

Title: Dual-task interference on speech fluency during story retell for people with AOS

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Abstract: The purpose of the study was to determine dual-task effects on the fluency with which people with aphasia with and without apraxia of speech retell a story. Fifteen participants with aphasia—six with apraxia of speech, six with little to no motor speech involvement, and three with dysarthria—retold two short stories in single- and dual-task conditions. Story retell samples were analyzed for rate, typical disfluencies (i.e., extended pauses and fillers) and atypical disfluencies (i.e., simple repetitions). In the dual-task condition, participants with aphasia significantly decreased their speech rate and increased their typical disfluencies whereas those without apraxia of speech showed no significant change. Atypical disfluencies, on the other hand, decreased for participants with aphasia and no apraxia of speech but not for those with apraxia of speech. These findings may reflect the increased attentional demands for people with apraxia of speech due to overreliance on controlled processes for speech and decreased capacity to revert to automatic control processes. Clinically, the results indicate that people with AOS might experience greater difficulty communicating fluently in the face of real-world distractions.