

Tense and aspect in Lamnso'

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Abstract: Yuka (1997) has identified three broad tenses in Lamnso'². A closer look at these tenses and their specification of time reference will reveal a more complex tense structure of multiple past and future time allusions that distinguish different degrees of remoteness to the past and future tense categories. This paper seeks to determine the various degrees of remoteness to a given tense category exhibited in Lamnso'. This paper investigates the relative relationship(s) between a tense marker that denotes the time of an action and the time reference preceding or following that action within the clause. It also examines aspect, interpreted as the way of conceiving the flow of an event (Comrie, 1976). This study identifies seven tense forms for Lamnso' (P₃, P₂, P₁, P₀, F₁, F₂ and F₃), which specify time distinctions from the remote past (P₃) to the remote future (F₃) and three aspect forms. These ten tense and aspect forms combine with distinctive tones and time adverbials to derive a time reference structure whose cut-off points are sometimes fluid and non-rigid.

Key words: Lamnso', tense and aspect, tone, clauses, temporal distance

1. Preliminaries

Comrie (1985) conceives of tense as the grammaticalisation of location in time. Tense establishes the range within which languages vary expressions of time reference. Aspect is understood as the "... different ways of viewing the internal temporal constituency of a situation" (Holt 1943: 6). Unlike most English-type languages that have grammaticalised time reference basically as present, past and future, many African

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² Lamnso' is spoken in the greater part of Bui Division, which is 150 km from Bamenda, the capital of the North West Province of the Republic of Cameroon. It is also spoken in Nigeria, specifically in Taraba State, Sarduana Local Government Area. It is a Grassfield Bantu language, classified under the Ring group of languages. The languages commonly referred to as Bantu are also classified as Southern Bantoid languages. They are considered to be Narrow Bantu, whereas Lamnso' and other Grassfield languages are non-Bantu (or Wide Bantu). Like Fula (Annot 1970) or Swahili (Mkude 1990, Welmers 1973) in Lamnso' nouns and nominals fall under different classes on the basis of agreement operated by concord markers which vary from one class to another (Grebe and Grebe 1975, Eastman 1980, Yuka 1998, 1999).

languages like Fula (Annot 1970), and Meta (Fogwe 2004) portray a very rich tense system. A number of these languages exhibit very fine distinctions in their perception of distance between two related events. An event is generally situated 'before' or 'after' a given point in time. Some languages tend to have more varied references in their specification of the chronology of events leading to the occurrence of an action rather than others. In this paper, we are interested not only in the simple basic tense and aspect marking in Lamnso' but also in the relationship that exists between tone and the gradation of tense and aspect.

2. Tone in Lamnso'³

Lamnso' exhibits eight lexically significant tones. Such contrastive tones vary in pitch which is semantically significant. Grebe and Grebe (1975) and Grebe (1984) have done an extensive study of tone in Lamnso'. The language has three level tones:

- (1) High tone ['] as in **kán** 'monkey' **kún** 'beans'
 Mid tone [-] as in **way**² 'market' **loŋ**² 'horn'
 Low tone [`] as in **mbam** 'money' **láv** 'thread'

³ Lamnso' verbs are basically monosyllabic but when peripheral syllables that mark various grammatical phenomena are suffixed to the nuclear syllable, disyllabic verbs are derived. Structurally, there are 3 classes of verbs in Lamnso', two having a CVC structure and one with a CVVC structure. The CVC verbs differ in tone. Grebe and Grebe (1975: 6-7) have observed that the verbs with a high tone have minimal pairs, each of them bearing a high-low tone. We label the group of verbs marked (A) in this foot note as Class I and Class II verbs respectively and the CVVC verbs marked (B) below as Class III verbs. All class I and class II verbs given below are represented in their infinitive forms:

(A) sánj	'write'	saŋ ^{1.3}	'dry'	fér	'blow'	fer ^{1.3}	'tell'/ 'make'
mé'	'come closer'	me ^{1.3'}	'shake'	bée	'slant'	bee ^{1.3}	'shelter'
kív	'break'	kiv ^{1.3}	'crack'	káŋ	'fry'	kaŋ ^{1.3}	'choose'
tó'	'break open'	to ^{1.3}	'bore'	yáv	'take'	yav ^{1.3}	'eat hastily'
fór	'add seasoning'	for ^{1.3}	'crush'	káy	'belittle'	kay ^{1.3}	'tie strongly'
ká'	'clear farm'	ka ^{1.3}	'promise'	bú'	'beat'	bu ^{1.3}	'honour'

The data presented above show that tone is not only contrastive in Lamnso', but also unpredictable in CV(C) roots. The semantic interpretation of Lamnso' verbs vary according to the various affixes they take. Such affixes encode the applicative, the causative, the iterative, the reciprocal etc. Yuka (2008) illustrates the productive manifestations of verbal extensions and classifies them into neat semantic groups showing how each of them restricts event meaning and argument structure.

There is another class of verbs that bear a high tone but unlike the verbs in (A), this class lacks minimal pairs and has a peculiar feature of long vowels. Again unlike Class I and Class II verbs that are in the majority, Class III verbs below make up a very small part of Lamnso' verbs:

(B)	téem ²	'crooked'	kúuy ²	'gather'
	náa ²	'cook'	ghée ²	'loiter'
	tiim ²	'stand'	dzéer ²	'roll'
	léey ²	'watch'	kóom ²	'bear'

The verbs in the data above have long vowels. The two segments of these vowels can bear two contrastive tones; for instance *nâá* 'non-prog-cook'.

As a result of some tonological processes in a sequence of the type HL, LH etc. registered contour tones are derived. The language has five glide tones:

(2) Mid-High [$\overset{\cdot}{\underset{\cdot}{\text{—}}}$]	as in	wum ^{2.1}	'egg'	tinin ^{2.1}	'cut'
High-Mid [$\overset{\cdot}{\text{—}}$]	as in	nyoo ^{1.2}	'vegetable'	wuy ^{1.2}	'hair'
High-Low [$\overset{\cdot}{\text{—}}\overset{\cdot}{\text{—}}$]	as in	rim ^{1.3}	'witch'	saj ^{1.3}	'dry'
Mid-Low [$\overset{\cdot}{\text{—}}$]	as in	wu ^{2.3}	'he/she'	gon ^{2.3}	'perennial illness'
Mid-Low-High [$\overset{\cdot}{\text{—}}\overset{\cdot}{\text{—}}\overset{\cdot}{\text{—}}$]	as in	yaa ^{2.3.1}	'grand mother'	ven ^{2.3.1}	'you'

The mid tone is not marked in language. The orthographic convention requires that only low and high tones be marked in Lamnso' over the vowels within the syllables that bear them. In this paper we have indicated mid and contour tones on the vowels of the verbs to overtly represent a sequence of tones that we discern as relevant to our discussion. Lamnso' tones fall into eight tone classes as shown in the data above. The contrastive tone is always on the nuclear syllable while the tone on the peripheral syllable is always mid-low. The high tone fluctuates freely with the mid-high while the low tone fluctuates with the mid-low. (See Grebe and Grebe (1975) and Grebe (1984) for a detailed discussion of tone in Lamnso').

3. Theoretical Orientation

This paper embraces the structuralist approach in the light of Nurse (2008). Structuralism provides a better platform to isolate, describe and analyze the graduated past and future tenses in Lamnso' which have been shown to be organized along degrees of remoteness from the present tense. This method of analysis makes possible a pragmatic determination of aspectual categories in this language without missing out on the semantic content(s). Dahl (1985) and Bybee *et al.* (1994) have demonstrated that Bantu languages generally load aspectual, temporal, locational, syntactic and other information through a series of prefixes and suffixes. A structural analysis is more productive for languages like Lamnso' whose tense and aspect are either marked on the verb or on affixes to the verb.

4. Defining the moment of predication

This section of the paper investigates tenses in Lamnso'. The present tenses are investigated in section 4.1., past tenses in section 4.2., and future tenses in 4.3. Examples will be presented in the order of verb tone classes: Class I, Class II and Class III. Apart from illustrating the operation of tone in tense differentiation, these examples reveal

that tense in Lamnso' describes events around the deictic centre. An identical event within the same context that in English can be interpreted to belong to present tense, can be understood in Lamnso' as denoting a present progressive activity.

4.1. Present Tense

Present Progressive Tense /ø + Rád/ (P_o)

- (3) a) Kila ø sáŋ ŋwa'
 kila P_o prog-write book
 'Kila is writing a book.'
- b) Wu ø saŋ^{1.3} nyám ná'
 S/he P_o prog-dry meat cow
 'S/he is drying meat.'
- c) Ver ø náá² kún
 We P_o prog-cook beans
 'We are cooking beans.'

Perfect of Recent Past /ø + Rád/ (P_o)

- (4) a) Kila ø sáŋ ŋwa'
 kila P_o non-prog-write book
 'Kila has just written a book.'
- b) Wu ø sáŋ nyám ná'
 S/he P_o non-prog-dry meat cow
 'S/he just has dried beef.'
- c) Ver ø náá kún
 We P_o non-prog-cook beans
 'We have just cooked beans.'

The present tense in Lamnso', unlike other tenses, has no overt affix or particle to mark it. We have chosen to mark its syntactic position in this paper with ø. The verb following the tense position always bears a tone on its first vowel, henceforth it is represented as a radical (Rád). Example (3) describes events that began before the utterance and are still in progress at the time of speaking. In (3a and c) verbs bear a high tone while in (3b) they bear a high-low tone. The semantic difference between the two identical verbs is signalled by the different tones they bear. (4a-c) denote events in the immediate past. Present tense is employed to describe these events because the reporter relates the event at the time it is completed. The two verbs in (4a and b) are disambiguated by the context of the utterance and the interpretation of the NP the verb selects as its complement. 'Written (a book)' and 'dried (beef)' are homophonous, indicating that there is a categorical tonal neutralization between the two verb classes. Example (4c) bears two contrastive tones (high and low) on the long vowel. The

non-progressive interpretation hinges on the low tone borne by the verb.

To avoid repeating examples, we opt to identify and analyze aspectual marking in the examples that we present to illustrate the various tense forms. The data in (3) for instance relays imperfective aspect marking which is conveyed by the high tone borne by the verb. Conversely, $P_0 + \text{Rad}$ conveys actions that are just ending as the utterance is being made. Like in most African languages, Lamnso' tense and aspect in are intricately interwoven in form, conception and marking.

4.2. Past Tense

Progressive Past Tense 1 /ki + Rád/ (P_1)

- (5) a) Tómlá ki² sàŋ ŋwá' v ə̀n
 Tomla P₁ prog-write book this
 'Tomla was writing this book (earlier today).'
- b) Kíla ki² sàŋ^{1,3} ndz ə̀y sém
 Kíla P₁ prog-dry cloths my
 'Kíla was drying my clothes (earlier today).'
- c) Áwune ki² nâá² kún
 They P₁ prog-cook beans
 'They were cooking beans (earlier today).'

Perfective Past Tense 1 /ki + Râd/ (P_1)

- (6) a) Tómlá ki² sàŋ ŋwá' v ə̀n
 Tomla P₁ prog-write book this
 'Tomla wrote this book (earlier today).'
- b) Kíla ki² sàŋ ndz ə̀y sém
 Kíla P₁ prog-dry cloths my
 'Kíla dried my clothes (earlier today).'
- c) Áwune ki² nâá kún
 They P₁ prog-cook beans
 'They cooked beans (earlier today).'

Examples (5) and (6) denote events that occurred earlier in the day. Today past tense form is realized as ki^2 . ki^2 above is morphologically identical to the prefix of class 4 nouns in the Lamnso' noun class system. ki bears a mid tone. The high tone on the verb denotes progressive action; the low tone specifies perfective aspect. Lamnso' speakers intuitively know that you cannot relate 'a progressive or perfective event' with a yesterday adverbial. For instance, if one employs (5a) ('a progressive past tense') with 'a yesterday adverbial', an unacceptable construction emerges. Again if one adds 'a yesterday adverbial' *yoóne* to a 'today non-progressive past tense', an ill-formed construction is derived. (7a-b) illustrate these claims respectively:

- (7) a) * Tómlá ki² sáŋ ŋwá' v ə̀n yoóne
 Tomla P₁ prog-write book this yesterday
 b) * Áwune ki² nàá kún yoóne
 They P₁ prog-cook beans yesterday
 c) Kíla ki² nàá kún wán yí
 Kíla P₁ prog-cook beans child eat
 'Kíla cooked beans and the child ate.'

The sentences in (5) portray events that were in progress just before the utterance. While the high tone on the verb relays the concept of continuity, P₁ indicates that the action took place today, in the past. In (6c) the low tone on the first verbal vowel specifies the completeness of the action in reference. This tone pattern can also depict an action which has just been completed before the commencement of another action as shown in (7c).

Progressive Past 2 Tense /v́ + Rád/ (P₂)

- (8) a) Tómlá á ká' sùm
 Tomla P₂ prog-clear farm
 'Tomla was clearing a farm (yesterday).'
- b) Audu ú kùúy ŋgwásáŋ fo² nsaàlav
 Audu P₂ prog-gather maize from floor of house
 'Audu was gathering maize from the floor of the house (yesterday).'
- c) Wirí í bá'ri láv nyuy²
 People P₂ prog-build house God
 'The people were building a church (yesterday).'
- d) Wo² ó góv mu² kisáŋ
 you(sg) P₂ prog-accuse me empty
 'You were accusing me falsely (yesterday).'
- e) Wonle é shó' shitir fo² shà'
 I P₂ prog-pull mushroom from swamp
 'The children were harvesting mushroom from the swamp (yesterday).'

P₂ is allomorphic in nature, and can be realized as á, é, í, ó, ú. In (8a-e) above, the vowel quality of P₂ is the same as for the preceding vowel. If there is no vowel, other things determine quality.

Eastman (1980), Yuka (1997, 2000) and McGarrity and Botne (2002) have analyzed noun agreement in Lamnso'. In this paper, the nouns in subject position have been controlled not to include examples that will take subject agreement because our discussion on Tense and Aspect is not affected by the exclusion of intricate agreement relations that cut across the Lamnso' NP. The different vowel realizations of P₂ result from vowel harmony, which is a common feature of the Bantu group of languages. Examples (9a-g) below show that each time the

final segment of the constituent preceding P_2 is a consonant, P_2 is realized as *e*:

- (9) a) Ntásin é ka^{1.3} wán s ə̀la
 Ntasin P_2 prog-promise child trousers
 'Ntasin was promising the child a pair of trousers (yesterday).'
- b) Shónj é kiv^{1.3} shuu lav Kila
 Thief P_2 prog-break mouth house kila
 'A thief was breaking the door to Kila's house (yesterday).'
- c) Yee lav é kiv^{1.3} ŋgí'
 Mother house P_2 prog-crack melon seeds
 'The wife was cracking melon seeds (yesterday).'
- d) Wán ŋg ə̀v é tó' wum^{2.1}
 Child fowl P_2 prog-break open egg
 'The chicken was breaking-open the egg (yesterday).'
- e) Wón é kúm njúm e² lāv ŋwa'
 Children P_2 prog-play drum in house book
 'The children were drumming in the classroom (yesterday).'
- f) Kán é tò^{1.3} shuu e² wún lav
 Monkey P_2 prog-bore mouth on wall house
 'The monkey was boring a hole on the wall of the house (yesterday).'
- g) Lukar é fōr ntòn kún
 Luke P_2 prog-add seasoning pot beans
 'Luke was adding seasoning to a pot of beans (yesterday).'

Our interpretation of (9a-g) above is that the consonant in between the final vowel of the subject NP and the P_2 syntactic position, blocks vowel fusion between P_2 and the final vowel of the preceding constituent. Examples (10a-d) below reveal yet another morphological manifestation of P_2 . In these examples, the final segment of the constituent preceding P_2 is a semivowel (specifically [y]) which predicts [i] after [y]:

- (10) a) Tīy í for^{1.3} wán jwí
 Stone P_2 prog-crush child dog
 'A stone was crushing a puppy (yesterday).'
- b) Faáy í réŋ melu' yoóne
 Compound head P_2 prog-tap palm wine yesterday
 'The compound head was tapping palm wine yesterday.'
- c) Mbuùy í yí ŋgwàsàŋ fo² Tómlá sùm yoóne
 Chimpanzee P_2 prog-eat maize from Tomla farm yesterday
 'The chimpanzee was eating corn from Tomla's farm yesterday.'
- d) Nsòy í to^{1.3} shuu wun lav yoóne
 Beetle P_2 prog-bore mouth wall house yesterday
 'A beetle was boring a hole on the wall of the house yesterday.'

It is obvious that in (8)-(10), the different variants of P_2 are determined by the variation in the final segment of the constituent that precedes tense. The following counter examples are ill-formed because of the wrong choice in each of the vowel representing P_2 :

- (11) a) *Tómlá é ká' sùm
 Tomla P_2 prog-clear farm
- b) *Shónj ó kív shuu lav Kila
 Thief P_2 prog-break mouth house Kila
- c) *Tómlá ú ká' sùm
 Tomla P_2 prog-clear farm
- d) *Tiy á for^{1.3} wán jwí
 Stone P_2 prog-crush child dog
- e) Nso' o wiy fo² Din yoóne
 Nso' people P_2 prog-come from Din yesterday
 'The people of Nso' were coming from Din yesterday.'
- f) Kfá' á yí ngwásánj Kila e kibám
 Weevils P_2 prog-eat maize kila in bag
 'The weevils were eating Kila's maize in the bag.'
- g) Nama' á rəm Kila shuu yoóne
 Tobacco P_2 prog-smell kila mouth yesterday
 'Kila's mouth was smelling of tobacco yesterday.'

Unlike (11a-d), that are ungrammatical, (11e-g) are grammatical. Notice that the glottal stop is transparent to the phonological process and does not block it.

In examples (8)-(10), the P_2 marker and the first verbal vowel bear a high tone, unlike the constructions in example (3) where only the verb bears the high tone in its initial vowel segment. (8)-(10) convey 'imperfective yesterday' events. Here, the P_2 tense form combines with the progressive form of the verb to derive the 'imperfective yesterday'.

A derivation that relates 'yesterday progressive' past event in Lamnso' cannot take a 'today' nor a 'tomorrow' adverbial. For example:

- (12) a) *Shónj é kív shuu lav Kila lán
 Thief P_2 prog-break mouth house Kila today
- b) *Shónj é kív shuu lav Kila kibvəəshí
 Thief P_2 prog-break mouth house Kila tomorrow

Perfective Past Tense 2 /v² + Rad²/

Perfective past tense 2 relates events that occurred the previous day. This time specification is captured in Lamnso' by mid tones. The first mid tone is borne by the tense marker while the vowel of the verb bears the other mid tone. The mid tone on the tense marker represents 'the perfective past tense 2'. Examine the following examples:

- (13) a) (i) Tómlá a² ka² súm
Tomla P₂ non-prog-clear farm
'Tomla cleared a farm (yesterday).'
- (ii) Ntásín e² ka² wán sàla
Ntasin P₂ non-prog-promise child trousers
'Ntasin promised the child a pair of trousers
(yesterday).'
- b) (i) Shónj e² kiv² shuu lav Kíla
Thief P₂ non-prog-break mouth house kila
'A thief broke the door to Kíla's house (yesterday).'
- (ii) Yee lav e² kiv² ŋǵí
Mother house P₂ non-prog-crack melon seeds
'The wife cracked melon seeds (yesterday).'
- c) Audu u² ku²úy ŋwásáŋ fo² nsaàlav
Audu P₂ non-prog-gather maize from floor of house
'Audu gathered maize from the floor of the house
(yesterday).'

Once one employs a P₂ tense form and a progressive verb form, the construction will be ill-formed because the tense form signals that the event had ended, while the verb indicates an imperfective event. An ungrammatical construction will also be derived if a speaker of Lamnso' opted to use a 'today adverbial with a P₂ tense form. For instance:

- (14) a) *Tómlá a² ka' súm
Tomla P₂ prog-clear farm
- b) *Tómlá a² ka² súm lán
Tomla P₂ non-prog-clear farm today

Remote Progressive Past Tense 3 /v̇ + Rád/ (P₃)

Remote progressive past events are conveyed in Lamnso' by one low tone on the tense marker and a high tone on the first vowel of the verb. Similarly, a low tone on the tense marker and another low tone on the first vowel of the verb express the remote non-progressive tense pattern in this language. P₃ is employed within contexts where the event reported is situated in some distant past. This distant past could be further specified by the use of adverbials like: *bám yoóne* 'day before yesterday', *fíri* 'two or more days ago', *kiyá kisà* 'the year before the last'. Consider the examples below:

- (15) a) (i) Ntásín è ká' wán sàla bàm yoóne
Ntasin P₃ prog-promise child trousers after yesterday
'Ntasin was promising the child a pair of trousers the day
before yesterday.'
- (ii) Tómlá à ká' súm fíri
Tomla P₃ prog-clear farm two or more days ago
'Tomla was clearing a farm two or more days ago.'

- b) (i) Shòŋ è kív shuu lav Kila ŋgàm yis
 Thief P₃ prog-break mouth house kila week that
 'A thief was breaking the door to Kila's house the other
 week.'
 (ii) Yee lav è kív ŋgi' kiya kisà
 Mother house P₃ prog-crack melon seeds year that
 'The wife was cracking melon seeds the other year.'

Remote Perfective Past Tense 3 /v̇ + Ràd/ (P₃)

- (16) a) (i) Tómlá à kà' sùm fiiri
 Tomla P₃ non-prog-clear farm two or more days ago
 'Tomla cleared a farm two or more days ago.'
 (ii) Ntásin è kà' wán sàla bàm yoone
 Ntasin P₃ non-prog-promise child trousers after yesterday
 'Ntasin promised the child a pair of trousers the day before
 yesterday.'
 b) (i) Shòŋ è kív shuu lav Kila ŋgàm yis
 Thief P₃ non-prog-break mouth house kila week that
 'A thief had broken the door to Kila's house the other week.'
 (ii) Yee lav è kív ŋgi' kiya kisà
 Mother house P₃ non-prog-crack melon seeds year that
 'The wife had cracked melon seeds the other year.'

The native speaker of Lamnso' knows that he/she cannot choose a P₃ tense form and a 'today or yesterday adverbial' to derive a grammatical sentence. (17a-b) supports the claim that the tenses have the meaning 'before yesterday'. These examples are in contrast, because they contain the contradictory combination of the 'before yesterday' tense and an adverb that refers to yesterday or today:

- (17) a) *Tómlá à kà' sùm lan
 Tomla P₃ non-prog-clear farm today
 b) *Shòŋ è kív shuu lav Kila yoónè
 Thief P₃ non-prog-break mouthhouse kila yesterday

What (17) reveals is that a P₃ tense form cannot take a 'today' or 'yesterday' adverbial. (17) is evidence to our claim that Lamnso' exhibits subtle implicational differences with adverbials that specify 'today past' and 'yesterday past'. But once an event is two or more days old and can take the *fiiri* adverbial, then it can also take any other past time adverbials as long as such adverbials do not relate events not later than two days ago. For instance:

- (18) a) Tómlá à kà' sùm fiiri
 Tomla P₃ non-prog-clear farm today
 'Tomla cleared the farm more than two days ago.'
 b) Tómlá à kà' sùm ŋgàm yisà

	Tomla	P ₃	non-prog-clear	farm	week	that
	‘Tomla cleared the farm a week ago.’					
c)	Tómlá	à	kà’	sùm	ɲwee	vesà
	Tomla	P ₃	non-prog-clear	farm	month	that
	‘Tomla cleared the farm a month ago.’					
d)	Tómlá	à	kà’	sùm	kiya	kis
	Tomla	P ₃	non-prog-clear	farm	year	that
	‘Tomla cleared the farm a year ago.’					

4.3. Future Tense (F)

In Lamnso' future tense exhibits variants which distinguish time extensions of events that are yet to take place. In this paper we split the future tense (F) in Lamnso' into three future variants: Future (F₁), Future (F₂) and Remote Future (F₃). Examine the examples below:

Future 1 /yii^{2.2} + Rad²/

(19) a)	Tómlá	yii ^{2.2}	yun ²	bvəy	rən	lán
	Tomla	F ₁	buy	goat	this	today
	‘Tomla will buy this goat today.’					
b) (i)	Kíla	yii ^{2.2}	su ²	ndzəy	sém	nkùr
	Kíla	F ₁	wash	cloths	my	evening
	‘Kíla will wash my clothes in the evening.’					
(ii)	*Kíla	yii ^{2.2}	su ²	ndzəy	sém	lèn
	Kíla	F ₁	wash	cloths	my	now
c) (i)	Áwune	yii ^{2.2}	yu ^{2i2ri}	kán		vitsə’ vin
	They	F ₁	kill	monkey		night this
	‘They will kill a monkey this night.’					
(ii)	*Áwune	yii ^{2.2}	yu ^{2i2ri}	kán		bám kiya
	They	F ₂	kill	monkey		after year

Examples (19a-c) describe activities that will take place within the course of the day. The perfective interpretation requires a mid tone on the verb. Example (19b(ii)) is unacceptable in Lamnso' because the construction employs an adverbial that situates the expected event in the immediate future. F₂ places the same event within the course of the day the utterance is made, thus introducing a contradiction. In the same manner, (19c(ii)) is ill-formed because F₁ is matched with the wrong adverbial. The same argument holds for (19c(i)) which contrasts with the example (19c(ii)).

Future 2 /wi² + Rád²/ (FUT₂)

(20) a)	Tómlá	wi ²	yu ²ⁿ	bvəy	rən	bám	ɲgám	kibvəəshí
	Tomla	F ₂	buy	goat	this	behind	week	tomorrow
	‘Tomla will buy this goat after next week.’							

- b) Kila wiy² su² ndzə̀y sém bàm ɲwee
 Kila F₂ prog-wash clothes my behind month
 'Kila will wash my cloths after a month.'
- c) Áwune wiy² yu²i²ri kán bàm ngám
 They F₂ kill monkey behind week
 'They will kill a monkey after a week.'
- d) *Tómlà wiy² yun² bvə̀y rən kibvə̀shí
 Tomla F₂ buy goat this tomorrow
- e) *Tómlà wiy² yun² bvə̀y rən lán
 Tomla F₂ buy goat this today

Simple future tense can take adverbials that specify the exact point in time within which an event is expected to occur. Unlike F₁ above, F₂ cannot take a 'today' or a 'tomorrow' adverbial. For example:

- (21) Áwune wiy² yu²i²ri kán bàm viya vitàn
 They F₂ kill monkey behind year five
 'They will kill a monkey after five years.'

From the examples above, it is evident that Lamnso' portrays a fluid, non-rigid future reference system for events expected to happen two or more days in the future. Here, the specification of a reference point in the future depends on the choice of an adverbial that encodes a time point beyond two days.

Future F₃ /gha²n+ Ràd/

- (22) a) Yuven ghan² du² sùm kiyá kisə̀
 Yuven F₃ non-prog-go farm year that
 'Yuven will go to the farm the other year (i.e. the year after next year).'
- b) M ghan² su² ndzə̀y sém bàm viyá vitàn
 I F₃ non-prog-wash clothes my behind years five
 'I will wash my cloths after five years.'
- c) Áwune ghan² bom² láv bàm viyá ghvəm
 They F₃ non-prog-build house behind years ten
 'They will build a house after ten years.'

(22) shows that F₃ can take only adverbials that refer to some distant future. Such a future could be months and years ahead, but definitely not days as shown in (23a-b):

- (23) a) *Yuven ghan² du² sùm bàm kibvə̀shí
 Yuven Fut₃ non-prog-go farm after tomorrow
- b) *Yuven ghan² du² sùm bàm vishiy saàmbà
 Yuven Fut₃ non-prog-go farm after days seven

Examples (22) and (23) present events expected to take place in the future. F_1 , F_2 , F_3 , are marked by $yii^{2,2}$, wiy^2 , and $ghan^2$, respectively. These future makers are auxiliary verbs in Lamnso' ($yii^{2,2}$ 'do', wiy^2 'come' and $ghan^2$ 'go'). $yii^{2,2}$ can be used with adverbials that describe events that are imminent, wiy^2 takes adverbials that are not imminent and yet not remote while $ghan^2$ is used in combination with adverbials that relate events which will take place in a long time to come.

All the verbs in examples (22) and (23) relay non-progressive events and bear mid tones. Unlike the remote non-progressive past, the remote progressive future tense is captured by a progressive element \underline{a} as shown in the following examples:

- (24) a) Kila $yii^{2,2}$ a^2 ki^2v ηgi
 kila F_1 prog crack melon seeds
 'Kila will be cracking melon seeds (today).'
- b) Kila wiy^2 a^2 ki^2v ηgi
 kila F_2 prog crack melon seeds
 'Kila will be cracking melon seeds (after a week).'
- c) Kila $ghan^2$ a^2 ki^2v ηgi
 kila F_3 prog crack melon seeds
 'Kila will be cracking melon seeds (after three years).'

In (24), the role of the high tone is taken over by the morphologically overt progressive marker (\underline{a}).

Given our analysis of the Lamnso' tense system above, seven tense forms can be identified: P_3 , P_2 , P_1 , P_0 , F_1 , F_2 and F_3 . These reference time system can summararily be represented as in (25):

	P_3	P_2	P_1	P_0	F_1	F_2	F_3
Progressive	$\check{V}+R\acute{a}d$	$\check{V}+R\acute{a}d$	$ki+R\acute{a}d$	$\emptyset+R\acute{a}d$	$yii^{2,2}+Rad^2$	wiy^2+Rad^2	$ghan^2+R\acute{a}d^2$
Perfective	$\check{V}+R\acute{a}d$	V^2+Rad^2	$ki+R\acute{a}d$	$\emptyset+R\acute{a}d$	$yii^{2,2}a^2+Rad^2$	$wiy^2+a^2+Rad^2$	$ghan^2+a^2+Rad^2$

Another tense/aspect constituent of the $yii^{2,2}$ 'do' / wiy^2 'come' / $ghan^2$ 'go' type is $\acute{s}i$. $\acute{s}i$ specifies inception. It brings immediacy to events that are just about to begin or to those that have just begun. The following examples utilize past and future imperfective tense forms. Perfective examples will adopt the same format of derivations:

- (26) a) Kila \emptyset $s\acute{i}$ $s\acute{a}\eta$ $\eta wa'$
 kila P_0 inceptive prog-write book
 'Kila has started writing a book (now).'
- b) Kila ki $s\acute{i}$ $s\acute{a}\eta$ $\eta wa'$
 kila P_1 inceptive prog-write book
 'Kila started writing a book (earlier today).'

- c) Kila á sí sánŋ ɲwa'
 kila P₂ inceptive prog-write book
 'Kila had started writing a book (yesterday).'
- d) Kila sí yii^{2.2} a² sánŋ ɲwa'
 kila inceptive F₁ prog write book
 'Kila will start writing a book (later today).'
- e) Kila sí wiy² a² sánŋ ɲwa'
 kila inceptive F₂ prog write book
 'Kila will start writing a book (some time to come).'
- f) Kila sí ghan² a² sánŋ ɲwa'
 kila inceptive F₃ prog write book
 'Kila will start writing a book (a long time to come).'

Examples (26a-f) show that the *sí* bears a stable high tone. It is syntactically placed after the tense marker in the past tense constructions and immediately after the subject NP in the future tense derivations. Notice that the progressive marker in the future tense (26d-g) is *a*, unlike the high tone that is employed in the past tense constructions.

Yuka and Isimeme (2005) have extensively examined negation in Lamnso'. They have shown that Lamnso' adopts a simple strategy to negate declarative sentences. *yɔ*², the negative element, is base generated before the tense position. Our examples show that while P₀ and P₁ are expectedly realized as \emptyset and *ki* respectively, P₂ is realized as *o*. Take a look at the following examples:

- (27) a) Kila yo² \emptyset sánŋ ɲwa'
 kila neg P₀ prog-write book
 'Kila is not writing a book (now).'
- b) Kila yo² ki sánŋ ɲwa'
 kila neg P₁ prog-write book
 'Kila was not writing a book (earlier today).'
- c) Kila yo² ó lo a² sa²ŋ ɲwa'
 kila neg P₂ particle prog write book
 'Kila was not writing a book (yesterday).'
- d) Kila yo² yii^{2.2} lo² a² saŋ² ɲwa'
 kila neg F₁ particle prog write book
 'Kila will not be writing a book (later today).'
- e) Kila yo² wiy² lo² a² saŋ² ɲwa'
 kila neg F₂ particle prog write book
 'Kila will not be writing a book (some time to come).'
- f) Kila yo² ghan² lo² a² saŋ² ɲwa'
 kila neg F₃ particle prog write book
 'Kila will not be writing a book (a long time to come).'

The data in (27) show that the vowel of P₂ takes the qualities of the final vowel of the constituent preceding tense. The last segment of the negative marker is a glottal stop. Following our suggestion that the

glottal stop is too weak a consonant (in Lamnso') to block the P₂ vowel from copying the last vowel of the preceding constituent, P₂ surfaces as a copy of the last vowel of the preceding constituent. The particle *lo* appears in (27c-f). In each of these derivations, the verb does not bear a high tone that marks imperfective aspect in (29a-b). The progressive interpretation is captured by this progressive marker (*a*). *lo* 'soon, about to' precedes this progressive marker. Lamnso' interprets 'imperfective yesterday past' events and all 'future imperfective' events as incomplete processes. These processes are hypothetically conceived to begin at a point X. The particle *lo* therefore marks in Lamnso' durative aspect of such processes beginning from point X.

5. Conclusion

This paper has described the structure of tense and aspect in Lamnso'. It revealed very interesting time references in this language. Tense and aspect in Lamnso' are intricately interwoven. Ten tense and aspect forms have been identified. They have portrayed that Lamnso' exhibits multiple time references. Tonal differences semantically derive distinct tense forms which, when combined with adverbials and other forms of aspectual marking (*a*, *si*, and *lo*), can extend the aspectual specification of the derivation. When consecutive events are related in a single clause, the syntactic role of the sequence tends to neutralize absolute time reference for dependent clauses. Each event occurs only at a time relative to the time of the preceding event(s). The cut-off points within Lamnso' tense and aspect systems are sometimes fluid, non-rigid and vague. It can therefore be appropriate to say that Lamnso' tenses are relative in character.

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Abbreviations

∅	not morphologically realized	prog	progressive
P ₀	present tense	DUR	durative
P ₁	today past tense	x'	high
P ₂	yesterday past tense	x	low
P ₃	remote past tense	x ²	mid
pl	plural	x ²⁻¹	mid-high

F	future	x ^{21.2}	high-mid
IMP	imperfective	x ^{1.3}	high-low
PERF	perfective	x ^{2.3}	mid-low
non-prog	non-progressive	x ^{2.3.1}	mid-low-high
pro-a	progressive particle	M-H	mid-high
part	particle	Numb	number
compl	completive	Aux	auxiliary