

Noun-Verb Asymmetries in Korean Phonology

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It is well known that in Korean, the interaction between post-obstruent tensification (e.g. /mak + ko/ → [mak.k'o] ‘to block’ + conjunctive) and coda cluster simplification (e.g. /kaps/ → [kap] ‘price’) may result in opacity (e.g. /ilk + ko/ → [il.k'o], *[il.ko] ‘to read’, cf. /sal + ko/ → [sal.ko], *[sal.k'o] ‘to live’). What has been overlooked thus far is that only verbs show the opacity, whereas nouns yield transparent results in the same phonological environment (e.g. /jətəlp + kwa/ → [jə.təl.kwa], *[jə.təl.k'wa] ‘eight’ + conjunctive).

This kind of asymmetric example provides a direct challenge to the previous analyses on noun-verb asymmetries in Korean phonology since it is the opposite case of well-studied ones where nominal inflection involves opacity, while verbal inflection does not. In fact, this new puzzle cannot be solved by the previous approaches that depend on noun-specific constraints such as Noun Faithfulness (Smith 2001), Prosodic Word Alignment (Lee 2001), or Base-Output Correspondence (Ko 2006), all of which are suggested to explain the opacity observed in nominal inflection only.

The intuition to solve the whole noun-verb asymmetries is that nominal inflection involves more steps than verbal inflection. I propose that Stratal OT (Kiparsky 2001) provides an adequate solution, assuming that nominal inflection takes place at a later stratum than verbal inflection. Specifically, I assume that verbal inflection takes place at the stem level, whereas nominal inflection occurs at the word level. The process of selecting the optimal output at each level is illustrated in (1): tensification is not observed in nominal inflection because of cluster simplification at the word level.

The stratal OT approach also accounts for other previously studied noun-verb asymmetries as well. Firstly, the fact that coda neutralization optionally overapplies in nominal inflection (e.g. /kap^h + a/ → [ka.p^ha], *[ka.pa] ‘to repay’ + infinitive, /sup^h + i/ → [su.p^hi] ~ [su.pi] ‘forest’ + nominative) can be explained by assuming the optional cyclicity of the word level (2). Secondly, vowel hiatus resolutions in verbal inflection only (e.g. /talku + ə/ → [tal.ku.ə] ~ [tal.kwə] ‘to heat’ + infinitive, /nuku + eke/ → [nu.ku.e.ke], *[nu.kwe.ke] ‘who’ + dative) are easily explained if we assume that they occur at the stem level but not at the word level. Furthermore, the Stratal OT approach correctly predicts the fact that vowel reduction processes can occur inside non-derived nouns, which causes a problem with previous studies (e.g. /muəs + e/ → [mu.ə.se] ~ [mwə.se] ‘what’ + dative) (3).

In sum, the Stratal OT approach provides the best solution to noun-verb asymmetries with respect to opacity in Korean phonology: it does not need additional constraints and still explains a wide range of data that cannot be entirely solved by strict parallel OT approaches.

