

On the timing of multiple exponence: Evidence from Arapgir and Erzurum Armenian verbs

Introduction This paper zooms in on multiple exponence (ME) of the syncretic mood/polarity marker G in Arapgir and Erzurum Armenian, two closely related diasporan varieties formerly spoken in the Ottoman Empire (Davit' Bek 1919, Mkrtč'yan 1952). In terms of derivational timing, I propose a Distributed Morphology (DM, Halle & Marantz 1993) analysis which locates ME of the G marker late in the derivation, after morphological words are formed. However, it does not happen too late, namely, after phonological exponents are inserted: I claim that this instance of ME is feature-driven, and it involves copying at Vocabulary Insertion.

Basics Modern Armenian employs a syncretic mood marker glossed below as G covering both Imperfective Indicative and Future semantics in the majority of formerly Ottoman Armenian varieties. In most dialects, including the Western and Eastern standards, G is uniformly realized as a prefix (1), however, in Arapgir and Erzurum, the marker shifted to a suffix position (2). Moreover, in the case of consonant initial roots, G simply switches from a prefix to a suffix position (2a), however, in the case of vowel-initial (2b) and mono-consonantal roots, a doubling pattern emerges.

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| <p>(1) Standard Western</p> <p>a. gə-χəm-e-m
G-drink-TH-1SG
'I drink.'</p> <p>b. g-ud-e-m
G-eat-TH-1SG
'I eat.'</p> | <p>(2) Arapgir (also Tsq'albila Erzurum)</p> <p>a. χəm-i-m-gu
drink-TH-1SG-G
'I drink.' C-initial</p> <p>b. k-ud-i-m--gu
G-eat-TH-1SG-G
'I eat.' V-initial</p> |
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The doubling pattern can be informally understood as the flipping of the affix licensed by a prosodic minimality condition, namely, that the 'stem,' defined as pre-thematic material, begins with a CV template. In the case of vowel-initial ($\sqrt{\text{ud}}$ 'eat') and mono-consonantal ($\sqrt{\text{I}}$ 'cry') roots, providing a spurious G helps satisfy the prosodic condition.

G-doubling is late First, the whole G pattern is incompatible with negation. Regardless of a particular analysis of this suppletive pattern, G-marking follows word formation in the sense that it requires a synthetic verb to attach to.

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| <p>(3) a. k-ud-i-m--gu
G-eat-TH-1SG-G
'I eat.'</p> | <p>b. tʃ^h-e-m ud-e-r
NEG-TH-1SG eat-TH-CNEG
'I don't eat.' Arapgir, Erzurum</p> |
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Moreover, Erzurum (unclear about Arapgir) shows a pattern of G displacement similar to the English do-support pattern (4). Crucially, the doubling pattern is possible on the verb only, so it disappears in wh-question under G-to-C movement, which re-attaches G to the wh-word.

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| <p>(4) a. k-ud-e--gu
G-eat-TH.3SG-G
'(S)he eats.'</p> | <p>b. vev =gu ud-e?
who G eat-TH.3SG
'Who eats?' Erzurum</p> |
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G-doubling copies features First evidence of pre-VI copying comes from the fact that different allomorphs are inserted into the two copies (/ku-/ , /k-/ for prefixes, and /-gu/ for suffixes (2)). Regardless of the analysis of G allomorphy, we see interaction with other morphemes. Arapgir has a progressive marking pattern (Davit‘ Bek 1919). The post-verbal /gu/ is replaced with a phonologically dissimilar progressive /nə/ or /ə/ (5a-6a). With vowel-initial and mono-consonantal verbs, the prefixal /k(u)/ is retained (5b-6b).

(5) Arapgir Habituals

- a. $\chi\text{ə}m\text{-}i\text{-}m\text{-}\boxed{\text{gu}}$
 drink-TH-1SG-G
 ‘I drink.’
- b. $\boxed{\text{ku-}}\text{-}l\text{-}a\text{-}m\text{-}\boxed{\text{-gu}}$
 G-eat-TH-1SG-G
 ‘I cry.’

(6) Arapgir Progressives

- a. $\chi\text{ə}m\text{-}i\text{-}m\text{-}\boxed{(n)\text{ə}}$
 drink-TH-1SG-Prog
 ‘I’m drinking.’ C-initial
- b. $\boxed{\text{ku-}}\text{-}l\text{-}a\text{-}m\text{-}\boxed{-(n)\text{ə}}$
 G-eat-TH-1SG-Prog
 ‘I’m crying.’ Mono-C

Crucially, the progressive pattern is independent of the G pattern, which is demonstrated by the negation data in (7). Synthetic verb formation licenses G marking (including G doubling), but the progressive marker is compatible with periphrastic connegative forms as well.

- (7) a. $\boxed{\text{ku-}}\text{-}l\text{-}a\text{-}m\text{-}\boxed{-(n)\text{ə}}$
 G-eat-TH-1SG-Prog
 ‘I’m crying.’

- b. $\text{tʃ}^h\text{-}e\text{-}m\quad l\text{-}a\text{-}r\text{-}\boxed{-(n)\text{ə}}$
 Neg-TH-1SG cry-TH-CNeg-Prog
 ‘I’m not crying.’ Arapgir

This suggests that the G pattern is computed before the progressive marker, and a post-verbal G is omitted as a byproduct of the spell-out of the progressive. The non-co-occurrence between the progressive and G markers can be analyzed as fusing G and the Progressive or zero-marking G in the context of the Progressive. Both options follow the copying of the abstract G marker.

Summary of the analysis Deriving the data from Arapgir and Erzurum, thus, involves the following components (a sample derivation shown in 8): 1) a copying rule (generalized reduplication à la Arregi & Nevins 2012) licensed by satisfying prosodic minimality; 2) a stipulation that allows vocabulary insertion at the pre-verbal G to trigger feature copying; 3) a fusion rule which bleeds overt realization of G.

(8) Derivation of the form in (6b):

- $[[(G) - [(\sqrt{\text{Cry}}) - (\text{TH}) - (1\text{SG})]_T]_G - (\text{PROG})]_{\text{Prog}}$ → Inside-out insertion up to G
- $[[(G) - [(\sqrt{\text{Cry}}, l) - (\text{TH}, a) - (1\text{SG}, m)]_T]_G - (\text{PROG})]_{\text{Prog}}$ → Insertion at G
- $[[(G, ku) - [(\sqrt{\text{Cry}}, l) - (\text{TH}, a) - (1\text{SG}, m)]_T]_G - (\text{PROG})]_{\text{Prog}}$ → G-copying
- $[[(G, ku) - [(\sqrt{\text{Cry}}, l) - (\text{TH}, a) - (1\text{SG}, m)]_T - (G)]_G - (\text{PROG})]_{\text{Prog}}$ → Fusion
- $[[(G, ku) - [(\sqrt{\text{Cry}}, l) - (\text{TH}, a) - (1\text{SG}, m)]_T]_G - (G, \text{PROG})]_{\text{Prog}}$ → Insertion at Prog
- $[[(G, ku) - [(\sqrt{\text{Cry}}, l) - (\text{TH}, a) - (1\text{SG}, m)]_T - (G, \text{PROG}; n\text{ə})]_{\text{Prog}}$

Selected References Arregi & Nevins 2012. *Morphotactics*. Davit‘ Bek 1919. *The dialect of Arapgir*. Harris 2017. *Multiple exponence*.