

## TONAL SYSTEM OF THE LOOMA LANGUAGE

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It appears that the Wesley Sadler's text-book is still the only special work on the Looma language where the tones are indicated throughout.<sup>1</sup> As W. Sadler mentions, his work is based on the data of three Liberian dialects of this language, these are Gízímà, Zíémà (or Ziámà) and Búlúyìèmà (or Briama); the speakers of these dialects understand each other perfectly.<sup>2</sup> Sometimes W.Sadler mentions different variants of pronunciation for the same words, but most often he does not specify if these variants are dialectal, idiolectal or free.

Before the description of the tonal system, it seems appropriate to give some explanations about the structure of syllable and word in Looma.

In Looma, there are two main types of syllable, these are CV and CV(g). The final element -(g) ascends to the nasal velar terminal element of syllable \*ŋ. In the modern Looma it becomes apparent only on sandhi, that is as follows: if the last syllable of the first member of syntagma is CV, then the first syllable of the following word has a "weak" initial consonant, i.e. a voiced fricative or a sonant, or a "instantaneous" (i.e. consonants of yet unspecified nature ʙ and ʋ). But the syllable has a "strong" initial consonant (i.e. a plosive or a voiceless fricative) if it is preceded by -(g). The nasals (m, n, ɲ, ŋ) in Liberian dialects do not participate in the initial consonants' alternation. It seems that the absolute beginning of a word is to be considered as the "weak" position of a consonant. The fact that the

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<sup>1</sup> W.Sadler. *Untangled Loma*. Baltimore, 1951. To my regret, the textbook of Elizabeth E. Terplan (*Beginning Loma: A Course for Speakers of English*. San-Francisco, 1967, 426 p.) is still inaccessible to me, as well as the dissertation of D.J. Dwyer (*The comparative Tonology of Southwestern Mande Nominals*. Michigan State University, 1973, 288 p.).

<sup>2</sup> A considerable part of Gízímà ethnic subgroup lives on the other side of the border between Guinea and Liberia, but the dialect of Guinean Gizima differs considerably from the Looma described by W. Sadler; the Guinean Gizima is one of the dialects of the Central cluster of Looma.

great majority of nouns conserve most often the "strong" initial consonant in this position is the evidence of diachronic phenomenon of addition of the specifying article \*ŋ- (probably, it had a high tone, see below. In the modern Looma another specifying article has emerged, -í). When this article has not been added, the word has a "weak" initial consonant in the absolute beginning (and these cases were statistically rare. It is appropriate to say that the absence of any initial \*ŋ- is characteristic also for the intransitive form of verbs). Historical change of consonant took place within a word. If the original structure of a word was CVŋCV, then the "strong" intervocalic consonant is preserved; if it was CVCV, the consonant changed to "weak".<sup>3</sup>

Accordingly to W. Sadler, there are two tones in Looma: the high and the low. The overwhelming majority of words have high tone throughout or at least in the first syllable of their "initial" form. Such forms (with initial high tone) are taken in Sadler's manual as the basic ones. He classifies all the words into two groups, A and B. A-word changes its high tone to low if preceded by another word of the same class (provided that both words make one syntagma. - V.V.). B-words always keep their tone unchanged and do not influence tones of adjacent words.

Then Sadler expounds special rules of tonal assimilation for suffixes; these are, first of all, marks of time and aspect -á, -ní, -sú/zú (it is probable that the mark of conditional mode ná is also to be placed among them) as well as nominal specification article -í: if these suffixes are added to a word which ends on CV-syllable, this word assimilates the suffix tonally, i.e. suffix gets the tone of the last syllable of the word (some exceptions to this rule are explained below). If the final syllable of the stem is -CV(g), then these suffixes behave as A-words: they keep their high tone when combined with B-words, and change their tone to low when combined with A-words. (There is an exception: after one-syllable verbs of CV(g)-type, suffixes usually keep their high tone: dé lógá 'we got up'; gè zèní 'I dreamed').

As for plural marks -à (plural indefinite), -ní (g) (collective plural for names of elderly relatives), and -tìε(g) (definite plural), they behave as B-words, though -à is

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<sup>3</sup> See in detail: V.F.Vidrin. Reflection of the nominal classification in Manden and South-Western Made: the classification category. *Zeitschrift für Phonetik, Sprachwissenschaft and Kommunikationsforschung*. Berlin. Bd. 42, H. 1, 1989, pp. 90-101.

assimilated tonally by the words ending on -CV.

To the same tonal classes, A and B, W. Sadler assigns syntactically independent words, such as personal and demonstrative pronouns. If such a word calls forth the low tone of the following word, it is an A-word; if not, it is a B-word.

But the abundant textual material of Sadler's text-book itself makes it evident that the scheme proposed by him is too rough, and, besides, it leaves some cases unexplained. First of all, his assignment of personal pronouns to the tonal classes A and B should be considered rather artificial, because their influence on the tone of the following word obeys special rules. As for the words which cannot make one syntagma with a noun, verb or adjective, they should be included into these tonal classes either.

Secondly, there are some reasons to speak about two more tonal classes in Looma.

Thirdly, it would be interesting to characterize in more detail each tonal class.

In all appearances, the segmental base of the tone in Looma is not a syllable, but a monomorphemic word, and such a word may consist of one or more syllables. If this word joins a dependent morpheme (except -tìε (g), which most probably ascends to \*-η-tìεη, as well as -ní (g)), then it assimilates this morpheme tonally. It will be demonstrated below that in some cases the tonal characteristics of a word cannot be displayed completely without such dependent morpheme. But there is one more feature of Looma prosodic system: the final element of syllable -(g), ascending to a \*-η, makes a kind of boundary for a segmental unity that carries one tone. If a word has the structure CVCV(g) and joins some dependent morphemes (suffixes), the tonal contour of such suffixes is identical to the contour of self-dependent words, p.ex.: kíze (g)<sup>4</sup> 'pepper' (A-class) + í (determinative) > kízegì, cf. gíli 'to tie' > gília 'tied'. If a word is of CV(g) or CV(g)CV(g)-structure (i.e. the ini-

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<sup>4</sup> Henceforth: if the same tone extends to two or more syllables, only the first of these syllables has tone mark.

tial consonant of the second syllable is "strong"), then the medial -(g) forms the tonal boundary as well. Sometimes it is evident from the "independent" form of a word, and sometimes only combinatory changes of tones make it clear, e.g.: *kpéte* (< \**kpé̄te*) 'make', 'fix', 'install' (an A-word) (*pélei fèté* 'to build a house', cf. *féle* 'to weave' (an A-word) (*séyei vèle* 'to weave cloth'). It is notable that the same boundary appears most often before the "instantaneous" consonants (*b* or *v*) in spite of their "weak" phonological character, as well as after the long vowels.

A1. High tone throughout. This is the best represented tonal type. According to their phonemic structure, two-syllable words of this subclass can be divided into two sub-groups:

Ala. This subgroup includes the majority of the words of the types CVCV and CVCV(g), i.e. words with the "weak" medial consonant. Such a word carries one high tone and changes it to the low in postposition to another A-word.

Alb. Evidently, this subgroup includes all the words of types CV(g)CV, CV(g)CV(g) and  $C_1VC_2V$ , where  $C_2$  is one of "instantaneous" consonants (*b*, *v*), as well as a rather rare type CV:CV. Each syllable of such words has its own tone, so that in postposition to an A-word only the first syllable changes its tone to low. There is one word in this subgroup of the CVCV(g)-type, this is *gíla(g)* 'one'.

When a suffix is added to any word of the A1-group with the final CV-syllable, this suffix gets a high tone; this tone is preserved even when the tone of the word itself lowers, e.g.: *lí* 'to go' (*dó véé liní* 'before we part'). If the final syllable of the word is -CV(g), the tone of the suffix is low (see in detail above).

A2 - "falling" tone. In the independent position the tone of these words is high. Their distinction from A1-words manifests itself only in conjunction with suffixes of CV-structure, e.g.: /*gûo*/ 'to wash' ( *ḡázanù wúa* (*wúo* + *a*) 'woman washed', but *ḡázanù wúonì* 'woman was washing'; /*dâ*/ 'to put, to lie down' ( *ḡázanù láani* 'woman lay down'; /*kpétê*/ 'to make', 'to create' (*é gée-wólgi fèté-nì* 'He created the sky'.

he sky-skin      create-PAST

Cf.: /*dí*/ (A1) 'to walk' (*ḡázanù líni* 'woman went').

So long as all the suffixes of -CV type are verbal ones (ní, -sú, vé), it is impossible to distinguish A1 from A2 for the words which are not verbonominals; it is the same about verbonominals with the final CV(g) syllable. Probably, the one-syllable nominals with an etymologically long frontal vowel make an exception, because the plural suffix -a combined with them realises as -ya, i.e. it forms a separate syllable and not a diphthong (or pseudo-diphthong), p. ex.: sée 'an elephant' - séeyà 'elephants'. But it is not clear if the low tone of -yà must be considered as an evidence that the word sée is of A2-type, or -à just preserves its etymological low tone.

By analogy with A1, the two-syllable A2-words are subdivided into two subgroups: A2a (C<sup>h</sup>V<sup>h</sup>CV) and A2b (C<sup>h</sup>V<sup>h</sup>(g)C<sup>h</sup>, CV:C<sup>h</sup>V, C<sub>1</sub>V<sup>h</sup>C<sub>2</sub>V<sup>h</sup>, where C<sub>2</sub> is an "instantaneous" consonant). These subgroups differ according to their combinatory tonal alterations in postposition to the A-words.

An A2a-word in the postposition to a A-word changes its tone to low, while the tone of the suffix changes to high: kpóale (A2a) → tá zíei òdale-zú  
they-are water drink-ing

'They are drinking water'.

In a similar context, an A2b-word lowers tone of its first syllable only; as for the tone of suffix, it alternates in the same way as with the words A2a.

A3. This subclass is represented first of all by two-syllable words of the structures CV(g)CV, CV:CV, C<sub>1</sub>VC<sub>2</sub> (C<sub>2</sub> being an "instantaneous" consonant) and CV(g)CV(g), CV:CV(g), C<sub>1</sub>VC<sub>2</sub>V(g). In the independent position, a word has a high tone of its first syllable, while the tone of the second syllable is low: fǒnè 'salary', kpídì 'night', lóbà(g) 'to cry'. From the point of view of the tonorhythmics, both syllables behave as independent monosyllabic words of A1 or A2-type. A considerable part of A3-words are compounds with a transparent etymology (e.g., these are verbonominals with the prefix gáa-) and reduplicated words: gáasò(g) 'to set fire', 'to catch fire' (from só(g) 'to catch'); kpókpò(g) 'chair'. It can be assumed that all other words of this type are also compounds by origin, and their emergence is relatively recent, so that they were not subjected to the law of tone-levelling in the independent position and were not included into A1 and A2b-subgroups.

To the subclass A3 can be also allotted two-morphemic words of three or more syllables if each of their components have one tone, i.e. they are from subgroups A1a and A2a: péle-vele(g) 'small'; gázàya(g) 'to ask', etc. Some loanwords are also in this subclass.

Evidently, this is determined by their

phonemic structure and their prosodic characteristics in the original language: *mísìli* 'mission', *kéelà* 'messenger', 'prophet'.

The rules of tonal combinatory alternations for this subclass are somehow dubious, as well as tonal alternations for suffixes. The majority of words (A3a-subgroup) in postposition to another A-word change the tone of their first syllable to low: *kóbè(g)* 'to whiten' (*wò pélei wòbe* 'whiten the house!')

you (pl.) house whiten

But there is another group of dissyllabic A3b-words which change tones of their both syllables to the inverse in a more or less consistent way: *kóozà(g)* 'long' (*gúlu wòozá(g)* 'long stick', *ɲáda wòozá* 'a far remote place'); *tíkpè(g)* 'half' (*fólo líkpé* 'half a day', cf. *fólo líkpegi vaa má* 'about a half of a day' (litt.: day half affair about) 'about a problem of a half a day').

Tones of some compound words change according to the A3b-model as well if they consist of morphemes which are A-words themselves: *tó(g)* 'to put' + *-á* (*tóga* 'put', but: *gè wúí tògá* 'I lent ear to', litt.: "I put ear"); *táya(g)* 'nest' + *í* (*táyagi*), but: *bóa làyagí* 'sheath' litt.: "knife's nest".

The suffixes of V-structure, when combined to some A3-words with the final syllable *-CV(g)*, get a high tone, but with some other A3-words of the same type their tone is low: *kpúdè(g)* → *kpúdègí* 'intestine', but *kúkù(g)* → *kúkùgi* 'raft'; *débì(g)* → *lébìga* 'to spend a long time', but *lóbà(g)* → *lóbàgá* 'to cry, to shout'. As for the suffixes of *-CV* structure, their tone is always low: *lébìni*, *lóbàni*.

Unfortunately, the data is insufficient for a satisfactory solution of the problem, the more so, as sometimes we cannot be sure of Sadler's tonal marks.

W. Sadler mentions some cases when tones of verbonominals differ in their verbal and nominal use, so that verb is in the A3 subclass, and the corresponding noun is in the Alb group: *pétè(g)* 'to look' – *péte(g)* 'mirror'; *kpízè* 'to run' – *kpíze* 'running'. Evidently, the process of tone levelling is more radical for substantives. Most probably, this phenomenon partly explains a comparatively big number of verbonominals in A3 group.<sup>5</sup> Anyway, it seems that these examples represent exceptions to the general rule, and more usual is the case when the tones of words in the nominal and the verbal functi-

<sup>5</sup> It is interesting to note a similar phenomenon in Manden languages (Bamana, Maninka): the components of prefixed verbs in these languages retain their original tones, but, when used nominally, the tone of the whole word is levelled.

ons are the same: kóbè(g) 'to whiten', 'whiting'; kpíinè(g) 'to turn'; 'a curve', 'a turne'.

A4. Low tone. Words of this subclass are not numerous. All of them are either recent loans (nài(g) 'sixpence', tàì(g) 'time'), or their initial consonant is "weak", i.e. they have not got the specifier \*ɲ-. The last category of words is represented by ethnonyms and toponyms (wùì(g) 'educated man', 'European', evidently < \*kwiɲ; Zòlowo, Yìela and other village names); some anthroponyms; shifter words: ɲina 'tomorrow', 'yesterday'; nò 'now', zàa 'today', vè 'here', mùnu 'there', 'that place'; among them there are also demonstrative pronouns: nù 'that', nìi 'this', nà 'that one'. When the specifier \*ɲ- was functioning in the Proto-Looma, most probably, these words did not need it because of their semantics.

As for the word zòwo 'custodian of traditions; quack, wise man, elder member of a secret society' (W. Sadler translates it as 'doctor'), it seems that this word had a nasal noun-class marker at the Proto-South-Western Mande (SWM) level, which made it incompatible with the specifier \*ɲ-. We can suppose that among the words with a weak initial consonants there are other low-tone words, but because of the character of Wesley Sadler's texts (mainly sermons and conversations of a missionary with his servants), the cases of the use of this kind of lexical units<sup>6</sup> are rare (some other nouns with weak initial consonants appear in the subclass B3).

As far as the words with initial "strong" consonant in Looma are numerically predominant, and almost all of them have high tone of the first syllable, so, the existence of considerable number of words with initial weak consonant and low tone may be considered as an evidence of a high tone of the specifier \*ɲ-. So, this specifier has the same form as the 3 pers. sing. pronoun of the VII-th group.<sup>7</sup>

A5: two- or more syllable words with initial low and non-initial high tone. This tonal subclass includes some toponyms (Fàitú, Bèlefénái) and an-

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<sup>6</sup> About words with weak initial consonants in Looma and some other Mande languages see: (Vydrin, 1989).

<sup>7</sup> About the pronouns' groups see: V.F.Vydrin. Jazyk Looma. Moskva, "Nauka", 1987, pp. 31-42.

throponyms, e.g. Zèzé. Besides, the same tonal contour is appropriate for such A-words as zìé 'water', siè 'to go', 'to walk', sié(g) 'time', 'season', zìé-wu 'spider', bìása 'porch'. It is easy to note that their segmental structure (with the exception of bìása) is the same: palatal fricative + diphthong (?) -ìé. It is possible that the lowering of initial tone is due to the segmental character of such syllables, but this assumption needs an experimental verification.<sup>8</sup>

B1 - high tone throughout. This type is the most productive in the tonal class B; numerically it is only slightly inferior to the subclass A1. A considerable part of the B1-words are recent loanwords and, from the other side, there are old borrowings and "cultural" words. Though loanwords predominate here, existence of primordial B1-words make us reject the idea that this subclass is composed by the words which are not yet fully adopted by the tonal system of Looma. Some verbonominals belong to B1 as well. All of them have a CVCV(g) or CVV(g) structure and, unlike the nouns of the B-class, they require a lowering of the tone of the suffix. There is only one verb CVV, it is dáa-láo 'to open'. Besides, there are also some adjectives in B1.

B2 is parallel to A3-subclass. A substantial part of the B2-words are borrowed: kísi 'kitchen', léeki(g) 'rake', mínitì 'minute', etc. from English; súbù 'morning' (cf. súbù-zúbù 'early morning'), téenè(g) 'Monday', láali 'Sunday', zíivè(g) 'pocket' from Arabic (apparently, via Manden languages). However, there are also original words: békè(g) 'branch', fífili(g) 'dust', mámà 'grandmother', bóólò(g) 'hat', etc. Not a sole B2 verb is found.

B3 - low tone throughout. Except for English borrowings (sèni(g) 'shilling', tii(g) 'tin', pòò(g) 'pound') and Manden (wùlu(g) 'thousand'), this subclass includes some shifter words: wàna 'last year', wòlò 'always', as well as adverbs dè 'yet', sùù 'slowly'. It should be noted that the inclusion of these adverbs into the B3 subclass is questionable, as far as they never have close syntactical links with other words and, therefore, they are never in the context for combinatory tonal changes of neighboring words.

To B3 belong interrogative words and conjunctions, such as liide 'how'

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<sup>8</sup> In some other Looma dialects, the corresponding words are clearly dissyllabic, cf. siye (Guinean Gizima) 'to go, to walk'; ziya (Ninibu) 'water'. Unfortunately, in my data for these dialects tones are not marked.

much?', *bàa* 'or'; indefinite pronoun *kèle* ~ *ɣèle* ~ *kèle(g)* ~ *ɣele(g)* 'some', in short, the words which could not have the specifier \**ɲ*- because of their semantics. The original nouns are not too numerous in this subclass, p.ex. *wùo(g)* 'a big dark frog', *zìi* 'species', 'variety', 'race', 'tribe' (this word does not alternate its initial consonant in the modern Looma; apparently < \**sii*); probably, *kòowo* 'black African ant' is also in this sub-class (it is also possible that this word belongs to the class A4; according to my own data, in the Guinean Gizima it has a high tone). Except the moot *kòowo*, all this nouns have weak initial consonants which can be interpreted as a trace of an archaic class marker. So, they did not add the specifier \**ɲ*-.

B4 - dissyllabic or multisyllabic words with the initial low and non-initial high tone. Among the few words of this group, English borrowings predominate: *kòfé(g)* 'coffee', *kòpú* 'cup', *pàtí* 'clan chief', *yèmíga* 'the "Jamaica" sort of banana'. As for the others, there are some adverbs and conjunctions: *kèní* 'it is necessary that'; 'before'; *tìtí* 'often', *kònó* 'yet'; a woman name *Wùbú*, an introductory word *òòòò* 'indeed'. It is noteworthy that all these words have strong or an "instantaneous" medial consonants or a long first vowel, i.e. they have a tonal boundary between the initial and the second syllables. Apparently, other words have no such boundary, but two of them are most probably borrowings: *sìvìli* 'Saturday' and probably *kìlá* (the meaning of this word is somehow obscure; the W. Sadler's translation 'wonder, uncertain' is certainly incorrect). Another word is *kpìá* 'to end'; it is similar to *sìé*, *zìé*, *bìása* e.t.c. from A4-class. As for *zòwó* 'sweet potato', I cannot explain why this word is in the B4-subclass.

It is obvious that this subclass is peripheral in the Looma tonal system.

C. W. Sadler does not distinguish this class from B. The common feature for the words of both these classes is that they do not influence the tone of the following word. But, unlike B-words, a C-word can lower its tone when the second member of syntagma. It is not yet clear after which class of words this lowering is obligatory. Apparently, the tonal class of the first word of the syntagma is not important here, cf.: *kóbè kwèle* 'white whiting', but *gúlu wéle* 'white stick' (both *kóbè(g)* and *gúlu* are A-words); *péleninei vaa má* 'about the affair of the new house', *séve váa* 'splitting affair' (*séve* is an A-word).

The data available are not always sufficient to find out which of Sadler's B-words in reality belong to the class C. As for the "safe" C-words, many of them are

among the most frequent ones, e.g.: fáa 'affair', 'problem', nú 'person'; most probably, tá 'some', 'one', ɲéni 'thing', téve(g) 'pass', 'send', téi(g) ~ téi 'black', etc.

The class C is subdivided into sub-classes:

High-tone words belong to C1. In certain contexts, they change their tone to low.

Like A1-subclass, C1 is also subdivided into subgroups: C1a (all the examples mentioned above) and C1b. All the C1b words have either a strong medial consonant or a long vowel of the first syllable: míte 'spoon' → mìté; fúulu 'fraud' → fùulú.

C2 includes two-syllable words with the high tone of the first syllable and the low tone of the second one: tósò 'summit' → lòso.

D. The words of this class have a high tone in the independent position, but in the position preceding another high-tone word the final syllable of a D-word lowers its tone: gáama 'truth' → gáamà vé 'truly! really!' A similar phenomenon in the other Mande languages (Maninka, Bamana, Mende) is called sometimes "polarisation" (tone is opposite to the following one). After Boniface Keita,<sup>9</sup> I shall mark it as ˊ. I have not found many words of this class; these are: gáamä 'truth', gúsü 'dawn', zúnü 'man', támäa 'many, much', të 'not to be', zúgä 'shugar' (from English), tówäa 'he' (III-group pronoun).

Unfortunately, the available data are not enough for the full characterization of this class. It is clear, anyway, that these words do not influence the tone of the following words. As for the capability to be influenced by a preceding word, some of D-words never change their tones (p.ex. zúnü); the others lower the tone of their first syllables, in which case the tone of the second one is always high. According to W.Sadler, the negative copula usually changes its tone according to the A1-model (it would be more exact to classify it as C1-word, as far as it does not influence the following word), but in the position after an A-word some speakers communicate a polarizing tone to the copula: lë; cf. however: nú lè ɲéni ná wóbà 'nobody was by her' (nú is a C-word, or, accordingly to Sadler, a B-word). But sometimes this would-be polarization does not take place, p.ex.: gá sà táa lámaa (instead of lámaa) yáayà-zù 'we understand a lot already'; tówàa (instead of tówäa) wà yàzaya-kéitie lámaa (instead of lámäa) yáawàtè 'she will answer many of your questions'.

As for composed multisyllabic words, they are not analysed here, as well as other

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<sup>9</sup> B.Keita. *Eléments de description de Malinké de Kita* (Mali). Université de Grenoble, 1986.

words with complicated tonal models, such as gbègbéni 'small sort of banana', mókòlú 'prepared rice', vèzèinà 'the day after tomorrow or

before yesterday', etc., although their composed nature is not evident in modern Looma. Over the limits of this work are also other complicated cases which cannot be clarified without further data.

All the tonal classes of monosyllabic and dissyllabic Looma words can be presented in a table (see Table 1).

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In addition to the rules already expounded, there are some other more particular ones.

In Looma dialects described by W.Sadler there are 11 groups of personal pronouns. They influence the tones of the words they precede in different ways.

I group<sup>10</sup> (subjective pronouns): gè 'I', è 'thou', wo 'you' cause a lowering of the tone of intransitive A-verbs up to the morphemic boundary or to the first syllabic-final -(g), in other words, up to the first tonal boundary. é 'he, she, it', gé 'we (excl.)', dé 'we (incl.)', té 'they' do not influence the tone of the following verbs which remains high (so far as all the Looma verbs are in the subclasses A1, A2, A3 and B1). As for the tone of direct object, pronouns do not influence it. The tone of a monosyllabic verb belonging to an A2-subclass with a suffix does not undergo any change either: nài gè lónì vé 'I, who stood here'. Lowering of the tone after mentioned pronouns does not spread on the verbal suffix -a when it is preceded by a final open syllable, so that this syllable preserves its high tone: gè vèláa 'I escaped', gè váa 'I came'.

However, in Sadler's textbook there is an example of non-lowering of tone of an intransitive verb following è ('thou'): kái lèle è siè gà púlu véle è wúlo (instead wùlo! - A-class) lá káa vélei wù (p. 305) 'Start the car and back it out of the garage'. It is not excluded that wulo is marked with the low tone mistakenly.

II group (subjective pronouns in negative sentences followed by negative marker té/lé): gè, è, é, gé, dé, wè, té. The negative marker has the same tones as the pronoun. Influence on the following words is analogous to that of the pronouns of the I group.

III group (subjective pronouns, evidently, result of fusion of the 1st group pronouns with construction marker or markers, probably ká/ya).

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<sup>10</sup> The numeration of the groups is according to V.F.Vydrin. Jazyk looma. Moscow: Nauka, 1987.

Table 1

		Word structure and initial tones	Tone of suffixes of V-type (-a, -i)	Tone of verbal -CV suffixes (-su, -ni)	Tone after an A-word	Tone before an high-tone word	Influence on the tone of the following word			
A	1	a	C'VC'V, -(g) C'V, -(g)	-í, -gì -á, -gà	-zú, -sù	C'VC'V, -(g) C'V, -(g)	No change	Lowers tone of the following word		
		b	C'V(g)C'V, -(g) C'V:C'V, -(g) C'VC <sub>inst</sub> V', -(g)	-í, -gì -á, -gà	-zú, -sù	C'V(g)C'V, -(g) etc.				
	2	a	C'VC'V, C'V C'V(g) C'V	-á ?	-zù, change to -zú if preceded by A-word	C'VC'V, C'V C'V(g) C'V, etc.				
		b	C'V: C'V, C'VC <sub>inst</sub> V'	?						
	3	a	C'V(g)C'V, -(g) C'V:C'V, -(g) C'VC <sub>inst</sub> V', -(g)	-í; -gì or -gí	-zù, -sù	C'V(g)C'V, -(g) etc.				
		b	C'V(g)C'V, -(g) C'V: C'V, -(g) C'VC <sub>inst</sub> V', -(g)	-ì, -gì ( -í, -gí	-zù, -sù	C'V(g)C'V, -(g) etc.				
	4	C'V, C'V (g), C'VC'V	-ì, -gì	?	No change					
	5	C'V(g)C'V	-í, -gí	?						
	B	1	C'VC'V etc. (all the structures)	-í, -gì etc.	-sù	No change			No change	No influence
		2	C'V(g)C'V, -(g) C'V:C'V, -(g) C'VC <sub>inst</sub> V', -(g)	-ì, -gì	?					
3		C'VC'V, -(g) C'V, C'V:(g)	-ì?, -gí	?						
4		C'V(g)C'V, C'VC <sub>inst</sub> V'	-í, -gí	?						
C	1	a	C'V, C'VC'V, -(g) C'VV, -(g)	-í ( -ì; -gí	-sù	After some words CV, C'VC'V, etc.				
		b	C'V(g)C'V C'V:C'V	-í	?	After some words C'V(g)C'V, C'V:C'V				
	2	C'V(g)C'V	-ì ( -í	?	After some words C'V(g)C'V					
D		C'V, C'V: C'V C'V(g)C'V	?	?	No change?	C'V, C'V(g) C'V	No influence or C'V(g)à → C'V(g)á			

Pronouns which are put together in [Vydrin 1987] in the IId group and hypothetically considered there as a result of a fusion of the pronouns of the group I with the verbal construction marker ka/ya, are split here in two groups:

IIIa (marking of the future tense of the verb): gà 'I', yà 'thou', yá or tówää (there are some differences in their use) 'he, she, it', gá 'we (excl.)', dá 'we (incl.)', wà 'you', tá 'they'. Except towää, they influence the tone of the following intransitive verbs analogously to the Ist group pronouns. When an intransitive verb follows towää, its tone does not change, while the tone of the second syllable of towää is low. If tówää is followed by a low tone direct object, it changes its second tone to high:

tá nà yèè nà, tówaa nìi yè 'When they do that, he will do this'.

they that do when, he-will this do

àní nú tà yá ná, tówaa tìli 'If anybody is here, he will call me'.

if person some is here he.will me.call

IIIb (marking of the Present Imperfect): gà 'I', yà 'thou', t̂ 'he, she, it', gâ 'we (excl.)', dâ 'we (incl.)', wà 'you', tâ 'they'. All these pronouns lower the tone of intransitive A-verbs and carry themselves a low (ga, ya, wa) or high (all other pronouns) tone.

IV group does not exist in the Liberian dialects of Looma.

V group (subjective pronouns, markers of the subjunctive mood): gò 'I', ò 'thou', ô 'he, she, it', gô 'we (excl.)', dô 'we (incl.)', wò 'you', t̂ 'they'. Their tones and their influence on the tone of the following verb is analogous to the pronouns of IIIb group. However, there are examples to the contrary (it may be a result of inaccuracy of the tone marking in the text-book): ó lí (instead of lì) p̂ó-vè é t̂li é yé má...

he goes him.to-LOC he him.call he say him.on

'He came to him, called him and told him...'

VI group (subjective pronouns replacing construction "IIIb pronoun ... sú"): giè, yiè, yié, gié, dié, wiè, tié. These pronouns do not influence the tones of the following words.

VII group (used as the first component of a determinative nominal syntagma, as a determinatum before an adjective, as a direct object before the verbs, and as an indirect object before the postpositions): (ĝ) 'I', è 'thou', (ĝ) 'he, she, it', gé 'we (excl.)', dé 'we (incl.)', wò 'you', té 'they'.

VII group. These pronouns assimilate tonally the following word up to the first syllabic terminal -(g), i.e. up to the tonal boundary, irrespective of the tone

class of this word.

VIII group (possessive pronouns): *nà(g)* 'my', *yà* 'thy', *ná(g)* 'his, her, its', *ga* 'our (excl.)', *da* 'our (incl.)', *wà* 'your', *ta* 'their'. All these pronouns, save *ná(g)*, lower the tone of the first syllable of the following non-monosyllabic word, whereas the tone of the consequent syllable rises again. In other words, these pronouns communicate a rising tone to the following word. The tone class of this word is of no importance: *kpógi* 'door', *nà kpògí* 'my door'; *kpútègi* 'eddo', *dá b̀ùtégí* 'our (incl) eddo'. If the syntagma counts more than two elements, the tone lowering after an VIII group pronoun can spread over all the following word up to the first tonal or morphemic boundary, so that the tonal rising touches the consequent morpheme (or word, syllable) only: *kàla-̀nàlagi* 'box', *tá nà̀la-̀nàlagi* 'their box'; *nà g̀ulú* 'my stick', but *nà g̀ulú lóo* 'throw my stick!' (according to W.Sadler, many of his informants would say: *nà g̀ulú lóo*). Thus the rising tone after the pronoun spreads in the syntagma on two morphemes, while remote tones are governed by the usual rules: *nà g̀ilé líli* or *nà g̀ile líli* 'call my dog' (any of my dogs), but *nà g̀iléi líli* 'call my dog' (*g̀iléi* < *g̀ile* + *-i*).

If a word has CV-structure, it does not lower its tone after an VII-group pronoun: *nà tíi* 'my work', *yà yúí* 'your land', *nà kái* 'my ear', *dá zìé* 'our (incl.) water', but: *dá zìé wú* 'pour our water' (*zìé wú* make one syntagma). These examples prove that the last part of the rising tone is of more importance than the first one.

The influence of the 3 pers. singular pronoun *ná(g)* is different: it requires a high tone of two morphemes (words) of the following syntagma: *ná g̀ile líle* 'Call his

his dog call

dog' (any of his dogs), but: *ná g̀ilei líli* 'Call his dog'; *g̀ulu ẁoloi* 'small stick', but:

*g̀è ná g̀ulu ẁoloi v̀èteni* 'I saw his small stick' (*-í* is merged

I his.stick small saw

by the preceding open syllable and assimilated tonally, but it preserves its capacity to influence the tone of the following word); *ẁogí* 'frog' (B3-word), but *ná ẁogí* 'his frog'.

According to W. Sadler, in the speech of some informants the pronouns *ga* 'you (excl.)', *da* 'you (incl.)', *ta* 'they' require a high (and not rising) tone of the following morpheme, like *ná(g)*.

Though the pronoun *ná(g)* requires a high following tone, it lowers its tone after an A-word: *másag̀i nà téevei* 'chief's table', but: *b̀è ná m̀oló*

chief his table

who his rice

γέζε γά 'whose's rice is it?' (bè 'who?' is a B-word).

grains is

Pronouns of all other groups existing in the Liberian dialects do not influence the tones of surrounding words owing to their syntactic functions.

\* \* \*

In the Looma dialects described by W. Sadler there are some phenomena which cannot be explained from the point of view of the described system, so that I shall just mention them without an attempt at explanation.

1. The verbal prefixes má-, bú-, sú lower the tone of some A-verbs but do not change the tone of some other A-verbs; as for the prefix gaa-, it lowers the tone of any A-verb. When má-, bú-, sú and, on the other side, gáa, are used as nouns, their influence is the same.

2. According to W. Sadler (p. 138), when an adjective acquires -í or the plural mark -a, the tone of these suffixes is irregular; it does not depend on the tonal class of the adjective. It should be noted that judging from the examples in his textbook, this irregularity appears only in combination with B-adjectives.

The numerals from 1 to 4 and 10 behave as A1-nouns: numerals from 5 to 9 as nouns compounded of two A1-words; in fact, they really are such words. The suffix of numerals -gɔ/-ɔ also belongs to the A-class. However, when non-compounded numerals are used in adverbial function and designate a repetitive action, they have either a high or a low tone: gé pétèni sàva or sáva 'I saw him thrice';

I him-saw three

gè ñiiní ná nàa or náa 'I slept there four times'.

I slept there four

Probably, all these phenomena will be clarified in comparison with other dialects of Looma and with closely related languages.

As for some of the tonal "irregularities" mentioned by W. Sadler (p. 453-454: ténja(g) - ténjàgí 'groundnut', fáa-yówu-γée làla 'piousness' - fáa-yówu-γée làla nú 'pious man'), they can be explained by the polarizing tone: ténjä(g), fáa-yówo-γèè làlä.

\* \* \*

On the whole, the tonal system of the Liberian dialects as described by W. Sadler seems to be somehow on the decline. Oppositions crop up mostly in the sandhial alternations.

A. Prost, who described a northern dialect Koluma, does not go deeply

into the prosodic system of Looma, but he mentions anyway three level tones: high, low and middle, as well as one modulated, a descending tone. This modulated tone is noted for a group of pronouns which correspond to the IIIb group of this article. In my data taken from a Guinean Gizima, I have not marked the tones throughout, and sometimes, I am afraid, my tone marks are wrong. In any case, my data reaffirm Prost's supposition about three level tones (high, low and middle).