

## Stuck with stems: Domains in phonologically-conditioned allomorphy in Armenian verbs

**Introduction** Phonologically-conditioned allomorphy, by definition, involves reference to phonological units within a phonological domain, e.g., syllabic structure. In this paper, we discuss a case of “almost” phonologically-conditioned allomorphy in Modern Western Armenian verbs. One of the allomorphs of the syncretic mood marker is standardly described as attaching to “monosyllabic verbs” without further specification (Bardakjian & Thomson 1977, Avetisyan 2007, *inter alia*). Our empirical investigation concludes that the monosyllabicity requirement has to be satisfied within a non-minimal morphological domain, namely, the verb root followed by a theme element: the two, taken together, are required to be exactly CV. This pattern is informative for structure-based realizational frameworks such as Distributed Morphology (Halle & Marantz 1993) since it shows that during Vocabulary Insertion at a node, both phonological (syllabic template) and morphological (the limits of the *v* domain) information of the immediate context can be accessed.

**Basics** Modern Western Armenian employs a syncretic mood/polarity marker (glossed as G in the examples below) covering (non-negative) Indicative Present/Imperfective Past as well as Conditional Future. Two allomorphs are in use, namely, /gə-/ , the default marker (1a), and /gu-/ used with a small subset of phonologically ‘minimal’ roots (1b).

- (1) a. gə-χos-i-n  
G-speak-TH-3PL  
‘They speak.’
- b. gu-l-a-n  
G-cry-TH-3PL  
‘They cry.’

Literature on Western Armenian (e.g., Bardakjian & Thomson 1977) standardly describes the class of verbs in (1b) as ‘monosyllabic,’ but it’s not clear what the domain of monosyllabicity is. For example, it can’t be the verb form itself, as disyllabic past tense forms of (1b) show:

- (2) a. gu-l-a-n  
G-cry-TH-3PL  
‘They cry.’
- b. gu-l-a-ji-n  
G-cry-TH-PST-3PL  
‘They cried.’

**Alternatives** A potential alternative to this analysis would involve evaluating the content of the immediately following morpheme, namely, the root. Under this approach, the generalization would be that /gu-/ is restricted to mono-consonantal roots (or, alternatively, to a list of roots if there is just a handful of those). This approach, crucially, does not survive under morphological causativization (/tsh<sup>h</sup>n/) or passivization (/v/): although the root remains the same, the G marker switches to the default /gə-/ variant (3).

- (3) a. gu-l-a-nk<sup>h</sup>  
G-cry-TH-1PL  
‘We cry.’
- b. mez gə-l-a-tsh<sup>h</sup>n-e-n  
we.dat G-cry-TH-CAUS-TH-3PL  
‘They make us cry.’

The examples in (2)-(3) clearly indicate that neither the root nor the whole word can’t be the relevant domain. What scholarship on Western Armenian probably means is the monosyllabicity of the stem, an intermediate domain, defined as the root coupled with an adjacent thematic element. This, again, is not borne out in the data. First, there are CC roots that give a single syllable when combined with the theme. Those attach the default allomorph:

- (4) a.  $\boxed{\text{gu-}}$ l-a-nk<sup>h</sup>  
 G-cry-TH-1PL  
 ‘We cry.’
- b.  $\boxed{\text{gə-}}$ sk<sup>h</sup>-a-nk<sup>h</sup>  
 G-feel-TH-1PL  
 ‘We feel.’

Second, this approach can’t explain the alternation in (3), since the stem remains monosyllabic here as well. Nevertheless, we claim that a modified minimality restriction, namely, conforming to a CV template can accommodate the data from Western Armenian.

**CV stems** This approach covers all the basic cases. The only problematic case for the CV template is the causative pattern in (3), but we claim that the thematic element in (3b) includes an elided consonant. In Western Armenian, A-Class verbs, to which all the ‘minimal’ verbs belong, attach either /-a/ (imperfective forms) or /-ats<sup>h</sup>/ (elsewhere, including causative and passive forms) as thematic elements. This is especially visible in comparison with so-called athematic verbs (e.g., hak<sup>h</sup>n- ‘to put on’), which have zero themes (5a-5b).

- (5) a. hak<sup>h</sup>-v-i-l  
 put.on-PASS-TH-INF  
 ‘to be put on’
- b. hak<sup>h</sup>-ts<sup>h</sup>ən-e-l  
 put.on-CAUS-TH-INF  
 ‘to dress, make put on’
- c. sk<sup>h</sup>- $\boxed{\text{-ats<sup>h</sup>}}$ -v-i-l  
 feel-TH-PASS-TH-INF  
 ‘to be felt.’
- d. sk<sup>h</sup>- $\boxed{\text{-ats<sup>h</sup>}}$ -ts<sup>h</sup>ən-e-l  
 feel-TH-CAUS-TH-INF  
 ‘to make feel.’

In forms like (5d), the linear co-occurrence of two affricates is resolved via deletion at a later stage in the derivation, which surfaces as (3). Underlyingly, the stem template is CVC.

**Derivational timing** The generalization for Western Armenian is thus that the Roor-Theme sequence has to be exactly CV. In a realizational framework, like DM, the question of *timing* arises, and two possibilities emerge. In a favorable scenario, the G morpheme immediately dominates *v*, which hosts both the root and the theme, so allomorph selection can just refer to the already spelled-out material. Nevertheless, a few diagnostics indicate that the G marker is generated high in the structure of the clause, including its semantics and incompatibility with clausal negation. Moreover, morphologically, G combines only with tensed forms, and in Western Armenian dialects with mobile G marking, the marker is either a prefix or a post-Tense-Agreement suffix (7).

- (6) Standard Western
- a.  $\boxed{\text{gə-}}$ χəm-e-m  
 G-drink-TH-1SG  
 ‘I drink.’
- (7) Arapgir
- a. χəm-i-m- $\boxed{\text{gu}}$   
 drink-TH-1SG-G  
 ‘I drink.’
- C-initial

This suggests that the G marker remains sensitive to the domain including the Root and the Theme (the little *v* maximal 0-projection (Arregi & Nevins 2012) within the morphological word) fairly late after the marker is linearized on the verb.

**Selected References** Arregi & Nevins 2012. *Morphotactics*. Bardakjian & Thomson 1977. *A textbook of Modern Western Armenian*. Davit‘ Bek 1919. *The dialect of Arapgir*.