Cyclicity and stress

The phonological cycle (Chomsky et al. 1956 et seq.) claims phonology applies to successive nested constituents, and predicts sensitivity to relative scope of prefixes and suffixes, i.e., that processes can distinguish the following two cases:

- **[Prefix [...] Higher Suffix]** Trigger
- **[Prefix [...] Lower Suffix]** Non-trigger

Typological claim: stress patterns can be sensitive to relative scope, but do not show the kinds of interactions predicted by the phonological cycle

Theoretical claim: the typological gap is accounted for if phonology has access to only finite-state computations (Chandlee 2014).

Chamorro stress: height- but not content-sensitive

The phonological cycle is a natural way to describe prefix-suffix interactions that are sensitive to the relative height of the affixes, as in Chamorro (Chung 1983):

- **Primary stress in Chamorro**
  - Default penultimate
  - Lexically marked accent on leftmost prefix gets primary stress
- **Chung’s cyclic analysis of Chamorro stress**
  - Lexical accent marked with +, primary stress marked with *

<table>
<thead>
<tr>
<th>Cycle 0</th>
<th>Cycle 1</th>
<th>Cycle 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>[[mi [mantika] ūa]</td>
<td>[[mi [mantika] ūa]</td>
<td>[[mi, mantika ūa]</td>
</tr>
<tr>
<td></td>
<td>[āe, kwentus ū]</td>
<td>[āe, kwentus ū]</td>
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</tbody>
</table>

Comains... comments... useless.


Finite state computability of Chamorro stress

- **Nez Perce stress: content- but not height-sensitive**
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Two assumptions allow for a local environment for accented prefix stress:
- **Binary branching:** ([Prefix [...] [Suffix]] allowed, but *([Prefix [...] Suffix])
- **No vacuous cycles:** Null morphemes are not passed to the phonology: *([...]"

The need to match constituent boundaries means that WHIS is not finite state:

- **No finite state analysis of WHIS**

Strong locality conditions hold on phonological triggers. Attested triggers have been claimed to have subsequential computations (Chandlee 2014).

A typological gap?

The phonological cycle predicts patterns that combine the morphological sensitivities of Nez Perce and Chamorro:

- **Winner by Height, If Special (WHIS)**
- **Gentler Winner by Height, If Special (G-WHIS)**

Yet WHIS seems to be a typological gap: we suggest it is impossible for phonological patterns to compare both height and symmetric content.