Reining in GEN: The Case for a Stronger Scope Concordance Condition

McCarthy and Prince [1995] argue that *exfixation*, the dislocation of a morpheme outside the morphological scope of affixation, is ruled out in GEN with the Morphology/Prosody Scope Concordance Condition (M/P SCC), which states that the linear order of the output correspondents of two morphemes reflects the structural relationships between those morphemes in the input. This paper will argue that *hyperinfixation*, a similarly unattested phenomenon, must be ruled out in OT grammars with strengthening of the M/P SCC. Hyperinfixation can potentially occur in OT grammars anywhere high-ranked markedness constraints dominate constraints positioning morphological exponence in the output. A commonly cited case [Orgun and Sprouse, 1999] in which the phenomenon should arise bu does not is found in the Austronesian language Tagalog, in which infixation of an actor focus marker normally occurs immediately after the first consonant of a verbal root (1 a). A high-ranked prohibition on labial onset sequences should force infixation of the focus marker into the second syllable of the root (1 b) in labial-initial roots. The fact that no such infixation occurs in Tagalog, nor in any case known cross-linguistically, points to a pathological property of OT grammars generally.

To rule out hyperinfixation in Tagalog and universally, some restriction must be placed on OT grammars—a condition that allows a certain amount of dislocation of a morpheme away from its edge of orientation, *but not too much*. The revised formulation of the M/P SCC, (2) below, requires that the M-Scope of a morpheme be identical to its P-Scope. The M/P SCC has the effect of ruling out any candidate in which an affix dislocates outside a prosodically proscribed domain at a word edge. The resulting theory makes a strong prediction: that infixation may only occur where the affix in its entirety is immediately dominated by an edge-bound prosodic constituent. In cases like Tagalog actor focus infixation, where an affix is split across two root syllables, p-command of the first root syllable, along with linear precedence of the affix w.r.t. the remainder of the root segments, ensures that the P-Scope and M-Scope of the affix remain identical, {sulat}. In the hyperinfixation case, however, the P-Scope of the affix is reduced to {hal}, a subset of the segments in the affix's M-Scope. The revised M/P SCC thus rules out both exfixation and hyperinfixation, which cannot be ruled out on a weak M/P SCC.

This paper will present accounts of infixation in Tagalog, Koasati, and English under the revised condition and will go on to consider the implications of the theory against the survey of known infixation types presented by Yu [2007]. It will be shown that the proposed definition of p-command allows that, where an infix consists of an entire prosodic unit—as in English expletive infixation [McCarthy, 1982] and the Koasati punctual infixation [Kimball, 1991]—that infix has a wider p-command domain, and may therefore appear farther from its basic edge orientation than infixes which break across root syllable boundaries. It will be shown that an alternative approach to the hyperinfixation problem, the Subcategorization Non-violability Hypothesis [Yu, 2007], predicts the existence of hyperinfixation in default-to-opposite stress systems, where parochial $\text{ALIGN}_{morpheme}$ constraints force alignment of morphological categories and prosodic heads in the output. It will be shown that the proposed restriction on GEN is advantageous in that it allows infixation to remain a phenomenon predicted by the Prosodic Morphology program of McCarthy and Prince [1995], rather than stipulative conditions on the placement of particular morphemes.

Figures

(1)   (a) /um + sulat/ $\rightarrow$ s-um-ulat $\because$ {ONSET $\gg$ LINEARITY}

        (b) {OCP(MUM), ONSET $\gg$ LINEARITY} $\therefore$ /um + mahal/ $\rightarrow$ *mah-um-al

(2)   M/P Scope Concordance Condition (strong)

M-Scope(α) $\approx$ P-Scope($^\wedge\alpha^\wedge$)

    (a) Dfn. M-Scope
        A morpheme β is in the M-Scope of another morpheme α iff α c-commands β.

    (b) Dfn. P-Scope
        A segment β is in the P-Scope of a segment α if:

- α p-commands β or $\alpha < \beta$, and α associates to an input prefix; or
- α p-commands β or $\beta < \alpha$, and α associates an input suffix.

    (c) α p-commands β iff:
        the first branching prosodic category (σ, Ft, Prwd) that dominates α also dominates β

(3)   Differing predictions of formulations of M/P-SCC

affix class	*mapping*	M/P-SCC (weak)	M/P-SCC (strong)
prefix	[mag[upo]] $\rightarrow$ mag-upo M-Scope(mag)={upo} P-Scope($^\wedge$mag$^\wedge$)={upo}	✓	✓
infix	[um[sulat]] $\rightarrow$ s-um-ulat M-Scope(um)={sulat} P-Scope($^\wedge$um$^\wedge$)={sulat}	✓	✓
hyperinfix (unattested)	[um[mahal]] $\rightarrow$ *mah-um-al M-Scope(um)={sulat} P-Scope($^\wedge$um$^\wedge$)={lat}	✓	✗
exfix (unattested)	[mag[pa[upo]]] $\rightarrow$ *ma-pa-g-upo M-Scope(pa)={upo} P-Scope($^\wedge$pa$^\wedge$)={gupo}	✗	✗

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