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The Long and Short of It: The Role of Verb Stem Vowel Duration in Sentence Processing

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Abstract: When native English speakers say active and passive sentences, verb stems are longer in passive sentences than in their active counterparts (Stromswold et al., 2002; Rehrig et al., 2015) because phrase-final lengthening and polysyllabic shortening cause the verb stem vowel to be longer in passives (Aveni et al., 2016; Mayro et al., 2016). Eye-tracking and gating studies of unaltered sentences revealed that listeners are able to predict whether a sentence is active or passive prior to hearing the inflection on the verb (Stromswold et al., 2002; 2016). To examine whether listeners use vowel duration in online sentence comprehension, we lengthened the vowel in half of the active verb stems and shortened it in half of the passive verb stems. Reaction times were longer for sentences with altered verb stem vowels ($p < .001$), consistent with listeners using verb stem vowel duration as a predictive cue in online comprehension.