THE MARKING OF TENSE IN NƆMAANTƐ

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The Nɔmaántɛ́ language of Central Cameroon has a verbal tense system characterized by grammatical tone markings. These grammatical tones are used to distinguish the possible tenses of a given action. In the pronominal complex, segmental and suprasegmental changes occur to distinguish the present, past and future tenses. Where these pronominal forms are identical, additional distinctions are necessary and are found in tone variations on the verb stem. Despite the use of these tones, there remains some ambiguity between the distant past and the today future singular forms. In these cases, the two tenses must be distinguished by an explicit time adverb.

Dans la langue nɔmaántɛ́ du Cameroun l'on trouve un système verbal du temps qui se caractérise par des tons grammaticaux. Les temps possibles d'une action sont distingués par ces tons. C'est dans le complexe pronominal qui se trouvent certains changements de tons qui notent un changement de temps. Il y a également des variations dans les segments et les suprasegments dans ce complexe. Ces changements aident à distinguer entre le présent, les trois temps passés et les trois temps futurs. Mais il faut encore quelques distinctions et celles-ci se trouvent sur le radical du verbe. Malgré l'emploi des variations de tons sur le radical, il reste une ambiguïté à résoudre entre les formes du singulier pour le passé lointain et le futur proche. Dans ces cas, la distinction entre les deux temps est rendue explicite par un adverbe temporel.

0. INTRODUCTION

This paper[1] concerns the marking of tense in the Nɔmaántɛ́ verb[2]. Each verb stem has its own lexical tone, but there is also grammatical tone present on both the verb stem and the proniminal complex. This grammatical tone is used to distinguish the time of a given event or action. However, these suprasegmentals alone are not sufficient for distinguishing all the tenses. Segmental morphemes are also used with both the subject pronominal complex and the verb stem to help further differentiate the various tenses.

In section 1.0, a brief introduction to the various tense distinctions in Nɔmaánté will be given. This will be followed by a description of the segmental and suprasegmental tense markings in the pronominal complex.

In section 2.0, a sketch of the tonal variations on the verb stem will be given. The rules given for tone changes on the verb stem will be of a tentative nature since there are exceptions which this paper will not attempt to deal with at this time. Attention will be focused on the particular forms which follow the proposed rules in the hope of giving a less cluttered view of the tense system in Nɔmaánté.

In section 3.0, a summary chart will be presented with all the segmental and suprasegmental information in it. In the Appendix, a comparison of 2 verb conjugations (one each from the two tone classes) will be given.

The description in this paper limits the analysis of the Nɔmaánte tenses to their forms in the perfective aspect (with the exception of the present tense, which is imperfective). The reader interested in imperfective aspects (such as continuous and habitual meanings) is referred to a paper on Nɔmaánté aspect (Wilkendorf, in preparation).

1. TENSE MARKING IN THE PRONOMINAL COMPLEX

1.1 TENSE DISTINCTION

Nɔmaánté distinguishes between 4 past tenses (P3 - distant past, P2 - past, P1 - today past, and P0 - immediate past), a present tense and 4 future tenses (F0 - immediate future, F1 - today future, F2 - future, and F3 - distant future). In the immediate future tense (F0), the independent nontemporal forms of the subject pronouns are used with the auxiliary verb ɔcɔba[3] 'to go' followed by the infinitive of the main verb. For example:

(1) mí ɔcɔba obúme 'I am going hunting (soon)'
I go to hunt

(2) tú ɔcɔba ɔnyíá 'We are going to eat (soon)'
we go to eat

Other than noting the co-occurrence restrictions of the immediate future with the other tenses in (3) which follows, we will not be looking at it any further in this paper since this is the only tense form that is periphrastic in the language.

By examining (3) on tense co-occurrence restrictions with temporal adverbs, we can see how and when each tense can be employed.

-P3 (distant past) can be used for an event/action that occurred as recently as a week ago and it is also used for any action happening anytime before that. This form appears to be the same one used for the narrative past as well.

-P2 (past) can be used for an action that occurred 'yesterday' or before but it is no longer used when the action happened more than one week previously.

P1 (today past) is used exclusively for describing events/actions which occurred earlier on the same day as the utterance about those events/actions.

-PO (immediate past) can also be employed for describing an action which occurred earlier on the same day but it is most commonly used to describe an action that has just occurred.

-PRES. (present) is an inceptive present which is normally used just before an action is to begin rather than while the action is already in progress. Most commonly, a progressive form of the verb would be used in the latter case.

-FO (immediate future) is used exclusively for an action that will be happening within the next couple of hours.

-F1 (today future) can be used in the same way as the immediate future but it is most frequently used for describing events/actions which will be occurring later on in the same day.

-F2 (future) is used with any event/action which is to occur from 'tomorrow' on into the future but its use is restricted to future events of which the speaker is certain will occur.

-F3 (distant future) is necessary for describing any event/action which is to occur far enough into the future that it is unsure whether or not it will happen.

Tense Co-occurrence Restrictions

Temporal Adverbs	P3	P2	P1	P0	Pres.	F0	F1	F2	F3
buáy 'a long time ago'	x								
buayána sontay 'a week ago'	x	x							
muɔ́sɛ́ mɛtátu '3 days ago'		x							
búoci 'yesterday'		x							
nɔ́nɔyá 'this morning'			x	x					
híambay 'just...'				x					
ambay 'now'					x				
híambay 'immediately'						x	x		
nanyiɔ́f 'this evening							x		
nɔyá 'tomorrow'								x	
ɔyá 'day after tomorrow'								x	
hiɔnɔ́ hɛmotɛ́ 'in one year' (when certain)								x	
tuonɔ́ tufenti 'in 2 years' (when uncertain)									x

1.2 THE PRONOMINAL COMPLEX

The pronominal complex is made up of three morphemes. The complex has the following form, where SP is "subject pronoun" and TM is "tense marker": SP-TM-SP. SP corresponds to the initial verbal element or verbal prefix as described in Meeussen (1967). TM corresponds to the formative verbal element and the final SP corresponds to "infix" in Meeussen's terminology. The vowels in the pronominal complex belong to either a closed or open vowel register (also known as high or low) depending on the register to which the vowels of the verb stem belong. The vowel u seems to be able to be used in either register.

Pronominal Complex Segments

Person	Initial S.P.	Tense Marker	Final S.P.
(open)			
1 sg.	ɛ-	x	-mɛ
2 sg.	ɔ-	x	-ɔ
3 sg.	u-	x	-a
1 pl.	tu-	x	-sɔ
2 pl.	nu-	x	-nɔ
3 pl.	bá-	x	-bɔ
(closed)			
1 sg.	i-	x	-mi
2 sg.	o-	x	-o
3 sg.	u-	x	-e
1 pl.	tu-	x	-su
2 pl.	nu-	x	-nu
3 pl.	bé-	x	-bu

The "x"'s in this chart represent the 3 possible segmental tense markers within the pronominal complex. These segments remain the same (other than for vowel harmony changes) for the different persons:

(a) -ŋa/ŋe- is the most common segmental tense marker and is used in marking past, present and today future (F1) tenses.

(b) -ka/ke- is used to mark both F2 and F3 future tenses.

(c) -ma/me- is used exclusively to mark the immediate past (PO) tense.

In order to see how the three different morphemes of the pronominal complex join together in the various tenses, refer to the paradigms which appear in the Appendix.

The first part of the pronominal complex consists of a subject pronoun. This is followed by the appropriate tense marker. The complex is then closed with another subject pronoun. The pronoun segments themselves should be considered as toneless and they then receive tone according to the tense being used. However, the initial subject pronoun of the third person plural form bá/bé always carries a high tone and it cannot be changed in any tense. The other pronoun segments' grammatical tone is imposed by the tense markers whose particular tone spreads over the various segments in the pronominal complex. (5) diagrams how the tenses are realized by the use of varied tonal patterns and segmental tense markers within the pronominal complex.

(5) <u>Suprasegmentals in the Pronominal Complex</u>

Tense	Pron. Complex Segments and Tone Patterns

Tense						
P3:	x	–	ŋa	–	x	
	L		L		H	
P2:	x	–	ŋa	–	x	
	H		L		L	
P1:	x	–	ŋa	–	x	
	L		H		L	
P0:	x	–	ma	–	x	
	H		L		H	(sg.)
	H		L		L	(pl.)
Pres.	x	–	ŋa	–	x	
	L		L		H	
F1:	x	–	ŋa	–	x	
	L		L		H	
F2:	x	–	ka	–	x	
	L		H		L	
F3:	x	–	ka	–	x	
	L		L		H	

The "x"'s in the preceding chart indicate the initial and final subject pronouns which change according to number and person.

The distinctions found between the various tenses as made by the pronominal complex are as follows:

(a) Tenses P3, P2 and P1 are distinguishable from one another by the tonal patterns on the pronominal complex. P2 and P1 are distinguished from Pres. and F1 for the same reason.

(b) Tenses P1 and F2 are distinguished because of their segmental tense markers, i.e. -na- for P1 and -ka- for F2, even though they share the same tonal pattern.

(c) Tenses P2 and P0 are distinguished by both their segmental tense markers (-na- for P2 and -ma- for P0) and their tonal patterns (although in the plural, the tone pattern is identical for these 2 tenses). P0 differs from all the other tenses in that it is the only tense to use the segment -ma- as a tense marker.

(d) Tenses F2 and F3 are distinguished by their tonal patterns whereas F3 is distinguished from P3, Pres., and F1 by the segmental tense marker -ka-.

In spite of all the information included in these pronominal complexes, there remains the necessity of differentiating between the tense forms for P3, Pres., and F1. These three are <u>not</u> distinguishable on the basis of the pronominal complex alone, be it the segments or the tonal patterns. More information is needed. This leads us to an examination of tense markers in the verb stem.

2. TENSE MARKING IN THE VERB STEM

2.1 CO-OCCURRENCE OF TENSE ON THE PRONOMINAL COMPLEX AND VERB STEM

Although many questions remain to be answered regarding unusual tonal variations on the verb stem in Nɔmaántɛ́, some generalizations will be made for describing the tone found on the verb stem in the majority of cases.

Nɔmaántɛ́ appears to have two major verb classes: One for high tone verbs and one for low tone verbs. This follows the pattern found in the majority of other Bantu languages (Greenberg, 1948). The normal syllable pattern for the Nɔmaántɛ́ verb root appears to be -CVC- with a final vowel suffix extension added to that. This combination forms the disyllabic structure found in the verb stem. When examining the verb stems, we discounted all of the currently identified verbal prefixes and suffixes (see Taylor, 1984) other than this final vowel suffix.

In the charts and explanation which follow, we will be concentrating on the verb forms corresponding to the first person plural pronoun since these are the forms which are the most regular. In (6) we will give an overall view of the tone patterns on the pronominal complex and the verb stem for the various tenses as well as showing the contrasting patterns present between high and low verbs.

Tense Marking on Subject Pronoun and Verb Stem

Tense	Subject Pronoun Tone Pattern (1pl.)	Verb Stem Tone H Tone Verbs	L Tone Verbs	-k Suffix
P3:	tuŋasɔ L L H	HH	HL	+/-
P2:	tuŋasɔ H L L	HH	LL	+/-
P1	tuŋasɔ L H L	HH	LL	+/-
PO:	tumasɔ H L L	HL	LL	+/-
Pres.	tuŋasɔ L L H	LL	HL	-
F1	tuŋasɔ L L H	HM	HL	+/(-)

F2	tukasɔ	HH	LL	+/-
	L H L			

F3	tukasɔ	HH	HL	+/-
	L L H			

As was stated in section 1.2, the segmental and suprasegmental tense markers in the pronominal complex were sufficient for differentiating most of the tense forms but not all of them. The subject pronoun forms for the tenses P3, Pres., and F1 are identical. But if we look now at the tone patterns which occur for these tenses on high tone verbs, we can see that these verbs would carry a tonal pattern for HH for P3, LL for Pres., and HL for F1. Thus, there is a clear distinction for each of the tenses as far as the high tone verbs are concerned.

However, for the low tone verbs there still appears to be neutralization between the three forms. The tonal pattern for P3, Pres., and F1 is always HL on low tone verbs. Therefore, some other tense marking device must be found if this neutralization is to be avoided.

In Nɔmaántɛ́, there is a -k suffix which can and often does appear on the verb root. It carries various meanings, including: (a) denoting an action which takes place over a long period of time, (b) denoting a verb that has multiple objects (for example, 'I am picking up stones') and (c) helping to differentiate verb tenses. Referring back to (6), we see that the -k suffix can appear with most verbs in the tenses P3, P2, P1, P0, F2 and F3 in order to give either the meaning of duration or of multiple objects. However, the present tense is never allowed to carry the -k suffix. In this way the Pres. verb form is kept distinct from the P3 and F1 forms.

The question arises here as to whether the -k suffix is a perfective aspect marker since it can appear in all the tenses except the present tense which is imperfective. However, after some preliminary analysis of other imperfective forms such as the habitual and progressive past tenses, it is clear that the -k suffix can also be used with the imperfective aspect. But evidently it is not used with imperfectives in the present or future tenses.
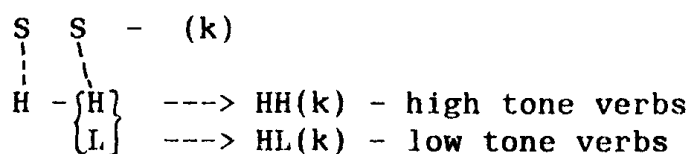
Finally, note that even though the -k suffix distinguishes the Pres. from the P3 and F1, it does not distinguish P3 from F1. The F1 tense seems to have a special status with regard to the -k suffix since it occurs more frequently with this tense although it is not always obligatory. In addition, F1 is the only tense in which -k suffix appears in the negative. Thus, there remains the possibility of neutralization between the P3 and F1 tenses for some low tone verbs where the -k suffix is present in both forms. In those cases, either the context or an explicit time adverb would need to be used in order to distinguish between the two tenses.

2.2 TONE REALIZATION RULES FOR VERB STEMS

We can now examine all of the segmental and suprasegmental tense markers of the verb stem and attempt to explain with autosegmental tone rules how to get from the underlying tonal structure to the surface structure for each form.

P3 and F3 tenses have a rule which adds H-(stem)-k to the verb stem. This means that there is a high floating tone prefix attached to the first syllable of the verb stem and the -k suffix can be added under the conditions stated for its meaning (i.e. either to denote an action of long duration or a multiple object of the verb). This rule is realized on the surface as follows:

(7) <u>P4 and F3 Tenses:</u>

                                    S S - (k)

                        H -{H} ---> HH(k) - high tone verbs
                            {L} ---> HL(k) - low tone verbs

S S denotes the first and second syllables of the verb stem. (k) denotes that the -k suffix may be attached to the stem. Tone markings in brackets denote the inherent root tone while the tone markings on either side of the brackets denote floating tones.
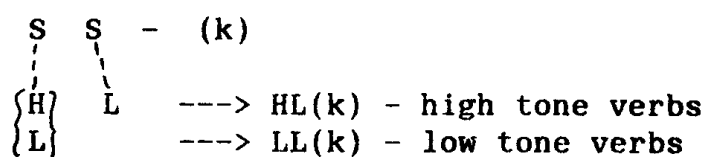
P2, P1 and F2 tenses have a rule which adds (stem)-k to the verb stem. This means that the verb root's underlying tone will be realized on both syllables of the stem. In addition, the -k suffix can be added according to the stipulations stated in the P3/F3 rule above. The effect of this rule is therefore the following:
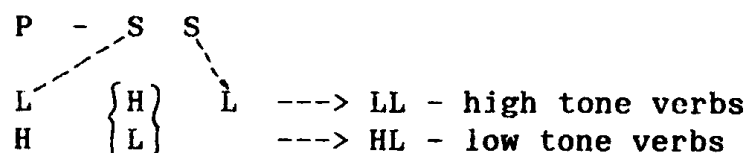
(8) P2, P1 and F2 Tenses: S S - (k)

                            {H} ---> HH(k) - high tone verbs
                            {L} ---> LL(k) - low tone verbs
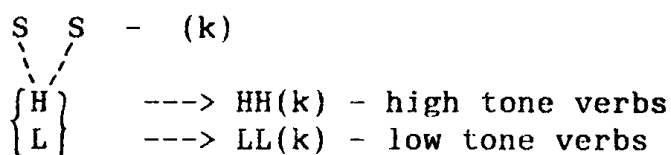
PO has a rule which adds (stem)-L-k to the verb stem. This symbolizes that there is a low floating tone suffix attached to the final syllable of the verb stem.[4] This rule results in the following derivation:

(9) <u>PO Tenses:</u>

                                      S S - (k)

                        {H} L ---> HL(k) - high tone verbs
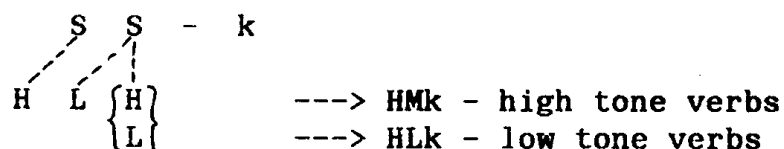   {L}   ---> LL(k) - low tone verbs

The present tense has a verb stem rule involving a polarization of the underlying tone on the verb stem as well as the addition of a floating low tone suffix. The rule might be symbolized as follows P-(stem)-L. The basic tone is deleted. Note that no -k suffix is ever allowed in this tense. The rule results in the following changes:

(10) <u>Present Tense:</u>

$$\begin{array}{ccc} P & - & S & S \end{array}$$

L $\quad \left\{ \begin{matrix} H \\ \end{matrix} \right.$ L ---> LL - high tone verbs

H $\quad \left. \begin{matrix} L \end{matrix} \right\}$ ---> HL - low tone verbs

F1 has a verb stem rule of HL-(stem)-k which means that the tone pattern HL has been added to the basic verb stem tone for both high tone verbs and low tone verbs. The -k suffix also is added to the stem. The combination of HL with a H tone verb root results in a tone pattern of HM (high-mid). This rule is realized on the surface as follows:

(11) <u>F1 Tense:</u>

$$\begin{array}{ccc} S & S & - & k \end{array}$$

H L $\left\{ \begin{matrix} H \\ L \end{matrix} \right.$ ---> HMk - high tone verbs

---> HLk - low tone verbs

(12) below shows us all the tense markers in Nɔmaánté for both the pronominal complex and the verb stem in a more abstract form than that shown in (4).

(12)   <u>Tense Markers</u>

Tense	Pron. Comp. Tense Markers	Verb Stem Tense Markers
P3:	x - ŋa - x L L H	H-(stem)-k
P2	x - ŋa - x H L L	(stem)-k
P1	x - ŋa - x L H L	(stem)-k
P0	x - ma - x H L H (sg.) H L L (pl.)	(stem)-L-k
Pres.	x - ŋa - x L L H	P-(stem)-L
F1	x - ŋa - x L L H	HL-(stem)-k
F2	x - ka - x L H L	(stem)-k
F3	x - ka - x L L H	H-(stem)-k

3. SUMMARY

We have seen that Nɔmaánté makes use of 3 different segmental tense markers and 4 tonal patterns in the pronominal complex. In addition, 5 more tone rules and a verbal suffix are found with the verb stem in order to help differentiate the 8 tenses from one another. No <u>one</u> of these segmental or suprasegmental elements suffices for distinguishing all of the tenses. While the tenses P2, P1, P0, F2 and F3 are distinct in their forms from looking at the pronominal complex, the tenses P3, Pres., and F1 require all of the additional information given by the tense markers added to the verb stem in order to avoid neutralization.

Even with all these markers considered, neutralization remains between the tenses P3 and F1 for low tone verbs in which the -k suffix is present on both forms. However, the tenses are fairly distant in terms of time and the tense can usually be figured out from the given context. If neutralization may cause confusion in a specific context, the speaker can clearly state his choice of P3 versus F1 by adding an appropriate temporal adverb. Also, since the F0 form (see 1.1) can be used in some of the same situations as the F1 tense, this F0 tense can sometimes be substituted for F1 in situations of possible ambiguity. The historical antecedents of the complicated Nɔmaánté tense system remain unknown and therefore have to be the subject of future research.

APPENDIX

Comparison of a High Tone Verb and a Low Tone Verb

The following chart shows a comparison between the tenses for a high tone verb, obúme 'to hunt', and a low tone verb, oketi 'to measure'. The forms given are for the first person plural pronouns.

Tense	obúme 'to hunt' (H tone)	oketi 'to measure' (L tone)
P3	tuŋesú búmé (k)	tuŋesú kéti (k)
P2	túŋesu búmé (k)	túŋesu keti (k)
P1	tuŋésu búmé (k)	tuŋésu keti (k)
P0	túmesu búme (k)	túmesu keti (k)
Pres.	tuŋesú bume	tuŋesú kéti
F1	tuŋesú búmēk	tuŋesú kétik
F2	tukésu búmé (k)	tukésu keti (k)
F3	tukesú búmé (k)	tukesú kéti (k)

NOTES

[1]This paper was presented at the 16th West African Linguistic Society Congress, March 25-29, 1985, in Yaoundé, Cameroon.

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[2]The Nɔmaántɛ́ language is spoken by a relatively small group of people (between 4,000 and 5,000) known officially as Lemande. They live in the hilly region north of the Sanaga River in Central Cameroon in the Department of Mbam, sub-division of Bokito. There are about 10 different languages spoken in this sub-division. In spite of the influence of these languages on Nɔmaántɛ́, as well as the influence of French, Pidgin English and Bulu, the Lemande people have kept their linguistic unity. They live in 7 different villages plus a section of the town of Bokito and they can easily understand one another.

Nɔmaántɛ́ has 7 vowels and 14 consonants represented as: a, e, ɛ, i, o, ɔ, u, b, c, f, h, k, l, m, n, ny, ŋ, s, t, w, y. This Bantu language (classified as A. 46 by Guthrie) also has vowel harmony, long vowels, dipthongs and 2 contrastive tones (high and low). Its position on the Northwestern edge of Bantu zone A makes it one of the most northwesterly spoken Narrow Bantu languages.

[3]Tone is marked in the following way:´ is high tone (H), - is mid tone (M=downstep of H tone most likely) and low tone (L) is left unmarked.

[4]The major exception to this rule is found with high tone verbs that have a CVV(C) syllable pattern. The tone pattern in the PO tense for those verb stems is LL.

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