

The High-on [il] in Seoul Korean: a lexical diffusion or a phonological rule?

This study reports two interesting patterns of one recent sound change in Seoul Korean (SK): the High-on [il] (Jun & Cha 2011). SK is known to show LHLH phrasal tonal patterns in Accentual Phrases (AP), unless an AP starts with an aspirated or tensed consonant (Jun 2000). However, Jun and Cha (2011) report that an AP-initial [il] is sometimes realized with a H tone. Their findings are i) speakers younger than mid 40s are more likely to produce a H tone on [il] and ii) [il] meaning *No. 1* is the most frequently H-toned. However, the present study finds that there are actually two patterns in the realization of the phenomenon. One group shows a tonogenesis, producing [il] *No. 1* with a H tone, but producing [il] *day* and *work* with a L tone (Group 1), whereas the other group treats the phenomenon as a phonological rule, producing all meanings of [il] with a H tone (Group 2).

The present study collected data from 36 SK speakers (16 female and 20 male speakers, age range: 14 - 29). 60 target words were employed; 32 words started with [il], and the other 28 words started with /i/, followed by six other coda consonants or no coda (/i(C)/). Among the 32 [il]-initial words, [il] means *No. 1* in 9 words, *day* in 8 words, and *work* in another 8 words. The other 7 words were not related to *No. 1*, *day*, or *work*. The F0 values were normalized into z-scores.

Mixed effect regression analyses show the interaction between the two groups and the meanings of [il] was significant ($p < .0001$), raising the z-scores of Group 2 by 1.32 (*day*), 1.4 (*work*), and 1.02 (other) but lowering that of [il] *No. 1* of Group 2 by -0.17. Also, the meanings of [il] affected pitch, raising the z-score of [il] *No. 1* by 1.37 higher than those of the other meanings of [il] ($p < .0001$). In addition, a coda /l/ had an effect on pitch, making the z-score of [il] 0.93 higher than those of the other target syllables ($p < .0001$). Lastly, the presence of a preceding partial glottal stop affected pitch, raising the z-score of the target syllables by 0.32 ($p < .0001$).

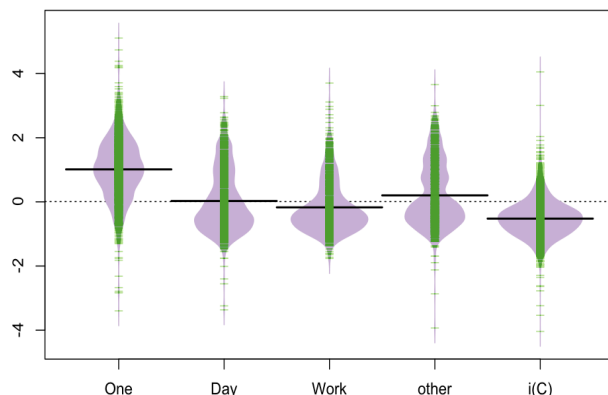


FIGURE 1. Mean values and distribution of z-scores. Bold lines show mean values, and green lines show each observation. Purple batches show the density of z-scores.

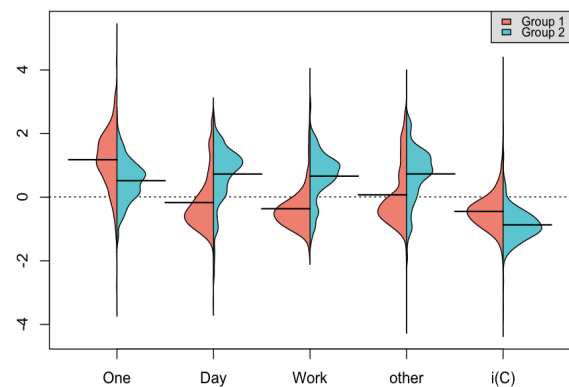


FIGURE 2. Comparison of Group 1 and Group 2. Orange batches show the distributions of z-scores of Group 1, and blue batches show those of Group 2.

Based on the results, I propose that [il] *No. 1* behaves differently from the other meanings of [il] and the phenomenon has started from the meaning *No. 1* (Fig. 1). This proposal is supported by the result that [il] preceded by a partial glottal stop is more likely to be H-toned. Since the vowel length contrast in SK was lost, SK speakers seem to have inserted a glottal stop before [il] to disambiguate the perceptual confusion between [il] ‘1’ and [i:] ‘2’, producing [il] with a tensed voice, but SK listeners have interpreted this redundant phonation cue as a tonal contrast (See Kingston 2011 for discussion about tonogenesis). I propose that this process has resulted in a tonogenesis on the meanings of [il], where [il] *No. 1* is H-toned and [il] *day* and *work* are L-toned (Group 1). However, the speakers of Group 2 have generalized a H tone over all meanings of [il] when they acquired SK. This seems to be because children tend to impose systematicity when there are unpredictable variations (Hudson Kam and Newport 2005).

References

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