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When Past Activations Slow Reading: Proactive Interference as a Source of Inefficiency in Rapid Naming and Reading Fluency

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Member Abstract

Reading fluency requires rapid coordination of perceptual, linguistic, and executive processes under strict temporal constraints. Rapid Automatized Naming (RAN) is one of the most reliable predictors of reading fluency across languages and developmental stages, yet the mechanisms underlying this relationship remain unclear. One potential source of processing inefficiency involves failures to suppress previously activated representations during sequential processing. Resistance to proactive interference (PI), the ability to prevent no-longer-relevant information from disrupting current task demands, may represent a critical bottleneck constraining performance in both rapid naming and fluent reading. This exploratory study investigates the degree to which RAN and PI resistance overlap in their contribution to reading fluency. One hundred twenty Mexican undergraduate students will complete Spanish-adapted measures of reading fluency, RAN tasks, and a Brown–Peterson task measuring PI resistance. By conceptualizing PI as a constraint on sequential processing efficiency, this study aims to refine cognitive accounts of the RAN-reading relationship.