# Are complex grapheme and non-grapheme bigrams processed differently at an early stage in visual word recognition?

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Complex graphemes consist of two or more letters that map onto a single phoneme. Previous evidence suggests that graphemes are processed as perceptual units. The present study investigates the processing of graphemes, comparing the effects of graphemic bigrams and non-graphemic bigrams, presented as subliminal primes in a masked priming lexical decision experiment. We hypothesized that, if grapheme are units in orthographic processing, they could lead to stronger priming than non-graphemic bigrams. Targets comprised thirty French four-letter words containing a complex grapheme either in the initial, middle, or final position;and pseudowords were created from the same set of bigrams as the target words. During the task, the prime could be presented at the initial, middle, or final position. Results showed a global facilitatory priming effect. Further comparisons revealed that the priming effect was significant when the prime was presented at the initial and at the final position, but not at the middle one. The priming effects elicited by graphemic bigrams and non-graphemic bigrams did not differ. Therefore, the present results do not support the hypothesis that graphemes are processed differently than non-graphemes in the early stages of visual word recognition. Instead, a bigram's position is more influential than its orthographic status.