Indo-Iranian Root Suppletion: A Locality Paradox

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It has remained unclear whether the metric of locality for suppletive allomorphy is to be defined in terms of structural contiguity of syntactic heads or linear adjacency of morphemes involved. In this study, we provide an empirical challenge against a uniform treatment of suppletion as 'context-sensitive allomorph selection' in the framework of Distributed Morphology (Nevins, 2016). Our evidence comes from a comparative study of two Indo-Iranian languages, namely Sauzini and Kurmanji, where in a parallel configuration, root suppletion conditioned by tense suffix is blocked by an aspect prefix is Sauzini but not in Kurmanji.

Sauizini is an understudied West-Iranian language, whose preliminary descriptions have only become available recently (Bulut, 2019; Taylan, 2020). The language has pervasive tense-conditioned suppletive root allomorphy. Consider below the regular tense-aspect marking in the language, where the past tense is realized by an overt suffix while the imperfective marker precedes the verbal root.

(1) a. mın ha:-xaf-ım
         1.SG IMPF-sleep-1SG
         'I am sleeping'

     b. mın xaf-t-ım
         1.SG sleep-PST-1SG
         'I slept'   (Taylan, 2020, p. 95)

Turning now to tense-conditioned root suppletion, consider the verb for EAT, which is realized by two allomorphs depending on tense: *xward* and *xur*. We argue that the elsewhere form is *xur* in (2-a). Under PAST, *xur* is blocked; the root is realized by *xward* as in (2-b). Given that there is no additional tense suffix, *xward* can be analyzed as a portmanteau form realizing EAT+PST. In addition, IMPF has two allomorphs conditioned by tense; *ha:* under present and prefix *u-* under past (Taylan, 2020). (There is also allomorphy in agreement, which we talk about in the end.)

Assuming that the imperfective morpheme is hosted by a head that is structurally between the tense and the verb in the syntax, the appearance of the elsewhere root form is expected as in (2-c) under an account of allomorph selection that relies on structural locality. Notice that the prefix *u-* is not linearly intervening between the verb and the tense (which is normally realized as a suffix).

(2) a. ima siw-a   ha:-xur-in
         1PL apple-DET IMPF-eat-1PL
         'We are eating the apple.'

     b. ima siw-a   xward-in
         1PL apple-DET eat.PST-1PL
         'We ate the apple.'

     c. ima siw-a   u-xur-ayn
         1PL apple-DET IMPF-eat-1PL
         'We were eating the apple.'

Kurmanji is also a West-Iranian language exhibiting tense-conditioned root suppletion. Like in Sauizini, tense is suffixal while aspect is prefixal, as shown in (3).

(3) a. aw dı-kel-e
         ice IMPF-boil-3.SG.PRS
         'Water is boiling'

     b. aw   kel-a
         water boil-3SG.PST
         'water boiled'

Just like in Sauizini, the verb for EAT has two allomorphs: *x* and *xwar*. Under present tense, the root is *x*, as in (4-a). Under past, *x* is blocked; the root is realized by *xar* as in (4-b). Where Kurmanji and Sauizini differs is revealed in (4-c). The imperfective aspect, realized by *dı-* is structurally in between the tense and the verb but does not block the allomorphy (Kalin & Atlamaz, 2016). On the surface, root allomorphy in Kurmanji appears to only respect linear adjacency. Given that the prefix is not linearly intervening between the verb and the tense, its structural intervention does not affect allomorph selection.

(4) a. Ez nan dı- x -ım.
1SG food IMPF- eat.PRS -1SG
'I am eating food.'

   c. Mi nan dı- xar.
1SG.ERG food IMPF- eat.PST
'I was eating food.'

   b. Mi nan xar.
1SG.ERG food eat.PST
'I ate food.'

Proposal. The Indo-Iranian root suppletion facts are on the surface paradoxical. While Sauzini facts support the view that allomorph selection cares about structural contiguity of syntactic heads (Bobaljik, 2012), Kurmanji facts support the idea that linearly uninvolved structural intervenors not block allomorph selection (Choi & Harley, 2019; Embick, 2010).

We argue for a solution based on the idea that fusion operation (that predicts portmanteaus) and context-sensitive allomorph selection are subject to different constraints. In Sauzini, when there is no Aspect in the structure as in (5), the root and tense are structurally local; hence Fusion can apply (collecting them under the same terminal) (Siddiqi, 2009; Trommer, 2012). The existence of an overt aspectual head like in (6) blocks this operation, bleeding the insertion of the portmanteau for root+PST. On the other hand, context-sensitive allomorph selection *can* happen at a distance, as long as the morphemes involved are linearly adjacent (Choi & Harley, 2019; Embick, 2010). Analyzing Kurmanji root suppletion as context-sensitive allomorphy (i.e., root allomorph + zero tense) while Sauzini root suppletion as portmanteau formation under Fusion is able to predict different outcomes, under the assumption that the functional sequence is invariant with Tense dominating Aspect (Demirdache & Uribe-Extebarria, 2000; Julien, 2002).

(5) TP [vP [√ v] T]

(6) TP [AspP [vP [√ v] Asp] T]
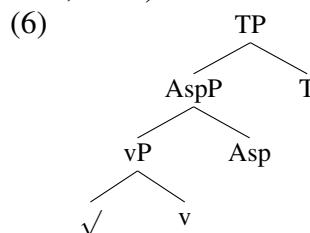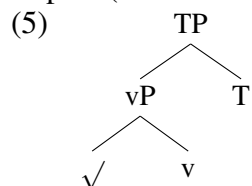
Further evidence for a Fusion operation displacing the PAST feature in Sauzini comes from the agreement forms. While PAST is able to condition a special realization of 1PL agreement (i.e., -ayn), it can no longer do so when Fusion applies (effectively smuggling it under the root node). In that context, we see the default realization of 1PL agreement (i.e., -in). See the contrast in agreement realization, comparing (2-b) and (2-c).

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