

## Laryngeal cooccurrence restriction in Korean

This study investigates the laryngeal cooccurrence restriction (LCR) occurring in word-initial tensification and adverb formation in Korean. Both phonological and morphological processes will attest that the LCR plays a role in that the rate of word-initial tensification is conditioned by laryngeal specification of the following onset and that the selection of the adverbial suffix allomorph, ‘-hi’, is also restrained by laryngeal specification of the preceding consonant. This study also examines the LCR in the lexicon in Korean. By doing so, it suggests that the LCR exerts an influence on the lexicon as a static constraint and it further affects phonological and morphological processes dynamically.

LCR has been reported to be active in the lexicons of many languages (MacEachern 1999, Gallagher 2010). In some languages, it requires an obstruent specified for a laryngeal feature (e.g., ejective or aspirate) to appear maximally once in a root (dissimilation type). In other languages, it enforces every obstruent in a root to be specified for the same laryngeal feature (assimilation type). However, few cases are known that the LCR affects phonological and morphological processes.

Lax consonants in the word-initial position frequently but optionally undergo tensification to intensify the lexical meaning in Korean, e.g., *seta* ‘to be strong’ -> *s’eta* (Han 2011, 2013). We conducted a survey experiment on the preference of word-initial tensification for 196 words by 39 participants. The result showed that tensified forms are more likely to be accepted when the second onset is also a tense as shown in Figure 1.

A total of 371 trisyllabic adverbs containing ‘-i’ or ‘-hi’, which are allomorphs of a derivational suffix, were analyzed to find the possibility of the LCR effect in morphological process. It was found that ‘-hi’ is preferred when either of the first two syllables has an aspirated obstruent but it is not likely to be selected when the first two syllables have tense obstruents as given in Table 1.

A total of 67,258 words in Standard Korean Pronouncing Dictionary were analyzed to see if such LCR effect can be attributed to the LCR in the lexicon in Korean. As seen in Table 2, the LCR effect was found only when a word-initial obstruent is tense. In this case, in the onset of the second syllable, tense consonants are overrepresented ( $O/E > 1$ ), while aspirates are underrepresented ( $O/E < 1$ ). In this respect, the Korean lexicon shows an assimilation type of LCR patterns. However, word-initial aspirate onsets do not show any preference regarding the following onset.

All the results suggest that tense and aspirated obstruents are not equal in calculating the degrees of markedness with respect to the assimilation type of LCR in Korean. While the preference for tense-tense pairs is evidenced both in the lexicon and in the word-initial tensification but that for aspirated-aspirated is only attested in the adverb-forming morphological process. Then it can be said that the LCR patterns are emerged as the generalization of the lexicon and as a part of a latent constraint, as well.

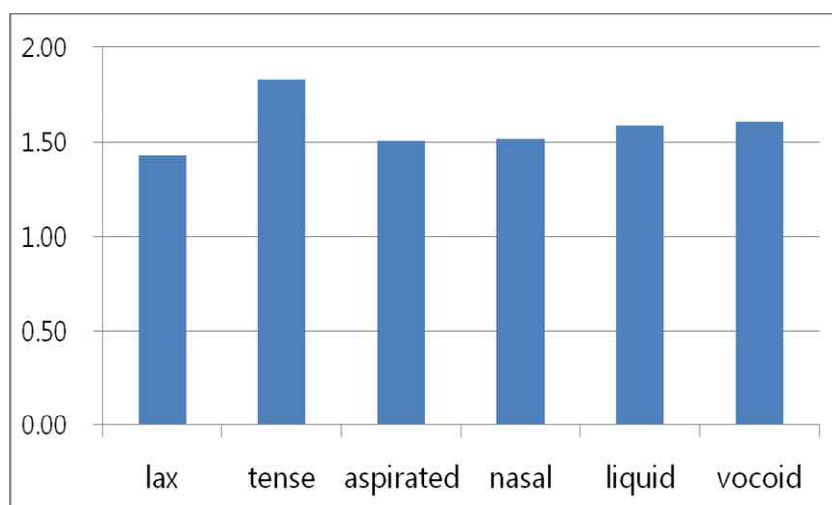


Figure 1. The acceptance rates of word-initial tensification depending on the types of second onset

2 <sup>nd</sup> Onset	lax	tense	aspirate	nasal	liquid	Vocoid
<i>-i</i>	0.93	<b>1.58</b>	<b>0.11</b>	0.65	0.89	1.43
<i>-hi</i>	1.02	<b>0.73</b>	<b>1.39</b>	1.15	1.04	0.80

Table 1. The Observed/Expected ratios of ‘*-i*’ and ‘*-hi*’ suffix forms depending on the types of the preceding onset

2 <sup>nd</sup> Onset \ 1 <sup>st</sup> Onset	lax	tense	aspirate	nasal	liquid	vocoid
Lax	1.03	0.91	1.01	1.00	0.96	1.05
Tense	1.04	<b>2.35</b>	<b>0.33</b>	0.75	1.38	0.74
aspirated	1.00	0.95	1.07	1.02	0.86	0.98

Table 2. The Observed/Expected ratios of first and second onsets in the Korean lexicon

#### Selected references

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