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Journal
Proceedings of the Annual Meeting of the Cognitive Science Society, 31(31)

ISSN
1069-7977

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Publication Date
2009

Peer reviewed

Position-sensitive letter substitution and letter transposition effects on masked orthographic priming

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Abstract: The present study examined effects of orthographic neighbor similarity on visual word recognition when primes are forward masked. Experiments 1a-b presented orthographically similar primes and targets, and the position of letter substitution occurred either in the initial or final position of a morphologically simple prime (feat-BEAT, beam-BEAT) or in the stem of an inflected prime (feats-BEAT, beaming-BEAT). Analyses yielded reliable position effects on lexical decision latencies/accuracy and significant correlations between orthographic facilitation and (total and shared) orthographic neighborhood size of the target word. In experiments 2a-b, letter transposition (within a morpheme) in morphologically complex primes reduced facilitation on masked morphologically related targets (betaing-BEAT) relative to intact morphological primes. However, final-position substitution neighbor primes with (bemaed-BEAT) and without (beamed-BEAT) transposition did not differ. We discuss the implication of these position effects and decrements due to transposition without, but not with, substitution for models of orthographic and morphological processing.