
Morphological gemination and boundary strength: Evidence from English compounds

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Ben Hedia & Plag (2017) find that, in prefixed English words, consonant duration at the morphological boundary varies according to the prefix involved. They hypothesise that these differences reflect differences in segmentability: consonants at morphological boundaries are longer in more semantically transparent, hence more decomposable, complex words. If this is correct, we would expect to find similar variation in compounds, with compounds featuring a stronger internal boundary having longer consonant durations than opaque compounds.

From the British National Corpus, we extracted compounds with one of the consonants /n/, /m/, /l/ or /s/ either at the end of the first word, the start of the second word or both (i.e. geminates). Thirty-one adult native speakers of British English were recorded reading the compounds in carrier sentences. Consonant duration was extracted using Praat and used as the dependant variable in linear mixed effects regression modelling, with speaker as a random effect. Other predictors included various phonetic measurements, speech rate, consonant type (final, initial or geminate) and different correlates of boundary strength: overall frequency of the modifier, and spelling ratio (compound frequency with unspaced orthography/ compound frequency with spaced orthography).

Initial results suggest that, although consonant length is indeed related to boundary strength, the picture may be more complex than Ben Hedia & Plag (2017) suggest, since the effects of boundary strength interact with consonant type and are strongest for consonants in word final position.

Reference: • Ben Hedia, S. & I. Plag (2017). Gemination and degemination in English prefixation: Phonetic evidence for morphological organization. *Journal of Phonetics* 62, 34-49.