THE PRESERVATION OF AN UNDERLYING PHARYNGEAL IN A SEMITIC LANGUAGE WITHOUT PHARYNGEALS

Jean-François Prunet

Université du Québec à Montréal

Abstract: This article documents an instance of absolute neutralization in a Semitic language of Ethiopia. Phonological and morphological evidence based on distributional facts and phonological alternations is provided to prove that this language contains two pharyngeal glides surfacing, in most cases, as phonetic vowels. Implications for the existence of low glides and Semitic roots are also discussed.

A verb like Ge'ez (Classical Ethiopian Semitic, or Ethiopic) *ħəfəś* 'take handfuls' has become *afəs* in many of the modern Ethiopian Semitic languages, such as Inor (also called Ennemor) and Chaha, two languages/dialects of the Gurage group (a cluster of South Ethiopian Semitic languages and dialects). On the assumption that Semitic verbs normally combine a segmental root (including mostly or only consonants) and a syllabic template, some linguists have wondered how the [a] of such verbs should be represented in underlying representation.[1]

Polotsky (1971:532) represents it as a phoneme /Ä/ in Ezha (a dialect of Chaha), while Hetzron (1970) and Habte-Mariam (1974) view it as /aa/ in Inor. More recently, Lowenstamm (1996a,b), Petros (1996, 1997), Prunet and Petros (1996) and Rose (1997) represent it as /A/ in Chaha. Similar proposals for the [a] of Amharic verbs (another South Ethiopian Semitic language) include /ʕ/ (Voigt, 1981) and /H/ (Podolsky, 1985:ii). Podolsky (1991:1221) proposes that only the root of Amharic *awwəqə* 'know' contains an /H/ (root √Hwq) while those of *samə* 'kiss' and *səmma* 'listen' include an abstract pharyngealized consonant, noted here as underlined (roots √ṣm and √ṣm̱ respectively).

In this article, I summarize a few arguments for the /A/ segment of Inor, which I take to be an underlying guttural (more specifically, pharyngeal) glide. As we will see, there is evidence that [ə] an allophone of /A/ (transcribed as "first order" in the Ethiopian syllabary) also functions

As shown by Chamora (1996, 1997), there are two basic Inor templates: short and long. In some positions they include underlying (but not phonetic) geminates (which trigger devoicing or nasalization of root consonants). Quadriliteral roots always select the long template while biliteral and triliteral roots are lexically specified as selecting either the short or the long template. Both templates have three basic forms (for the perfective, imperfective and jussive aspects/tenses).

Morphologically transparent verbs contain only plain (non-round and non-palatal) consonants. For a verb to be considered transparent here, its vowels must not include any non-central vowel (omitting an infixal [a]). All other verbs are regarded as morphologically opaque.

<div align="center">

Table 1 Inor Templates

</div>

a. *Short template verbs:*

Perfective:	/1ə22ə3/	səpər-ə	'he broke'
Imperfective:	/1ə2ɨ3/	yɨ-səβir	'he breaks'
Jussive (= Imperative):			
transitive	/1ɨ2ɨ3/	siβir	'break!'
intransitive	/1ɨ2ə3/	bɨkət	'die!'

b. *Long template verbs:*

Perfective:	/12ə33ə4/	gɨrətəβ-ə	'he cut into two'
Imperfective:	/12ə33ɨ4/	yɨ-grətiβ	'he cuts into two'
Jussive:	/1ə23ɨ4/	gərdiβ	'cut into two!'

Apart from the [a] of verbs like *firatəx* 'put in disorder,' which are best viewed as infixal (root √frtx) and always appear before the penultimate consonant, a vowel [a] usually belongs to the root. Typical Inor verbs with /A/ include *asɔr* 'carry' (√Azr), *daar* 'bless' (√dAr) and *bəta* 'take' (√bdA). In some positions, /A/ is realized as [ə] and is (obligatorily) affected by the long-distance labialization triggered by the impersonal suffix (jussive *əzər* 'carry!' vs. jussive impersonal *ozər-i* 'let someone carry!'). Besides the centralized /A/, only labial and velar consonants, as well as the glottal stop, are targets for long-distance labialization. Coronals and vowels (including the aspectual [ə]) are not (e.g. *dənəʃ-i* 'someone broke something off' cannot undergo long-distance labialization). Leslau (1992) shows that this root [a] is the historical trace of the guttural *ḫ (whose articulation is unknown, but can be surmised to have been a uvular fricative), the pharyngeal *h or the glottal *h.

Some verbs, such as *ətər* 'kill,' contain a phonemic glottal stop (root √ʔtr). Such glottal stops result from a now extinct debuccalization process that has affected some ejective stops. A glottal stop never lowers vowels. It is silent in word-initial position but is audible after a prefix

surfaces in a form that is identical to its underlying representation. As we saw earlier, contemporary glottal stops (not accompanied by [a]), as in *yəʔətir* 'kill (imperfective),' correspond to ejective stops diachronically: they do not come from ancient gutturals.

It should be noted that labialization in the impersonal cannot target /ʕ/ when it is flanked by a phonetic [a] (*saʔar-i*, not *saʔʷar-i* 'someone begged'). In this respect, it behaves like /ʔ/; the glottal stop phoneme (alone among labializable segments) does not seem to ever labialize when followed by a non-central vowel (there are two central vowels: IPA [ə] and [ɨ], the latter being epenthetic). This is shown below for three instances of phonetic glottal stops (it is irrelevant whether they come from /ʔ/ or /ʕ/).

Imperfective:	*Imperfective impersonal:*		
yaarʔa	yaarʔe	*yaarʔʷe	'defecate'
yiʔiɲ	yiʔiɲi	*yiʔʷiɲi	'give birth'
yiʔiziz	yiʔiʒiʒi	*yiʔʷiʒiʒi	'give orders' (< Amharic)

The underlying /ʕ/ also contrasts with both /ʔ/ and /A/ in root-medial and root-final positions. A summary is given below.

<u>Table 2 Inor Roots Including Pharyngeal and Glottal Glides</u>

a. *Roots selecting the short template:*

Root:	*Perfective:*	*Imperfective:*	*Jussive:*	
sbr	səpər	yisəβir	siβir	'break'
ʔtr	ətər	yəʔətir	itir	'kill'
Azr	asər	yaazir	əzər	'carry'
ʕgd	akəd	yaʔagid	əgid	'tie'
dʔs	dəʔər	yidəʔir	diʔər	'be black'
dAr	daar	yidɔɔr	daar	'bless'
bʕs	baʔas	yiβəʔəs	baʔas	'become bad'
srʔ	sənəʔ	yisəriʔ	siriʔ	'rob'
sbA	səpa	yisəβa	siβa	'be efficient'
brʕ	bənʔa	yiβərʔa	birʔa	'eat'
gbʕ	gəpa	yigəβʔa	giβʔa	'enter'
wgʕ	wəka	yiwəga	wiga	'hit, stab'

b. *Roots selecting the long template:*

Root:	*Perfective:*	*Imperfective:*	*Jussive:*	
grdb	girətəβ	yigrətiβ	gərdiβ	'cut into two'
gAgr	gakər	yigakir	gagir	'knead'
drfʔ	dirafəʔ	yidrafiʔ	dirafiʔ	'mix'
t'rfA	at'rafa	yat'rafa	at'rafa	'abuse, reject'
grsʕ	aŋgrasa	yaŋgrasa	aŋgrasa	'carry'
qA	qaqa	yiqaqa	qaqa	'tie'
zʕ	zasa	yizasa	zaza	'be made'

To conclude, I will mention two implications of this paper.

The first implication is that phonetic low and central vowels can function as guttural glides. This view has also been defended, based on Sino-Tibetan languages, by Pulleyblank (1986, in press) and Mazaudon (1997). Ladefoged & Maddieson (1996:323) discuss instances where the

mid-vowels ĕ and ŏ function like glides in Nepali, which they interpret as evidence for non-high semivowels, but they mention no cases involving truly low vowels. Alternations between low/central vowels and guttural glides should logically be found if their internal structure is identical. Such alternations are, in fact, attested. For instance, Bessell (1992:147), quoted by Pulleyblank (in press), notes that [ʕ] alternates with low vowels in Salishan languages. Another case of alternation is provided by Carrier (Prunet 1988:492). In this Athapaskan language, a soft glottal or uvular fricative is inserted before a word-initial low or central vowel, whereas [y] and [w] are inserted before [i, e] and [u, o] respectively. Such alternations indicate that palatal, round and low vowels have a corresponding set of palatal, round and low glides. The low glide equivalent of the high glides [y, w] should be the pharyngeal glide [ʕ], since all three display the friction distinguishing glides from vowels, but in Inor this sound never appears phonetically. In all instances, whether it be in onset or coda position, the phonetic realization of the Inor low glide is that of the vowels [a] or [ə]. But in the more phonologically conservative North Ethiopian Semitic languages, Hayward (1997:458) discusses vowel shifts in which [a] and guttural consonants behave as a natural class. Another process in which low vowels and gutturals function as a natural class is that of spontaneous nasalization, a diachronic process in which oral vowels become nasal in the absence of neighboring nasal consonants. In a survey of spontaneous nasalization, Boivin (1998) notes that low vowels in any environment (compare Cree sikaak and Abenaki səkõkw 'skunk') as well as all vowels adjacent to a guttural are prone to nasalize spontaneously. The latter sub-class can be illustrated by the adaptation of [ʕ] in two Austronesian languages: Arabic [duʕaaʔ] 'prayer' became [duʔã] in Acehnese (Al-Ahmadi 1991:112) and Arabic [saaʕat] 'hour' became [saʔãt] in Malay (Boon Seong 1994:85). Low vowels again pattern with gutturals.

The second implication concerns the existence of roots as autonomous morphological entities in Semitic (see Goldenberg 1994:31-32 for an overview of this traditional debate). In Semitic languages in which root segments are mostly consonantal and aspectual segments mostly vocalic, output-to-output mechanisms substituting one vowel for another can be posited that

Boivin, R. (1998). *Consonnes laryngales et nasalisation vocalique: étude phonétique et phonologique de la nasalisation spontanée*, M.A. thesis, UQAM.

Boon Seong, T. (1994). *The Sound System of Malay Revisited*. Percetakan Dewan Bahasa dan Pustaka, Kuala Lumpur.

Chamora, B. (1996). Consonant Distribution in Inor. In: *Studies in Gurage Language and Culture* (G. Hudson (Ed.)), pp. 53-67. Harrassowitz, Wiesbaden.

Chamora, B. (1997). *The Phonology of Inor Verbs*, M.A. thesis, UQAM.

Goldenberg, G. (1994). Principles of Semitic Word-Structure. In: *Semitic and Cushitic Studies* (G. Goldenberg and S. Raz (Eds.)), pp. 29-64. Harrassowitz, Wiesbaden.

Habte-Mariam, M. (1974). Palatalization in Ennemor. Proceedings of *IV Congresso Internazionale di Studi Etiopici*, Tomo II, pp. 251-265. Accademia nazionale dei lincei.

Hayward, R. J. (1997). Apropos the Central Vowels of Ethiopian Semitic. In: *Ethiopia in Broader Perspective: Papers of 13th International Conference of Ethiopian Studies*, volume I (K. Fukui, E. Kurimoto and M. Shigeta (Eds.)), pp. 456-467. Shokado Book Sellers, Kyoto.

Heath, J. (1987). *Ablaut and Ambiguity, Phonology of a Moroccan Arabic Dialect*. State University of New York, Albany.

Hetzron, R. (1970). Vocalic Length and Stress in Ennemor. *Le Muséon* **83**, 559-581.

Ladefoged, P. and I. Maddieson (1996). *The Sounds of the World's Languages*. Basil Blackwell, Oxford.

Leslau, W. (1992). *Gurage Studies. Collected Articles*. Harassowitz, Wiesbaden.

Lowenstamm, J. (1996a). CV. In: *Current Trends in Phonology: Models and Methods*, volume 2 (J. Durand and B. Laks (Eds.)), pp. 419-441. University of Salford Publications, Salford.

Lowenstamm, J. (1996b). Five Puzzling Chaha Verbs: an Exercise in Practical Morphophonemics. In: *Studies in Gurage Language and Culture* (G. Hudson (Ed.)), pp. 123-132. Harrassowitz, Wiesbaden.

Mazaudon, M. (1997). /a/-glide in Sino-Tibetan. Paper presented at the 16th International Congress of Linguists, Paris.

Podolsky, B. (1985). *Historical Phonetics of Amharic*. Ph.D. dissertation, Tel-Aviv University.

Podolsky, B. (1991). The Schwa Vowel in Amharic. In: *Semitic Studies in Honor of Wolf Leslau on the Occasion of his Eighty-fifth Birthday*, Volume II (A. Kaye (Ed.)), pp. 1220-1225. Harrassowitz, Wiesbaden.

Polotsky, H. J. (1971). *Collected Papers*. The Magnes Press, Jerusalem.