Behavioral and neurophysiological correlates of sensorimotor impairment in aphasia

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Developing a clearer understanding of neural deficits that underlie the behavioral characteristics of speech sensorimotor impairment in aphasia is essential for informing the development of targeted and effective treatment techniques. Impairments in sensorimotor integration have already been implicated as underlying the repetition deficits common to individuals with conduction aphasia, but much less is known about the extent to which these integrative deficits occur outside of this specific aphasia subtype and how such deficits manifest behaviorally in areas other than speech repetition. The purpose of this talk is to present data from our investigation of the behavioral and neurophysiological correlates of speech sensorimotor impairment under altered auditory feedback (AAF). Our preliminary results indicate that the timing of the speech compensation responses to AAF is delayed in aphasia compared with their neurologically intact matched control peers. In addition, our data revealed the reduction of event-related potential (ERP) amplitude for the N1 and P2 components, which unravels new information about speech sensorimotor integration deficits at the neural level. In this presentation, these findings will be discussed in the context of competing models of speech sensorimotor control and will be compared with previous evidence utilizing magnetoencephalography (MEG) recordings in conjunction with a similar AAF experimental paradigm.

Room #140, Discovery I, 915 Greene Street, Columbia, SC 29208
Date: Thursday, April 11th, 2019, Time: 2pm – 3pm EDT

The viewing event will be catered!

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