

Node Sprouting and Root Suppletion in Korean Verbal Morphology

Introduction We investigate two postsyntactic operations of Distributed Morphology—dissociated morpheme insertion (aka ‘node sprouting’) and morphologically conditioned allomorphy in the domain of subject honorification, negation, and suppletion in Korean. We propose that the subject honorific suffix *-si* is a postsyntactically sprouted agreement node, the result of a morphological rule that can apply only once per phase. The analysis (i) makes correct predictions concerning the distribution of *-si* in *po-* constructions and (ii) motivates a novel locality principle governing suppletive conditioning.

Against -si as a syntactic head We argue that *-si* cannot be treated as the exponent of a syntactic functional head. Our first argument comes from VP ellipsis. In ellipsis, mismatches between antecedent and ellipsis site should be impossible (Merchant 2001). If *-si* realizes a functional head in syntax (Chung 2009, Kim&Sells 2007), *-si* is expected to be present in both the antecedent and ellipsis sites, or absent in both sites. However, this is not borne out as in (1).

- (1) Apeci-kkeyse sacin-ul po-*(si)-ess-ta. Ai-to kule-ha-(*si)-ess-ta.
 father-NOM-HON photo-ACC see-HON-PST-DECL child-also SO-do-HON-PST-DECL
 ‘Father saw the photo. The child did so, too.’

Second, distribution of *-si* on the main verb in long negation constructions (2) shows that *-si* can appear below NegP. This renders untenable Chung 2009’s HonP analysis, which assumes (3) as the clausal structure; (3) cannot capture the low position of *-si* in (2), nor the possibility of multiple instances of *-si*. Amending Chung’s analysis by adding a second HonP for *-si* would be hard to justify. Analyses with multiple AgrPs in the verbal extended projection usually involve separate controllers (e.g., AgrSP, AgrOP), but the multiple exponents of *-si* in (2) have a single controller.

- (2) Apeci-kkeyse {ka-si₁-ci an ha-(si₂)-ess-ta. / ka-(si₁)-ci an ha-si₂-ess-ta.}
 father-NOM-HON go-HON-CI NEG do-HON-PST-DECL / go-HON-CI NEG do-HON-PST-DECL
 ‘(Father) didn’t go.’

- (3) [CP [TP [HonP [NegP [vP [VP V°] v°] Neg°_{an}] Hon°_{si}] T°] C°]

Hon° sprouting We follow Chomsky 1995 in assuming that agreement nodes are not syntactically projected, adopting the DM treatment of Halle&Marantz 1993 and Bobaljik 2008 in which agreement nodes are inserted postsyntactically, triggered by particular structural configurations. We propose that an Hon° node sprouts on the closest v° c-commanded by an honorific nominative NP in each phase.

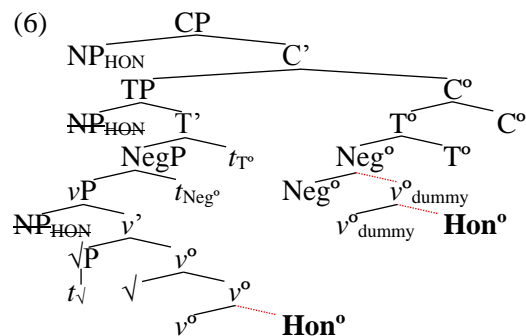
- (4) v° → [v° Hon°] / [NP_{HON} ... [... v° ...]] (applies once after Spell-Out of each phase)

A simple honorific affirmative sentence is derived as in (5a), assuming that Korean subjects end in the left periphery (Sohn 1986) and that verbal complexes are created by head movement (Choi 2003). (4) does not apply in the first two Spelled-Out domains (√P and TP), since v° is in the edge in each case and hence does not undergo Spell-Out. The structural condition for (4) is met only in the final cycle of Spell-Out. On that cycle, Hon° sprouts on v°, as in (5b), and is realized as *-si*.

- (5) a. [CP NP_{HON} [C' [TP NP_{HON} [T' [vP NP_{HON} [v' [√P t√] t_v]]] t_T]]] √-v°-T°-C°]]
 b. [CP NP_{HON} [C' [TP NP_{HON} [T' [vP NP_{HON} [v' [√P t√] t_v]]] t_T]]] √-[v°-Hon°]-T°-C°]]

An honorific long negation sentence like (2) is derived as in (6). (4) does not apply in the first Spelled-Out domain (√P). However, the second Spelled-Out domain (TP) triggers (4) and Hon° sprouts on the lower v°, stranded in vP by the intervening Neg° (Han&Lee 2007). At final Spell-Out, dummy v° sprouts on Neg° since the complex C° lacks a verbal host (Han&Lee 2007). The structural configuration for (4) is then met and Hon° also sprouts on the dummy v°.

Root Suppletion Some Korean verbs supplete for honorification (*iss-* ‘exist’ ~ *kyey-* ‘exist.HON’). We propose that suppletive verbs are conditioned by an Hon° anywhere in their complex head (Bobaljik 2012). Since in long negation Hon° sprouts in both the v° and C° complexes, we correctly predict √_{EXIST} to supplete for honorification in long negation (7) (cf. (9a)):

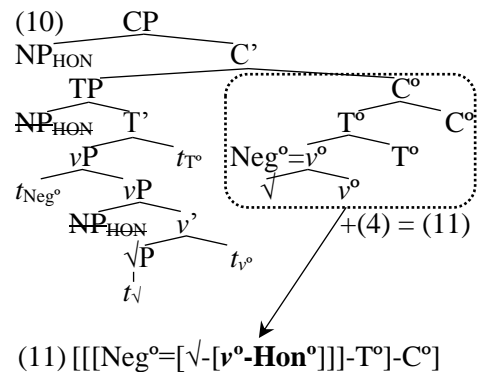


- (7) Apeci-kkeyse yeki {**kyeysi**/***iss-usi**}-ci an ha-si-ess-ta. ‘Father wasn’t here.’
 father-NOM.HON here exist.HON/exist-HON}-CI NEG do-HON-PST-DECL

$\sqrt{\text{EXIST}}$ suppletes for negation as well (8). Chung 2007 showed that negative suppletion is conditioned by short negation. We derive short negation via Neg° -to- v° cliticization (Han&Lee 2007), (10). Since Neg° in the complex C° triggers negative suppletion, $\sqrt{\text{EXIST}}$ is realized as *eps-* ‘exist.NEG’ by (9b).

- (8) Tom-i yeki **eps-ta**. ‘Tom isn’t here.’
 T-NOM here exist.NEG-DECL

- (9) a. $\text{EXIST} \leftrightarrow \textit{kyeysi-} / [\dots [__] \dots \text{Hon}^\circ \dots]_{X^\circ}$
 b. $\text{EXIST} \leftrightarrow \textit{eps-} / [\text{Neg}^\circ = [\dots __ \dots]]_{X^\circ}$
 c. $\text{EXIST} \leftrightarrow \textit{iss-}$
 d. $\text{Hon}^\circ \leftrightarrow \emptyset / [\{\{\textit{kyeysi-}, \textit{cwumwusi-}, \dots\}\} __]$
 e. $\text{Neg}^\circ \leftrightarrow \emptyset / [__ = \{\{\textit{eps-}, \textit{molu-}, \dots\}\} \dots]$
 f. $\text{Hon}^\circ \leftrightarrow \textit{-si}$ g. $\text{Neg}^\circ \leftrightarrow \textit{ani}$



Interestingly, when both are present, honorific suppletion bleeds negative suppletion as in (12), with the structure in (11). This does not follow from competition between (9a) and (9b) since they are not in a subset relationship. The idea that root suppletion is triggered by a conditioning head within the same complex head does not help either since both Neg° and Hon° are in the complex head. We propose the **Local Allomorph Selection Principle**: If two Vocabulary Items are in competition and the Subset Principle does not apply, then the Vocabulary Item conditioned by the more hierarchically local feature blocks the one conditioned by the less local feature. This is a natural hypothesis given the bottom-up, root-outward nature of Vocabulary Insertion (Bobaljik2000). With the addition of this principle, (12) is predicted. At Spell-Out of the root clause in (10), Hon° sprouts on v° , yielding the complex C° head in (11). Since Hon° is more local to $\sqrt{\text{v}^\circ}$ than Neg° , the honorific form wins.

- (12) Apeci-kkeyse yeki {an **kyeysi-ess-ta** / ***eps-usi-ess-ta**} ‘Father wasn’t here.’
 father-NOM.HON here NEG exist.HON-PST-DECL / exist.NEG-HON-PST-DECL

Phase-based Hon^o sprouting The idea that node-sprouting (4) applies *once per phase* is motivated by the distribution of *-si* in *po*-constructions (13). In these constructions, *-si* can only appear on the matrix verb *po-* ‘try’, not on the embedded verb. Assume the verbal material in (13) forms a single complex head via head-movement (see (14)). The occurrence of *-si* on the embedded verb (e.g., *ilk-* ‘read’) is ruled out if sprouting only applies once per phase. When the verbal complex is spelled-out on the final cycle in (13), (4) applies and sprouts Hon° only on the most local v°_2 , yielding [$\sqrt{\text{v}^\circ_1}$ - $\sqrt{\text{TRY}}$ - $[\text{v}^\circ_2$ -**Hon^o]-T^o-C^o]. The sprouting rule is then *discharged in this spell-out domain* (in the spirit of Richards 1997’s Principle of Minimal Compliance), and thus Hon° does not sprout on the embedded v°_1 *ilk-* ‘read’.**

- (13) Apeci-kkeyse {**ilk**-(***usi**₁)-e / **cwumwusi**-e} **po-si**₂-ess-ta. ‘Father tried to sleep/read.’
 father-NOM.HON read-HON-E / sleep.HON-E try-HON-PST-DECL

- (14) [CP NP_{HON} [C' [TP NP_{HON} [T' [vP NP_{HON} [v^o₂ [vP₂ [vP₁ [NP₁ t_N] t_{v^o₁]]] t_{v^o₂]]] t_{T^o}] [$\sqrt{\text{v}^\circ_1}$ - $\sqrt{\text{TRY}}$ - $[\text{v}^\circ_2$ -**Hon^o]-T^o-C^o]]]]]**}}

Despite the impossibility of embedded *-si* with regular verbs, embedded suppletive honorific forms must appear in honorific *po*-constructions. We correctly predict the embedded suppletive root to surface in its honorific alternant *cwumwusi-* in (13). Since the root and Hon° reside in the same complex head, [$\sqrt{\text{v}^\circ_1}$ - $\sqrt{\text{po}}$ - $[\text{v}^\circ_2$ -**Hon^o]-T^o-C^o], honorific suppletion is conditioned (cf. (9a)).**

Lastly, we also predict the distribution of *-si* in *po*-constructions which themselves embed long negation (15). *-usi*₁ is allowed since the stranded *ilk-ci* is in a separate Spell-Out domain which is subject to its own application of (4). *-si*₂ is disallowed since the underlined string in (15) is a single complex head at its Spell-Out cycle and so only the least embedded v° sprouts Hon° , realized as *-si*₃.

- (15) Apeci-kkeyse **ilk-usi**₁-ci an ha-(***si**₂)-e **po-si**₃-ess-ta. ‘Father tried not to read.’
 father-NOM.HON read-HON-E NEG do-HON-E try-HON-PST-DECL

Implications In (13) with the suppletive embedded root $\sqrt{\text{SLEEP}}$, the conditioning Hon° and the conditioned embedded $\sqrt{\text{TRY}}$ are separated by an intervening node, whether considered structurally ($[\sqrt{\text{v}^\circ_1}$ - $\sqrt{\text{po}}$ - $[\text{v}^\circ_2$ - Hon°]-T^o-C^o]) or linearly ($[\sqrt{\text{v}^\circ_1}$ - $\sqrt{\text{po}}$ - Hon° -T^o-C^o]). This entails the rejection of strict adjacency-based proposals for suppletion such as Arad 2003, Embick 2010 and Merchant 2015.