Provisional Title: *An acoustic and articulatory study of lingual coarticulation in children with typical speech development and children with speech motor disorders.*

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This thesis aims to describe the organization of articulation movements in children with typical speech development and children with speech motor disorders. For this purpose, we examine lingual coarticulation in Greek children by means of acoustic and articulatory analysis, specifically with the use of ultrasound. Our aim is to provide evidence concerning the two main theories (Kent, 1983, Nittrouer et al. ,1989) that describe movements of articulators in child speech as segmentally or syllabically organized.

Data are collected from Greek children and adults. Two groups of children with typical speech development, 6-8 and 13-15 years old, one group of children with speech motor disorders 6-8 years old, and one group of adults are recruited. Analysis concerns temporal and spatial coarticulation effects concerning classes of Greek consonants with varying place and manner of articulation. This helps us examine coarticulation effects in relation to the intrinsic properties of the segments involved, namely in relation to their coarticulation resistance (Recasens et al., 1997).Acoustic analysis will serve to explore contextual effects that occur as a result of coarticulation. Ultrasound will offer us more direct evidence about the movement of the tongue during speech, as it provides a visual representation of the midsagittal tongue contour and the tongue root (Zharkova et al., 2011).

The research in the organization of speech units is important not only to detect the developmental paths taken by children to an adult-like speech motor control, but also to contribute to the clinical assessment of speech problems that relate exhibit to a breakdown in the ability to coordinate articulatory movements. The results are discussed in light of coarticulation and speech production theories, as well as the DAC model of articulatory constraints (Recasens et al., 1997, Recasens & Espinosa, 2009).

References

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