

Usage-related factors in s-insertion in Korean

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Consonantal insertion, such as linking *r* in English, is common across languages (Žygis, 2010). This study is on the *s*-insertion in Korean which can be phonetically realised as tensification of a lenis consonant and analysed as gemination. The *s*-insertion is commonly observed in compound nouns (W1-W2). It seems to have a boundary-marking function but its conditioning factors are under a debate (cf. Im, 1981). For example, the *s*-insertion is reflected in the Korean spelling convention. Three factors determining whether *s* (ㅅ in the Korean script) is written are identified as: (1) the structure of the first word (W1) final syllable, (2) etymology, and (3) speech production (e.g., *s* written when tensification occurs, *나루* /nalu/ 'dock' + *배* /pɛ/ 'boat' → *나룻배* /nalup*ɛ/). On the other hand, based on pronunciations presented in the Standard Language Dictionary, Zuraw (2011) shows that branching structure in the compound, etymology, word frequency, stem length, features of segments, and presence of tense consonants have variable effects to the *s*-insertion probability.

A speech production experiment was conducted with four experimental factors, W1 type (native, loan), W2 onset type (bilabial, alveolar, velar), W2 length (monosyllabic, disyllabic) and speaking rate (normal, fast). All W1s were disyllabic nouns and therefore all target compounds had either 3 or 4 syllables. Twelve native Korean speakers participated in the experiment. The task was to memorise a list of two compound nouns and record them. In total there were 576 tokens from each participant (288 at each speaking rate: 2 W1 types × 3 W2 onset types × 2 W2 length × 6 items × 4 repetitions). The speech data were examined acoustically and auditorily.

Generalised linear mixed effect models fit to the data revealed that various factors (but not speaking rate) significantly contribute to the likelihood of the *s*-insertion. W1 type: native, which is more frequent (*est.* = 2.18, *SE* = 0.19, *p* < 0.001), and W2 onset type: velar, which may be least compressible in articulation (Tukey contrast test, monosyllabic W2, velar vs. bilabial, *est.* = 3.51, *SE* = 1.11, *p* < 0.01, velar vs. alveolar, *est.* = 2.86, *SE* = 1.11, *p* < 0.05; disyllabic W2, velar vs. alveolar, *est.* = 3.05, *SE* = 1.24, *p* < 0.05), increased the likelihood, whereas the insertion was less likely to occur with disyllabic than monosyllabic W2s (*est.* = -3.34, *SE* = 1.14, *p* < 0.01).

References

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