

Project Abstract:

Title: Investigation of Rhythmic Processing in Aphasia

The ability to tap to a rhythm has been anecdotally noted to be impaired in aphasia, but this deficit has not been established experimentally. Interestingly, rhythmic tapping is a component of at least one therapeutic approach designed to increase speech fluency in nonfluent aphasia. It may be that rhythmic processing and speech fluency are both manifestations of a more global processing capability, and that this capability can be targeted in some types of aphasia in order to increase therapeutic efficiency. To investigate this possibility, it is first necessary to establish whether there is in fact a rhythmic processing deficit in nonfluent aphasia and to examine whether other factors, such as impaired working memory, could account for such a deficit. In this project, we will develop a comprehensive test of rhythmic processing and related abilities, and then use this test to assess rhythmic processing in 15 individuals with aphasia and 15 age-matched control participants. We will look at rhythmic processing in the context of speech and music, and assess perception as well as production of rhythms. The individuals with aphasia will also complete clinical speech-language testing so that any rhythmic processing deficits can be considered in terms of type and severity of aphasia.