A nonagreement analysis of Harari long-distance V-C palatalization

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Agreement by Correspondence (ABC) has been used extensively in recent phonological literature to account for long-distance consonant assimilation (e.g., Hansson, 2001; Rose & Walker, 2004, 2011). Rose (2004) proposes an agreement-based analysis of long-distance palatalization (LDP) in Harari (Ethio-Semitic); this process may affect all coronals except /r/ when a 2nd person feminine suffix -*i* is attached. Examples of LDP are shown with imperatives, affecting final, medial, and initial stem consonants in (1) and prefixes in (2). The first column in each example illustrates unsuffixed masculine forms and the second has suffixed feminine ones; palatalized consonants are in bold. LDP is reminiscent of other agreement-type processes: it appears to only affect consonants, does so nonlocally, and may affect multiple segments in a word.

(1)　*Long-distance palatalization (LDP)*
  a.　libəs　　libə**ʃ**-i　　*'dress!'*
  　　kifəl　　kifə**j**　　　*'pay!'*
  b.　kitəb　　ki**tʃ**əb-i　　*'write!'*
  　　ħinək　　ħi**ɲ**ək'-i　　*'strangle!'*
  c.　sɨxər　　**ʃ**ixər-i　　*'be drunk!'*

(2)　*Prefix palatalization*
  a.　a-t-a-bargɨ　a-**tʃ**-a-barg-i　*'don't startle!'*
  b.　at-barkɨ　　a**tʃ**-bark-i　　*'get blessed!'*

(3)　*Optionality in Harari LDP*
  a.　sɨdəb　　si**dʒ**əb-i, **ʃ**i**dʒ**əb-i　*'insult!'*
  b.　dɨrək'　　dirək'-i, **dʒ**irək'-i　*'dry!'*

Despite the similarities listed above, Harari LDP is also very different from the classic cases of ABC. LDP is conditioned by a particular morpheme, and other suffixes, even the phonetically identical agentive -*i*, do not trigger it. Furthermore, palatalization of multiple consonants is merely optional in Harari, as in (3). This is different from many (but not all) cases of ABC, where agreement is mandatory across an unbounded domain, and the segments in correspondence may participate in the process as both triggers and targets. Most crucially, a classic ABC analysis for Harari is problematic because the vowel trigger and consonant targets are dissimilar (having different values for [±consonantal]), making a correspondence relationship between them improbable. Even if front vowels and coronal consonants share [coronal], the V-C interaction should entail C-C interactions elsewhere in the language, which we do not see. Indeed, it is telling that Rose does not use separate correspondence constraints in her agreement analysis. Finally, Rose claims that lexically palatalized segments do not block palatalization, but we think there may be a blocking effect that is difficult to detect due to optionality of multiple palatalization; see (4), from our own elicitations.

(4)　a-t-bɨrər　　a-**tʃ**-bɨrər-i (preferred)　　a-t-bɨrər-i (OK, but dispreferred)　*'don't fly!'*
  　　a-t-bɨʃək'　　a-t-bɨʃək'-i (preferred)　　a-**tʃ**-bɨʃək'-i (OK, but dispreferred)　*'don't be soaked!'*

In order to preserve the theoretical unity of ABC, we propose that Harari LDP does not exemplify it. Instead, Harari LDP results from the interaction of featural alignment (contra Rose, 2004:§3.2, but similar to analyses of the related language Chaha by McCarthy, 1983, Rose, 1994, Zoll, 1994) and local spreading (seen elsewhere in the language). The 2nd person feminine can be given the representation -*i* [+PAL] (i.e., the segment /i/ and an unlinked [+palatal] feature), differentiated from the agentive -*i*, which triggers only local (i.e., immediately adjacent) palatalization. In cases where multiple palatalization is preferred, we propose that both featural alignment and local spreading are satisfied. Agreement is maintained only for optional multiple palatalization, and we claim that agreement never takes place between vowel and consonant.

We assume at least the following constraints, listed from highest-ranked to lowest-ranked (highranked constraints banning palatalization of [r] and noncoronals are omitted for space reasons, as are low-ranked ALIGN constraints and constraints banning sonorant palatalization):

- ○ *[±PAL]i: Nonepenthetic [i] and a segment immediately to its left may not bear individual [±pal] features (i.e., a single [±pal] feature must be linked to both).
- ○ IDENT[+PAL]-IO: (i) A segment that is [+pal] in the input must be [+pal] in the output; (ii) If there is an unlinked [+pal] feature in the input, there must be an instance of [+pal] in the output belonging solely to a stem segment.
- ○ IDENT[+PAL]-OI: If there is an instance of [+pal] belonging solely to a stem segment in the output, then either (i) that segment must be [+pal] in the input, or (ii) the input must contain an unlinked [+pal] feature.

Below is an example involving preferred multiple palatalization, where segments enclosed in parentheses share a single [+pal] feature:

(5)   *Main grammar*

/fit'ən-i[+PAL]/	*[±PAL]i	IDENT[+PAL]-IO	IDENT[+PAL]-OI
a. fitʃ'əni	*!		
b. fit'ə(ɲi)		*!	
☞ c. fitʃ'ə(ɲi)			

The optionality of multiple palatalization in other contexts can be accounted for by assuming a competing grammar using constraints from the ABC framework enforcing agreement between *coronal consonants* (contra Rose, 2004:§5.1). Due to the nature of the IDENT[+pal]-OI constraint, and the way it is ordered with respect to the agreement and correspondence constraints, this agreement is only enforced when the input contains a floating [+pal] feature.

(6)   *Secondary grammar*

/sidəb-i[+PAL]/	ID[+P]-IO	IDCC[PAL]	ID[+P]-OI	CORR-T↔T
a. ʃidʒəbi				*!
b. sidəbi	*!			
c. sidʒəbi		*!		
☞ d. ʃidʒəbi				

/satʃa/	ID[+P]-IO	IDCC[PAL]	ID[+P]-OI	CORR-T↔T
☞ e. satʃa				*
f. sata	*!			
g. satʃa		*!		
h. ʃatʃa			*!	

References

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