

## Syncope, stress and deriving emptiness – deletion in Afar nouns

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**Claim.** By recourse to the nominal system in Afar (Cushitic), I argue against the case exponents allomorphy and claim that the apparent allomorphy / alternation  $-i : -\emptyset$  is phonologically conditioned deletion. The morpheme deletion is different in nature from the regular second vowel syncope: while the syncope is an OCP-kind of effect, the opacity of the case morpheme follows from its prosodic defectiveness.

**Data.** Nouns in Afar fall into three morpho-syntactic classes: (I) FEM, with stress on the word final vowel, (II) MASC, with unstressed final vowel, and (III) MASC, consonant-final; the gender is visible only in agreement. In the nominative, for class I and III the marker is  $-\emptyset$ , with no prosodic effect, but for class II it is  $-i$ . The genitive is formally identical to the nominative for classes II and III, but class I nouns take a consonantal ending:  $-h$  before a vowel-initial noun and a copy of the consonant before consonant-initial noun, marked as a capital C in the table (1). The stress system is only visible in the unmarked case, being of a WEIGHT-TO-STRESS type (cf. II vs. III). The feminine nouns are derived by stress shifting to the final syllable (Bliese 1981).

(1)	NOM	GEN	ACC	gloss	(2)	Base (ACC)	NOM/GEN	gloss
I	ca'le	ca'le-C	ca'le	'mountain'	a.	ka'xanu	kax'n-i	'love'
II	gi'ti	gi'ti	'gita	'road'		ba'ca-la	bac'l-i	'husband'
III	a'lil	a'lil	a'lil	'heart'	b.	mi'dadu	mida'd-i	'fruit'

Unless the second syllable is stressed, Afar does not allow in word-initial position a series of more than two short open syllables followed by another syllable. The third syllable may be stressed, long or closed, and may be followed by other syllables without affecting second syllable syncope (Bliese 1981). The syncope is blocked by stress (ACC forms in (2)) and by the identity of consonants, as in (2-b).

**Analysis.** The apparent 3-class system results from an interplay of constraints regulating stress and syllable structure. Given Markedness Hierarchy of morphological categories (less marked category is contained within the marked one, cf. Caha 2009), I assume that categories are marked on different strata (in terms of Stratal OT, cf. Kiparsky 2000, Bermúdez-Otero 2003), the ACC case being the base (Bliese 1981). Stress is re-assigned on every stratum. Gender of the noun is also resolved on the base stratum, by suffixing a right-aligned monosyllabic foot for [+fem]. Should there be no such suffix, the default right-aligned trochee is assigned, cf. (3)–(4), for *macanda*, 'younger sibling', gender depending on the stress position.

(3)		Align-R- $\phi$	RealizeM	WSP	Non-Fin	(4)		Align-R- $\phi$	RealizeM	WSP	NonFin
	/macanda/						/macanda/ + $\phi_{[+fem]}$				
a.	'macanda	*!		*		a.	'macanda	*!	*!	*	
b.	ma'canda					b.	ma'canda		*!		
c.	macan'da			*!	*	c.	macan'da			*	*

The stem level is followed by a word level, where there are only two suffixes available: the assigned genitive in the form of a RED morpheme, specified for surfacing only in the context of [+fem] feature on the stem (similar to the [+pl] dative  $-n$  in German (Müller 2016)), and the elsewhere suffix in the form of a monosyllabic foot and a floating, mora-less /i/. The prosodic defectiveness is reflected in the failure of the mora-less vowel to form a syllable by itself, but it can rather only usurp the mora of the preceding vowel due to  $V^\mu$  (every vowel must have a mora) and  $*V^\mu V$ , no shared mora, proposed by Zimmermann (2017), undominated in this system. Other undominated constraints are ALIGN-R- $\phi$ , \*CLASH, preventing more than one stress per word, and DEP- $\mu$ . The floating /i/ only surfaces in class II, see (1), because the final

vowel in other classes was already stressed and deleting it would violate MAX-'V, a high-ranked Positional Faithfulness constraint (Beckman 1998).

(5)

	/ca <sup>μ</sup> l'e <sup>μ</sup> / + [φ, /i/]	V <sup>μ</sup>	Dep-μ	Max-'V	RealizeMorpheme	Max-V
a.	ca <sup>μ</sup> le <sup>μ</sup> i	*!				
b.	ca <sup>μ</sup> le <sup>μ</sup> i <sup>μ</sup>		*!			
☞ c.	ca <sup>μ</sup> le <sup>μ</sup>				*	*
d.	ca <sup>μ</sup> li <sup>μ</sup>			*!		*

Zimmermann (2017) addresses cases where the suffix can usurp a mora over a consonant, but only the mora of a preceding **vowel**; ergo, if the consonant is moraic, as in Afar, it cannot give up its mora. This is regulated by MAX-C constraint, undominated.

(6)

	nu <sup>μ</sup> sa <sup>μ</sup> s <sup>μ</sup> + [φ, /i/]	Align-R-φ	Dep-μ	Max-C	Max-'V	RealizeMorpheme	Max-V
a.	nu <sup>μ</sup> sa <sup>μ</sup> si <sup>μ</sup>	*!	*				
b.	nu <sup>μ</sup> sa <sup>μ</sup> i <sup>μ</sup>		*	*!			
☞ c.	nu <sup>μ</sup> sa <sup>μ</sup> s <sup>μ</sup>					*	*
d.	nu <sup>μ</sup> si <sup>μ</sup> s <sup>μ</sup>				*!		*

As mentioned, the prosodically defective /i/ can only surface in cases when the vowel whose mora it wishes to usurp is not already stressed when the word level phonology applies. The reason it surfaces is the effect of REALIZEMORPHEME, demanding the morpheme to be realised as much as possible.

(7)

	mi <sup>μ</sup> da <sup>μ</sup> du <sup>μ</sup> + [φ, /i/]	Align-R-φ	V <sup>μ</sup>	Dep-μ	Max-'V	RealizeMorpheme	Max-V
a.	mi <sup>μ</sup> da <sup>μ</sup> du <sup>μ</sup> i	*!	*!				
b.	mi <sup>μ</sup> da <sup>μ</sup> du <sup>μ</sup> i <sup>μ</sup>			*!			
c.	mi <sup>μ</sup> da <sup>μ</sup> du <sup>μ</sup>					*!	*
☞ d.	mi <sup>μ</sup> da <sup>μ</sup> di <sup>μ</sup>						*

The syncope, on the other hand, is an independent process that applies in a separate cycle of the word level, driven by the \*LAPSE, rejecting two contiguous unstressed syllables word-initially. The repair strategy is deletion of the second vowel, the first being protected by the initial position (Beckman 1998). The syncope is blocked only when the deletion of the second vowel yields a violation of \*IDENTITY, since consonant deletion is prohibited (cf. MAX-C).

(8)

	mida'di	*Identity	Max-C	*Lapse	RealizeMorpheme	Max-V
a.	☞ mida'di			*		
b.	mid'di	*!				*
c.	mida'i		*!			

**Previous accounts.** Apart from Bliese (1981), who assumes separate exponents for every case in every class, Ulfsbjorninn (2016) takes from the same idea of an incomplete nominal suffix. In Strict CV, the suffix consists of a CV slot and an /i/, not associated to each other. Although this account derives most of the patterns, it relies on the idea that only in the genitive the possessor and the possessee belong to the same phonological domain. This proposal is free of such claims, since it assumes a RED morpheme. With the gender and the case to be suffixed on different levels, it reflects the claims on the hierarchy of morphological categories. Additionally, this extends to the distribution of the particular suffix and its interaction with stress and case marking. **Conclusion.** The allomorphy of nominal suffixes in Afar is here analysed as morpheme deletion, independent of morphological class, triggered by the prosodic defectiveness of the case suffix. The main contribution to the PDM approach is in the claim that mora usurpation can be blocked by stress, and that a mora-less vowel cannot usurp the mora of a moraic consonant. Also, it contributes to the typology of deletion by including the interaction with second vowel syncope.