

## Reading derived words in Italian children with and without dyslexia: The effect of root length

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Italian children with dyslexia are extremely slow at reading long words. However, they read faster stimuli composed of roots and derivational suffixes (e.g., CASSIERE, 'cashier') than stimuli not decomposable in morphemes (e.g., CAMMELLO, 'camel'). The present study assessed whether root length modulates morphological processing. For skilled readers, reliance on the root might depend on its perceptual salience within the word, being greater for longer than shorter roots. In contrast, readers with dyslexia might be facilitated by the presence of a root irrespective of its length because of their difficulty in processing the word as a whole. Two groups of 6th graders, with and without dyslexia, participated in the study. They read aloud low-frequency derived words, with familiar roots and productive suffixes. Word length ranged from 6- to 12-letters; root length from 3- to 6-letters. Word naming times (RTs) and mispronunciations were recorded. Linear mixed-effects regression analyses on RTs showed inhibitory effects of word length, no effect of word frequency, and facilitatory effects of root frequency for both children with dyslexia and skilled readers. Root length predicted RTs of skilled readers only, with faster RTs for longer roots, over and above the inhibitory effect of word length. Mixed-effects regression analyses on accuracy showed only a group effect. The large word length effect on latencies for both groups confirms laborious whole-word processing. The absence of a word frequency effect along with facilitatory root frequency indicate morphemic processing in all readers. The reversed root length effect for skilled readers indicates that root activation is more likely for longer roots. For readers with dyslexia the facilitation of root frequency irrespective of root length suggests a pervasive benefit of root activation because most words are for them too large units to be processed within a single fixation.

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