

## Morpho-phonological effects of cyclic Spell Out

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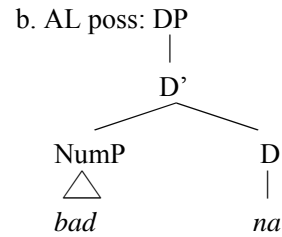
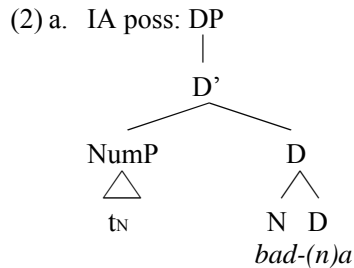
**Background.** Since Chomsky (1995, 1999, 2005), syntactic research has increasingly focused on the idea of cyclic derivation and its consequences. More recently, the interest has shifted from morpho-syntactic problems (e.g. Marantz 2001) to the interface between syntax and phonology (e.g. Marvin 2003; Piggott & Newell 2006, 2008; Newell 2008). The idea behind this research is that if derivation occurs in cycles, it should not only have syntactic and semantic consequences but it should also have an impact on the morpho-phonological component. Cyclic derivation could offer an explanation to phonological problems that have so far resisted a meaningful solution. At the same time, these morpho-phonological phenomena could provide us with new insight into the morpho-syntactic derivation.

**The problem.** My paper focuses on morpho-phonological contrasts; i.e., I investigate constructions that trigger different phonological processes despite the fact that they differ only minimally from each other. A case in point are possessive constructions. Many languages display some sort of morpho-phonological contrast between alienable (1a) and inalienable (1b) possessives. The following examples are taken from Acholi (Bavin 1996:852):

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|--|---|
| (1) a. <i>bad-na</i> → [ <i>bada</i> ]<br>arm-my<br>'my arm' (part of my body)<br>= Inalienable possessive | b. <i>bad-na</i> → [ <i>badna</i> ]<br>arm-my<br>'my arm/leg' (part of a hunted animal)<br>= Alienable possessive |
|--|---|

In both examples, the root *bad* is combined with the suffix *na*. However, only in (1a) the nasal of the suffix is deleted. This indicates that in (1a), wellformedness conditions require the avoidance of consonant clusters whereas in (1b), faithfulness to the input prevails. The crucial observation in (1) is that the same morphemes seemingly abide by different phonological wellformedness conditions depending on the meaning of the root. A purely phonological analysis of such data is forced to assume that there are two homophonous variants of the possessive suffix. However, such an analysis would be merely descriptive and have no explanatory power.

**Proposal.** The fact that the suffix in (1a) is sensitive to the coda of the inalienable root indicates that they are inside the same domain. This is not what we find in the alienable constructions in (1b) where the possessive morphemes ignore the final consonant of their possessee and thus support the hypothesis that they are in a domain separate from their alienably possessed root. I propose that we have to take the semantic and morpho-syntactic properties of (in)alienable possessives into consideration if we want a more comprehensive analysis for the contrast between (1a) and (1b). It is generally assumed that alienable and inalienable nouns differ from each other in their argument structure in that only inalienable nouns have an open argument slot for their possessor (e.g. Alexiadou 2003). I argue in my paper that this difference has consequences for their structural make-up as well as for their derivation. In particular, I propose that inalienables undergo Spell Out in the same domain as their possessors (2a) whereas alienable nouns and their possessors are spelled out in separate domains (2b). (Note that in Acholi, DPs are head-final).



Based on Piggott & Newell (2008), I assume that phonological wellformedness conditions apply in cycles. That is, phonological rules apply during Vocabulary Insertion when only the material of the current phase is visible. It is therefore expected that the visibility of material on different cycles has a phonological effect. As I argue in my paper, this is exactly what we see in the example in (1) above. The possessive suffix in (1a) is sensitive towards the coda of the root because suffix and root are in the same domain (2a) at Spell Out. By contrast, the possessive suffix in (1b) ignores the coda of the root because at the time where the suffix is inserted, the root is not within the same domain. To conclude, I argue that these morpho-phonological contrasts are not arbitrary but are instead the result of cyclic Spell Out; the difference between alienable and inalienable possessives tells us that there is a boundary between D and its complement (NumP).

**Conclusion.** In my paper, I illustrate that a cyclic application of phonological rules that is based on the morpho-syntactic derivation can account for data from genetically and typologically different languages (e.g. Lango, Akan, Nivkh, or Ojibwa). This account is more comprehensive than purely phonological analyses of the (in)alienable contrast even if the difference between the two constructions seems to be merely phonological at first glance.

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