Statistical Learning in Pseudowords Spelling

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Abstract:

Children learning to spell in a transparent orthography are sensitive to the distributional properties of the orthography (Angelelli et al. 2017; Marinelli et al., 2021). Twenty Italian 2nd grade children perform a pseudowords spelling task. Pseudowords were manipulated for the regularity of transcription (stimuli with vs without an ambiguous segment along the phonological-to-orthographic conversion routine). Irregular pseudowords contained an ambiguous phoneme that might be transcribed with two homophonic transcriptions. Homophonic phonemes were manipulated for the type of asymmetry: homophonic phonemes show a strong asymmetry between the two alternatives (i.e., with a type of transcription that occur in almost of cases, and the other one that is infrequent) in 1/3 of stimuli (StrongA), a less strong asymmetry in 1/3 of cases (WeakA), while the asymmetry was absent (i.e., the two homophonic transcriptions occur with a similar frequency) in 1/3 of stimuli (NoA). Children use with a similar frequency the two homophonic alternatives in spell NoA stimuli. In spell stimuli with a WeakA and especially with a StrongA, children prefer to use more frequent transcription with respect to atypical one. Results highlight a statistical learning in young typical developing children and that they rely on this distributional knowledge to spell ambiguous phonemes.