

Dogon lexical tones of stems

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In the languages studied so far, verbs have a more restricted set of lexical tone-contour possibilities than do other stem-classes (nouns, adjectives, numerals). This section treats verbs first, then other stem-classes as a unit.

Notation: slashes /.../ enclose lexical tone melodies; curly brackets {...} enclose overlaid grammatical tones; angled brackets <...> show tones or tone contours of individual syllables; periods divide tone sequences by syllables. Thus H.L is a high-low toned bisyllabic, and H.<HL> is a bisyllabic with high then falling tone.

Normally a /H/ melody is spread over the entire stem. An exception is Donno So, which has a semi-accentual system with just one H-toned syllable (or monosyllabic mora)

Syllables can be H, L, <HL>, <LH>, and occasionally <LHL>. Contour tones (all except H and L) typically occur in monosyllabic words and in word-final syllables.

verbs: primary lexical melodies

In eastern Dogon languages, the typical situation is that verbs are either lexically /H/ or /LH/. If the verb begins with an obstruent (stop or fricative), the choice is usually predetermined:

- (1) /H/ with initial unvoiced obstruent ($C\check{v}$, $C\check{v}\check{v}$, $C\check{v}C\check{v}$, $C\check{v}C\check{v}C\check{v}$, etc.)
/LH/ with initial voiced obstruent ($C\check{v}:$, $C\check{v}C\check{v}$, etc., see below for longer stems)

Therefore the “lexical” melody is predictable from the segmental form for the majority of stems. However, verb stems beginning with a sonorant (nasal, l , semivowel) or without an initial consonant (e.g. vCv stems) have a lexically arbitrary melody.

While voiced obstruents are classic depressor consonants, the association of /LH/ with stems beginning in them is not a matter of phonetics or low-level phonology. To begin with, non-verbs show no such association of initial obstruent voicing with lexical melody. Furthermore, $C\check{v}:$ and $C\check{v}C\check{v}$ stems usually have some ablaut stems or suffixally inflected forms that require {HL} or {H} stem overlay regardless of initial consonant, for example in the imperative stem ($C\check{v}:$, $C\check{v}C\check{v}$, with or without ablaut).

The /LH/ melody on trisyllabics is realized as $C\check{v}.C\check{v}.C\check{v}$ (L.L.H) or as $C\check{v}.C\check{v}.C\check{v}$ (L.H.H) depending on the language, as shown in (2).

- (2) a. L.L.H
eastern: Toro Tegu, Jamsay, Ben Tey, Donno So
northwestern

- b. L.H.H (s.t. varying with L.H.L)
 eastern: Nanga, Bankan Tey, Togo Kan
 northwestern: Najamba

That is, the tone break occurs either as close as possible to the right edge (2a) or as close as possible to the left edge (2b). This is seen better in quadrisyllabic L.L.L.H and L.H.H.H, respectively. CvvCv stems can also make the distinction: *Cv̂:Cv̂* or *Cv̂:Cv̂*. There is no overt difference between the two types with monosyllabics or bisyllabics. Usually *CvCCv* stems are treated like *CvCv*, but there are occasional examples of **Cv̂Cv̂Cv̂* syncoating to *Cv̂CCv̂* (when C₂ is a sonorant) versus original, unsyncoated *Cv̂CCv̂* stems. Likewise, trisyllabic *Cv̂Cv̂Cv̂* can appear in some languages as *Cv̂Cv̂C* when C₃ is a sonorant

The tone break patterns in (2a-b) (re)apply to the entire derived stem when a derivational suffix is added. Therefore *Cv̂Cv̂* bisyllabics have *Cv̂Cv̂-Cv̂* or *Cv̂Cv̂-Cv̂* derivatives depending on whether the language is of type (2a) or (2b).

verbs: distinguishing lexical melodies from grammatical tone overlays

In some (or even all) inflectional categories, grammatical tone patterns can be overlaid on the lexical tone melodies, which are thereby erased. To determine a lexical melody in a given language one must therefore identify forms that express an otherwise unpredictable distinction such as /H/ versus /LH/. There may also be some inflections where the lexical melody is modified but not erased entirely. This is the case when only the ending of the stem is affected, for example where lexical /H/ is realized as HL while lexical /LH/ is realized as LHL, so that the onsets are still distinct.

The set of forms that allow determination of lexical melodies differs from one language to another, for the simple reason that grammatical tone overlays affect different sets of inflectional categories. In some languages, like Jamsay, negative forms (perfective negative, imperfective negative) and the imperative impose tone overlays (3a), while imperfectives and suffixed perfectives as well as the bare form used in verb chains show the lexical melody, such as /LH/ for *yèré* ‘come’ (3b). In this language, the bare form is usually suitable as a citation form.

(3) Jamsay ‘come’ (*yèré*)

| | | | |
|----|----------------|----------------------|-----------------------|
| | | | overlay on stem |
| a. | <i>yèl-lí</i> | ‘did not come’ | /L/ |
| | <i>yèrè-gó</i> | ‘does/will not come’ | /L/ |
| | <i>yéré</i> | ‘come!’ | /H/ (for light stems) |

- b. *yěy-yà* ‘came’ (</yèré-yà/)
 yèré-Ø- ‘goes’ (</yèré-L-/)
 yèré bare form in nonfinal position in chains

In some languages, however, the normal perfective positive form is unsuffixed (always, or only when defocalized), and this form has a tone overlay (or one overlay for 3rd person subject and another one for 1st/2nd person subjects). In some languages, the imperfective positive also has a tone overlay. Language-specific details are omitted here (in some cases light and heavy stems, i.e. two vocalic moras versus more than two) are treated differently.

In languages that have a bare form in verb chains, this might be usable as the citation form insofar as it shows both the lexical segmental and tonal patterns. However, some Dogon languages have a chaining form ending in a high vowel that can disguise the stem-final lexical vowel, in which case the chaining form is not ideal as a citation form. In Toro Tegu, the chaining form brings out lexical tone melodies, but must be supplemented by another form such as the imperative that express the full lexical vocalism. For example, ‘go up’ has chaining form *ùnú*, which shows the /LH/ melody but points ambiguously to lexical vocalism *ùńó* or *ùńó* (differing in ATR) The former is correct for this stem, as shown by imperative *ùńó* and a few other forms. However, the imperative has a few quirks of its own, so citation forms for Toro Tegu verbs are typically composite, with both the chaining form and the imperative separated by a slash

In southwestern Dogon (Bunoge, Penange, Ampari, Mombo) and in Tiranige (northwestern), all verb forms have tones that are predictable from the inflectional form, so there are no lexical melodies.

At the other extreme, Yanda Dom (northwestern) has a rather elaborate system that requires specification of the tone patterns of both the bare stem (shared with the basic perfective) and the perfective negative with suffix *-lí-*. The classes are H/H (*kún-dó* ‘put’, *kún-dó-lí*), LH/L (*bèlé* ‘get’, *bèlà-lí*), LH/LH (*ligé* ‘mix by stirring’, *ligé-lí*), and H/L (*dómdó* ‘console’, *dòmdò-lí*). H/H includes all stems with initial unvoiced consonant, and all light stems (up to two moras) with initial voiced obstruent are in LH/L, but lexical choices are available to other stems including those beginning with sonorants.

verbs: tones of monomoraic Cv

Some Dogon languages (e.g. Jamsay) do not allow monomoraic verb stems. Among those that do, the usual distinction between /H/ and /LH/ melodies is either retained or neutralized as /H/. In some languages, the distinction is reflected vestigially and irregularly in the tones of certain suffixally inflected forms.

- (4) a. *Cv̂* distinct from *Cv̄*
 eastern: Ben Tey
 northwestern: Tebul Ure
- b. only /H/-toned **Cv̂* is preserved (no merger with **Cv̄*)
 eastern: Togo Kan (three *Cv̂* stems only)
- c. **Cv̂* and **Cv̄* merge as *Cv̂*, but traces of the old distinction preserved
 eastern: Toro Tegu
 northwestern: Najamba, Yanda Dom

In Ben Tey, a distinction between *Cv̂* and *Cv̄* is present but difficult to hear in the bare form, as in *nú* ‘enter’ versus *nũ* ‘hear’. Suffixed forms (inflectional and derivational) bring the distinction out clearly: causative *nú:-wⁿú* ‘cause to enter’ versus *nũ:-wⁿú* ‘cause to hear’. The situation is similar in Tebul Ure.

In Toro Tegu, all Cv stems are basically /H/-toned *Cv̂*. There is one vestige of an original /LH/-toned **Cv̄* pattern, namely the two suffixal perfectives of *wó* ‘see’, which irregularly begin with a L-tone: *wǎ:-sì-*, *wǎ-só*.

In Togo Kan, most monosyllabic verbs are long-voweled Cv̂. The three consistently short-voweled Cv verbs are *ó* ‘give’, *nú* ‘enter’ (contrast *nú:* ‘die’), and *tí* ‘send’ or ‘do first’. They preserve an original /H/ melody and are not evidence for tone merger. The contour-toned verbs *yě* ‘come’ and *jê* ‘convey’ have Cv forms varying with Cv̂: (*yǎ:-*, *jâ:-*) depending on suffixal category.

Some northwestern languages preserve the lexical tone-melody distinction in certain suffixed forms only. In both Najamba and Yanda Dom, the perfective negative suffix *-l(v)-* brings out this distinction. Najamba actually has a three-way split of Cv̂ stems in this inflection. One subset has lengthened *Cv̂:-*, another has tone-dropped but unlengthened *Cv̂-*, and a third has lengthened and tone-dropped *Cv̂:-*. Najamba examples are *twá:-lù-m* ‘I sowed’ (*twé*), *dwà-lú-m* ‘I pounded’ (*dwé*), and *ɲwà:-lú-m* ‘I heard’ (*ɲwé*).

verbs: irregular ‘bring’

In some eastern Dogon languages, the verb ‘bring’ is irregular tonally (and otherwise). The /HLH/ and /HL/ melodies are striking since the stem-initial voiced obstruent should normally require L-initial melody.

(1) ‘Bring’

| | | | |
|----------------|---------|-------------|---|
| Toro Tegu (E) | /zê:rú/ | /HLH/ | irregular; subject to syncope/truncation |
| Ben Tey (E) | jě: | /LHL/ | irregular |
| Jamsay (E) | jê:ré | /LH/ | regular |
| Nanga (E) | jě: | /LH/ | regular |
| Togo Kan (E) | jě:rì | /LHL/ | regular, structurally /LH/ |
| Donno So (E) | | [see below] | |
| Najamba (NW) | jê: | /HL/ | other /HL/ verb is <i>dwê:</i> ‘arrive’ |
| Tebul Ure (NW) | zě: | /LH/ | irregular hortative <i>zê-lù</i> (expected # <i>zê-lú</i>) |
| Yanda Dom (NW) | zó | /H(L)/ | irregular; /HL/ imperative <i>zô:</i> |

In some languages, the directional antonym ‘convey, take (somewhere, or away)’ has similar irregularities (e.g. Togo Kan *jê*, Tebul Ure *zây* with hortative *zây*).

Etymologically, ‘bring’ may have originated as a fused verb chain, roughly ‘take, pick up’ plus ‘come’. This is still synchronically evident in Donno So, where the paradigm of ‘bring’ is based partially on fused *jê:lé* and partially on composite *já-yèlé*. In careful pronunciation, *jă: yèlé* can be heard. The elements are *jă:* ‘convey’, usually shortened or fused in this combination, and *yèlé* ‘come’. The combination is parallel to the directional antonym *jê-bòló* ‘convey’, containing *bòló* ‘go’. An original combination like **jă: yèlé* (LH-LH) combined with its shortened form **já-yèlé* (H-LH) with monomoraic initial forced into H-tone, could evolve by further contraction into the various attested lexical melodies for ‘bring’: /HLH/ (Toro Tegu), /LHL/ (Ben Tey), /LH/ (Jamsay, Donno So variant *jê:lé*), and /HL/ (Najamba).

nouns, adjectives, numerals

Nouns, adjectives, and numerals generally behave as a class in terms of lexical tonal patterns. Here we will focus on nouns.

In eastern Dogon languages, typical lexical melodies for uncompounded stems other than verbs are /H/, /HL/, /LH/, and /LHL/. The /L/ melody is not allowed as a lexical form (apparent exceptions in Yanda Dom have a H-tone that appears in some contexts). As a result, imposition of the tonosyntactic {L} overlay is always audible.

The melody /HLH/ is disallowed in most Dogon languages, if compounds are excluded. However, there are several /HLH/ nouns in Toro Tegu, e.g. *kâ:nú* ‘monkey’. Possible examples of /HLH/ in Nanga and Ben Tey might be analysed as compounds.

For non-verbs there is no correlation between the voicing of an initial obstruent and the lexical tone melody, of the sort found in verbs. We get many striking cases of verb plus cognate nominal with divergent tones, e.g. Jamsay *bíré bíré* ‘work (=perform)

work', with /H/-toned noun (lexical choice) and /LH/-toned verb (required by the initial voiced stop).

With trisyllabic and longer stems, the languages differ as to the location of the tone break especially in /HL/ and /LH/ stems. The patterns for non-verbs may differ from those for verbs in the same language. The tendency is to locate the tone break for non-verbs near the right edge, e.g. L.L.H and H.H.L, but not all languages follow this. Quadrisyllabic nouns are difficult to analyse since they are usually treated prosodically as compounds.

Nanga appears to have relexified * $C\acute{V}C\hat{V}$ as $C\acute{V}C\hat{V}$, with final falling tone.

Donno So has moved in the direction of a pitch-accent system, with a single syllable (or monosyllabic mora) accented (with H-tone).

Nouns and other non-verbs are subject to tonosyntactic processes that erase lexical tone melodies. See the separate piece on this topic.