

CENTER FOR COGNITIVE SCIENCE

University at Buffalo, State University of New York

Wednesday, September 26, 2001

280 Park Hall
North Campus
2:00 pm –4:00 pm

"Acoustic-Perceptual Distinctiveness and Coarticulatory Patterns in Dysarthria"

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The dysarthrias are a group of communicative disorders resulting from impairment to central and/or peripheral nervous system structures important for the motor execution of speech. From a functional viewpoint, speech intelligibility and naturalness may be impaired owing to reduced speed, strength, range, accuracy, and timing of speech movements in the respiratory-laryngeal, velopharyngeal, and oral articulatory mechanisms. Although a great deal of progress has been made in characterizing the speech production deficits associated with the various dysarthrias, vocal tract activity in dysarthria remains poorly understood. The current presentation focuses on oral articulatory impairments associated with Parkinson's disease, Amyotrophic Lateral Sclerosis (ALS), and Multiple Sclerosis, as inferred from the acoustic speech signal. In addition to describing how these neurologic diseases affect the articulatory-acoustic working space for individuals' habitual or normal speech mode, changes in the acoustic working space associated with speech rate and vocal intensity manipulations will be discussed. The relationship between the size of the acoustic working space and auditory-perceptual impressions of speech also will be discussed as well as coarticulatory differences for individuals with dysarthria and neurologically healthy speakers. Finally, the theoretical implications of a relationship between coarticulatory patterns in dysarthria and the size of the articulatory-acoustic working space will be considered.

**Refreshments will be available
Everyone is welcome to attend!**

For information please call the Cognitive Science Office at (716) 645-3794 or check
<http://wings.buffalo.edu/cogsci>