

# Bantu tone

Class 9

# Africa



# Autosegmental representation

- Parallel tiers of segments, where segments are decomposable into features (functions which take on the values + and -).
- In the case at hand, that means *vowels* and *consonants* on one tier, and *tones* (High, Low) on the other.
- We usually just represent them in familiar notation...

ba la mu bon a

L H L

bà lá mú bòn à

usual transcription style...

association lines: represents alignment in time

# Benefits of autosegmental representation

- Accounts for *stability*, the fact that tones do not delete when the vowels that they are associated with delete.

## Kirundi:

- a ra rim a “s/he hoes”
- ba ra rim a “they hoe”
- a ba goré ba ra rim a “the women hoe”
- u mu gor á ra rim a “the woman hoes”

u mu gor e a ra rim a

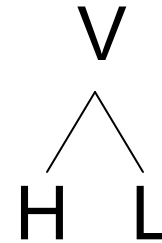
H

u mu gor a ra rim a

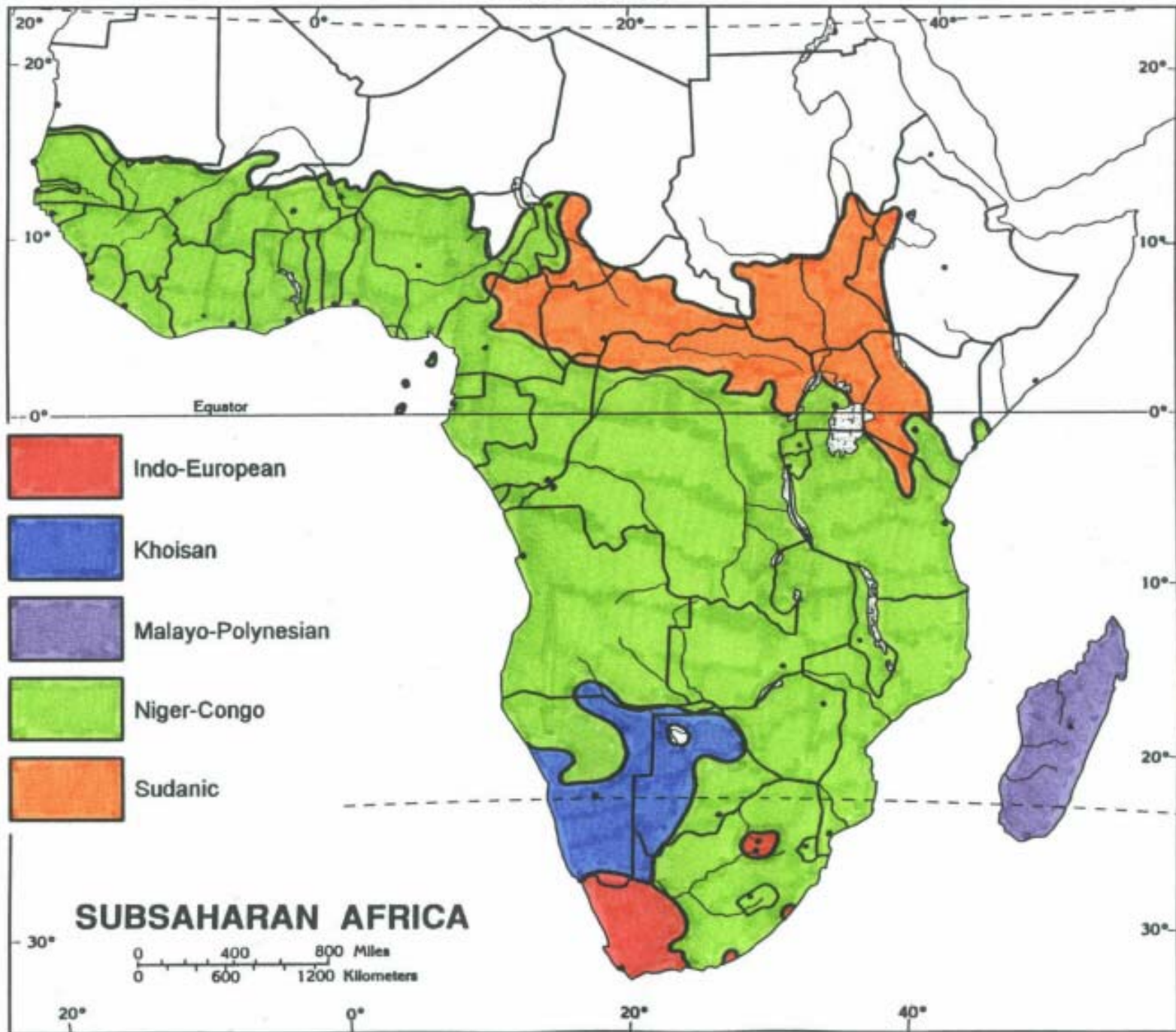
H

# autosegmental representation

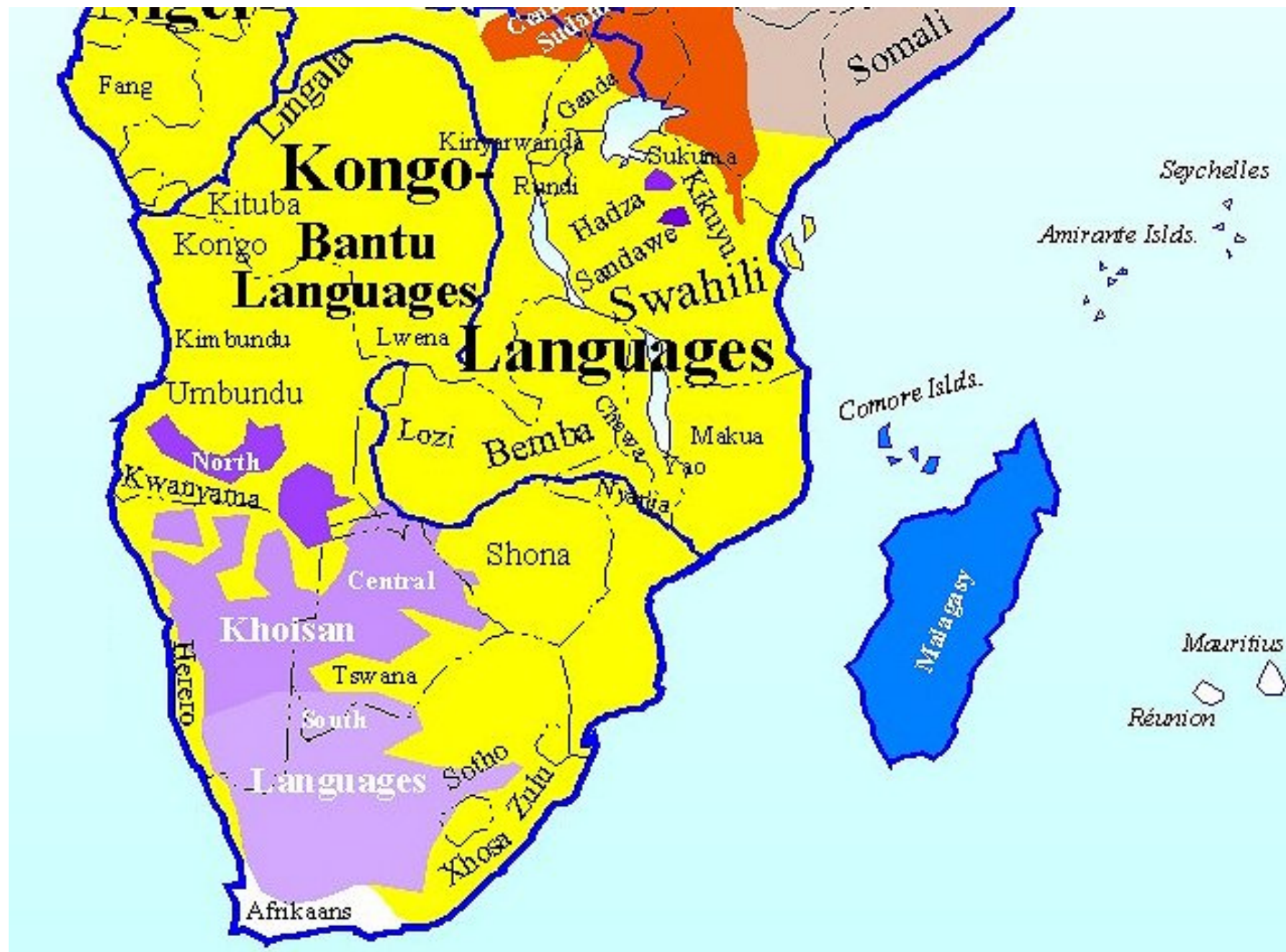
- Deals with contour tones
- Floating tones, and morphemes which are specified only on the tonal tier
- Accounts for the naturalness of assimilation rules as addition of association lines (i.e., restructuring what is already *there*).



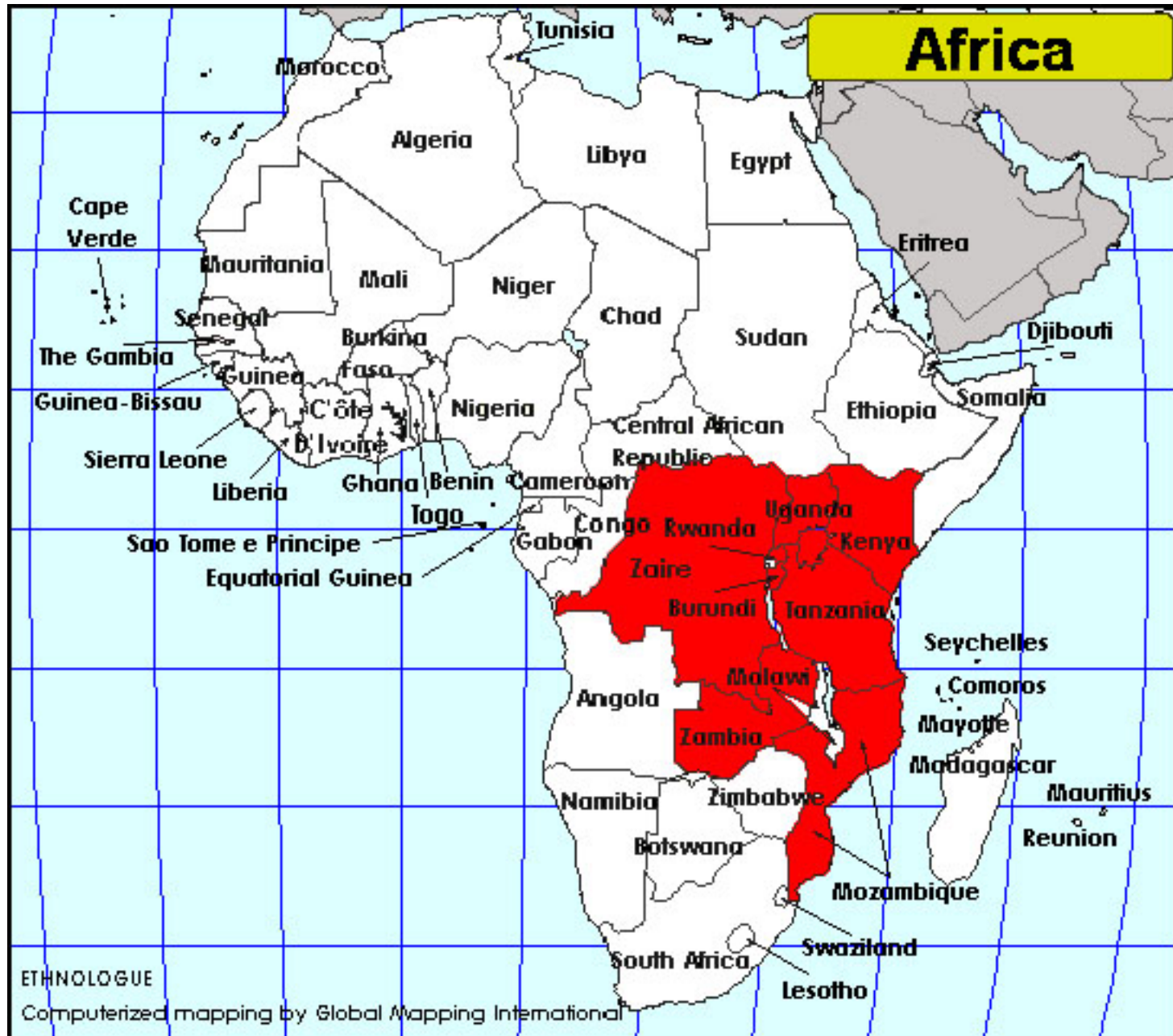
# LANGUAGE





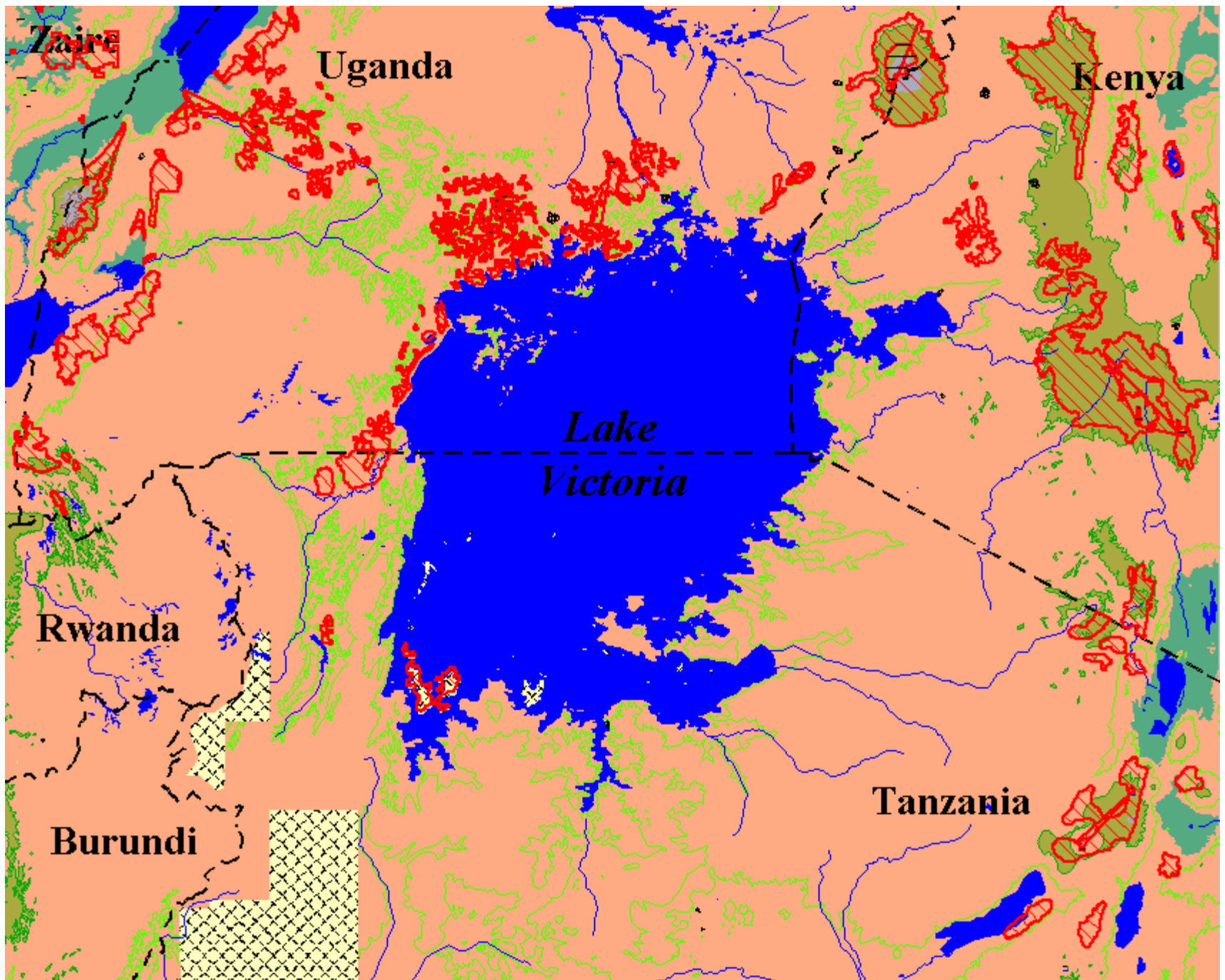


# Africa



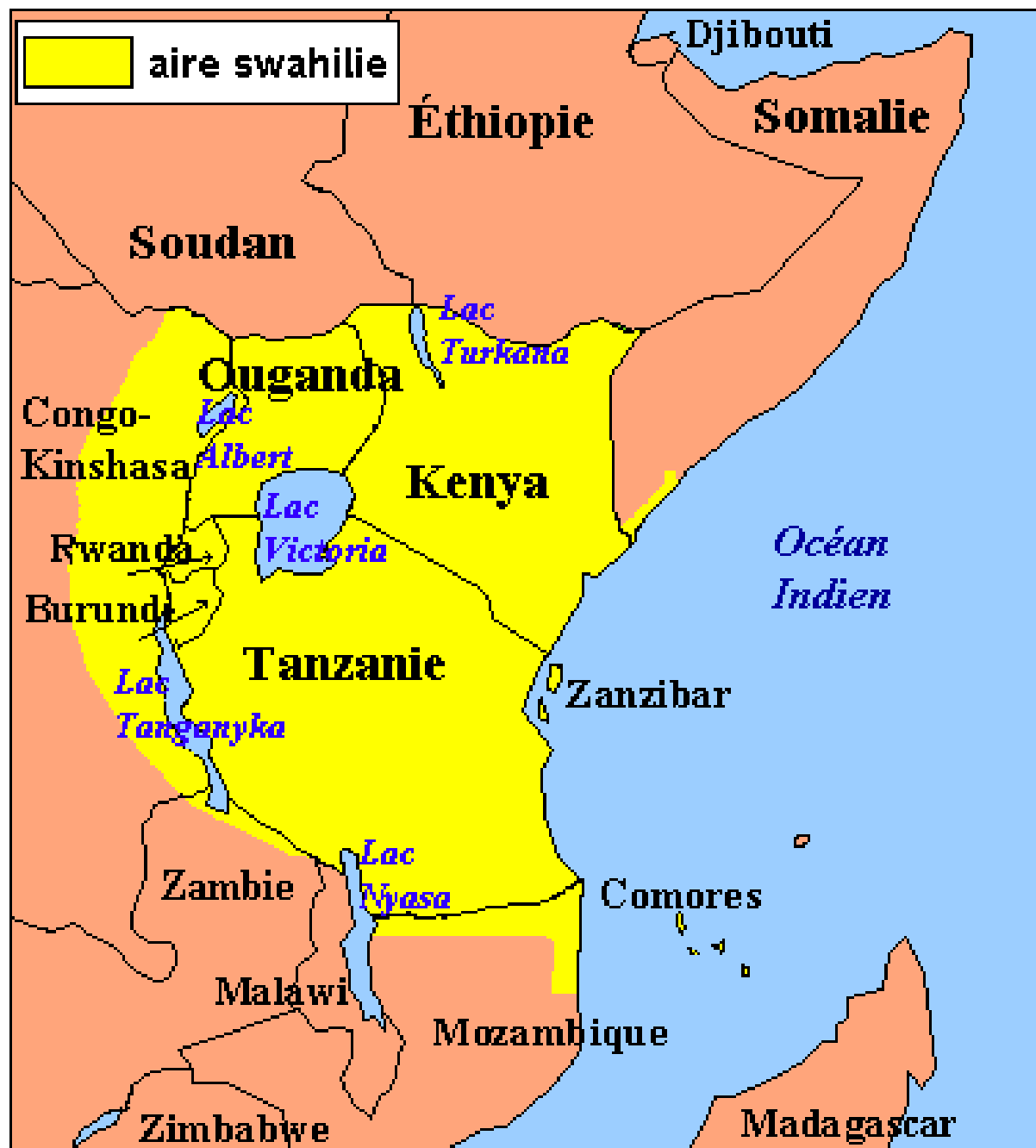
ETHNOLOGUE

Computerized mapping by Global Mapping International



# Tanzania









Lake Victoria

# Ci-Ruri (David Massamba)

o ku gur a	to
o ku tabur a	to tear apart
o ku sorotora	to pull out
o ku tém a	to cut
o ku sabúr a	to dish out
o ku sumíka	to tie
o ku sumíkir a	to tie for someone

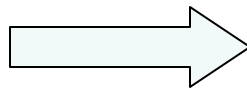
A verb stem can be: toneless, or bear a High tone.

Underlyingly, that tone is on the *first* syllable of the stem.

And it moves to the second syllable.

Unless it's already in the penultimate syllable of the word, in which case it stays fixed!

o ku sumikir a  
|  
H

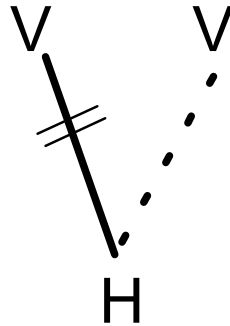


o ku sumikir a  
/  
H



# High Tone Shift

- Written as a rule:



The line with the cross-bars is an association line in the *input* to the rule which is deleted by the rule; the dotted association line is *added* by the rule.

<b>o ku gur a</b>	<b>to buy</b>	<b>o ku ki gúr a</b>	<b>to buy it</b>	
<b>o ku tabur a</b>	<b>to tear apart</b>	<b>o ku ki tábur a</b>	<b>to tear it apart</b>	
<b>o ku sorotora</b>	<b>to pull out</b>	<b>o ku ki sórotora</b>	<b>to pull it out</b>	
<b>o ku tém a</b>	<b>to cut</b>	<b>o ku ki tém a</b>	<b>to cut it</b>	
<b>o ku sabúr a</b>	<b>to dish out</b>	<b>o ku ki sábur a</b>	<b>to dish it out</b>	
<b>o ku sumíka</b>	<b>to tie</b>	<b>o ku ki súmika</b>	<b>to tie it</b>	
<b>o ku sumíkir a</b>	<b>to tie for someone</b>	<b>o ku mu súmikira</b>	<b>to tie it for him</b>	

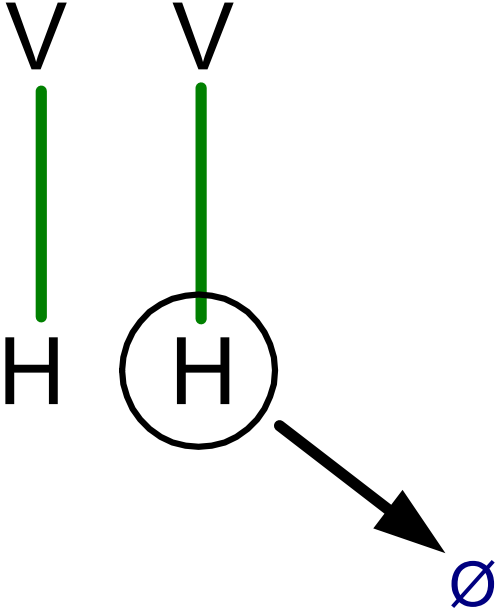
# What's happening?

Two things:

If there are 2 High tones in a row (object marker and stem both), the second one is deleted.

The Object Marker puts a High tone on the next syllable.

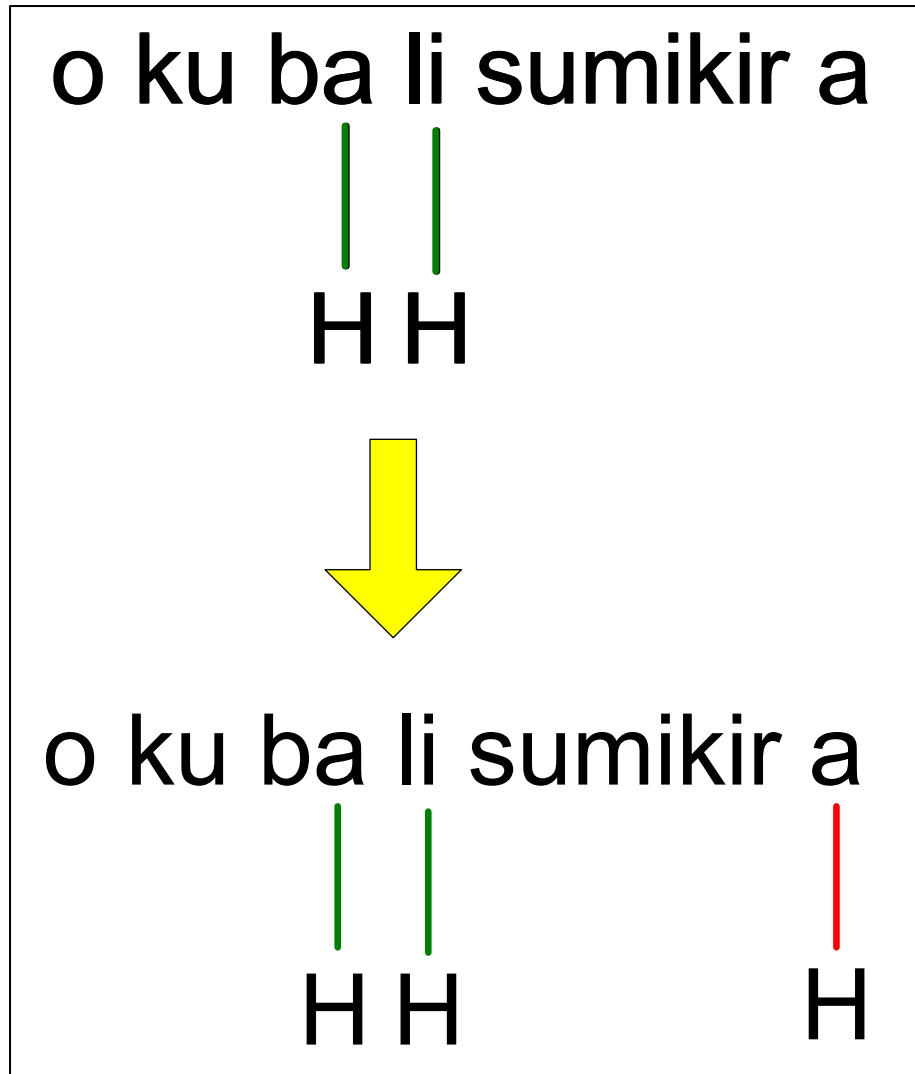
# Meeussen's Rule



# Two Obj Markers

o ku ba lí tem er á	u ku ba lí gur ir á
to cut it for them	to buy it for them
o ku ba lí sumik ir á	o ku ba lí tabur ir á
to tie it for them	to tear it apart for them
o ku ba lí sururmur ir á	o ku ba lí sorotor er á
to untie it for them	to pull it out for them

# When there are 2 Object Markers:



Two  
Object Marker  
Rule

o ku ba li temer a  
| | |  
H H H

Underlying representation  
*or*  
underlying form

o ku ba li temer a  
| | | |  
H H H H

Two  
Object Marker  
Rule

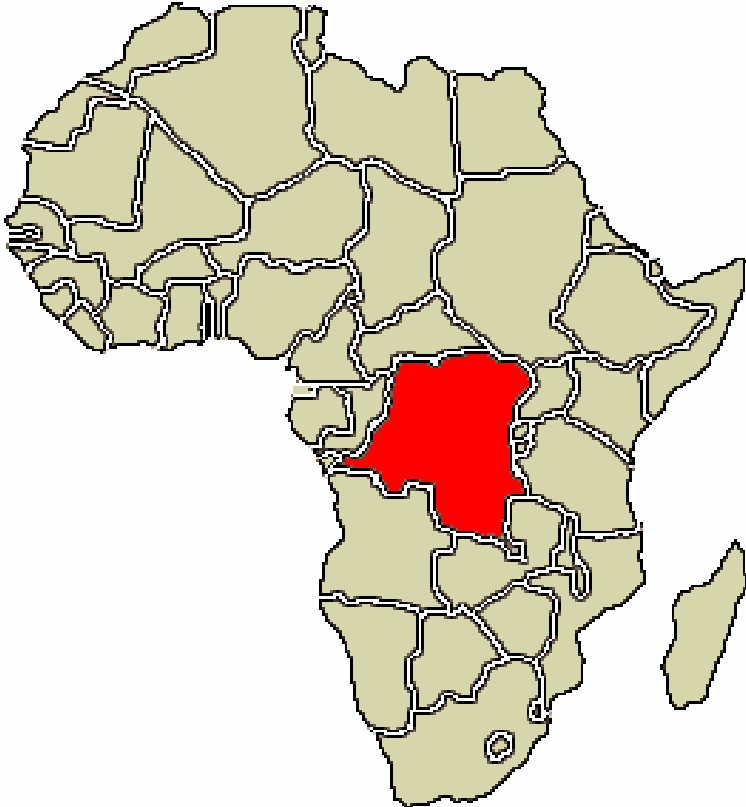
o ku ba li temer a  
| |  
H H

Meeussen's Rule

o ku ba lí temer á  
/ |  
H H

High Tone Shift

Democratic Republic of Congo (formerly: Zaïre)





# KiHunde infinitives

<b>i tém a</b>	<b>to cut</b>
<b>i tém er a</b>	<b>to cut for someone</b>
<b>i tém an a</b>	<b>to cut each other</b>
<b>i tém er an a</b>	<b>to cut for each other</b>
<b>i som a</b>	<b>to read</b>
<b>i som er a</b>	<b>to read for someone</b>
<b>i som er an a</b>	<b>to read for each other</b>

# Present continuous: *I am verb-ing*

High toned verb *i tém a* 'to cut'

a ní tem a      a tú tem a

Yup, that's right

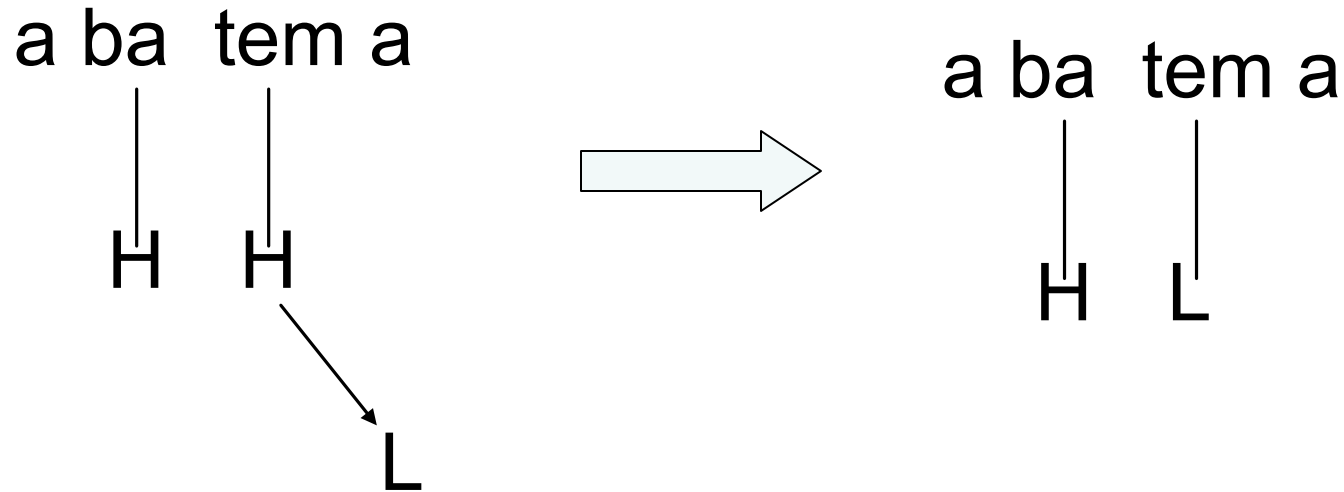
o o tém a      a mú tem a

a a tém a      a bá tem a

This is a  
High toned  
verb...

Meeussen's Rule is at work: delete H after H (the Subject Marker is High, in this tense).

a	bá	tem	a
Prefix	Subject marker	Root	Final vowel



“Meeussen’s Rule”: If you have two Highs in a row, the second one becomes Low.  
This appears to be violated by “later” processes, as we will see! Very surprising.

# Present continuous: *I am verb-ing*

Low toned verb: i som a 'to read'

<b>a</b>	<b>ní</b>	<b>sóm</b>	<b>á</b>	<b>kitabo</b>
<b>prefix</b>	<b>'I' subject marker</b>	<b>read</b>	<b>final vowel</b>	<b>book</b>
	<b>'I read (am reading)...'</b>			<b>'...a book'</b>

Where do these tones come from on 'som' and 'a'?

# Present continuous: low toned verb

a ní sóm a  
a ní sóm á kitabo

a tú sóm a  
a tú sóm á kitabo

o ó sóm a  
o ó sóm á kitabo

a mú sóm a  
a mú sóm á kitabo

a á sóm a  
a á sóm á kitabo

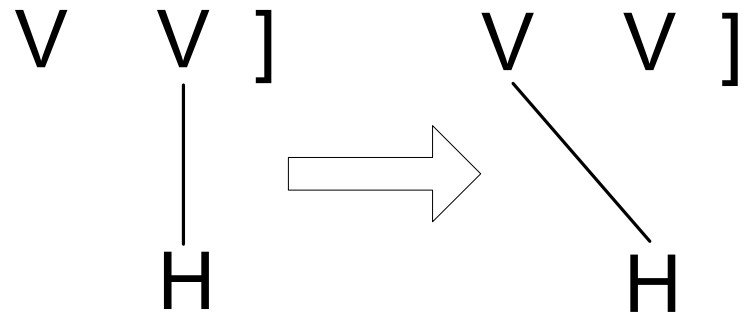
a bá sóm a  
a bá sóm á kitabo

book

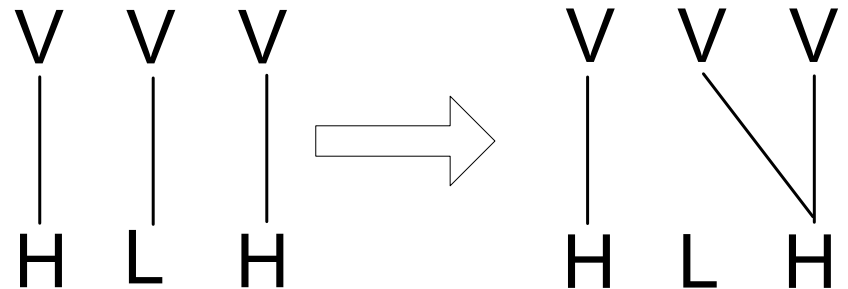
It's the form *with* the object that is more revelatory.

# Two things going on:

1. High tones cannot appear on the final syllable of a phrase: they get 'pushed back' to the penult syllable if they try.



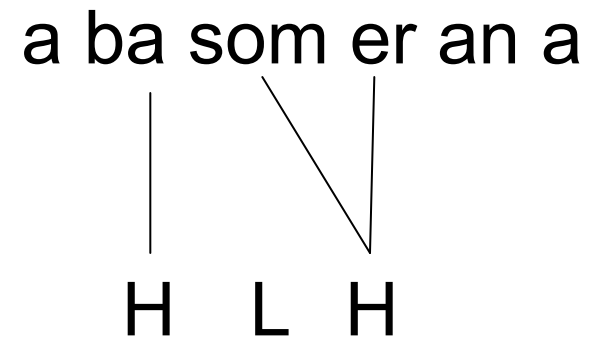
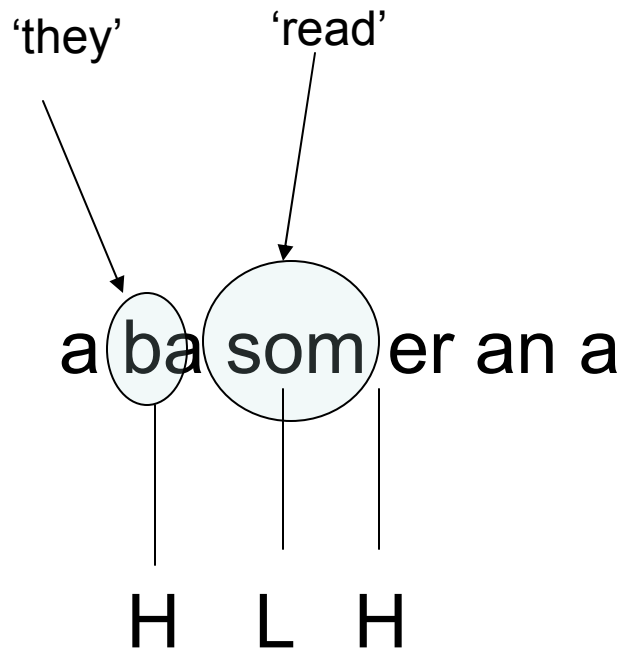
2. A High tone appears on the *second vowel* of the **stem** when the verb is low-toned, and then H L H become H H H: "Plateau-ing".



# Plateau rule

a ní [sóm á kitabo.	
a ní [sóm a.	(Why?)
a ní [sóm ér a kitabo.	
a ní [sóm ér a.	Not <i>a ní sóm er a</i> . Why?
a bá [sóm ér an a.	'They read for each other.'

[ marks the stem beginning





# What do we get if we put in an Object Marker?

a	tu	ki	som	er	an	a
prefix	we	it (object)	read	for	each other	final vowel

a tú ki [som é r an a  
          |                  |  
          H                  H

# Same tense, same low-tone stem

a tú [sóm á ...      a tú [sóm ér a      a tú [sóm ér an a

*we are reading... for them ..... for each other*

Always a High tone on the second vowel of the *stem*.

a tú ki [som á ...

*we are reading it...*

a tú mu [som ér a

*...for him .....*

Always a High tone on the second vowel of the *stem*,  
and if this produces, H L L H, it does not “plateau” to H H H H.

**ZAMBIA**



# Tonga verb structure

Subect marker	Tense marker	Object marker	Verb root	Other
<i>ndi</i> I	<i>la</i> present tense	<i>mu</i> him, her	<i>lang</i> look at	<i>a</i>
<i>ba</i> they			<i>bon</i> see	

# Tonga (Bantu, Zambia)

Subj: No object      *mu* 'him' object      *ba* 'them' object

*ndi* 'I'      **ndi la langa**      **ndi la mu langa**      **ndi la ba langa**

*ba*      **ba la langa**      **ba la mu langa**      **ba lá ba langa**  
'they'

*ndi* 'I'      **ndi la bon a**      **ndi la mu bona**      **ndi la ba bona**

*ba*      **ba lá bona**      **ba lá mú bona**      **ba lá ba bona**  
'they'

*acute accent marks High tone; no accent marks Low tone*

Subj: No object      *mu* 'him' object      *ba* 'them' object

*ndi* 'I'      **ndi la langa**      **ndi la mu langa**      **ndi la ba langa**

*ba*      **ba la langa**      **ba la mu langa**      **ba *lá* ba langa**

'they'

*ndi* 'I'      **ndi la bon a**      **ndi la mu bona**      **ndi la ba bona**

*ba*      **ba *lá* bona**      **ba *lá mú* bona**      **ba *lá* ba bona**

'they'

Subj: No object      *mu* 'him' object      *ba* 'them' object

*ndi* 'I'    **ndi la langa**      **ndi la mu langa**      **ndi la ba langa**

*ba*    **ba** la langa      **ba** la mu langa      **ba** lá **ba** langa

'they'

*ndi* 'I'    **ndi la bon a**      **ndi la mu bona**      **ndi la ba bona**

*ba*    **ba** lá **bona**      **ba** lá **mú** **bona**      **ba** lá **ba** **bona**

'they'

Subj: No object      *mu* 'him' object      *ba* 'them' object

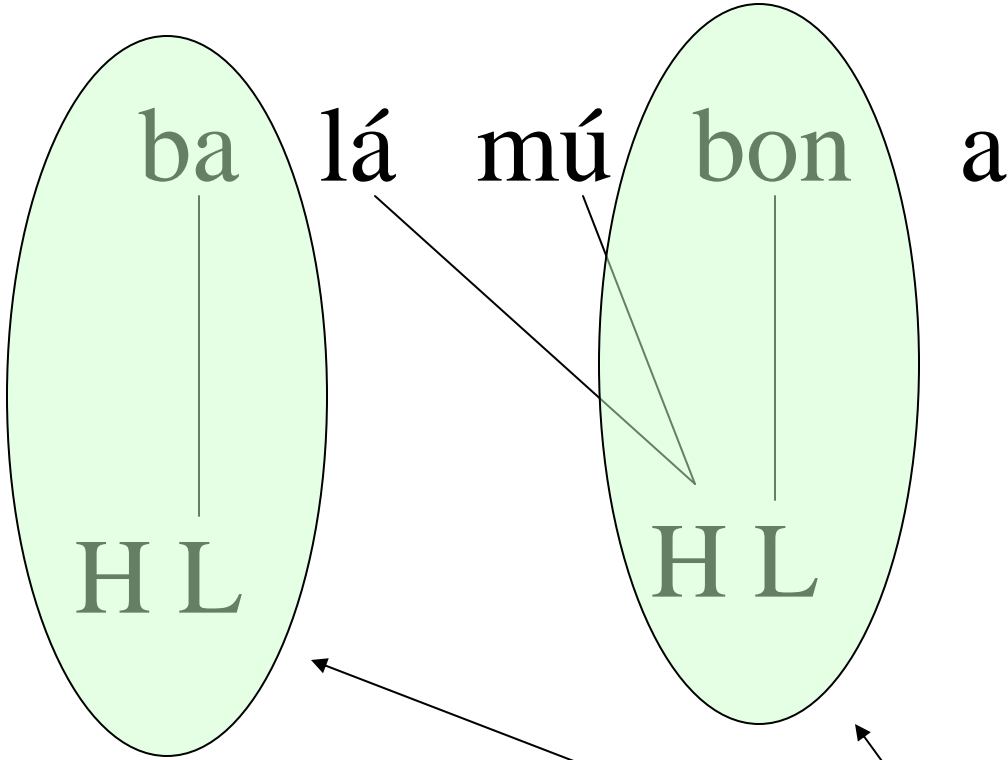
*ndi* 'I'    **ndi la langa**      **ndi la mu langa**      **ndi la ba langa**

*ba*    **ba** la langa      **ba** la mu langa      **ba** **lá** **ba** langa  
'they'

*ndi* 'I'    **ndi la** **bon** a      **ndi la mu** **bona**      **ndi la ba** **bona**

*ba*    **ba** **lá** **bona**      **ba** **lá mú** **bona**      **ba** **lá** **ba** **bona**  
'they'



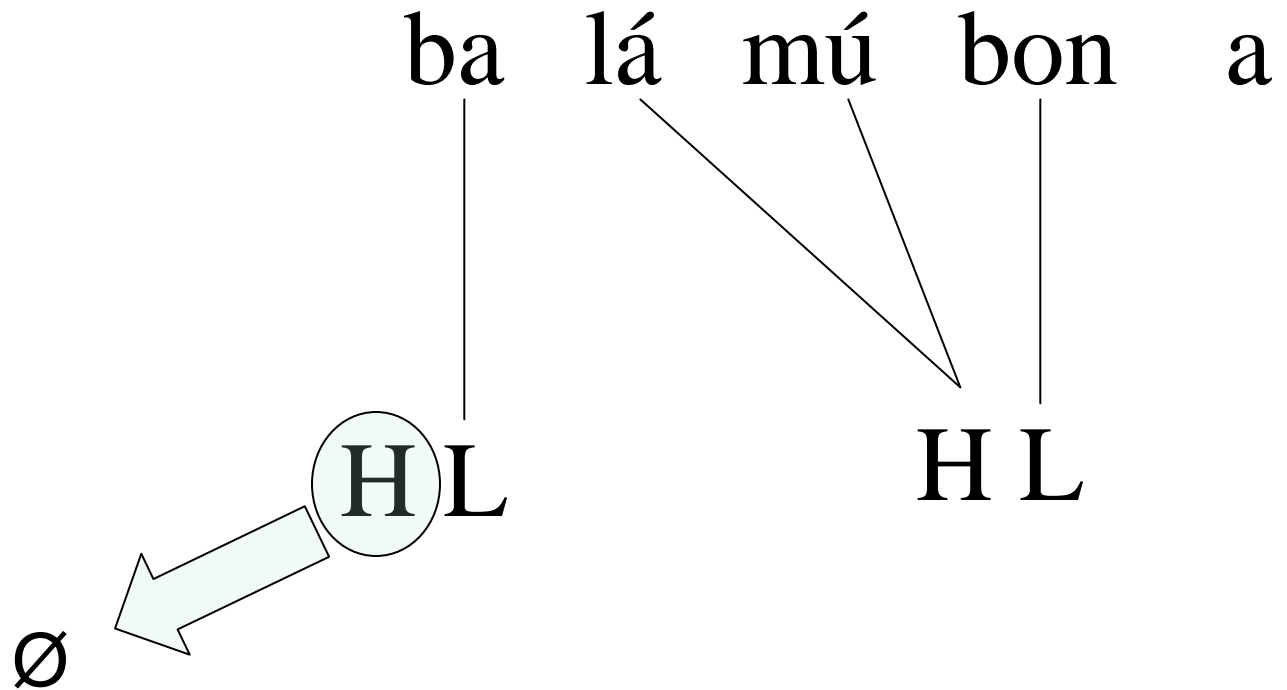


lexical packages

# An odd rule in Tonga:

Delete a verb-initial High tone

$H \rightarrow \emptyset / [_{\text{verb}} \text{ \_\_\_\_}]$



So in the verb: you need a sequence of  
accented – unaccented – accented

or

Low High Low

to get any Highs at all.

No OM	mu-OM	ba-OM
tu la lang a	tu la mu lang a	tu la ba lang a
tu la tobel a	tu la mu tobel a	tu la ba tobel a
tu la yandaul a	tu la mu yandaul a	tu la ba yandaul a
ba la lang a	ba la ku lang a	ba lá ba lang a
ba la tobel a	ba la ku tobel a	ba lá ba tobel a
ba la yandaul a	ba la ku yandaul a	ba lá ba yandaul a
tu la bon a	tu la ku bon a	tu la ba bon a
tu la silik a	tu la ku silik a	tu la ba silik a
tu la swiilil a	tu la ku swiilil a	tu la ba swiilil a
ba lá bon a	ba lá ndí bon a	ba lá ba bon a
ba lá silik a	ba lá mú silik a	ba lá ba silik a
ba lá swiilil a	ba lá mú swiilili a	ba lá ba swiilil a

No OM	mu-OM	ba-OM
tu la lang a	tu la mu lang a	tu la ba lang a
tu la tobel a	tu la mu tobel a	tu la ba tobel a
tu la yandaul a	tu la mu yandaul a	tu la ba yandaul a
ba la lang a	ba la ku lang a	ba lá ba lang a
ba la tobel a	ba la ku tobel a	ba lá ba tobel a
ba la yandaul a	ba la ku yandaul a	ba lá ba yandaul a
tu la bon a	tu la ku bon a	tu la ba bon a
tu la silik a	tu la ku silik a	tu la ba silik a
tu la swiilil a	tu la ku swiilil a	tu la ba swiilil a
ba lá bon a	ba lá ndi bon a	ba lá ba bon a
ba lá silik a	ba lá mú silik a	ba lá ba silik a
ba lá swiilil a	ba lá mú swiilili a	ba lá ba swiilil a

## Morphemes:

- 3<sup>rd</sup> person subject markers (u, ba)
- Plural object markers (ba)
- verb stems: bon, silik, swiilil, etc.

# Present tense; accented subject 'u'

what's going on?

<b>u</b> la ndi lang a	he looks at me	<b>u</b> lá <b>tú</b> lang a	he looks at us
<b>u</b> la ku lang a	he looks at you	<b>u</b> lá <b>mu</b> lang a	he looks at you pl.
<b>u</b> la mu lang a	he looks at him	<b>u</b> lá <b>bá</b> lang a	he looks at them
<b>u</b> lá ndí <b>bon</b> a	he sees me	<b>u</b> lá <b>tú</b> <b>bon</b> a	he sees us
<b>u</b> lá kú <b>bon</b> a	he sees you	<b>u</b> lá <b>mu</b> <b>bon</b> a	he sees you
<b>u</b> lá mú <b>bon</b> a	he sees him	<b>u</b> lá <b>bá</b> <b>bon</b> a	he see them

<b>u</b> la ndi lang a	he looks at me	<b>u</b> lá <b>tú</b> <sup>⇒</sup> lang a	he looks at us
<b>u</b> la ku lang a	he looks at you	<b>u</b> lá <b>mu</b> lang a	he looks at you pl.
<b>u</b> la mu lang a	he looks at him	<b>u</b> lá <b>bá</b> <sup>⇒</sup> lang a	he looks at them
<b>u</b> lá ndí <b>bon</b> a	he sees me	<b>u</b> lá <b>tú</b> <sup>⇒</sup> <b>bon</b> a	he sees us
<b>u</b> lá kú <b>bon</b> a	he sees you	<b>u</b> lá <b>mu</b> <b>bon</b> a	he sees you
<b>u</b> lá mú <b>bon</b> a	he sees him	<b>u</b> lá <b>bá</b> <sup>⇒</sup> <b>bon</b> a	he see them



The End