Thursday, April 27th, 2pm EDT

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"Motor speech production (but not phonological production) improves following motor training"

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The distinction between phonological processing and motor planning has been a persistent topic of both theoretical and clinical research. In the clinical domain, a lot of careful work has gone into determining how to differentiate aphasia (which can affect phonology) from apraxia of speech (AOS, which affects motor planning and/or programming). Despite the success of this work, it is rare that AOS occurs in isolation as it frequently co-occurs with aphasia. Thus, individuals commonly present with both phonological and motor impairment, and the motor-based treatment literature that examines this population frequently reports that some (but not all) participants respond to treatment, a finding that often is related to variability in the population.

In this talk, I will first present a line of research that attempts to determine whether there is structure in the variability that can help predict responsiveness to intervention targeting motor learning and recovery. Leaning on the distinction from psycholinguistic accounts between phonological and motor components of production, I will introduce a prediction about the relationship between the acoustics of consonant deletion errors in clusters (e.g., snail -> _nail) and responsiveness to motor-based training in individuals with these complex deficits. After demonstrating some success with this approach, I discuss the next steps to move towards enhancing training effects with transcranial direct current stimulation (tDCS). In this portion of the talk, I report on a recent study in which speech motor learning in unimpaired speakers was enhanced with tDCS. I will then discuss the theoretical implications of these two lines of research, and how they form the basis of ongoing and future translational work using tDCS with individuals with acquired speech impairment.

Location: University of South Carolina, Discovery I, Room #140, 915 Greene Street, Columbia, SC 29208 Date: Thursday, April 27th, 2016 Time: 2pm – 3pm EDT This event will be catered!

The lecture can also be followed online from your computer, tablet or smartphone, via the following GoToMeeting address (no password required): https://global.gotomeeting.com/join/667426173

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C-STAR LECTURE SERIES

The Center for the Study of Aphasia Recovery (C-STAR; http://cstar.sc.edu/lecture-series/) houses researchers who examine the effects of behavioral treatment, brain stimulation, and residual brain function (brain plasticity) on recovery from aphasia. C-STAR is a collaboration between researchers from the University of South Carolina, the Medical University of South Carolina, Johns Hopkins University, and the University of California, Irvine. The Center is funded through the National Institute of Deafness and Communication Disorders (NIDCD) grant #NIH P50 DC014664. Biweekly public lectures, given by members and guests of C-STAR, are accessible live and online. Recordings of the lectures can be viewed via C-STAR YouTube channel:

https://www.youtube.com/channel/UC8p0CuG4He9ngCR4nnzhZ7w