MORPHOLOGICAL OPTIONALITY IN REDUPLICATION: A LOWERING ACCOUNT

ISSUE: Rackowski (1999), working on Tagalog (Austronesian; Philippines), and Hyman et al. (in press), working on Ndebele (Bantu; Zimbabwe), each identify a pattern of reduplication in which the reduplicant (in **bold**) can reduplicate some morphemes, but not others, within the verb word. Furthermore, the target of reduplication may vary with respect to those morphemes that are licit candidates for reduplicative copying; this variation derives no semantic effects. In Tagalog, while the ability/involuntary action prefix (1.iv) is unavailable for reduplication, the locus of reduplication may freely fluctuate within the set of morphemes that constitutes the possible reduplicable targets (1.i-iii). In Ndebele, the subjunctive (2.iii) and negative (2.iv) suffixes cannot be included in the reduplicant, but the applicative (2.i) and the causative (2.ii) morphemes may be optionally copied (note that I assume the semantically empty final vowel *-a* to be a case of epenthesis to satisfy PF constraints, such as NOCODA). Rackowski and Hyman et al. each propose a categorial analysis in which the unreduplicable affixes are housed in the wrong kind of head or are of the wrong type of morpheme. Rackowski suggests that the facts in (1) are a result of a Tagalog-specific morpheme scrambling rule that takes the reduplicant from its assumed base-position as sister to VP and adjoins it to a higher v^0 head to satisfy a v-feature on the reduplicant. Hyman et al. explain the facts in (2) by using a Bantu-specific morphological template that stipulates whether a suffix is contained within the domain of reduplication, and propose co-phonologies to account for the variations in the faithfulness of the reduplicant to specific morphemes in the base.
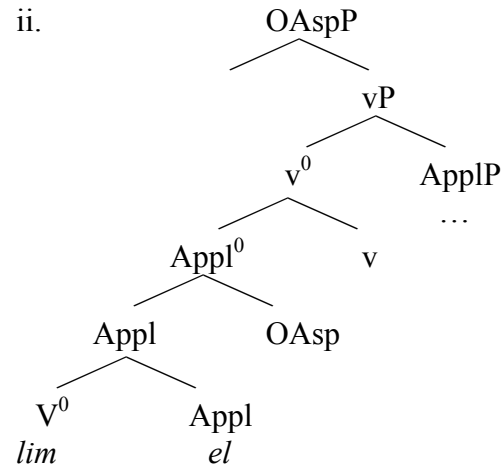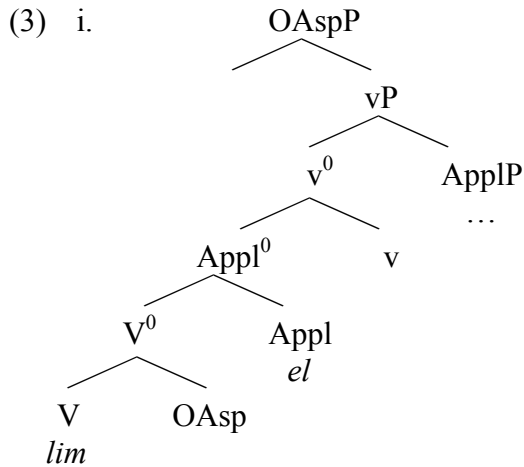
PROPOSAL: I present a uniform analysis of the data in (1) and (2) by attributing the observed variations to both structural conditions within the narrow syntax and a post-syntactic Lowering operation of the reduplicative morpheme, without making reference to any language-specific rules, templates, or co-phonologies. I argue that the reduplicative morphemes in these languages, in terms of semantics, are most appropriately generated as sisters to vP, in the position of Viewpoint/Outer Aspect (see Travis, in press). Crucially, reduplication in (1-2) may be explained via a revised theory of Morphological Lowering in which the reduplicative morpheme lowers post-syntactically from this position to adjoin to any X^0 of the complex head of its complement, which is formed via V-to-v movement (cf. Embick & Noyer 2001, who claim that intermediate X^0 projections are transparent for post-syntactic operations). For example, (3i-ii) illustrate two possible outcomes of this post-syntactic operation, corresponding respectively to the two possible outputs observed in (2i). Thus, unsurprisingly, the morphemes that are unavailable for reduplication are simply generated in the functional domain above the reduplicant, adjoining to the verb at a later stage. Following Halle & Marantz' (1993) Distributed Morphology, we assume that the post-Lowering operation of Vocabulary Insertion (VI) applies in a step-wise fashion from the bottom up, giving phonological features to the terminal nodes and assigning linear order. As we observe in (4), the reduplicant copies the phonological features of its sister during the relevant cycle (directionality of affixation determined by Vocabulary item). Thus, we see that morphological optionality in reduplication is due solely to the availability of multiple landing sites when Lowering into a complex head. I will argue that this model of Lowering accounts for many additional cases of morphological variation, including, but not limited to, other patterns of reduplication. Moreover, I argue that this model does not overgenerate unattested morphological variations in other cases of Lowering, such as affix-hopping in English. Further, I will claim that these intermediate X^0 projections become unavailable for post-VI transformations (e.g. Local Dislocation), due to the fact that VI erases all intermediate hierarchical structure.

(1) <u>Tagalog</u>
 i. ma-ka-pag-**hi:**+hintaj iv. ***ma:**+ma-ka-pag-hintaj
 ii. ma-ka-**pa:**+pag-hintaj   ASP+AIA-TLC-TRNS-wait
 iii. ma-**ka:**+ka-pag-hintaj   'will be able to wait' (imperfective aspect)

(2) <u>Ndebele</u>   *root only*   *root + suffix*
 i. **RED**+lim-el-a   **lima**+limela **lime**+limela
  in.little.bits+cultivate-APPL-FV 'cultivate for/at a bit'
 ii. **RED**+lim-is-a   **lima**+limisa **limi**+limisa
  in.little.bits+cultivate-CAUS-FV 'make cultivate a bit'
 iii. **RED**+lim-e   **lima**+lime ***lime**+lime
  in.little.bits+cultivate-SBJN 'cultivate (SBJN) a bit'
 iv. **RED**+lim-i   **lima**+limi ***limi**+limi
  in.little.bits+cultivate-NEG 'not cultivate a bit'

(3) i.   ii.

(4) i. Cycle 1: [OAsp * [lim]]
    Cycle 1': [**lim** * [lim]] *(phonological copying into reduplicant)*
    Cycle 2: [[**lim** * [lim]] * el]
    Output after epenthesis at PF: **lima**+limela
  ii. Cycle 1: [lim * [el]]
    Cycle 2: [OAsp * [lim * [el]]]
    Cycle 2': [**limel** * [lim * [el]]] *(phonological copying into reduplicant)*
    Output after epenthesis and truncation of reduplicant at PF: **lime**+limela

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