

## Rethinking Awngi Tone

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The Awngi language has previously been described as having three contrastive tone levels: high, mid and low, with an additional falling tone. This paper will attempt to show that there are really only two distinctive tone levels, high and low, the falling tone being a combination of high and low on one syllable. Finally it will be investigated whether Awngi is really a tone language or a pitch-accent language.

### Introduction

The Awngi language is the southernmost member of the Central Cushitic or Agaw language subfamily. It is spoken by at least half a million speakers<sup>2</sup> in Central Gojjam in an area which is now called Awi Zone. The language has been described to some extent by Palmer (1959) and Hetzron (1969, 1978 and 1997). Both scholars agreed on four distinctive tones for Awngi: A high tone, a mid tone, a low tone and a falling tone. This assumption will be challenged in this paper: It will be shown that Palmer and Hetzron's low tone is really just a phonetic variation of their mid tone. Finally it will be investigated whether Awngi is really a tone language or a pitch-accent language.

Table 1: Awngi Consonant Phonemes

	labial	alveolar	palatal	velar	uvular
voiceless plosives	p	t		k, k <sup>w</sup>	q, q <sup>w</sup>
voiced plosives	b	d		g, g <sup>w</sup>	
voiceless affricates		ts	tʃ		
voiced affricate			dʒ		
voiced fricatives		z			ʁ, ʁ <sup>w</sup>
voiceless fricatives	f	s	ʃ		
nasals	m	n		ŋ, ŋ <sup>w</sup>	
lateral approximant		l			
vibrant		r			
approximant	w			j	

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<sup>2</sup> The 2007 census lists 631,565 ethnic Awis in all Ethiopia.

Awngi has 27 consonant phonemes, including five labialized ones. For reasons of linguistic accuracy the symbols chosen here follow the alphabet of the International Phonetic Association (IPA). Therefore /j/ represents the palatal approximant and not the voiced palatal affricate, which is represented as /dʒ/<sup>3</sup>.

Table 2: Awngi Vowel Phonemes

	front	central	back
close	i	ɨ	u
non-close	e	a	o

Including the vowel /ɨ/<sup>4</sup>, there are six vowel phonemes in Awngi.

## The Tonemes of Awngi

### *The Low Tone*

Both Hetzron and Palmer observed three distinctive tone levels in Awngi: high, mid and low. They noted that while both the high and the mid tone have a wide distribution all over the language, the low tone has a very limited appearance. Palmer (1959, p. 273) states that “*the third tone is to be recognized only for word-final syllables, where its significance is wholly morphological [...]; the low tone occurs only in final position.*” Hetzron’s evaluation of the distribution of the low tone was refined over time. He first notes the low tone on “*final open syllables of certain verb forms and in the interrogative particle -mà*” (1969, p. 6). Hetzron later (1997, p. 483) revised his statement: “*low tone à (only with this vowel) occurs only in the past tense ending -ɣ"à and in the sentence question particle -mà.*”<sup>5</sup> The limited distribution of the low tone is partly the result of a process which changes a low tone into a mid tone whenever it occurs in a non-final position (Hetzron 1997, p. 483).

There is no question about the phonetic reality of this low tone. In Fig. 1 the difference of the low tone at the end of the word **dallanama** ‘will they suffice?’ in comparison with the mid tones in the three preceding syllables can be clearly seen. Therefore in Hetzron’s transcription the word would be rendered as **dallanamà**.

Perhaps it was this clear audible representation, in spite of all the positional restrictions, which tempted Hetzron and Palmer not to question the phonemic status of the low tone. One attempt to challenge the low tone’s status has been made by Worku (1986, pp. 59ff), but he did so rather as a matter of principle, without providing any phonetically motivated evidence for eliminating the low tone from his phonological description.

<sup>3</sup> If no other sources are cited directly, this paper will use the symbols shown below. Hetzron and Palmer used different systems for their transcriptions. Palmer’s /x/ and Hetzron’s /ɣ/ is rendered here as the voiced uvular fricative /ʁ/.

<sup>4</sup> For a discussion of this vowel phoneme, see Joswig (2006).

<sup>5</sup> Hetzron apparently overlooked the past tense ending **-unà** and the non-past tense ending **-anà**, which, according to his own analysis (1969, p. 13), also carry the low tone.

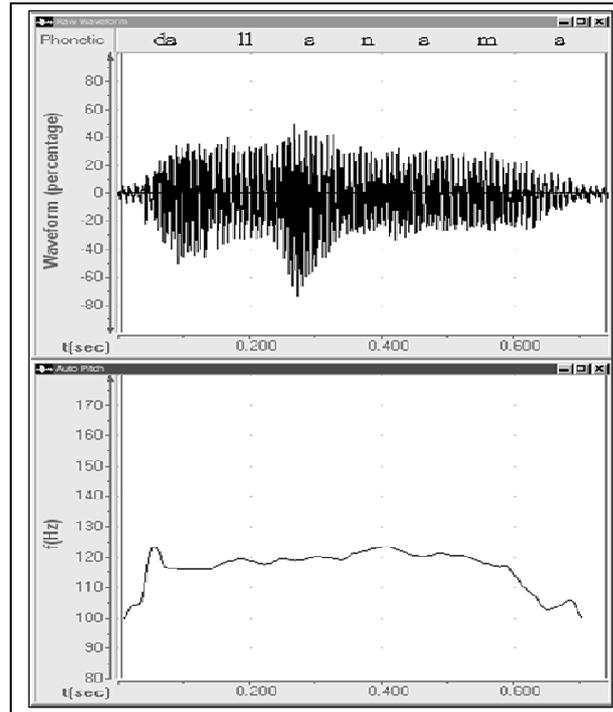


Fig. 1: **dallanama** 'will they suffice?'

Still the limited distribution of Hetzron's and Palmer's low tone calls for an explanation. To claim phonemic status for a tone that occurs only on four morphemes would need the support of at least a few watertight minimal pairs. Hetzron (1969, p.6) provides only one of these: **ɓúna** 'we have eaten' vs. **ɓúna** 'they ate'. Unfortunately, this minimal pair is based on a mistake in Hetzron's notes, because even according to his own analysis (see Hetzron 1969, p. 60 and 42) the final tone on 'we have eaten' is falling and not mid. Other minimal pairs between low and mid tone are not provided anywhere in the literature.

Since it is difficult to find hard and fast contrast between the mid and the low tone, it is necessary to look more carefully for a rule that might govern their appearance. Looking at the four attested morphemes that carry the low tone, the following environments become obvious:

- The low tone appears only on the vowel /a/.
- It appears only on word-final syllables.
- It appears only on open syllables.

These are definitions of phonological environments, but the four morphemes have something else in common. They belong to the very few morphemes that can appear at the end of a sentence. In Awngi the finite verb<sup>6</sup> is sentence-final, whatever the circumstances:

<sup>6</sup> Including imperatives and auxiliaries.

## Example 1

**andes falénga jímántí jintúba.**  
of-that after a beggar he-came  
‘Afterwards a beggar came.’

## Example 2

**ɲidzákí fiftata jímántís wullá jitɕʷa.**  
the girl getting-out to-the-beggar all she-gave  
‘The girl got it out and gave it all to the beggar.’

In these examples, **-úba** and **-ɕʷa** mark the singular of any person of the finite past tense; both suffixes are morphologically conditioned variants of the suffix **-yʷà** mentioned by Hetzron. Their two verbs can only appear at the end of the sentence, as opposed to the words **fiftata** (a non-finite verb) or **falénga** (a postposition), which never would show up sentence-finally. In both sentences the final vowel **-a** of the final verb is pronounced with a lower pitch as the final vowel **-a** of the two non-final words.

Since the tense marker is always the last suffix of a verb, usually the markers of finite tenses take the place of the last morpheme of a sentence. The only exception to this is the question marker **-mà**, which can occur as a clitic to any word, including the finite verb. So the low tone only appears on morphemes which have the rare potential to occur at the very end of a sentence. Three of the four morphemes always appear at the end of a sentence, unless followed by the clitic **-mà** (in which case their tone turns to mid).

In many languages it is not uncommon for a tone to get lowered at the end of an utterance. This could well be what is going on in Awngi, with the restriction that this only happens to a word-final /a/ which carries a mid tone. The influence of the vowel quality on the pitch level is a phenomenon a lot less commonly attested in languages, but not totally unheard of (see Hombert 1978, Maddieson 1997 and Connell 2000).

So it may be proposed that what Hetzron and Palmer assumed to be a phonemic low tone really is the phonetic lowering of what they call a mid tone on the vowel /a/ at the end of an utterance. This assumption can be compared with Fig. 2 which shows the words **láŋa** ‘two’ and **láŋamà** ‘are they two?’ The first word according to Hetzron (1969, p. 75) is supposed to carry the mid tone on the last syllable. Spoken in isolation, however, as in the recording, the last syllable goes down at least as deep in pitch as **-mà** in the second word. There the second vowel, being non-final, appears to be spoken with a considerably higher pitch than in the first word.

Of course a word like ‘two’ is rarely spoken in isolation. This may explain why both Hetzron and Palmer have never heard it with the utterance-final low tone they have identified on the named four morphemes. This also applies to many other words and morphemes ending in the vowel /a/. Because they are rarely or never spoken in isolation, the tone probably was always heard as a mid tone and then contrasted with the so-called low tone on utterance final syllables.

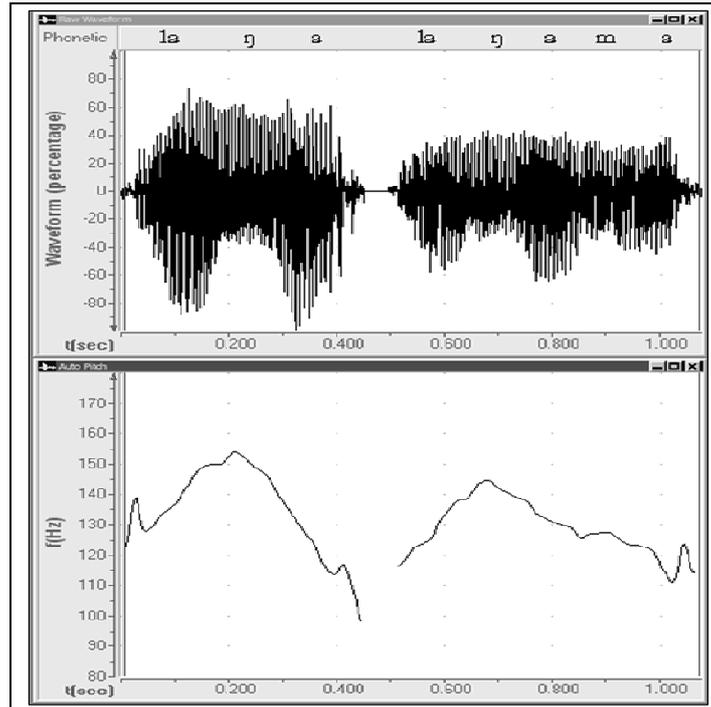


Fig. 2: láŋa ‘two’ láŋamà ‘are they two?’

All this leads to the conclusion that the low tone of Hetzron and Palmer really is just a phonetic variation of the mid tone, reserved for the vowel /a/ on open utterance-final syllables. Therefore it is reasonable to claim that there are only two phonemic tone levels in Awngi, high and low. The low tones of Awngi include all tones which have been classified as mid and low by Hetzron and Palmer. From this point forward in this paper all phonemic low tones will be marked by the absence of an accent. The following words are presented with the phonetic realization of their tones and the phonemic representation:

Example 3

<b>[dállūʔà]</b>	<b>/dallūʔa/</b>	LLL	‘it was enough’
<b>[dállūʔāmà]</b>	<b>/dallūʔama/</b>	LLLL	‘was it enough?’
<b>[sēdzà]</b>	<b>/sedza/</b>	LL	‘four’
<b>[ánkʷà]</b>	<b>/ánkʷa/</b>	HL	‘five’

### *The Falling Tone*

If it is established that there are only two phonemic tone levels in Awngi, it seems appropriate to assume that all occurrences of gliding tones are combinations of these two tone levels on one syllable. From that perspective it seems surprising that there are only falling tones in Awngi, and that these only occur on word-final syllables.

Hetzron’s (1978, p. 123) proposed explanation for how falling tones developed in Awngi appears to be very reasonable:

It is probable that this falling tone originally affected diphthongs only, so that it was properly a high tone on the first mora, but later contractions made the diph-

thong homogeneous and its original tone-sequence high-mid (with a morpheme-boundary in the middle) falling.

This can be observed nicely in cases where this tone shows up on the *e*-variant of the accusative suffix, which can be traced back to the sequence of *-í* ‘masculine’ and *-wa* ‘accusative’:

Example 4

<b>*bir</b>	<b>-í</b>	<b>-wa</b>	→	<b>bir</b>	<b>-ê</b>	‘blood (accusative)’
					^	
L	H	L		L	HL	

Falling tones also result from the combination of a low tone suffix with a stem featuring the ‘raising’<sup>7</sup> quality defined by Hetzron (1969, p. 42). This happens for example in **giŋ**↑ + **a** → **giŋâ** ‘he has run’, or in **ɣ<sup>w</sup>**↑ + **a** → **ɣ<sup>w</sup>â** ‘he has eaten’. This analysis may also be employed to explain tone changes in the nominal system, where the origin of the high tone is not as obvious as in Example 4. Hetzron (1978, p. 130f) shows the *o*-variant of the accusative suffix with either low or falling tone, for example **sanô** ‘good season (acc)’ and **mendebo** ‘piece of land (acc)’. If for ‘good season’ the accusative stem is assumed to have the ‘raising’ quality, its underlying form would be **san**↑, and this would explain why the suffix is realized with a falling tone.

Therefore the origin of the falling tone is no real mystery. What needs to be explained is why the falling tone only occurs on word-final syllables, and why there are no rising tones in Awngi. These questions will be addressed in the section *Indications against a Pitch-Accent Interpretation*.

## The Nature of Awngi Tone

### *Factors Suggesting a Pitch-Accent Interpretation*

Having reduced the number of phonemic tone levels to two, it can be asked whether Awngi is not a pitch-accent language, where stress is expressed in terms of pitch. This of course would go against Hetzron’s (1976, p. 12) claim that Awngi has a predictable penultimate stress of intensity. This has been refuted by Worku (1986 p. 56), who states: “*We can observe that stress is placed either on the first syllable or on the final syllable.*” The conflicting evidence from Hetzron and Worku certainly makes it questionable whether there is any stress of intensity in Awngi at all. It has not been observed in the data collected for this study.

So, if the stress-feature is not accounted for in Awngi, it might well be that it is expressed by pitch alone. To understand this, one needs to look at Awngi lexical roots. On most roots of verbs, nouns and adjectives the tone remains constant throughout all paradigms, with the exception of one class of verbs<sup>8</sup>, where the tone of the stem changes according to the tense, and a class of nouns (Hetzron 1978, p. 129) where the high tone of the last root syllable turns to low in front of a few suffixes. Looking more closely at the roots, the following patterns show up:

- All root-syllables have low tones, or
- all root-syllables have high tones, or
- the root starts out with one or more low tones and, following these, only high tones.

<sup>7</sup> Autosegmental Phonology would call this raising effect a high floating tone attached to the stem of the word (Yip 2002, p. 76).

<sup>8</sup> Hetzron (1969, p. 38) calls this class *AB-pattern*.

A sequence of high and then low tones on the same root is extremely rare, if it exists at all<sup>9</sup>. Roots with only low tones, therefore, could be seen as carrying no stress at all. All roots which are accompanied by the stress feature would display this by a high pitch attached to the stressed and all subsequent syllables. Therefore it could be possible to show roots without tones in the lexicon, only noting whether the roots are assigned a stress feature and, if yes, on which syllable.

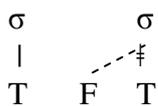
*Indications against a Pitch-Accent Interpretation*

Unfortunately, this neat picture gets obscured by some contradicting evidence. Firstly there is the fact that many roots not only have a tone assigned to the root itself, but also have a tonal influence on some of the following suffixes. Secondly, some of the nominal suffixes and most of the verbal suffixes have their own tone assigned to them. This is subject to change at times based on the preceding stem, but nevertheless needs to be noted in the lexicon. Both characteristics are incompatible with an interpretation of tone as being merely a manifestation of a stress feature.

For example, the suffix for non-past tense third person singular is regularly **-é** with a high tone and should be noted as such in the lexicon. When combined with the verb **kínk** ‘be afraid’, this suffix receives a low tone. The same happens to most other verbal suffixes with a high tone. Therefore it appears that **kínk** has a lowering effect<sup>10</sup> on subsequent suffixes and should be represented accordingly in the lexicon, maybe involving the following convention: **kínk**↓ ‘afraid’<sup>11</sup>. Some other verbs (or rather, some of their stems) have a raising effect on subsequent suffixes, like **gij**↑ ‘run’. In short, after a stem with a lowering effect all suffixes begin with a low tone. After a raising effect the following suffix begins with a high tone. If the original tone was low and the syllable is word-final, then the resulting tone is falling.

Underlyingly, of course, it is best to assume floating high or low tones which are responsible for the raising or lowering effects<sup>12</sup>. The floating tone spreads to the following syllable, and the original tone on this syllable is de-linked:

Rule 1: Floating Tone assignment rule<sup>13</sup>



<sup>9</sup> Hetzron (1997, p. 486) identifies only three nouns with that pattern and wonders whether they might not be compounds. The one case which is obviously not a compound is apparently an onomatopoeic word (**bádbadaj** ‘dove’). In Hetzron (1969), of the hundreds of verbs listed on p. 95-106, only seven are reported to have a high-low pattern. All of them are derived verbs (involving derivative morphology).

<sup>10</sup> Just as ‘raising effect’, this term is taken from Hetzron 1969, p. 42.

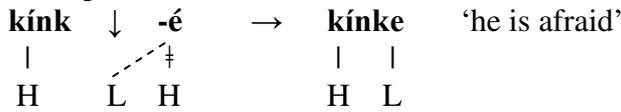
<sup>11</sup> This is a grossly simplified representation of the facts. Actually the lowering effect is not caused by the root of the verb as such, but by some of its extended stems. To learn all about extended stems in Awngi, one needs to refer to the analysis of the Awngi verbal system in Hetzron (1969).

<sup>12</sup> For a short introduction to the autosegmental notation used here, the reader is referred to chapter 4.2 in Yip 2002 (pp. 72-77).

<sup>13</sup> σ stands for any syllable. T stands for any tone. F stands for a floating tone, which can be either high or low.

Rule 1 can be illustrated by the following example:

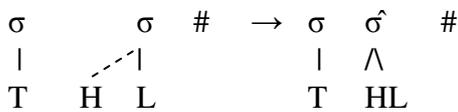
Example 5:



The floating low tone attached to the stem **kínk**↓- spreads to the suffix **-é** and then de-links the high tone on that suffix.

There is, however, a special rule for floating high tones linking to word-final low tones. Instead of de-linking the original low tone, this rule creates the falling tones of Awngi:

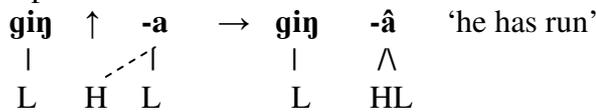
Rule 2: Word-Final Contour Tone Creation<sup>14</sup>



This rule can be illustrated by Example 4, where the merging of **-í** ‘masculine’ and **-wa** ‘accusative’ leaves the high tone of **-í** floating.

Example 6 shows the high tone floating after the stem **giŋ**↑ ‘run’ in combination with the suffix for perfect third person singular:

Example 6:



Rule 2 is to be seen as an exception to Rule 1. It only applies to a high floating tone linking to a word-final low tone. All other floating tones de-link the following tone. This explains why there are no rising tones in Awngi, and why the falling tones are restricted to the word-final syllable (see section *The Falling Tone*).

### Conclusion

It is difficult to decide whether Awngi is a pitch-accent language or really a tone language. The distribution of tones on the lexical roots of the language can easily be analyzed in terms of a pitch-accent system. The fact, however, that not only roots but most affixes bear their own tones speaks strongly against such an analysis. Finally, the occurrence of floating tones makes any pitch-accent analysis very difficult to maintain.

<sup>14</sup> σ stands for any syllable. T stands for any tone. # is a word boundary.

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