

Differences of Pitch Variation in Preschool-Age Children Who Do and Do Not Stutter

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The evaluation process of stuttering in children should aim to discriminate between those children who will outgrow their disfluent phase without any intervention and those who need speech therapy. There are various characteristics that Speech-Language Pathologists may utilize in distinguishing between these two groups of children; one of these features that may separate young stutterers from non-stutters that has been observed clinically but never specifically researched is vocal pitch rise in their disfluencies. Pitch rise has been noted in disfluencies of children who are diagnosed as stutterers, but not in those typically-developing children who exhibit typical disfluencies. This preliminary study hopes to verify whether pitch rise is indeed present in young stutterers, and perhaps offer insight as to why this phenomenon occurs. This research study collected 300 syllable speech samples from ten preschool-age children – five who stutter and five who are typically fluent. Each stutter within the speech samples was analyzed to determine if there is pitch rise present in the disfluencies of the stutterers but absent in the non-stutterers. This analysis was conducted using *Praat*, which is a computer program that can calculate the fundamental frequency (pitch) of a given speech sample. This research is still underway with a prospective completion in mid-March, so conclusive results are not currently available. The literature I have read on the subject leads me to believe that I may find pitch rise in the prolongations of children who stutter (i.e., “maaaaaay” where pitch rise is audible during the vowel). An interesting trend I have found thus far is that the young stutterers are not exhibiting pitch rise per se in their disfluencies, but rather greater variation in their pitch during moments of stuttering. This research is important in that it will hopefully lend definitive, qualitative information that can make the diagnostic process of childhood stuttering more conclusive.