The /ɨ/ deletion rule and phonologically conditioned allomorphy in Korean cases

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We provide a new analysis of phonologically conditioned allomorphy in Korean case markers. In contrast to previous studies, we argue that only the nominative is suppletive and the other cases are morphophonological alternations, whose distributions are mostly explained by a general phonological rule, the /ɨ/ deletion rule. Furthermore, we show that their distributions do *no*t optimize surface forms, suggesting that previous analyses, which depend on a syllable-structure optimizing effect, are not on the right track.

(1)

	Vowel-final *se* 'bird'	Consonant-final *kuk* 'soup'	/ŋ/-final *saŋ* 'prize'	/l/-final *sal* 'flesh'
Nominative: *i ~ ka*	se-ka	kuk-i	saŋ-i	sal-i
Accusative: *il ~ lil (~ l)*	se-lɨl ~ se-l	kuk-ɨl	saŋ-ɨl	sal-ɨl
Topic: *in ~ nin (~ n)*	se-nɨn ~ se-n	kuk-ɨn	saŋ-ɨn	sal-ɨn
Instrumental: *ilo ~ lo*	se-lo	kuk-ɨlo	saŋ-ɨlo	sal-lo
Comitative: *kwa ~ wa*	se-wa	kuk-kwa	saŋ-kwa	sal-kwa

Previous approaches: The case markers in (1) have often been cited as examples of phonologically conditioned suppletive allomorphy. In all cases except the comitative, consonant(C)-final nouns select vowel(V)-initial allomorphs so that the final coda is resyllabified as an onset of the following syllable (ex: *kuk-in* 'soup-TOP' → [ku.gɨn]), while V-final nouns select C-initial allomorphs to avoid an onsetless syllable (ex: *se-nin* 'bird-TOP', *se-in). Bonet et al. (2007) argue that the allomorphs of the topic marker are listed in the lexicon (i.e., suppletion) and the candidate that minimally violates ONSET and NOCODA is selected. However, their approach fails to explain /ŋ/-final nouns, which behave like other C-final nouns, even though /ŋ/ is not a permissible onset in Korean.

(2) /ŋ/-final noun: *sang-in* 'prize-TOP' (☺: the actual form, 💣※: a wrong winner)

/sang-{in, nin}/	DEP	MAX	ONSET	NOCODA
☺ a. saŋ-in			*	**!
💣※ b. saŋ-nɨn				**

Lee (2009) addresses the problem of /ŋ/-final nouns with a constraint, *ŋ/ONSET. Also, he proposes a constraint called DEFAULT, which states that a phonologically simpler form is preferred. However, his analysis of the nominative does not extend to the rest of the system as shown in (3). In fact, comitative *wa ~ kwa* poses a problem in all approaches that address the alternation with the optimizing effect, because this distribution does *not* optimize phonological forms. An optimizing approach would expect -*wa* to appear after C-final nouns, contrary to the fact (ex: *kuk-kwa* 'soup-COM', *kuk-wa).

(3) An extension of Lee's analysis (The default for COM in Lee (2009) is -*wa*.)

/kuk-{wa, kwa}/	*ŋ/ONS	*VV	DEFAULT	NOCODA	ONSET	ALIGN-STEM
💣※ a. kuk-wa				*		
☺ b. kuk-kwa			*!	*		

Proposal: We adopt the framework of Distributed Morphology, which does not require optimization. For nominative -*i* ~ -*ka*, we admit that their phonological forms are not related, thereby suppletive. There is historical evidence that shows -*i* was the only

nominative marker in Early Middle Korean and *-ka* is only attested at a later date (Sohn, 1999). Thus, we propose two Vocabulary Items (VI) for the nominative (4).

(4) [NOM] ↔ *-ka*/ V _____
    [NOM] ↔ *-i*

In contrast, if we provided two VIs for the topic or the accusative, we would miss the generalization that their phonological forms are similar. Considering that suppletion is rare (Embick and Halle, 2005), treating these alternations as morphophonological is preferred. We propose one VI for each case (5) and one readjustment rule (6) to capture their phonological similarity. (The VIs are given in a schematic form to save space.)

(5) [TOP, ACC] ↔ *-iC*   (C = *n* for TOP; C = *l* for ACC)
(6) Coda Copy: *-iC₁* → C₁*iC*₁ / V_____ [TOP, ACC]

The distribution of the instrumental *-ilo* ~ *-lo* is more complicated than those of the others, because /l/-final nouns select *-lo,* instead of *-ilo* (ex: *sal-lo* 'flesh-INSTR', *sal-ilo). However, the instrumental is not an example of suppletion, as a general phonological rule can explain its distribution. In verb conjugations, *-i* is deleted after a V-final verb stem and also after a /l/-final verb stem. For example, in (7), both the /l/-final and the V-final verbs select *-mjʌn.* Thus, we propose one VI for the instrumental (8) with the *i* deletion rule applying to the same environment as in verb conjugations.

(7) Conditional: *imjʌn ~ mjʌn*
    a. C-final: mʌk-i.mjʌn   *mʌk-mjʌn   'eat-if'
    b. V-final: ka-mjʌn   *ka-i.mjʌn   'go-if'
    c. /l/-final: man.dil-mjʌn *man.dil-i.mjʌn   'make-if'

(8) [INSTR] ↔ *-ilo*

One more interesting alternation in the topic and the accusative is that -C*i*C is often reduced to -C in casual speech. No previous studies have provided an explanation for this. We suggest that the /i/ deletion rule explains this pattern. The inserted VIs of the topic and the accusative undergo either Coda Copy (6) or the *i* deletion rule after a V-final noun, resulting in either the full form, -C*i*C, or the reduced form, -C.

Lastly, for the comitative, we propose one VI (9) along with a readjustment rule because the phonological forms of the two allomorphs are similar (10).

(9) [COM] ↔ *-kwa*
(10) Consonant deletion: *k* → Ø / V _____ [COM]

Summary: This paper provides a complete analysis for allomorph selection in Korean case markers. We show that allomorph selection of these markers does not optimize phonological surface forms contrary to the assumptions of previous analyses. We propose that only the nominative is an example of suppletion, whereas the other alternations are morphophonological, and most of these alternations are explained by the /i/ deletion rule.

References: [1] Bonet, E., M.-R., Lloret, and J. Mascaró. 2007. Allomorph selection and lexical preferences: Two case studies. *Lingua, 117,* 903-927. [2] Embick, D. and M. Halle. 2005. On the status of *stems* in morphological theory. In T. Geerts and H. Jacobs (eds.), *Proceedings of Going Romance 2003*. John Benjamins. [3] Lee, Y. 2009. Universal and morpheme-specific constrains for allomorphy selection. In Y. -S. Kang et al. (eds.), *Current Issues in Linguistic Interfaces: Proceedings of The 2009 Seoul International Conference on Linguistic Interfaces, Volume 2*. pp. 417-434. Seoul: Hankooknumhwasa. [4] Sohn, H. -M. 1999. *The Korean language.* Cambridge: Cambridge University Press.