

Title: The influence of postvocalic context on glides' formantic transitions in dysarthric speakers

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Abstract :

Purpose: Studies have reported that transitional segments, such as diphthongs or glides, are often altered in dysarthric speech, and that that these segments are influenced by speaking style. However, little is known regarding the precise characteristics of these transitional segments and their specific sensitivity to dysarthric speech or speaking style. The goal of the present study is to identify which transitional segments are more susceptible to be altered in dysarthric speech, as well as which ones are more influenced by speaking style.

Methods: Twenty dysarthric speakers as well as 20 healthy speakers were recruited. A sentence reading task was performed in natural, loud and clear speaking conditions. The sentences contained glides preceded by /k/ and followed by different vowels. Acoustical analyses consisted of first order F1 and F2 slope analyses, as well as second order F1-F2 slope analysis.

Results and discussion: Preliminary results indicate a more important difference between dysarthric and healthy speakers in contexts with more phonetically different onset-offset targets. F1 slope variation was present mostly during transitions requiring opening/lowering movements, while F2 slope variation was mostly present during transitions requiring front-backing articulatory movement. Mixed results were found regarding speaking style. Methodological as well as clinical implications are discussed.