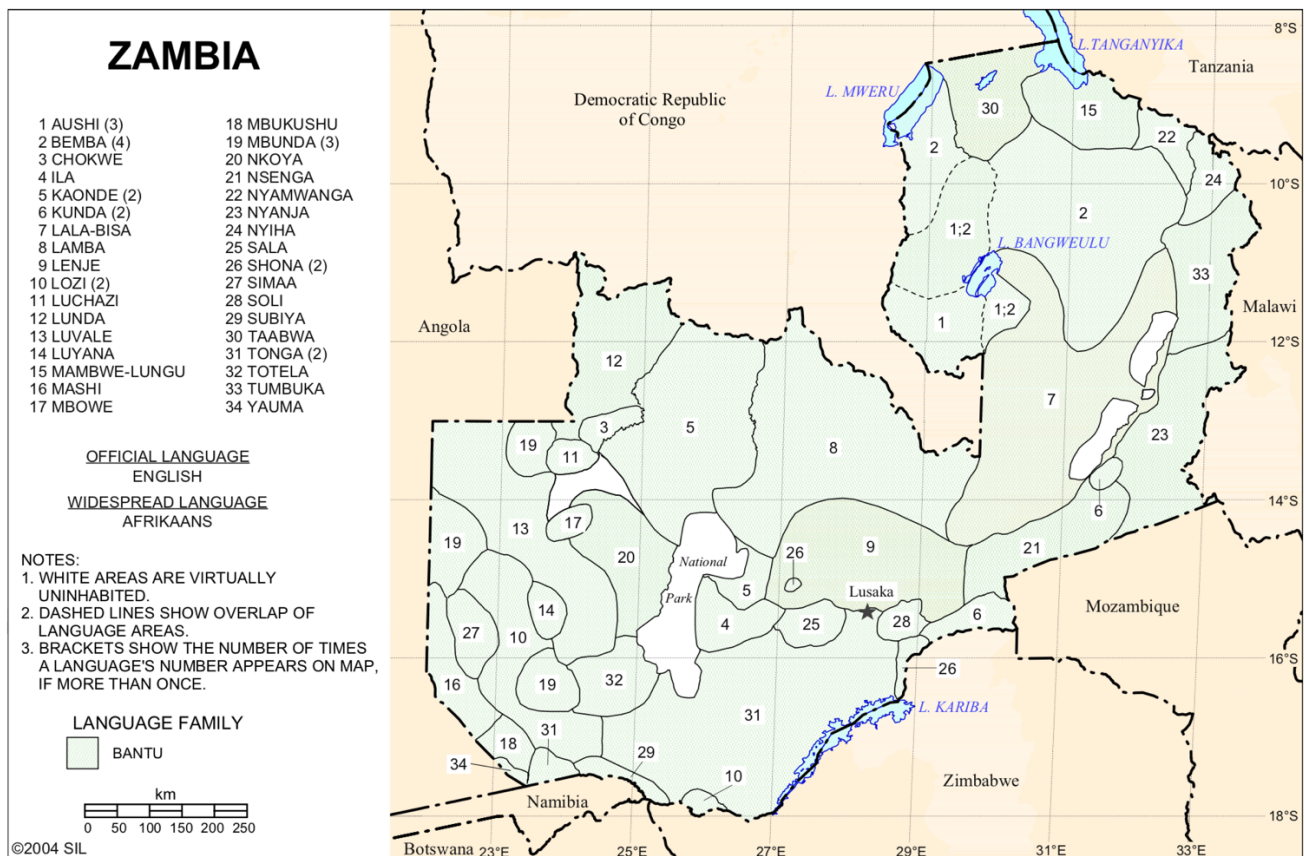## Town Nyanja Verbal Tonology

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(1)   Background: Nyanja is one of Zambia's 7 national languages. Guthrie (1967) classified Nyanja and Chichewa both as N.31. Maho (2003) lists Chichewa as N.31a and Nyanja as N.31b. Ethnologue lists Chewa-Nyanja as a single entry. While excellent research, both tonal and non-tonal, has been published on some of the varieties of Malawian Chichewa/Nyanja, unfortunately such is not the case with either the Nyanja spoken in Zambia's Eastern Province (area 23 on the map, which borders Malawi), nor the variety of Nyanja spoken in Zambia's capital, Lusaka, often referred to as "Town Nyanja," which is the subject of this talk. Finally, we note that while certainly serving as a lingua franca (as do a number of other regional languages), a large number of people in Lusaka speak Town Nyanja as a first language.

(2)   Linguistic map of Zambia (Ethnologue)

(3)   Goal of today's paper: Provide an overview of the verbal tonology of Town Nyanja (TN), contrasting it at different points with Chichewa. The TN data I'll be presenting were elicited within the past year from Ms. Mwaka Mauro-Nachilongo, a 43 year old native speaker of Town Nyanja.

(4)   The language has five contrastive vowels:

$$\begin{matrix} i & & u \\ e & & o \\ & a & \end{matrix}$$

(5)   There is no underlying vowel length contrast (= Chichewa). Rather we find penultimate vowel lengthening at the right edges of phonological phrases. E.g. *mùù-ntù* 'person', *mù-ntù mù-kúùlù* 'big person'

(6)   The consonant system is as given in the table below:

	Bilabial	Labio-dental	Alveolar	Alveo-palatal	Velar	Glotal
Stops	p b		t d		k g	
Affricates				ch j		
Fricatives		v f	z s	sh		h
Nasals	m		n	ny	ng'	
Laterals			l			
Rhotics			r			
Glides	w			y		

(We follow TN orthographic conventions below where <ch> = [tʃ], < j> = [dʒ], <sh> = [ʃ], <ny> = [ɲ], <y> = [j], <ng'> = [ŋ], <r> = [ɾ].)

(7)   Significant consonant differences in TN wrt Chichewa: loss of contrastive aspirated voiceless plosives, as well as alveolar affricates.

(8)   Attested tones on syllables:

a.   Short-Low   Cà
b.   Short-High   Cá
c.   Long-Low   Càà
e.   Long-Falling   Cáà

High tones (including Long-Falling) can also be downstepped, indicated by a raised exclamation point.

I. Underlying tonal contrasts in roots

(9)   Tone is contrastive in noun roots

a.   mù-téèngò   'tree'   /téngo/
b.   mù-tèèngò   'price'   /tengo/
c.   kà-léèzà   'razor'   /léza/
d.   kà-lèèzà   'lightning'   /leza/

(10) Wrt verb roots, while Chichewa has an underlying tonal contrast, Town Nyanja does not. (All Chichewa data from Downing & Mtenje 2017.)

	Chichewa	Town Nyanja
a.	kù-témbénùùz-à	b. kù-témbénùùz-à
	INF-turn.over-FV	
	'to turn over'	
c.	kù-támbálàál-á	d. kù-támbálààl-à
	INF-stretch.legs-FV	
	'to stretch legs'	

(11) In Chichewa infinitival forms, a High tone sponsored by the /ku-/ prefix shifts onto the root-initial TBU and then undergoes Doubling. This is the only H in forms with toneless roots (10a). In forms with H-toned roots (10c), the root H ends up associating to the penultimate syllable. As seen in (10b,d), in Town Nyanja, the cognate roots are both toneless, surfacing with the same tonal pattern as Chichewa forms with toneless roots.

(12) Tone Doubling is a very productive process in TN. It is illustrated in (10b,d), and further evidence can be seen in nouns when non-phrase final (Cf. (9))

a.	mù-téngó ù-kúùlù	'big tree'	/mu-téngo u-kúlu/
b.	kà-lézá kà-kúùlù	'big razor'	/ka-léza ka-kúlu/

(13) Tone Doubling (TD): A High tone doubles onto the following TBU when that following TBU is: 1) heteroyllabic, and the sole mora in its syllable. I.e. It fails to apply within a long vowel (accounting for the lack of Doubling in (9a,c)) or onto a long vowel (to be illustrated below).

```
σ   σ
|   | \
µ   µ x
 |⁄ ´
 H
```
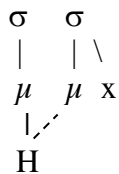
II. Tonal contrasts in verbal extensions

(14) Chichewa is among those Bantu languages that have a tonal contrast in verbal extensions (Downing & Hyman & Mtenje 1999, Mtenje 2017). While most are toneless, 3 are underlyingly High: intensive /-íts/, stative/passive /-ík/, reversive intransitive /-úk/. In TN, these 3 as well as all others are toneless.

(15) Chichewa imperatives (toneless roots)

a.	thàndìz-ììts-à	b.	thàndìz-ìík-à
	help-CAUS-FV		help-PASS-FV
	'cause to help'		'be able to be helped'

c.	kàn-ùùl-à	d.	kàn-ùúk-à
	separate-TRS-FV		separate-REV-FV
	'separate'		'be separated'

(16) Chichewa infinitives (toneless root)

a. kù-fótókòòz-à
INF-explain-FV
'to explain'

b. kù-fótókòz-èéts-à
INF-explain-INT-FV
'explain (intensive)'

Town Nyanja verbs with extensions (no evidence of any H from any extension)

(17) a. kù-ségúl-ììl-à   'to open for'
     b. kù-ségúl-ààn-à   'to open e.o.'
     c. ku-ségúl-ììk-à   'to be opened'
     d. kù-ségúl-ììs-à   'to open (intensive), to cause to open'

(18) a. kù-chétékèl-ààn-à   'to trust e.o.'
     b. kù-chétékèl-èèk-à   'to be trusted'
     c. kù-chétékèl-èès-à   'to trust (intensive), to cause to trust'

(19) a. kù-kán-ùùl-à   'to separate'
     b. kù-kán-ùùk-à   'to be separated'
     c. kù-nyám-ùùl-à   'to carry'
     d   kù-nyám-ùùk-à   'to stand up, lift'
     e. kù-pánd-ùùl-à   'to crack open'
     f. kù-pánd-ùùk-à   'to be cracked open'

III. Tone in the TAM system

(20) Downing & Mtenje (2017) document 8 distinct tonal patterns in Chichewa main clause affirmative verbs. While the surface tone patterns are the result of a large number of factors, including the presence or absence of object markers and H-toned extensions, as well as multiple productive tonal rules, the main parameters which distinguish the 8 tonal patterns include:

a. whether SM is H-toned or not
b. whether TAM prefix is: 1) toneless, 2) High, or 3) places a H on following TBU
c. Melodic H status: none, penult, final

(Main clause negative forms exhibit 4 patterns, and relatives exhibit 3 patterns.)

(21) Town Nyanja has 4 different patterns in main clause affirmative verbs. The 4 patterns are distinguished by where H tones are found within the macrostem, where the positions are confined to:

a. the macrostem-initial TBU
b. the stem-initial TBU
c. the penult

(22) Our claim is that there are only two sources of Hs within a macrostem: a) an Object Marker, and b) a Melodic High (occurring in 3 of the 4 patterns). Patterns are distinguished by whether there is a single docking site or two, where in the latter case the docking sites are ranked, or prioritized.

PATTERN 1

(23) Verbal infinitives (no object) ku-Base-a
       (Left column is phrase-final; right column non-phrase-final with adverb *bwiino* 'well')

    a. kúù-dy-à   kú-dy-á bwììnò   'to eat (well)'
    b. kù-máàng-à   kù-máng-á bw   'to tie'
    c. kù-máng-ììl-à   kù-máng-íl-à bw   'to tie for'
    d. kù-chétékèèl-à   kù-chétékèl-à bw   'to trust'

(24) The verbs in (23) all have a High tone which generally surfaces on the first TBU of the stem, and undergoes Doubling (given the constraints on Doubling formalized in (13).) When the stem is monosyllabic, the H is realized on the prefix /ku-/. This can be accounted for by assuming a prosodic stem, which is minimally bisyllabic. We propose the H in these forms is a Melodic High (which can be thought of as being sponsored by the FV).

(25) Verbal infinitives (with object)   ku-OM-Base-a

    a. kù-chíì-dy-à   kù-chí-dy-á bw   'to eat it (c7)'
    b. kù-bá-mààng-à   kù-bá-máng-à bw   'to tie them'
    c. kù-bá-máˈng-íìl-à kù-bá-máˈngl-íl-á bw   'to tie for them'
    d. kù-bá-chétèkéèl-à kù-bá-chétèkél-á bw   'to trust them'

(26) In forms with OMs in (25c-d), we see the presence of a second High tone on the penult. We propose that all OMs sponsor a High tone. This is in addition to the one sponsored by the FV in this TAM.

(27) Thus, the URs of (23d) and (25d) are as below.

    a. ku-chetekel-a bwiino   b. ku-ba-chetekel-a bwiino   UR

            H   H   H

(28) For Pattern 1, we propose that there are two docking sites: the Macrostem-Initial TBU and the Penultimate TBU, where **Macrostem-Initital > Penult**. Thus, when there is a single floating H it docks onto the macrostem-initial TBU; when there are two, one docks onto the macrostem-initial TBU and the other to the penult.

(29) Docking and Doubling in (23d) and (25d)

    a. ku-chetekel-a bwiino   b. ku-ba-chetekel-a bwiino   Floating H Docking
          | | |
         H   H   H

       ku-chetekel-a bwiino   ku-ba-chetekel-a bwiino   Doubling
         |/ | / | /
        H   H   H

Other TAMs also exhibiting Pattern 1 (Non-phrase-final forms presented)

(30)   Recent Past   SM-a-(OM)-Base-a

        a. t-à-chétékèl-à   'we trusted'
        b. t-à-bá-chétèkél-á   'we trusted them'

(31)   Potential   SM-nga-(OM)-Base-a

        a. tì-ngà-chétékèl-à   'we can trust'
        b. tì-ngà-bá-chétèkél-á   'we can trust them'

(32)   Subjunctive Itive   SM-ka-(OM)-Base-e

        a. tì-kà-chétékèl-è   'we should go and trust'
        b. tì-kà-bá-chétèkél-é   'we should go and trust them'

(33)   Progressive Habitual   SM-ngo-(OM)-Base-a (underlined SM indicates High tone)

        a. tí-ngò-chétékèl-à   'we keep trusting'
        b. tí-ngò-bá-chétèkél-á   'we keep trusting them'

(34)   Present Continuous   SM-ku-ngo-(OM)-Base-a

        a. tí-kú-ngò-chétékèl-à   'we are continually trusting'
        b. tí-kú-ngò-bá-chétèkél-á 'we are continually trusting them'

(35)   Future Progressive   SM-za-mbo-(OM)-Base-a

        a. tí-zá-mbò-chétékèl-à   'we will be trusting'
        b. tí-zá-mbò-bá-chétèkél-á 'we will be trusting them'

(36)   Negative Prog Habitual   sí-SM-ngo-(OM)-Base-a

        a. sí-tí-ngò-chétékèl-à   'we don't keep trusting'
        b. sí-tí-ngò-bá-chétèkél-á   'we don't keep trusting them'

(37)   Negative Potential   sí-SM-nga-(OM)-Base-a

        a. sí-tí-ngà-chétékèl-à   'we don't keep trusting'
        b. sí-tí-ngà-bá-chétèkél-á   'we don't keep trusting them'

(38)   Negative Pres Contin   sí-SM-ku-ngo-(OM)-Base-a

        a. sí-tí-kù-ngò-chétékèl-à   'we don't keep trusting'
        b. sí-tí-kù-ngò-bá-chétèkél-á 'we don't keep trusting them'

(39)   Neg Future Progressive   sí-SM-za-mbo-(OM)-Base-a

    a.   sí-tí-zà-mbò-chétékèl-à   'we will not be trusting'
    b.   sí-tí-zà-mbò-bá-chétèkél-á   'we will not be trusting them'

PATTERN 2

(40)   Remote Past (no OM)   SM-ná-Base-a

    a.   tì-náà-dy-à   tì-ná-dy-á bw   'we ate (well)'
    b.   tì-ná-mààng-à   tì-ná-máng-à   'we tied'
    c.   tì-ná-máng-ììl-à   tì-ná-máng-ìl-à   'we tied for'
    d.   tì-ná-chétèkèèl-à   tì-ná-chétèkèl-à   'we trusted''

(41)   Remote Past (w/OM)   SM-ná-OM-Base-a

    a.   tì-ná-chìì-dy-à   tì-ná-chí-dy-à bw   'we ate it (well)'
    b.   tì-ná-bá-mààng-à   tì-ná-bá-màng-à   'we tied them'
    c.   tì-ná-bá-màng-íìl-à   tì-ná-bá-màng-íl-á   'we tied for them'
    d.   tì-ná-bá-chètèkéèl-à   tì-ná-bá-chètèkél-á   'we trusted them'

(42)   In the forms with no OM (40), the TAM prefix /ná-/ is underlyingly High and doubles, but no additional H appears in the verb stem. In the forms with an OM (41), a High tone appears on the penult (which undergoes Doubling).

(43)   UR of the forms in (40d) and (41d)

  a. ti-na-chetekel-a bwiino   b. ti-na-ba-chetekel-a bwiino   UR
       | |
      H   H   H

(44)   Analysis: For this pattern, there is no MH, and a single docking site: **the penult**
      (Only floating Hs in the form are attracted to the docking sites. Additional Hs are never added.)

(45)   Docking and Doubling in (40d) and (41d)

  a.   n/a   b. ti-na-ba-chetekel-a bwiino   Docking
                    | |
                    H   H

  ti-na-chetekel-a bwiino   ti-na-ba-chetekel-a bwiino   Doubling
     | / | / | /
     H   H   H

Other TAMs also exhibiting Pattern 2

(46)   Present   SM-(OM)-Base-a

    a.   tí-chétèkèl-à   'we trust/are trusting'
    b.   tí-bá-chètèkél-á   'we trust/are trusting them'

(47) General Future   SM-zá-(OM)-Base-a

    a. tì-zá-chétèkèl-à   'we will trust'
    b. tì-zá-bá-chètèkél-á   'we will trust them'

PATTERN 3

(48) Habitual (no object)   <u>SM</u>-ma-Base-a

    a. tí-máà-dy-à   tí-má-dy-á bw   'we eat (well)'
    b. tí-má-ˈmáàng-à   tí-má-ˈmáng-á bw   'we tie'
    c. tí-má-màng-íìl-à   tí-má-màng-íl-á bw   'we tie for'
    d. tí-má-chètèkéèl-à tí-má-chètèkél-á bw   'we trust'

(49) The SM is H which undergoes Doubling. A High, again sponsored by the FV, targets the penult (and then undergoes Doubling).

(50) Habitual (with object)   <u>SM</u>-ma-OM-Base-a

    a. tí-má-ˈchíì-dy-à   tí-má-ˈchí-dy-á bw   'we eat (well)'
    b. tí-má-bà-máàng-à   tí-má-bà-máng-á bw   'we tie'
    c. tí-má-bà-màng-íìl-à   tí-má-bà-màng-íl-á bw   'we tie for'
    d. tí-má-bà-chètèkéèl-à tí-má-bà-chètèkél-á bw   'we trust'

(51) In these forms with an OM, there is a single H within the stem which docks onto the penult (and then undergoes Doubling)

(52) URs of (48d) and (50d)

  a. ti-ma-chetekel-a bwiino   b. ti-ma-ba-chetekel-a bwiino   UR
     | |
     H   H   H   H   H

(53) Analysis of Pattern 3: presence of MH; sole target is the **penult**

(54) Docking and Doubling in (48d) and (50d)

  a. ti-ma-chetekel-a bwiino   b. ti-ma-ba-chetekel-a bwiino   Docking
     | | | |
     H   H   H   H H

     ti-ma-chetekel-a bwiino   ti-ma-ba-chetekel-a bwiino   Doubling
     | | / | | /
     H   H   H   H H

(55) It is not clear which of the two Hs docks onto the penult. The other could remain floating or delete.

Other TAMs also in Pattern 3

(56)   Temporal   SM-ka-(OM)-Base-a

      a. tì-kà-chètèkél-á   'when we trust'
      b. tì-kà-bà-chètèkél-á   'when we trust them'

(57)   Remote Future   SM-zá-ka-(OM)-Base-a

      a. tì-zá-ká-chètèkél-á   'we will trust'
      b. tì-zá-ká-bà-chètèkél-á 'we will trust them'

(58)   Imperative (no OM)   Root-a

      chètèkél-á   'don't trust'

(59)   Neg. Imperative Itive   ó-sa-ka-Base-e

      a. ó-sá-kà-chètèkél-é   'don't go and trust'
      b. ó-sá-kà-bà-chètèkél-é 'don't go and trust them'

(60)   Negative Imperative   ó-sa-(OM)-Base-a

      a. ó-sá-chètèkél-á   'don't trust'
      b. ó-sá-bà-chètèkél-á   'don't trust them'

(61)   Negative Infinitive   kú-sa-(OM)-Base-a

      a. kú-sá-chètèkél-á   'to not trust'
      b. kú-sá-bà-chètèkél-á   'to not trust them'

(62)   Negative Remote Past <u>sí-SM</u>-na-(OM)-Base-a

      a. sí-tí-nà-chètèkél-á   'we didn't trust'
      b. sí-tí-nà-bà-chètèkél-á 'we didn't trust them'

(63)   Negative General Future sí-<u>SM</u>-za-(OM)-Base-a

      a. sí-tí-zà-chètèkél-á   'we won't trust'
      b. sí-tí-zà-bà-chètèkél-á 'we won't trust them'

(64)   Negative Habitual   sí-<u>SM</u>-ma-(OM)-Base-a

      a. sí-tí-mà-chètèkél-á   'we don't trust'
      b. sí-tí-mà-bà-chètèkél-á 'we don't trust them'

(65)   Negative Remote Future sí-<u>SM</u>-za-ka-(OM)-Base-a

      a. sí-tí-zà-kà-chètèkél-á   'we won't trust'
      b. sí-tí-zà-kà-bà-chètèkél-á 'we won't trust them'

(66)   Negative Present   sí-<u>SM</u>-(OM)-Base-a

    a. sí-tí-chètèkél-á   'we don't trust'
    b. sí-tí-bà-chètèkél-á   'we don't trust them'

(67)   Neg. Subjunctive   <u>SM</u>-sa-(OM)-Base-e

    a. tí-sá-chètèkél-é   'you should not trust'
    b. tí-sá-bà-chètèkél-é   'you should not trust them'

(68)   Neg. Subjunctive Itive   <u>SM</u>-sa-ka-(OM)-Base-e

    a. tí-sá-kà-chètèkél-é   'you should not go and trust'
    b. tí-sá-kà-bà-chètèkél-é   'you should not go and trust them'

(69)   Neg. Temporal   sí-<u>SM</u>-ka-(OM)-Base-e

    a. sí-tí-kà-chètèkél-é   'when we didn't trust'
    b. sí-tí-kà-bà-chètèkél-é   'when we didn't trust them'

PATTERN 4

(70) Subjunctive (no OM)   SM-Base-e

    a. tíì-dy-è   tì-dy-é bw   'we should eat (well)'
    b. tì-máàng-è   tì-máng-é bw   'we tie'
    c. tì-màng-íìl-è   tì-màng-íl-é bw   'we tie for'
    d. tì-chètèkéèl-è   tì-chètèkél-é bw   'we trust'

(71) In this pattern, the MH docks onto the penult (and then undergoes Doubling)

(72) Subjunctive (w/ OM)   SM-OM-Base-e

    a. tì-chíì-dy-è   tì-chí-dy-é bw   'we should eat (well)'
    b. tì-bà-máàng-è   tì-bà-máng-é bw   'we tie'
    c. tì-bà-máng-ììl-è   tì-bà-máng-íl-è bw   'we tie for'
    d. tì-bà-chété˺kéèl-è   tì-bà-chété˺kél-é bw   'we trust'

(73) The OM H docks onto the stem-initial TBU, and the MH docks onto the penult

(74) URs of (70d) and (72d)

  a. ti-chetekel-a bwiino   b. ti-ma-ba-chetekel-a bwiino   UR

              H   H   H

(75) Analysis: presence of a MH; **Penult > Stem-Init**

(76) Docking and Doubling in (70d) and (72d)

a.   ti-chetekel-a bwiino   b.   ti-ma-ba-chetekel-a bwiino   Docking
           | | |
           H   H   H

     ti-chetekel-a bwiino   ti-ma-ba-chetekel-a bwiino   Docking
          | / |/ | /
          H   H   H

Other TAMs in Pattern 4

(77) Imperative Itive   ka-Base-e

     a.   kà-chètèkéèl-è   'go and trust'
     b.   kà-bà-chétéˈkél-é   'go and trust them'

(78) Imperative w/ OM   OM-Base-e

     bà-chétéˈkél-é   'trust them'

(79) Summary of Town Nyanja verbal tone Patterns:

Pattern #	Hs in MS: No OM	Hs in MS: w/OM	Analysis
1	MS-init	MS-Init, Penult	MH: MS-Init > Penult
2	no H	Penult	No MH: Penult
3	Penult	Penult	MH: Penult
4	Penult	Stem-Init, Penult	MH: Penult >Stem-Init

(80) Affirmative main clause forms can be found in all 4 patterns, while negative forms are only found in patterns 1 and 3.

(81) Comparison summary between Town Nyanja and Chichewa

     a.   TN has fewer underlying consonants than Chichewa
     b.   TN has no underlying tonal contrast in verb roots, unlike Chichewa
     c.   TN has no underlying tonal contrast in verbal extensions, unlike Chichewa
     d.   TN has 4 main clause affirmative tonal patterns, while Chichewa has 8
     e.   TN has 2 main clause negative tonal patterns, while Chichewa has 4

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