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Visual Quality and Lexical Quality Reduce Readers Reliance on Sentence Context for Word Recognition

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Abstract

Readers use predictions about upcoming words to facilitate word recognition, particularly when the visual input is degraded (e.g., viewed in parafoveal vision; Staub & Goddard, 2019) or when the reader has poor lexical quality (Hersch & Andrews, 2012). To test how these factors interact participants, who were assessed for spelling ability, made a two-alternative forced-choice regarding one letter, which differentiated the target from an orthographic neighbor (e.g., worm was followed by _ _ _ W or D?). The target was presented either in foveal or parafoveal vision and was preceded by a sentence context that made (1) the target predictable, (2) the neighbor predictable, or (3) neither predictable. We found that worse spellers relied on sentence context in both foveal and parafoveal vision whereas better spellers only relied on context in parafoveal vision, suggesting that both visual quality and lexical quality affect reliance on sentence context to identify words.