Identifying Words of Children with Dysarthria: Relationship between Listener Response Time and Effort Ratings K. Cote-Reschny, M. Hodge

Relationships among accuracy, response time and direct magnitude estimation (DME) of effort were examined for 33 listeners identifying audio recordings of 40 words spoken by children with spastic dysarthria. The accuracy score for a word was the number of listeners who identified it correctly. The response time was the median response time of listeners when identifying the word. The DME score for a word was the mean DME score assigned to it by listeners. Significant negative relationships were found between accuracy scores and response times (r =-.46, p<.001) (words with higher accuracy scores tended to have shorter response times) and between accuracy scores and effort ratings (r =-.57, p<.001) (words with higher accuracy scores tended to have lower effort ratings). A strong positive relationship was found between response times and effort ratings (r=.75, p<.001) (words judged to take greater effort tended to have longer response times). These findings provide quantitative support to 1) help children with dysarthria understand that when their words are not clear, listeners need extra time to understand, and 2) counsel these children's communicative partners that increased mental effort and time are needed when listening to children with more severe dysarthria.