

# **Speech Motor Control in Children with Apraxia in a Task of Motoric Complexity**

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### **Abstract**

Childhood apraxia of speech (CAS) is a pediatric motor speech disorder characterized by poor motor planning/programming skills (ASHA, 2007). Treatment of CAS focuses on improving motoric processes for speech production. One important consideration within the therapeutic context is the complexity of speech targets. While many studies have examined complexity across linguistic domains (Gierut, 2007; Kiran & Thompson, 2003; Thompson & Shapiro, 2007), less is known about complexity with regard to motoric processes (Maas et al., 2008). This work examined how speech performance is impacted by motoric aspects of task complexity in children with CAS, as compared to those with typical development and other speech sound disorders. Speech production accuracy and acoustic and kinematic parameters of speech motor control were investigated as children produced nonwords that varied in motoric complexity. Findings will be discussed with regard to the conceptualization of motoric complexity and how this information can be applied to assessment and treatment.