



ANIRUDDH PATEL

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THU, JAN 28, 2010

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Rhythm in Speech and Music

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The Neurosciences Institute, San Diego, California

THURSDAY, JANUARY 28, 2010, 3:30PM – 4:45PM, DOHENY 240

ABSTRACT: Rhythm is fundamental to speech and music. What do these two domains share in terms of rhythmic organization? There is a long history of interest in this topic, but remarkably few empirical explorations have been conducted. This is particularly striking since there are large bodies of empirical research on rhythm within each domain. In this presentation I suggest that progress in empirical comparative research depends on a clear distinction between periodic and nonperiodic rhythms in human auditory cognition. I will argue that speech and music have fundamental differences in terms of periodic rhythms, and important connections in terms of nonperiodic rhythms. Evidence for this argument draws on diverse strands of evidence, including quantitative comparisons of rhythmic patterns in speech and music, research on rhythm perception, and data from cognitive neuroscience.

ANIRUDDH PATEL is the Esther J. Burnham Senior Fellow at The Neurosciences Institute in San Diego, California, and a pioneer in the use of new concepts and technology to investigate the neural correlates of music. His research focuses on how the brain processes music and language. He has pursued this topic with a variety of techniques, including neuroimaging, neuropsychology, behavioral studies, theoretical analyses, phonetic/acoustic research, cross-cultural research, and comparative studies of nonhuman animals.

Patel earned a bachelor's degree from the University of Virginia as a Jefferson Scholar. After a year at the National Taiwan University as a Luce Scholar, he went on to Harvard University as an NSF Fellow, where he studied with Edward O. Wilson. He did a joint postdoctoral fellowship at Harvard and at Tufts University before joining The Neurosciences Institute.

Patel's research has appeared in numerous scientific journals, including *Nature*, *Nature Neuroscience*, *Journal of Cognitive Neuroscience*, *Cognition*, *Brain and Language*, and *Music Perception*. His 2008 book *Music, Language, and the Brain* (Oxford Univ. Press) has been hailed "an intellectual tour de force" by *Nature* and has received positive reviews in 10 scholarly journals, spanning the sciences and humanities. Pronounced "a major synthesis" by Oliver Sacks, the book won a 2008 ASCAP Deems-Taylor Award.

Patel is President of the Society for Music Perception and Cognition (2009-2011), and is interested in promoting research and education in the field of music cognition. He recently won the "Music has Power Award" from the Institute for Music and Neurologic Function in New York City, for his studies of music and language.

Hosted by Prof. Elaine Chew.

