The processing of word class ambiguous words

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Word class ambiguous words are words which can appear as a verb or a noun, depending on the context they are presented in (e.g., to race or the race). Within the English language there are numerous biased word class ambiguous words where the verb or noun version of the word is more frequent than the other. In most, if not all, experiments, this property is ignored and word frequencies are calculated without distinguishing between different classes (e.g., word form frequency of “race” is used, adding the N and V frequency). In the present eye-tracking experiment the effect of word-class frequency on the processing of biased word class ambiguous words was investigated. Two types were distinguished: N>V (noun form more frequent than verb form) or N<V (verb form more frequent). The word class ambiguous words were presented either as a verb or a noun across counterbalanced lists:

(1) The jockey wanted to ride the race on his favourite horse. (N>V)
(2) The jockey wanted to race at Ascot on his favourite horse. (N>V)
(3) Kim tried to blame her colleague so she wouldn’t get fired. (N<V)
(4) Kim tried to take the blame so her colleague wouldn’t get fired. (N<V)

A significant effect of word-class frequency was found both in early (first fixation duration, first-pass regression) and late (regression-path duration, regressions into region of interest) processing measures for the N<V condition, with faster processing of the word when it appeared as a verb compared to when it was presented as a noun. In contrast, no significant effects were observed for the N>V condition, with words in this condition being processed as fast when they’re used as nouns as when they’re used as verbs. These results suggest a processing advantage associated with the verb form of word class ambiguous words (contra Gentner, 1981). The results are also, to some extent, in line with Farmer et al.’s (2006) study on “nouny and verby nouns”, though their classification was based on phonological properties of the words rather than word class frequency.
