The role of phonological monitoring abilities in automatic activation and selection of words in early readers: frequency and word neighbourhood effects revisited

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ABSTRACT

The effects of word frequency and word neighbourhood size give good account of whether automatic activation of lexical representations takes place in children who are learning to read. This study examined these effects on word and pseudoword lexical decision performance of 6 year old beginning readers. Participants were 60 Spanish first graders who had to identify high and low frequency words varying in length. Orthographic neighbourhood was manipulated orthogonally across frequency and length conditions. Children were also assessed on early predictors of reading accuracy such as verbal working memory (WM), phonological awareness (PA) and receptive vocabulary, as well as on nonverbal IQ. Converging with previous developmental studies, frequent words were identified faster and with fewer errors than infrequent ones, and words with high neighbourhood size led to more identification errors than words with low neighbourhood size. Interestingly, while PA was related with children´s identification accuracy in all types of words, WM was related to a higher neighbourhood effect. These results confirm the importance of PA in the formation of accurate orthographic representations and suggest that WM has a key role in the activation and competition of lexical candidates before selection when these representations are not well specified. Implications for reading efficiency during the early years of reading development are discussed.

Keywords: orthographic neighbourhood size, reading predictors, lexical access, children