is a Professor of Psychology at Carnegie Mellon University and is affiliated with CMU's Neuroscience Institute and Pittsburgh's Center for the Neural Basis of Cognition. She earned her Ph.D. from the University of Wisconsin-Madison in 1999. Dr. Holt is the recipient of a 21st Century Scientist Award for Mind, Brain and Behavior from the James S. McDonnell Foundation and her research has been recognized by awards from her peers at the Acoustical Society of America, the American Speech, Language and Hearing Association and the National Organization for Hearing Research. In 2013, Dr. Holt was awarded the Troland Research Award from the National Academy of Sciences. Dr. Holt is an expert in auditory cognitive neuroscience, with a focus on understanding how humans interpret the complexity of spoken language. The research has implications for critical periods in development, for communication disorders, and for research on computer understanding of speech. Since 2007, Dr. Holt has co-directed the Predoctoral Training Program in Behavioral Brain Research, an NIH-supported graduate grant to train the next generation of behavioral researchers to exploit biomedical techniques in their research.