A Grammar of Toro Tegu Dogon, Tabi dialect

Dogon language family
Mali

Jeffrey Heath
University of Michigan

author's email
schweinehaxen@hotmail.com

Contents

vii

1 Introduction

1.1 Dogon languages

The Dogon languages are spoken chiefly in eastern Mali. The predominantly Dogon area in Mali is bounded by Boni in the north, by Mopti-Sévaré in the east, and by the Bankass area to the south. It reaches to the Burkina Faso border (e.g. around Koro) in the east, and there are some extensions (probably of recent date) into Burkina.

We are in an early stage of surveying the Dogon languages, but current indications are that there may be approximately twenty distinct languages, several of which have extensive dialectal variation internally. I have been primarily focusing on the languages in the north and northeast (001).

(001) a. **Toro Tegu**: spoken in villages ringing Tabi Mountain (near Boni), Koyo (on summit of mountain overlooking Boni), and villages ringing Sarinyere Mountain (between Boni and Douentza)
b. **Jamsay**: the largest-population Dogon language, spoken chiefly in the villages of the plains in the area from Douentza northeast to Mondoro and south to the area around Koro
c. **Ben Tey**, spoken in Beni and to a lesser extent Gamni south of Douentza (with an offshoot at Kumboy village)
d. **Bankan Tey**, related to Beni and Nanga, but spoken in Walo village at the end of Gandamiya inselberg north of Douentza
e. **Nanga** [naŋa], spoken in Anda, Wakara, Namakoro, Soroni, and other villages south of Beni
f. **Najamba-Kindige** (aka **Bondu**), spoken in a canyon including the villages of Koubewel and Adia southwest of Douentza, and in several further villages farther southeast

Discussion of the internal genetic relationships among the Dogon languages is best deferred until a later time.

Dogon is a branch of Niger-Congo. Its precise position within this huge linguistic phylum is not yet clear.

1.2 Toro Tegu language

The term "Toro Tegu" (abbreviation **TT**), literally "mountain language," will be used to denote this language. This is the term in use at least in the Tabi mountain area. The TT-speaking people refer to themselves as "mountain people," which distinguishes them from the Jamsay of the valleys and the various herding peoples.

On occasion, in sessions where discussions of lexical differences between Jamsay (which is named after a greeting response jámì sǎy 'peace only'), one of my assistants referred to TT as bà:nî kɔ́ⁿ⇒, using the corresponding greeting response in TT (§19.5.1).

The language is very different from Jamsay, the other Dogon language widely known by TT speakers, and from other Dogon languages known to me. In addition, most adult TT speakers speak Fulfulde as a second language; it is the primary language of the major weekly market towns (Boni for Tabi Mountain and Koyo, and Dalla for Sarinyere), as well as of Douentza and Mopti. Some older TT speakers from the Tabi Mountain villages also know Humburi Senni (Songhay of Hombori).

1.3 Environment

The local physical environment can be thought of as a curving chain of some six principal inselberg mountains, arranged in the form of an interrupted and rather wide horseshoe. These inselbergs rise abruptly from the relatively flat plains. Tabi Mountain and Sarinyere Mountain are at the endpoints of the horseshoe. The Fulfulde-speaking market town of Boni is in the middle of the bend of the horseshoe, sandwiched in a narrow valley between two of the mountains.

The bulk of the TT-speaking population is in the villages ringing Tabi and Sarinyere Mountains. These villages were formerly located on the summits of the mountains, well-protected from marauders on the plains, and with direct access to water in the form of pools and springs. However, by the late 20th Century the villages had relocated to new sites at the bases of the mountains. The only remaining substantial mountaintop village is Koyo, which is located atop one of the mountains that flank Boni.

With the TT-speaking villages still clinging to their traditional mountains, the intervening plains are occupied chiefly by Fulbe cattle herders. Some of these Fulbe, at least in the vicinity of Tabi, actually speak Songhay among themselves; these are the Fulankiryabé, whose Songhay dialect belongs to the Koyraboro Senni language ("Songhay of Gao"), and is specifically close to the dialects spoken around Bamba (the tobacco-producing town on the Niger River between Gao and Timbuktu, not the Dogon village of the same name).

The inhabitants of the villages at Tabi Mountain were removed to Hombori during the French colonial period, as punishment for their armed resistance. They were allowed to return beginning in the 1940's. Some of the older people in the Tabi Mountain villages grew up in the Hombori area and still speak Humburi Senni (a Songhay language). There are still a few remnant TT-speaking groups in the Hombori area, now quite cut-off from the main TT-speaking zone.

Songhay borrowings in the speech of Toupéré village are generally confused to cultural (including flora-fauna) vocabulary). gánî 'dance', ná:néy (variant ná:léy) 'trust', árúkúsú-bɔ̀ŋ-ká:réy 'herb with white flowers (*Celosia*)'.

My data are mostly from residents of the villages of Toupéré [tùpèré], though some of the recorded texts involved speakers from nearby Tega [té:gá]. These are two of the three villages flanking Tabi Mountain, the other being Tabi proper [tá].

Geographical coordinates: Tabi mountain North 15° 01′ by West 2° 04′; village of Koyo N 15° 04′ by W 2° 12′, Sarinyere mountain N 15° 02′ by W 2° 26′.

fuller list of villages with coordinates

1.4   Previous study of Toro Tegu

There has been no previous professional linguistic work on TT. Its existence has been known since the pioneering ethnographic and ethnolinguistic of the great French team including Marcel Griaule and Geneviève Calame-Griaule. It is included in Calame-Griaule's map of Dogon dialects, under the name **Tandam**.

The primary (nonlinguistic) scholarship on the area is the work of a French team whose focus was on public health, demography, and human biology of the Tabi Mountain villages. They appear to have collected a wordlist but, to my knowledge, it is not published. The volume resulting from the project does contain valuable information about the history and demography.

1.5   Literacy and language politics

Malian linguistic policies are based on the notion that each ethnic group (including Dogon) is also a linguistic unit. For Dogon, the Toro-So language spoken around Sanga was selected as the standard. One result of this is that there has been relatively little concerted research, or applied linguistic projects, on the other Dogon languages.

Efforts to launch literacy programs based on Toro-So seem to have had success in the Sanga-Bandiagara area, but have not caught on well in the Douentza and Boni areas where Toro-So is not present even as a second or third vernacular. Accordingly, local individuals have been developing literacy programs based on Jamsay (which is widely known as a second Dogon language in this northern region), and this does seem to be catching on. There are also some smaller-scale efforts to develop literacy programs based on other Dogon languages, including Najamba.

1.6   Fieldwork

During the 2004-5 academic year I was based in Douentza, working primarily on Jamsay. I was able to make a trip of several days to Toupéré during this period, and was also able to bring a speaker to Douentza to work with me for some two weeks. The initial focus was on putting together a working lexicon, identifying named plants and animals, and initial work on morphology (especially of verbs). Two 90-minute tapes were recorded in Toupéré, and transcription of one of them was begun in Douentza.

Fieldwork on TT intensified during the NSF grant period, beginning with a session from June to December 2006, in which Ben Tey and Toro Tegu were featured. Several further short visits were made to Toupéré through mid-2008, and two different individuals were invited to Douentza for several periods of two to three weeks each. The remaining taped materials were transcribed, the lexicon was fleshed out, and chapters of the grammar were drafted and then edited.

1.7   Acknowledgements

2 Sketch

2.1 Prosody and vowel harmony

TT is a tonal language. Syllables have H[igh], L[ow], F[alling], or R[ising] tone. F is the same as <HL>, and R is equivalent to <LH>, where angled brackets indicate syllabic groupings. <LHL> syllables are attested in two monosyllabic nouns in TT (§3.7.1.2) and are otherwise absent; it is found in several Dogon languages (and at least one nearby Songhay language).

In addition to lexical tones on noun, verb, and other stems, there are some word-internal grammatical tone overlays, and other overlays affecting words that are controlled by the morphosyntactic context. As a result, the lexical tones are often completely overwritten, an environment that makes tonal minimal pairs problematic. Indeed, there are few tonal minimal pairs within a word-class (e.g. nouns), though there are some word-families with, say, a verb and its cognate nominal, that contain minimal pairs.

Terminal intonation features, chiefly exaggerated prolongation (⇒), are lexicalized on many adverbials. The dying-quail intonation (∴), involving prolongation and where possible a slow pitch declien, is found in NP conjunction.

Some morphophonological patterns affecting vowels in noninitial syllables may be interpreted in terms of metrical asymmetries, though these are mostly limited to verbal morphology. Some verbal inflectional suffixes have distinct allomorphs (beginning with different consonants) depending on the prosodic heaviness of the preceding verb stem.

Vowel-harmony is observed as a passive phenomenon in typical vowel sequences within stems, and actively in verbal morphology, where the first syllable of many suffixes has its vowel determined by the vowel-harmonic class of the stem. There are three classes: {a ɛ}, ɔ, and {o e). The first two merge into one class for some purposes. Vowel-harmony is not absolute at word-level even for verbs; for example, only the first vowel of Perfective-Ia suffix -wòrè- or -wɔ̀rɛ̀- is subject to harmony induced by the preceding stem.

2.2 Inflectable verbs

TT verbs have a maximal morphological structure of the form in (xx1).

(xx1) [stem (-derivational suffix)] - AN (aspect-negation) - 3rd person subject

The lexical stem (or root) may be followed by a Reversive or Causative derivational suffix. The stem (simple or derived) may then be followed by an AN suffix marking perfective or imperfective aspect, along with negation if applicable, or it may take an Imperative or Hortative form. In positive utterances, there are three distinct Perfective suffixes (though some verbs allow only two of them), an Imperfective, and a Future. The negative counterparts boil these categories down to two, a Perfective Negative and an Imperfective Negative.

There is no complete suffixal paradigm of pronominal-subject markers as in some other Dogon languages. However, a third person pronominal (3Sg, 3Pl, Nonhuman Sg, or Nonhuman Pl) may follow the AN suffix. An example of a fairly complex verb form is (xx2).

(xx2) págú-rú-wɔ̀sǐ-wɔ́
    tie-Revers-Perf1b-3SgS
    'He/She untied'

There are also some morphosyntactic mechanisms for converting an active verb into constructions with **stative or progressive** sense. These belong to a larger class of stative predicates (in the broad sense) that **do not distinguish perfective and imperfective** aspects, and (perhaps as a result) have their own Stative Negative form instead of using the Perfective Negative and Imperfective Negative suffixes. This larger stative class includes a few defective quasi-verbs that occur only in these stative constructions, with senses like 'know' and 'want' (§11.2.4-5).

Most adjective stems have corresponding verbs (Inchoative and Factitive). There is usually a close phonological relationship between the adjective and the verbs, and the verbs often end in recognizable Inchoative or Factitive suffixes, but one cannot derive the verbs mechanically by simply adding the suffixes to the adjective and then applying routine phonological rules.

First and second person subjects (as well as objects) are expressed by pronominals that precede the verb (and various intervening elements), rather than by suffixes on the verb as in many other Dogon languages.

Imperfective and Future verbs, in positive utterances, are often preceded by an Imperfective particle á (allomorph â:).

(xx3) [lɛ́   á   ǐ-r-ɔ̌:]
    [meal   Impf   eat-Impf-3SgS]
    'He/She eats a meal.'

Verbs are cited either by the Imperative (which brings out the vowel-harmonic class and the lexical tone), or in a **full-citation form** consisting of the combining form, a double back-slash \\, and the Imperative, thus (Imperative) ló or full-citation lú\\ló 'go in'. The **combining form** is used in chains and before most suffixes; it ends in /u/ (except with monosyllabic stems), which is subject in some positions to deletion. The combining form does show the lexical tone of the stem, but does not in all cases bring out its vowel-harmonic class. So the Imperative is usually sufficient to characterize the phonology of the stem. However, there are a few Cɛ́ monosyllables, some of which shift to Cî in the combining form while others remain as Cɛ́, and in these few cases the combining form is not predictable from the Imperative.

2.3   Noun phrase (NP)

A NP may begin with a possessor NP or pronominal (if an NP, it has its regular form and there is no Genitive morpheme). The **core NP** follows, consisting of a noun stem (perhaps a compound or derivative) plus any modifying adjectives. Most human nouns (other than kin terms) have a **Singular/Plural** distinction expressed by suffixes on the noun (not on the adjectives). This core NP is followed by any cardinal numerals, then by determiners and non-numeral quantifiers.

The structure of NPs is expressed not only by **linear ordering** but also by **tonal interactions**. Within the core NP, each nonfinal element (i.e. adjective) forces tone-dropping on the preceding word. In a sequence like N-Adj-Adj, the first two words are tone-dropped. A numeral that follows the core NP has no tonal interactions with the core NP, suggesting a bracketing for tonological purposes of the type [N-Adj]-Num, where tone-dropping applies only inside the bracket.

The sequence of core NP plus numeral may be followed by a determiner (demonstrative 'this/that' or Definite morpheme). The determiner marks number (singular, plural), and induces tone-dropping on an immediately preceding core NP or numeral.

This already complex situation is further complicated by the fact that a **possessor NP** to the left of the NP also has tonological effects on the core NP, imposing either total tone-dropping or else (if the possessor is a pronominal, or an NP other than a simple core NP) a {HL} tone contour with the first syllable (or mora, for long monosyllables) high and the rest low. This creates conflicts in combinations like Poss-coreNP-Det, if the possessor (on the left) imposes {HL} on the core NP while the determiner (on the right) imposes all-low contour (tone-dropping) on the same core NP. This has to be resolved by bracketing; in

the event, the possessor "wins." So the prosodic bracketing is [Poss-coreNP]-Det, with the inner bracket constituting a **prosodic island** that the determiner cannot penetrate.

There is a special reflexive-possessor morpheme mà, following a direct object (the antecedent is the clause-mate subject).

The structure of NPs is also elucidated by the analysis of relative clauses, see below.

2.4   Relative clauses

Relative clauses are covered in detail in Chapter 14. The differences between TT relative clauses and those of Jamsay, a typical northern Dogon language in this respect, are summarized in (xx1).

(xx1) feature	TT	Jamsay
head NP remains within clause	√	√
head NP drops tones	√	√
numeral remains with head NP and drops tones	√	√
determiner for head NP appears clause-finally	√	√
'each'/'all' for head NP appears clause-finally	√	√
all subject pronominals precede verb	√	√
Relative morpheme follows head NP	√	no
clause ends in 2nd Relative morpheme	√	no
verb ends in Participial suffix (Sg, Pl, ...)	no	√

In the common pattern exemplified by Jamsay, the head NP remains within the relative clause but is tone-dropped. The regular subject-pronominal suffix position in the verb is replaced by a Participial suffix marking the nominal category (e.g. human singular) but not pronominal person of the head NP. Numerals remain with the head NP and drop tones in parallel with the head noun. Other quantifiers ('all', 'each') and Definite determiners associated with the head NP appear after the participle, not internally with the head NP. Since pronominal-subject category cannot be expressed by the usual inflectional suffixes on the verb, a special set of preverbal pronominal subject markers appears (except when the subject is the head NP and therefore already clearly indicated).

TT shares some of these features, but differs in three major respects. First, it has a Relative morpheme kà: that immediately follows the head NP. (It may also appear, by itself, in headless relatives.) Second, it has a clause-final Relative morpheme ń, invariant in form (i.e. not participial), which follows the

verb and sometimes a postverbal constituent. This may be (at least historically) a special use of singular demonstrative pronoun ŋ̀gú 'this/that', which has a reduced variant ŋ́ after a modified noun. The verb of a relative clause has no suffixation beyond the usual AN (aspect-negation) marking.

An example is (xx2). The term for 'yesterday' is here shown at the beginning but it may also occur in other positions including between the verb and ŋ́. The NP would otherwise have the form lɛ́ lěy cínî 'the two meals', with lexical tones on both 'meal' (lɛ́) and 'two' (lěy). The verb 'he/she ate' would appear in a main clause as lí-sà-wɔ́ ('eat-Perf2-3SgS') with the 3Sg subject morpheme at the end.

(xx2) [yá: [lɛ̀   lèy]   kà: wɔ́   lí-sà   ŋ̀   cínî
        [yesterday [meal.L two.L]   Rel   3SgS   eat-Perf2 Rel.L DefPl
        'The two meals that he/she ate yesterday.' (lɛ́ 'eat')

2.5   Postposition phrase (PP)

TT has a variety of postpositions that follow NPs or pronominals. Examples are Dative dè and Locative kù. Several other postpositions are composites of an original noun plus kù or a similar element, as in [îló pùrò] kù] 'inside the house', originally 'in the house's belly' (pùró 'belly', îló pùrò 'the house's belly'). Tonal patterns confirm the suspicion of a close morphosyntactic relationship between such postpositions and possessed nouns.

2.6   Main clauses and constituent order

Constituent order in main clauses is freer than in most Dogon languages, which are rather strictly verb-final. In TT, a nonpronominal subject NP is typically initial, preceded at most by adverbials or by a topicalized or focalized constituent.

(xx1) a.   ténǎm   èrⁿá   á:=m̀   kúw-wòsǐ
             hyena   goat   seize≡and.SS   devour-Perf1b
             'Hyena seized and devoured Goat.' (2004-1a.01) (/áwá=m̀/)

        b.   [kó   kɔ̀]   bɛ̀l-à:rá   kó,   bɛ̀lú   táyrè   césú-sà
             [NonhSg   Foc]   sheep-male   NonSg,   sheep   divisioncut-Perf2
             'Then ram divided the sheep in halves (two subgroups).' (2004-1a.07)

11

When a **direct object** is present, it precedes the verb. Idiomatic or otherwise fixes object-verb combinations, such as a verb plus its cognate nominal, always follow OV order. There are infrequent textual occurrences where a relatively heavy object NP follows the verb.

Adverbials such as PPs may precede or follow the verb. Usually they precede the verb if no other bulky material, such as a nonpronominal direct object, is present in that position (xx2.a). When such a preverrbal constituent is present, adverbials may follow (xx2.b) or precede the verb (xx2.c).

(xx2) a. [tĩwⁿá dòsù]   dĭŋú   dà
     [**tree** **under.L**] sit   be
     'He was sitting under a tree.' (2004-1a.04)

    b. [ì-m-î: nà]   pású-wɔ̀sĭ≡cɛ́   [tĩwⁿá dòsù]
      [child-Pl-Dimin ReflPoss] leave-Perf1b-\NonhPlS**[tree under.L**]
      'They (= animals) left their young under the tree.' (2004-1a.06)

    c. [nɔ̀ŋùnɔ̀ sɛ̀w-sɛ̀w ŋ̀gú] [[ká mà] kù] á kùl-lò
      [handful.L big-big.L DemSg] [[**mouth ReflP**]**in**] Impf put-Impf
      'He was putting those huge handfuls (of millet cake) into his mouth.' (2004-1a.04)

Because of the flexibility of constituent order, in direct elicitation (using French cues) my assistant tended to follow French linear order for major constituents. Therefore, especially regarding linear order, it is best to rely on textual examples (which are followed by text numbers such as 2004-1a.04), rather than on elicited examples (which lack such codes).

2.7 Interclausal syntax

TT has a range of devices for chaining VPs (with shared subjects), and for subordinating one clause to another.

In chains, the nonfinal VPs (sometimes simple verbs) appear with or without a conjunction-like linking element mà (or ≡m̀). If without mà, the verb takes the combining form, which (except when the verb is monosyllabic) ends in a /ú/ that is subject to apocope in some contexts. This construction requires a high degree of conceptual integration of the two (or more) VPs into a unified event type (as in bĭřĭy yèří 'return come' = 'come back'), and requires that the verbs be adjacent. If the nonfinal VP has a verb with mà, the verb stem takes a form identical to its Imperative (which never ends in a high vowel). This looser

chaining device does not require close conceptual integration, and does not require adjacency of the verbs.

The chaining pattern with the combining form of the verb (without mà) is also used as the complement of bèrá 'can, be able to' (special use of a verb meaning 'get, obtain').

Some other main-clause verbs take complements with a verbal noun. There are two Verbal Noun suffixes: -ú and -rěŋ (-těŋ). In this complement construction, -ú is used when the complement precedes the controlling main-clause verb, while -rěŋ is preferred when it follows. The form in -ú is more nouny than that in -rěŋ, and a preceding nominal object often appears in compound-initial form or functions as a possessor of the verbal noun.

2.8   Anaphora

Logophoric pronouns are used to indicate that the referent of a pronominal is coindexed with the attributed source of a quotation or thought. The forms are Singular àsî, Plural àsî mǎ:

A distinctive feature of TT discourse, not found in the other Dogon languages known to me, is the Self-Benefactive form sîmà, glossed 'for oneself'. A full discussion of this form, which occurs frequently in texts, is given in §18.6.

3   Phonology

3.1   General

This chapter begins with syllables and metrical structure (§3.2), then describes the consonants and vowels (§3.3, §3.4). It proceeds to cover vowel harmony (§3.5), and non-tonal phonological rules (such as assimilations) applying to sequences of segments (§3.6). There is some interaction between prosodic structure and the segmental rules, not only with regard to Syncope, but also when /mr/ alternates with /mbur/ and /ŋr/ alternates with /ŋgur/ in the middle of a word (§3.6.2.1). The tonal system is discussed in §3.7.

3.2   Internal phonological structure of stems and words

3.2.1   Syllables

Noninitial syllables within words are normally Cv, Cv:, and CvC, where v is a short vowel and v: is a long (oral or nasalized) vowel. In word-initial syllables, the initial C may be omitted.

Verb stems must end in a Cv syllable with short vowel, as best seen in the Imperative. This is true of monosyllabic as well as longer stems. Examples are págá 'tie' and gú 'go out'. Most verbs directly borrowed from Fulfulde end in έ and therefore satisfy this syllabic restriction.

There is one verb stem with a true final semivowel: ów 'give'. There are many other verbs that appear with a final consonant (semivowel or m) in the combining form, e.g. áw 'catch', bɛ̆w 'sprout'. I analyse these as having a final /ú/ that is deleted; their underlying bisyllabic character is indicated by their Imperative forms (áwá, bɛ̀wá).

3.2.2   Metrical structure

Metrically weak positions are those that favor **reduction of vocalic contrasts** (specifically favoring high vowels) and/or **vowel deletion** (syncope or apocope). The phenomenon is phonologically significant for verbs, where we can see it operating across a rich system of suffixal inflections.

A binary distinction may be made between verbal inflections based on the **combining form**, and the remaining forms including the **Imperative**. The basic difference is that the combining form has a metrically weak final syllable, at least in stems of two or more syllables, while the Imperative has a strong final syllable.

For monosyllabic verbs (Cv), the absence of a second syllable makes the metrical structure somewhat moot. The vowel is never deleted. However, most Có and all Cé verbs do shift to a high vowel in the combining form (Cú, Cî), which therefore has hints of metrical weakness. For all longer stems, the final syllable is weak in the combining form but not in the Imperative-type forms. In addition, verb stems of three or four syllables have metrically weak medial syllables (even in the Imperative-type forms).

(xx1) verb shape   morphological type   metrical pattern (strong, weak)

Cv	combining form	s (with a hint of w)
	Imperative etc.	s
CvCv	combining form	sw
	Imperative etc.	ss
CvCvCv	combining form	sww
	Imperative etc.	sws
CvCvCvCv	combining form	swww
	Imperative etc.	swws

The **trochaic** type [sw] is relatively simple; the final vowel raises to u, and under certain conditions it may disappear either before a suffix (syncope) or word-finally (apocope).

In the **dactylic** type [sww], both weak syllables have u, Vowel-deletion cannot apply to two consecutive syllables. If the final syllable begins with a semivowel or m, the final syllable is deleted, leaving an unreduced u in the medial syllable. If the final syllable begins with any other consonant, this syllable appears with unreduced u and the medial u is subject to weakening (appearing as schwa or being syncopated).

All CvCvCvCv (or longer) verb stems known to me are derived causatives with suffix -mv or less often -m-kv (chapter 9). We have seen just above that m or a semivowel at the beginning of a stem-final syllable makes that syllable the weakest in the combining form (where it disappears by syncope). This also occurs in the quadrisyllabic causatives, so CvCvCv-mv has a combining form

CvCvCv-m, which now ends in a heavy and therefore metrically strong CvC syllable. The preceding (i.e. second) syllable may reduce its u (to schwa or zero).

3.2.3   Prosodic weight of verb stems and suffix allomorphy

In addition to the patterning of vocalic raising, reduction, and deletion discussed in the preceding section, we may detect prosodic factors at work in **allomorph splits** (involving choice of suffix-initial consonant) in certain verbal inflectional suffixes. These splits are based primarily on the overall prosodic weight of the preceding stem, not on metrical (rhythmical) considerations as such. Oversimplifying slightly (see below), the splits are given in (xx2).

(xx3)   stem   Imperfective Perfective Negative Imperfective Negative

      1-2 moras -rv̀-   -rí-
      3+ moras   -tv̀-   -lí-

      1 mora   -r^{n}v́-
      2+ moras   -nv́-

For the **Imperfective** and for the **Perfective Negative**, the split is between prosodically light Cv and CvCv stems on the one hand, and prosodically heavy Cv:Cv, CvCCv, CvCvCv, etc. It may be significant that the initial consonant is r for both suffix categories after prosodically light verbs. The basically prosodic division is slightly complicated by the fact that light stems with unclustered medial rhotics, i.e. (C)vrv- and (C)vr^{n}v-, are incompatible with rhotic-initial inflectional suffixes, so they default to the allomorphs otherwise associated with heavy stems. There are also various CC-cluster rules that apply at the boundary between stem and suffix when the stem-final vowel is syncopated.

For more details see §10.1.1.6 (Imperfective), §10.1.2.2 (Perfective Negative), and §10.1.2.3 (Imperfective Negative).

3.3   Consonants

The inventory of consonantal phonemes is (xx1), with some singly or doubly parenthesized to indicate degree of marginality.

(xx1)   Consonants

	1	2	3	4	5	6	7	8	9
labial	p	b	m	(f)		w	wⁿ		
alveolar	t	d	n	s	l	r	rⁿ		
alveopalatal	c	j	(ɲ)	((š))		y	yⁿ		
velar	k	g	ŋ						
laryngeal								(h)	((ʔ))

c is IPA [tʃ], j is [dʒ], š is [ʃ], y is [j].
key to columns: 1. aspirated voiceless stops (c is affricated); 2. voiced stops; 3.nasals, 4. voiceless fricatives (including sibilants); 5. laterals; 6-7. respectively unnasalized and nasalized sonorants; 8-9. laryngeals

3.3.1 Alveopalatals (c, j, ɲ)

As in some other languages of the region (montane Songhay as well as Dogon), there is considerable fluctuation between k and c, between g and j, and between ŋ and ɲ before front vowels {i e ɛ}. To facilitate navigation in the lexicon, it is necessary to normalize in one direction or the other and I agonize over this for each language I work on. for TT I normalize the transcription as c, j, and ŋ where both pronunciations are possible. Thus jĩní 'is not', círó 'fly!', ɗiŋé 'sit!'.

c and j are of course easily distinguishable from k and g before low and back vowels. Here c and j are not very common, being confined chiefly to borrowings (e.g. cárɗi 'silver' and já:sèrè 'shiftlessness' from Fulfulde) and expressive adverbials (cóy-cóy 'very red', cɔ́t-cɔ́t 'very straight', jáw-jáw 'very fast').

ɲ is also uncommon if we exclude the cases that I transcribe with yⁿ, although for some of these [ɲ] is attested as a variant pronunciation alongside [jⁿ]: yⁿáŋk̆ìtà 'regret', yⁿà-rⁿú 'woman', yⁿáwⁿá 'damaged', mɔ̀yⁿɔ́ 'raise (livestock)', žĭyⁿó 'fart (verb)'. (In most of these cases, cognates in e.g. Jamsay have ɲ.) I did usually hear ɲ in ɲɔ́ 'camel'. I also transcribe ɲ in other words, typically loanwords, where this represents the usual pronunciation: ŋɔ́:ɲɔ̀ 'pancake', ɲéccè 'residue from sifting flour', sèséɲè 'kola-nut mash', bèrè-gáɲ̌ɪ 'stick with forked end', ɲégé:rè 'toilet'. In the fixed phrase [X ɗĩŋ] ɲémá 'instead of X', the clustering of two nasals may favor ɲ over yⁿ.

3.3.2 Voiced velar stop g and g-Spirantization (g→ɣ)

Spirantization of g to ɣ in the frames [a_a] and [ɔ_ɔ], i.e., between low back vowels, is not systematic in TT and I transcribe g rather than ɣ.

18

3.3.3 Velar nasal (ŋ)

ŋ may occur finally: děŋ 'place', sŭŋ 'rope'. It is fairly common intervocalically: gàŋá 'prevent', yⁿáŋá '(a) race', góŋó 'deserted', léŋé 'tasty'. In initial position it is limited to occasional loanwords like ŋɔ́ːɲɔ̀ 'pancake'.

Before a front vowel, ŋ is not reliably distinguishable from ɲ.

3.3.4 Voiceless labials (p, f)

p is common in initial and intervocalic position: págá 'tie', púró 'blow', bàpá 'carry on back'.

f is found in some loanwords, like fòtó 'photo' and náːfìkì 'trouble-maker'. In the more highly nativized loans, it is generally replaced by p, and in elicitation sessions informants often insist on the p pronunciations. Example: mǎlfà or mǎlpà 'rifle'.

3.3.5 Laryngeals (h, ʔ)

h occurs word-initially in a number of loanwords, especially from Fulfulde: hámnà 'pestering', húlé 'boundary', hɔ́rà 'observing carefully', héló 'distribute' and hòlé '(someone's) share', hɔ́lɔ́ 'craziness' (<Songhay). Other than *unh-huh!* type expressions it does not occur medially or finally.

Glottal stop ʔ is not part of the basic consonantal system. It occurs in such marginal, semi-linguistic expressions as ɔ́ⁿʔɔ̀ⁿ 'nope!'.

3.3.6 Preglottalized stops (ɓ, ɗ, ƒ, ɠ) in Fulfulde borrowings

The preglottalized stops of the local Fulfulde variety are written with the IPA symbols properly applied to ingressives. I will follow the Fulfulde orthography in this with respect to the occasional Fulfulde loanword that is still pronounced (by some speakers) with the preglottalization. Thus lɔ́ɓɓĩnà '(act of) hitting hard'.

3.3.7 Sibilants (s, š, z, ž)

Sibilant s is often palatalized to [ʃ] before a front vowel {i e ɛ} in native vocabulary, as in sîwó 'become fattened', séw 'thick, fat', and séréw 'used up'. The alternation is subphonemic with respect to native vocabulary, but the situation is complicated by the presence of borrowed words like sî: 'kind, type' (< Fulfulde) that do not commonly palatalize.

Palatalization is regular in the clusters ys and yⁿs before any vowel, as in pòysú 'off-white' and bùyⁿsú 'almost ripe', which I have only heard with a palatoalveolar [ʃ].

The voiced sibilant has similar tendencies. Thus orthographic z is often pronounced [ʒ] in stems like zìŋá 'be bent', zèwá 'harass', and zéři 'bring!'.

An autonomous š phoneme, i.e. not due to neighboring front vowels or y, is not well-established, but occurs in šâllá:hù 'if God wills' (Arabic phrase in common use). An autonomous ž phoneme occurs in žúnú:bù 'sin' (<Arabic).

3.3.8 Orally released nasal (mᵇ, ŋᵍ)

A recurring problem in northern Dogon languages is alternations (across or within languages) between m and either mᵇ or mb, i.e. some version of m with an oral release, in intervocalic or even word-initial position. Alternations of this type have been observed in TT. For example, the 1Sg pronominal morpheme m̀ is often heard as m̀ᵇ before a vowel.

The issue has wider phonological ramifications since an oral release of the nasal should prevent the nasal from spreading its nasality to the right (Forward Nasalization, §3.xxx), while a true m should allow the process to apply.

There are, in fact, a number of stems attested with intervocalic m that does not induce Forward Nasalization, particularly of r to rⁿ : màrá 'become lost', bámárà-n 'Bambara person', bímmá:rè 'raised bunk', márèy 'wounding' (<Songhay), mìrá 'voice', kásámmárà 'meal with balls of cooked millet', mùrɔ́ '(rain) fall', mɔ́rú 'you were warned!', òmɔ̀rɔ́ 'misfortune', mèrá 'abdomen'. Contrast e.g. márⁿá 'stupidity', mɔ́rⁿɔ̀ 'error', which do show the effects of Forward Nasalization. For some, but not all, of the stems with unnasalized r in this position, a variant pronunciation with mb or mᵇ (i.e. with brief oral release) is recorded: m̀ᵇàrá 'become lost', m̀ᵇèrá 'abdomen', bímbá:rè 'raised bunk', m̀ᵇìrá 'voice'. For some other words, such a variant with mb is not (yet?) recorded for TT, but mb does appear in cognates: TT òmɔ̀rɔ́ 'misfortune' versus Walo òmbùrɔ́ and Najamba òmbɔ̀lɔ́, TT bámárà-n 'Bambara person' versus counterparts with mb in many languages.

3.3.9   Nasalized sonorants (r^n, w^n, y^n)

These nasalized sonorants are in part predictable variants of the corresponding oral sonorants (nasalized in the presence of another nasal), and in part autonomous phonemes.

{r w y} are secondarily nasalized after another nasal by Forward Nasalization. Within a stem this is arguably a constraint rather than a linear process: nàw^{n}á 'meat', mɔ̀y^{n}ɔ́ 'raise (livestock)', nàr^{n}á 'chase away'; oral {r w y} do not normally occur in such positions. For examples of suffix-initial {r w y} being nasalized due to a stem nasal, see §3.xxx.

Syllable-final {w y} are also nasalized in a syllable containing another nasal. I do not usually transcribe the nasalization in this case, but in e.g. nîŋèy 'beside, along with' for [nîŋèj^n] and náw-náw 'very smooth' for [náw^{n}náw^n] it should be understood that the semivowel is phonetically nasalized.

For {w y} but not r, nasalization also occurs before another nasal by Backward Nasalization, but only across a vowel. Examples within a stem suggest a constraint: y^{n}ɔ̀ŋó 'spoil (child)', w^{n}àŋá 'disdain'. For examples involving Cv- stems before a nasal suffix, see §3.xxx. However, there is no nasalization of the semivowel in e.g. Imperfective Negative tày-ná- 'does not shoot' or àw-ná- 'does not catch', contrast gùy^n-nó- 'does not steal' with lexical y^n (Imperative gùy^{n}ó).

Of special interest are the stems for 'woman' and 'distant'. 'Woman' is y^{n}à-r^{n}ú 'woman' or plural y^{n}à-mú, with initial y^n associated with nasal suffixes. Unnasalized *y is preserved in e.g. yà-gùrɔ̌-n 'young woman' The adjective 'distant, far away' is wà:gá, but the corresponding verb is w^{n}áŋú-lá 'go far away', whose medial ŋ forces nasalization of the initial w.

{r^n w^n y^n} may also occur in the absence of an arguably triggering second nasal, and in these cases the phonemic status of these segments is clear. r^n is confined to intervocalic position, as in bàr^{n}á 'become red' (bár^{n}ú 'red'), cîr^{n}ó 'snot', tɔ́r^{n}ɔ́ 'turn on (flashlight)'. Note also allomorph -r^{n}v́- of the Imperfective Negative after Cv- monosyllables (§10.1.3.2).

{w^n y^n} but not r^n also occur **syllable-finally** (including word-finally) with no other nasal present: : téy^n 'bow (for arrow)', ɛ̌w^n-ɛ̂w^n 'at full speed', zîw^n 'fart'.

w^n occurs **initially** with no other nasal present in w^{n}á:sú 'bat (mammal)' and w^{n}à:sá 'scoop out'. I know of no similar cases with y^n.

In stems like the verbs y^{n}àw^{n}á 'malfunction' and w^{n}ày^{n}á 'come to a boil', **two nasalized semivowels** occur together with no other nasal present.

3.3.10 Consonant clusters

I will not dwell on medial clusters here, since Fulfulde and other loanwords have introduced some very un-Dogon-like clusters, and since the optional Late Syncope applying to e.g. the second of three syllables in a word can create some rather marginal clusters.

3.3.10.1 Initial CC clusters

Initial clusters do not occur except in loanwords.

3.3.10.2 Medial geminated CC clusters

At verb-suffix boundaries, the clusters ll, nn, and tt may be created by Early Syncope and subsequent CC-cluster rules; see §3.6.3.3 for a summary.

Within unsegmentable stems, clusters occur chiefly in loanwords. Examples of geminates are: súbbè 'spice seed' (*Ammodaucus*), wáccɔ́:rè 'nickname', yéddà 'challenge', hóggò 'animal pen', híjjĩ 'pilgrimage to Mecca', júkkɔ́:rè 'fine (penalty)', sɛ́llà 'health', támmà 'colonial coin', hĩnnà 'being absorbed (focused)', héppà 'anxiety', bárrá:dù 'tea kettle', pɔ́ttè 'participation', láyyà 'Feast of the Ram'. I can find no examples of ww, w^nw^n, y^ny^n, or ss.

3.3.10.3 Medial non-geminate CC clusters

Nasal plus homorganic voiced stop: this cluster type is somewhat suspect in native Dogon vocabulary because of historical and synchronic alternations of the type mb ~ m^b ~ m. There are several examples of Fulfulde and other loans with fixed clusters of this type: cámbòl 'diabetes', kúndô:w 'breed of sheep', jĩŋgá:rú 'prayer' (< Songhay).

Clusters of **nasal plus homorganic voiceless stop** do occur in what look like native vocabulary, e.g. zèmpé 'one-sided loincloth', bènté 'loincloth', dáŋkĩ 'shed'.

Semivowels may occur with various following consonants (semivowels favor syncope of a following vowel when possible, so the actual lexical representation of such cases can be debated): dòymɔ́ 'be in a hurry', pòysú 'off-white', céwsó 'break off a piece'.

Nasals (especially /m/) and **lateral** /l/ also occur as first member of a few CC clusters other than the homorganic nasal-stop clusters mentioned above. Most examples are probable loanwords, but for /l/ I can cite e.g. gàlmá 'bowl-

shaped basin' and pélsú\\pélsá 'split (nut) in half', and for nasals we have e.g. húmsú\\húmsó 'breathe', òmnú 'tamarind', and tîmlé 'pillar'.

An interpretive difficulty is that, since the second syllable of a three-syllable sequence is a metrically weak position, such examples as gàlmá and pélsú might be analysed as trisyllabic /gàlùmá/, /pélúsú/, etc., with a medial short high vowel that **syncopates**. There are, in fact, several words where CvC_2Cv and either CvC_2uCv or CvC_2iCv pronunciations are recorded, where C_2 is a sonorant.

This is especially common when C_2 is **tap** /r/ or /r^n/, which require a brief release before a following consonant. Thus tĩrbú or tĩrùbú 'Dichrostachys tree'.

Taps are also analytically tricky and phonetically unstable as the second consonant in a medial cluster. For word-medial alternations of the type ŋr ~ ŋgur, see §3.6.2.1.

3.3.10.4 Medial triple CCC clusters

Triple clusters in a few Fulfulde loanwords: kóynjèl 'cattle disease', dáyŋgòl 'posts for hitching'.

3.3.10.5 Final CC clusters

Final clusters do not occur except in unassimilated loanwords.

3.4 Vowels

The inventory of vowels is (xx1).

(xx1) short oral   long oral   nasalized

u	u:	u:^{n}
o	o:	o:^{n}
ɔ	ɔ:	ɔ:^{n}
a	a:	a:^{n}
ɛ	ɛ:	ɛ:^{n}
e	e:	e:^{n}
i	i:	i:^{n}

3.4.1   Short and (oral) long vowels

Short vowels are common in all syllabic positions. Oral long vowels are not common in native Dogon vocabulary, except in expressive adverbs and the like, but are quite common in loanwords.

Monosyllabic Cv is strongly preferred to Cv:. There are many Cv́ verb stems but no unambiguously Cv́: or Cv̌: verbs. Examples are wɔ́ 'see', sɔ́ 'take', and ká 'shave'. However, there are some verbs of original shape Cawa and Cɔwɔ that are arguably in the process of becoming Ca: and Cɔ: by contraction in the Imperative and related forms, though the more common set of inflections based on the combining form still has Caw- and Cɔw-, see (xx3) in the introduction to (§10.1).

Monosyllabic nouns likewise prefer Cv to Cv:. Nouns include kú 'head', ká 'mouth', dɔ́ 'insult', lɔ́ 'hand', tá 'taboo', dú 'plains', sɔ́ 'second layer of millet', lɛ́ 'meal', zá 'millet cakes', and nî 'water', which may have originated as *Cv: (at any rate, the cognates in Jamsay etc. do have long vowels). Cv: does occur with a few noun stems of less clear origin, in connection with contour tones (which cannot be expressed on a short vowel): gô: 'flat shady spot', yô: 'dried-out leaves on ground'. Among adjectives, ná: 'big' has a long vowel, but other monosyllabic adjectives have a short vowel: gá 'bigger', dɔ́ 'hot; fast'.

In cases involving a final long high vowel, such as [pû:] 'scrubber' (cf. verb púwɔ́ 'wipe'), [èŋìnè dû:] 'peanut-butter balls' (ɛ́ŋînɛ́ 'peanut'), [mǐ:] 'fine (powder)' (verb mìyⁿá 'grind into powder'), kû: 'yam' (< Bambara), and [sî:] 'kind (type)' (<Fulfulde), one can ask whether native speakers take them to have {u: i:} or {uw iy}. I transcribe pûw, dûw, mǐyⁿ because of the fairly transparent connection to the related verbs, but kû: and sî: since for those nouns is no connection to another form of the same word-family. The compound final in yù-gô: 'late-ripening millet' (yú 'millet') is a good candidate for a derivation from /gówò/ (Intervocalic Semivowel-Deletion, §3.6.4.1), cf. the associated verb gòwó ~ gǒ: 'harvest (late-ripening millet' with combining form gǒw.

Cv: occurs in some particles: zǎ: 'since' (< Songhay), gá: or gà: 'but' (regional),

In bisyllabic or longer verbs, if there is a long vowel it is in the first syllable: zê:rú 'bring' (§10.1.4.2), lî:-má 'feed' (causative of lɛ́ 'eat')

Nouns are more tolerant of oral long vowels in various positions, though most of the examples involve loanwords. Initial long vowels: nè:sé 'supper', bú:rù 'bread', kùrùkò:rí 'private stock'. Final long vowels: àtê: 'tea', kògî: 'cream on milk', ná:nâ: 'mint'. Medial long vowels: púrá:rè 'meal to break Ramadan fast', jîŋgá:rú 'prayer' (<Songhay). Medial long vowels may also be produced by contraction: èrê:ré 'wild-pea shrub' (*Boscia*) from reduplicated èrɛ́-èrɛ́, nùnû:rⁿú 'someone' reduplicated from nù-rⁿú 'person' (§4.1.2).

Several adjectives have, at least as a diminutive variant, a form ending in -î:. Many expressive adverbs end in a final vowel whose articulation is prolonged beyond the usual duration of long vowels; I attribute this to (lexicalized) intonational prolongation (⇒).

Oral long vowels are usually syllable final, but there are some loanwords like fĭdâ:w 'memorial feast' with a final semivowel.

3.4.2   Nasalized vowels

A nasalized vowel occurs in one monosyllabic verb stem: péⁿ 'be hardened and ripe (ready to harvest), (egg) be ready to hatch'.

Nasalized vowels occur in some onomatopoeic expressions, such as cî:ⁿ-kà:ⁿ-cî:ⁿ (creaking sound). They also occur expressive adverbs like páⁿ⇒ 'wide open', and in adjectival intensifiers, e.g. tî:ⁿ-tî:ⁿ 'very black'.

In quite a few lexical items, a phonetically nasalized vowel is immediately followed by s. One could argue that the proper representation is /ns/ and that the nasal is realized.

(xx1) form	gloss	comment
tè:ⁿsú	'basin'	
bà:ⁿsá	'wooden bowl'	
bàⁿsá	'master, owner'	as cpd final usually bàsà 'owner of X' (§5.1.13); see also ŋ̀gú bá:ⁿsà 'this/that (person) §4.4.1
kó:ⁿsú	'backing of rifle mechanism'	
tè:ⁿsú	'large bowl'	
súⁿsɔ́	'sniff'	
ɔ̀ⁿsù-rⁿú	'younger same-sex sibling'	
ɔ́ⁿsɔ́	'pick up (fallen fruits)' (Imperative)	
ɔ́ⁿsɔ́	'suck'	
èⁿsú	'shame'	
èⁿsú	'(a) prop'	
dà:ⁿsá	'throw'	
úⁿsɔ́	'string together'	

gà:^{n}sú	'rough, coarse'	
ɛ̀^{n}sá	'chicken'	variant ɛ̀sá
kùpà:^{n}sú	'lung'	
tó^{n}sú	'testicles'	
kɔ̀:^{n}sɔ́	'millet beer'	
bùy^{n}sú	'almost ripe'	
à^{n}sú	'roselle'	

In many of these stems, comparative evidence points to an original consonant cluster, perhaps *nj. For example, cognates of TT ɛ̀^{n}sá 'chicken include Nanga ɛ̀njɛ́, Beni ɛ̀njɛ̂-m, and Jamsay ɛ̀ɲɛ́ as well as Walo ɛ̀zɛ̂-m.

In the case of adjective ɔ́^{n}sî:^{n} 'thin', the nasalization clearly continues to the end of the stem, suggesting that we have two distinct nasalized vowels. The related verb ɔ́^{n}sú-r^{n}ú- likewise has a nasalized r^n in the suffix, which cannot be explained by the presence of ɔ́^{n} in the initial syllable.

3.4.3   Initial vowels

While Cv is the typical syllabic shape, hence CvCv for bisyllabics and so forth, the initial C position may be vacant. Vowel-initial verb stems include áwá 'catch', ów 'give', ɔ́gɔ́ 'be in command', ùnɔ́ 'go up', îrá 'be ripe', ɛ̀lá 'look', and énó 'narrate'. For nouns we have e.g. ɔ́nɔ́ 'fontanel', órú 'field', ùró 'hole', ǐsó 'soil', ĕy^n 'mouse', à-nú 'man', and étú 'unripe'.

3.4.4   Stem-final vowels

There are no unusual restrictions on stem-final vowels except in verbs.

Each verb has two basic forms, the combining form that is used in VP chains and before most suffixes, and a small set of forms exemplified by the Imperative. The Imperative can be taken as lexically basic, since it clearly shows the vowel-harmony class of the verb, which is not always true of the combining form. (Both the Imperative and the combining form show the lexical tone contour.) Taking the Imperative as lexically basic, the crucial restriction is that the **final vowel may not be high** {i u}. On the other hand, nearly all verbs do end in a high vowel in the combining form (the exceptions are certain Cv-stems along with ów 'give', the only verb stem ending in a consonant). For restrictions on the relationship between the first vowel and the middle and final vowels of a verb stem, see §3.5.3, below.

3.5   Vowel harmony and other vowel-to-vowel assimilations

3.5.1   Vowel-harmonic classes of verb stems

There are three vowel-harmonic classes, two of which merge under some conditions (xx1). Of comparative interest is the fact that ɛ is closely associated with a rather than with ɔ.

(xx1)   3 sets   {ɛ a} versus ɔ versus {e o}
         2 sets   {ɛ a ɔ} versus {e o}

High vowels {i u} are **extraharmonic**. They may combine with vowels from any harmonic set. In trisyllabic stems, a medial high vowel does not absolve the initial and final vowels from their harmonic responsibilities.

Uncompounded stems of all word-classes (noun, adjective, numeral, verb) generally respect harmony (3-set version) in that vowels of different harmonic sets are not combined. Examples of nouns that respect harmony (recalling that high vowels are extraharmonic) are zèlá 'side', jérè 'side', čìrá 'bone', kàsú 'calabash', ésú 'thing' tɔ́kɔ́ 'sheath', kɔ̀rɔ́ 'neck', tùŋɔ́ 'back', bèté 'belly', péŋó 'hip', bèríyò 'belching', kòsíyò 'sneezing', kórú 'navel', jímrò 'rib'.

Stems like tɔ̀ŋɔ́lɛ̀ 'headband in bell-dance' are mild counterexamples since they combine ɛ and ɔ. It should be noted that ɛ and ɔ are closely related harmonically in other Dogon languages including Jamsay.

Some stems (other than verbs) consist entirely of high vowels and cannot be classified into a harmonic set, e.g. gùsú 'skin', bǐbǐrí 'stirring stick'.

For the non-verb word-classes, harmony is basically a passive phenomenon observed in the form of recurrent stem-internal vowel sequences. This is because there is little suffixation for these stems involving non-high vowels. No vowel-harmonic phonology is observed with Ordinal suffix -ló, since neither the preceding stem nor the suffix adjusts its vocalism to suit the other: léy-ló 'second', pé:l-ló 'tenth' (§4.7.2.2).

Vowel harmony is, however, conspicuous in verbal morphology, since derivational and inflectional (AN) suffixes with non-high vowels are harmonically sensitive. There are two patterns of harmony. In the **three-set harmonic type**, the suffixal vowel appears as a after an {ɛ a} stem, as ɔ after an ɔ stem, and as o after an {e o} stem (the stem's harmonic class is always determinable from its Imperative). This is the productive harmonic pattern for verbal suffixes (xx2).

(xx2)   category   {ɛ a}   ɔ   {e o}

        a. derivational (in Imperative)

Reversive (§9.1)	-rá	-rɔ́	-ró
Causative (§9.2)	-má	-mɔ́	-mó

b. inflectional

Perfective-II (§10.1.1.3)	-sà-	-sɔ̀-	-sò-
Imperfective (§10.1.1.6)	-rà-	-rɔ̀-	-rò-
Imperfective Negative (§10.1.2.3)	-ná-	-nɔ́-	-nó-

In the two-set type, the suffix has only two vocalic variants, as the {ɛ a} and ɔ stem classes are treated as equivalent. These are cases where the suffixal vowel is always mid-height (i.e. never a).

(xx3)   category   {ɛ a ɔ}   {e o}

a. suffix has ɔ or o
    Perfective-Ia (§10.1.1.1)   -wɔ̀rè-   -wòrè-
    Perfective-Ib (§10.1.1.2)   -wɔ̀sǐ-   -wòsǐ-

b. suffix has e or ɛ
    Hortative (§10.4.4)   -ɛ́, -yⁿɛ́   -é, -yⁿé

I have no example where vowel-harmonic assimilation penetrates into the second vowel of a bisyllabic suffix. The only bisyllabic verbal suffix with a non-high vowel in the second syllable is the Perfective-Ia, and its second vowel is an invariant e over all harmonic classes, as seen in e.g. yǎy-wɔ̀rè- 'went' where the ɔ in the first syllable of the suffix is determined by the harmonic class of the stem, but where the e in the second suffixal syllable fails to shift to ɛ. This is distinct from sequences of the type CvC(v)-Cv-Cv- with two consecutive -Cv- suffixes, where iteration does occur. Thus dùwⁿɔ́ 'be finished' (Imperative), Causative dùm-lɔ́ (Imperative), and Perfective-Ia of the latter dùm-lú-wɔ̀rè with ɔ ultimately reflecting the harmonic class of dùwⁿɔ́.

This last example also shows that a suffix reflects the harmonic class of the verb stem even when the verb itself (in its combining form) fails to show the diagnostic vocalism. This is seen more dramatically in cases where two homophonous combining forms occur with different suffixal variants reflecting the hidden harmonic classes of the respective stems (seen, however, in their Imperative forms). For example, 'roll up (mat)' is mùnó, while 'rumple' is mùnɔ́. The two are merged as mùnú in the combining form, which is used as such in verb chains. With a harmonically sensitive suffix (i.e. with most suffixes), the two are distinguishable, e.g. Perfective-Ib mùnú-wⁿòsǐ 'rolled up' versus   mùnú-wⁿɔ̀sǐ 'rumpled'. Likewise with the respective reversive

derivatives of these two verbs, where we find Perfective-Ib mùnù-rⁿú-wⁿòsǐ 'unrolled' versus mùnù-rⁿú-wⁿɔ̀sǐ 'unrumpled'.

3.5.2 Underlying representations of vowels in verbal suffixes

The issue arises how to represent the vowels in verbal suffixes in their underlying form, i.e. before they harmonize with the stem. Only the first syllable of bisyllabic suffixes is relevant since only they engage in harmonic adjustments. The full set of vocalic possibilities is summarized in (xx1).

(xx1) vocalism   suffixes

i	Perfective Negative -rî-
u	Verbal Noun -ú
a	Future -yàrà-
e ~ ɛ	Hortative -é/-ɛ́
o ~ ɔ	Perfective-Ia -wòrè-/-wòrè-, Perfective-Ib -wòsǐ-/-wòsǐ-
o ~ ɔ ~ a	Perfective-II -sò-/-sɔ̀-/-sà- (and several others}

There is no issue as to the representation of the invariant vowels. The e ~ ɛ alternation clearly requires a slightly underspecified vowel with the shared features of the two outputs (front, mid-height, unrounded). The o ~ ɔ alternation requires a similar slightly underspecified vowel (back, mid-height, rounded). The problem is how to account for the difference between o ~ ɔ and o ~ ɔ ~ a. There are various clever answers that one could propose; for example, the latter might be represented as a more thoroughly underspecified vowel (non-front, non-high). However, the difference between o ~ ɔ and o ~ ɔ ~ a also correlates with the presence of suffix-initial w in the former versus various coronals in the latter, and with bisyllabic versus monosyllabic suffixes. So the optimal analysis is elusive.

In citing the various suffixes, I will often use v (for "vowel") as a variable for the o ~ ɔ ~ a cases, hence -sv̀- rather than the laborious -sò-/-sɔ̀-/-sà-. (There is no consonant /v/ in the language, so no confusion should result.)

3.5.3 Restrictions on medial and final vowels in verb stems

In monosyllabic (Cv́) verbs, the vowel in the Imperative (and related forms) may be any non-high vowel. However, Cé is found only in dé 'carry (on head)'

or 'bathe', while Cέ is common (lέ 'eat', nέ 'drink', yέ 'weep', cέ 'slaughter', jέ 'dance', dέ 'be tired').

In **bisyllabic** verbs, the vowel sequences in (xx1) are attested in the Imperative and related forms. The verbs 'bring' (Imperative zérǐ) and 'come' (yèrî) are irregular in this and other respects, and they are not included in the tables.

(xx1)   a. identical non-high vowels
        common: a...a, o...o, ɔ...ɔ
        a few cases: e...e
        unattested: #ε...ε

    b. nonidentical non-high vowels
        e...o
        ε...a

    c. high plus mid-height vowel of same back/rounding type
        u...o, u...ɔ
        i...e, i...a

If the first syllable has e, the second syllable has e or o depending on the stem. e...e is less common and seems to occur only over an intervening liquid, while e...o occurs in all consonantal environments. For e...e the examples are dèlé 'store', jèré 'keep', dèré 'establish', céré 'prolong'. For e...o the examples include céló 'make well', léyó 'sleep', céwó 'strike', séró 'be mushy', cétó 'stumble', néŋó 'do for a long time', séŋó 'stink', péŋó 'choke on food', tíwó 'send'.

ε...a is very common and corresponds to ε...ε in nearby Dogon languages such as Jamsay. Examples are èlá 'look', térá 'chop', and jèwá 'scoop up'.

If the first vowel is high, the second syllable may be any mid-height vowel with the same rounding and front/back features, except that we get final a where we would have expected ε. Historically, TT i...a reflects *i...ε. In bisyllabic verbs of this type, the second vowel (in the Imperative) is the key for determining the vowel-harmonic class. Examples: u...o in mùnó 'roll up', u...ɔ in mùnɔ́ 'rumple', i...e in ɗiŋé 'sit', and i...a in bǐrá 'work'.

In **trisyllabic and longer** verb stems, whether underived or suffixally derived, the medial vowels are high, and usually pronounced /u/ by my assistant in careful speech, but in allegro speech heard as a schwa-like vowel of variable timbre and, where the consonantal environment permits, optionally zeroed (Late u-Syncope). This means that (except for the irregular 'bring' and 'come') there are no verbs of three or more syllables whose Imperative ends in any front vowel {i e ε}. The relationship between the first and last vowels is the same for

long stems as for bisyllabics, except that there are no #e...u...e verbs. We get e...u...o instead: dègùró '(manufactured object) become pleasingly shaped' (compare adjective dègírè, which does end in e), étú-ró 'be sweet' (inchoative of adjective ètú), lékùró 'drip'.

To a large extent, the vocalic phonology of stem plus inflectional suffix combinations follows the same patterns, which could therefore be formulated as word-level constraints for verbs.

3.5.4   Suffix-to-Suffix Vocalic Assimilation (right to left)

Vowel-harmonic processes generally take the form of left-to-right (forward) spreading of vocalic features from stems into suffixes.

However, there is also a somewhat limited right-to-left vocalic assimilation that applies in the combination of Future -yàrà- with a following third person subject morpheme, 3Sg -wɔ́ or 3Pl -e (the latter with or without an additional 3Pl ≡bɛ́ or Nonhuman Pl ≡kɛ́). The data are messy, and morphology and phonology cannot be easily separated. The relevant data are in (xx1).

(xx1)   -yàrà- plus ...   pronunciations

      3Sg -wɔ́   -yàrà-wɔ́, -yɔ̀r-ɔ̌:

      3Pl -e   -yèr-è   after stem of {e o} vowel-harmonic class
                      -yɛ̀r-è   after stem of {ɛ ɔ a} vowel-harmonic class

In the 3Sg, there is an optional contraction of /àwɔ́/ to ɔ̌:, compare Intervocal Semivowel-Deletion (xxx). If this contraction occurs, it is followed by an obligatory assimilation of the first a in -yàrà- to the ɔ vocalism of the ending. The harmonic class of the stem is not a factor. For example, alongside uncontracted tòtî-yàrà-wɔ́ 'he/she will show' the contracted form is tòtî-yɔ̀r-ɔ̌:, even though 'show' is an {e o} harmonic-class verb.

In the 3Pl, the replacement of the final a in -yàrà- by -e leads to an obligatory assimilation of the first a in -yàrà-. This time, however, my assistant pronounced -yèr-è or -yɛ̀r-è depending on the harmonic class of the stem. In other words, the assimilation of /a/ to {e ɛ} is triggered by the final suffix, but the relevant vowel is still within the harmonic control of the verb stem.

(xx4) gloss   Imperative   Future   Future (3Pl form)

    'dance'   jɛ́   jî-yàrà   jî-yèr-è

'cut'	cɛ́sá	cɛ̀sí-yàrà	cɛ̀sí-yèr-è
'carry'	dé	dí-yàrà	dí-yèr-è
'dig channel'	póró	pòrí-yàrà	pòrí-yèr-è

In the case of Cɛ́- monosyllabic verbs that do not raise their vowel in the combining form, 3Pl Future -yèr-è loses its /y/ and the form contracts. Thus dé 'be tired' (Imperative identical to combining form), Future dé-yàrà-, 3Pl future /dé-yèr-è/ surfacing as dê:-r-è. See Intervocalic Semivowel-Deletion (xxx).

3.6 Segmental phonological rules

3.6.1 Nasalization rules

3.6.1.1 *Forward Nasalization*

Forward Nasalization is the process whereby nasalization spreads from a vowel or consonant to a consonant on its right. The consonants that are targets for this spreading are {y w r], which can become {y^n w^n r^n} by this process.

When {y w} are syllable-final in a syllable beginning with a nasal, or with a nasalized vowel, I do not usually indicate the spreading in transcriptions, thus bɔ̀n-ɛ̌y 'little mortar' (Diminutive of bɔ̀nɔ́), pronounced [bɔ̀nɛ̌j^n] with nasality extending to the end of the second syllable. An exception is when the semivowel has secondarily become syllable-final due to Syncope or Apocope, in which case I do indicate nasalization in the ordinary transcription: mɔ̌y^n 'raise (livestock)', combining form of the verb whose Imperative is mɔ̀y^{n}ɔ́.

As a static phenomenon, we observe that {y^n w^n r^n} regularly occur within stems that also have a preceding nasal or nasalized segment, including another {y^n w^n r^n}. The stem-internal cases can be thought of in terms of a constraint (nasalization harmony?), rather than a linear process. Examples of stems respecting this constraint are már^{n}á 'stupidity', kúmíy^{n}ó 'clench (hand)' nàw^{n}á 'meat', núw^{n}ó 'die', mɔ̀r^{n}ɔ́ 'be in error', y^{n}àw^{n}á 'be pampered'.

To be sure, there are some real and/or apparent counterexamples. One issue is the treatment of alternations of the types Cvmburv ~ Cvmrv and Cvŋgurv ~ Cvŋrv discussed in some detail in §3.6.2.1, below. Another is the occurrence of a number of stems where m behaves phonologically like mb, and may in fact alternate with mb or m^b, see §3.3.xxx, above.

Forward Nasalization is most clearly observed in verb-suffix combinations where a nasal in the verb induces nasalization of {w y r} in the suffix. Relevant suffixes include Perfective-Ib -wɔ̀sɪ̀- (-wòsɪ̀-), Perfective Negative allomorph -rɪ́-, and Imperfective allomorph -rà-. When nasalized, these appear as -w^{n}ɔ̀sɪ̀-

(-w^{n}ɔ̀sǐ-), -r^{n}í-, and -r^{n}à-, respectively. Of special interest are the suffixes -yàrà- (Future) and -wɔ̀rè-/-wòrè- (Perfective-Ia), which nasalize both the suffix-initial semivowel and the suffix-medial rhotic after a nasal syllable: -y^{n}àr^{n}à-, -w^{n}ɔ̀r^{n}è- (-w^{n}ɔ̀r^{n}è-).

The segment that triggers Forward Nasaliation may be a syllable-initial nasal or nasalized consonant (xx1.a), a syllable-final nasalized semivowel (xx1.b), or a nsalized vowel (xx1.c)

(xx1) gloss Imperative Future

    a. 'go up' ùnɔ́ ùní-y^{n}àr^{n}à-
    b. 'steal' gùy^{n}ó gǔy^n-y^{n}àr^{n}à-
    c. 'be ripe' pɛ́^{n} pɛ́^{n}-y^{n}àr^{n}à-

The rule may be formalized as (xx2). As formulated it will apply even to syllable-final semivowels, although I do not bother to transsscribe nasalization in these cases.

(xx2) Forward Nasalization

    definition: a **nasal syllable** is a syllable of the shape Nv with some nasal or nasalized consonant N, or (C)vN with some nasalized semivowel N, or Cv^n with a nasalized vowel

    {w y r} > {w^n y^n r^n} after a nasal syllable

3.6.1.2 Backward Nasalization

Backward nasalization spreads nasalization from a medial Nv syllable to the consonant at the onset of the preceding syllable. All examples known to me involve semivowels {w y} rather than r. Stem-initial r is found only in Fulfulde loanwords, and here it does not nasalize: ré:nà 'surviving'. I do not hear nasalization in e.g. gúrùŋ-gáràŋ 'having spreading roots'.

In cases like (xx1) where all relevant segments are internal to a stem, Backward Nasalization can be thought of as applying passively in the form of a constraint against oral semivowels in nasalizing positions.

(xx1) form gloss comment

    a. y^{n}à:ŋá 'night'

$y^n\grave{\text{ɔ}}\text{ŋ}\acute{\text{ɔ}}$ 'waste' (verb)

b. $w^n\grave{\text{à}}\text{ŋ}\acute{\text{á}}$ 'lower (price)'

The forms in (xx1) can be taken as having a lexicalized y^n or w^n.

The noun 'woman' is the best case in nominal morphology for a phonological rule where nasalization spreads from the suffix to the preceding stem. The nominal forms are y^nà-r^nú 'woman' and its plural y^nà-mú. Assuming that native speakers connect this stem with e.g. the compound initial in yà-gùrɔ̌-n 'adolescent girl', and with the adjective yá 'female (animal)', one can argue for a lexical representation /yà-/ and for a Backward Nasalization process.

Backward Nasalization is more easily observed in verbal morphology. The **Imperfective Negative** suffix (§10.1.2.xxx), which takes an allomorph -r^nv́- (specifically -r^ná-. -r^nɔ́-, or -r^nó-) after monosyllabic Cv́- stems, induces backward nasalization of the stem-initial consonant, so that y and w become y^n and w^n. The same thing happens in the Hortative (§10.4.4), which for monosyllabic stems has allomorph -y^né or -y^nɛ́ depending on vowel harmony.

(xx2)   gloss   Imperative   Imperfective Negative   Hortative

a.   'weep'   yɛ́ y^mǐ-r^ná- y^nǐ-y^nɛ́
b.   'see'   wɔ́ w^nɔ̀-r^nɔ́- w^nɔ̀-y^nɛ́

An extension of Backward Nasalization to **initial /l/** in a lv- monosyllabic verb results, quite unusually, in nv-. There are only two verbs of this shape (xx3).

(xx3)   gloss   Imperative Imperfective Negative Hortative

a.   'go in'   ló   nù-r^nó-   nú-y^nɛ́
b.   'eat'   lɛ́   nǐ-r^ná-   nǐ-y^nɛ́
c.   'spend night' lá   nà-r^ná-   ná-y^nɛ́

For 'go in' and 'spend night' the n is probably original (e.g. Jamsay nú:, Beni nú, Nanga núy 'go in'; Jamsay ná:, Beni ná 'spend night'). The 'eat' verb, however, might be related to a cognate set pointing to *ɲɛ́(:) including Jamsay ɲɛ́:.

Historical sources may also help us understand an otherwise unintelligible phonological pattern in the Imperfective Negative of Cvrv stems with medial rhotic. With bisyllabic stems, the Imperfective Negative allomorph is -nv́-. The combination /Cv̀rù-nv́-/ undergoes Early u-Syncope and Rhotic Deletion, and shows up as Cv̀-nv́-. This now satisfies the environment for Backward

Nasalization, but one wonders whether it is too late at this point in the derivation for the nasalization rule to apply. The data are in (xx4).

(xx4)	gloss	Imperative	Imperfective Negative
a.	'come'	yèrí	yè-nó-
	'measure'	yàrá	yà-ná-
	'do farming'	wàrá	wà-ná-
b.	'be hurt'	lùrɔ́	nù-nɔ́-

There is no nasalization of the initial semivowels in the Imperfective Negative forms in (xx4.a). However, the initial /l/ in (xx4.b) does nasalize to n. It seems quite odd that /l/ but not semivowels nasalize here, given that semivowels (and /r/) elsewhere have a greater propensity to nasalize than other consonants including /l/. Again, though, the initial n is original (cf. Jamsay nùrⁿó 'pain').

Backward Nasalization is formulated in (xx5).

(xx5) **Backward Nasalization**

a. constraint: initial semivowels must be nasalized within stems beginning in CvN... with N a nasal or nasalized consonant.

b. stem-initial {y w l} become {yⁿ wⁿ n} in Cv- stems before a suffix beginning with a nasal or nasalized consonant.

c. stem-initial /l/ becomes n in a Cvrv- stem that reduces (by Early u-Syncope and Rhotic Deletion) to Cv- before a suffix beginning with a nasal

3.6.1.3   *Alternations of /l/ with /n/*

Among the examples where TT l corresponds to n in several other Dogon languages are these: lá 'spend the night', ló 'go in', làrá 'bear (child)', and lùrɔ́ 'be hurt'.

Aside from the cases of /l/ > n by Backward Nasalization described in the preceding section, the following minor alternations of /l/ and /n/ may be mentioned.

I recorded the term for 'Bella (member of Bella ethnic group)' as singular bènè-rⁿú (presumably < *bèlè-rⁿú) but plural bèlĕ-m. The term for 'Fulbe

(person)' is púnɔ̀-rⁿú, plural púlɔ̌-m. For both 'Bella' and 'Fulbe', the stem-medial n variant is associated with Singular suffix -rⁿú, while the l variant is associated with Plural -ḿ (allomorph of -mú).

Associated with adjective nôm 'sour', I recorded a verb lóló 'become sour'.

Related to the common verb jèló 'pass' is the comparative 'be/do more (than X)' pattern based on the stative construction [X jĕl dà], literally something like 'be in a state of having (sur-)passed X'. This is pronounced jĕn dà by some speakers, though they do not have n in jèló 'pass' itself, suggesting that the comparative construction is no longer structurally transparent (§xxx).

3.6.1.4 Alternation of /g/ with /ŋ/

This occurs as a quirky feature of inchoative verbs that are based on adjectives with medial g. The examples are wà:gá 'distant' with inchoative wⁿáŋú-lá 'go far away', and tègĕy 'small' with inchoative téŋú-lá 'become small'. See (xx3.b) in §9.4.

3.6.2 Vocalic rules sensitive to syllabic or metrical structure

3.6.2.1 Medial alternations of mr with mbur and of ŋr with ŋgur

It has been difficult to determine the likely native-speaker representation of some stems and stem-suffix combinations where both /mr/ and /mbur/ seem to be possibilities. Likewise with cases involving /ŋr/ and /ŋgur/. Here I will first discuss stem-internal cases, then those involving a stem ending in m or ŋ and a suffix beginning with r.

Examples of relevant stems are in (xx1).

(xx1)	gloss	trisyllabic	bisyllabic
a.	'brush away'	dàmbùrá, dàmᵇùrá dàmúrá	dàmrá, dàmᵇrá
	'large fruit'	kùmbúrù, kùmᵇúrù kùmúrù	kŭmrù, kŭmᵇrù
	'window'	dómbúrĕy, dómᵇúrĕy dómúrĕy	dómrĕy, dómᵇrĕy
b.	'wipe off'	súŋgúrɔ́, súŋᵍúrɔ́ súŋúrɔ́	súŋrɔ́, súŋᵍrɔ́
	'shape balls'	màŋgùrá, màŋᵍùrá	màŋrá, màŋᵍrá

By [mᵇ] and [ŋᵍ] I imean nasals with a brief oral release. In the trisyllabic pronunciations, the medial (i.e. second) syllable is metrically weak, so its /u/ is articulated as a brief vowel of variable quality, ranging from schwa to [i] or [u] depending on flanking consonants and vowels. Therefore the difference among the several variants given for each form are more subtle than the transcriptions suggest.

Two analyses suggest themselves. In one, the inputs are /mr/ and /ŋr/, and the other outputs are the result of a u-Epenthesis rule and/or the development of an oral release or a full-fledged oral voiced stop at the end of the nasal. In the second, the underlying representation is something like /mbur/ or /ŋgur/, with the metrically weak /u/ then subject to reduction and perhaps complete deletion.

The advantage of the second analysis is that it accounts for the failure of the /r/ to nasalize to rⁿ even in variants like màŋrá and màŋùrá where there is no audible oral stop or oral release between the nasal and the /r/.

Similar issues arise when we consider combinations of Cvmv- and Cvŋv- verbs with r-initial suffixes, specifically Reversive -rv́-, Perfective Negative -rí-, or Imperfective -rɩ̀-. (xx2) exemplifies the issues using the Perfective Negative, for which only the trisyllabic and bisyllabic extremes are shown, but which have the same gradation of forms seen above for the stem-internal cases. Cvwⁿv- verbs are included with true Cvmv verbs (xx2.a) since the /wⁿ/ becomes m in syllable-final position.

(xx2)	gloss	Imperative	Perfective Negative	
			trisyllabic	bisyllabic
a.	'look for'	yⁿòmó	yⁿòmbù-rí- etc.	yⁿòm-rí- etc.
	'malfunction'	yⁿàwⁿá	yⁿàmbù-rí- etc.	yⁿàm-rí- etc.
b.	'sit'	ɗĩŋé	ɗĩŋgù-rí- etc.	ɗĩŋ-rí- etc.

The [mb] and [ŋg] pronunciations, with at least some kind of oral release, do not occur in the Imperative, and would be quite impossible in the case of 'malfunction' with its /wⁿ/. Given this, and given the widespread occurrence of presuffixal syncope of the final /u/ of bisyllabic combining forms, i.e., /CvCu-/ becoming /CvC-/, it seems obvious that the phonological derivations are of the type (xx3).

(xx3)	a.	/yⁿàwⁿù-rí-/	underlying (combining form plus suffix)
	b.	/yⁿàwⁿ-rí-/	syncope

c. y^nàm-rî-   /w^n/ > m

d. y^nàmbù-rî- etc.   optional Epenthesis and Oral Release

That is, the bisyllabic type y^nàm-rî- is derived first, and the trisyllabic output y^nàmbù-rî- is a further development from it.

However, there is again the question, why does the /r/ not nasalize, given that throughout (xx3.a-c) it is in the environment that normally triggers this process?

This, and the fact that my assistant preferred the trisyllabic pronunciations in careful style, suggests the possibility that trisyllabic y^nàmbù-rî- is in fact the first pronounceable output of the phonological derivation. In this view, the bisyllabic outputs of the general type y^nàm-rî- are relatively low-level reductions of the trisyllabic form, as suggested schematically in (xx4).

(xx4) a. /y^nàw^{n}ù-rî-/   underlying (combining form plus suffix)

b. /y^nàw^n-rî-/   syncope

c. /y^nàm-rî-/   /w^n/ > m

d. y^nàmbù-rî- etc.   Epenthesis and Oral Release

e.   "   Forward Nasalization (fails to apply)

f. y^nàm-rî- etc.   optional syncope (or similar lenition)

The interesting feature of this derivation is that (xx3.c) and (xx3.f) may be identical in form, although the forms in question are modified in between, a conclusion unlikely to win favor from phonologists who believe that all phonological processes are driven by the quest for the optimal output. The key move is that the nasal acquires an oral release of some kin at (xx3.d), which then blocks Forward Nasalization. I actually find this derivation more compelling than that in (xx2).

The alternations described above occur to a lesser extent before dà 'be' in a stative construction with preceding verb in its combining form. The trisyllabic variants are possible in the case of /ŋ/ (xx5.a) but not /m/ (xx5.b).

(xx5)		gloss	Imperative	stative construction	
				trisyllabic	bisyllabic
	a.	'sit'	đìŋé	đìŋgú dà, etc.	đĭŋ dà
	b.	'look for'	y^nòmó	—	y^nŏm dà
		'malfunction'	y^nàw^{n}á	—	y^năm dà

I have occasionally heard similar pronunciations of nouns or adjectives before dà 'be' or Dative dè. Thus dative děŋ dè 'to/for (the) place' is sometimes heard as dèŋgú dè.

Lateral /l/ combines unproblematically with a preceding peripheral nasal: pìlĭ-m-lí 'did not make (it) white'.

3.6.2.2   Early and Late u-Syncope

There are few opportunities for nouns to syncopate because of their limited suffixal morphology. Where syncope may have occurred historically, the synchronic representation has been updated.

Syncope of a short high vowel, written u, is quite important in verbal morphology, the key target being the stem-final vowel preceding a derivational or inflectional (AN) suffix. There are some analytic difficulties here. It is necessary to distinguish **Early u-Syncope**, which may lead to the operation of CC-cluster rules (some of them fairly unusual), and **Late u-Syncope** typical of allegro speech.

An example of Early u-Syncope is the combination of 'laugh' (Imperative mɔ̌:, underlying combining form /mɔ̀wú/) with Future -yàrà- as mɔ̌m-bàrà- (variants mɔ̌m-màrà-, mɔ̌m-mᵇàrà-). Here the syncope leads to consonantal changes, first the syllable-final shift of /w/ to m (§3.xxx), then an idiosyncratic CC-cluster rule converting /my/ to mb or mmb (with oral release), which then optionally simplifies to mm.

An example of Late u-Syncope is the sporadic reduction of Perfective-II kúlú-sò- 'put' to kúl-sò-. Here the targeted vowel, though being in a metrically weak position, is usually pronounced in careful speech. The only consonantal adjustment that is conditioned by Late u-Syncope is the occasional conversion of rⁿ to n before another consonant, as in Perfective-II kárⁿú-sà- 'did', which can be heard in allegro speech as [kánsà].

As the examples above show, both Early and Late u-Syncope occur at the juncture between a (nonmonosyllabic) verb stem and a suffix. Indeed, they can both occur in connection with the same verbal suffix, depending on the preceding consonantism, as in forms of Perfective-Ib -wɔ̀sɨ̌-/-wòsɨ̌-. When the preceding verb (in combining form) is Cvlú- with lateral l, there is no Early u-Syncope and we get forms like kúlú-wòsɨ̌- 'put-Past', which may undergo optional Late u-Syncope to kúl-wòsɨ̌-. On the other hand, nùŋɔ́ 'sing' has Perfective-Ib variants based on nǔŋ-gɔ̀sɨ̌. This calls for Early u-Syncope followed by CC-cluster adjustments.

Certain consonants require Early u-Syncope in the correct morphological enviroment: **semivowels {y w yⁿ wⁿ} plus m**.   These consonants induce syncope not only at the end of bisyllabic stems, but also at the end of trisyllabic

and longer verbs stems, which do not syncopate the final vowel after other consonants. Thus bùrùmɔ́ 'make mound' has combining form bùrŭm- before suffixes, and bǐrǐyó 'go back' has bǐrǐy-, illustrating third-syllable Early u-Syncope after a semivowel or m. Contrast wǐwǐsó 'put a pinch' with combining form wǐwǐsú-, and yǐyǐró 'sprinkle' with combining form yǐyǐrú-, where the third syllable keeps its ú.

Early u-Syncope applies under more limited conditions after the **remaining sonorants**, i.e. {ŋ n l r rⁿ}. Only bisyllabic CvCu- stems before a suffix permit Early u-Syncope after these consonants, unlike semivowels and m (which also require syncope in the third syllable of CvCvCu- stems). Within bisyllabics, which subset from among {ŋ n l r rⁿ} induces Early u-Syncope is variable, depending on the particular following suffix. The details are best reserved for the relevant sections of Chapters 9 (derivational) and 10 (inflectional).

In the combination CvCu-Cv... with bisyllabic stem and a suffix, if the second vowel from the left is not deleted by Early u-Syncope, it is still in a metrically weak position and is usually schwa-like. It is optionally syncopated entirely if the flanking consonants permit. This is the case with kúlú-sò- 'put' (Perfective-II), syncopated variant kúl-sò-, mentioned above. The second syllable from the left is likewise metrically weak in underived CvCuC₃v verb stems (excluding cases where C₃ is a semivowel or m and the final vowel is syncopated). Here again, the second vowel is schwa-like and may disappear if the flanking consonants permit. I interpret this to be **Late u-Syncope**, which is essentially just the limiting case of low-level vocalic reduction in a metrically weak position. Some trisyllabic examples are in (xxx), where the second-syllable /u/ is understood to be weak and occasionally syncopated.

(xx1) gloss	Imperative	Imperfective	Negative Future

	gloss	Imperative	Imperfective	Negative Future
'soar'	yàlùrá	yàlùrù-ná	yàlùrí-yàrà
'massage'	yⁿùmùnɔ́	yⁿùmùnù-nɔ́	yⁿùmùní-yⁿàrⁿà
'go far'	wⁿáŋúlá	wⁿàŋùlù-ná	wⁿàŋùlí-yàrà

The Early u-Syncope rule is given informally as (xx2). The details of (xx2.b) are specific to particular suffixes and are given in the relevant sections of chapters 9 (derivational) and 10 (inflectional). The targeted vowel is underlined.

(xx2) **Early u-Syncope** (obligatory)

a) $CvC_2\underline{u}$-Cv with bisyllabic stem and C_2 = semivowel or m : the $\underline{u}$ is deleted (unrestricted)

b) $CvC_2\underline{u}$-Cv with bisyllabic stem and $C_2 = \{\eta\ n\ l\ r\ r^n\}$: the $\underline{u}$ is deleted (various phonological and morphological restrictions)

c) $CvCuC_3\underline{u}$-Cv with trisyllabic stem and C_3 = semivowel or m : the presuffixal $\underline{u}$ is deleted (unrestricted)

The Late u-Syncope rule is given in (xx3), with the targeted vowel underlined. A full analysis will not be given here of the fine points, such as which pairs of flanking consonants lend themselves to full syncope. A sibilant after the targeted vowel, as in wàgùsá 'knead', does favor syncope regardless of the preceding consonant. Otherwise, stops and n preceding the targeted vowel disfavor syncope. Identical consonants seem to avoid syncopating (which would produce a geminate), for example in súmú-mɔ́ 'cause to be wrinkled'.

(xx3) **Late u-Syncope** (optional, low-level)

CvC$\underline{v}$Cv with or without morpheme boundaries: schwa-like second vowel, written /u/, in weak metrical position is optionally deleted in allegro speech if flanking consonants permit

3.6.2.3   *u-Apocope*

Apocope (final-vowel deletion) is closely related to syncope. Because verbs have a combining form that occurs both before suffixes (derivational and inflectional), and in VP-chains without a suffix, the same final u-vowel is involved in both pre-suffixal syncope (described above) and in interword apocope (in chains). In fact, one could question whether a chain of two verbs (the first in the bare combining form, the second inflected) might not be considered a compound-like structure. Indeed, in the Future inflection (suffix -yàrà- plus {LH} stem tone contour), a chained verb may be treated as part of the inflected verb stem, so the tone-dropping that this suffix imposes on all but the final mora of the stem (§xxx).

However, the same apocope that we see in verb chains also applies to the verbal noun in suffix -ú, which is often prepausal. The verbal noun and the combining form are audibly distinguishable by tone only, and only when the lexical tone is all-high (the verbal noun has a {LH} contour). For examples of the -ú verbal noun see §4.2.2.1.

At any rate, the underlying final /ú/ of combining forms and verbal nouns of nonmonosyllabic verbs is deleted in much the same way it is in verb-suffix combinations (where I refer to the deletion as syncope). One might therefore distinguish Early and Late u-Apocope. However, neither chained combining forms, nor verbal nouns, are involved in the quirky CC-cluster rules that make the distinction between Early and Late u-Syncope so important in verbal inflectional morphology. Instead, apocope may be obligatory or optional, depending on syllable count and on the consonant preceding the targeted vowel.

(xx1) **u-Apocope (combining form of verb, also -ú verbal noun)**

obligatory:
a) $CvC_2 u$ with bisyllabic stem and C_2 = semivowel or m: the u is deleted (unrestricted)
b) $CvCuC_3 u$ with trisyllabic stem and C_3 = semivowel or m: presuffixal u is deleted (unrestricted)

optional
c) $CvC_2 u$ with bisyllabic stem and C_2 not as in (a): the u is optionally deleted if the flanking consonants allow this

3.6.2.4 Monosyllabic-Stem Vowel-Lengthening

Verbs of the shape Cv́ do not lengthen their vowel before AN (i.e., inflectional) suffixes. However, they do lengthen the vowel (of the combining form) to Cv́:- before certain derivational suffixes.

Three relevant reversive derivatives are given in (xx1.d) in §9.1. An example is tɔ́ 'step on', reversive tɔ́:-rɔ́ 'take foot off'. Contrast an AN form like Perfective-II tɔ́-sɔ̀-
'stepped on'.

From the causatives in §9.2, the relevant derivation is from lɛ́ 'eat (meal)', with combining form lî-, to causative lî:-má 'feed'. From the deadjectival inchoatives in §9.xxx, the relevant pair is adjective gá 'big(ger)' and inchoative gá:-lá 'become big'.

There are no counterexamples known to me of the generalization that Cv́- lengthens to Cv́:- before Reversive suffix -rv́-, Causative suffix allomorph -mv́-, and Inchoative suffix allomorph -lv́-. In this sense, the lengthening rule is productive, although a relatively small set of forms is involved.

(xx1) **Monosyllabic-Stem Vowel-Lengthening**

Cv́- verb stem > Cv́:- before a productive derivational suffix

The lengthening does not apply to idiosyncratic, frozen causatives not involving a productive Causative suffix: ɗìró 'cause to bathe' from intransitive ɗî\\ɗé 'bathe', nɛ̀wⁿá 'give drink to' from nî\\nɛ́ 'drink', and gùŋó 'take out' from intransitive gú\\gó 'go out'.

3.6.3   Local consonant cluster rules

3.6.3.1   *Assimilations involving 1Sg m̀*

The 1Sg pronoun has a full form mî or m̀ᵇi as an independent pronoun (§4.3.1). In most grammatical contexts it lacks a vowel, has low tone, and may be represented as m̀ (or m̀ᵇ). Before a vowel, for example the Imperfective particle á, the verb áwá 'catch' (xx1.a), or (as possessor) the noun îló 'house', the 1Sg morpheme appears as m̀ or m̀ᵇ with oral release. My primary assistant strongly preferred m̀ᵇ in careful style.

Before a consonant other than /h/, the 1Sg morpheme behaves like an underspecified nasal. It therefore acquires place features from the following consonant (xx1.b-d).

(xx1)   a.   m̀ᵇ   áw-wɔ̀sǐ-wɔ́
              1SgO   catch-Perf1b-3SgS
              'He/She caught me.'

        b.   ǹ   téw-wɔ̀sǐ-wɔ́
              1SgO   hit-Perf1b-3SgS
              'He/She hit me.'

        c.   ŋ̀   wɔ̌:-sǐ-wɔ́
              1SgO   see-Perf1b-3SgS
              'He/She saw me.'

        d.   m̀   págú-wɔ̀sǐ-wɔ́
              1SgO   tie-Perf1b-3SgS
              'He/She tied me up.'

The assimilation rule is (xx2). It is an idiosyncracy of the 1Sg morpheme and does not apply, for example, to verb stems ending in m in the combining form before a suffix.

(xx2)   Assimilations of 1Sg /m̀/ to a following consonant
        n before alveolar {t d n s z l} or palatal {y j}
        m before labial (p f m} and before h
        ŋ before velar {k g ŋ} and before w

I make no orthographic distinction between n before alveolar, and n before palatal, but in the latter case the n is articulated in the palatoalveolar area.

The 1Sg morpheme is pronounced m̀ before /h/, as in m̀ há:jè 'my need(s)'. Since /h/ has no supralaryngeal articulatory gesture it does not interact with the basic labial articulation of the nasal. /h/ occurs word-initially in Fulfulde loans like há:jè.

3.6.3.2   /w^n/ > m

In verbs like 'die', alternations like that of Imperative núw^{n}ó, combining form núm (in chains), Imperfective nŭm-màrà, and Perfective Negative nùmbù-rí (< /nùm-rî/), we see that lexical (i.e. underlying) /w^n/ surfaces only between vowels. In syllable-final position (word-finally, or preconsonantally within a word), it shifts to m. The shift is independent of the quality of the preceding vowel; compare 'be ruined' with Imperative y^{n}àw^{n}á and combining form y^{n}ǎm, and 'drown' with Imperative nèw^{n}á and combining form nĕm.

(xx1) /w^n/ > m

      /w^n/ shifts to /m/ in syllable-final position

The shift is fed by u-Syncope, which applies in the Infinitive and in the suffixed verb forms cited above (but not in the Imperative).

Because of this shift, at least one pair of verbs that have different imperatives is merged in the combining form and in the inflections based on the combining form: sám\\sámá, itself perhaps etymologically composite, meaning 'pick out, select' (cf. Jamsay sáná) or 'strain water from (wild peas' (cf. Jamsay sá:), versus sám\\sáw^{n}á 'fence in (with thorn branches' (cf. Jamsay sáɲá).

There is no parallel shift for /y^n/, hence 'steal' has Infinitive gǔy^n, Perfective gǔy^n-wòsĭ, and Imperative gùy^{n}ó.

44

3.6.3.3   Summary of CC processes at verb-suffix boundary

The tabular representation (xx1) summarizes the outputs at the boundary of a CvCv- verb, syncopated to CvC- before a C-initial verb suffix. It is assumed that the syllable-final shift of $/w^n/$ to m has already taken place. It is also assumed that stems with final /r/ or $/r^n/$ have forced suffixes that otherwise begin with /r/ after stems of this syllabic shape to **default to their other allomorph** (which is normally reserved for trisyllabic stems). Specifically, Imperfective -rv̀- is replaced by its allomorph -tv̀-, and Perfective Negative -rî- is replaced by its allomorph -lî-. The stem-final input consonant is shown in the vertical column on the left, and the suffix-initial input consonant is shown horizontally across the top.

(xx1)	w	y	r	l	n	s	t
m	mb/mm	mb/mm	mbur				
ŋ	ŋg	ŋg	ŋgur				
w		ww					
r			l	l	n		t
r^n			l	l	n		t
l			ll		nn		
n			nn				
t						tt	

The blank cells in the table indicate either that the combinations are not produced by Early u-Syncope (e.g. /nl/, or else that no change occurs (e.g. /nn/, /ml/). The data are sparse for suffix-initial l and t, which are confined to suffixal allomorphs of limited distribution.

In the changes that are shown in the table, four themes emerge. These correlate, respectively, with the topmost three rows, the middle two rows, and the lowest three rows of the table proper (excluding headings). First, suffix-initial semivowels fuse in a somewhat complex way with a preceding peripheral nasal, or in one case with a nonhomorganic semivowel. Second, two rhotics (/rr/ or $/r^n r/$) combine to form ungeminated l. Third, rhotics are deleted before suffix-initial coronals {l n t} but not s. Fourth, some clusters of similar but nonidentical coronal consonants simplify to geminates; one subset of cases involves two sonorants, another is the specific case of /ts/ > tt. These are

described in the following sections. For the cases of mbur for /mr/ and of ŋgur for /ŋr/, see §3.xxx, above.

3.6.3.4 Semivowel Fusion (/mw/, /my/, /ŋw/, /ŋy/, /wy/)

In the inflectional categories whose suffixes begin with w or y, this semivowel may fuse with the stem-final consonant (after Early u-Syncope). The relevant suffixes are Perfective-Ia -wɔ̀rè-/-wòrè-, Perfective-Ib -wɔ̀sǐ-/-wòsǐ-, and Future -yàrà-.

The cluster yw is stable, but /wy/ > ww.

(xx1) a. yǎy-wɔ̀rè
           go-Perf1a
           'went'

       b. ǒw-wàrà
           give-Fut
           'will give' (-yàrà-)

In the nasal-semivowel combinations, the phonetic outputs are rather varied and the phonology is not completely clear. The relevant combinations are /mw/, /my/, /ŋw/, and /ŋy/, as alveolar n disallows Early u-Syncope of a following vowel before a semivowel.

Basically, the nasal /m/ or /ŋ/ pushes rightward into the prosodic slot of the suffixal semivowel. As a result, suffix-initial /y/ vanishes, and /w/ may also disappear (but does not always do so). The situation is complicated by the fairly strong tendency of the nasal to develop a terminal oral release or even a full voiced stop, hence [mb] or [m^b] varying with [mm], and [ŋg] or [ŋ^g] varying with ŋŋ. A suffixal /w/ is sometimes, but it fails to nasalize by Forward Nasalization, suggesting that this variant is parasitic on some variant with an oral release to the nasal.

(xx2)		gloss	Imperative	Perfective-I (a or b)	Future
	a.	'die'	núw^{n}ó	nŭm-bɔ̀rè- nŭm-m^{b}ɔ̀rè- nŭm-mɔ̀rè- nŭm-wɔ̀rè-	nŭm-bàrà- nŭm-m^{b}àrà-
	b.	'sing'	nùŋɔ́	nŭŋ-gɔ̀sǐ- nŭŋ-ŋ^{g}ɔ̀sǐ-	nŭŋ-gàrà- nŭŋ-ŋ^{g}àrà-

nŭŋ-ŋɔsĭ-   nŭŋ-ŋàrà-
nŭŋ-wɔsĭ-

The rules are formulated as (xx3). To my knowledge they apply only in the morphology of bisyllabic verbs, but I can find no other contexts where the relevant combinations occur, except a few adverbial reduplications with /wy/ like yéréw-yéréw 'striding fast'.

(xx3)   **Semivowel Fusion** (verb-suffix boundary)

    a.   /wy/ > ww

    b.   suffix-initial {y w} fuse with a preceding peripheral nasal {m ŋ}, allowing the nasal to penetrate into the prosodic slot of the semivowel (fully for /y/, fully or partially for /w/); the nasal may also develop an oral release

(xxx.b), regarding the nasals, should be placed in a larger context including the development of /mr/ to /mbur/ and of /ŋr/ to /ŋgur/, though in these cases the /r/ does not fuse with the nasal (on the contrary). See §3.6.2.1 for discussion.

3.6.3.5   Rhotic Dissimilation

The combination of stem-final /r/ or /rⁿ/ plus suffix-initial /r/ after syncope is realized as l, if we factor out cases where the stem-final rhotic has forced the suffix to default to another allomorph not beginning with /r/. Admittedly, this means disregarding the majority of rhotic-final stems, which do force this default.

In the Imperfective, the default from -rv̀- to the other suffixal allomorph -tv̀- is observed with most of the relevant verbs, and the resulting /rt/ or /rⁿt/ surfaces as t by Rhotic-Deletion, as in sórⁿó 'call', Imperfective só-tò-, and céré 'wait', Imperfective cé-tò-.

However, two "irregular" Imperfectives show l instead of t. I analyse them as cases where the default to -tv̀- does not take place, so in effect these irregularities show the authentic treatment of /rr/ and /rⁿr/. The relevant examples are in (xx1).

(xx1) gloss   Imperative   Imperfective

   'do'   kárⁿá   ká-là-

'encounter'   ɗìrⁿá   ɗî-là (alongside regular ɗî-tà-)

Admittedly, this is a slender evidentiary base for a phonological rule. However, if this line of reasoning is accepted, we apparently have /rⁿr/ combining as ungeminated l. The most sensible analysis is to have the suffixal /r/ **dissimilate** to the preceding rhotic, becoming /l/. Later the stem-final /rⁿ/ is deleted before /l/, as it does before Perfective Negative allomorph -lî-, see Rhotic-Deletion, below.

A **different dissimilation** is seen in reversive derivatives from Cvrv stems. The productive Reversive suffix is -rv́-. Early u-Syncope does not occur in this combination. From tárá 'be stuck on' we have tálú-rá- '(something stuck on) be taken down or off', and from màrá (m̀ᵇàrá) 'be lost' we get màlù-rá (m̀ᵇàlù-rá) '(something lost) be found'; see §9.1. So here it is the stem's rhotic, not the suffixal rhotic, that shifts to /l/. (I have no examples of reversives from Cvrⁿv-stems.) The reversive data do at least confirm an avoidance of rhotic-rhotic sequences.

Recognizing that the data are sparse and analytically problematic, I offer the dissimilation rules as (xx2).

(xx2)   **Rhotic Dissimilation**

    a.   in reversives: Cvrv-rv- > Cvlv-rv-

    b.   in Imperfective verbs (with -rv̀- allomorph): /rr/ > /rl/
       (feeds into Rhotic-Deletion, resulting in /l/)

3.6.3.6   Rhotic Deletion (before coronal)

A rhotic /r/ or /rⁿ/ is deleted before a nonrhotic coronal consonant (n, t, l, s) within a word at a morpheme boundary, following Early u-Syncope of the intervening vowel. Early u-Syncope applies to bisyllabic verbs of the shape CvCv-, so Rhotic Deletion occurs in bisyllabics ending in ...rv- or ...rⁿv- before Imperfective Negative -nv́-, Imperfective allomorph -tv̀-, and Perfective Negative allomorph -lî-. It does not normally apply before Perfective-II -sv̀-, which does not allow Early u-Syncope (though it is very receptive to Late u-Syncope). However, a handful of irregular Perfective-II forms like that of /zê:rú-/ 'bring' do exceptionally require Early u-Syncope before Perfective-II -sv̀-, which leads to the deletion of the /r/; details in (§10.1.1.3) . Examples are in (xx1). The relevant suffixal forms of the irregular verb 'bring' are based on /zê:rú-/ rather than on the Imperative zér̆ (§10.1.4.2).

(xx1) gloss　　　Imperative　Imperfective　ImpfNeg　PerfNeg　Perfective-II

'chase'　nàrⁿá　　ná-tà　　　nà-ná　　nà-lî　　(not relevant)

'sell'　　dɔ̀rɔ́　　dɔ́-tɔ̀　　　dɔ̀-nɔ́　　dɔ̀-lî　　(not relevant)

'bring'　zéřì　　　zé:-tò　　　zê:-nó　　zê:-lî　　zê:-só-

　　　　[the combining form of 'bring' is /zê:rú/]

The clusters rn, rt, rs, and rl do occur in loanwords: dárnà '(a) call to Muslim worshippers to stand up', hàrtûm 'garlic', sártì 'time limit', cèrló 'bugle' (Fr *clairon*), dúrsà 'reciting from memory'. Therefore Rhotic-Deletion is a morpheme-boundary process.

(xx2) **Rhotic Deletion**

　　r or rⁿ is deleted when followed (after Early u-Syncope) by a suffixal

　　non-sibilant coronal consonant　{l n t s}.

3.6.3.7　Sonorant Assimilation

The following assimilations producing geminate consonants are observed in combinations of CvCv- stems with inflectional suffixes (after Early u-Syncope): /lr/ > /ll/ (with one exceptional case of /nn/ involving a derivational suffix), /ln/ > /nn/, /nr/ > /nn/. There are no cases of input /nl/ so we can only guess what its output would be.

　　Examples are in (xx1).

(xx1)　　　gloss　　　Imperative　suffix　　　combination

　　a. /lr/ > ll
　　　'do well'　céló　　　Impf -rv̀-　　cél-lò-
　　　　　　　　　　　　　PerfNeg -rî-　cèl-lî-

　　b. /lr/ > nn
　　　'cover'　　tílá　　　Reversive -rv́-　tín-ná-

　　c. /ln/ > nn
　　　'put down' dèlé　　　ImpfNeg -nv́-　dèn-nó-

49

d. /nr/ > nn
    'go up'   ùnɔ́   Impf -rv̀-   ún-nɔ̀-
                           PerfNeg -rî-   ùn-nî-

Since the output of /nl/ is indeterminate, if we allow these assimilations to follow Rhotic-Deletion (removing /rn/ and /rl/ from their status as clusters), we can summarize the rules as in (xx2).

(xx2) **Sonorant Assimilation** (verb-suffix boundary)

Clusters of any two of {l r n} are simplified to geminates based on the hierarchy n > l > r, with the higher-ranking sonorant generalizing its features to the other member of the cluster. Thus:

/nl/ or /ln/ > nn

/lr/ > ll (exceptionally nn in reversive derivation)

3.6.3.8   /ts/ > tt

This is a quirky backward assimilation that occurs only in the Perfective-II. The verbs in question are bisyllabic Cvtv- stems. Before Perfective-II -sv̀-, Early u-Syncope applies (syncope is not usual elsewhere for Cvtv- stems). The /ts/ cluster then appears as tt, as in tót-tò- 'showed', cf. Imperative tótó (§10.1.1.3).

I also recorded /ts/ > tt in the phrase mút tàrá-∅ 'is not numerous', cf. mútú 'much, many' and sàrá- 'not be'.

(xx1) /ts/ > tt at the stem-suffix boundary with Perfective-II -sv̀-, and at the boundary between an adjective and sàrá 'not be'.

I know of no Cvdv- verbs so I cannot determine whether a similar process applies after d.

3.6.3.9   /mr/ > mn

The irregular shift of /mr/ to mn after Early u-Syncope is attested in a handful of reversive derivatives: tɔ́m-nɔ́- 'unroll (turban)' (from tɔ́wⁿɔ́ 'roll on turban'), bùm-nó '(to) right (something flipped over)'. See (xx3.d) in §9.1. For the more usual treatment of /mr/ produced by Early u-Syncope in this position, namely mbur, see §3.6.2.1.

3.6.4 Intervocalic consonantal deletions and VV-Contraction

3.6.4.1 *Intervocalic Semivowel-Deletion*

In a number of CvCv verbs, a medial w that shows up consistently in the combining form Cvw- is deleted in the corresponding Imperative and relatived forms. There are some verbs that do this optionally, and some that are not attested with the deletion. The flanking vowels in the Imperative are in all cases identical non-high back or low vowels, i.e. either a_a, ɔ_ɔ, or o_o. When the /w/ deletes, the result is predictably a long a:, ɔ:, or o:. Most of the examples of deletion involve ɔ_ɔ, since there are few verbs of the shape /Cowo/ and since deletion has only been observed with one /Cawa/ verb ('catch').

(xx1)	gloss		combining form	Imperative
	a.	'catch'	áw-	áwá ~ á:
		'pull in'	yăw-	yàwá
		'jostle'	găw-	gàwá
		'knock off fruit'	zăw-	zàwá
		'carry on shoulder'	wăw-	wàwá
	b.	'poke'	sɔ́w-	sɔ́wɔ́ ~ sɔ́:
		'kill'	wɔ̌w-	wɔ̌:
		'run'	zɔ̌w-	zɔ̌:
		'ask (price)'	gɔ̌w-	gɔ̀wɔ́ ~ gɔ̌:
		'be accustomed'	lɔ́w-	lɔ́wɔ́ ~ lɔ́:
		'skim off foliage'	pɔ́w-	pɔ́:
		'get old'	yɔ̌w-	yɔ̀wɔ́ ~ yɔ̌:
		'get water'	kɔ́w-	kɔ́wɔ́ ~ kɔ́:
	c.	'harvest late millet'	gŏw-	gòwó ~ gŏ:

/wⁿ/ is also deleted under similar conditions for some verbs (xx2). If the /wⁿ/ contracts, the vowel is nasalized.

(xx2)	gloss		combining form	Imperative
	a.	'toss'	măm-	màwⁿá ~ mă:ⁿ
		'bump'	dăm-	dàwⁿá
		'become deaf'	pám-	pá:ⁿ

b.   'laugh'   mǒm-   mǒ:

     'roll on turban'   tɔ́m-   tɔ́wⁿɔ́ ~ tɔ́:ⁿ

     'scoop up'   sɔ́m-   sɔ́wⁿɔ́ ~ sɔ́:ⁿ

     'wake up'   yⁿɔ̌m-   yɔ̀wⁿɔ́

c.   'fold once'   kóm-   kó:ⁿ

The rule also applies to sequences involving a suffix-initial /w/, and there is even a context where /y/ is deleted in this position.

The Perfective-Ib suffix -wɔ̀sǐ-/-wòsǐ- deletes the /w/ after monosyllabic Cɔ́-, Có-, and (interestingly) Cá- verbs. There are no exceptions to this contraction. Examples are in (xx3).

(xx3) gloss   Imperative   Perfective-Ib

    'roast'   dɔ́   dɔ̂:-sǐ-

    'wrestle'   pó   pô:-sǐ-

    'shave''   ká   kâ:-sǐ-

The expected uncontracted forms would be #dɔ́-wɔ̀sǐ-, #pó-wòsǐ-, and #ká-wɔ̀sǐ-. The same contraction is seen in wɔ́- 'see', Perfective-Ib wǒ:-sǐ-, though here the Perfective-Ib appears to preserve an archaic rising tone contour.

The initial y of Future -yàrà- is also deleted after these same monosyllabic Cɔ́-, Có-, and Cá- verbs. This is unexpected, since Cvyv- verb stems do not lose their y (Imperatives yàyá 'go', dɔ̀yɔ́- 'become hot'). -yàrà- is the only suffix beginning with /y/.

(xx4) gloss   Imperative   Future

    'roast'   dɔ́   dɔ̂:-rà-

    'wrestle'   pó   pô:-rà-

    'shave''   ká   kâ:-rà-

The contraction does not occur when -yàrà- follows monosyllabic Cɛ́-, hence dɛ́-yàrà- 'will become tired'. However, in the (optional) third person plural variant /dɛ́-yèr-è/, contraction to dɛ̂:-r-è 'they will become tired' does occur.

Combining the verb-stem-internal (Imperative) and verb-suffix data, the generalization is that /w/ is subject to deletion between two vowels each from the set {o ɔ a}, and that a similar deletion applies on a morphologically

restricted basis to the /y/ of the Future suffix. All of the deletions occur when the targeted semivowel is at the onset of the second syllable in the word (from the left), but whether this is a factor as such in the operation of the deletion is unclear (the only verbs with combining forms ending in a non-high vowel are monosyllabic, so the necessary underlying vowel sequences are never found in combinations of longer verb stems with suffixes).

(xx5) **Intervocalic Semivowel-Deletion**

a. /w/ or /wⁿ/ is deleted when flanked by short low or mid-height vowels from the set {o ɔ a}, obligatorily at stem-suffix boundary but not always obligatory (and for some stems unattested) within a bisyllabic stem; deleted wⁿ leaves its nasalization on the contracted vowel.

b. /y/ in Future suffix -yàrà- is deleted (obligatorily) when flanked by short low or mid-height vowels {o ɔ a} or (after Suffix-to-Suffix Vocalic Assimilation) by two ɛ vowels

3.6.4.2   *Deletion of intervocalic /r/ (irregular)*

Brief mention may be made of an isolated case of a somewhat similar deletion of intervocalic /r/ in tandem with deletion of /w/. This is in the paradigm of the verb bèrú\\bèrá 'get, obtain', whose Perfective-Ib is irregularly bɛ̌:-sǐ- for expected #bèrú-wɔ̀sǐ-.

3.6.4.3   *VV-Contraction*

Two vowels may come together across a deleted consonant, usually /w/, less often /y/ or /r/. For the deletion, see especially Intervocalic Semivowel-Deletion (xxx).

Often the two vowels are already identical, so there is no suspense regarding the output vowel quality. The tones are likewise preserved, forming (if necessary) a contour tone (falling or rising).

Cases of nonidentical vowels contracting are given in (xx1).

(xx1)   a. Cv- verb plus AN suffix

/oa/ > o: /pó-yàrà-/ > pô:-rà- 'will wrestle'
/ɔa/ > ɔ: /dɔ́-yàrà-/ > dɔ̂:-rà- 'will roast'

b. Cvrv- verb before AN suffix

/ɛuɔ/ > ɛː   /bɛ̀rú-wɔ̀sĭ-/ > bɛ̌ː-sĭ- 'will get'

c. AN suffix plus third person suffix
/aɔ/ > ɔː   /-yàrà-wɔ́-/ > -yɔ̀r-ɔ̌ː -Future-3Sg
/oɔ/ > ɔː   /tórú-sò-wɔ́/ > tórú-s-ɔ̌ː jump-Perf2-3Sg

d. CV verb-AN portmanteau plus third person suffix
/aɔ/ > aː or ɔː   /là-wɔ́/ > l-ǎː or l-ɔ̌ː 'is going (to)'

One could attempt to unify these fragmentary data on grounds of phonological naturalness, but since many of the morphemes in question have only one vowel there is also the issue of preserving enough phonetic material to insure recognition of the stems and suffixes in question, particularly Cv́- verb stems and the 3Sg suffix.

In (xx1.b), if we assume that both /r/ and /w/ undergo intervocalic deletions, we actually have three vowels /ɛ̀úɔ̀/ contracting to ɛ̌ː. Since the /u/ is the marker of the combining form and conveys no lexical information, it can be sacrificed. This leaves /ɛ/ and /ɔ/, which here contract as ɛː, again preserving lexical over suffixal information (the suffix is initially bisyllabic and is therefore still clearly audible).

There are also some verbal suffix allomorphs, used with stems other than Cv́ monosyllabics, that are realized as final vowels that replace the vowels of the preceding verb stems (which may be underived or derived). In addition to the Hortative and the Verbal Noun in -ú, the combining form (also in -ú but with different tonal effects) may also be included here, although my regular transcription does not segment the combining form.

(xx2)   a. no tone change in stem
         -é\\-ɛ́   Hortative
         -ú   combining form of verb

         b. preceding stem drops tones
         -ú   Verbal Noun (preceding stem drops tones)

If these are represented as suffixes of the form -v (i.e. a vowel), they too must contract with the final vowel of the preceding stem, but unlike the cases in (xx1), this time the result is a short vowel.

3.7   Tonology

3.7.1   Lexical tones and overlaid tone contours

Each noun, adjective, numeral, verb, and other lexical stem has a lexical tone contour. These lexical tones may be overridden by superimposed stem-wide tone contours required by the inflectional morphology (in the case of verbs) or by the syntax (in the case of nouns and other NP components).

The one theoretically possible tone pattern that is excluded from the basic lexical form is all-low. That is, **every stem has at least one high-tone component**. Monosyllabic stems may therefore be H, F, or R but not L. Bisyllabics may be HL, LH, HH, RL, or LF, but not LL, and so forth. As a result of this constraint on lexical tone contours, morphologically or syntactically controlled stem-wide tone-dropping (to all-low) is **always audible**.

3.7.1.1   Lexical tones of verbs

Lexical tone contours for verbs are much more restricted than for other word classes. Verb stems have either an all-high tone or a rising {LH} tone contour. The lexical tone is observable in the Imperative, in the bare combining form (as in chains), and in a few suffixally inflected forms based on the combining form including the positive perfectives and the Hortative. In other suffixally inflected forms, the lexical tone contour is overridden by an overlaid tone contour determined by the suffix.

The predominant **monosyllabic** verb shape, excluding (C)vC syncopated from /(C)vCv/, is short-voweled Cv. Verbs of this type do not have the choice between all-high and {LH}; they are **all high-toned** Cv́-. Certainly this limitation correlates with the monomoraic (i.e. short-voweled) prosody of these Cv́- stems, since a contour tone such as R (i.e. <LH>) cannot be expressed on a single mora. But this may be putting the cart before the horse; if there were R-toned monosyllabic verbs, they could presumably just lengthen the vowel.

The Cv́- verb stems known to me are in (xx1).

(xx1)		Imperative	gloss	comment
	a. (C)v	bá	'learn'	
		cɛ́	'slaughter'	
		dá	'prop up'	
		dá	'endure'	
		dɛ́	'be tired'	
		dé	'carry'	

dɔ́	'arrive'	
dɔ́	'roast'	
dɔ́	'insult'	object is dɔ́
gó	'go out'	
jɛ́	'dance'	
kó	'yawn'	object is ká 'mouth'
kó	'split (wood)'	
kɔ́	'raise (child'	
ká	'shave'	
lá	'spend night'	
lɛ́	'eat'	
ló	'go in'	
lɔ́	'mount'	
ná	'forget'	
nɛ́	'drink'	
pó	'wrestle'	
sá	'become straight'	
só	'take, pick up'	
só	'drip'	
sɔ́	'lay down the second layer'	
tá	'avoid taboo'	
tɔ́	'sow, plant'	cognate nominal tǒw
tɔ́	'step on'	
zɛ́	'take out (hot coals)'	
zó	'be full'	

b. (C)v^n pɛ́^{n} 'be hardened and ripe'

c. wɔ́ 'see' some L-toned forms

A **vestige of an original R-tone** occurs in a few forms in the paradigm of wɔ́ 'see' (xx1.c), namely Perfective-Ib wǒ:-sì (for expected #wɔ̂:-sì, parallel to e.g. dɔ̂:-sì 'arrived'), and Perfective-II wò-sɔ́ (for expected #wɔ́-sɔ̀-, parallel to e.g. dɔ́-sɔ̀ 'arrived').

Verbs whose imperative is (or may be) of the syllabic shape Ca:, Cɔ:, or Co: are underlying bisyllabics with deleted /w/; see Intervocalic Semivowel-Deletion (xxx).

The only indisputable (C)vC verb stem is 'give', which has high tone (Imperative ów, combining form ów-).

For **bisyllabic** stems, the choice is between HH (xx2.a) and LH (xx2.b). When the final vowel of a (C)ὺCύ verb is syncopated, the rising contour is

56

realized as (C)v̌C-. A tonal minimal pair is yⁿŏm\\yⁿòmó 'look for' versus yⁿóm\\yⁿómó 'be stronger than'.

(xx2)   Imperative   gloss   combining form

a. all-high   táyá   'shoot'   táy-
               héló   'divide'   hélú-
               áwá   'catch'   áw-
               néŋó   'do for long time'   néŋú-

b. rising   bèrá   'get'   bèrú-
               yⁿàwⁿá   'malfunction'   yⁿăm-
               làrá   'bear child'   làrú-
               wⁿàyⁿá   'come to a boil'   wⁿăyⁿ-
               dà:ⁿsá   'throw'   dà:ⁿsú-
               bùyⁿsó   'become half-ripe'   bùyⁿsú-

There is one very unusual bisyllabic verb that has <HL>H tones in the combining form. This is 'bring', with Imperative zérì but combining form zê:rú (§10.xxx). The /rú/ syllable is often lost by an exceptional application of Early u-Syncope followed by regular Rhotic-Deletion.

For trisyllabic stems (simple or derived), and for quadrisyllabic stems (which are perhaps always derived), the choice is again between all-high and {LH}. In the latter contour, when the vowel of the final syllable is syncopated before a suffix (this is regular when the final consonant of the stem is a semivowel or m) we get e.g. CvCvCv́ > CvCv̌C-.

(xx3)   Imperative   gloss   stem before Perfective
                                                     suffixes

a. all-high   tóŋgúró   'pour'   tóŋgúrú-
               lálúrá   'stretch'   lálúrú-
               ólú-rú-mó   'make smooth'   ólú-rú-m-

b. rising   yèrìyó   'winnow'   yèrìy-
               žìgùtó   'vibrate'   žìgùtú-
               zègùrù-mó   'cause to be kaput'   zègùrŭ-m-

3.7.1.2   Lexical tones for unsegmentable noun stems

The only monotonal pattern is all-high (xx1.a). Of the two bitonal patterns, {LH} is very common in native vocabulary. {HL} occurs in comparatively few native nouns, but is very common with loanwords, especially from Fulfulde. Of the two tritonal patterns, {LHL} is more common than {HLH} but both are attested even in bisyllabic stems. {LHL} is also attested in two monosyllabic nouns, i.e. with bell-shaped <LHL> tone (xx1.d).

(xx1)		noun	gloss
	a. all-high	sélgîré	'mallet'
		séségé	'large rattle'
		jîŋgá:rú	'Ramadan holy day'
		kórú	'navel'
		néŋ	'blood'
		cé:ŋ	'tendon'
		kú	'head'
	b. {LH}	ɔ̀mɔ̀rⁿɔ́	'misfortune'
		nàŋá	'cow'
		ɛ̀rⁿá	'goat'
		nǔŋ	'grindstone'
		yⁿà-rⁿú	'woman'
	c. {HL}	îrù	'breast'
		mú:dù	'round bread'
		sé:dɛ̀	'awareness'
		êm	'milk'
	d. {LHL}	gɔ̌:-n	'griot with war tomtoms'
		pǎ:m	'understanding' (<Fulfulde)
		gǎ:rǐ	'saddle'
		gɔ̌:rɔ̀	'kola nut'
		kàjíyà	'act of clearing throat'
		àndǎrkà	'hammer'
	e. {HLH}	kâ:nú	'monkey'
		púlɔ̌-n	'Fulbe person'
		ténǎm	'hyena'

Cv monosyllabic stems, i.e. with a single mora, are invariably high-toned: ná 'mother', ló 'arm', zá 'millet cakes'. The corresponding contour-toned vowel-final monosyllables should be Cv̂: and Cv̌: (with long vowel), but these are not typical in TT. In a few cases a stem of the shape Cvwv has a contracted variant Cv:, cf. Intervocalic Semivowel-Deletion (xxx). Thus dáwà 'soluble ink' with variant dâ: attested in compounds, ɲɔ̀wⁿɔ́ ~ ɲɔ̌: '(the) cold' with variant ɲɔ̌:ⁿ. For Cv̂: I can cite the noun sî: 'kind (type)'.

Quadritonal stems are compounds or loanwords (which may be treated prosodically like compounds).

For discussion of the location of tone breaks in bitonal, tritonal, and tonally more complex nouns, see §3.6.1.4-5, below.

3.7.1.3   Noun stems with high tone on suffix only

A few nouns that usually occur with a human (Sg or Pl) suffix, whether syllabic or not, irealize the only high tone of the word form on the suffix. Examples are in (xx1).

(xx1)	gloss	Sg	Pl
a.	'Hogon (chief)'	ɔ̀ŋù-nú	ɔ̀ŋù-mú, ɔ̀ŋǔ-m
b.	'Gourou'	gùrǔ-n	gùrǔ-m

In the cases with nonsyllabic Sg or Pl suffix, one could also transcribe as e.g. ɔ̀ŋù-ḿ, bringing out the low-toned character of the stem.

For 'Hogon' compare the nonhuman noun ɔ̀gɔ́ 'chiefhood' (Fr *chefferie*), though the phonological relationship is now obscure.

Nouns of this type could be considered to have **no lexical high tone**, in which case the final mora of the word form raises its tone to satisfy the constraint against all-low-toned stems.

The alternative is to interpret the basic stems as e.g. /ɔ̀ŋǔ/ with a final rising tone whose high-tone element is realized on the suffix.

There is at least one noun with a parallel falling tone whose low-tone element is realized on the suffix: àlfâ-n 'holy man', plural àlfâ-m (i.e. àlfá-ǹ, àlfá-m̀), borrowed from Songhay.

3.7.1.4 Lexical tones for adjectives and numerals

A list of underived adjective stems is given in §4.5.1. The tonal possibilities are more or less the same as for nouns. Most adjectives have all-high tones or rising contours. Falling contours are uncommon but one can cite nôm 'sour' and tŏm 'cold; slow'.

Numerals are catalogued in §4.7. Simple numerals have all-high, rising, and falling contours.

3.7.1.5 Tone-component location for bitonal verb stems

Verbs with the rising {LH} lexical tone contour have the tone shift at the **final syllable** (which is always Cv with short vowel). If the vowel of this syllable is syncopated, the preceding syllable becomes rising-toned.

(xx1) gloss	Imperative	combining form
'throw'	dà:ⁿsá	dà:ⁿsú-
'become half-ripe'	bùyⁿsó	bùyⁿsú-
'vibrate'	žìgùtó	žìgùtú-
'cause to be kaput'	zègùrù-mó	zègùrǔ-m-

3.7.1.6 Tone-component location for bitonal noun stems

If the noun stem has only two moras, the two tone components each occupy one mora (xx1.a-b). In stems of the type (C)vCCv and (C)v:Cv, i.e. bisyllabics with long (bimoraic) initial syllable and short final syllable, the two tone components each occupy one syllable (xx1.c-d).

(xx1)	noun	gloss
a.	témè	'sieve'
	kúmò	'smoke'
b.	ìwó	'honey'
	pètá	'winnowing van'
c.	há:mnà	'stupid act'
	táŋkà	'colonial coin'

	sá:rà	'target'
d.	gà:rí	'last year'
	yⁿà:ŋá	'night'
	kɔ̀:ⁿsɔ́	'millet beer'

Consider now bisyllabic stems that **end in a bi- (or tri-)moraic syllable** (disregarding the structure of the initial syllable). Usually the falling contour {HL} has the tone split at the syllable boundary (xx2.a), but I recorded H<HL> with final falling tone in (xx2.b) where the final syllable is super-heavy. The rising contour {LH}, on the other hand, is normally realized as L<LH> with the tone split occurring inside the final syllable (xx2.d), though I have one example of LH (xx2.c).

(xx2)		type	noun	gloss
	a.	HL	túbàl	'large drum'
			gándòl	'yoke'
	b.	H<HL>	ságâ:w	'a breed of sheep'
			kúndô:w	'a breed of sheep'
			rúkû:	'bowing in prayer'
	c.	LH	bàtéŋ	'fromager tree' (*Ceiba*)
	d.	L<LH>	ǐsǒŋ	'name'
			mùkěy	'deaf mute'
			pòrěy	'wooden tablet'
			làwrěy	'trimming ax'
			sò:rⁿěyⁿ	'necked waterjar'
			mǐ:mǎ:	'spur'

(xx2.d) includes some diminutives ending in ěy.

We now turn to bitonal trisyllabic stems ending in a short syllable. A complicating factor is the possibility of compounding (synchronic or at least historical). In compounds like lɔ̀-sàgá 'ring (for finger)' where at least one component stem (here lɔ́ 'hand') is recognizable, the tone contour is presumed to be composed following tonal rules for compound initials and finals, so we disregard them here. In other cases, however, a trisyllabic stem may have originated as a compound and may retain its original tone contour. Bearing this in mind, consider the data in (xx3).

(xx3)	type	noun	gloss
a.	HHL	gársú:sù	'(military) exercises' (also gársû:s)
		séréndù	'wooden flute'
		láyyá:rè	'sacrificial ram for feast'
		sálígǐ	'ablutions'
		sádákà	'alms'
b.	HLL	lá:kàrà	'the Hereafter'
		kɔ́fɔrɔ̀	'colonial coin'
		píkǐnǐ	'colonial coin'
		lákkǐrǐ	'couscous'
c.	LLH	màŋgùrú	'ball'
		nùŋùlɔ́	'mid-day'
d.	LHH	nòndér^{n}á	'day'
		zàndúrú	'donkey'
		jàybánú	'vulture'
		dàkóró	'hyrax (mammal)'

For the falling contour {HL}, HHL is typical when the penultimate syllable is heavy (xx3.a). Both HHL and HLL occur when the penultimate and final syllables are both light (xx3.a-b), and further study might well reveal inter-speaker variation. For the rising contour {LH}, both LLH and LHH are attested (xx3.c-d). I take LLH to be the original default, since the cases of LHH are likely to reflect original compounds whose second element was high-toned. For zàn-dúrú 'donkey', compare Walo dúrù. In nòndér^{n}á 'day', a native speaker can perhaps still detect the presence of nŏŋ 'sun' and a form related to the verb dèr^{n}ú\\dèr^{n}á 'spend the middle of the day'.

There are relatively few trisyllabic nouns with final heavy syllable. All cases (other than compounds) are loanwords (mainly from Fulfulde) and have {HL} contour realized over the three syllables as HHL.

(xx4)	type	noun	gloss
	HHL	bó:bîyàl	'reed flute'

3.7.1.7   Tone-component location for tritonal and multitonal noun stems

If the tone contour is tripartite, i.e. {HLH} or {LHL}, there is no difficulty when the stem itself has three moras. Each tone component is realized on its own mora (xx1). The contour {LHL} is more common than {HLH}; for the latter, all examples known to me are given below. I know of no HLH trisyllabic stems, but <HL>H and H<LH> bisyllabics are attested.

(xx1)	type	noun	gloss
	LHL	wùsîyò	'bellows'
		tùkúsù	'mash'
		kàjíyà	'act of clearing throat'
		pùŋgúrɔ̀	'abomasum'
		wèrcîyà	'prayer beads'
		kòsîyò	'coughing'
		ǐsîyà	'sneeze (noun)'
		zàmánǐ	'era'
		sèytá:nǐ	'devil'
		gàrí:bù	'mendicant koranic-school pupil'
		nà:fíkǐ	'trouble-maker'
	<LH>L	dǎwrǐ	'trick, ruse'
		gǎ:rǐ	'saddle'
		mǎlfà	'rifle'
	L<HL>	sǐlâm	'legendary sword'
		wàlâŋ	'ceremonial rifle'
		àlfâ-n	'holy man'
		tùsûm	'pigeon'
		kàrûm	'stick to prevent suckling'
	HLH	[none]	
	<HL>H	kâ:nú	'monkey'
	H<LH>	púlɔ̌-n	'Fulbe person'
		ténǎm	'hyena'
		súrkù-nú	'Tuareg person'
		pálěy	'bier'
		tégěy	'a little'

If the stem has more syllables or moras than are needed to accomodate each tone component, the general pattern is that the tone components push to the right, so the last few moras or syllables have one tone component each. In (xx2.a-b), the mora is the critical unit. In (xx2.c), the penultimate syllable is bimoraic but carries the sole high tone of the word; these stems (all borrowed) have two preceding syllables, suggesting that in {LHL} the high tone must be realized no later than the onset of the third syllable. In (xx2.d), the long vowel in the second syllable seems to have attracted the high tone. (xx2.e) has prosody of a compound jàhán-námà, varying with contracted jǎ:n-námà.

(xx2)	type	noun	gloss
a.	L<LH>L	àndǎrkà	'hammer'
		àljěmnà	'paradise'
b.	LL<HL>	làsǐdân	'adjutant'
		kàpàrâl	'corporal'
c.	LLHL	àdùná:rⁿù	'world'
		àlàhɔ́rmɔ̀	'grace (of God)'
		àrsǐlá:mǐ	'Muslim'
		wàlàŋgá:rù	'cart poles' (also wàlàŋgâ:r)
d.	LHLL	àlmú:ĵìbù	'imam's respondent'
e.	<LH>HL	jǎ:nnámà	'hell' (also jàhánnámà)

Examples of nouns with four or more tone components are in (xx3). Fauna spp., particularly insects, are especially prominent in these data.

(xx2)	type	noun	gloss
a.	HL<HL>	kúmàndâw	'commandant'
	HH<LH>	sóm-pólǒm	'grasshopper sp.' (Acrida)
b.	L<HL>HL	pèrêm-pémmè	'grasshopper sp.' (*Oedaleus*)
	L<HL><HL>H	wàsâŋ-kôwró	'buprestid beetle sp.' (*Sternocera*)
	"	gòrôŋ-gômpó	'fruit bat sp.' (*Eidolon*)
	L<LH>HL	nànâm-dɔ́rǐ:	'paradise whydah' (bird)
	L<LH>LH	gèrêŋ-gè:ⁿsî	'namaqua dove' (*Oena*)
	HHH<LH>	dógúm-núwⁿěy	'tenebrionid beetle sp. (*Vieta*)
	"	yókúm-dó:rěy	'grasshopper larvae'

	LHHL	dàŋká-péɬì:	'grasshopper sp. (*Zacompsa*)

c. LLL\<HL\> kàtàrà-kâw 'noisy bustard sp.' (bird)
   "   kòtòrò-kôw 'kite' (hawk)

d. L\<HL\>HLH sègûm-ségìré   'grasshopper sp.' (*Kraussella*)
   "   žìnâŋ-góŋgùrɔ́ 'grasshopper sp.' (*Hieroglyphus*)
   "   bàtâŋ-kóŋgùró 'buprestid beetle sp.' (*Steraspis*)

These nouns are almost certainly treated prosodically as compounds by native speakers, even though the compound components have no identifiable independent meaning. In slow pronunciations given under elicitation, they are usually broken into two parts as suggested by the hyphens. Admittedly, the location of the "compound" break in the French loanword kúmàndâw 'commandant' is ambiguous (kú-màndâw or kúmàn-dâw), especially in view of the fortuitous similarity to kú 'head'. In the quadrisyllabic type (xx2.b) and in the five-syllable pattern (xx2.d), the natural break is between the second and third syllables, and this is reinforced by the \<HL\> tone on the second syllable. However, in the (onomatopoeic) type kàtàrà-kâw (xx2.c) the natural break is before the final syllable.

3.7.2 Grammatical tone patterns

3.7.2.1 *Derivational verbal morphology*

The addition of a -Cv- derivational suffix (Reversive, Causative) creates a new verb stem that is subject to the same constraints on tone contours as underived verbs. If the base stem has all-high tones, e.g. Cv́Cv́-, the derivative does as well, hence Cv́Cv́-Cv́-. If the stem has a {LH} tone contour, this contour is reapplied to the derivative, so a Cv̀Cv́- stem has derivatives of the form Cv̀Cv̀-Cv́- (note that only the final syllable is high-toned).

For examples see the lists in §9.1 (reversives) and §9.2 (causatives).

3.7.2.2 *Inflectional verbal morphology*

Inflectional suffixes are added to the combining form of the verb stem. In addition, some suffixes impose a tone contour on the stem. (xx1) summarizes the data. Verbal Noun suffixes are included. For examples see the sections cross-referenced.

(xx1) a. no change in stem tone before suffix
Perfective-Ia   -wɔ̀rɛ̀-/-wòrè-,   Perfective-Ib   -wɔ̀sǐ-/-wòsǐ-
(§10.1.1.1-2)
Perfective-II -sv̀- (§10.1.1.3)
Stative Negative -ǹgó- (§10.1.3.3)
Hortative -yⁿé/-yⁿɛ́ or -é/-ɛ́ (§10.4.4)

b. no change in stem tone except {LH} has tone split at morpheme boundary
Negative Imperative -lé/-lɛ́ and -ré/-rɛ́ (§10.4.2)

c. stem drops tones before suffix
Perfective Negative -rí- and -lî- (§10.1.2.2)
Imperfective Negative -nv́- and -rⁿv́- (§10.1.2.3)
Progressive -cî dà (§10.1.3.2)
Negative Imperative -kú (§10.4.2)
Verbal Noun -ú (with nonmonosyllabic stems only) (§4.2.2.1)

d. {LH} contour before suffix (H on final mora, any other moras L)
Future -yàrà- (§10.1.1.8)

e. all-high contour before suffix
Imperfective -rv̀- and -tv̀- (§10.1.1.6)
Verbal Noun -rěŋ (§4.2.2.2)

3.7.2.3   Grammatical contour extends to preceding stem (Future, Progressive)

An unusual feature of the Future inflection (suffix -yàrà-), and of the Progressive construction (-cî dà or -cî là, §10.1.3.2) is that the tone contour imposed on the preceding verb stem, the relevant part of which is low-toned, **extends leftward to include a tightly chained preceding verb** (which appears in the combining form). Such a chained verb therefore drops to all-low tone contour. Several main-clause verbs that take clausal complements require a complement VP ending in such a verb, an example being bɛ̀rá 'be able to, can' (special use of bɛ̀rá 'get, acquire'), §17.xxx. Contrast the tones of tórú 'jump' (combining form) in the Imperfective (xxx.a) and Future (xxx.b). See also nàrⁿù pàsî-yàrà 'will chase out (and leave)' (xxx.b) in §14.2.1.

(xx1) a. á   tórú   bɛ̀-t-ɔ̌:
Impf   **jump**   can-Impf-3SgS
'He/She can jump.'

b. tòrù   bèrí-yàrà-wɔ́
   jump.L   can-Fut-3SgS
   'He/She will be able to jump.'

c. làrù   hèl-cí   d-è≡bɛ́
   argue.L   share-Prog   be-3PlS-\3PlS
   'They kept arguing.' (2004-1a.05)

      Tonologically, one really should rebracket e.g. (xx1.b) as [tòrù-bèrí]-yàrà-wɔ́, where the brackets delimit the domain of the overlaid {LH} stem tone contour imposed by -yàrà-. In (xx1.a), by contrast, tórú has its regular combining-form tones, even though Imperfective particle á forces tone-dropping on the stem of the following Imperfective verb 'can'.

      The nonfinal chained verb drops tones to all-low even when the initial low tone is inaudible in the Future verb itself. This happens with Cv́- stems, which have Future forms of the shape Cv́-yàrà- (or a contraction thereof), since the stem has only one mora and expresses only the high-tone element. Thus nùŋ 'sing' instead of nǔŋ (or nùŋú) in (xx2), where Future lâ:-r-è 'will/would spend the night' (contracted variant of lá-yàr-è) is based on a Cv́- stem that has no room for the low tone of the {LH} stem contour.

(xx2) yⁿà:ŋá   nùŋɔ́   á   nùŋ   lâ:'r'è
     night   song   Impf   sing.L   spend.night-Impf-3PlS
     'They would stay up at night singing songs.' (2004-2a.08)

      The same tonal treatment (i.e. all-low tones on the nonfinal stem) occurs with certain tightly-knit complement nouns, including some fixed object-verb sequences ending in kárⁿá 'do'. Thus bárjà kárⁿá 'thank (someone)', bàrjà kàrⁿí-yⁿàrⁿà- 'will thank' with low-toned noun, tonologically rebracketable as [bàrjà-kàrⁿí]-yⁿàrⁿà-. Contrast e.g. bèlú ěw-wàrà- 'will buy a sheep', where the object has its lexical tone as in other verbal inflections.

      This expanded scope of a suffix-induced overlaid verb-stem tone contour **does not apply to negative suffixal inflections**, before which the verb stem drops tones while having no effect on any preceding element. Therefore high-toned tórú 'jump' is not tone-dropped in tórú bè-n-ǒ: 'he/she cannot jump' (Imperfective Negative) or in tórú bè-lî-wó 'he/she could not jump' (Perfective Negative), although bèrá 'can' (combining form bèrú) itself does drop tones before the negative suffix.

3.7.2.4   *Syntactically controlled tonal processes in NPs*

A serious discussion of this requires close analysis of NP structure and is therefore deferred until Chapter 6. There are both left-to-right (forward) and right-to-left (backward) tonal interactions. The basic operations are summarized in (xx1). The basic linear order is [possessor NP - [noun - adjective(s)] - numeral - determiner - quantifier], with [noun - adjective(s)] functioning as **core NP**.

(xx1)   a. left-to-right

        possessed core NP (including noun and any adjectives) is...

        i. all-low if possessor is simple noun or core NP without determiners or external plural marking

        ii. otherwise {HL} with first syllable (first mora for bimoraic monosyllabic noun) high and any following syllables low (if core NP is monomoraic, the L tone element is manifested by downstep on a following Definite morpheme)

    b. right-to-left

        i. adjective forces all-low tones (tone-dropping) on preceding noun or adjective within core NP

        ii. determiner (demonstrative pronoun or Definite morpheme) forces all-low tones on preceding core NP or numeral

Often a core NP is targeted for a tone overlay simultaneously from the left (possessor) and right (determiner). In this case the possessor wins out, in those cases where the two competing tone contours are not identical. This requires an analysis in terms of bracketing relationships, with the understanding that tonal interactions apply within brackets before any other tonal processes apply.

The possessor NP is never affected by any tonological processes that affect the head noun, the core NP, or numerals following the core NP. In effect, the possessor NP constitutes a **tonosyntactic island** impervious to outside pressures.

When a NP functions as **head of a relative clause**, the remaining words (other than the possessor) that have thus far escaped NP-internal tone-dropping rules, i.e. the final word in the core NP along with a numeral if present, are tone-dropped.

3.7.2.5   *Tone-Raising (Cv postpositions)*

There are two high-frequency postpositions whose normal form is Cv̀ with low tone. These become high-toned after personal pronouns, after demonstrative pronouns (whether used absolutely, or as postnominal determiners), after Definite morphemes, yà:fú: (and variants) 'all', and after certain interrogatives (àyé 'who?, èsé 'what?').

(xx1) gloss   usual form   after pronoun or determiner

     Locative   kù   kú
     Dative   dè   dé

In addition to the tonal shift, Locative kù (kú) assimilates its vowel to become kî after Plural ŋ̀gî 'these, those' and Definite Plural cînî.

Examples involving **demonstrative pronouns** are in (xxx).

(xxx)   a.   [à-nù   ŋ̀gú]   dé
            man-Sg.L   DemSg Dat
            'to/for this man'

      b.   [àrà-m   ŋ̀gî]   dé
            man-Pl.L   DemPl   Dat
            'to/for these men'

      c.   [ùrò   ŋ̀gú]   kú
          [ùrò   ń]   kú
          [hole.L   DemSg] Loc
          'in this hole'
          (showing two variants of the postnominal form of the demonstrative)

      d.   [ùrò   ŋ̀gî]   kî
          [hole.L   DemPl] Loc
          'in these holes'

The fact that Relative morpheme ń fails to raise the tone of Dative dè in (xxx) is an argument against a synchronic connection of Relative ń with Demonstrative ŋ̀gú (variant ń).

(xxx) [nù-ŋ   kà: èrⁿá   dɔ̀rú-sɔ̀   ń]   dè

[person-Sg.L Rel goat sell-Perf2 Rel] Dat
'(e.g. I gave the money) to the person who sold the goat'

Examples with a **Definite morpheme** are in (xxx).

(xxx) a. [à-nù kúnú] dé
    [man-Sg.L DefSg] Dat
    'to/for the man'

   b. [àrà-m cínî] dé
    [man-Sg.L DefPl] Dat
    'to/for the men'

   c. [ùrò kúnú] kú
    [hole.L DefSg] Loc
    'in the hole'

   d. [ùrò cínî] kí
    [hole.L DefPl] Loc
    'in the holes'

For [[… yà:fú:] dé], Dative of the 'all' quantifier, see (xxx.b) ('I told all the children to come') in §17.1.3.1.

The Dative forms of personal pronouns are given in (xxx). Simple locatives with kù are not elicitable for pronouns, which require the complex postposition [X púrò] kù] in locative sense. In the third person datives, the pronoun itself is low-toned, but one cannot determine whether this is due to a tonological process (with underlying high tone, as in the independent pronouns), or just an allomorphic matter (third person pronouns also have low tones as possessors, for example).

(xxx) category independent Dative

  a. 1Sg m̀ᵇì ǹ dé
    1Pl î   î dé
    2Sg ú   ú dé
    2Pl á   á dé

  b. 3Sg wó wò dé
    3Pl bé bè dé
    NonhSg kó kò dé
    NonhPl ké kè dé

3.7.2.6   Downstep (possessed Cv noun plus determiner)

When an {HL} possessed-noun contour is imposed by a preceding possessor on a Cv noun stem, only the high-tone element of {HL} is audible on the noun: m̀ bá 'my father'. Unless this is immediately followed by a determiner, the low-tone element is lost without a trace.

The only determiners with initial high tone are the Definite morphemes, singular kúnú and plural cînî. After a possessed Cv́ noun carryng the {HL} contour, the pitch level of the Definite morpheme drops. This is shown by preposing the symbol ↓. For more on the structure of such combinations, see §4.4.3.

(xx1)   a.   [ùrò   kúnú]   ká   ↓kúnú
             [hole.L   DefSg]   mouth.HL   DefSg
             'the opening of the pit' (2004-1a.03)

        b.   [kɔ̀   lɔ́   ↓kúnú]
             [NonhSgP   hand   DefSg]
             'its hand' (1004-1a.10, denoting an elephant's trunk)

This downstep has no effect on postnominal demonstrative pronouns (Singular ǹgú, Plural ǹgî), which begin with a low tone.

(xxx)   [[kɔ̀   lɔ́]   ǹgî]
        [[NonhSgP hand]   DemPl
        ''these arms of its (=of a mantis)' (2004-1b.04)

4 Nominal, pronominal, and adjectival morphology

4.1 Nouns

4.1.1 Simple noun stems

For many nouns of **human reference** (excluding most kin terms), number is marked by suffixation on the noun. The suffixes are those in (xx1).

(xxx) Human number markers

Sg	after Cv- stem:	-rⁿú after monosyllable)
	after longer stem:	-nú (apocopated -ń)
Pl	-mú (apocopated -ḿ)	

Examples of Singular -rⁿú are nù-rⁿú 'person', ǐ-rⁿú 'child', yⁿà-rⁿú 'woman'.

Singular -nú occurs in e.g. èrɛ̀:-nú 'able-bodied man', ɔ̀ŋù-nú 'traditional chief (Hogon)', and (yà / àrà) pày-nú 'old (woman / man)', and regularly in agentive compounds like nùŋɔ̀-núŋú-nú 'singer' (§5.1.10). Apocopated -ń occurs in e.g. yà-gùrɔ̌-n 'unmarried woman' and pùlɔ̌-n 'Fulbe person (Pullo)'.

Some apparent counterexamples where -nú occurs instead of -rⁿú after Cv-stem are actually cases where a bisyllabic Cvrv- or Cvrⁿv stem with medial rhotic has contracted, as in à-nú 'man' (compare Plural àrǎ-m) and agentive compounds based on Cvrv- or Cvrⁿv- verbs, such as kù-[ɛ́-nú] 'braiding lady' (compare plural kù-[ɛ́rú-m], verb ɛ́rá 'braid'). The contraction is parallel to what occurs more transparently in verbal suffixal morphphonemics, and is by Early u-Syncope (§3.6.2.2) followed by Rhotic Deletion (§3.6.3.6)

Plural -mú (-ḿ) occurs after both monosyllabic and longer stems: nù-mú 'people', yⁿà-mú 'women', agentive nùŋɔ̀-núŋú-mú 'singers', yà-gùrɔ̌-m 'unmarried women'.

There is a Plural particle mǎ: that may follow a semantically plural noun. It is not common after human nouns that already mark number by suffixation. It is common after kin terms, most of which make no singular/plural distinction within the stem. It is also used with nonhuman nouns, which have no morphological number marking, when it is necessary to make it clear that a

noun denotes a group. Thus nènú 'dog(s)' and tĩwⁿá 'tree(s)' do not normally indicate plurality, but where necessary they may be made explicitly plural as nènú mǎ: and tĩwⁿá mǎ:.

4.1.2   Primary human nouns ('child', 'man', 'woman', 'person')

The terms in (xx1), already mentioned above, are quite basic. Apocopated variants are in parentheses.

(xx1) gloss   Sg   Pl

   'person' nù-rⁿú (nǔ-n)   nù-mú (nǔ-m)
   'woman' yⁿà-rⁿú (yⁿǎ-n) yⁿà-mú (yⁿǎ-m)
   'man'   à-nú (ǎ-n)   àrǎ-m

Singular 'man' can be derived from /àrù-nú/, as mentioned in the preceding section. This explains why the suffix is -nú rather than -rⁿú (which would be used after a true monosyllabic Cv- stem).

'Woman' and 'man' correspond to adjectives (and nonhuman nouns) yá 'female' and àrá. The unnasalized y in yá suggests that the nasalized yⁿ in yⁿà-rⁿú 'woman' and its plural yⁿà-mú is due to Backward Nasalization (§3.6.1.2), with nasalization emanating from the suffixes.

The forms for 'child' are more complex, because of the frequency of the Diminutive ending -î:.

(xx2)   'Child'

    Sg   regular   ì-rⁿú (ĩ-n)
            Diminutive   ì-rⁿ-î:

    Pl   regular   ì-mú (ĩ-m)
            Diminutive   ì-m-î:

The Diminutive Plural is sometimes extended as ì-m-î: mǎ:, with Plural particle mǎ: (note the alliterative ring and the repeated labial nasals, appropriate to this hypocoristically sensitive category).

By combining the 'child' forms with the 'man' and 'woman' forms, we get the 'boy' and 'girl' terms in (xx2). I have not heard them without the Diminutive suffix.

74

(xx2) 'boy' [à-n]-ǐ:-rⁿ-í: [àr]-ǐ:-m-í:
       'girl' [yⁿà-rⁿ]-ǐ:-rⁿ-í: [yⁿà-m]-ǐ:-m-í:

4.1.3 Kin terms

Kin terms, which (like other nouns) occur both in possessed and unpossessed forms, in most cases do not have Singular and Plural suffixes. Therefore to express plurality it is necessary to add Plural particle mǎ:, which is therefore rather common with these nouns. It should be noted that terms like 'father' may be extended (e.g. to one's father's brothers), and that families tend to be large, so that plural kin terms are in common use.

Example: ǐsî 'maternal uncle', ǹ lísǐ 'my maternal uncle' (with {HL} possessed-noun tone overlay), ǐsî mǎ: 'maternal uncles', ǹ lísǐ mǎ: 'my maternal uncles'.

A few kin terms denoting kin of descending generations do have morphological number marking: lísî-bé-nú 'sister's child' (plural lísî-bérú-m), térⁿú-bé-rⁿú 'grandchild' (plural térⁿú-bé-m). In addition, the 'child(ren)' term discussed in the preceding section can be used as a kin term for son or daughter, as with English *child(ren)* or *kid(s)*. Also, some kin terms end in a 'man' or 'woman' term to mark sex, as with ǐsù-[à-nú] 'male opposite-sex sibling' (i.e. woman's brother) versus ísú-[yⁿá-rⁿú] 'female opposite-sex sibling' (i.e. man's sister). (The tonal difference, in the unpossessed form, between these last two forms is correct but mysterious.)

4.1.4 'So-and-so' (má:nǐ)

má:nǐ 'So-and-so' is used as a variable for personal names.

4.1.5 Initial àn- in nouns

One can arguably segment an initial morpheme àn-, at least historically, in a few nouns: àndá:rěy 'small pit (of jujube fruit)' (from Songhay, e.g. TTK dà:rêy 'jujube'), ànàŋgòlî 'bile duct', àndèŋé 'baggy pants' (cf. Jamsay pɔ̀n-dèŋé or àdèŋé), ànsámmù 'furry waterskin', àntólî 'walking stick', àndǎrkà 'hammer' (also in Songhay). With high tone: ánsèsérè 'liana sp.' (*Tinospora*).

Similar à- or àn- elements occur in other Dogon and Songhay languages of the zone.

4.2 Derived nominals

4.2.1 Characteristic derivatives (X dà ɲ́, X-[nù-rⁿú])

A construction corresponding exactly to the denominal Characteristic derivation in e.g. Jamsay (wàlá 'laziness', wàlà-gú 'lazy one, one characterized by laziness') has not been found.

One functionally comparable construction is a simple compound type ending in e.g. nù-rⁿú 'person'. The compound initial is low-toned. Thus yɔ̀wrɔ́ 'laziness', yɔ̀wrɔ̀-[nù-rⁿú] 'lazy person'.

Another compound construction is with bàⁿsá 'owner' (or variant) as compound final. The compound initial may include an adjectival modifier, and has its regular tones. The compound final has low tones, reflecting a possessive tone contour. Example: [cǐrⁿò-kà ná:] bàsà 'owner of (=one characterized by) a big nose', cf. cǐrⁿò-ká 'nose', ná: 'long'.

Where lexically possible, informants generally preferred a deverbal construction in the form of a headless relative clause ending in dà ɲ́, i.e. 'be' plus the clause-final Relative morpheme ɲ́. Examples are in (xx1). In (xx1.a) the combining form of the verb happens to be homophonous to the related noun, but in (xx1.b) the verb and noun are clearly distinct, at least tonally.

(xx1)　　　verb　　　gloss　　　derivative　gloss　　　　related noun

　　　a.　dɔ̀:lú\\dɔ̀:lɔ́ 'be dirty'　dɔ̀:lú dà ɲ́　'dirty one'　dɔ̀:lú 'dirtiness'
　　　　　bàgú\\bàgá 'get rich'　bàgú dà ɲ́　'wealthy one'　bàgú 'wealth'

　　　b.　ésú\\èsá　'cleanness'　ésú dà ɲ́　'clean one'　èsú 'cleanness'

These combinations may be pluralized by adding mǎ:, as in dɔ̀:lú dà ɲ́ mǎ: 'dirty ones'.

4.2.2 Verbal Nouns

4.2.2.1 *Combining form versus Verbal Noun in -ú*

What I call the **combining form** of a verb (used in chains, and before several inflectional suffixes) is very similar in form to a **Verbal Noun** that is often used as a citation form by informants during discussions of lexicon. For nonmonosyllabic nouns, both end in high-toned ú, which is subject to deletion under some conditions.

76

The difference between the two forms is audible for stems with lexical all-high tone contour, since the combining form respects this contour (which is also seen in the Imperative), while the Verbal Noun has an **overlaid {LH} contour** realized as L(L...)H with high tone on the -ú (xx1.a). For verbs with lexical {LH} contour there is no audible difference between the two forms (xx1.b). In the case of the Verbal Noun (but not the combining form), I will transcribe the Verbal Noun suffix -ú with a hyphen, and will use -Ø when this suffix has been deleted (apocopated) as in (xx1.c-d). Monosyllabic Cv- stems have no suffix in either the combining form or the Verbal Noun, which are always identical; since there is only one mora the tone is high in both cases (xx1.e). Irregular verbs are illustrated in (xx1.f). Of interest here is the fact that zè:r-ú 'bring-VblN' has LH tone contour in the Verbal Noun, versus zê:rú with <HL>H contour in the combining form.

(xx1)		gloss	Imperative	combining form	Verbal Noun
	a.	'get up'	úró	úrú	ùr-ú
		'tie	págá	pàgú	pàg-ú
		'wait'	céré	cérú	cèr-ú
		'do'	kárⁿá	kárⁿú	kàrⁿ-ú
		'go down'	sîgó	sîgú	sǐg-ú
	b.	'be finished'	dùm-lɔ́	dùm-lú	dùm-l-ú
		'sit'	điŋé	điŋú	điŋ-ú
		'dig'	gàsá	gàsú	gàs-ú
	c.	'sleep'	léyó	léy	lěy-Ø
		'die'	núwⁿó	núm	nǔm-Ø
		'give'	ów	ów	ǒw-Ø
		'cough'	kósîyó	kósîy	kòsǐy-Ø
	d.	'kill'	wɔ̌:	wɔ̌w	wɔ̌w-Ø
		'steal'	gùyⁿó	gǔyⁿ	gǔyⁿ-Ø
	e.	'shave'	ká	ká	ká
		'go out'	gó	gú	gú
		'arrive'	dɔ́	dɔ́	dɔ́
	f.	'come'	yèrî	yèrî	yèrî
		'bring'	zérî	zê:rú	zè:r-ú
		'go to'	yá	bòrú	bòr-ú

The Verbal Noun in -ú is productive. It is the form usually given by informants when asked to translate verbs in isolated citation forms. It is also readily available as a cognate nominal when no other (lexical) cognate nominal exists for a particular verb. Even when there is a such a cognate nominal, the Verbal Noun in -ú may be used as the complement of a cognate verb (xxx).

(xxx)   a.   èg-ú   ɛ́gú-s-ɔ̌:
              listen-VblN listen-Perf2-3SgS
              'He/she listened.'

       b.   cèr-ú   ǹ   cérú-sò
              wait-VblN 1SgS   wait-Perf2
              'I waited.'

4.2.2.2   *Verbal Noun in -rĕŋ or -tĕŋ*

This verbal noun (VblN) derivation is productive, and is regularly used in clausal complements required by any of several higher-clause verbs like 'forget (to)' and 'be afraid (to)' (§17.xxx). It is also used as part of the 'before ...' adverbial clause construction §15.2.3.

The verb stem is in the combining form, but shifts to **all-high tone** before this suffix. The suffix itself has primarily allomorphs -rĕŋ (after monosyllabics and bimoranic bisyllabics), and -tĕŋ (after longer stems). The /r/ may undergo Forward Nasalization to r^n. In nonmonosyllabic stems, the stem-final vowel undergoes Early u-Syncope under the usual conditions, which in turn triggers the usual CC-cluster rules. The allomorphy (r/t alternation) and the details of Early u-Syncope and CC-cluster rules, are the same as those for Imperfective -rà- (§10.1.2.xxx) rather than those of Perfective Negative -rí- (§10.1.2.xxx). Therefore most rhotic-medial light bisyllabics (Cvrv- and Cvr^{n}v-) combine with the suffix to give Cv́-tĕŋ, parallel to Imperfective Cv́-tǜ-, but the exceptional verbs of this shape that have Imperfective Cv́-lv̀- likewise have verbal noun Cv́-lĕŋ. We get -lĕŋ and -nĕŋ after stems that end (following syncope) in /l/ and /n/, see Sonorant Assimilation (xxx).

I do not hear vowel-harmonically distinct variants for this suffix. For example, the Verbal Noun of both mùnó 'roll up (mat)' and mùnɔ́ 'rumple' is mún-nĕŋ.

Examples are given in (xxx), with the irregular forms in (xxx.h). kár^{n}á 'do' irregularly has /l/ instead of /t/ in both the Imperfective ká-là- and the Verbal Noun ká-lĕŋ.

(xxx)   gloss   Imperative   VblN

a.	'go out'	gó	gú-rĕŋ
	'eat'	lέ	lî-rĕŋ
b.	'give'	ów	ów-rĕŋ
	'run'	zɔ̌:	zɔ́w-rĕŋ
c.	'tie'	págá	págú-rĕŋ
	'dig'	gàsá	gású-rĕŋ
	'touch'	dògó	dógú-rĕŋ
d.	'look'	ὲlá	έl-lĕŋ
	'go up'	ùnɔ́	ún-nĕŋ
e.	'jump'	tóró	tó-tĕŋ
	'chase'	nàrⁿá	ná-tĕŋ
f.	'drink'	nέ	nî-rⁿĕŋ
g.	'go back'	bǐrǐyó	bîríy-tĕŋ
	'converse'	élúkó	élkú-tĕŋ
	'throw'	dà:ⁿsá	dá:ⁿsú-tĕŋ
h.	'do'	kárⁿá	ká-lĕŋ
	'come'	yèrî	yé-tĕŋ
	'go to'	yá	bó-tĕŋ (< bòrú-)
	'bring'	zérǐ	zé:-tĕŋ (< zê:rú-)

4.2.3 Diminutive nouns (-ĕy/-ĕy, -í:)

The usual Diminutive suffix for nouns is -ĕy or -ĕy, depending on the vowel-harmonic class of the noun (-ĕy is associated with vowels {a ɛ ɔ}). If a nonmonosyllabic noun ends in a vowel, this vowel is replaced by the suffixal vowel. Examples: bà:ⁿsá 'wooden eating bowl', diminutive (i.e. small bowl) bà:ⁿs-ĕy ; tògùrò-[ùr-ĕy] 'drain from toilet into street' from ùró 'hole (pit)'.

Suffix -ĕy/-ĕy has rising tone, but may co-occur with a high tone on a preceding syllable.

There are some nouns (and adjectives) that occur only, or most often, in the diminutive form. Nouns attested only in the diminutive form, making segmentation questionable, include làwrĕy 'small trimming ax', wòwòrĕy

'collarbone', cèwrěy 'fingernail', kúsěy 'trap', and yà-gĭrěy 'young adult female'.

The Diminutive suffix is rather common in **compound finals**, including some body parts, plant names (especially those marked as "male" or "female"), and animal (e.g. bird) names. Some of these are transparent, others are frozen (there is no non-Diminutive form of the compound final). Examples: pùrɔ̀-[ùr-ěy] 'anus' (rear.end-[hole-Dimin]'), lɔ̀-[pòt-ěy] 'shoulderblade' (hand-[worn.out?-Dimin]), kúrúkúlěy 'tree sp.' (*Boscia angustifolia*), [yàgà-yàgà]-[ár-èy] 'spiny hibiscus bush sp.' (*Hibiscus longisepalus*, distinguished from other yàgà-yágà species. as "male"), pétkîl-ěy 'laughing dove'

There are also some nouns that take -î: rather than -ěy/-ěy, though -î: is mainly an adjectival Diminutive suffix. -î: is regular with ì-rⁿú 'child' and its plural ì-mú, which often appear as ì-rⁿ-î: and ì-m-î: (§4.1, above). The diminutive of these 'child' terms is especially common in compounds like nàŋà-[ì-rⁿ-î:] 'calf' ("cow-child-Dimin"), see §5.1.11.

The noun recorded only as cès-î: 'small piece of meat' is related to the verb césá 'cut'. Another noun recorded only with final î: (which is therefore not clearly segmentable) is nàŋà-sɔ̀rî: 'branch used as whip'.

4.2.4   Agentive nominals (-nú ~ -n, Plural -mú ~ -m)

All examples of agentive nominals in my data are compounds of the *deerslayer* variety with a low-toned initial noun denoting the typical object (or a cognate nominal as a kind of filler), plus a high-toned verb stem (without AN suffix) ending in Singular -nú ~ -n or Plural -mú ~ -m. The usual forms are Singular -nú and Plural -m. For examples of these compounds see §5.1.9.

A special type of **clausal agentive** with suffix -n (for singular or plural) on the AN-inflected verb is described in §14.2.2.

4.3   Pronouns

4.3.1   Basic personal pronouns

For 1Pl î, 2Sg ú, and 2Pl á, no changes in form occur across syntactic functions. The 1Sg is subject to tonal variation. Third person pronominals are subject both to tonal and vocalic variation.

The **independent** personal pronouns are in (xx1). All are H-toned. The third person forms have closed mid vowels {e o}. These forms are used for focalized pronouns, and before various discourse-functional and logical

particles, as in [wó máǹì] or [wó mà] 'he/she too'. They are also used as vocatives. In my texts, which are heavy on quoted speech (especially in the tales), a third person independent pronoun at the beginning of a sentence, with no discourse-functional particle following, very often represents a reported vocative, i.e. an original 'hey you!'.

(xx1)   category   independent pronoun

    a.   1Sg   mî, m̀ᵇî
        1Pl   î

    b.   2Sg   ú
        2Pl   á

    c.   3Sg   wó
        3Pl   bé

    d.   NonhSg   kó
        NonhPl   cé (~ ké)

    e.   Logo   àsî
        Logo Pl   àsî mǎ:

In elicitation, Plural mǎ: is optionally added to plural independent pronouns, hence î mǎ:, á mǎ:, bé mǎ:, ké mǎ:. This combination is redundant, and it has not been observed in texts.

The forms used in **direct-object** function (preceding the verb), and also as **preverbal subject pronominals in relative clauses**, are in (xx2). All are H-toned. The 1Sg form is H-toned. The third person forms have open mid vowels {ɛ ɔ}.

(xx2)   category   object pronoun   comment

    a.   1Sg   m̀   assimilates to following consonant (becoming n, ŋ̀); has optional oral release as m̀ᵇ before vowel
        1Pl   î

    b.   2Sg   ú
        2Pl   á

    c.   3Sg   wɔ́

81

	3Pl	bɛ́

d.	NonhSg	kɔ́
	NonhPl	cɛ́ (~ kɛ́)

e.	Logo	àsî
	Logo Pl	àsî mǎː

The forms in (xx3) are used in **possessor** functions (for postpositional-complement function, see below). Here the 1Sg and all third person forms are L-toned, and the third person forms have **open mid vowels** {ɛ ɔ} in careful pronunciation. In allegro speech the distinction between {ɛ ɔ} and {e o} is not always clear.

(xx3) category possessor pronoun comment

a.	1Sg	m̀	assimilates to following consonant (becoming n, ŋ̀); has optional oral release as m̀ᵇ before vowel
	1Pl	î	

b.	2Sg	ú
	2Pl	á

check ɔ\o, ɛ\e
c.	3Sg	wɔ̀
	3Pl	bɛ̀

d.	NonhSg	kɔ̀
	NonhPl	cɛ̀ (~ kɛ̀)

e.	Logo	àsî
	Logo Pl	àsî mǎː

In sentences like 'I saw my child' or 'She ate her food', where the possessor is coindexed with the clause-mate subject, instead of the usual possessor pronominal preceding the possessed noun, we get an invariant Reflexive possessor mà following the possessed noun; see §18.1.1.

There is no difference between alienable and inalienable possessor pronouns. Examples: 1Sg m̀ îlò 'my house' (also pronounced m̀ᵇ îlò), m̀ bá 'my father'; wò nénù 'his/her dog', wò kú 'his/her head', wò ná 'his/her mother'.
check wo/wɔ in above exx. [wò for Hamma Tabi]

82

The forms used in possessor function, notably with low tone in the third person, recur as the pronominals used **before a postposition**. The similarity between possessive and postpositional forms of pronouns is hardly surprising, since some postpositions originated as nouns. The dative series is slightly different since the third person pronominals have {e o} vowels (harmonizing with the e of the postposition itself), and since the dative morpheme dè has its tone raised to dé by Tone-Raising (§3.7.2.5).

(xx3) gives examples with **dative** dé.

(xx3)		category	pronoun before P	dative
	a.	1Sg	m̀	ǹ dé
		1Pl	î	î dé
	b.	2Sg	ú	ú dé
		2Pl	á	á dé
	c.	3Sg	wɔ̀	wò dé
		3Pl	bɛ̀	bè dé
	d.	NonhSg	kɔ̀	kò dé
		NonhPl	cɛ̀ (~ kɛ̀)	cè dé (~ kè dé)
	e.	Logo	àsî	àsî dé
		Logo Pl	àsî mǎ:	[àsî mǎ:] dé

Subject pronominals of the sort used in **main clauses** are shown in (xx5). The 1st/2nd person forms precede the VP (as do nonpronominal subject NPs), and may cliticize to the following morpheme (a verb, object pronominal, or Imperfective á). The 3rd person forms are postverbal.

(xxx)		category	subject pronominal	comment
	a.	1Sg	m̀	assimilates to following consonant (becoming n, ŋ̀); has optional oral release as m̀ᵇ before vowel
		1Pl	î	
	b.	2Sg	ú	
		2Pl	á	

c. 3Sg   -wɔ́   contracts in some cases with a
                            preceding vowel to produce -ɔ́: or -ɔ̌:

    3Pl   ≡bɛ́

d. NonhSg   ≡kɔ́
    NonhPl   ≡cɛ́ (~ kɛ́)

One hesitates whether to transcribe the third person subject pronominals as suffixes, clitics, or particles. I will transcribe 3Sg as a suffix, the others as clitics (boundary symbol ≡). There are some morphophonological interactions between these clitics and the final syllable of the preceding verb, but they are somewhat opaque. 3Sg -wɔ́ frequently contracts with a preceding non-high vowel, after the w is dropped: yǎy-wɔ̀rè-wɔ́ 'he/she went' is often pronounced [jǎjwɔ̀rɔ̌:]. The contracted vowel always appears as [ɔ:].

For final -e replacing the regular final vowel of an AN suffix when the subject is third plural or nonhuman plural (and occasionally for first or second person plural), see §10.2.2.

Subjects precede objects (pronominal or otherwise), except of course in case of third person pronominals suffixed or cliticized to the verb. In particular, first and second person subject pronomnals precede objects (pronominal or otherwise), as in (xxx.a-d). The special set of third person preverbal subject pronominals used in relative clauses likewise precede objects (xxx.f). Objects, including pronominal objects, follow any preverbal subject NP or pronoun (xxx.a-f).

(xxx)   a. m̀   wɔ́   téw-wɔ̀s̃ĩ
            1SgS   3SgO   hit-Perf1b
            'I hit-Past him/her.'

        b. ú   ŋ̀   wɔ̌:-s̃ĩ
            2SgS   1SgO   see-Perf1b
            'You-Sg saw me.'

        c. m̀   ú   wɔ̂:-rà
            1SgS   2SgO   see-Impf
            'I will see you-Sg.'

        d. ŋ̀   yⁿà-rⁿú   wɔ̀-sɔ́
            1SgS   woman-Sg   see-Perf2
            'I saw a woman.'

        e. yⁿà-rⁿú   ŋ̀   wɔ̀-sɔ́-wɔ́

woman-Sg   1SgO   see-Perf2-3SgS
'A woman saw me.'

   f.   này   kà: bɛ́   ǹ   wɔ̀-sɔ́   ń
        day.L   Rel   3PlS   3PlO   see-Perf2   Rel
        'the day when they saw me'

4.4   Demonstratives and other determiners

4.4.1   'This/that (one)' (ǹgú)

The **absolute** forms of the basic deictic demonstrative pronoun, translatable as e.g. 'this one' or 'that one' depending on context, are in (xx1). These are the forms used when the demonstrative functions as a noun phrase (i.e. not modifying a preceding noun stem).

(xx1)   form   category   comment

     a.   ǹgú (ŋú)   Nonhuman Singular
         ǹgî (ŋî)   Nonhuman Plural

     b.   ǹgú bá:ⁿsà   Human Singular   cf. bàⁿsá 'owner' (and
                                               variants)

         ǹgî bâ-m   Human Plural   cf. bâ-m 'owners'

    Examples are in (xx2).

(xx2)   a.   [ǹ   dé]   ǹgú   ów
           [1Sg   Dat]   Dem   give.Imprt
           'Give me that!'

    bá:sà is irregularly related to bàⁿsá (and variants) 'owner', which as compound final (very common) appears as [X bàsà], [X bàⁿsà], or [X bà:ⁿsà] 'owner of X', as in îló bàsà 'house-owner'. (The use of the 'owner' form in human demonstratives also occurs in Jamsay.)

    In **postnominal** modifying function, we get ŋú (less often ǹgú) in the (human and nonhuman) singular, and ŋî (less often ǹgî) in the plural. The noun **drops tones**, as it would before a modifying adjective. In allegro speech, ŋú may simplify to ń. This raises the possibility that Relative morpheme ń, which appears at the end of relative clauses, may be historically connected with the demonstrative pronoun.

(xxx) a. nù-rⁿù   ŋú
            person-Sg.L DemSg
            'that person' (nùrⁿó)

       b. nù-mù   ŋî
            person-Pl   DemPl
            'those people' (nù-mú)

       c. nàŋà   ŋú
            cow.L   DemSg
            'that cow' (nàŋá)

       d. nàŋà   ŋî
            cow.L   DemPl
            'those cows'

    Before Pl ŋî, the (redundant) Plural morpheme mǎ: is not used (#nàŋà mǎ: ŋî 'those cows' is ungrammatical). However, nouns like 'person' (xxx.a-b) that have word-internal plural morphemes do take plural form before ŋî.

4.4.2   Prenominal Definite kɔ̀ (and Plural cɛ̀) 'that/those (same)'

kɔ̀ may precede a singular noun,.indicating prior mention in the discourse; see also kúnú, below. It is (at least historically) related to the Nonhuman Singular pronoun, notably kɔ̀ in possessor function. However, in definite function it combines with human as well as with nonhuman nouns, and it may co-occur with a genuine (pronominal) prossessor (xx1.c), though this combination is not common. It may also co-occur with a postnominal deictic demonstrative (xx1.a).

(xx1) a. kɔ̀   nàŋà   ŋú
            Def   cow.L   DemSg
            'this (same) cow'

       b. kɔ̀   ì-rⁿú
            Def   child-Sg
            'the (same) child'

       c. kɔ̀   m̀   î-rⁿù
            Def   1SgP   child-Sg.HL

86

'my child (mentioned before)'

Definite kɔ̀ has no tonal effect on the following noun. This contrasts sharply with kɔ̀ as Nonhuman Singular possessor, which imposes a {HL} tone contour on the following noun. Thus compare the tones on the noun in (xx1.b), above, and (xx2).

(xxx) kɔ̀   î-rⁿù
       NonhSgP   child.HL
       'its (=animal's) child'

Although Definite kɔ̀ does not agree with the modified noun in humanness, it does "agree" optionally in number, so it may appear as cὲ (variant kὲ) before a plural noun. Perhaps the best way to put this is to say that kɔ̀ preserves a trace of its origin as a nonhuman possessor pronoun (hence 'its X' = 'the X'), and that a plural modified noun tends to suggest a corresponding plurality of possessors (hence 'their-Nonhuman X's' = 'the X's). In the examples below, (xxx.a) illustrates non-agreement, while (xxx.b) shows the optional "agreement." I gloss cὲ in this function as "DefPl" in interlinears, versus just "Def" for kɔ̀.

(xxx)   a.   kɔ̀   nàŋà   ŋí
             Def   cow.L   DemSg
             'these (same) cows'

        b.   cὲ   ǐ-m-ǐ: ŋí
             DefPl   child-Pl-Dim.L   DemPl
             'these (same) children'
             (alternatively: kɔ̀ ǐ-m-ǐ: ŋí)

4.4.3   Postnominal Definite kúnú and cînî 'that (same)'

Competing with prenominal kɔ̀ is a postnominal Definite morpheme kúnú, with plural cînî. The latter is also pronounced kînî, and one could argue that this would be the most revealing transcription. The **u/i vocalic opposition** for Singular versus Plural is similar to that in demonstrative pronouns ŋ̀gú versus ŋ̀gî, and (dropped a notch) to that in Nonhuman pronouns kɔ́ and kέ.
        The Definite morphemes are optionally **shortened** (apocopated) to kún and cîn (kín), respectively. Again, prior mention in the discourse is presupposed. Interlinear glosses are "DefSg" and "DefPl," respectively. These Definite

morphemes are not used absolutely, i.e. in the absence of an overt modified noun.

(xxx)   a.   nàŋà   kúnú
             cow.L   DefSg
             'these (same) cows'

        b.   nàŋà   cînî
             cow.L   DefPl
             'those (same) cows'

        c.   ìrⁿù   kúnú
             child.L   DefSg
             'that (same) child'

        d.   ìm-ì: cînî
             child-Pl.L   DefPl
             'those (same) children'

The modified noun **drops tones**, as it does before (postnominal) demonstratives and before modifying adjectives. This is seen in the examples above. As usual, tone-dropping is indicated by ".L" in the interlinears.

In the sequence [Possessor noun determiner], the noun acquires its grammatical tone overlay from the possessor, and disregards the tone overlay that the determiner would otherwise impose on it. When the possessor is a simple noun or core NP, this is moot, since both the possessor and the determiner impose the same all-low tone contour. However, when the possessor is a pronoun, or a more complex NP such as one with a determiner, it imposes a {HL} tone contour on the possessed noun, whether or not a determiner follows (xxx.a). Moreover, in this case, if the noun is monosyllabic Cv, the {HL} contour is realized with a high tone on the noun and with a sharp, word-level pitch drop (downstep) on an otherwise high-toned determiner (namely, Definite kúnú or its plural cînî) (xxx.b). For downstep (↓), see §3.7.2.6.

(xxx)   a.   [m̀   î-rⁿù]   kúnú
             [1SgP   child-Sg.HL]   DefSg
             'this (same) child of mine'

        b.   [ǹ   ká]   ↓kúnú
             [1SgP   mouth]   DefSg
             'this (same) mouth of mine'

4.4.4 Demonstrative adverbs

4.4.4.1 *Locative adverbs*

The demonstrative adverbs specifying locations are in (xxx).

(xx1) a. deictic (pointing)
          ǐnî   'here'
          ǐndêy, ǐllêy   'over there' (deictic)

       b. discourse-definite
          yá   'there, in that (same) place'
          yá gǐrěy   'around there (that same place)' (§4.4.4.3)

    Examples of the deictic adverbials are in (xx2), and of the discourse-definite ones are in (xx3).

(xx2) a. zérǐ   ǐnî
           bring.Imprt   **here**
           'Bring (it) here!' (2004-1a.09)

       b. dèlé   kɔ́   ǐndêy
           put.down   NonhSgO   over.there
           'Put it down over there!' (pointing)

(xx3) a. [[[ùró   pùrò]   kù]   gàsá   mà]
           [[[hole   belly.L] in]   dig   and.SS]
           [kɔ́   mánǐ]   [yá   á   sǐtù-rò]
           [NonhSg   too]   [**there** Impf   put.down-Impf]
           'It (lizard) digs in (its) hole, it too lays (eggs) there.' (2004-1a.10)

       a. [bámákɔ̀]   bɔ̀-s-ɔ́:]
           [Bamako   go.to-Perf2-3SgS]
           [yá   gǐrěy]   á   bǐrí-yàrà-wɔ́
           [there   around]   Impf   work-Fut-3SgS
           'He went to Bamako. He will work around there (=in that area).'

4.4.4.2 *Logophoric demonstrative adverbs*

I have not recorded any demonstrative adverbs based on Logophoric àsî.

4.4.4.3   Emphatic/Approximinative modifiers of adverbs

(xx1.a) emphasizes exact location, with particle tóy. (xx1.b-c) suggest less precision, with jínò in (xx1.b) and gìrěy (especially common with discourse-definite yá 'there') as the Approximative particles.

(xx1)   a.   ìnî   tóy
                here   Emph
                'right here'

         b.   ìllêy   jínò
                there   Approx
                'over there (somewhere)'

         c.   yá   gìrěy
                there.Def   around
                '(somewhere) around there (= that same place)'

    Demonstrative adverb yá gìrěy (xx1.c) differs only tonally from yà-gìrěy 'young adult female (not yet a mother)', a term applied chiefly to female animals (e.g. heifers).

4.4.5   Presentatives

The Presentative morpheme ('here's ...') is ŋɔ́rⁿɔ̀, preceding the featured entity. A third person subject pronominal is preverbal. Whether this is related to ú wⁿɔ̀-rⁿɔ́ 'you-Sg do not see' is unclear, but the latter was recorded (as a kind of rhetorical question, i.e. 'don't you see?') in a text (xx1.b).

(xx1)   a.   ŋɔ́rⁿɔ̀   wɔ́   á   yà-rà
                Presentative   3SgS   Impf   come-Impf
                'Here he/she comes!'

         b.   kâ:nú   yèrí   yàgùrú   ɛ̀lú'sà,
                monkey   come   look.down   look-Perf2,
                ténǎm   ŋɔ́rⁿɔ̀   [ùró   kù]
                hyena   Presentative [hole   in]
                'Monkey leaned over to look, and lo, there was hyena in the hole.'
                (2004-1a.05)

90

4.5 Adjectives

4.5.1 Underived adjectives

Adjectives are used in modifying function, following the noun. If the referent is plural, the Pl morpheme mǎ: follows the adjective (not the noun), as in yⁿǎm jèrⁿú mǎ: 'good women' ("woman good Pl").

(xx1)   Adjectives

       gloss   form

a. monosyllabic
    'big'   ná:
    'hot, fast'   dɔ́
    'old (animal)'   -yɔ̌:   (follows àrà- 'male' or yà- 'female')

b. two syllables, rising tone contour, final ú
    'good'   jèrⁿú
    'bitter'   gòlú
    'ugly'   mɔ̀sú
    'muddied'   bùtú
    'straight'   ǐgú
    'crooked'   gɔ̀nú
    'smooth, sleek' òlú
    'supple (hide)' ɔ̀lú
    'dense (foliage)' dɔ̀gú
    'wet'   ɔ̀tú
    'old (human)'   -pàynú (follows àrà- 'male' or yà- 'female')
    'old (thing)'   pòtú
    'undiluted'   kùrú
    'other'   làgú
    'half-ripe'   bùyⁿsú pronounced [bùjⁿʃú])
    'emaciated'   dɔ̀ŋú
    'blunt (blade)' dùnú
    'heavy'   dùsú
    'long, tall'   gùrú
    'nearby'   bèrú
    'skinny'   dɔ̀ŋú
    'coarse'   gà:ⁿsú
    'ripe'   ǐrú
    'green (wood)' ɔ̀rú

c. two syllables, all-high tone contour, final ú (not ú...ú)

    'unripe; fresh (milk)'   ɛ́tú

    'lightweight'   ɛ́rú

    'red'   bárⁿú

    'white'   pîrú

d. two syllables, all-high tones

    'deep'   lókó

    'rotten'   ɔ́rɔ́

    'spacious'   pótó

    'feeble'   kɔ́ŋɔ́

    'many, full'   mútú

    'front'   jíró

    'rear'   pɛ́rá

e. two or more syllables, ending in front vowel

    'sweet; sharp'   lǐsî

    'diluted'   sèré

    'empty'   péré

    'easy, cheap'   zɔ́rɛ́

f. two or more syllables, rising tone contour, final î: or î:ⁿ (§4.xxx, below)

    'thin'   ɔ̀ⁿsî:ⁿ

    'tender (meat)'   ɔ̀rí:

    'pointed'   sèmî:

    'sole, single'   tùrí:

g. two syllables, rising tone contour, vocalism a...a

    'new'   kàlá

    'distant'   wà:gá

h. bisyllabic, <LH>L contour, a...a vocalism

    'weak'   lǎ:là

i. bisyllabic, ending in y or yⁿ (diminutive)

    'small, young'   tègɛ̌y   (cf. noun/adverb tégɛ̌y 'a little')

    'short'   tùkěy

    'young (animal)'   kùrěy

j. monosyllabic, ending in y or w

'fat, thick'	sɛ́w
'living'	yⁿɛ́yⁿ
'hard'	mǎw, mᵇǎw
'dry'	mǎyⁿ
'tight (rope)'	ɛ̌w
'dense (forest)'	ɛ̌w

k. monosyllabic, ending in nasal

'black'	jɛ́m
'difficult, costly'	nâŋ
'sour'	nôm
'cold, slow'	tôm

l. other

'lukewarm'	bùgêm, bùgêm-bùgêm

   The adjectives of type C̀vCú in (xx1.b) may have originated as verbal nouns in some cases. Those of type C̀vCěy or CvCěy in (xx1.h) are diminutive in form; other adjectives may also form diminutives, but the cases in (xx1.h) are always in this form. The final î: or î:ⁿ of the forms in (xx1.f) is also arguably segmentable, and some other adjectives have a similar form as a variant; see §4.xxx, below.
   Some adjective-like senses are expressed by relative clauses (final dà ŋ́) with a verb of adjectival meaning. An example is dɔ̀ymú dà ŋ́ '(one) who is fast'.

4.5.2   Iterated derived adjectives

4.5.3   Diminutive adjectives with -î: or -ěy

As noted in (xx1.f) in §4.xxx, above, there are some adjectives that always end in î: (or î:ⁿ) following a low-toned first syllable: ɔ̀rî: 'tender (meat)' or 'fresh (produce)', ɔ̀ⁿsî:ⁿ 'thin', etc. Comparison with other words in the same word family (e.g. nouns, verbs) suggests that the î: ending is segmentable. Example: túrú 'one', tùrî: 'single, sole'.
   In addition, some other adjectives have an optional extension -î: with the same tone contour, or sometimes with a reversed tone contour (HL instead of LH). The sense is **diminutive**, and the most common forms are either color terms (xx1.a) or adjectives that lend themselves semantically to diminutive or other hypocoristic uses (xx1.b).

(xx1)   gloss   adjective   with -ǐ: ⇒

    a.   'red'   bárⁿú   bàrⁿ-î: (or: bár-ǐ:)
          'white'   pírú   pǐr-î:
          'black'   jɛ́m   jɛ̀wⁿ-î:

    b.   'skinny'   dɔ̀ŋú   dɔ̀ŋ-î:
          'lightweight'ɛ́rú   ɛ̀r-î:
          'ugly'   mɔ̀sú   mɔ̀s-î:
          'fat'   sɛ́w   sɛ̀w-î:

Looking back at the adjectives that always end in î: (î:ⁿ), we can infer that the diminutive ending is frozen.

The nominal Diminutive ending -ěy (or -ɛ̌y due to vowel harmony) is not productive with adjectives. A handful of adjectives include a (now frozen) ending of this type; see (xx1.h) in §4.5.xxx, above. I can also cite (from a text) a diminutive là:l-ěy from lǎ:là 'weak, feeble'.

4.5.4   Adjectives from -ú verbal noun with {HL} tone

Certain verbs that have a verbal noun with suffix -ú, e.g. bisyllabic Cv̀C-ú or apocopated Cv̌C-∅, have a corresponding form with falling tone that occurs as compound final after a low-toned noun. This form functions as an adjective, often similar to the adjectival use of a **past (i.e. passive) participle** in English (*fried rice*, *mashed potatoes*). In other words, the adjective-like verb form denotes the action that resulted in the final product.

The verb zàlá 'cook (e.g. meat, cow-peas) in a pot', verbal noun zàl-ú, corresponds to an adjective-like form zálù in several combinations, e.g. sèrù zálù 'cream of millet (one type)', [sèrè ètù] zálù 'cream of millet (another type)', mɔ̀ zálù 'cooked rice'.

The verb dùwɔ́ 'pound (e.g. grain, in a mortar)', verbal noun dǔw-∅, takes the form dûw-∅ (pronounced like /dû:/) in ɛ̀ŋǐnɛ̀ dûw-∅ '(balls of) pounded peanuts (with some millet)', cf. ɛ́ŋíné 'peanuts', and in sàŋà dûw-∅ 'crushed millet mixed with some peanuts'.

yàwrá is a verb (verbal noun yàwr-ú) meaning 'crush, grind (e.g. millet, with stones)'. We get yáwr-ù in sàŋà yáwr-ù 'crushed millet (snack)'.

Deverbal adjectives of this type are closely related to compounds consisting of low-toned nouns as initials, followed by verbal nouns (with their normal rising tone contour). In some compounds of this type the verbal noun really functions adjectivally, with similar "passive participle" semantics (§5.xxx). When the verb is monosyllabic Cv́, one cannot distinguish the verbal noun from

its adjectival counterpart with {HL} tone, since both would have Cv́ form; see §5.xxx for some examples.

4.6   Participles

There are no participles (i.e. verbs with noun-adjective endings agreeing with a NP) in TT.

4.7   Numerals

4.7.1   Cardinal numerals

4.7.1.1   'One', 'same (one)', and 'other'

The basic '1' numeral is túrú. A preceding modified noun has its regular tones: îló túrú 'one house'.
  Expressions like 'X and Y, both are one' are used in the sense 'X and Y are the same' (i.e. are substantively identical, or are equivalent in some respect). Here the numeral takes a predicative form tùrî: (xx1). kέk 'only' may be added.

(xx1) a. [yú ∴   [túsú   lěy]   cě-w-là:-fú:]   tùrî:
           [millet-& [sorghum and]   all]   one.single
           'Millet and sorghum are the same (=equivalent).'

       b. tùrî: cέk   bέ
           one.single only   3PlS
           'They are the same.'

  Numeral '1' may occur in expressions meaning 'X alone (singly)' (xxx). The form used is túrî:-ló. Morphologically, this looks like an ordinal ('first'), but this function is taken by another form (§4.xxx, below).

(xx2) búkàrǐ   túrî:-ló   kɔ̀   ŋ̀gú   kárⁿ˅-sà
       Boukari   singly   Foc   Dem   do-Perf
       'It's <u>Boukari alone</u> [focus] who did that.'

  'Other' is expressed by the true adjective làgú. Thus bὲlú 'sheep', bὲlù làgú 'another (or: the other) sheep'. Note the tone-dropping on the modified noun.

4.7.1.2   '2' to '10'

The numerals from '2' to '10' are shown in (xx1).

(xx1)   gloss   form

             '2'   lěy   (cf. also lěy in conjunctions, §7.1)
             '3'   tà:lî
             '4'   năy^n
             '5'   nǔ:y^n
             '6'   kúréy
             '7'   sóy^n
             '8'   gá:rà
             '9'   lá:rà
             '10'   pέ:rú

    The numerals may follow a modified noun, which retains its regular tones (xx2.a). They may also be used absolutely, as NPs with no overt modified noun (xx2.b).

(xx2)   a.   [bèlú   lěy]   cî   děn   d-è≡bέ
              [sheep   two]   slaughter   Trans   be-3PlS-\3PlS
              'They have slaughtered (=cut the throat of) two sheep.'

         b..   [ǹ   dé]   lěy   ów
               [1Sg   Dat]   two   give.Imprt
               'Give me two!'

4.7.1.3   Decimal numerals ('10', '20', …) and combinations ('11', '59', …)

The decimal numerals are given in (xx1), with '10' repeated for reference from the preceding section. The decimal numerals from '20' to '90' are compounds of '10' (in various thin disguises) plus the relevant single-digit numeral (with '5' shortened from nǔ:y^n to -nǔy^n). In '20' through '50', the '10' component takes the form pέ- (assimilating harmonically to pé- in pé-lěy '20'). In these forms, '10' has H-tone, contrasting with the initial L-tone component of the following single-digit numeral. In '60' and '70', we get pèrú- followed by a single-digit numeral with initial H-tone. In ('80' and '90', we get pèr- before a H-tone.

(xx1)   gloss   form

96

'10'	pé:ró
'20'	pé-lěy
'30'	pé-tà:lî
'40'	pé-năy^n
'50'	pé-nǔ:y^n
'60'	pèrú-kúréy
'70'	pèrú-sóy^n
'80'	pèr-gá:rà
'90'	pèr-lá:rà

In combinations of a decimal unit with a single-digit numeral (e.g. '18', '36, ''97'), the decimal unit comes first, followed by the single-digit numeral, with no 'plus' linker. However, in '11' to '19', the '10' numeral takes the form pé:r-î: (xx2).

(xx2) a. pé:r-î: lěy
           ten-plus   two
           'twelve'

       b. pé-năy^n nǔ:y^n
           ten-four   five
           'forty-five'

       c. nùnɗîr^{n}á   [pé-lěy   tà:lî]
           day   [ten-two   three]
           'twenty-three days'

4.7.1.4   Large numerals ('100', '1000', …) and their composites

The two basic large numerals are those in (xx1). They are noun-like syntactically, and can be modified by smaller following numerals (e.g. to express '200' or '5000').

(xx1)   gloss   form

       a. 'hundred'   zàŋgú, zàŋú, zǎŋ

       b. 'thousand'   zémbèrè

For 'one hundred', túrú is added: zàŋú túrú 'one hundred'. Likewise with 'one thousand': zémbèrè túrú.

'One hundred fifty' is zàŋú túrú pé-nù:yⁿ.

For very large quantities (e.g. 'million'), the phrase zèmbèrè lùgó is used.

Although zàŋgú 'hundred' has a resemblance to e.g. Gourou sùŋú, it is borrowed from Songhay, as is zémbèrè 'thousand'.

4.7.1.5 Currency

As is true in native languages throughout the zone, the unit of currency is equivalent to the 5 franc CFA coin, in this language called mú:dù (cf. Fulfulde bu:du).

4.7.1.6 Distributive numerals

write

4.7.2 Ordinal adjectives

4.7.2.1 'First' and 'last'

For 'first', the modifying adjective is déwrú, as in tùwò déwrú 'the first stone'. It is commonly used in connection with chronology rather than rank.

(xxx)   a.   [mòbǐlǐ   dèwrù   ŋgú]   kálà   kárⁿ-wⁿɔrⁿè
             [vehicle.L   **first**.L   DemSg]   stuck   do-Perf
             'This first vehicle (e.g. in a convoy) got bogged (in the mud).' (Fr *calé*)

Another expression, tí:, is adverbial 'first' or predicative '(be) first'. In predicative function, it is most common in contexts such as competitions and rankings rather than chronology. In the relativized form kà: tí: it competes with déwrú as a modifier with no sharp distinction in meaning (xxx.c).

(xxx)   a.   tí: wɔ́
             first   3SgS
             'He/She is first (e.g. in class, in a race).'

        b.   tí: jǐnî   wɔ́
             first   not   3SgS

98

'He/She is not first.'

    c. ɛ́wá   mɔ̀ŋgɔ̀rɔ̀   kà: tí: ú   wɔ̀-sɔ́   ɲ́
           buy.Imprt   mango.L   Rel   first   2SgS   see-Perf2   Rel
           'Buy-2Sg the first mango that you see!.'

For 'last (in time or rank)', the adjective pérá is used: bɛ̀l pérá 'the last sheep', mòbìlì pérá 'the last vehicle (in a convoy)'.

4.7.2.2   *Other ordinals (suffix -ló)*

Except for 'first' (and 'last'), ordinals are formed by suffixing -ló to the numeral. Even túrú 'one' can be followed by -ló when it is part of a complex numeral. Except as part of decimal terms ('20' to '90'), numerals from '1' to '10' have all-H tone before -ló. 'Hundred' and 'thousand' have L-toned stems before -ló.

(xx1)   form   gloss

      a. single-digit numeral
         léy-ló   'second'
         tá:l-ló   'third'
         kúréy-ló   'sixth'
         gá:rá-ló   'eighth'
         pé:l-ló   'tenth'

      b. decimal
         pɛ̀-tà:lǐ-ló   'thirtieth'

      c. decimal plus single-digit numeral
         pɛ̀:r-ǐ: túl-ló   'eleventh'
         pɛ̀:r-ǐ: léy-ló   'twelfth'

      d. huindred
         zàŋù-ló   'hundredth'

      d. thousand
         zèmbɛ̀rɛ̀-ló   'thousand'

4.7.3   Fractions and portions

5 Nominal and adjectival compounds

5.1 Nominal compounds

The following notation is used in the **formulas**. Word-classes: n = noun, v = verb, a = adjective, x = variable word-class (usually noun). Diacritics, using x as base: x̄ = regular tones (as in uncompounded contexts), x̀ = all-low toned (tone-dropping), x́ = all-high toned, x̂ = with overlaid {HL} tone contour, x̌ = with overlaid {LH} tone contour.

5.1.1 Compounds of type (x̄ n̄) and (x̄ ň)

Several compounds with a final human noun, especially 'person' and 'man' but also e.g. 'chief', have an initial that keeps its regular lexical tone (the initial may itself be complex or even a locative adverb phrase), and a final with L(L…)H tone. In most cases this L(L…)H contour is already the regular lexical tone of the final noun (nù-rⁿú 'person', nù-mú 'people', ɔ̀ŋù-nú 'traditional chief, Hogon'. In this case, these compounds are compatible with the formula (x̄ n̄).

(xx1) a. ǒw   à-nú
            bush   man-Sg
            'lion' ("bush-man")

       b. [ów   kù]   nù-mú
           [bush   in]   person-Pl
           'rural people'

       c. àlá   nùmù:mú
           village   people
           'villagers'

       d. àlá   ɔ̀ŋù-nú
           village   chief-Sg
           'the village chief'

       e. [kɔ̀   gɔ̌ŋ]   nù-mú
           [Def   elephant]   person-Pl

'the people (= troops) of the elephant' (2004-1b.01)

However, nùmù:mú 'people' as compound final in (xx2) is tonally distinct from the non-compound pronunciation of this (idiosyncratically reduplicated) stem, namely nùmû:mú (see §5.3.2). This suggests that a type ($\bar{x}$ ň) with overlaid {LH} tone contour on the final may be at least occasionally distinguishable from ($\bar{x}$ n̄), where both the initial and the final have the same tones as they have in other contexts.

(xx2) tɔ́rɔ́   nùmù:mú
       mountain   people
       'mountain people' (tɔ́rɔ́, nùmû:mú)

The examples in (xx1), above, are therefore ambiguous as to ($\bar{x}$ ň) versus ($\bar{x}$ n̄).

5.1.2   Compounds of type ($\grave{x}$ n̄)

The initial has all-low tones. The final has its regular tone. This is the most common pattern for typical, lexicalized compounds. It has the same tone pattern as a noun-adjective combination, which suggests that the latter is a kind of compound.

(xxx) a.   òw-nǐwⁿěyⁿ
            bush.L-cat
            'wild cat'

       b.   tǐwⁿà-dùdùŋgúrò
            tree.L-stump
            'tree stump' (tǐwⁿá)

       c.   kù-kàsú
            head.L-calabash
            'skull'

Some nouns are especially common as compound initials, defining a semantic domain that the referent relates to. Thus célá 'central organs (especially liver)', which is also the seat of the emotions, occurs in e.g. cèlà-tóŋó 'heart' ("...-can"), cɛlà-yⁿúmnò 'nausea', cèlà-bárⁿà 'anger' ("...-redness"), cèlà-pέⁿ 'heroism' ("...-hardened.ripe"), cèlà-yⁿáwⁿá 'being

devastated (e.g. by failure)'. On the other hand, -célá is the final in lɔ̀-célá 'palm of hand' and bèl-célá 'middle'.

Certain nouns lend themselves to functioning as compound finals, flexibly denoting parts or configurations that can be adapted to a range of contexts. ká 'mouth' can mean 'tip, end (of an object)' and 'opening, rim (of orifice)', and occurs as a fixed part of such compounds as pùrɔ̀-ká 'rear end', bètè-ká 'stomach, paunch', čìrⁿò-ká 'nose' (cîrⁿó has specialized to mean 'snot'), and ïl-ká 'outside (a house)'. ósú 'path, road' is another common final: nǐ-ósú 'water channel', gàgù-ósú 'tracks (of reptile)', kùwɔ̀-ósú 'tracks (paw prints)', dè-ósú 'riverbed, oued', yɔ̀kɔ̀-ósú '(interior) throat'. Of course nouns like 'hair' and 'hole' occur with numerous initials indicating the body region in question: kù-kúrɔ́ 'head hair', bèw-kúrɔ́ 'beard hair', ɟìrò-kúrɔ́ 'eyelash', bǐsà-kúrɔ́ 'mane hair', kà-kúrɔ́ 'moustache' ("mouth-hair"), cèlkù-kúrɔ́ 'chest hair'; sùgùrù-ùró 'ear hole', čìrⁿò-ùró 'nostril'.

Some nouns denoting containers or other common implements can be used as compound finals that describe a shape or contour: tè:ⁿsú 'bowl' in ɟìrò-tè:ⁿsú 'eye socket', kàsú 'calabash' in kù-kàsú 'skull' ("head-..."), pètá '(flat) fan' in kà-pètá '(flat) side of face' ("mouth-...") and kù-pètá 'temple' ("head-..."), béré 'stick' in čìrⁿò-béré 'bridge of nose'.

As compound final, nî 'water' generalizes to 'liquid': čìrⁿò-nî 'snot in nose', ànnà-nî 'urine', ïrù-nî 'breast milk' ("breast-water", cf. êm 'milk'), sèrè-nî 'semen', ɟìrò-nî 'tears', lòw-nî 'liquid (not buttery) oil', àrⁿà-nî 'rainwater, rainfall', èrà-nî 'potash water'.

-tɔ́ is a specialized compound final occurring in lɔ̀-tɔ́ 'hand' (lɔ́ 'hand, arm') and kùwɔ̀-tɔ́ 'foot' (kúwɔ́ 'leg, foot').

Compounding is recursive. An example where the initial is itself composite is [lɔ̀-bèrè]-tùwó 'stone arm-ring', from lɔ̀-béré '(wooden) arm-ring' (lɔ́ 'arm, hand', béré 'stick') and tùwó 'stone'.

5.1.3   Compounds with final Verbal Noun, type (x̀ n̄)

The initial denotes the direct object. It occurs without determiners and with all tones low. The final is a verbal noun in form. The compound may be a verbal abstractive simply denoting the event type, or it may denote e.g. an instrument or product associated with the event type. In some cases the verbal noun functions rather like a modifying adjective.

(xx1)   a.   kà-[pàg-ú]]
              mouth.L-[tie-VblN]
              'muzzle-guard (to prevent suckling)' (ká, págá)

b. yù-[bĕw-∅]
    millet.L-[sprout-VblN]
    '(a) millet sprout' (yú, bὲwá)

c. yù-[lŭw-∅]
    millet.L-[fall-VblN]
    'millet (spike and plant) that has fallen to the ground' (lùwo)

d. yù-[làr-ú]
    millet.L-[bear(child)-VblN]
    'millet plant that has grown a substantial spike (but no grains yet)'
    (làrá)

e. kù-[tŏm-∅]
    head.L-[roll.on-VblN]
    'turban' (kú, tɔ́wⁿɔ́)

f. nὲŋ-[ĩg-ú]
    salt.L-[stand-VblN]
    'slab (bar) of salt'

The adjectival quality of the verbal noun is clearer in cases where the [noun-[verb-VblN]] compound functions as a modifier of another noun (xx2).

(xx2) yù   kà-[pàg-ú]
       millet.L   mouth.L-[tie-VlbN]
       'millet plant at the stage where it has stopped growing new leaves'

5.1.4   Compounds with final Verbal Noun, type (x̀ ń)

In this type, the verbal noun shifts to all-high tone contour.

(xx1) a. kù-[tíl-ú]
           head.L-[shut-VblN]
           'mourning' (kú, tílá)

       b. kà-[pír-ú]
           mouth.L-[slap-VblN]
           '(a) slap'

c. yù   èm-[lát-ú]
   millet.L   milk.L-[put.up-VblN]
   'millet plant at the stage where the grains exude milky latex'

d. kù-[ér-ú]
   head-[braid-VblN]
   'hairstyle (braided)'

A slightly different pattern with the same tone contour is seen in nòŋ-lúwó 'sunset' (nǒŋ 'sun'), where the verb 'fall' has a final vowel (as in Imperative lùwó), cf verbal noun lǔw-∅.

5.1.5   Compounds with final -Cv́ Verbal Noun

With monosyllabic Cv́ verb stems, when the form Cv́ follows a low-toned noun stem, one cannot determine from the tone pattern whether the sequence is a compound of type (x̀ n̄), a compound of type (x̀ ń), or a noun plus an adjective that takes the form of a verbal noun with overlaid {HL} tone contour (§4.5.4). These constructions are distinguishable for bisyllabic and longer stems, but a Cv́ stem will appear with high tone in all three cases.

(xx1) a. cèlà-yî
          heart.L-weep.VblN
          'grief (e.g. after a death)' (célá, yɛ́)

       b. tĭn-dî
          firewood.L-carry.VblN
          '(tied) bundle of firewood' (tǐrⁿú, dé)

5.1.6   (Possessive) compounds of type (x̄ ǹ)

In these compounds, the initial has its regular tones, and the final has all-low tones. This is the regular tonal pattern for possessed nouns when the possessor is (as here) a noun stem or other simple core NP without determiners or other phrasal attributes. Often these compounds are interchangeable with those of type (x̀ n̄), and many times an informant has given a compound in one tonal pattern and then repeated it with the other.

(xx1) a. sǒŋ   dàŋà

horse   bag.L
'grain bag for horse' (dàŋá)

b. tɔ́rɔ́   tùwò
    mountain   rock.L
    'mountain rock (boulder)' (tùwó)

c. mǎlfà   cǐrà
    rifle   horn.L
    'gunpowder horn' (mǎlfà, círá)
    (cǐrà can also be the low-toned form of cǐrá 'bone')

More examples: ǰìró pìrù 'the white of the eye', súgúrú dɔ̀:lù 'ear's dirt' (i.e., 'earwax'), pèrú tɔ̀kɔ̀ 'knife's sheath'.

The initial may itself be a compound. Indeed, the heavier the initial is, the more likely it is to function as possessor rather than as a very long, low-toned initial.

(xx2) a. cǐrⁿò-ká   sùŋ
           nose   rope.L
           'nose rope (= reins for camel or ox)' (sǔŋ)

b. sùgùrù-pètá   cǐrà
    ear-flat.fan   bone.L
    'mastoid process (bone behind ear)' (pètá 'fan; flat side', cǐrá)

Both the initial (the possessor) and the final (the possessed) are compounds in e.g. cǐrⁿò-ká lɔ̀-sàgà 'nose ring'. The initial is the usual word for 'nose', but originally meant 'nose-mouth' (cǐrⁿó has shifted semantically to 'snot'). The final is lɔ̀-sàgá '(finger) ring' (cf. lɔ́ 'hand').

Although these compounds have the tone contour of possessor-possessed NPs, they function as nouns. They may be modified by following adjectives, and in this construction (unless the possessor-possessed sense is fairly clear) the entire compound undergoes tone-dropping. Thus nî kòrò 'waterjar' ("water's jar") drops its tones in (xx3.a), as does sǒŋ dàŋà 'horse's grain bag' ("horse's bag") in (xx3.b), as required by the following modifying adjective. By contrast, a true possessor NP does not drop tones due to an adjective modifying the possessed noun.

(xxx) a. [nǐ   kòrò]   ná:
           [water.L   jar.L]   big
           'a big waterjar'

b. [sòŋ   dàŋà]   jèrⁿú
   [horse.L   bag.L]   good
   'a good [horse's grain bag]'

5.1.7   Compounds of type ($\bar{\text{x}}$ n̂)

In (xx1), the initial (the name of a town) has its regular tones, but the final has an overlaid {HL} contour.

(xx1)   a. bó:nî   yⁿâ-m
            Boni   woman-Pl
            'women of Boni' (bó:nî, yⁿà-mú ~ yⁿǎ-m)

Further examples of this tonal type are in (xx2).

(xx2)   compound   gloss   comment

        a. cɛ́lá-ḿpárèy   'spleen'   cɛ́lá 'heart/liver'
        b. hŭmsò-ósù   'windpipe'   húmsó   'breathe',   ósú
                                                   'path'
        c. tĩwⁿá kôw   'tree bark'   tĩwⁿá 'tree', kŏw 'shell'
        d. ŏw órù   'fields far from village' ŏw 'the bush', órú 'field'

The tone of hŭmsò- in hŭmsò-ósù is irregular.
    Informants repeating a compound several times sometimes fluctuated between this pattern and the more productive possessive-type compound with all-low-toned final.
    An example of where the initial is internally complex is [nĭ-nàwⁿà ăw-∅] cêŋ 'fishhook'. The initial contains nî nàwⁿà 'water's meat' (= 'fish') as low-toned compound initial for verbal noun ăw-∅ 'catching'. The final is an {HL}-toned version of cěŋ 'sharp-pointed implement, needle'.

5.1.8   Compounds of type (ǹ v̂)

In one animal tale, the animals were organized into two armies, one for flying creatures and the other for terrestrial animals. The term used by the narrator for 'flying creatures' was jètà-cîrò. This consists of jètá 'wing' in low-toned form and a form of the verb 'fly' (Imperative cîró) with {HL} tone. The final in this

compound is somewhat difficult to interpret (perhaps an otherwise unattested nominal 'flying, flight').

5.1.9   Agentive compounds of type (x̀ v́-Agent)

In this common and productive type, the initial drops its tones, and the final (verb stem plus Singular or Plural suffix) is all-H-toned. The initial denotes a typical object, or is a cognate nominal (or other default nominal) associated lexically with the verb. The singular form ends in -nú ~ -n (except -rⁿú after a monosyllabic stem), the plural in -mú ~ -m (§4.2.4). Most often the Singular is syllabic -nú and the Plural is nonsyllabic -m. A nonmonosyllabic verb usually has stem-final /u/ before the suffix, but in 'hunter' (xx1.a) I heard /o/. The monosyllabic verb attested in this construction takes the stem shape Cî- ('dancer').

(xx1)   a.   àrà-[ósó-nú]
               hunt(noun)-hunt.Agent-Sg
               'hunter'
               (cf. àrà-ósó á òsù-r-ǒ: 'he/she is hunting')

         b.   nùŋɔ̀-[núŋú-nú]
               song.L-sing.Agent-Sg
               'singer' (nùŋɔ́)

         c.   jè-[jî-rⁿú]
               dance(noun).L-[dance.Agent-Sg]
               'dancer' (jɛ́)
               (also gànǐ-[jî-rⁿú], from gánî, a boy's dance')

When the verb stem is of the shape Cvrv- or Cvrⁿv- with medial rhotic, Early u-Syncope and then Rhotic-Deletion occur in the singular, but not in the plural (xx2).

(xx2) gloss	singular	plural	noun	verb (Imprt)
'merchant'	jà:gù-[ká-nú]	jà:gù-[kárⁿú-m]	já:gù	kárⁿá 'do'
'farmer'	wàrù-[wá-n]	wàrù-[wárú-m]	wàrá	wàrá
'braiding lady'	kù-[ɛ́-nú]	kù-[ɛ́rú-m]	kú 'head'	ɛ́rá

5.1.10   Compounds with -[ì-rⁿú] 'child of'

'Child' is ì-rⁿú (Pl ì-mú 'children'). It is widely used as a compound final denoting a child belonging to a caste or other social category, the young of an animal species, the fruit or seed of a plant, or a similar small object associated with a larger one. The initial drops tones.

(xxx)	noun	gloss	compound	gloss
a.	zémàn	'blacksmith'	zèmàn-[ì-rⁿú]	'young blacksmith'
	zɔ́rⁿú	'Songhay'	zɔ̀rⁿù-[ì-rⁿú]	'young Songhay'
b.	nènú	'dog'	nènì̌-[ì-rⁿú]	'puppy'
	gɔ̌ŋ	'elephant'	gɔ̀ŋ-[ì-rⁿú]	'young elephant'
c.	mɔ̀nɔ́	'wild date tree'	mɔ̀rⁿù-[ì-rⁿú]	'wild date (fruit)'
	yú	'millet'	yù-[ì-rⁿú]	'grain of millet'

The compound 'round grindstone' in (xxx) must have originated as a 'child of' compound, but this is somewhat opaque synchronically because of vocalic changes. Cf., however, ì-rⁿ-í:, a diminutive form of ì-rⁿú 'child'. The large flat grindstone (slightly concave) is the base, while the small round groundstone is held in the hand and does the grinding.

(xxx)	noun	gloss	related noun	gloss
	nǔŋ	'flat grindstone'	nùŋ-[ɔ̀rⁿ-í:]	'round grindstone'

jĩrò-[ì-rⁿú] 'eye-child-Sg' turned up in a text meaning 'one eyeball'. Here 'child' is used as a unit term, circumscribing a term that would otherwise usually be taken as denoting at least a pair of eyes.

5.1.11   'Man', 'woman'

5.1.12   'Owner of' (bàsà)

The noun 'owner' has the form bàⁿsá with irregular plural bâ-m. As a compound final it often takes the form bàsà without nasalization, though I have

109

also recorded bàⁿsà and bà:ⁿsà. The preceding noun is morphosyntactically the possessor.

This compound type may be used as a kind of characteristic derivative, describing a type of entity that has or is associated with the feature (e.g. body part) in question.

(xx1)   a.   kúrɔ́   bàsà   kúnú
             hair   owner   DefSg
             'the winged ones (grasshoppers with developed wings)' (2004-1b.03)
             (can also mean 'the hairy one')

Some other examples: tùŋɔ́ bàsà 'hunchback', [bètè séw] bàsà 'one that has a big belly'

The compound with bàsà may be used adjectivally, following a common noun that it modifies.

(xx2)   a.   gògù   [záká   bàsà]
             staff.L   [fork   owner]
             'herder's staff (stick) with forked end' (gògú)

5.1.13   Loose and tight compounds with ná ('authentic', 'entire')

5.1.14   Instrumental relative compounds ('oil for rubbing')

Constructions of this type involve á (presumably the Imperfective particle) and a relativized verb with (nonreferential) 3Pl subject. There is no kà: Relative morpheme.

(xxx)   a.   nǐ   á   nǐ-r-è   ŋ́
             water.L   Impf   drink-Impf-3PlS   Rel
             'water for drinking'

        b.   nǐ   á   ɗǐ-r-è   ŋ́
             water.L   Impf   bathe-Impf-3PlS   Rel
             'water for bathing'

5.1.15   Other phrasal compounds

write

110

5.1.16 Unclassified nominal compounds

write

5.2 Adjectival compounds

5.2.1 Bahuvrihi ("Blackbeard") compounds (n̄ â)

The Sanskrit grammatical term bahuvrihi denotes compounds of the *Blackbeard* and *two-headed* types, with a noun (such as a body part) and either a descriptive adjective or a numeral. These are based on simple NPs like *black beard* and *two heads*, but the bahuvrihis denote (or describe) the larger entity (person, animal, etc.).

TT bahuvrihis have the tonal formula (n̄ x̂), meaning that the initial noun has its regular lexical tone, while the final (i.e. adjective or numeral) has overlaid {HL} tone contour.

5.2.1.1 *With adjectival compound final*

Examples are in (xx1). The cases in (xx1.b) involve adjectives with intonational prolongation (⇒) or diminutive -î:. In some cases the final element is not otherwise attested.

(xx1) a. kú-bár^{n}ù   'red-headed' (e.g. agama lizard)

  b. tùŋɔ́-gúŋ̀ùnǐ: 'having a hunched back'
    bèté-dósù: 'big-bellied (insect)'
    j̃ĩr^{n}ó-sákù⇒   'having buck teeth'

5.2.1.2 *With numeral compound final*

A numeral may function as the final in a bahuvrihi compound (compare English *two-fisted*, *three-toed*).

(xxx) a. kúwɔ́-nây
      foot-four.HL
      'quadruped, four-footed creature' (2004-1b.01)

5.3   Reduplication and iteration (nouns, adjectives, adverbials)

I will use the term **iteration** for the repetition, with or without tone changes, of an entire stem that also occurs in simple form. **Reduplication** is used for partial repetition (e.g. Cv-), and for stems that look like they contain iterations (with or without vocalic and/or tonal changes) of a segment which, however, does not occur elsewhere.

5.3.1   Frozen Cv-Reduplication in nouns

A number of nouns and compound finals begin with what might be taken as a Cv- reduplicative segment. The unreduplicated stem is usually not attested, so segmentation is doubtful, but the prevalence of the pattern, with the initial Cv- usually low-toned, is suggestive. A fairly complete list is given below, with uncompounded stems in (xx1.a), and stems found only as compound finals in (xx1.b). (xx1.c-d) are similar except that here the Cv- is high-toned.

(xx1)   noun   gloss   comment

        a.   cècɛ́   'beetle, bug' (general term)
             nèné   'scorpion'
             kɔ̀kɔ́   'tree sp.' (*Gardenia*)
             žĭžîm   'mud-dauber wasp'
             kɔ́kɔ́rɔ́   'tall herb sp.' (*Rogeria*)
             làláwà   'tree sp.' (*Maerua angolensis*)
             gùgúsù   'giant pouched rat' (*Cricetomys*)
             bɔ̀bɔ̀lɔ́   'bogolan (dyed garments)'
             cècèrú   'stem, stalk'
             cècèrú   'hot chili pepper'
             nènèrⁿú   'thirst'
             bòbògú   'uncastrated'
             sèsèrⁿí   'necklace (chain)'
             wòwòrĕy   'collarbone'
             cècĕwtà   'twin sibling'
             zàzàmkú   'double grain spike'
             sèsèjénà   'tall herb sp.' (*Sesbania*)
             zàzàgúrà   'fan-footed gecko lizard' (*Ptyodactylus*)
             dùdù̀ŋgúrò   'cut-off piece'
             màmàŋgĭré   'herb with spiny fruit' (*Tribulus*)
             dɔ̀dɔ̀:ⁿsíyà   'scrub-robin'

b. kàsù-gúgúrú   'gourd fruit seedball'   kàsú 'calabash'
    ĵìrò-kòkòmró   'cheekbone'   ĵìró 'eye'
    kùwɔ̀-cècèwró   'anklebone'   kúwɔ́ 'foot, leg'
    kùwɔ̀-cècègùrú   'ankle'
    àrà-bɔbɔrɔ́   'cream of millet (type)'   Jamsay
                                                  pǐrè-àrá   'cream   of
                                                  millet'

c. sésém   'passing shower'
    cîcǐrⁿí   'mountain fig sp.' (*Ficus cordata*)
    bîbîsî: 'tree sp.' (*Maerua crassifolia*)
    sásàrⁿîyⁿà   'shrub sp.' (*Phyllanthus*)
    bɔ́bɔ́rɔ́   'algae'
    gúgúrú   'dike-ridge in field'
    búbúsú   'new branch'   bǐsá 're-grow branch'

d. kònò-gágásèy   'watermelon (type)'   kònó 'watermelon'

5.3.2   Reduplications of nù-rⁿú 'person' (nùnû:rⁿú, nùmû:mú)

Related to the regular noun for 'person' (Sg nù-rⁿú, Pl nù-mú, §4.1.2), there are
unusual variant forms that look like reduplications with medial contraction
(xx2). nùnû:rⁿú could be derived, somewhat raggedly, from /nù-rⁿú-(n)ù-rⁿú/,
and nùmû:mú from /nù-mú-(n)ù-mú/. However, I will not hyphenate these
forms as they are far from transparent morphologically. Possibly the pattern was
suggested by ì-mî: mǎ: 'children' in (xx1). In any event, the quasi-reduplicated
forms in (xx2) are used with nonspecific reference ('someone', 'some people')

(xx2) Sg nùnû:rⁿú
      Pl   nùmû:mú

   The form nùmû:mú is segmentally identical to, but tonally distinct from, a
(perhaps historically related) noun númú:mú 'kin relationship'.

(xx3) númú:mú   [[î   zákà]   kù]   dá
      kinship   [[1Pl   between]   in]   be
      'There is a kinship relationship between us.'

113

5.3.3   Iterated (reduplicated) adjectives ('__-ish')

Many adjectives lend themselves to gradation, and therefore to an approximative derivation, expressed by full-stem iteration (reduplication). The sense is 'sort of ADJ', 'ADJ-ish'. The stem is repeated exactly once. The first (=leftmost) occurrence has the regular tone. The second has an **overlaid {HL} tone contour** realized as F (on a bimoraic monosyllabic), as HL (on a bisyllabic), or as HLL (on a trisyllabic). Monomoraic bisyllabics appear with H tone, the low-tone component having found no segmental material to attach to. The pattern is most common with color adjectives but is elicitable for many adjectives (xx1).

(xx1) gloss   simple stem   reduplication ('__-ish')

    'hot'   dɔ́   dɔ́-dɔ̂

    'black'   jɛ́m   jɛ́m-jɛ̂m

    'red'   bárⁿú   bárⁿú-bárⁿù

    'white'   pírú   pírú-pírù

    'brown'   wùgùrú   wùgùrú-wúgùrù

    'short'   tùkěy   tùkěy-túkèy

    'sweet'   ĩ̀sî   ĩ̀sî-ĩ́sì

    'coarse'   gà:ⁿsú   gà:ⁿsú-gá:ⁿsù

The iterated sequence functions as a single adjective for tonological purposes. Thus nĭ dɔ́ 'hot water' and iterated nĭ dɔ́-dɔ̂ 'hottish water', with definite forms nĭ dɔ̀ kúnú 'the hot water', nĭ dɔ̀-dɔ̀ kúnú 'the hottish water' (note the tone-dropping induced by the determiner).

5.3.4   (Semi-)frozen reduplicative adjectives

The productive adjectival '-ish' derivation in §5.3.3, above, is to be distinguished from stems that (as adjectives) are lexically reduplicative. These may function syntactically as adverbials or adjectives, and generally describe visual patterns that are repeated over a surface.

(xx1) gloss   stem   comments

114

'spotted'	tɔ̀bbɛ́-tɔ̀bbɛ́	cf. noun	tɔ́bbɛ̀ '(a) spot' (<
			Fulfulde)
'blotched'	lápùrà-lápùrà	cf. noun	lápúrà
'white-spotted'	pɔ̀rⁿùká-pɔ̀rⁿùká	synonym	pɔ̀rⁿùkú

5.3.5 Frozen reduplicative nouns

Among onomatopoeic bird names, a type with repeated long monosyllables and H-L tone contour is seen in gá:ⁿ-gà:ⁿ 'pied crow', sí:ⁿ-sà:ⁿ 'black bird sp.', tú:-tù: 'coucal (?)', and kɛ́:ⁿ-kɛ̀:ⁿ 'rock kestrel'.

Quadrisyllabic reduplications with LL-HL tone contour are fairly common for flora and fauna not known for their calls, e.g. pìrè-pírè 'butterfly', nòŋò-nóŋò 'praying mantis', yⁿàŋà-yⁿáŋà 'wind scorpion', yàgà-yágà 'hibiscus bush spp.' The same tone pattern occurs in zùnù-zúnù 'poor-quality meat', cèsè-césè 'wood chips' (verb césá 'cut'), and pɔ̀tɔ̀-pɔ́tɔ̀ 'mud'. A symmetrical HL-HL tone pattern is seen in fúnà-fúnà 'bush sp.' (*Pergularia*).

A pattern with LH-LH tones, allowing for contraction to LFH, is perhaps present in yèkê:ké ~ wèkê:kè 'spotted thick-knee'.

An all-high contour is seen in the final of kàsù-[kúlú-kúlú] 'calabash with protrusions'.

5.3.6 Reduplicative adverbials

TT is rich in lexicalized reduplicated adverbials, often involving elements that are not attested elsewhere.

In (xx1) I give a few examples where the repeated components are segmentally identical. The subdivisions of (xx1) are based on tonal patterns. In (xx1.a) the tones are the same in all iterations. In (xx1.b) the second iteration has an overlaid {HL} contour, realized as HLL on a trisyllabic. This tone pattern is also the productive device for deriving '-ish' adjectives from base adjectives, see §4.5.4.

(xx1)   a. tones same in both parts

dá:-dá:	'scattered, here and there'
sáw-sáw	'fastidiously clean'
sɔ́:ⁿ-sɔ́:ⁿ	'all together'
tɔ̀bbɛ́-tɔ̀bbɛ́	'dotted'
zígì-zágù	'staggering under a heavy load'
yéréw-yéréw	'striding fast'

lápùrà-lápùrà	'blotched'
mútírí-mútírí	'having swollen hindquarters'
dɔ̀dùrɛ́-dɔ̀dùrɛ́	'almost alongside'

b. second part has {HL} contour (HL, HLL, etc.)

ɛ̌wⁿ-ɛ̂wⁿ	'at full speed'
zígî-zígǐ	'lumbering along'
yⁿáŋúnú-yⁿáŋùnù	'walking with legs wide apart (like a boy recently circumcised'

There are also some cases where the **vocalism is varied** in a reduplicated adverbial. Typically a non-low vowel in the first part is replaced by /a/ in the iteration (xx2.a). Compare English *zig-zag*, *ping-pong*, and similar reduplications in English. A couple of nouns of this type are mixed in with the adverbials in (xx2).

(xx2) a. tones same in both parts

gúrùŋ-gáràŋ	'with roots spreading'
mɛ̂:-mâ⇒	'face to face'
yúkù-yákù	'chubby' (as adjective: yùkù-yàkú)

b. LL-HH contour

zèlèw-záláw	'glimmering'
dɛ̀mà-dɛ́má⇒	'towering'
ɲìmǐ-ɲámá	'bric-à-brac' (regional word)
yùlù-yálá	'black variety of sweet sorghum'

A variation on this is a three-part ABA pattern with the low vowel in the medial iteration (xx3). In addition to adverbials, this pattern occurs in imitations of some sounds.

(xx3) a. tones same in all parts

zǐgú-zàgú-zǐgú	'staggering along'

b. H-L-H tone contour

cí:ⁿ-kà:ⁿ-cî:ⁿ	'creaking sound'
hó:-hà:-hó:	'hubbub' (regional expression)

6   Noun Phrase structure

6.1   Organization of NP constituents

The structure of a noun phrase is expressed by a combination of linear sequencing and tonal interactions. Tonal interactions include tone-dropping (to all-low-toned) of a noun and/or adjective (if followed by another adjective or by a demonstrative, or if functioning as head of a relative clause, or if preceded by a simple nominal possessor NP), and overlay of a {HL} tone counture on nouns preceded by other possessors.

There is no case-marking of structural positions (subject, object). Dative, purpositive, instrumental, and spatiotemporal functions are marked by postpositions following the NP (chapter 8).

6.1.1   Linear order

The ordering in (xx1) is applicable to NPs not involving relative clauses. The possessor may itself be a complete NP.

(xx1)   a.   possessor NP
      b.   noun (human nouns often end in Sg or Pl suffix)
      c.   modifying adjective(s)
      d.   cardinal numeral
      e.   demonstratives such as ŋú (ŋ̀gú) 'this/that', and Definite morphemes
      f.   other quantifier: Plural mǎ:, 'each' kálá:, or 'all' yà:fú: (and variants)

Examples are in (xx2).

(xx2)   a.   [m̀   bá]   àlà
           [1SgP father]   village.L
           'my father's village'   [possessor, noun]

      b.   nènù   ná: mǎ:
           dog.L   big   Pl
           '(the) big dogs'   [noun, adjective, Pl

c. nènù nà: ŋú mǎ:
  dog.L big.L Dem Pl
  'those dogs'   [noun, adjective, Dem, Pl]

d. ǹjîw là:fú:
  DemPl all
  'all that'   [Dem, 'all']

e. îló nǔ:y^n yà:fú:
  house five all
  'all five houses' [noun, cardinal numeral, 'all']

f. nènù tégěy mǎ: lěy
  dog.L small Pl two
  'two small dogs' [noun, adjective, Pl, cardinal numeral]

g. y^{n}à-m tà:ĩi cînî
  woman-Pl.L three.L DefPl
  'the (same) three women'

6.1.2 Headless NPs (absolute function of demonstratives, adjectives, numerals)

The "noun" slot in a core NP may be empty if the category of entity in question is understood or unspecified. This is uncommon in the case of adjectives, since at least a semantically light noun like 'person' or 'thing' is usually present. However, I was able to elicit absolute uses of adjectives in contexts like 'the reds versus the blacks' (in a soccer match).

(xx1) a. bár^{n}ú mǎ:
    red Pl
    '(the) reds'

  b. bán túrú
    red one
    'one red'

Numerals are also generally used with an overt noun, at least a semantically light noun. However, numerals may be used absolutely, especially in connection with currency (the understood unit being bú:dù 'riyal' = five francs CFA). Thus

zémbèrè 'thousand' can be used, for bú:dù zémbèrè, in the sense '5000 francs CFA'.

Demonstrative pronouns (but not Definite morphemes) are readily used in absolute function without a noun: ǹgú 'that'.

6.1.3 Detachability (in relatives)

Certain elements that occur at the end of NPs are shifted to position following Relative morpheme ɲ́ in relative clauses if they are associated with the head NP. These are determiners (demonstrative pronouns, Definite morphemes), distributive and universal quantifiers ('each', 'all'), and the independent Plural morpheme bé. Possessors, modifying adjectives, and cardinal numerals remains with the head NP inside the relative clause. For examples see Chapter 14.

6.1.4 Internal bracketing and tone-dropping

Tone-dropping applies to a noun that is followed by a **modifying adjective** (including ordinals). If there are two adjectives,the noun and the first adjective undergo tone-dropping. The effect is that only the rightmost word in a core NP can retain lexical tones (which always include at least one high-tone element).

There is **no tone-dropping** before quantifiers (cardinal numeral, yà:fú: 'all', Pl mǎ:). There is **no systematic tone-dropping** before kálá: 'each', thus ǐrⁿú kálá: 'each child', îló kálá: 'each house'. However, tone-dropping does occur (along with other reductions) in này ká: 'every day' (variant of náy kálá:) and tùŋ kálá: 'always, every time' (reduced from tùwⁿɔ́ kálá:).

A **determiner** (demonstrative pronoun or Definite morpheme) forces tone-dropping on the final word of the core NP, and simultaneously on any numeral that may follow the core NP.

A **possessor NP has its regular tones**. In the presence of a possessor NP, the possessed noun undergoes tonal changes.

6.2 Possessives

6.2.1 Possessor plus possessed noun

Ordinary possession is expressed by **preposing the possessor NP** (in its normal tones). There is **no linking element** or other possessive (genitive) morpheme. However, possessed nouns are marked by tonal changes, as summarized in (xx1).

(xx1)   possessor   tone contour of possessed noun

    a.   noun (or core NP)   all-low

    b.   pronoun   {HL}
         conjoined NP
         noun plus determiner
         noun plus Plural mǎ:
         noun plus quantifier

In (xx1.a), the possessor is an unconjoined noun. It may be simple or compounded, it has its usual suffixal number marking (if applicable), and it may be followed by an adjective. In other words, it has the structural possibiities of a **core NP** in the sense of §xxx. It may not, however, be conjoined with another NP. Furthermore, it may not be inflected or bound by any external morpheme: Plural mǎ:, a quantifier ('each', 'every'), a demonstrative, or a postnominal Definite morpheme.

Examples of simple nouns as possessors, requiring a low-toned possessed noun, are in (xx2).

(xx2) a. sáydù   ĭlò
        Seydou   house.L
        'Seydou's house' (ĭló)

      b. àlá-[ɔ̀ŋù-nú]   nènù
         village-[chief-Sg] dog.L
         'the village chief's dog'. (nènú)

      c. bɛ̀lú   pǐŋò
         sheep   herd.L
         'a herd of sheep' (pǐŋó)

Adding a modifying adjective to a possessor noun does not change its status as simple core NP. Therefore the possessed noun in (xxx.b) has the same low tones as in (xxx.a), in spite of the addition of the adjective to the possessor.

(xxx) a à-nú   dòlkǐ
        man-Sg   boubou.L
        'a man's boubou' (dòlkî)

      b. [à-nù   séw]   dòlkǐ

[man-Sg.L   fat]   boubou.L
'a fat man's boubou' (dòlkî)

c.   [ìsò   ̀rú]   tòw
     [earth.L   wet[sowing
     'sowing (seeds) in wet earth' (2004-2a.06) (tŏw)

When the possessor is a more complex NP (xx4) or a pronominal (xx5), we get a **falling {HL} tone contour** on the possessed noun. The {HL} contour is indicated by ".HL" in interlinears. For the forms of possessor pronominals, see (xx3) in §4.3.1, above.

(xx4)   a.   [sáydù   [á:mádù   lěy]]   ílò
             [Seydou   [Amadou   and]]   house.HL
             'the house of Seydou and Amadou' (íló)

        b.   [bèlú   mǎ:]   píŋò
             [sheep   Pl]   herd.HL
             'a herd of sheep' (pìŋó)

        c.   [à-nù   kúnú]   îlò
             [man-Sg.L   DefSg]   house.HL
             'the man's house' (à-nú, íló)

        d.   [à-nù   ŋú]   îlò
             [man-Sg.L   this]   house.HL
             'this man's house' (à-nú, íló)

        e.   [[tĩwⁿà   kún]   kú]   kù
             [[tree   DefSg]   head.HL] on
             'on the top of the tree' (2004-1a.04)

        f.   [yⁿǎ-m   lěy]   îlò
             [woman-Pl   two]   house.HL
             'a two-woman house' (or: 'a house of two women')

(xx5)   a.   ̀n   nêŋ
             1SgP   blood.HL
             'my blood' (néŋ)

        b.   î   îlò
             1PlP   house.HL

121

'our house' (ílɔ́)

c. àsí   ílò
   LogoP   house.HL
   '(he_x said:) his_x house' (ílɔ́)

d. [àsí   mǎ:]   ílò
   [LogoP   Pl]   house.HL
   '(they_x said:) their_x house' (ílɔ́)

e. ú   nénù
   2SgP   dog.HL
   'your-Sg dog' (nènú)

Depending on the prosodic shape of the possessed noun, this {HL} contour is expressed as H (↓) on one monomoraic syllable (the downstep is described below), F (i.e. <HL>) on one long syllable, HL, HLL, or HLLL on longer stems (xx6). Except on bimoraic monosyllables, the tone break is at the beginning of the second syllable.

(xx6)   gloss   basic form   as possessed noun (HL}

   a. 'mouth'   ká   ká (↓)
      (↓ is audibly realized only on a following Definite morpheme)

   b. 'yam'   kû: kû:

   c. 'blood'   nénŋ   nêŋ
      'bridge' (< Fr)   pɔ̂m   pɔ̂m

   d. 'sesame'   nátǐ   nátǐ
      'saddle'   ga‡:rǐ   gá:rǐ

   e. 'yoke'   gálǐyé   gálǐyè

   f. 'whip'   nàŋà-sɔ̀rí: náŋà-sɔ̀rǐ:

If the stem has a single mora, as with 'mouth' (xx5.a), it has the basic lexical shape Cv́ with high tone to satisfy the requirement of at least one high tone. It also appears as Cv́ after a possessor, but there is evidence that this is the surface output for an **underlying F-tone** (consistent with the overlaid {HL} possessed contour). The only audible effect of this is that a following H-toned

Definite morpheme, e.g. singular kúnú, undergoes a downward pitch shift (**downstep**), as in ŋ̀ ká ↓kúnú 'my mouth (definite)'. See §3.7.2.6 for more discussion and examples.

Some nouns already have a lexical tone contour of {HL} type. In these cases, the overlaid HL contour in possessed position has **no audible effect**; see 'yam', 'sesame', and 'bridge' in (xx6), above. However, a lexical {HL} contour is not very common with nouns, being typical mainly of borrowings (especially from Fulfulde).

6.2.2   Tonological conflicts in the sequence [possessor noun determiner]

Consider now a combination of the type [my house big] meaning 'my big house' or [my house this] meaning 'this house of mine', where the noun is flanked by a possessor and a modifying adjective or demonstrative. Coming from the left, the possessor seeks to impose a HL contour on 'house'. Coming from the right, the modifying adjective or demonstrative seeks to impose tone-dropping to all-low contour on 'house'. The unfortunate possessed noun is therefore caught in a pull of **conflicting tonal requirements** from the left and right.

In this situation, a modifying adjective is bracketed with the noun, the combination being treated as though it were a simple noun as the possessed-noun tone contour is overlaid. This is seen in (xxx.a), where the H(L...)L contour is overlaid over the noun plus adjective sequence, which would otherwise appear as ǐlò ná: 'a big house'. If the adjective has its regular tones, as in (xxx.b), it is interpreted as predicative, i.e., as external to the NP. If the adjective has overlaid {HL} tone contour, it is similarly a comparative predicate (xxx.c). Example (xxx.d) is like (xxx.a) except that the possessor is a noun, and therefore imposes all-low rather than {HL} tone contour on the noun-adjective combination.

(xxx)   a.   m̀   [îlò   nà:]
                    1SgP   [house.HL big.L]
                    'my big house'

        b.   [m̀   îlò]   ná:
                    [1SgP   house]   big
                    'My house is big.'

        c.   [m̀   îlò]   nâ:
                    [1SgP   house]   big
                    'My house is bigger (than some other house).'

d. sáydù   [ìlò   nà:]
   S   [house.L   big.L]
   'Seydou's big house'

Unlike the case with modifying adjectives, a demonstrative pronoun is treated as external to the possessor plus possessed noun sequence, which then behaves as a **tonosyntactic island** impervious to tonal modifications induced by the demonstrative, even though the latter is clearly part of the NP. This is seen in (xxx.a-b). (xxx.b) can also be interpreted as having a predicative demonstrative (note the alternative free translations). The demonstrative tends to have its fuller pronunciation ŋ̀gú in the predicative sense, and reduced variants such as ŋú and ŋ́ in the NP-internal function.

(xxx) a. [kɔ̀   bɛ́l-cɛ̀là]   ŋú
           [NonhSgP   middle.HL]   DemSg
           'that middle (part) of it (=elephant)' (2004-1a.10) (bɛ̀l-cɛ́lá)

       b. [m̀   îlò]   ŋú
           [1SgP   house.HL]   Dem
           'this house of mine'
           'This house is mine.'

In one phonological context (i.e. after a possessed Cv́ noun with {HL} possessed-noun contour), the determiner (if lexically high-toned, i.e. in the case of the Definite morphemes) is itself subject to the (sandhi-type) tonal influence of the possessed noun, rather than the other way around. See downstep in §3.7.2.6.

add (from Hamma Tabi)
Toro Tegu possessor-[noun-numeral] as autonomous NP
   [m̀ árzàgà tà:lî] yàgá dà mà 'where are my three animals?' (Hamma Tabi)

6.2.3   Possessed kin terms

Kin terms do not differ structurally from other (i.e. alienable) nouns. (xx1) gives the unpossessed (i.e. bare lexical) form of the terms in the righthand column, alongside a 1Sg possessor form. Note the HL tone overlays in the possessed forms in (xx1.a).

(xx1) gloss   1Sg possessor   absolute (unpossessed)

'father'	m̀ bá	bá
'mother'	ǹ ná	ná
'elder brother'	ǹ dérè	dèré
'younger brother'	m̀ ɔ́ⁿsù-rⁿù	ɔ́ⁿsù-rⁿú
'maternal uncle'	ǹ lǐsǐ	lǐsí
'paternal aunt'	m̀ áwⁿà	àwⁿá
'grandfather'	m̀ bábà	bábá
'sister'	m îsù-[yⁿà-rⁿù]	îsú-[yá-rⁿú]

For 'grandmother', no morphological 1Sg possessor combination was elicitable. Instead, the bare stem náná is also used as the 1Sg possessor form. Other forms such as ú nánà 'your-Sg grandmother' were elicited, with regular HL tone overlay on the noun.

Kin terms are unusual in that most of them lack the Singular and Plural suffixes found on most ofther human nouns. They therefore often occur with the independent Plural particle mǎ: when the reference is plural.

6.2.4   Recursive possession

Recursive possession involves a possessed NP that in turn functions as possessor of another NP. Note the bracketing in (xxx.d-e). The addition of 'house' induces no change in form (e.g. tones) of 'Seydou's dog', but 'house' itself drops tones as usual for possessed nouns.

(xxx)   a.   nènú
                   'dog'

            b.   sáydù   nènù
                   Seydou   dog.L
                   'Seydou's dog' (nènú)

            c.   nènú   ìlò
                   dog   house.L
                   'the dog's house' (îló)

            d.   [sáydù   nènù]   ìlò
                   [Seydou   dog.L]   house.L

125

'Seydou's dog's house'

e. [ǹ   nénù]   bànà
   [1SgP   dog.L]   tail.L
   'my dog's tail' (báná)

f. [[[[bà   là:]   gǒŋ]   kù]   bɛ̀l-cɛ̀là]   kù]
   [[[[uncle.L]   elephant] **head.L**] **middle.L**] in]
   'in the middle of Uncle Elephant's head' (2004-1b.01)

6.3   Noun plus adjective

6.3.1   Noun plus regular adjective

A modifying adjective follows the noun, which undergoes **tone-dropping**
(indicated by ".L" in the interlinear).

(xxx)   a.   tùwò   jɛ́m
             stone.L   black
             'a black stone' (tùwó)

        b.   à-nù   jɛ̀rⁿú
             man-Sg.L   good
             'a good man' (à-nú, also pronounced à-n jɛ̀rⁿú)

        c.   yⁿà-rⁿù   tɛ̀gěy
             woman-Sg.L   small
             'little woman' (term for bigamous man's younger wife)

   Typical adjectives of the sort that can be added to a wide range of human
and other nouns ('heavy', 'fat', 'big', 'red', 'good', 'little', etc.) do not allow
human number marking (Sg -nú, Pl -mú, or variants) even when the referent is
human. However, some stems that regularly combine with a preceding 'person',
'man', or 'woman', and that might be considered either adjectives (with a strong
human bias) or compound finals, do have these endings. Examples with yá or
number-inflected yⁿà-rⁿú 'woman' (as modified noun or compound initial, in
either case low-toned): yⁿà-rⁿù pày-nú 'old woman' (plural yⁿà-m pày-mú),
yà-gùrǒ-n 'unmarried woman' (plural yà-gùrǒ-m), yà-kùlǒ-n 'adult woman
(mother of one to a few children)' (plural yà-kùlǒ-m). 'Blind (person)' is
ɲirǐm-nú, plural ɲirǐm-mú.

126

Certain adjectives **can acquire human number suffixes** when used nominally. For example, the ordinal léy-ló 'second' occurred in a text with a possessor: àsî léy-lò-n 'his (Logophoric) partner' (in crime, literally!). The unpossessed form in this nominal function, as in '(I don't have) a partner', is lèy-lǒ-n.

'African' (as noun) can be expressed as a compound ('skin.L-black'), and here 'black' has human number marking: gùsù-jém-nú 'African' (plural gùsù-jém-mú).

For absolute uses of adjectives (i.e. with no overt noun), see §6.1.2.

6.3.2   Adjective jérè 'certain (ones)'

This adjective is used in partitive sense 'some, certain (ones)'. It may be repeated in parallel constructions like (xxx), where each occurrence of jérè denotes a portion of the same set or entity.

(xx1)   [nù-m   jérè]   yǎy-wɔ̀rè, [nù-m   jérè]   wàsú-wɔ̀rè
         [person-Pl.L   certain]   go-Perf1a, [person-Pl.L certain] stay-
             Perf1a
         'Some people have gone away, some (others) have stayed.'

If jérè is treated as a modifying adjective, it forces tone-dropping on the preceding noun. However, jérè may also function as an adverb, in which case the noun has its regular tones (xx2).

6.3.3   Expansions of adjective

6.3.3.1   Adjective sequences

write

6.3.3.2   Adjectival and other intensifiers

There are dozens of special interjection-like forms, ranging from single syllables to reduplications of four to six syllables, that can be used to intensify an adjective.   Some intensifiers are verb-like in their semantics, but do seem to denote states (compare English *sit tight* or *sit still* and the like), so I include them here. A few are also noun-like ('dust', 'fog'), the intensifier indicating a large amount.

In other Dogon languages and in Songhay, the short intensifiers tend to have otherwise aberrant syllabic shapes, such as CⱱC with final voiceless stop.

In TT, such forms are often pronounced Cv́Cù or Cv́Cì with an extra short high vowel at the end, but a few do have the Cv́C shape. The forms in (xx1) are organized by the shape of the intensifier.

(xx1)   gloss   stem   intensifier

a. Cv́C, Cv̂C, or Cv́Cv̀ with final high vowel

gloss	stem	intensifier
'full (container)'	zó	pét
'finished'	dùwⁿɔ́	tét
'standing up'	îgó	tíw
'flowery'	—	wókù
'bitter'	gòlú	kátí
'sole, single'	tùrí:	lókù
'only'	—	cékù
'blind'	jĩřm	mâm
'sitting still'	—	dâŋ

b. Cv́C-Cv́C with final sonorant

gloss	stem	intensifier
'newborn'	—	zéyⁿ-zὲyⁿ
'red (uncooked meat)'	bárⁿú	záyⁿ-záyⁿ
'sour'	nôm	tóyⁿ-tóyⁿ
'sour'	nôm	tóyⁿ-tóyⁿ
'red'	bárⁿú	cóy-cóy
'sour'	nôm	tóyⁿ-tóyⁿ
'smooth'	òlú	náw-náw, pál-pál
'hot (water, meal)'	dɔ́	jáw-jáw
'hot (termperature)'	—	jáw-jáw, táw-táw
'tight (rope)'	ěw	jéŋ--jéŋ (also jéŋ⇒)
'black'	jém	tí:ⁿ-tí:ⁿ (also kîrím-kîrím)
'dust'	kúsò	tíw-tíw
'sated (full)'	éŋá	túy-túy
'at full boil'	wⁿàyⁿá	púl-púl
'be inflated (fully)'	zó	jéŋ--jéŋ
'full (sack, stomach)'	zó	túy-túy
'shivering'	—	cěw-cěw
'be fast'	dɔ̌y	jáw-jáw

c. other Cv́C-Cv́C, or Cv́Cv́-Cv́Cv́ with final high vowel

gloss	stem	intensifier
'rotten'	ɔ́rɔ́	dús-dús
'straight'	ìgú	cɔ́t-cɔ́t
'standing straight up'	—	ték-ték
'fine (powder)'	mĩyⁿ	lúrí-lúrí

'unripe'	étú	zégî-zégî
'soft'	ɔ̀rî⇒	yɔ́tú-yɔ́tú
'supple'	ɔ̀lú	yɔ́rú-yɔ́rú
'lightweight'	érú	cépî-cépî

d. other CvCv-CvCv

'sharply pointed'	sèmî⇒	mîrⁿî-mîrⁿî
'thin'	ɔ̀ⁿsî:ⁿ	"
'nauseating'	—	páká-páká
'thick'	séw	bùŋá-bùŋá
'remain (left over)'	wàsá	w̌ìɗì-wádá

e. Cv́Cv́C

'tight-fitting'	—	kéréŋ, káláŋ
'wet'	ɔ̀tú	zúbák
'used up'	dùwⁿɔ́	séréw

f. Cv́Cv́C-Cv́Cv́C

'black'	jém	kîrím-kîrím (also tî:ⁿ-tî:ⁿ)
'clean-shaven (scalp)'	—	lóróm-lóróm
'hard'	mǎw	téséŋ-téséŋ, kéréw-kéréw
'dry'	mǎyⁿ	kéréŋ-kéréŋ
'heavy'	dùsú	zíléŋ-zíléŋ

g. CvCv-Cv (with final Cv repeated)

'long'	gùrú	zúlúlú
'cold'	tôm	kólélé
'overloaded'	—	kírírí
'tall'	gùrú	sókókó

h. CvC⇒ with intonational prolongation

'tight (rope)'	ěw	jéŋ⇒ (also jéŋ--jéŋ)
'oversized'	—	gûyⁿ⇒
'small (tiny)'	tègěy	yⁿîwⁿ⇒
'stinking'	—	dús⇒

i. other with intonational prolongation

'short (object)'	tùkěy	bèkǐrî⇒
'short (person, animal)'		tùkěy	tɔ̀lî⇒
'rough, coarse'	gà:ⁿsú	kágú-sû⇒
'fog, haze'	àrú-mòmó	pítâm⇒

j. other Cv́(C)Cv́

'crispy (tasty)'	sı̆m	céré
'sweet'	ètú	léŋgé

6.3.3.3 'Near X', 'far from X'

Expressions of the type 'near X' and 'far from X' consist of the 'near' or 'far' adjective plus an expression containing the reference NP and the postposition-like adverb nîŋèy (variant nîŋgèy) 'beside' or 'along with' (xxx).

(xxx) a. [m̀   îlò]   bèrú   [àlá   nîŋèy]
           [1SgP house.HL] near   [village **beside**]
           'My house is near the village.'

       b. wà:gá   [àlá   nîŋgèy]
           far   [village **beside**]
           'far from the village'

       e. sárɲérⁿè   [àlá   ı̆lò   nîŋèy]   wà:gá
           Sarinyere   [village house.L **beside**]   distant
           'Sarinyere is far from the village.'

   It is also possible to express the reference NP as a dative.

       c. [m̀   órù]   wà:gá   [dúwánzá   dé]
           [1SgP field.HL] far   [Douentza   **Dat**]
           'My field is far from Douentza.'

       d.. té:gà   [àlá   ı̆lò   dè]   bèrú
            Tega   [village house.L **Dat**]   near
            'Tega is near the village.'

6.3.3.4 'Good to eat'

The examples   in (xx1) were elicited. The quality adjective 'good' is predicative, and is accompanied by a phrase including the verbal noun in -ú (no suffix for monosyllabics). The verbal noun in (xx1.a) is possessed by its logical direct object, the verbal noun then functioning as subject of 'good'. In (xx1.b), the entity itself is the subject of 'good', and the verbal noun occurs as a dative complement.

130

(xxx) a. [kɔ̀   ɛ́l-ù]   jɛ̀rⁿú   sánnì
           [NonhSgP see.VblN.HL] good   very
           'It's very nice to look at.'

       b. nî   [dí   dè]   jɛ̀rⁿú   kɔ́   wállà,
           water [[bathe.VblN Dat] good   NonhSgS   although,
           [nî   dè   kày]   jɛ̀rⁿú   sàrà   kɔ́
           [drink.VblN Dat Top]   good   not.be   NonhSgS
           'The water is good for bathing, but it's not good for drinking.'

6.4   Noun plus cardinal numeral

When a noun (or noun plus adjective sequence) is followed by a cardinal numeral, both the noun (or noun plus adjective) and the numeral have their regular tones. This suggests an appositional, in contrast to the more tightly-knit structure (including tonal interactions) of e.g. the sequence of a noun plus modifying adjective.

(xx1) a. bɛ̀lú   pɛ́:rú
           sheep   ten
           'ten sheep'

       b. [bɛ̀lù   séw]   pɛ́:rú
           [sheep.L   plump]   ten
           'ten plump sheep'

When a sequence like those in (xx1) is subject (as a whole) to morphosyntactically controlled tone-dropping, either by a following demonstrative pronouns or Definite morpheme, or by virtue of functioning as head NP in a relative clause, tone-dropping applies simultaneously to the noun(-adjective) and to the numeral. For examples involving demonstrative pronouns and Definite morphemes, see §6.xxx-xxx. For examples involving relative clause head NPs, see §xxx.

In relative clauses, a numeral associated with the head NP remains with this head NP inside the clause, i.e. it is not displaced to a later position following the verb and the Relative morpheme ŋ́.

6.5 Noun plus demonstrative or Definite morpheme

6.5.1 Prenominal Definite kɔ̀

kɔ̀ preceding a noun is glossable as 'that (same) ...', i.e., it is a discourse-definite morpheme referring back to prior discourse or other shared prior knowledge. It often co-occurs with a postnominal Definite morpheme such as Singular kúnú, and it is compatible with a (prenominal) pronominal possessor. Unlike kɔ̀ 'its ...' in Nonhuman Singular possessor function, Definite kɔ̀ has no tonal effect on the following noun or other words.

(xx1)   a.   [kɔ̀   nàŋà   kúnú]   ú   kɔ́   wɔ̀-sɔ́   má
             [Def   cow.L   DefSg]   2SgS   NonhSgO see-Perf2   Q
             'Have you-Sg seen that cow (that we were talking about)?'

        b.   [kɔ̀   ǹ   náŋà   kúnú]   ú   kɔ́   wɔ̀-sɔ́   má
             [Def 1SgP cow.HLDefSg] 2SgS   NonhSgO see-Perf2   Q
             'Have you-Sg seen that cow of mine?'

6.5.2 Postnominal demonstrative pronouns (ŋ̀gú, ŋ̀gî)

A deictic demonstrative pronoun ŋ̀gú (ŋú, ŋ́) 'this/that', Plural ŋ̀gî (ŋí) 'these/those' (for the variants see §4.xxx) may follow the noun, along with any modifying adjectives or cardinal numerals that may be present. A demonstrative forces tone-dropping on the preceding word. Examples in (xx1), using îló 'house' and ná: 'big'.

(xx1)   a.   ìlò   ŋú
             house DemSg
             'this/that house' (îló)

        b.   ìlò   nà: ŋú
             house.L   big.L   DemSg
             'this/that big house' (ìlò ná: 'big house')

If a noun (with or without adjective) and a **cardinal numeral** are both present, the demonstrative forces tone-dropping simultaneously on the noun-adjective sequence and on the numeral; see §6.5.4, below.

A noun (or noun plus adjective) with a prenominal possessor is subject to tonal modification from the possessor, but not from the demonstrative. This is observable in the case of pronominal (and some other) possessors that induce a

{HL} tone contour on the possessed noun, which is unaffected by a following demonstrative. This is indicated by the bracketing in (xx2.a). In (xx2.b), the possessor forces tone-dropping on the possessed noun, so we cannot tell for sure whether the tone-dropping on the noun is due to the preceding possessor or the following demonstrative (tone-dropping overkill?), but by analogy to (xx2.a) I infer that the possessor is responsible.

(xx2) a. [m̀   îlò]   ŋí
           [1SgP   house.HL]   DemPl
           'these/those houses of mine'

       b. [sáydù   ǐlò]   ŋú
           [S   house.L]   DemSg
           'this/that house of Seydou'

     In relative clauses, a demonstrative pronoun associated with the head NP (e.g. in 'these dogs that ...'), the demonstrative follows the verb and the Relative morpheme ŋ́ (which drops tones to ŋ̀). See §xxx.

6.5.3   Postnominal Definite morphemes (kúnú, Pl cînî)

These Definite morphemes (§4.xxx) occur in the same linear positions as, and have the same tonal effects on preceding words as, demonstrative pronouns. The examples in (xx1-2) are parallel to those given in the preceding section. cînî can also be pronounced kínî but I have normalized the transcription in texts and examples.

(xx1) a. ǐlò   kúnú
           house DefSg
           'the house' (îló)

       b. ǐlò   nà: kúnú
           house.L   big.L   DefSg
           'the big house' (ǐlò ná: 'big house')

       c. kɔ̀   bùrù   tà:l'lò   kúnú
           Dem   year.L three-Ordinal.L DefSg
           'the third year' (2004-2a.03) (bùrú, tá:l-ló, bùrù tá:l-ló)

(xx2) a. [m̀   îlò]   cînî
           [1SgP   house.HL]   DefPl

'the houses of mine'

b. [sáydù   ǐlò]   ŋú
   [S   house.L]   DefSg
   'the house of Seydou'

If a cardinal numeral intervences between the core NP and the Definite morpheme, both the core NP and the numeral are tone-dropped; see §6.5.4, below.

For Definite morphemes following the verb and Relative morpheme ŋ́ (which drops tones to ŋ̀ before a determiner) in relative clauses, see §xxx.

6.5.4   Postnominal determiners force tone-dropping on core NP and numeral

A postnominal determinater, such as ŋ̀gí 'these/those' or Definite Plural cíní, forces tone-dropping simultaneously on the final word of the core NP **and on a numeral** following this core NP. Without the determiner, both words would have lexical tones including at least one high tone (unless the core NP is separately tone-dropped under the influence of a possessor).

(xxx)   a.   àlá   sóyⁿ
      village   seven
      'seven villages'

     b.   àlà   sòyⁿ   ŋ̀gí
      village.L   seven.L   DemPl
      'these/those seven villages'

     c.   àlà   sòyⁿ   cíní
      village.L   seven.L   DefPl
      'the seven villages'

     d.   ǐlò   tà:ǐi   ŋí
      house.L   three.L   DemPl
      'these/those three houses' (íló tà:lí 'three houses')

     e.   ǐlò   tà:ǐi   cíní
      house.L   three.L   DefPl
      'the three houses' (íló tà:lí 'three houses')

A determiner has no tonal effect on a possessor NP preceding the core NP. Indeed, in the combination [[possessor [core NP]] determiner], the possessor has its usual tonological effects on the core NP, and the determiner then **has no effect even on the core NP** (§6.2.2).

6.6 Other quantifiers at the end of NPs

6.6.1 Plural (mǎ:)

Pl particle mǎ: is an optional element. It is generally used after nonhuman nouns that do not have obligatory singular/plural marking by suffixation, for example when the listener might otherwise think that the reference is to a single object (xx1.a). It may also be used to force a countable reading on a noun like 'milk' that is usually treated as a mass, for example to denote types of the entity in question (xx1.b).

(xx1) a. ìlò   ná: mǎ:
          house.L big   Pl
          'big houses'

      b. êm   mǎ:
          milk   Pl
          'milks (e.g. kinds of milk)'

      c. háɾì [bɛ̀   tégù   mǎ:], nîŋ kày, túnǒm-mà pású-sà
          until [3PlP talk.HL Pl], now Topic, each.other leave-Perf1
          'until their words left each other (=they could not agree)' (2004-1b.01)

      d. [nù-m   jérè   mǎ:] â: kúw-rò
          [person-Pl.L certain Pl] Impf devour-Impf
          'Some (other) people eat it (= grasshopper).' (2004-1b.02)

In texts, the most common combination involving mǎ: is Logophoric Plural pronoun àsî mǎ: (§xxx), where it is obligatory. mǎ: is not otherwise used in combination with personal pronouns. It is occasionally used with demonstrative pronouns, but these already distinguish singular from plural so the mǎ: is redudant, as in ŋ̀gî = ŋ̀gî mǎ: 'these, those'.

    mǎ: is not normally used (redundantly) in NPs also including a nonsingular cardinal numeral. For example, 'three houses' appears in texts and normal elicited sentences (using French cues) as îló tà:lî (xx2.a). However, when asked

directly whether îló tà:lî mǎ: (xx2.b) was acceptable as an alternative, informants did accept it; I am putting a question mark before this example to indicate that it is not typical.

(xx2) a. îló   tà:lî
           house   three
           'three houses'

       b. ? îló   tà:lî   mǎ:
           house   three   Pl
           (=a)

When mǎ: is inserted between a noun and a cardinal numeral, the numeral is interpreted as predicative, i.e. external to the NP (xx3).

(xx3) [ìlò   mǎ:]   tà:lî
       [house   Pl]   three
       'The houses are three (in number).'

In elicitation, informants accepted the combination of Plural mǎ: with a following universal quantifier yà:fú: 'all'. As with cardinal numerals, mǎ: is redundant here (except when it forces a countable reading on a normally mass noun, as in 'kinds of milk'). In my textual data, mǎ: does not combine with yà:fú:, but I regard the combination as grammatical.

(xxx) a. îló   (mǎ:)   yà:fú:
           house   (Pl)   all
           'all the houses'

       b. êm   mǎ: yà:fú:
           milk   Pl   all
           'all of the milks (=kinds of milk)'

A special use of mǎ: is with singular personal names, and other singular NPs, in the sense 'X and associates' (compansions, family).

(xxx) î:sà: mǎ:
       Issa   Pl
       'Issa (man's name) and company' (2004-1b.03)

6.6.2 'Each X' (kálá:, kâ:ⁿ) and 'all X' (yà:fú:)

The distributive quantifier kálá: 'each' is generally added to a noun or to a noun-adjective combination. The noun is singular in form for those nouns with a suffixal number distinction. kálá: (unlike its counterpart in e.g. Jamsay) does not induce tone-dropping on a preceding word. A sentence containing a NP with kálá: typically has a second quantified NP elsewhere, e.g. 'a (=one) boubou' in (xx1.a) and 'one sack each' in (xx1.b). For reduplicated numerals in distributive sense, see §xxx.

(xx1) a. [ì-rⁿú   kálá:]   dòlkî   bèrú   děn   dà
           [child-Sg each]   boubou   get   Trans   be
           'Each child has gotten a boubou (garment).'

       b. [[îló   kálá:]   dé]
           [[house   each]   Dat]
           [sá:kù   túr-túrú]   á   òw-r-è≡bé
           [sack   one-one]   Impf   give-Impf-3PlS-\3Pl
           'They will give one sack (of millet) to each house.'

kálá: is not readily combinable with NPs also containing a determiner (demonstrative pronoun, Definite morpheme). However, an **appositional construction** may be used, with kálá: usually added to a semantically light noun in resumptive function, as in (xx2). I recorded the usual noun 'person' for human reference (xx2.a), a form kâ:ⁿ for animal reference (xx2.d), and zero (but after a clear prosodic break) for inanimate reference (xx2.c).

(xxx) a. [àrà-m   ŋî]   [[nù-rⁿú   kálá:] dé] pé-lěy ów-s-è
           [man-Pl.LDemPl] [[person-Sg each] Dat] ten-two give-Perf2-3PlS
           'They gave twenty (riyals) to each of these men.'

       b. [bèl   ŋî]   [[kâ:ⁿ   kálá:] dé]   sòló   ów
           [sheep.L DemPl] [[animal each] Dat]   grass   give.Imprt
           'Give-2Sg some grass to each of these sheep!'

       c. [ilò   ŋî]   [[[∅   kálá:]   púrò]   kù]
           [house DemPl]   [[[Ø   each]   inside.HL] in]
           [sá:kù   túrú]   kùlî-yèr-è
           [sack   one]   put-Fut-3PlS
           'They will put one sack in each of these houses.'

137

The quantifier is sometimes heard as kálá without notable lengthening of the final vowe. One elderly speaker used kâ:ⁿ (varying with kálá:) in the phrase nù-rⁿù kâ:ⁿ 'each (any) person'. kâ:ⁿ is also the 'each' quantifier in Jamsay.

The universal quantifier 'all', when it has scope over a preceding overtly expressed noun, most often takes the form yà:fú:, variant yàgàfú: (xxx).

(xxx) a. [îló   yà:fú:]   lǔw   sígú   kám-wɔ̀rè
           [house   all]   fall   go.down   be.entirely-Perf1
           'All the houses fell (=collapsed).'

       b. [wɔ̀   cérù   yà:fú:]   mǎr   kám-wɔ̀rè
           [3SgP   money.HL   all]   be.lost   do.entirely-Perf1a
           'All her money was lost.'

The probably older form yàgàfú: suggests etymological connections with yàgá 'which?' and with Jamsay (and regional, e.g. Fulfulde) fú: 'all'.

As an absolute form, 'everything' is cěw-là:fú:, with several phonological variants.

(xxx) sǎy   cěw-là:fú: sɔ́gú   kám-wɔ̀s̃ĭ
      bird   everything   peck   do.entirely-Perf1b
      'The birds have eaten ("pecked") everything.'

One variant now in very careful speech style is cɛ̀-húlɛ̀-yàgà-fú:, which at first sight might be taken as the etymological granddaddy of all the variants. However, in the more common cěw-là:fú: the initial resembles Jamsay cêw 'all'.

7 Coordination

7.1 Conjunction ('and')

7.1.1 NP coordination

7.1.1.1 *NP conjunction ('X and Y') with lěy*

Conjunction of two NPs takes the form [X∴ [Y lěy]]. The left conjunct, where phonologically possible, lengthens its final vowel syllable and applies a slowly falling tone to it. This is the **dying quail intonation** best developed in Jamsay, where it applies to both left and right conjuncts. The prosodic prolongation seems less extreme in TT than in Jamsay. The right conjunct has its normal pronunciation and is followed by lěy, which I will gloss as 'and'. It a special use of the numeral lěy 'two', and is not used in conjunction of more than two NPs (on which see the following section).

I use the symbol "-&" in interlinears to indicate the special prosodic ending of the left conjunct.

(xxx) b. mî∴   [búrà: lěy]
          1Sg-&   [Boura   and]
          'me and Boura (man's name)'

      c. yⁿà-mú∴   [àrǎ-m   lěy]
          women-&   [men   and]
          'women and men' (yⁿà-mú or yⁿǎ-m)

      d. bèlú∴   [ɛrⁿá   lěy]
          sheep-&   [goat   and]
          'sheep and goats' (bèlú)

      e. yⁿà:ŋá∴   [nùŋùlɔ́   lěy]
          night-&   [day   and]
          'night and day' (yⁿà:ŋá)

As (xx1.a) shows, conjunction of a pronoun with a nonpronominal NP has the same form as conjunction of two nonpronominal NPs. The pronoun takes left conjunct position, and shows the usual prosodic modification.

139

In **pronoun-pronoun** combinations, on the other hand, the left conjunct has its normal independent form, with no special lengthening or falling tone (xx2).

(xx2) a. ú   [bé   lĕy]
           2Sg   [3Pl   and]
           'you-Sg and them'

       b. wɔ́   [bé   lĕy]
           3Sg   [3Pl   and]
           'he/she and them'

       c. î   [wó   lĕy]
           1Pl   [3Sg   and]
           'we and him/her'

       d. mî   [bé   lĕy]
           1Sg   [3Pl   and]
           'he/she and them'

1Sg mî, however, is reduced to m before a vowel (or semivowel), fusing with the following pronominal (xxx). With following 3Sg wɔ́ we get [m̋wɔ́:]. 1Sg followed by 2Sg ú gives [mú:], and followed by 2Pl á gives [má:]. In the 2Sg and 2Pl cases, the contraction of two short vowels into a long vowel is unproblematic phonologically (e.g. /mî ú/ > [mú:]), but [m̋wɔ́:] appears to involve deletion of the i of 1Sg mî, with simultaneous compensatory lengthening of the vowel of the 3Sg morpheme (/mî wɔ́/ > [m̋wɔ́:]).

(xxx) a. mᵇî   wó   lĕy
           1Sg   3Sg   and
           'me and him/her'

       b. mᵇî   ú   lĕy
           1Sg   2Sg   and
           'me and you-Sg'

       c. mᵇî   á   lĕy
           1Sg   2Pl   and
           'me and you-Pl'

7.1.1.2 Extended NP conjunctions ('X and Y and Z...')

There is no existential conjunction construction of the Jamsay type ('there is X, and there is Y, and there is Z, ...) with a conjunctive particle (Jamsay bé⇒) repeated after each element. Instead, the regular existential clause with á dà is repeated, with intonational marking (⇑) of nonterminal conjuncts as usual in extended lists.

(xx1) yú   á   dà⇑,   ɛ́ŋúnɛ́   á   dà⇑,
      millet   Impf   be,   peanut   Impf   be,
      nɛ̆ŋ   á   dà⇑,   tɔ̀rⁿíyⁿàrⁿà   á   dà⇑, ...
      salt   Impf   be,   corn   Impf   be, ...
      '(In the market) there is millet, there are peanuts, there is salt, there is corn (maize), ...'

Ordinary conjunction of the type [X∴ [Y lɛ̆y]] as described in the preceding section is extended to **three or more conjuncts** by repeating the dying-quail terminal intonation on all conjuncts. The dying-quail intonation is less pronounced on the terminal conjunct, giving a prosodic hint that the string is completed. lɛ̆y (identical to the numeral '2' and therefore inappropriate in longer conjunctions) is absent. When followed by e.g. a verb in the same clause, there is usually an intonational break at the end of the conjoined NP.

(xx2) [yú∴   túsú∴   tɔ̀rⁿí-yⁿàrⁿà∴]   zê:-s-ɗ̌:
      [millet-&   sorghum-&   corn-&]   bring-Perf2-3SgS
      'He/She brought some millet, some sorghum, and some corn.'

7.1.1.3 Conjunction with final universal quantifier (yà:fú:)

The 'all' quantifier yà:fú: (with several variants: yàgàfú:, cɛ̀-hú:l̃i-yà:fú:, cɛ̆-w-yà:fú:, etc.) may occur at the end of a conjoined NP. If lɛ̆y 'and' is present, it precedes the quantifier.

(xxx) a.   [àrá∴   yá   lɛ̆y   yà:fú:] ...
            [male-&   female and   **all**] ...
            'the male and the female ... (are equally long)' (2004-1b.03, grasshoppers)

       b.   [[kɔ̀   árà∴]   [kɔ̀   yá]   lɛ̆y yà:fú:] jɛ́m

  [[NonhSgP male.HL-&]   [NonhSgP female.HL] and

      all]   black

  'Both its male and its female are black.' (2004-1b.03, grasshoppers)

c. àrǎ'm∴   yⁿà'mú∴⇓, ǐ'mú∴⇓, cè'hú:l̃i'yàgàfú:,

  man-Pl-& woman-Pl-& child-Pl-&,   all,

  mɔ̀tɔ́≡m̀   á   tɔ̀'rɔ̀

  come.together≡and.SS Impf   sow-Impf

  'Men, women, and children all do the sowing together.' (2005-2a.06)

7.1.1.4 *Conjunction or disjunction with hé⇒ and yé∴*

A fairly uncommon particle hé⇒ with intonational prolongation is inserted between two coordinands, with no other marker of coordination. The sense is more emphatic, as in 'both X and Y' or 'anything from X to Y'. Some cases could be taken as (inclusive) disjunctions rather than as conjunctions.

(xx1) [yó nà] kúyⁿɔ́,   [à'nú, hé⇒ yⁿà'rⁿú],

  [today now] genital.disease, [man-Sg, **and** woman-Sg]

  nù'rⁿù   kà: kúyⁿɔ́   wɔ́ bě:'sǐ ń má

  person-Sg.L Rel genital.disease   3SgO get-Perf1b Rel

        if

  'Yes, again, for genital disease, (it doesn't matter) whether (it's) a man or a woman, if it's someone whom blood-in-the-urine has afflicted, …' (2004-2a.07)

  A particle yé∴ with dying-quail intonation occurs in similar contexts. As these particles are pronounced as interjections, they may be variants of a single class of forms.

(xx2) pày'nú   yé∴, ǐ'rⁿú, î   zàlá   mà,

  old.person-Sg **and** child, 1PlS cook.in.pot and.SS,

  cɛ́   á   nǐ'rⁿà-∅

  NonhPlO Impf   drink-Impf-3SgS

  '(Whether it's) an old person or a child, we cook it (= medicine), that's what he drinks.' (2004-2a.07)

7.1.2   "Conjunction" of verbs, VP's, and clauses

7.1.2.1   *VP Chains*

Verbs and VPs are "conjoined" using the chaining mechanisms described in Chapter 15, which have no similarity to NP conjunction. There is also an interesting construction with paired antonymic verbs, both in hortative form, used as a kind of nominalization (§10.4.5).

7.1.2.2   *NP-like conjunction of clauses in willy-nilly conditional antecedents*

Clauses are likewise normally not conjoined in NP-like fashion. In narratives, successive events are either described by autonomous clauses, or (if the subjects are shared) the VP-chaining devices are used. There is, however, one case where clauses are conjoined using the [X∴ Y lěy] construction. This is the **willy-nilly conditional** construction: 'whether [you are coming] or [you aren't coming], ...' is expressed in TT as a conjunction rather than as a disjunction: [[you are coming∴] [you aren't coming] lěy yà:fú:]. The logic is not conjunctive in the usual sense of clause conjunction (i.e. where the truth of both clauses is asserted), since only one of the mutually incompatible component clauses can be true. Rather, the conjunction is more abstract: 'in both cases, namely the case that [you are coming] and the case that [you are not coming], ...'. See §16.4 for details.

    See also the discussion of clause-initial má ... 'and then ...' (§15.2.1.4).

7.2   Disjunction

7.2.1   Avoidance of 'or' disjunctions

In elicitation, informants tended to avoid 'or' disjunctions involving NPs, preferring constructions with two parallel clauses. Whether there is an adversarial relationship (exlusive 'or') between the two propositions is left to the listener to infer.

(xxx)   àtê: m̀   â: nî-rⁿà⇒↑,
        tea   1SgS   Impf   drink-Impf,
        káfè   m̀   â: nî-rⁿà⇒↓
        coffee   1SgS   Impf   drink-Impf
        'I drink tea or coffee.' (lit., "I drink tea, I drink coffee")

The normal prosodic realization of such paired clauses is with the final syllable of both prolonged (⇒), with higher than normal terminal pitch at the end of the first clause (⇑), and with regular terminal falling pitch at the end of the second clause (no special symbol).

Likewise, where English has 'or' linking two subordinated clauses, TT usually finds an alternative construction. In (xxx.a), the embedded 'whether X or y' is expressed using parallel positive and negative clauses in yes-no interrogative form (here, with final mà or mâ⇒). The clause-initial má is the '(and) then' particle (§15.2.1.4). (xxx.b) is a willy-nilly conditional antecedent, expressed as an 'and' conjunction (§16.4, §7.1.3).

(xxx)   a.   kɔ́   èlí-yàrà   ká   kɔ́,
            NonhSg   look-Fut   say   NonhSg,
            [[kɔ̀   nù-m   cíní]   gú-wòrè   mà] [gù-rí   mâ⇒],
            [[Def person-Pl.L   DefPl]   go.out-Perf1a   Q]
                 [go.out-PerfNeg   Q]
            má   [bɛ́   bɛ́lú-wɔ̀rè   mà] [bɛ̀l-lí   mâ⇒]
            then [3PlS   approach-Perf1a   Q]   [approach-
            PerfNeg   Q]
            '(Hyena said:) He (=hyena) would look (=check) whether those people had come out, or had not come out, (and whether) they had approached, or had not approached.' (2004-1b.01)

       b.   ú   â: yá-rà∴,
            2SgS   Impf   come-Impf-&,
            [ú   yè-nó]   lěy]   yà:fú:
            [2SgS   come-ImpfNeg]   **and]**   **all**
            'whether you-Sg are coming or aren't coming' (see §16.4)

7.2.2   'Or' (ma⇒)

As in several nearby Dogon languages, the 'or' disjunction is difficult to distinguish from the yes-no interrogative particle ma, which by its nature asks the listener to choose between two options.

The disjunctive particle ma⇒ is placed between the coordinands. In careful speech it is grouped prosodically with the following constituent, e.g. with the second coordinand in a two-part 'X [or Y]' sequence. It is variably prolonged intonationally (⇒). Pitch is highly variable, ranging from flat low to falling to rising. I will transcribe the pitch heard in each example as though it were phonological tone, since I cannot determine an underlying (lexical) tone..

(xxx) a. [nǎy kálá:] [bèlú [mà⇒ èrⁿá]] â: cî-r-ǒ:
[day each] [sheep [or goat]] Impf slaughter-Impf-3SgS
'Every day he slaughters (either) a sheep or a goat.'

b. léyó [îló kù] [mǎ⇒ [dáŋkî dòsù]]
sleep.Imprt [house in] [or [shed under]]
'Sleep-2Sg in the house or under the shed!'

c. [sáydù [mâ⇒ á:mádu]]kò bírá á bǐrí-yàrà
[S [or A]] Foc work(noun) Impf work-Fut
'<u>Seydou or Amadou</u> [focus] will do the work.

It is possible to repeat the disjunctive particle, resulting in an *[or X] [or Y]* ('either X or Y') construction of the type familiar from French and Spanish. In my data, the pitch on ma⇒ is low in both occurrences.

(xxx) zòŋó [mà⇒ [[èm nôm] šǐ:]] [mà⇒ [súkkàrà šǐ:]]
treat.Imprt [or [[milk.L sour] with]] [or [sugar with]]
'Treat-2Sg (the patient) either with sour milk or with sugar (in the eyes, after a spitting cobra attack)!'

7.2.3 'Or' (nà⇒)

An alternative form nà⇒ is also in use as a disjunction. It may be a simple variant of ma⇒. At any rate, I have several examples from one informant, which my principal assistant converted into counterparts with ma⇒.

In (xx1), nà⇒ occurs in parallel before each of two imperative clauses.

(xx1) nà⇒ bèlú cɛ́⇒↑, nà⇒ èrⁿá cɛ́⇒
or sheep slaughter.Imprt,**or** goat slaughter.Imprt
'Slaughter a sheep or a goat!'
(lit. "Either slaughter a sheep, or slaughter a goat!")

In (xx2), nà⇒ takes NPs and adverbials in its scope. The particle may occur only before the noninitial coordinand (xx2.b), or may occur before both coordinands (xx2.a).

(xx2) a. [[nà⇒ súkkárà⇒↑] [nà⇒ ǐwó⇒]] zérǐ
[[**or** sugar] [**or** honey]] bring.Imprt

145

'Bring the sugar or the honey.'

 b. nù-rⁿú mɔ̀ŋgɔ́rɔ̀ á lí bɛ̀-tà
   person-Sg mango Impf eat can-Impf
   [àrká⇒↑ [nà⇒ dɛ̀:gá⇒]
   [morning [**or** afternoon]
   'One can eat a mango in the morning or in the afternoon.'

In interrogatives, where the coordinands are presented as alternatives to choose from, the regular clause-final polar interrogative particle mà is added to both clauses, and no overt disjunction is needed (xxx).

(xxx) bɛ̀lú ú îwà mà⇑, ɛ̀rⁿá ú îwà mà ?
   sheep 2SgS want **Q**, goat 2SgS want **Q**
   'Do you-Sg want a sheep, or do you want a goat?'

7.2.4 Disjunction with wàlá or wâl-mà

wàlá occurred in a few textual passages like that in (xx1). Similar forms are common in Songhay, Fulfulde, etc., but are less typical of Dogon languages.

(xx1) má [[kɔ̀ kúwɔ́] wàlá kɔ̀rɔ́]
   and.then [[Def foot] **or** neck]
   [[dèŋ pítîm dà ǹ kún] dé]
   [[place.N be.swollen be Rel.L DefSg] Dat]
   'and then (to) the foot or neck, to the (= whichever) place the swelling is in, (we apply the medication there)' (2005-2a.07

A form wâl-mà, with variant wáɺi-mà, occurred in another text (xx2). Here the mà is not prosodically lengthened.

(xxx) kálá àyⁿá-àyⁿá, [ɛ̀m nôm] wâl-mà súkkàrà
   all remedy-remedy, [milk.L sour] or sugar
   'A remedy is necessary (if a cobra spits into one's eyes), curdled milk or sugar.' (2004-1a.10)

8 Postpositions and adverbials

8.1 Instrumental and comitative

8.1.1 Instrumental sǐ:

This postposition is added to NPs functioning as instruments.

(xxx) a. [béré   sǐ:]   ǹ   téw-s-ǒ:
           [stick   Instr]   1SgO   hit-Perf2-3SgS
           'He/She hit me with a stick.'

     b. nàwⁿá   ǹ   cés-sà   [pèrú   sǐ:]
           meat   1SgS   cut-Perf2 [knife   Instr]
           'I cut-Past the meat with a knife.'

     c. [èsé   sǐ:]   ú   á   tǐn-nî-yⁿàrⁿà
           [what? Instr] 2SgS   Impf   shut-Revers-Fut
           'With what will you open it?' (tílá)

     d. [[nàŋà zíŋí]   sǐ:]   wàrá   m̀   â: wá-tà
           [[cow.L bull]   Instr] farming 1SgS   Impf   farm-Impf
           'I do farm work with an ox.' (verb wàrá)

   See also 'they cannot dig by themselves' (xxx.c) in §18.1.2.

8.1.2 Comitative

Instead of a comitative PP, the preference is for a chain construction with verb mɔ̀tɔ́ 'assemble, be or come together' in the chaining form mɔ̀tɔ́ mà 'get together and ...', followed by another VP denoting the relevant activity.

(xxx) [sáydù   [ń   lěy]]   [mɔ̀tɔ́   mà]
       [S   [1Sg   and]]   [**be.together**   **and.SS**]
       bîrá   á   bǐ-tà
       work(noun)   Impf   work-Impf

'I and Seydou work together.' (= 'I work with Seydou')

8.2   Locational postpositions

8.2.1   Locative, allative, and ablative functions

PP's denote locations rather than starting points or endpoints of trajectories. To express the latter, a motion verb like 'go' (allative) or 'leave' (ablative) must be used, alongside a locative PP. Thus 'he went in the village' = 'he went to the village', and 'she left in the village' = 'she left (=went from) the village'.

8.2.2   Simple and complex postpositions

Simple postpositions are monomorphemic and invariant in form. Complex postpositions are analysable into a noun (N) and a following true postposition. N takes a preceding NP or pronominal possessor X, cf. English *in front of X* or *to the side of X*. Because N here functions as possessed noun, it is subject to tone overlays. We get HL contour on the noun after a pronominal possessor, or after syntactically complex NPs such as conjoined NPs. We get all-L tone (tone-dropping) after simple noun possessors; for more details see the discussion of possession in §6.2.

8.2.3   'In' (kù)

The basic locative postposition is kù. It may be glossed 'in (contained space)', 'on (surface)', or 'at (a location)'. Simple PP's of the form [X kù] are used in a variety of locational expressions, though in elicitation my assistant insists on the compound postposition [[X púrò] kù] for 'in(side) X' in many contexts, and indeed [[X púrò] kù] is very common in texts. [[X púrò] kù] (on which see below) is one of several complex postpositions that end in kù.

(xxx)   a.   [lú:mà   kù]   yǎy-wɔ̀r-ɔ̌:
             [market   **in**]   go-Perf-3SgS
             'He/She went to the market.'

        b.   [àlá   kù]   gú-wɔ̀r-ɔ̌:
             [village   **in**]   leave-Perf1a-3SgS
             'He/She left the village.'

c. [kàrá   kù]   j̃iró   m̀   â: léy-rò
    [mat   **in**] eye   1SgS   Impf   sleep-Impf
    'I sleep on a mat.'

Like the other Cv̀ postposition (Dative dè), kù raises its tones to kú after demonstrative pronouns and Definite morphemes, thus ǹgú kú 'in/on this', [X kúnú] kú 'in/on the X'. See Tone-Raising, §3.6.2.4.

kù probably originated as the possessed form of kú 'head'. The combination [X kú] kù] 'on the head (or tip) of X' is still fairly common. Compare Jamsay tonal locative kû:ⁿ 'on the head of'.

8.2.4   'Inside' (... púrò kù)

The noun pùró 'belly' (hence 'interior') occurs in the adverbial phrase pùró kù 'inside, within'. By adding a preceding NP (X), and treating púró as possessed noun (with consequent tonal changes), we get the 'inside X' construction (xxx). For example, the tonal output is ... púrò kù after a pronominal possessor, ... pùrò kù after a noun.

This construction is not only used for enclosures (dwellings, containers), but also for bodies of water, holes, etc.

(xxx)   a. [[íló   pùrò]   kù]   á   lèy-r-ɔ̌:
            [[house   belly.L] in]   Impf   sleep-Impf-3SgS
            'He/She sleeps in the house.'

        b. [[kɔ̀   púrò]   kù]
            [[NonhSgP   belly.HL]   in]
            'inside it'

        c. [[ùró   pùrò]   kù]   á   húrà   kà-là
            [[hole   belly.L] in]   Impf   staying   do-Impf
            'It (=python) stays in a hole.' (2004-1a.10)

8.2.5   'On the neck of' (... kɔ́rɔ̀ kù)

This expression is used with reference to carrying a burden, physical or metaphorical. The form is ... kɔ́rɔ̀ kù after a pronominal, ... kɔ̀rɔ̀ kù after a noun.

(xxx)   [dè:ŋgó   yà:fú:]   [[ǹ̀   kɔ́rɔ̀]   kù]   dà
        [fatigue   all]   [[1SgP   neck.HL]   in]   be

'The whole fatigue (=onerous burden) is on my neck.'

8.2.6   'On' (... jésù kù, ...jésù)

The noun jèsú 'body' is the basis for a complex postposition 'in (=on) the body of' = 'on'. The tonal form is ... jésù kù after a pronominal, ... jèsù kù after a noun (xxx).

(xxx)   kàyá   [[îló   jèsù]   kù]   lɔ́kù   dà
         grasshopper [[house body.L]   in]   be.attached   be
         'The grasshopper is on the wall (of the house).'

    In texts, the kù is usually omitted, so [X jésù] is now itself a simple postposition.

8.2.7   'In front of' (... ká kù, ... jîrè kà)

When the reference object is a house, burrow, or other entity with a well-defined entranceway, 'in front of' is expressed as 'in (=at) the mouth of', with noun ká 'mouth' followed optionally by Locative kù. The result, after tonal changes, is ... ká (kù) after a pronominal and ... kà (kù) after a noun.

(xxx)   a.   [îló   kà]   (kù)
              [house   mouth.L](in)
              'in front of (=at the mouth of) the house'

         b.   [kɔ̀   ká]   kù
              [NonhSg mouth.HL] in
              'in front of it (=house)'

    Adverbial 'to/in (the) front, forward' is jîré kà, cf. ǰìró 'eye'. A related form is jîró '(position) in front'. The form jîré is used as in a complex postposition with a preceding NP or pronominal functioning as possessor, whereupon jîré takes the appropriate possessed-noun tonal overlay. Instead of the expected final Locative postposition kù, we get kà, an offshoot of the possessed form of ká 'mouth'.

(xxx)   a.   [jîré   kà]   zǒw-wɔ̀r-ɔ̌:
              [**front**   mouth.L]   run-Perf1a-3SgS
              'He/She ran ahead.'

b.   [ŋ̀   jîrè]   kà
   [1SgP   **front**.HL]   mouth.L
   'in front of me'

c.   [nàŋá   j̃îrè   kà
   [cow   **front**.L]   mouth.L
   'in front of the cow'

8.2.8   'Behind, in the rear' (... pérà)

The noun 'rear, back (of sth)' is pérá. It is also used in this simple form as an adverbial 'behind, in the rear'. With a preceding (possessor) NP or pronoun, we get PPs meaning 'behind X' as in (xxx). As expected, the tonal form is ... pérà after a pronominal, ... pèrà after a noun. This postposition is presumably shortened from an older complex postposition ('at the rear of ...').

(xxx)   a.   îló   pèrà
        house   **rear**.L
        'behind (=in back of) the house'

      b.   ŋ̀   pérà
        1SgP   **rear**.HL
        'behind me'

8.2.9   'Under' (... dósù)

Adverbial '(down) below, underneath' is dòsú or (with final locative postposition) dòsú kù.

   As postposition with preceding NP or pronoun, we get interchangeably either simple dòsú (with the relevant tone overlay as possessed noun), or the complex postposition dòsú kù (xxx).

(xxx)   a.   dèŋ-ɗíŋ   dòsù   (kù)
        place-sit   **under**.L   (in)
        'under the stool'

      b.   ú   dósù   (kù)
        2SgP   **under**.HL   (in)
        'under you-Sg'

8.2.10 'Beside, next to' (... zélà kù)

Adverbial 'to the side (=nearby)' can be expressed by the PP zèlá kù. This is also used as a complex PP, with the appropriate tone changes applying to zèlá.

(xxx)   a.   [tògú   zèlà]   kù
             [water.jar beside.L]   in
             'beside the water jar'

        b.   [î   zélà]   kù
             [1PlP   beside.HL]   in
             'beside us'

   An alternative is to use a locative PP based on the noun dùtú 'hip', when adjacency is indicated.

(xxx)   a.   àlá   [[kóyò   dùtù]   kù]   dà
             village   [[mountain   hip.L]   in]   be
             'The village is at the hip of (=adjacent to) the mountain.'

8.2.11 'Between, among' (zákà)

The postposition appears, with the usual possessed-noun tone contours, as zàkà after nonpronominal NP and as zákà after a pronominal. The examples in (xx1) show the 'between/emong' postposition after a single noun or pronoun with plural reference.

(xxx)   a.   yⁿǎ-m   zàkà
             woman-Pl   between.L
             'among/between the women'

        b.   î   zákà
             1PlP   between.HL
             'between us'

   The complement of the postposition may also be a conjunction (xxx).

(xxx)   a.   [m̀ᵇî   [ú   lěy]]   zákà
             [1Sg   [2Sg   and]]   between.HL

'between me and you-Sg'

    b.   [túpérê: [bó:nǐ   lěy]]   zákà
        [Toupéré-& [Boni   and]]   between.HL
        'between Toupéré (village) and Boni (town).'

8.2.12   'Beside, next to' (... níŋèỳ)

The postposition níŋèy means 'together with' or 'beside, next to' (xxx). It follows a NP (noun-headed or pronominal), but there is **no tonal interaction** between the two. This feature is shared with tóŋɔ̀ 'around' (following section), but contrasts with the other noun-like postpositions, which (as "possessed" nouns) do interact tonally with the complement.

(xx1)   a.   [ɛ̀sà-àrá   níŋèy]   zɔ́ŋɔ̀   á   zɔ̌ŋ-gὲr-ὲ
          [chicken-male **with**] fight(noun) Impf   fight-Fut-3PlS
          '(Elephant said:) they will fight with Rooster.' (2004-1b.01)

        b.   kɔ̀   yây   yàgàfú:, nòŋ-lúw-ŋó   [pútúrò   níŋèy],
          NonhSgP going.HL all,   sun.L-fall-Nom   [twilight
               with]
          [[kὲ   kí]   kǐ]   á   ùŋùrù-t-ὲ≡cέ
          [[NonhPlP head] in]   Impf   arise-Impf-3PlS-\NonhSgS
          'Its (= locust's) going (is) sunset, (coinciding) with the twilight prayer, at this time they (= locusts) arise ….' (2004-1b.02)

        c.   [[kɔ̀   lɔ́   ↓kúnú] níŋèy] zàkú   kúlú   dà
          [[NonhSgP hand DefSg] **next.to**]put.up.on put   be
          'It (= tusk) is up ("put up") next to its hand (=trunk).' (2004-1a.10)

        d.   téwó   [àlá   níŋèy]   dá
          well   [village **beside**.L]   be
          'The well is beside (= at the edge of the village.'

   See also (xx2.a) in §17.3.1.1 ('... go along with us') and (xx1) in §19.2.2 ('put together and roast them with …').

8.2.13   'Toward, around' (tɔ́ŋɔ̀)

Like níŋèy (preceding section), but unlike the other noun-like postpositions, tɔ́ŋɔ̀ follows a NP (pronominal or noun-headed) but there is **no tonal interaction** between the two. In particular, tɔ́ŋɔ̀ does not appear in all-low-tone form after a simple noun (xx1.c-d).

(xxx)   a.   î   tɔ́ŋɔ̀
             1Pl   toward
             'toward us; in our zone'

        b.   dúwⁿáysà   tɔ́ŋɔ̀
             D   toward
             'toward Douentza (town)'

        c.   órú   tɔ́ŋɔ̀
             field   toward
             'toward (the) field'

        d.   àlá   tɔ́ŋɔ̀
             village   toward
             'toward (the) village'

        e.   [m̀ᵇ   órù]   tɔ́ŋɔ̀
             [1SgP   field.HL]   toward
             'toward my field(s)'

8.3   Purposive-Dative-Causal-Allative dè

The **purposive** function of postposition dè, which involves a future goal, is illustrated in (xxx).

(xxx)   [cèrú   dè]   bírá   m̀   â: bí-tà
        [money   for] work(noun)   1SgS   Impf   work-Impf
        'I work for money.' (cèrú)

    dè also has standard dative functions, e.g. as a basic argument with verb ów 'give' or with quotative quasi-verb ká 'say', and as an optional benefactive with other verbs.

(xxx)   a.   ténăm   ká   [èrⁿà-àrá   dè]

154

hyena   say   [goat-male   **Dat**]
‘Hyena said to Billygoat: ...’ (2004-1a.01)

    b.   [bɛ̀lú   dè]   ɛs-túkěy   kà-lî
          [goat   **Dat**]   anything   do-PerfNeg
          ‘(Hyena) didn’t do anything to Goat.’ (2004-1a.01)

    c.   [yⁿà-rⁿú   dè]   á   òw-r-ɔ̌:
          [woman-Sg Dat]   Impf   give-Impf-3SgS
          ‘He would give (the millet) to the woman.’ (2004-1a.04)

In a more abstract causal senses ‘because of’, ‘on account of’, and ‘for the sake of’, which point back in time to a causal force, the postposition is ká:wà (or tone-dropped kà:wà).

(xxx)   a.   [bîrá   m̀   â: bî-tà]
          [work(noun)   1SgS   Impf   work-Impf]
          [[yⁿà-rⁿú   mà]   ká:wà]
          [[woman-Sg ReflP]   because.of]
          ‘I work on account of my wife.’

    b.   [pá:ntà   kà:wà]   m̀   bîrá   á   bǐ-tà
          [Fanta   because.of.L]   1SgS   work(noun)   Impf
                          work-Impf
          ‘I work on account of Fanta (woman’s name).’

    c.   [kàyá   kà:wà]   yǎy-wɔ̀r-ɔ̌:
          [grasshopper because.of.L]   go-Perf1-3SgS
          ‘He/She went away, because of the grasshoppers (=locusts).’

dè is also used in **allative sense** in a number of textual occurrences, with a motion verb. However, static location (‘in’, ‘at’, etc.) is usually expressed by kù or a complex postposition ending in kù.

(xxx) ká   ké   zɔ̌:   [îló   dè],   zɔ̌w-s-è≡cɛ́
      say NonhPl run.Imprt [house   **Dat**],   run-Perf2-3PlS-\NonhPlS
      ‘It told them (one group): you-Pl run to the house (=village)! They ran (=fled)’ (2004-1a.07)

dè has its tone raised to dé after a personal pronoun, a demonstrative pronoun (whether postnominal or independent), a Definite morpheme, or certain

interrogatives ('who", 'what?'). Personal pronouns, but not the other forms mentioned simultaneously drop their own tones. Thus wò dé 'to/for him/her', ǹ dé 'to/for me', ŋ̀gú dé 'to/for this one', etc. 'See Tone-Raising, §3.6.2.4.

8.4 Other adverbials (or equivalents)

8.4.1 Similarity (sî kàyⁿ, kǎyⁿ, kâyⁿ, ŋ̀kǎyⁿ, túnù)

The complex postposition sî kàyⁿ 'like' has the usual possessed-noun tone contours, hence sî kàyⁿ after a pronoun or an inflected (or conjoined) noun, sǐ kàyⁿ after a simple nonpronominal NP. The combination is somewhat frozen, but kàyⁿ is clearly related to adverb ŋ̀kǎyⁿ 'like that, thus' and other forms. sî is probably a special use of sî '(someone's) possession', i.e. '(possessed) thing', which occurs in predicates of possession ('X is [Y's thing]' = 'X belongs to Y'), §11.5.3. Therefore I bracket [[X sî] kàyⁿ], take kàyⁿ to carry the sense 'like', and translate literally 'like X's thing' (interpreted as 'like X's manner').

(xxx) a. [[ǹ   sî]   kàyⁿ]   dá-wɔ́
           [[1SgP **Poss.HL**] **like.L**] be-3SgS
           'He/She is like me.'

       b. [lɛ́   á   lî-r-ɔ̌:]   [[gɔ̌ŋ   sǐ]   kày]
           [meal Impf eat-Impf-3SgS] [[elephant **Poss.L**] **like.L**]
           'He/She eats like an elephant.'

       c. [[ú   sî]   kàyⁿ]   yⁿâŋgó≡bɛ́
           [[2SgP **Poss.HL**] **like.L**] not.be-\3PlS
           'They are not like you-Sg.'

The construction [[X sî] kàyⁿ] is also used in texts to introduce the topic of X's manner, which is then described in the following clauses.

(xxx) [kó   mà]   [[kɔ̀   sî]   kàyⁿ],
       [Nonh   also]   [[NonhSgP **Poss.HL**] **like**],
       [yⁿà:ŋá-yⁿà:ŋá   dá]   á   yày-rà≡kɔ́
       [night-night   be]   Impf   go-Impf-\NonhSgS
       'Furthermore, its (= locust's) manner (is), it goes around at night (= is nocturnal).'

156

In texts, I also observed a falling-toned variant kây^n following the complementary constituent, suggesting a true postpositional status (i.e. in the tonal form of a possessed noun).

(xxx) a. gá: [kó   máňì],
           but   [NonhSg   too],
           [[kà:-yèrú   kà: dá   ń]   kây^n]   dá≡kɔ́
           [tree.locust Rel be   Rel]   like.HL   be-\NonhSgS
           'But that (= pilgim locust) too, it's like the (same) way the tree locust is.' (2004-1b.03)

finish section

The adverb kǎy^n with rising tone, without sî, cannot be taken as a true postposition because of its tonal contour. However, it does immediately follow a constituent, either indicating that the denotation is approximate, or expressing a similarity to another entity. In (xxx.a), it is added to a reduplicated adjective ('reddish') that already conveys the approximateness of the hue (§xxx). Many examples of kǎy^n are predicative, with immediately following dá 'be' (in high-toned form).

(xxx) a. lúp̌ì: kày⇑,   kɔ̀pú≡kɔ́,
           Acorypha   Topic,   brown.gray-NonhSgS,
           [bár^{n}ú-bár^{n}ù   kǎy^n]   dá≡kɔ́
           [red-red.HL   **like**]   **be**-\NonhSgS
           'As for *Acorypha* grasshopper, it's (mixed) brown-gray, it's sort of reddish.' (2004-1b.03)

       b. [bàr^n-ǐ⇒   sèŋǐli!⇒] [pùrɔ́   sémǐ⇒   sémǐ⇒]
           [red-Dimin feeble]   [rear   pointed   pointed]
           [[dùŋù-nú   káy-ěy]   kǎy^n]   dá   ń
           [[sorceror-Sg grasshopper-Dimin] **like**]   **be**   Rel
           'the one that is red (=brown) and feeble, with a somewhat pointed rear end (= abdomen), like (= similar to) sorceror's grasshopper' (2004-1b.03)

The deictic manner adverb 'thus, like this/that' is ŋ̀kǎy^n. Here the adverb is not directly attached to a preceding NP. The manner indicated may be shown gesturally, or it may refer back to (i.e., resume) prior discourse.

(xxx) a. ŋ̀kǎy^n ní   dǐ-kú

thus   water   bathe-Imprt.Neg
'Don't bathe (like that.'

b.   á!   ká   [[ŋ̀kǎyⁿ   má   kày]   ká, ...
       ah!   say   [[**thus**   if]   Topic]   say, ...
       '(They) said: ah, if it's (= if it keeps up) like that, ...' (2004-1b.01)

c.   [... kùrú bàmmàtá],   [kó   nà]   ŋ̀kǎyⁿ   á   bà-tà
       [(drumming rhythm)], [NonhSg now] **thus** Impf beat-Impf
       ' "...kurubammata". That (rhythm) now, he beat (the tomtom) like
       that." (2004-1b.01)

The noun túnú 'comrade' or 'peer (of …), the likes (of …)' may also be used.

b.   ɛ̀lá   [bùrù   ŋ̀gú   túnù]
       look.Imprt [year   Dem   **peer.HL**]
       ú   wɔ̀-sɔ́   má
       2SgS   see-Perf2   Q
       'Look (=consider) whether you have seen the likes of this year.'

8.4.2   Extent ('a lot', 'a little')

Adverbial 'much, a lot' is nànà:rⁿá, while adverbial 'a little' is tégěy or reduplicated tègěy-tégèy. Adverb tégěy is tonally distinct from modifying adjective tègěy 'small, little', but both forms likely contain Diminutive -ěy.

(xxx)   a.   bîrá   á   bǐ-t-ɔ̌:   nànnà:rⁿá
          work(noun) Imprt   work-Impf-3SgS   much
          'He/She works a lot.'

b.   bîrá   á   bǐ-t-ɔ̌:   tègěy-tégèy
       work(noun) Imprt work-Impf-3SgS   a.little
       'He/She works a little.'

8.4.3 Specificity

8.4.3.1 *'Approximately'*

The adverb bîsèbáràmà 'maybe' can be used as a proxy for 'approximately' with quantities and locations.

(xxx) a. zàŋî   lěy   bîsèbáràmà
           thousand   two   maybe
           'maybe (=approximately) two thousand'

8.4.3.2 *'Exactly' (tóy, dá)*

Interjection-like particle tóy is illustrated in (xxx.a). In (xxx.b), ŋú dà appears to have a similar function with a temporal adverbial.

(xxx) a. ǐnî   tóy
           here   exactly
           'right here'

       c. nǐŋ-nǐŋ   [ŋú   dà]
           now-now   [DemSg   Emph]
           'right now, immediately'

8.4.4 Spatiotemporal adverbials

8.4.4.1 *Temporal adverbs*

Some common adverbs (and short adverbial phrases) are in (xx1).

(xx1)   form   gloss

           yó   'today'
           níŋù, nîŋ, níŋ kày   'now'
           làgú, làgî nà   'again'
           dôm kày   '(not) yet'
           yá: 'yesterday'
           sîrà   'tomorrow'
           lóyɔ́   'this year'
           gà:rî   'last year'

gèrǐmètí	'two years ago'
bà:nîdàmá	'next year'
bà:nǐ-tî:-tî:	'two years from now'
dɛ́wrú	'first(ly)'
zǎ: hô: ⟹	'long ago' (<Songhay)
tùŋɔ́ gérè	'often, sometimes'
tùŋ kálá	'always'
dógò nà	'previously, before'

8.4.4.2   'First' (tî⟹)

Adverbial 'first' specifying chronological relationships among events, as in 'first we'll eat the millet cakes, then the mangoes' is tî⟹, as in Jamsay.

(xx1) [[[tál   tɔ́rɔ̀]   nǔ'm]   tɔ́ŋɔ̀]   tî⟹
      [[[Sarinyere mountain.HL] person-Pl]   around]   first
      á   gù'r'è≡kɛ́
      Impf   go.out-Impf-3PlS≡NonhPlS
      'They (= horses) would first come out over by the people of Sarinyere Mountain.' (then the horses would proceed to Tabi) (2004-2a.01)

8.4.4.3   Cardinal directions

These terms are nouns, but they are used as adverbs.

(xx1) form   gloss   comment

      dú   'east'   widespread in Dogon languages

      lúwò   'west'   verb lǔw\\lùwó 'fall; (sun) set'

      háwsá   'north'   in northern Mali: 'zone north of Niger R.'

      dɛ̌wrǐ   'south'

The suffix -nàm is used after the first of two terms in complex cardinal-direction expressions, as in háwsà-nàm lúwò 'northwest'.

8.4.4.4   Vertical positions

kǔmnò 'above, on top'.
tɛ̀má 'down, below, underneath'

8.4.5   Expressive interjection-like adverbs

8.4.5.1   'Straight' (dém⇒)

Adverbial 'straight' describing a trajectory (as opposed to adjectival 'straight, not crooked') is expressed by the expressive adverb dém⇒, which is also found in Jamsay and other northeastern Dogon languages.

8.4.5.2   'Apart, separate' (dá⇒)

The phrasing of 'X and Y are distinct (or: physically separated)' is [X dá⇒] [Y dá⇒].

(xx1) kóy   kɔ́   jɛ̀sá   mà,
      indeed   NonhSgO   sort(verb)   and.SS,
      yù'bɔ́:lɔ̀   dá⇒,   yù'gà:ⁿsú   dá⇒, …
      millet-lower.quality   **apart**,   millet-higher.quality   **apart**, …
      '(we) sort them (with) the lower-quality millet (spikes) separated from the higher-quality millet (spikes), and …' (2005-2a.06)

8.4.5.3   'Never' (àbádá)

The regionally widespread 'never' adverb àbádá (< Arabic) is used both in the literal temporal sense 'not ever, at no time' and as an emphatic negative 'not on your life'.

8.4.5.4   'All, entirely'

The 'all' quantifier may be used adverbially. In this context it often takes a full form such as cɛ̀-hú:lɛ̀-yàgà-fú:. It is common at the end of conditional antecedents, for example.

9 Verbal derivation

9.1 Reversive verbs (-rv́-)

Dogon languages have a fairly productive reversive suffixal derivation, with semantics similar to English *un-* (*unbend*, *untie*, etc.). The Reversive suffix appears (in the Imperative, which is diagnostic for vowel-harmonic class) as -rá, -rɔ́, or -ró depending on the vowel-harmonic class of the input stem (§3.5.1). It is added to the **combining form** of the underived stem. The tone contour of the underived stem is preserved, but is in effect reapplied to the derived stem with its extra syllable. For example, using bisyllabics, Cv́Cv́- becomes Cv́Cv́-rv́-, and Cv̀Cv́- becomes Cv̀Cv̀-rv́- (with the tone break at the final syllable).

The examples known to me are in (xx1) and the following lists in this section. The forms shown are imperatives. The examples in (xx1.a-b) are straightforward phonologically. Forward Nasalization applies in (xx1.c), so the suffix appears as -rⁿv́-. Cv́- stems are lengthened to Cv́:- before the Reversive suffix (xx1.d), see Monosyllabic-Stem Vowel-Lengthening (§3.6.2.4).

(xx1)		underived	gloss	Reversive	gloss
	a.	págá	'tie'	págú-rá	'untie'
		sɔ́gɔ́	'lock'	sɔ́gú-rɔ́	'unlock'
		gùtɔ́	'hang up'	gùtù-rɔ́	'unhook'
		kúsɔ́	'insert (blade)'	kúsú-rɔ́	'remove blade'
		mùsó	'stop up (hole)'	mùsù-ró	'reopen (stopped-up hole)'
		lɔ́kɔ́	'(flour) stick'	lɔ́kú-rɔ́	'remove stuck-on flour'
		ǐtó	'cover w. blanket'	ǐtú-ró	'remove blanket from'
		ďìgá	'tie knot'	ďìgù-rá	'untie (knot)'
		dàpá	'cover'	dàpù-rá-	'remove cover from'
	b.	kɔ́lɔ́	'tangle'	kɔ́lú-rɔ́	'untangle'
	c.	mùnó	'roll up (mat)'	mùnù-rⁿó	'unroll (mat)'
		mùnɔ́	'rumple'	mùnù-rⁿɔ́	'un-rumple'
		dùnó	'fold up (rope)'	dùnù-rⁿó	'unfold (rope)'
	d.	tɔ́	'step on'	tɔ́:-rɔ́	'take foot off (sth)'

kó	'cover with hide'	kú:-ró	'remove hide cover'
dá	'prop up'	dá:-ró	'remove prop from'

In (xx2), the expected output is /Cvrv-rv-/ with two consecutive rhotics, a disfavored combination in TT. The first /r/ dissimilates, becoming /l/ (Rhotic Dissimilation, §3.6.3.5), so the output Cvlv-rv- is identical to the regular output from true Cvlv- stems (xx1.c). (xx1.e) shows that monosyllabic input stems lengthen their vowels before the Reversive suffix; see Monosyllabic-Stem Vowel-Lengthening (§3.6.2.xxx).

(xx2)	underived	gloss	Reversive	gloss
b.	tárá	'be stuck on'	tálú-rá	'(sth stuck on) be taken down or off'
	màrá	'be lost'	màlù-rá	'(sth lost) be found'
	[also m̀^{b}àrá, m̀^{b}àlù-rá]			

Early u-Syncope applies to CvCv- stems with certain medial consonants. In (xx2), the consonant in question is a semivowel. If the semivowel is /y^n/, Forward Nasalization applies to the suffixal rhotic (xx2.b).

(xx2)	underived	gloss	Reversive	gloss
a.	b̆ĭwá	'bury'	b̆ĭw-rá	'disinter'
b.	ɔ́y^{n}ɔ́	'spin (thread)'	ɔ́y^n-r^{n}ɔ́	'unspin (cord)'
	mày^{n}á	'build'	mày^n-r^{n}á	'unbuild'

Early u-Syncope also applies to reversives based on CvC$_2$v- where C$_2$ is /l/ or a peripheral nasal {m ŋ}, including m from /w^n/. The cluster /lr/ is irregularly realized as nn in the one example I have (xx3.a). Cluster /ŋr/ is restructured as ŋgur, though this may be resyncopated to /ŋr/ (note the absence of Forward Nasalization). Two distinct treatments are attested for syncopated cluster /mr/. The first is to restructure /mr/ as mbur, with optional subsequent resyncopation to mr, parallel to ŋgur from /ŋr/ (xx3.c). For the ŋgur/mbur restructurings, see §3.6.2.1. The other attested output for /mr/ is mn, an output that does not occur elsewhere in TT morphophonology (xx3.d)

(xx3)	underived	gloss	Reversive	gloss
a.	t̆ílá	'shut, cover'	t̆ín-ná	'open, uncover'

b. tɔ́ŋɔ́   'hobble (animal)' tɔ́ŋgú-rɔ́   'unhobble'
                                     (variants tɔ́ŋ-rɔ́ etc.)

    gàŋá   'get bogged'   gàŋgù-rá   '(sth bogged) get out'
                                       (variants gàŋ-rá etc.)

    péŋó   'choke on food' péŋgú-ró   'dislodge food stuck in throat'

c. sáwⁿá   'fence in'   sámbú-rá   'remove fence from'
                                  (variants sám-rá etc.)

d. tɔ́wⁿɔ́   'roll on (turban)' tɔ́m-nɔ́   'unroll (turban)'
         (underived stem also tɔ́mɔ́)

    bùwⁿó   'flip over'   bùm-nó   'right (sth flipped)'

My assistant does not accept the combination of the Reversive suffix with a preceding Causative suffix, and I found no examples of this combination in texts or in lexical elicitation. It was possible to elicit reversives for certain verbs that have a Causative suffix in their usual transitive form, but in this case the Causative suffix is omitted in the reversive (xx4). In (xx4.a), ɔ́ŋgú-rɔ́ reflects syncopated /ɔ́ŋ-rɔ́/; see §3.6.2.1 for the phonology.

(xx4)   underived gloss   Reversive   gloss

a. ɔ́ŋú-mɔ́   'crumple (sth)'   ɔ́ŋgú-rɔ́   'uncrumple'
                                  (also pronounced [ɔ́ŋrɔ́] etc.)

b. gònù-mɔ́   'bend (sth)'   gònù-rⁿɔ́-   'straighten out'
                     cf. gònɔ́ m 'be bent, curved'

The morphological relationship between ná- 'forget' and nátúrá- 'remember' is synchronically obscure. Compare Jamsay náŋá 'forget' and its morphologically transparent reversive náŋá-rⁿá- 'remember' (i.e. 'un-forget').

The verb lálá 'undo' is a kind of lexical reversive not derived from or related to any other verb. It is used in senses like 'undo (braids)', 'undo (knot)', and 'unravel (rope)', as well as in the corresponding intransitive senses ('become undone').

9.2   Deverbal causative verbs (-mv́, -kv́, etc.)

Suffixal causative derivatives are most often from intransitive bases, though a few transitives like 'eat' and 'drink' also have causatives.

There are two reasonably productive Causative suffixes, -mv́- and -kv́-, and the combination -m-kv́- is also found. There are also a few minor causative patterns involving other suffixes. Stems whose causatives are in common use generally have a single causative form. When eliciting a wider variety of causatives, including some that are probably not common for semantic reasons, I found differences among informants as to which allomorph was the default.

Causative -mv́ is common in deadjectival factitives (§9.xxx, below). It is also fairly common in causatives based on nonadjectival verbs. (xx1) shows the input verbs and their causatives in the Imperative form. There are few phonological issues, since the suffixal m induces Early u-Syncope of the following vowel, not the preceding vowel. In (xx1.a), the monosyllabic verb 'eat (meal)', whose combining form is lí, lengthens before the derivational suffixl see Monosyllabic-Stem Vowel-Lengthening §3.6.2.4.

(xx1)   input   gloss   causative   gloss

   a.   tóró   'jump'   tórú-mó   'make jump'
        ɗiŋé   'sit'   ɗiŋù-mó   'cause to sit'
        ɛ́ŋá   'be sated'   ɛ́ŋú-má   'feed well'
        kúgó   'be charred' kúgú-mó   'char'
        lɔ́gɔ́   'be lit'   lɔ́gú-mɔ́   'ignite'
        ɛ́gá   'understand' ɛ́gú-má   'make   understand,
                                            explain to'

   b.   lɛ́   'eat (meal)' lí:-má   'feed'

list causatives

Examples of the Causative -kv́- allomorph are in (xx2). The phonology is straightforward in (xx2.a). Early u-Syncope applies as usual after a semivowel in (xx2.b). Early u-Syncope also applies after peripheral nasals {m N}, including m from /w</ (xx2.c).

(xx2)   input   gloss   causative   gloss

   a.   púsó   'explode'   púsú-kó   'detonate'
        ɔ́rɔ́   'rot'   ɔ́rú-kɔ́   'cause to rot'
        wàrá   'do farm work' wàrù-ká   'make (animal) plow'

166

	b.	lɔ́wɔ́	'learn'	lɔ́w-kɔ́	'teach'
		kúwó	'eat (meat)'	kúw-kó	'give meat to, have eat meat'
		ɛ́wá	'be dense'	ɛ́w-ká	'make dense'
		mìynᵃ	'be ground up'	mìyⁿ-ká	'grind up finely'
		bàyⁿá	'be alive'	bàyⁿ-ká	'resuscitate'
	c.	ɗìŋé	'sit down'	ɗìŋ-kó	'make sit, have sit'
		yⁿàwⁿá	'malfunction'	yⁿàm-ká	'cause to malfunction'

Irregular causatives with -kv́- are in (xx3). In (xx3.a), the shift of /w/ to /m/ is unexpected; elsewhere /wⁿ/ but not /w/ undergoes this shift. Alternatively, we could connect the m with the type -m-kv́- in (xx3.c). In (xx3.b), the first syllable in causative lù-kó is unexpectedly short; one would expect #lùw-kó-. In (xx3.c), we apparently have double causative marking with -mv́- preceding -kv́-.

(xx3)		input	gloss	causative	gloss
	a.	lîwá	'be afraid'	lîm-ká	'scare'
	b.	lùwó	'fall'	lù-kó	'cause to fall'
	c.	yɛ́	'weep'	yì-m-ká	'cause to weep'

A very minor Causative type with -rv́- is found in two cases (xx4.a). -rv́- is much more productive as a Reversive or Inchoative suffix. (xx4.b) is an idiosyncratic combination of -rv́- with following Causative -mv́-.

(xx4)		input	gloss	causative	gloss
	a.	dé	'bathe (self)'	ɗì-ró	'bathe (sb)'
		îgó	'stop; stand'	îgú-ró	'arrest (sb); erect'
	b.	ìsé	'lie down'	ìsù-rù-mó	'cause to lie down'

Isolated simple/causative pairs that fit no productive pattern are listed in (xx4). One might also mention suppletive ló 'go in', kúló 'put (in)'.

(xx5)	input	gloss	causative	gloss
	nɛ́	'drink'	nèwⁿá	'give drink to'
	gó	'go out'	gùŋó	'take out (of sth)'
	sîgó	'go down'	sîtó	'take down'

A few stems have what amounts to a **suppletive** causative. For ùnɔ́ 'go up' we have látá 'cause to go up, put up'. For ló 'go in' we have kúló 'put (in)'.

9.3   Passive verbs

For suffixal passive derivations, the pickings are slim. The case in (xx1) is the one I am aware of.

(xxx)	transitive verb	gloss	passive derivative	gloss
	ɗǐrⁿá	'encounter'	ɗǐrⁿù-má	'be found, exist'

9.4   Deadjectival inchoative and factitive verbs

Adjectives typically correspond to a pair of verbs, inchoative ('X become ADJ') and factitive ('Y make X ADJ'). The **factitive** is formed from the inchoative by adding one of the Causative suffixes: -mɰ́-, -kɰ́-, or -m-kɰ́-. The data below are therefore organized around the form of the inchoative verb.

In a considerable number of cases, the inchoative verb has no special derivational suffix. The inchoative is subject to the specific phonological constraints that apply to all regular verbs. The tone contour of the verb correlates with its onset in a way that does not apply to the adjective: generally all-high tones with initial voiceless obstruents or zero (i.e. vowel-initial), generally {LH} contour with initial voiced obstruents. Examples of inchoatives with no derivational suffix are in (xx1), along with their factitives. I know of no monosyllabic inchoatives; adjective dɔ́ 'hot, fast' corresponds to inchoative dɔ̀yɔ́ (xx1.b).

inchoative list

(xx1)	input	gloss	inchoative	factitive
a.	yɔ̌:	'old'	yɔ̀wɔ́ = yɔ̌:	yɔ̀w-kɔ́
	bárⁿú	'red'	bàrⁿá	bàrⁿù-ká
	jὲrⁿú	'good'	jὲrⁿá	jὲrⁿù-má
	ìrú	'ripe'	îrá	îrú-ká
	dɔ̀ŋú	'skinny'	dɔ̀ŋɔ́	dɔ̀ŋ-kɔ́
	kùrú	'undiluted'	kúró	kúrú-kó, kúrú-mó
	gà:ⁿsú	'coarse'	gà:ⁿsá	gà:ⁿsù-má
	yùgùsú	'woolly'	yùgùsɔ́	yùgùsù-mɔ́

bùyⁿsú	'half-ripe'	bùyⁿsó	—	
dómbúró	'stout'	dómbúró	—	

b. dɔ́ 'hot' dɔ̀yɔ́ dɔ̀y-kɔ́

An alternative is to use -rv́- as an Inchoative suffix. We have seen -rv́- as a productive Reversive suffix for verbs (§9.1), and as a rare and frozen causative (§9.xxx). The attested examples of Inchoative -rv́- are in (xx2). The examples involve a medial voiceless obstruent (xx1.a,c) or /l/ (xx2.b). If the adjective ends in a frozen Diminutive ending, this is omitted in the verbalizations (xx2.c). The data suggest that the all-high tone contour is associated with this formation.

(xx2)		input	gloss	inchoative	factitive
	a.	dùsú	'heavy'	dúsú-rɔ́	dúsú-rú-mɔ́
		lókó	'deep'	lókú-ró	lókú-rú-mó
		pótó	'spacious'	pótú-ró	[= inchoative]
		lîsî	'sharp'	lîsú-ró	[= inchoative]
		ètú	'sweet'	étú-ró	étú-rú-mó-
	b.	òlú	'smooth'	ólú-ró	ólú-rú-m-kó
		gòlú	'bitter'	gólú-ró	gólú-rú-mó
	c.	ɔ̀ⁿsî:ⁿ	'thin'	ɔ́ⁿsú-rⁿɔ́	ɔ́ⁿsú-rⁿú-mɔ́
		tùkěy	'short'	túkú-ró	túkú-rú-mó

There are also several inchoatives with -lv́-, which is arguably a variant of -rv́-. While -rv́- occurs after voiceless obstruents and /l/, we get -lv́- after sonorants other than /l/ (xx3.a). This includes, however, ŋ mutated from g in the adjective (xx3.b), an alternation found only in this morphological context. In the one relevant example, Cv́- lengthens to Cv́:- before the suffix (xx3.c); see Monosyllabic-Stem Vowel-Lengthening (§3.xxx). The /ml/ cluster in /jèm-lá/ is restructured as /mbul/ (xx3.d), cf. the more common case of /mbur/ from /mr/ (§3.6.2.1).

(xx3)		input	gloss	inchoative	factitive
	a.	sɛ́w	'fat'	sɛ́w-lá	sɛ́w-lú-má
		mǎw	'hard'	máw-lá	máw-lú-má
			(also mᵇǎw, etc.)		
		nâŋ	'difficult'	náŋú-lá	náŋú-lú-má

	b.	wà:gá	'distant'	wⁿáŋú-lá	wⁿáŋúl-ú-má
		tègěy	'small'	téŋú-lá	téŋú-lú-má

	c.	gá	'bigger'	gá:-lá	gá:-lú-má
		(functions as inchoative for ná: 'big')			

	d.	jɛ́m	'black'	jɛ̀mbù-lá	jɛ̀mbù-lù-má

There are several adjective/inchoative sets where the consonantism of the inchoative has a phonological problematic relationship to that of the adjective. First, when the adjective has the shape Cvrv, the inchoative is Cvlv (xx4.a). On the face of it, the l mutates to r just as g mutates to ŋ in (xx3.b), above, and there is no suffix. Alternatively, one could posit a suffix -lv́- and allow /Cvru-lv-/ to undero Early u-Syncope (§3.6.2.2) then Rhotic Deletion (§3.6.3.6) to reduce this to Cv-lv-.

(xx4)		input	gloss	inchoative	factitive
	a.	zɔ́ré	'easy'	zɔ́lɔ́	zɔ́lú-mɔ́
		pírú	'white'	pílá	pílî-má
		gùrú	'long, tall'	gúlɔ́	gúlú-mɔ́
		bèrú	'near'	bɛ́lá	bɛ́lú-má
		ɛ́rú	'lightweight'	ɛ́lá	ɛ́lú-má

	b.	ɔ̀rî:	'soft'	ɔ́lɔ́	ɔ́lú-mɔ́

That the mutation analysis might be better in this morphological context is suggested by cases where medial l in the inchoative corresponds to m in the adjective (xx5.a-b). There is also a strange example with an apparent mutation of the adjective's /r/ to t in the inchoative (xx5.c). This is reminiscent of the t that appears in the Imperfective inflection of Cvrv verbs (Cv́-tv̀-), for which I have suggested an explanation in terms of defaulting from the -rv̀- allomorph of the Imperfective to the -tv̀- allomorph. The shift of stem-initial /n/ to l in (xx5.b) is to be compared to other n/l alternations (§3.6.1.2-3).

(xx5)		input	gloss	inchoative	factitive
	a.	tôm	'cold'	tóló	tólú-mó
	b.	nôm	'sour'	lóló	lólú-m-kó
	c.	ɔ̀rú	'wet'	ɔ́tɔ́	ɔ́tú-mɔ́

Some adjectives seem to have no inchoative. ná: 'big' corresponds semantically to gá:-lá 'become big', which is based on gá 'bigger'. No inchoative was elicitable for péré 'empty'.

9.5   Denominal verbs

I can cite the example in (xx1).

(xx1)	noun	gloss	verb	gloss
	pètá	'fan/van'	pétú-má-	'winnow (with van)'

10 Verbal inflection

10.1 Inflection of regular indicative verbs

As an initial orientation to the morphology, consider the paradigms of the verbs 'cough' and 'go up'. Further pronominal suffixation for third person subject categories is possible but is omitted here.

(xx1)		'cough'	'go up'
a.	Imperative	kósîyó	ùnɔ́
	combining form	kósîy [kósi:]	ùnú
	before mà	kósîyó mà	ùnɔ́ mà
	Perfective-I (a,b)	kósîy-wòsĭ-	ùnú-wⁿɔ̀rⁿè-
	Perfective-II	kósîy-sò-	ùnú-sɔ̀-
	Hortative	kósîy-é	ùn-ɛ́
b.	Future	kòsĭy-yàrà-	ùní-yⁿàrⁿà-
	Imperfective	kósîy-tò-	ún-nɔ̀-
	Perfective Negative	kòsĭy-lî-	ùn-ní-
	Imperfective Negative		kòsĭy-nó- ùn-nɔ́-

In the Perfective-I (xx1.a), the two verbs take distinct suffixes, one being characteristic of transitives ('cough'), the other typical of motion verbs and other intransitives ('go up'). I label these Perfective-Ib and Perfective-Ia, respectively. There is also another perfective category, Perfective-II.

The lexical distinction between **all-high** and **rising** tone contours is observable in the forms in (xx1.a). 'Cough' has the all-high pattern, while 'go up' is rising (LH). There is no such distinction among Cv́ monosyllabic verbs, which are always high-toned, but bisyllabics may be either all-H or LH, and trisyllabics may be either all-H or LLH; an example of the latter is (Imperative) dùŋgùrɔ́ 'cut meat'.

The AN (aspect-negation) forms in (xx1.b) all **neutralize** lexical tonal contrasts, by superimposing various **stem-wide tone contours** associated with

the particular suffix; see §3.6.2.2 for a tabular summar of these overlaid contours.

The **Imperative** is particularly useful for determining the **vowel-harmonic class** of the stem (§3.5.1) in addition to revealing the lexical tone. The harmonic class is crucial for determining the vocalism of suffixes. Since lexical high vowels {i u} are extraharmonic, and since the combining form and those inflections based on it replace the final vowel by ú, there are some stems (including 'go up') whose combining form (here ùnú) fails to reveal the stem's harmonic class. The Imperative (here ùnɔ́ instead of #ùnó) always includes at least one telltale non-high vowel, and this vowel suffices to characterize the harmonic class. Therefore the Imperative (ùnɔ́) is used here as a **short citation form**, alongside the **full citation form** (ùnú\\ùnɔ́) which includes both the combining form and the Imperative.

If the suffix has only a high vowel (e.g. Perfective Negative), or if it has invariant a vowels (Future), the suffix disregards the harmonic class of the stem. If the first syllable of the suffix has a vowel other than invariant {i u a}, it must harmonize with the stem. The harmonic alternations are of the following types, depending on the suffix: e ~ ɛ in the Hortative; o ~ ɔ in the two Perfective-I suffixes (a and b), both of which are bisyllabic and begin in w ; and o ~ ɔ ~ a in the remaining cases (Perfective-II, Imperfective, and Imperfective Negative), which are monosyllabic and do not begin with w. For discussion of the underlying representation of suffixal vowels, see §3.5.2.

The harmonic class of a verb is determinable from the vocalism it shows in the Imperative, the maximal three-way distinction being between {a ɛ}, ɔ, and {e o} classes. Thus the Perfective-II suffix -sv̀- appears as -sà-, -sɔ̀-, or -sò- depending on the harmonic class of the stem. The {a ɛ} and ɔ classes merge to form a binary opposite to {e o} with regard to those suffixes that distinguish only two forms of the vowel of their first syllable, e.g. Hortative -ɛ́ versus -é and Perfective-Ia -wɔ̀rè- versus -wòrè-. The final e of this latter suffix, incidentally, is invariable (i.e. not sensitive to harmony), and I can cite no other bisyllabic suffix whose second syllable is harmonically sensitive.

Suffixal derivatives (Reversive, Causative, etc.) adopt the harmonic class of the input verb.

For the most part, paradigms are regular in the sense that one can predict the outputs for each AN category given a basic lexical representation (or the imperative). There is one thoroughly irregular, suppletive paradigm, that for the transitive verb 'go to'. There are also a few verbs with irregularities in one or more AN forms. For details see §10.1.4.

There are a number of **Cv̋- verbs** with short vowel. Those that have stable vowel quality, i.e. that have the same vowel in the Imperative and in the combining form, are shown in (xx1). The vowels in question are {o ɔ a ɛ}. The absence of Cé- may be accidental.

174

(xx1) Imperative combining verbs

Có	Có-	pó- 'wrestle', só- 'take'
Cɔ́	Cɔ́-	dɔ́- 'roast', dɔ́- 'arrive', wɔ́- 'see'
Cɛ́	Cɛ́-	dɛ́- 'be tired'
Cá	Cá-	ká- 'shave'

As indicated, all Cv- verbs have high tone (Cv́-). However, wɔ́- 'see' has a Perfective-II form wɔ̀-sɔ́- instead of expected #wɔ́-sɔ̀-, and a Perfective-Ib wɔ̌:-sĭ- for expected #wɔ̂:-sĭ-, which I take to be vestiges of an originally rising lexical tone.

The Cv́- verbs that show vocalic alternations have a high vowel in the combining form and inflections based on it, and a mid-height vowel in the Imperative (and before mà 'and' in chains). No Cv́- verb has a high-voweled imperative. There appear to be no cases of Imperative Cɔ́ corresponding to a combining form Cú- ; whether this is an accidental gap is debatable.

(xx2) Imperative combining verbs

Có	Cú-	gú\\gó 'go out', lú\\ló 'go in'
Cɛ́	Cî-	dî\\dɛ́ 'bathe'
Cɛ́	Cî-	lî\\lɛ́ 'eat (meal)', nî\\nɛ́ 'drink', yî\\yɛ́ 'weep',
		jî\\jɛ́ 'dance', cî\\cɛ́ 'slaughter'

In addition to the full-fledged Cv- verbs illustrated above, **suppletive 'go to'** has monosyllabic Imperfective là- and Imperative yá.

Other surface presuffixal Cv- stem forms are secondary, reflecting phonological rules (stem-final syncope of a Cvrv- or Cvrⁿv- stem followed by a CC contraction rule), as in Future bî-tà- and Perfective Negative bǐ-lî-, from bǐrá- 'work'.

There is one true (C)vC- stem, namely ów- 'give' (Imperative ów), contrast gǒw- 'harvest (late millet)' (Imperative gòwó or gǒː pointing to a bisyllabic representation). Other cases of CvC- before a suffix reflect syncope, e.g. presuffixal yǎy- 'go' from /yàyú-/ (compare Imperative yàyá, which clearly shows the bisyllabic character).

There are several verbs with long-voweled **Cɔː imperatives**. Before an AN suffix, these verbs take the form Cɔw- (xx3.a) or, if nasal-initial, Cɔm- (xx3.b).

There are also a few similar verbs that vary between Cǎ:ⁿ and Càwⁿá in the imperative, with combining form Cǎm- (xx3.c).

(xx3)		Imperative	combining	gloss
	a.	wǒ:	wǒw-	'kill'
		zǒ:	zǒw-	'run'
	b.	mǒ:	mǒm-	'laugh'
	c.	mǎ:ⁿ, màwⁿá	mǎm-	'toss'
		bǎ:ⁿ, bàwⁿá	bǎm-	'go around'

10.1.1   Perfective and imperfective systems (positive AN categories)

The first cut is between perfective and imperfective systems. The binary quality of this opposition is clear in the negative. In positive utterances, there are multiple perfective and imperfective categories.

10.1.1.1   Perfective-Ia (-wɔ̀rè-, -wòrè-)

The Perfective-Ia suffix is used chiefly with intransitives (including motion and stance verbs, and adjectival inchoatives). It also occurs with a few "weak transitives" like 'forget', and is also attested with 'bring'. For the grammatically equivalent Perfective-Ib suffix -wɔ̀sì- (used mostly with transitives), see the following section. The two Perfective-I suffixes may be thought of as marked perfectives, in contrast to the less marked Perfective-II with suffix -sà- and variants (§10.1.1.xxx).
     The verb stem is in the **combining form**.
     Some examples of -wòrè- and -wɔ̀rè- are in (xx1), with the Imperative shown alongside it to clarify the lexical vocalism. The rounded vowel in the first syllable appears as ɔ when the stem is characterized by {a ɛ} or by ɔ vocalism (xx1.a), and as o when the stem has {e o} vocalism (xx1.b).

(xx1)		gloss	Perfective-Ia	Imperative
	a.	'be tired'	dɛ́-wɔ̀rè-	dɛ́
		'rain fall'	mùrú-wɔ̀rè-	mùrɔ́
		'be finished'	dùm-lú-wɔ̀rè-	dùm-lɔ́
		'go'	yǎy-wɔ̀rè-	yàyá

176

b.	'go out'	gú-wòrè-	gó
	'get up'	úrú-wòrè-	úró
	'wait'	cérú-wòrè-	céré
c.	'forget'	ná-wⁿɔrⁿè-	ná
	'go up'	ùnú-wⁿɔrⁿè-	ùnɔ́
d.	'sleep'	léy-wòrè-	léyó
	'go back'	bǐřǐy-wòrè-	bǐřǐyó
	'fall'	lǔw-wòrè-	lùwó
e.	'die'	núm-bòrè-, núm-wòrè-	núwⁿó
	'be ruined'	yⁿǎm-bɔrè-, yⁿǎm-mɔrè-	yⁿàwⁿá
f.	'sit'	ɗĭŋ-gòrè-, ɗĭŋ-woRè-	ɗĭŋé
g.	'arrive'	dɔ̂:-rè-	dɔ́
	'leak'	sô:-rè-	só

The final e is invariant. When the subject is third person (including nonhuman) plural, one can imagine that the optional 3Pl suffix -e is present (in which case we should segment as e.g. -wòr-è), but we cannot tell. 3Sg -wɔ́ and other third person subject morphemes are added to the suffix with no contractions.

The suffixal w...r are **nasalized** to wⁿ...rⁿ when the preceding syllable begins with a nasal or nasalized consonant (xx1.c). The stem-final u is subject to syncope in nonmonosyllabic stems, if preceded by an unclustered semivowel (xx1.d).

Early u-Syncope applies to the stem-final vowel under certain conditions. CvC₂v- stems with C₂ a peripheral nasal {m ŋ} or a semivowel {y yⁿ w wⁿ} require this syncope (underlying /wⁿ/ shifts to m). After syncope, the peripheral nasals combine with the suffixal /w/ by **Semivowel-Fusion** (xxx) to any of a range of phonetic outputs revolving around mb and ŋg (xx1.e-f). No further changes are needed for the semivowel-final stems (xx1.d).

Monosyllabic Có- and Cɔ́- stems that do not shift to a high vowel in the combining form contract with the first syllable of the suffix, which loses its /w/ (xx1.g) by **Intervocalic Semivowel-Deletion** (xxx). The contraction does not occur with Cɛ́-. My only example of this suffix with Cá- is ná-wⁿɔrⁿè- 'forgot', which does not contract (I cannot determine whether this is due to nasalization).

Forms of the Perfective-Ia suffix with **irregular verbs** and with the suppletive verb 'go to' are in (xx2).

(xx1)　　　gloss　　　　　　Perfective-Ia　　　Imperative

　　　a.　'bring'　　　　　zê:rú-wòrè-　　　　zérǐ
　　　　　'come'　　　　　yĕw-wòrè-　　　　yèrí
　　　　　　　　　　　　(alongside regular yèrú-wòrè-)

　　　b.　'go to'　　　　　bèrɛ́-　　　　　　yá
　　　　　　　　　　　　(compare Perfective Negative bò:-lí-)

　　Regular subject suffixes (human 3rd person) are added to -wòrè- and its variants. The 3Sg form is -wòr-ɔ̌: regardless of stem vocalism, as the first suffixal vowel harmonizes with the (contracted) second-syllable vowel (the prototype is *-wòrè-wɔ́). The 3Pl is -wòr-è≡bɛ́ or -wòrè≡bɛ́.

(xxx)　a.　yèrú-wòr-ɔ̌:
　　　　　come-Perf1a-3SgS
　　　　　'He/She came.'

　　　b.　ǹ　　　　yèrú-wòrè
　　　　　1SgS　　come-Perf1a
　　　　　'I came.'

　　　c.　yèrú-wòrè≡bɛ́
　　　　　come-Perf1a-\3PlS
　　　　　'They came.'

　　　d.　àtê:　　　zê:rú-wòsǐ-wɔ́
　　　　　tea　　　bring-Perf1b-3SgS
　　　　　'He/She brought the tea.'

　　The morphologically opaque bèrɛ́ 'went' for suppletive 'to go' is seen in (xxx).

(xxx)　a.　[pá:ntà　　dè]　súkkàrà　　ǹ　　　zí　　　bèrɛ́
　　　　　[Fanta　　　Dat]　sugar　　　1SgS　　deliver　go.to.Perf1a
　　　　　'I took (=delivered) the sugar to Fanta (woman's name).'

　　　b.　[lú:mà　　tɔ́ŋɔ̀]　　　bèrɛ́≡bɛ́
　　　　　[market　　toward]　　go.to.Perf1a-3PlS
　　　　　'They went toward the market.'

c. à:! [kɔ́   bèrɛ́]   tùg-ú
ah!   [NonhSgS go.to.Perf1a] cut.off-VblN
'Ah, so it (=he) must have gone (elsewhere in the field) to cut off
(millet stems).' (2004.1a.09)

10.1.1.2 *Perfective-Ib* (*-wɔ̀sĭ-, -wòsĭ-*)

Transitives (except 'forget' and a few others) take a Perfective suffix -wɔ̀sĭ-,
with harmonic variant -wòsĭ-. We get ɔ when the verb's vowel-harmonic class
is {ɛ a} or ɔ, and o when it is {e o}.

The stem takes its combining form. The phonology is basically the same as
for Perfective-Ia -wɔ̀rè-/-wòrè- (preceding section). Indeed, one could consider
segmenting the two suffixes into two parts, with a shared initial morpheme
-w�v̀-.

(xx1)		gloss	Perfective-Ib	Imperative
	a.	'bite'	cérú-wɔ̀sĭ-	cérá
		'help'	bàrú-wɔ̀sĭ-	bàrá
		'dig'	gàsú-wɔ̀sĭ-	gàsá
		'throw'	dà:ⁿsú-wɔ̀sĭ-	dà:ⁿsá
		'tie'	págú-wɔ̀sĭ-	págá
		'recognize'	îtú-wòsĭ-	îtá
	b.	'sell'	dɔ̀rú-wɔ̀sĭ-	dɔ̀rɔ́
		'cut (meat)'	dùŋgùrú-wɔ̀sĭ-	dùŋgùrɔ́
	c.	'give'	ów-wòsĭ-	ów
		'jump'	tórú-wòsĭ-	tóró
		'put down'	dèlú-wòsĭ-	dèlé
		'speak'	tégú-wòsĭ-	tégó
		'reply'	kîsú-wòsĭ-	kîsó
		'cough'	kósîy-wòsĭ-	kósîyó
	d.	'shoot'	táy-wɔ̀sĭ-	táyá
		'catch'	áw-wɔ̀sĭ-	áwá
		'build'	mǎyⁿ-wⁿɔ̀sĭ-	màyⁿá
		'put'	kúlú-wòsĭ-	kúló
	e.	'chase'	nàrⁿú-wⁿɔ̀sĭ-	nàrⁿá
		'do'	kárⁿú-wⁿɔ̀sĭ-	kárⁿá

179

f.	'kill'	wɔ̌w-wɔ̀sɪ̌-	wɔ̌:
	'run'	zɔ̌w-wɔ̀sɪ̌-	zɔ̌:
g.	'laugh'	mɔ̌m-bɔ̀sɪ̌-, mɔ̌m-wɔ̀sɪ̌	mɔ̌:
	'toss'	mǎm-bɔ̀sɪ̌-, mǎm-wɔ̀sɪ̌	màwⁿá ~ mǎːⁿ
h.	'sing'	nǔŋ-gɔ̀sɪ̌-, nǔŋ-wɔ̀sɪ̌	nùŋɔ́

We now turn to **monosyllabic** stems. Có- and Cɔ́- stems contract with the suffix, resulting in Cv̂:-sɪ̌-, preserving the vowel quality of the stem (xx2.b).

(xx2)	gloss	Perfective-Ib	Imperative
a.	'drink'	nɪ́-wⁿɔ̀sɪ̌-	nɛ́
	'eat'	lɪ́-wɔ̀sɪ̌-	lɛ́
	'dance'	jɪ́-wɔ̀sɪ̌-	jɛ́
	'slaughter'	cɪ́-wɔ̀sɪ̌-	cɛ́
	'weep'	yɪ́-wɔ̀sɪ̌-	yɛ́
	'bathe'	dɪ́-wɔ̀sɪ̌-	dɛ́
b.	'roast'	dɔ̂:-sɪ̌-	dɔ́
	'wrestle'	pô:-sɪ̌-	pó
	'take'	sô:-sɪ̌-	só
	'shave'	kâ:-sɪ̌-	ká

Cá- monosyllabics occasionally contract, though in elicitation informants prefer the uncontracted variants: ká-wɔ̀sɪ̌- ~ kâ:-sɪ̌- 'shaved'.

Two irregular forms have been noted. The monosyllabic verb 'see' has a Perfective that is segmentally regular (after contraction), but has a distinctive rising tone contour (xx3.a). One can imagine an underlying /wɔ̌:-wɔ̀sɪ̌-/ with the medial /w/ being deleted, leaving /wɔ̌:-sɪ̌-/ with <LHL>L tones that resolve into <LH>L as the tone break from H to L realigns with the final syllable boundary. The high-frequency bisyllabic verb 'get' shows a more radical contraction from expected quadrisyllabic #bèrú-wɔ̀sɪ̌- to a bisyllabic form (xx3.b).

(xx3)	gloss	Perfective-Ib	Imperative
a.	'see'	wɔ̌:-sɪ̌-	wɔ́
b.	'get'	bɛ̌:-sɪ̌-	bèrá

The usual pronominal-subject preverbal particles (1st/2nd person) and suffixes (3rd person) apply. The 3Sg suffix is -wɔ́, and has no harmonic interaction with the suffix, thus -wɔ̀sǐ-wɔ́ or -wòsǐ-wɔ́ depending on the stem. The 3Pl has ≡bɛ́, optionally accompanied by 3Pl -e- replacing the i in -wɔ̀sǐ-/-wòsǐ-, thus -wɔ̀sǐ≡bɛ́ varying with -wɔ̀s-è≡bɛ́, and -wɔ̀sǐ≡bɛ́ varying with -wɔ̀s-è≡bɛ́.

(xxx)   a.   î   bèlú   pàgú-wɔ̀sǐ
             1PlS   sheep   tie-Perf1b
             'We tied up the sheep.'

        b.   lɛ́   kárⁿú-wɔ̀sǐ≡bɛ́
             meal   make-Perf1b-3PlS
             'They cooked the meal.' (also kárⁿú-wɔ̀s-è≡bɛ́)

        c.   m̀   wɔ́   wɔ̌w-wɔ̀sǐ
             1SgS   3SgO   kill-Perf1b
             'I killed him/her.'

        d.   bɛ́   wɔ̌w-wɔ̀sǐ-wɔ́
             3PlO   kill-Perf1b-3SgS
             'He/She killed them.'

        e.   nàwⁿá   kúw-wòsè≡bɛ́
             meat   eat.meat   Perf1b-3PlS
             'They ate the meat.'

For verbs like ɗirⁿú\\ɗirⁿá 'encounter, find', both Perfective-Ib ɗirⁿú-wⁿɔ̀sǐ- and Perfective-Ia ɗirⁿú-wⁿɔ̀rⁿè- are attested. My assistant suggested that only ɗirⁿú-wⁿɔ̀sǐ- is used with human object, while either form could be used with nonhuman object.

10.1.1.3 *Perfective-II (-sv̀-, -tv̀-)*

In ordinary main clauses, the Perfective-II is essentially interchangeable with the Perfective-I (a or b). The Perfective-II is required, replacing the Perfective-I, in the presence of a focalized constituent and in relative clauses. What these have in common is that the verb is part of the defocalized (presupposed, backgrounded) part of the clause.

   The verb is in its combining form. Except when preceded by t, the suffix takes the forms -sò-, -sɔ̀-, and -sà-, which correlate with the stem's vowel-

harmonic class, respectively {e o}, ɔ, and {ɛ a}. Examples with monosyllabic stems are in (xx1).

(xx1)		gloss	Perfective-II	Imperative
	a.	'give'	ów-sò-	ów
		'go out'	gú-sò-	gó
		'wrestle'	pó-sò-	pó
		'bathe'	dí-sò-	dé
	b.	'kill'	wɔ̌w-sɔ̀-	wɔ̌:
		'arrive'	dɔ́-sɔ̀-	dɔ́
	c.	'drink'	ní-sà-	né
		'dance'	jí-sà-	jɛ́
		'shave'	ká-sà-	ká

(C)vtv verbs, i.e. bimoraic bisyllabics with medial t, appear as (C)vt-tv- in the Perfective-II (xx2), suggesting that **Early u-Syncope** has (atypically for these verbs) taken place, followed by an idiosyncratic CC-cluster rule converting /ts/ to tt in this combination only (§3.6.3.8).

(xx1)	gloss	Perfective-II	Imperative
	'sweep'	zǎt-tà-	zàtá
	'give back'	bǐt-tò-	bǐtó
	'show'	tót-tò-	tótó
	'do together'	mɔ̌t-tɔ̀-	mɔ̀tɔ́

It is important not to confuse this -tv̀- with the -tv̀- allomorph of the Imperfective suffix (its other allomorph is -rv̀-). The Perfective-II forms have the shape (C)vt-tv- and derive from (C)vtv stems (note the geminated tt). The most similar-looking Imperfective forms have the shape (C)v-tv- (with unclustered t) and derive from (C)vrv- stems.

Early u-Syncope occurs after semivowels under the usual conditions (xx2.a). The sibilant s is phonetically conducive to **Late u-Syncope** of a preceding vowel after various other consonants, though this is (as usual) optional (xx2.b). Syncope is blocked by syllabic considerations in (xx2.c).

(xx2)		gloss	Perfective-II	Imperative
	a.	'cough'	kósíy-sò-	kósíyó

	'go'	yǎy-sà-	yàyá
	'catch'	áw-sà-	áwá
b.	'sit'	đíŋ-sò-, đíŋú-sò-	đíŋé
	'look for'	yⁿǒm-sò-, yⁿòmú-sò-	yⁿòmó
	'jump'	tór-sò-, tórú-sò-	tóró
	'reply'	kís-sò-, kísú-sò-	kísó
	'do'	kárⁿ-sà-, kárⁿú-sà-	kárⁿá
	'hear'	ěg-sà-, ègú-sà-	égá
c.	'begin'	dèwrú-sà-	dèwrá
	'throw'	dà:ⁿsú-sà	dà:ⁿsá

Forms of irregular verbs, and of suppletive 'go to', are in (xx3). The irregularities involve unexpected application of Early u-Syncope (followed by regular Rhotic-Deletion), and problematic LH tone contours. Early u-Syncope and then Rhotic-Deletion are seen in (xx3.a). The combining forms for the verbs in question are zê:rú, yèrí, bòrú, and bèrú (the first two combining forms are irregular). The unusual high tone on the suffix seems to have been inherited from the syncopated second stem vowel. Irregular LH tone contour of a different kind, for expected HL, is seen in (xx3.b). Here the verb is monosyllabic so there is no syncopated vowel to blame for the high tone on the suffix. The verb 'see' also has an irregular rising tone in Perfective-Ia wǒ:-sǐ-.

(xx3)		gloss	Perfective-II	Imperative
	a.	'bring'	zê:-só-	zérǐ
		'come'	yè-só-	yèrí
		'go to'	bò-só-	yá
		'get'	bè-sá-	bèrá
	b.	'see'	wò-só-	wɔ́

The combination of -sv̀- (-tv̀-) with 3Sg subject -wɔ́ is realized as 3Sg -s-ɔ̌: (-t-ɔ̌:) The combination with 3Pl suffix -e is realized as -s-è (-t-è) hence with final subject suffixes -s-è≡bɛ́ (human) and -s-è≡cɛ́ (nonhuman). The vowels of these 3Sg and 3Pl forms are invariant, i.e., they are not sensitive to what the vocalism of -sv̀- would be in the absence of the third person suffix.

Examples showing the Perfective-II following a focalized constituent are given in §13.1.3.1. Examples of the Perfective-II in relative clauses are given in §14.1.xxx.

10.1.1.4 Experiential Perfect 'have ever' (wâ:)

An experiential perfect ('have ever ...') is formed by an auxiliary verb wâ:-. The regular verb precedes this, in its combining form. Most positive utterances with this construction are polar interrogatives. The only positive form attested is the Perfective-II (xx1).

(xx1) a. bàmàkó   ú   bòrú   wâ:-sá   má
             Bamako   2SgS   go.to   ever-Perf2 Q
             'Have you-Sg ever gone to Bamako?'

      b. bàmàkó   m̀   bòrú   wâ:-sá
             Bamako   1SgS   go.to   ever-Perf2
             'I have (sometime in my life) gone to Bamako.'

The construction is common in the Perfective Negative, where is means 'have never ...' (xx2). The adverbial àbádá 'never', from Arabic but ubiquitous in Malian languages, may be added (xxx.c).

(xx2) a. kɔ:ⁿsɔ́   ní   wâ:-lî
             millet.beer drink   ever.L-PerfNeg
             'I have never drunk millet beer.'

      b. ŏw-[à-nú]   m̀   wɔ́   wâ:-lî
             lion   1SgS   see   ever.L-PerfNeg
             'I have never seen a lion.'

      c. àbádá   běl   cî   wâ:-lî≡bé
             never   sheep   slaughter   ever.L-PerfNeg-3PlS
             'They have never slaughtered a sheep.'

      d. [téwó   kù]   ǹ   sîgú   wâ:-lî
             [well   in]   1SgS   go.down ever-PerfNeg
             'I have never gone down into the well.'

wâ:- has some phonological resemblance to the irregular verb 'bring'. Most forms of 'bring' are based on the combining form /zê:rú-/, which reduces to zê:- in several suffixal combinations, including Perfective-II zê:-só- (parallel in segmental shape and tone contour to wâ:-sá-) and Perfective Negative zê:-lî- (parallel to wâ:-lî-). The most notable similarity is that wâ:- and 'bring' are the only verbs that do not become totally low-toned before Perfective Negative -lî-.

184

In the case of /zê:rú-/ this can be attributed to the unique <HL>H lexical tone contour, the idea being that a suffix like -lî- can force tone-dropping only on a single high tone segment.

One might therefore hypothesize that wâ:- derives historically from a verb with a form like *wâ:rú- that had a similar <HL>H tone contour, and that had a similar final *u (subject to syncope) preceded by *r (which deletes before coronals in this morphological context). However, other languages of the zone (Jamsay, Beni, Najamba, Nanga) have an Experiential Perfect morpheme with a shape like ta:- or téré-, so I can offer no prospective cognate of TT wâ:-.

10.1.1.5 Recent Perfect ('already')

To express 'have already (done)', the regular perfective (positive) is used. An adverbial such as hó: 'long ago' may be added but is not necessary.

(xx1)   a.   lî-wɔ̀s-è=bɛ́
             eat-Perf1b-3PlS-\3PlS
             'They have eaten.'

        b.   hó: yǎy-wɔ̀rè=kɔ́
             long.ago   go-Perf1a-\NonhSgS
             'It (=vehicle) left some time ago.'

10.1.1.6 Imperfective (-rv̀-, -rⁿv̀- , -tv̀-, -là-, etc.)

An imperfective typical of activity verbs is formed with suffix -rà- (for other allomorphs see below). I will call it **Imperfective**, and use -Impf- in interlinear glosses.

The stem takes its **combining form**. The lexical tone of the stem is overridden by an **all-high tone contour**. (But see below on tone-dropping after Imperfective preverbal particle á.)

The suffix is always -Cv̀- in form, but both the consonant and the vowel are variable. The consonant is subject to a prosodically-controlled split between -rv̀- after Cv- verbs and most CvCv- verbs, and -tv̀- after all verbs of three or more moras; see §3.2.3. Some oddities involving CvCv- verbs with certain medial consonants can be accounted for by assuming the regular -rv̀- allomorph but then applying Early u-Syncope and one or another of the special (post-syncope) CC-cluster rules. However, CvCv- with medial rhotic {r rⁿ} have Imperfectives of the form Cv́-tv̀-, which makes little sense phonologically.

The suffixal vowel is {o ɔ a} depending on whether the vowel-harmonic class of the stem is {e o}, ɔ, or {ɛ a}.

Some phonologically straightforward examples are in (xx1). Note that -rv̀- occurs after monosyllabic and light (CvCv-) bisyllabics, and -tv̀- after heavier bisyllabics (xx1.b) and after trisyllabics (xx1.c).

(xx1)　　gloss　　　　Imperative　　Imperfective

　　a.　'dig'　　　　gàsá　　　　gású-rà-
　　　　'go'　　　　yàyá　　　　yáy-rà-
　　　　'shave'　　　ká　　　　　ká-rà-
　　　　'dance'　　　jɛ́　　　　　jí-rà-
　　　　'wrestle'　　pó　　　　　pó-rò-
　　　　'arrive'　　　dɔ́　　　　　dɔ́-rɔ̀-
　　　　'give'　　　　ów　　　　　ów-rò-
　　　　'kill'　　　　wɔ̆:　　　　wɔ́w-rɔ̀-

　　b.　'begin'　　　dɛ̀wrá　　　dɛ́wrú-tà-
　　　　'urinate'　　ánná　　　　ánnú-tà-

　　c.　'cut (meat)'　dùŋgùrɔ́　dúŋgúrú-tɔ̀-
　　　　'return'　　　bĭřĭyó　　　bíříy-tò-
　　　　'stroll'　　　tɔ́ŋúnɔ́　　tɔ́ŋúnú-tɔ̀-

The examples in (xx2) are similar, except that Forward Nasalization has applied, shifting /r/ to rⁿ.

(xx2)　　gloss　　　Imperative　　Imperfective

　　a.　'drink'　　　nɛ́　　　　　ní-rⁿà- (< /ní-rà-/)

　　b.　'be alive'　bàyⁿá　　　báyⁿ-rⁿà-

The examples in (xx3) are more complex phonologically but are compatible with the prosodically correct /-rv̀-/ allomorph as an underlying representation. Early u-Syncope has applied. Following syncope, the suffixal /r/ assimilates to a preceding {l n} to constitute a geminate cluster (xx3.a-b); see Sonorant Assimilation (§3.6.3.7). The post-syncope clusters /mr/ and /ŋr/ are more problematic, typically requiring an epenthetic vowel and an oral release of the nasal. This is then optionally re-syncopated, resulting in /mr/ and /ŋr/ once again, but without allowing Forward Nasalization to produce rⁿ (xx3.c-d). See §3.6.2.1 for a more general discussion.

(xx3)   gloss   Imperative   Imperfective

a. 'do well'   céló   cél-lò- (< /célú-rò-/)

b. 'go up'   ùnɔ́   ún-nɔ̀- (< /únú-rò-/)

c. 'sit'   ɗìŋé   ɗíŋgú-rò- (and variants, e.g. ɗíŋ-rò-)
   'sing'   nùŋɔ́   núŋgú-rɔ̀- (and variants, e.g. núŋ-rɔ̀-)

d. 'go around'   bàwⁿá   bámbú-rà- (and variants, e.g. bám-rà-)
   'look for'   yⁿòmó   yⁿòmbú-rò-   (and   variants,   e.g.
   yⁿo*m-rò-)

The most unusual phonological quirk is that (most) **light bisyllabic stems with medial rhotic**, i.e. Cvrv- and Cvrⁿv- stems, have Imperfective forms of the shape Cv́-tv̀- (xx4).

(xx4)   gloss   Imperative   Imperfective

a. 'get'   bèrá   bé-tà-
   'bite'   cérá   cé-tà-
   'bear child' làrá   lá-tà-
   'jump'   tóró   tó-tò-
   'rain fall'   mùrɔ́   mú-tɔ̀-
   'wait'   céré   cé-tò-

b. 'chase'   nàrⁿá   ná-tà-
   'call'   sórⁿó   só-tò-
   'rub on'   zèrⁿá   zé-tà-
   'become red' bàrⁿá   bá-tà-
   'become good' jèrⁿá   jé-tà-
   'track'   dùrⁿó   dú-tò-

Instead of trying to derive these from e.g. /bérú-rà-/ by a quirky CC-cluster rule improbably converting /rr/ into t, I regard these as cases where the medial rhotic in the stem **blocks the use of a rhotic-initial suffix allomorph** (if another allomorph is available). Therefore the -tv̀- in (xx3) is not the surface form of /-rv̀-/ vis a tortuous phonological derivation, rather it is simply the other Imperfective allomorph -tv̀-, pressed into service where -rv̀- is blocked. The derivations are now straightforward, e.g. /bérú-tà-/ > /bér-tà-/ (Early u-Syncope) > bé-tà- (Rhotic Deletion, §3.6.3.6).

Imperfective forms of **irregular verbs** are in (xx5).

(xx5)	gloss	Imperative	Imperfective
a.	'bring'	zérì	zé:-tò- (combining form zê:rú)
b.	'go to'	yá	bó-tò, là-
	'come'	yèrî	yé-tò-, yá-rà-
c.	'do'	kárⁿá	ká-là-
	'encounter'	ɗìrⁿá	ɗî-tà-, ɗî-là-

The form for 'bring' (xx5.a) is readily derived from combining form /zê:rú/ using Early u-Syncope (which is standard for this verb) and Rhotic-Deletion. The forms for 'go to' and 'come' are unusual in that each verb has two imperfectives with distinct aspectual values. bó-tò- (regularly derived from combining form /bòrú/) and yé-tò- (also regular in form) generally denote recurring or habitual events. The suppletive là- for 'go to', and the somewhat opaque yá-rà- for 'come', are used to ongoing or imminent trajectories ('is on the way' or 'is going/coming later on').

This leaves us with irregular ká-là- 'is doing' and the attested choice between regular ɗî-tà- and irregular ɗî-là- 'is encountering'. It strikes me that ká-là- and ɗî-là- may merely be irregular in the sense that they permit (instead of blocking) the prosodically correct suffix allomorph -rᵛ-. In this interpretation, ká-là- and ɗî-là- actually reveal the phonologically regular outputs of /Cvrⁿv-rᵛ-/. See discussion of Rhotic Dissimilation (§3.6.3.5).

The Imperfective suffix combines with the usual pronominal subject particles and (third person) clitics. 3Sg clitic -wɔ́ most often contracts with the suffixal vowel (whether a, o, or ɔ) to produce -ɔ̌:, hence -r-ɔ̌:, -t-ɔ̌:, etc. The optional 3Pl suffix shifts the suffixal vowel to e (from o, a, or ɔ) or ɛ (from a or ɔ), and may be followed by the 3Pl clitic ≡bɛ́.

(xxx)	gloss	Imperative	Imperfective	3Sg subject	3Pl subject
	'make'	kárⁿá	ká-là-	ká-l-ɔ̌:	ká-l-è≡bɛ́
	'drink'	nɛ́	nî-rⁿà-	nî-rⁿ-ɔ̌:	nî-rⁿ-è≡bɛ́
	'go out'	gó	gú-rò-	gú-r-ɔ̌:	gú-r-è≡bɛ́
	'see'	wɔ́	wɔ́-rɔ̀-	wɔ́-r-ɔ̌:	wɔ́-r-e≡bɛ́

In simple clauses (with no chained verbs), the Imperfective regularly occurs with an immediately preceding **Imperfective particle** á or â: (§11.1.1.2). This is the only construction offered by informants in direct elicitation of simple clauses, and it is also usual in texts. The verb stem drops its tones after the á variant but not after â:. Tone-dropping due to á occurs even when another chained verb intervenes, as in (xxx.a); the chained verb has its usual tones. Elsewhere (i.e. in the absence of an Imperfective particle, or after the variant â:), the stem is entirely high-toned before the suffix. A first or second person subject pronominal, if present, precedes the á or â: particle. Examples with á are in (xxx).

(xxx) a. ká àyé [jěn dà] kǔmnò á mᵇèlú bè-tà mà
say who? [be.more is] above **Impf** soar can-**Impf** Q
'(He) said: who (among the birds) can soar the highest?'
(2004.1b.01)

b. nî á nǐ-rⁿ-è≡bɛ́
water **Impf** drink-**Impf**-3PlS-\3Pl
'They drink water.' (nɛ́, Impf nî-rⁿà-)

c. lɛ́ á kà-l-ɔ̌:
meal **Impf** make-**Impf**-3SgS
'She cooks the meals.' (kárⁿá, Impf ká-là-)

d. á bè-t-è≡bɛ́ nànà:rⁿá
Impf get-**Impf**-3PlS-\3Pl much
'They get (=earn, win) a lot.' (bèrá)

e. àrká zôw m̀ á zɔ̀w-rɔ̀
morning running(noun) 1SgS **Impf** run-**Impf**
'I run in the morning.' (zɔ̌:)

f. èsé ú á yⁿòmbù-rò mà
what? 2PlS **Impf** look for-**Impf** Q
'What are you-Sg looking for? (yⁿŏm\\yⁿòmó)

g. èsé á á kà-là mà
what? 2PlS **Impf** do-**Impf** Q
'What are you-Pl doing?

Examples with â:. and therefore with high-toned stem before the Imperfective suffix, are in (xxx).

(xxx) a. bírá   m̀   â: bí-tà
           work(noun)   1SgS   **Impf**   work-**Impf**
           'I (do) work.' (verb bǐrá)

       b. mɔ̂m   m̀   â: mɔ́mbú-rɔ̀
           laughter   1SgS   **Impf**   laugh-**Impf**
           'I am laughing.'

The Imperfective is regularly used in the agentive derivation; see §14.2.2

Imperfective and other positive imperfectives are negated by the all-purpose Imperfective Negative.

10.1.1.7 Periphrastic Durative (tɔ̀ŋ-rɔ̀-) 'keep VP-ing'

A Durative construction that competes with the Imperfective, but more strongly emphasizes temporal prolongation, consists of the main verb chained to an Imperfective verb tɔ̀ŋ-rɔ̀- (variants tɔ̀ŋgù-rɔ̀-, etc. with Imperfective particle á preceding the main verb. This tɔ̀ŋ-rɔ̀- is unlikely to be directly related to the transitive verb tɔ́ŋɔ́ with the senses 'hobble (quadruped)' and 'pick (cotton)', but the verb tɔ́ŋúnɔ́ 'stroll, walk around' entails the requisite temporal duration and may be historically related. The tɔ̀ŋ-rɔ̀- construction is common in texts, especially in denoting durative events that serve as background for a subsequent foregrounded event. In (xx1.a) the presumed original sense 'walk around' is especially relevant, but there are cases like (xx1.b) not involving (or at least not foregrounding) motion.

(xx1) a. á   yǎy   tɔ̀ŋgù'r'ɔ̌:,
           Impf   go   keep-Impf-3SgS
           à'nú   túrú,   ká   dàgú's'ɔ̌:
           man-Sg   one,   saying   find-Perf2-3SgS
           'He was walking around. Then (it is said) he encountered a man.'
           (2004-1a.03)

       b. [kó   kày] sé:kěy cɛ́k à   céŋgúrú tɔ̀ŋgù'rɔ̀
           [NonhSg Topic] Calotropis only gnaw keep-Impf   keep-
           Impf
           'As for it (= grasshopper), it keeps gnawing (=feeding) just on
           Calotropis (shrub)' (2004-1b.03)

10.1.1.8 Reduplicated Imperfective

The Imperfective may be reduplicated, though the reduplicated version is uncommon in texts. It is used, as an alternative to other imperfective forms, to describe regularly occurring phenomena.

My examples all involve Imperfective particle á (which elsewhere forces tone-dropping on an Imperfective verb stem). The reduplicated segment is Cv̀- (low-toned), the vowel quality being compiled from the first stem vowel.

(xx1) a. sàrí,   á   bǐ-bíw-rà
           monitor.lizard,   Impf   **Rdp-bury-Impf**
           '(The) Nile monitor lizard buries (its eggs).' (2004-1a.10)

       b. kɔ́   á   kù'kúw'r'è
           NonhSgO   Impf   Rdp-eat-Impf-3PlS
           'They (= people) eat it (= mantises).' (2004-1b.04)

10.1.1.9 Future (-yàrà- and allomorphs)

The Future suffix is -yàrà-. Its vocalism is not affected by the vowel-harmonic class of the stem. The stem itself is in the combining form, but has an overlaid rising tone contour {LH} that erases lexical tones. The high-tone component is required, and appears on the final mora of the stem, any preceding moras being low-toned. Thus monosyllabic Cv́-yàrà-, bisyllabic Cv̀Cv́-yàrà- or syncopated Cv̀C-yàrà-, trisyllabic Cv̀Cv̀Cv́-yàrà- or syncopated Cv̀Cv̌C-yàrà-. Perhaps because of the tonal pattern, Late u-Syncope does not apply to Future forms that have escaped Early u-Syncope. Nonmonosyllabic stems that do not syncopate the final stem vowel normally end in ú in the combining form, but the suffix-initial y colors this vowel, which is therefore always heard as î (I transcribe accordingly although one can analyse it as underlying /ú/).

The examples in (xx1) are straightforward phonologically.

(xx1)   gloss   Imperative   Future

       a.   'slaughter'   cɛ́   cí-yàrà-
            'go in'   ló   lú-yàrà-
            'be tired'   dɛ́   dɛ́-yàrà-

       b.   'go'   yàyá   yǎy-yàrà-

       c.   'come'   yèrí   yèrí-yàrà-

	'tie'	págá	pàgí-yàrà-
	'lie down'	ǐsé	ǐsí-yàrà-
d.	'cut meat'	dùŋgùrɔ́	dùŋgùrí-yàrà-

Cv́- monosyllabics with {a o ɔ} in the combining form contract this vowel with the suffix, resulting in Cv̂:-rà-. See Intervocalic Semivowel-Deletion (xxx).

(xx2)	gloss	Imperative	Future
a.	'shave'	ká	kâ:-rà-
b.	'wrestle'	pó	pô:-rà-
c.	'arrive'	dɔ́	dɔ̂:-rà-

Early u-Syncope applies in the Future form to light bisyllabic (CvCv-) stems with medial ŋ as well as the usual semivowels and m. When Early u-Syncope produces the clusters /my/, /ŋy/, or /wy/, these clusters undergo Semivowel Fusion (§3.6.3.4).

(xx3)	gloss	Imperative	Future
a.	'catch'	áwá	áw-wàrà-
	'give'	ów	ów-wàrà-
b.	'die'	núwⁿó	nŭm-bàrà- (nŭm-mᵇàrà, nŭm-màrà)
	'become blind'	ĵìrùmó	ĵìrĭm-bàrà- (ĵìrĭm-mᵇàrà-, ĵìrĭm-màrà-)
c.	'sing'	nùŋɔ́	nŭŋ-gàrà- (nŭŋ-ŋᵍàrà, nŭŋ-ŋàrà)

The Future suffix is susceptible to **Forward Nasalization**. When it immediately follows yⁿ after syncope (/wⁿ/ becomes m in this position), or when it follows a syllable beginning in n or rⁿ, both **suffixal consonants are nasalized**, resulting in -yⁿàrⁿà-. Note, however, that in (xx3.b-c), above, the variants with ...m-màrà- and ...ŋ-ŋàrà- do not allow Forward Nasalization to nasalize the suffixal r, suggesting that the variants with ...m-bàrà- and ...ŋ-gàrà- are more basic (their oral stops block Forward Nasalization).

(xx4)	gloss	Imperative	Future
a.	'steal'	gùyⁿó	gŭyⁿ-yⁿàrⁿà-
b.	'go up'	ùnɔ́	ùní-yⁿàrⁿà-

      'drink'   nɛ́   nî-yⁿàrⁿà-

The 3Sg appears as -yàrà-wɔ́ or contracted -yɔ̀r-ɔ̌ː. The third plural form with -e suffix is realized as -yèr-è or -yèr-è depending on the vowel-harmonic class of the stem. For the phonology (somewhat messy here), see the discussion of Suffix-to-Suffix Vocalic Assimilation (§3.5.4).

The Future suffix occurs with and without **Imperfective particle** á. Even with a monosyllabic verb like 'eat' (xxx.b), which has a high tone before the Future suffix, I have observed no tonal effect of á on the tone of the stem (unlike the situation with Imperfective verbs).

(xxx)   a.   ǐnî   m̀   á   lěy-yàrà
            here   1SgS   Impf   sleep-Fut
            'I will sleep here.'

         b.   ǐmî   lɛ́   á   lî-yàrà
            children meal   Impf   eat-Fut
            'The children will eat (now).'

         c.   àrká   m̀   á   ùrî-yàrà
            morning 1SgS   Impf   get.up-Fut
            'In the morning, I get up.'

         d.   ŋ̀   yèrî-yàrà
            1SgS   come-Fut
            'I will come.'

A unique aspect of the Future is that the domain to which the overlaid {LH} stem tone contour applies **may extend to a preceding stem**, such as a tightly-chained verb (e.g. with final 'can, be able to'), or a fixed direct object before a semantically light verb kárⁿá- 'do'. The preceding stem in question is therefore low-toned. Thus tòrù bèrî-yàrà- 'will be able to jump', where tórú 'jump' is treated as an extension of the inflected verb stem (bèrá 'can') and is therefore part of the low-toned stretch before the final high-toned syllable: we may re-bracket as [tòrù-bèrî]-yàrà-. For discussion see §3.6.2.xxx.

The Future and other positive imperfectives are negated by the all-purpose Imperfective Negative.

The future (positive) gets some competition from the Hortative (§xxx), which is sometimes used where English would have a future verb phrase expressing an intention.

10.1.2 Negation of indicative verbs

10.1.2.1 Categories expressed by negative verbs

The basic pattern is that the various positive perfective suffixal categories are replaced by Perfective Negative -rí-, and the various positive imperfective categories are replaced by Imperfective Negative -nó-. In other words, negation brings out the basic underlying binary aspectual break.

10.1.2.2 Perfective Negative (-rí-, -lí-, etc.)

The productive Perfective Negative (interlinears: "PerfNeg') suffix is, with some exceptions covered below, -rí- after mono- and bimoraic stems, i.e. Cv-, CvC-, and CvCv-, and -lí- after heavier stems (e.g. CvCCv-, Cv:Cv-, CvCvCv-). The prosodic split is similar to that seen in the Impefective (§10.1.1.6), see also §3.2.3. The preceding verb stem takes its **combining form**, but undergoes **tone-dropping** to all-low tones.

Some phonologically straightforward examples are in (xx1). Note the allomorph split between -rí- (xx1.a-c) and, with heavier stems, -lí- (xx1.d).

(xx1)	gloss	Imperative	Perfective Negative
a.	'go in'	ló	lù-rí-
	'eat'	lɛ́	lì-rí-
	'be tired'	dɛ́	dɛ̀-rí-
	'see'	wɔ́	wɔ̀-rí-
	'wrestle'	pó	pò-rí-
	'shave'	ká	kà-rí-
b.	'run'	zɔ̌:	zɔ̀w-rí-
	'give'	ów	òw-rí-
c.	'dig'	gàsá	gàsù-rí-
	'recognize'	ǐtá	ǐtù-rí-
	'stop'	ǐgó	ǐgù-rí-
	'lie down'	ǐsé	ǐsù-rí
d.	'urinate'	ánná	ànnù-lí-
	'throw'	dà:ⁿsá	dà:ⁿsù-lí-
	'cut meat'	dùŋgùrɔ́	dùŋgùrù-lí-

Early u-Syncope applies extensively in this inflected form. In addition to the usual Early u-Syncope with semivowels (xx2.a-b), we also get obligatory Early u-Syncope with light bisyllabics that have medial l (xx2.c) or n (xx2.d). The resulting underlying /lr/ and /nr/ clusters are realized as geminate ll and nn, respectively, by Sonorant Assimilation (xxx).

(xx2) a. 'shoot'   táyá   tày-rî-
           'buy'   έwá   èw-rî-

       b. 'go back'   bǐrîyó   bǐrǐy-lî-

       c. 'do well'   céló   cèl-lî-
           'put'   kúló   kùl-lî-

       d. 'go up'   ùnɔ́   ùn-nî-

When the medial consonant is a peripheral nasal {m ŋ}, including /m/ from underlying /wⁿ/, Early u-Syncope creates the awkward clusters /mr/ and /ŋr/, which are realized as /mbur/ and /ŋgur/ or reduced variants thereof, including (re-)syncopated /mr/ and /ŋr/ (but not allowing Forward Nasalization of the /r/). For the phonology, see §3.6.2.1.

(xx3)   gloss   Imperative   Perfective Negative

       a. 'look for'   yⁿòmó   yⁿòmbù-rî- (yⁿòm-rî-, etc.)
           'laugh'   mǒ: mòmbù-rî- (mòm-rî-, etc.)
           'die'   núwⁿó   nùmbù-rî- (nùm-rî-, etc.)

       b. 'sit'   ɖǐŋé   ɖǐŋgù-rî- (ɖǐŋ-rî-, etc.)

A stem-final /m/ (after syncope) combines unproblematically with suffix-initial /l/ in the allomorph -lî- used after long (i.e. more than bimoraic) stems: pǐlù-m-lî- 'did not cause to be white'.

When the light bisyllabic stem has a medial rhotic, it combines with the suffixal consonant to produce ungeminated /l/. Here two analyses are possible. The first analysis would posit straight phonological derivations /rr/ > l and /rⁿr/ > l. The most reasonable instantiation of this would be Rhotic Dissimilation (§3.6.3.5) converting the final /r/ to l, followed by deletion of the first rhotic before this l (Rhotic Deletion, §3.6.3.6). In the second analysis, which is parallel to the analysis suggested for the use of Imperfective allomorph -tv̀- after these same rhotic-medial verb stems, the idea would be that the medial rhotic in the stem disallows a rhotic-initial suffix allomorph, forcing a default to the

remaining Perfective Negative allomorph -lî-. In any event, the data are in (xx4).

(xx4)   gloss   Imperative   Perfective Negative

    a. 'come'   yèrí   yè-lî-
           'get'   bèrá   bè-lî-
           'bite'   cɛ́rá   cɛ̀-lî-

    b. 'encounter' ɗir^{n}á   ɗi-lî-
           'call'   sór^{n}ó   sò-lî-

Because of the extended range of Early u-Syncope in this inflection (e.g. with Cvnv- stems), and because the l of the allomorph -lî- is not susceptible to nasalization, Forward Nasalization applies in a somewhat smaller set of forms than in other relevant suffixal categories. We do, however, see it with the sole Nv- monosyllable (xx5.a), with the sole Cv^n monosyllable (xx5.b), and with all Cvy^{n}v stems (xx5.c),

(xx5)   gloss   Imperative   Perfective Negative

    a. 'drink'   nɛ́   nǐ-r^{n}í-

    b. 'be ripe'   pɛ́^{n} pɛ̀^{n}-r^{n}í-

    c. 'steal'   gùy^{n}ó   gùy^n-r^{n}í-
           'build'   mày^{n}á   mày^n-r^{n}í-

Forms with irregular verbs are in (xx6). The immediate base for suppletive bò-lî- 'did not go to' is combining form /bòrú-/. The immediate base for zê:-lî- is combining form /zê:rú-/.

(xx5)   gloss   Imperative   Perfective Negative

    a. 'go to'   yá   bò-lî-
    b. 'bring'   zérǐ   zê:-lî- (cf. combining form zê:rú)

The 3Sg subject form is uncontracted -rí-wɔ́ or -lî-wɔ́ (xx5.c-d). The 3Pl subject form is -r-é≡bɛ́ or -l-é≡bɛ́ (xx5.e-f).

(xx5)   a.   m̀   ù-lî
             1SgS   get.up.L-PerfNeg

196

'I did not get up.' (úró)

b. m̀ ɔ́ wɔ̀w-rí
   1SgS 3SgO kill.L-PerfNeg
   'I didn't kill him.' (wɔ̌:)

c. yè-lî-wɔ́
   come.L-PerfNeg-3SgS
   'He/She did not come.' (yèrí̃)

d. àtê: zê:-lî-wɔ́
   tea bring.L-PerfNeg-3SgS
   'He/She brought the tea.' (zérì̃)

e. ì̃nî ɲ̃ró lèy-r-é≡bɛ́
   here sleep sleep.L-PerfNeg-3PlS-\3Pl
   'They didn't sleep here.' (léyó)

f.. ù-l-é≡bɛ́
    get.up-PerfNeg-3PlS-]3Pl
    'They did not get up.' (úrú)

g. nù-m kà: lèy-rí ń̃
   person-Pl.L Rel sleep-PerfNeg Rel
   '(the) people who didn't sleep'

10.1.2.3 *Imperfective Negative (-rⁿv́-, -nv́-)*

Like some other AN suffixes, the Imperfective Negative has a shape -Cv́- with variation in both the consonant and the vowel. The consonantism depends on the prosodic weight of the stem, the split in this case being between monosyllabic Cv́- stems, which take -rⁿv́-, and all heavier stems, which take -nv́-. See §3.2.3 for the role of prosodic weight in verb-suffix allomorphy. The vowel of the suffix varies appears as {a ɔ o} depending on the vowel-harmonic class of the verb stem, here the full three-way contrast of {ɛ a} versus {ɔ} versus {e o}. The verb stem has its **combining form**, but undergoes **tone-dropping**.

Monosyllabics are illustrated in (xx1).

(xx1)   gloss   Imperative   Imperfective Negative

197

    a. 'shave'   ká   kà-r^{n}á-
        'drink'   nɛ́   nǐ-r^{n}á-
        'be tired' dɛ́   dɛ̀-r^{n}á-

    b. 'roast'   dɔ́   dɔ̀-r^{n}ɔ́-

    c. 'take'   só   sò-r^{n}ó-
        'go out'   gó   gù-r^{n}ó-
        'bathe'   dé   dǐ-r^{n}ó-

A unique feature of this suffixal category is **Backward Nasalization** (§3.6.1.2), whereby the stem consonant of a **Cv- monosyllabic** is nasalized under the influence of the suffixal /r^n/. The effect is to nasalize initial /y/ to y^n, /w/ to w^n, and (more surprisingly) /l/ to n. One effect is to neutralize the distinction between 'eat' (imperative lɛ́) and 'drink' (imperative nɛ́) in the Imperfective Negative, both appearing as nǐ-r^{n}á-.

(xx2)	gloss	Imperative	Imperfective Negative
a.	'weep'	yɛ́	y^{rn}ǐ-r^{n}á-
b.	'see'	wɔ́	w^{n}ɔ̀-r^{n}ɔ́-
c.	'go in'	ló	nù-r^{n}ó-
	'eat'	lɛ́	nǐ-r^{n}á-

(C)vC- (the only case being ów- 'give') and all nonmonosyllabic stems have a basic suffix allomorph -nv́-, with surface variants -ná-, -nɔ́-, and -nó- depending on the vowel-harmonic class of the stem. Examples not involving Early u-Syncope are in (xx3). Observe that Backward Nasalization does not apply to these stems, hence the plain r in the stem for 'cut meat' and 'begin' (xx3.e).

(xx3)	gloss	Imperative	Imperfective Negative
a.	'give'	ów	òw-nó-
b.	'sit'	ďìŋé	ďìŋù-nó-
	'fight'	zòŋɔ́	zòŋù-nɔ́
c.	'defecate'	bòsɔ́	bòsù-nɔ́-
	'stop'	ȋgó	ȋgù-nó-

d.	'urinate'	ánná	ànnù-ná-
	'throw'	dà:ⁿsá	dà:ⁿsù-ná-
e.	'begin'	dèwrá	dèwrù-ná-
	'cut meat'	dùŋgùrɔ́	dùŋgùrù-nɔ́-

Early u-Syncope applies to bi- and trisyllabic verbs more or less as in other inflections. Examples showing the usual Early u-Syncope after semivowels and m (including m from /wⁿ/) are in (xx4). The syncope rule does not apply after to bisyllabic stems with ŋ, see (xx3.b), above.

(xx4)		gloss	Imperative	Imperfective Negative
	a.	'shoot'	táyá	tày-ná-
		'buy'	ɛ́wá	ɛ̀w-ná-
		'steal'	gùyⁿó	gùyⁿ-nó-
	b.	'run'	zɔ̌:	zɔ̀w-nó-
	c.	'be ruined'	yⁿàwⁿá	yⁿàm-ná-
		'look for'	yⁿòmó	yⁿòm-nó-
	b.	'go back'	bǐrǐyó	bǐrǐy-nó-
		'pick grains'		súgúmó sùgùm-nó

In the Imperfective Negative, Early u-Syncope applies to bisyllabics with medial l or n. In the former case, the resulting /ln/ cluster surfaces as geminate nn by Sonorant Assimilation §3.6.3.7.

(xx5)		gloss	Imperative	Imperfective Negative
	a.	'put down'	dèlé	dèn-nó-
		'put'	kúló	kùn-nó-
		'do well'	céló	cèn-nó-
	b.	'go up'	ùnɔ́	ùn-nó-

Bimoraic Cvrv- and Cvrⁿv- verbs undergo Early u-Syncope, then delete the rhotic (Rhotic Deletion, §3.6.3.6), resulting in Cv̀-nv́- (xx6.a-b).

(xx6)	gloss	Imperative	Imperfective Negative

a.	'help'	bàrá	bà-ná-
	'jump'	tóró	tò-nó-
	'come'	yèrî	yè-nó-
	'wait'	céré	cè-nó-
b.	'do'	kárⁿá	kà-ná-
	'call'	sórⁿó	sò-nó-

If the Cvrv- or Cvrⁿv- stem begins with /l/, it further undergoes **Backward Nasalization** to n under the influence of the suffixal /n/, which is now separated from it only by a vowel (xx7.a). Oddly, stem-initial **semivowels are not nasalized** in the same phonological environment (xx7.b).

(xx7)		gloss	Imperative	Imperfective Negative
	a.	'be hurt'	lùrɔ́	nù-nɔ́-
		'give birth'	làrá	là-ná-
	b.	'measure'	yàrá	yà-ná-
		'do farming'	wàrá	wà-ná-

This difference between /l/ and {y w} makes no sense synchronically. Backward Nasalization, to be sure, is a morphologically restricted process (§3.6.1.2). However, semivowels are just as receptive as l to Backward Nasalization in monosyllabic stems in this same Imperfective Negative inflection, see (xx2), above, and within stems semivowels are even more susceptible to such nasalization than other consonants (including l). The synchronic mystery of the uneven application of Backward Nasalization in (xx4) does have make sense historically: TT lùrɔ́ 'be hurt' reflects *nùrɔ́ with initial *n, cf. Jamsay nùrⁿɔ́ (dialectally nùrⁿó) 'pain'.

With 3rd person suffixes we get 3Sg -rⁿ-ɔ́: or -n-ɔ́: (xx8.b) and 3Pl -n-é≡bɛ́ or -n-é≡bɛ́ (xx8.c).

$$\text{Cvr}^{n}\text{v-}$$

(xx8).	a.	ǐnî	ú	lèy-nó
		here	2SgS	sleep-ImpfNeg
		'You-Sg don't sleep here.'		
	b.	ǐnî	lɛ́	nǐ-rⁿ-ɔ́:
		here	meal	eat-ImpfNeg-3SgS
		'He/She doesn't eat (=won't eat) here.' (lɛ́)		

c. ìnî　　　　lèy-n-é≡bɛ́
    here　　　sleep-ImpfNeg-3PlS-\3Pl
    'They don't sleep here.'

10.1.3　Stative verbs and quasi-verbs

Stance verbs like 'sit' behave like statives when they denote a static position rather than a bounded kinetic event ('is sitting' as opposed to 'sat down'). Utterances including a stative denote states that extend over the relevant time interval, which may or may not contain the time of speaking. There are also some defective quasi-verbs that are only used in stative function, such as 'want' (§11.2.4) and the 'be' and 'have' quasi-verbs covered in §11.xxx.

In morphosyntactic terms, the operational definition of **stative verb** is that a) the **perfective/imperfective opposition is neutralized**; b) **negation** is by -ŋ̀gó (or else by a special suppletive negative stem); and c) there is **no imperative or hortative** form.

By this definition, the progressive construction in -cî dà counts as stative, while other imperfectives (even though the latter may denote ongoing activities) do not.

10.1.3.1　Optional Cv̀-Reduplication plus Stative dà (transitive dĕn dà)

Verbs may combine with a locational-existential 'be' quasi-verb dà in stative function (for dà 'be' see §11.xxx). If the verb stem begins with a consonant, it adds an **optional initial low-toned Cv̀- reduplication** (xx1.a-b). The quality features of the first stem-syllable's vowel is copied onto the vowel of the reduplication. **Vowel-initial stems usually do not (audibly) reduplicate** (xx1.c-e), but in some textual occurrences I did hear a reduplicated initial vowel with a faint glottal stop separating the identical vowels (xx1.g). The stem takes its **combining form** (and therefore preserves its lexical tone contour) before dà 'be' (3Sg d-ɔ̌:, 3Pl dà≡bɛ́).

This construction is very common with stance verbs in the static sense, describing the position the subject is in.

(xxx)　a.　đì-đíŋú　　d-ɔ̌:
　　　　　Rdp-sit　　**be**-3SgS
　　　　　'He/She is sitting (=in sitting position).' (điŋé)

　　　　b.　ìsú　　　dà≡bɛ́
　　　　　lie.down　**be**-3Pl

'They are lying down (=in prone position).' (ĩsé)

c. úrú   d-ǒ:
get up   **be**-3SgS
'He/She is standing (=arisen).' (úró)

d. îgú   d-ǒ:
stand   **be**-3SgS
'He/She is standing (or: stopped).' (îgó)

e. tò-tórîy   dà
Rdp-squat   **be**
'It (=dog) is squatting.' (tórîyó)

f. pù-púnó   dà
Rdp-lie.down   **be**
'It (=dog) is curled up' (said of dog, cow, etc.).

g. [bὲ   yá'kàlà   jèrⁿà]   ì-îgú   dà
[3PlP   woman-new.HL ceremony.L] Rdp-stand   be
'Their marriage ceremony is standing (= is still performed).' (2004-
2a.08) (phonetic [ìʔìgídà])

    The stative construction is also attested with verbs that ordinarily denote
motion or other actions/events (e.g. 'die'), when describing the resulting state.
'Come' has a distinctive tone pattern with dà (yè dá).

(xxx) a. àyé   yè   dá   má
       who?   come   **be**   Q
       'Who has come?'

b. gú   d-ǒ:
go.out   **be**-3SgS
'He/She has gone out.'

c. wɔ́   nù-núm   dà
3SgS   **Rdp**-die   **be**
'(whether...) he/she has died (=is dead)' (núwⁿó), cf. §13.2.xxx

b. àsî   lὲ-lépîy   dà
LogoS   **Rdp-**be.stuck **be**
'(He said:) I am stuck.' (2004-1a.09) (lépîyá)

Certain transitive verbs lend themselves semantically to stative usage, for example verbs of holding and carrying, and verbs denoting durative activities like 'have fun'. To produce a stative, such verbs require an element děn preceding dà. I will gloss děn as "Trans[itive]" in interlinears, for lack of a more transparent gloss (it occurs only before dà). However, děn could be taken to be a verb morphologically (with the preceding verb chained to it). Given the prevalence of l/n alternations in TT, one might explore the possibility of an etymological connection with dèlé 'put down' (cf. Jamsay dè:né). Examples are in (xxx). (xxx.c) includes both an intransitive dà clause and a transitive děn dà clause.

(xxx) a. béré   ŋ̀   wǎw   děn   dà
            stick   1SgS carry.on.shoulder **Trans** **be**
            'I am carrying (=holding) a staff (=stick) on my shoulder.'

        b. y^{n}à-mú   jèsú   dí   děn   dà
            woman-Pl basket   carry.on.head **Trans** **be**
            'The women are carrying baskets on their heads.'

        c. [yá   [[àlà   cîn]   nû-m   yà:fú:]
            [there [[village.L DemPl]   person-Pl.HL all
            cèná   cénú   lá   d-è]
            fun   have.fun   stay.up   be-3PlS]
            [cénú   děn   d-è   [nùndér^{n}á   sóy^{n}]]
            [have.fun **Trans** **be**-3PlS [day   seven]
            'All the people of those villages there were staying up at night having fun, they were having fun for seven days.' (2004-1b.01)

For other transitive verbs that do not lend themselves to this stative function, the form in děn dà occurs occasionally in texts, but the initiating event denoted by the verb must have been completed. In other words, it expresses the resulting state, and can often be translated as a perfect.

(xxx) zákà   ìndêy   kà:yǔŋ tíw   děn   d-è
      lo!   over.there bee   send   **Trans** **be**-3PlS
      'Lo, over there they had sent the honey bees.' (2004-1b.01)

The constructions with dà and with děn dà are used more widely in subject-focus and subject relative clauses, where they often correspond to the

Perfective-I of corresponding main clauses. See §13.1.3.2 (focalization) and §14.1.8 (relatives).

10.1.3.2 *Progressive with cî dà or cî là*

A progressive construction consists of a morpheme -cî (-kî) that is suffixed to the **combining form** of the basic verb, whose **tones drop** to all-low, followed by dà 'be' for some speakers and by là for other speakers. là is perhaps interpreted by the relevant speakers as the Imperfective là for 'go to'. The progressive construction occurs with verbs denoting activities that can be prolonged. Some examples showing the form of the verb are in (xx1). 'Bring' (combining form zê:rú) drops all tones before -cî.

(xx4)	gloss	Imperative	Progressive
	'shave'	ká	kà-cî dà
	'dance'	jɛ́	jĩ-cî dà
	'sweep'	zàtá	zàtù-cî dà
	'do'	kárⁿá	kàrⁿù-cî dà
	'go to'	yá	bòrù-cî dà
	'come'	yèrí	yèrǐ-cî dà
	'bring'	zérǐ	zè:rù-cî dà
	'go'	yàyá	yày-cî dà
	'call'	sórⁿo	sòrⁿù-cî dà
	'go around'	bàmá	bàm-cî dà
	'be ruined'	yⁿàwⁿá	yàm-cî dà
	'cut (meat)'	dùŋgùrɔ́	dùŋgùrù-cî dà

One could argue that cî is itself morphologically a verb, obligatorily chained to a preceding verb. However, the combination is rather frozen, as is suggested by the inter-speaker fluctuation between dà and là. The only phonologically similar verb known to me is transitive cî\\cɛ́ with various senses in the 'cut' domain, specifically 'cut the throat of, slaughter' and 'cut out long section of (hide, to make shoes)', and more abstractly 'set, decide on (the date, for e.g. a wedding)'. It is difficult to connect the semantics of this stem with those of the stative construction.

Monosyllabic stems are exemplified in (xx2), longer stems in (xx3).

(xx2) a. ŋ̀   wɔ̀-cí   dà
           1SgS   see.L-Prog   be
           'I see (=am looking)' (wɔ́)

204

b. jɛ́   jĩ-cî   d-ɔ̌:
   dance(noun) dance.L-Prog   be-3SgS
   'He/She is dancing.' (jɛ́)

(xx3)   a.   ǹ   cĭsù-cî   dà
          1SgS   respond.L-Prog   be
          'I respond.' (cîsó)

          b.   cĭsù-cî   d-ɔ̌:
             respond.L-Prog   be-3SgS
             'He/She responds.'

          c.   ɛ̀gù-cî   d-è≡bɛ́
             listen.L-Prog   be-3PlS-\3Pl
             'They listen' (ɛ́gá)   (pronounced [ɛ̀gkĭ...])

The Progressive shares one unusual tonal property with the Future -yàrà-. This is that a chained verb (in the combining form) directly preceding the stem falls under the domain of the tone-dropping required by -cî. For examples and discussion see §3.7.2.3. A preceding direct-object noun, such as a cognate nominal, has its usual tones; see jɛ́ 'dance (noun)' in (xx2.b), above.

In narratives, a sequence of three or so iterated occurrences of a verb in this form indicates **extended prolongation** of an activity, often as precursor to a terminating event, as in (xx3).

(xx3) [kùwⁿá   wó   yⁿòm-cî   dà] [wó   yⁿòm-cî   dà]
      [crane   3SgO **seek.L-Prog be**] [3SgO   **seek.L-Prog be**]
      [wó   yⁿòm-cî   dà], ɗìrⁿú-sà   [kɔ̀   à-nù   kúnú]
      [3SgO **seek.L-Prog be**], encounter-Perf2   [Dem   man-Sg.L
          Dem]
      'Crowned crane (bird) searched and searched and searched (for him), (then) it (finally) encountered that man.' (2004-1a.04)

10.1.3.3 *Negation of stative and progressive verbs (ǹgó)*

The Stative Negative suffix -ǹgó replaces dà (and là) in the positive stative constructions described in preceding sections. It therefore follows the combining form of the verb in the simple stative construction, and follows -cî in the progressive. Suffix -ǹgó is related to negative existential-locative quasi-verb

yⁿâŋgó 'not be (somewhere), be absent, not exist' (§11.xxx). -ŋ̀gó may be followed by third person endings: 3Sg -ŋ̀g-ɔ́:, 3Pl -ŋ̀gó≡bɛ́, NonhSg -ŋ̀gó≡kɔ́, NonhPl -ŋ̀gó≡cɛ́.

The stative construction with reduplication in the positive **omits the reduplication** in the negative (xx1). The verb stem is not tone-dropped before -ŋ̀gó.

(xx1) a. ǹ   dĭŋ-ŋ̀gó
           1SgS   sit-StatNeg
           'I am not sitting.' (dĭŋé)

       b. úrú-ŋ̀gó≡bɛ́
           get.up-StatNeg-\3PlS
           'They are not (standing) up.' (úró)

       c. tórîy-ŋ̀gó
           squat-StatNeg
           'It (=nonhuman) is not squatting.' (tórîyó)

       d. dĭŋ-ŋ̀g-ɔ́:
           sit-StatNeg-3SgS
           'He/She is not sitting.'

Negation of Progressive -cî dà (-cî là) is expressed by kù-ŋ̀gó following the combining form of the verb, which is here not tone-dropped.

(xx1) a. zàtú   kù-ŋ̀g-ɔ́:
           sweep   Prog-StatNeg
           'I am not sweeping.' (dĭŋé)

       b. ŋ̀   kárⁿú   kù-ŋ̀gó
           1SgS   do   Prog-StatNeg
           'I am not doing.'

       b. ŋ̀   jî   kù-ŋ̀gó
           1SgS   dance   Prog-StatNeg
           'I am not dancing.'

10.1.4   Irregular verbs

10.1.4.1   'Go' and 'go to'

yàyá (combining form yǎy- with regular syncope) is a pure 'go, go away, leave'
verb without an overt locational complement. Its paradigm is in (xx1).

(xx1)   AN category   form

            Perfective-Ia   yǎy-wòrè-
            Perfective-II   yǎy-sà-
            Perfective Negative   yày-rî-
            Imperfective   yáy-rà-
            Future   yǎy-yàrà-
            Imperfective Negative   yày-ná-
            Imperative   yàyá
            Imperative Negative   yày-kú
            Hortative (1Pl)   áy yày-ɛ́

    In the transitive construction 'go to (a place)' with an overt locational, a
distinct suppletive paradigm is used (xxx).

(xxx)   Perfective (perhaps Ib) bèrɛ́-
            Perfective-II   bò-só-
            Perfective Negative   bò-lî-
            Imperfective (habitual) bó-tò-
            Imperfective (progressive) là-
            Future   l`lâ:- (geminate ll beginning with low
            tone)
            Imperfective Negative   bò-nó-
            Imperative   yá
            Imperative Negative   bòrù-kú, bò-lé
            Hortative (1Pl)   áy yⁿɛ̌:
            before mà 'and'   yá mà, bòró mà, bèré mà

    This suppletive paradigm seems to include a defective partial paradigm
based on /bòrú-/, with an irregular Perfective bèrɛ́- (not to be confused with the
verb bèrá 'get', combining form bèrú-). This bèrɛ́- is arguably Perfective-Ib
(which is typical of transitives), but it is difficult to segment. bò-só- has an
unusual LH tone contour for the Perfective-II, though this peculiarity is shared
with comparable forms of the verbs 'come' and 'see'; see §10.1.1.xxx.

207

This partial paradigm is completed by a few forms based on yá (Imperative, Hortative, one variant of the form before mà), and by (positive) imperfective forms (Imperfective, Future) of rather obscure form beginning with l. Both bó-tò- and là- belong to the Imperfective category, buth bó-tò- is used for habitual contexts while là- is progressive in sense ('is on the way').

là- combines with 3Sg suffix as là-wɔ́ or contracted l-ǎ: or l-ɔ̌:. The third plural variant of là- is l-ɛ̌:, as in 3Pl l-ɛ̀:≡bɛ́. The corresponding forms of Future l`lâ:- (e.g. 3Sg l`lâ:--wɔ́) are interesting since a contraction here would be our only chance to see whether a <HLH> tone is possible on a single syllable. The contracted forms elicited did not have a noticeable pitch drop in the middle, so I assume that the <HLH> has simplified to H. The contracted forms recorded are 3Sg l`lɔ́: and 3Pl l`lɛ́:≡bɛ́.

10.1.4.2 'Bring'

The forms of this verb are in (xx1). Most of the forms are based on /zê:rú/, with a unique (for verbs) <HL>H tone contour.. The monosyllabic form ze:- occurs before coronial consonants; it reflects syncope of the final u followed by deletion of /r/ before the suffix-initial consonant. This phonology is slightly irregular, since syncope elsewhere applies only to bimoraic stems, i.e. (C)vCv- with two short vowels. The Future is also unusual; one would expect something like #zê:rî-yàrà-. The Imperative has a short e and a unique (for verbs) HL tone contour. In the negative forms, whose suffixes normally force tone-dropping on the preceding stem, only the final H of /zê:rú/ has its tones lowered by the suffix, which is then realized either as zê:- (when the /r/ and /u/ are deleted) or as zé:rù- with the tone shift realigned at the syllable boundary.

(xx1)   AN category   form

         bare stem (in chains)   zê:rú
         Perfective-Ia   zê:rú-wòrè
         Perfective-Ib   zê:rú-wɔ̀sǐ
         Perfective-II   zê:-só
         Perfective Negative   zê:-lî-
         Imperfective   zé:-tò-
         Future   zɪ́-yàrà-
         Imperfective Negative   zê:-nó-
         Imperative   zérǐ
         Imperative Negative   zé:rù-kú, zê:r-ku
         Hortative (1Pl)   zê:r-é

10.1.4.3 'Come' (yèrí)

The Imperative is yèrí, violating the usual rule that Imperatives and related forms must end in a non-high vowel (compare zérǐ 'bring!').

    The combining form, as used without suffixation in chains, is also yèrí (rather than yèrú). In the suffixal forms, it is difficult to determine whether the stem has the underlying form /yèrí/ or /yèrú/, since the final vowel is lost in most of the combinations by Early u-Syncope, and since Perfective-Ia yèrú-wòrè- and Future yèrí-yàrà- have semivowel-initial suffixes (the semivowel colors the preceding stem-final vowel).

    The Perfective-Ia has an irregular contracted variant yĕw-wòrè- alongside regular yèrú-wòrè-.

    The Perfective-II yè-só- is tonally unusual, assuming /yèrú-sò-/ as the input before Early u-Syncope. The high tone of the syncopated vowel is seemingly transferred to the suffix. A similar tone contour occurs in the stative construction yè dá-.

    In the Imperfective, the morphologically regular form yé-tò- is used in habitual contexts. An irregular form yá-rà- is used in progressive and imminent-action ('be coming, be on the way here') contexts.

10.1.4.4 'Get, obtain' (bèrá)

This verb shares some minor phonological oddities with 'come' and 'see'. Early u-Syncope applies before Perfective-II -sv̀- (as with 'come' and 'bring'). The resulting form bè-sá- (from /bèrú-sà-/) shows high tone on the suffix, apparently transferred from the syncopated vowel.

    The Perfective-Ib is bĕ:-sǐ- for underlying /bèrú-wòsǐ-/. If this form is generated by phonological rule, it requires deletion of both the /r/ and /w/ followed by VV-Contraction.

    Incidentally, this verb is also used in the 'can (be able to)' construction (§xxx).

10.1.4.5 'See' (wɔ́)

Like all other vowel-final monosyllabic verbs, this one has the shape Cv́ in both Imperative and combining form. However, there are some irregularities that look like vestiges of an original rising tone (*wɔ̌:-). The Perfective-II is wɔ̀-sɔ́- with irregular LH tone contour; all other Cv́ stems have Cv́-sv̀- with falling

209

contour. The Perfective-Ib is wɔ̌:-sǐ-, with irregular <LH>L tone sequence, compare e.g. dɔ̂:-sǐ- 'roasted' from dɔ́-.

Other forms are regular, i.e. are exactly parallel to those of dɔ́ 'roast' and other Cɔ́ verbs: Imperative and combining form wɔ́, Imperfective wɔ́-rɔ̀-, Future wɔ̂:-rà-, Perfective Negative wɔ̀-rí-, Imperfective Negative wⁿɔ̀-rⁿɔ́- (the latter shows the effects of Backward Nasalization).

10.1.4.6 'Eat' (lɛ́) and 'drink' (nɛ́)

These verbs are not irregular. Due to morphophonological processes, in the Imperfective Negative they merge as nǐ-rⁿá-. Even in this category, there is ordinarily no confusion, since both verbs normally take overt complements, the unmarked objects being lɛ́ 'meal' for 'eat' and ní 'water' for 'drink'.

10.2   Pronominal paradigms for non-imperative verbs

10.2.1   Regular subject pronominal particles and suffixes

In (xx1), the position of the subject pronominal relative to the verb is shown by representing the verb as "VB." The 1st/2nd person pronominals are preverbal, while the third person pronominals are suffixes.

The third person subject pronominals are not used when the subject is expressed by an overt NP (or subject pronoun) before the verb. In other words, T-S subject pronominals are like those of English, rather than like the subject pronominals that "agree with" overt NP subjects in languages like Spanish. This is true even though, in T-S, the third person subject pronominals are suffixed to the verb.

(xx1)   Subject Pronominal Morphemes (indicative verbs)

category	form	comment
1Sg	m̀ VB	m̀ assimilates to a following C (hence ŋ̀, ǹ); full form mí is optional before an object.
1Pl	î VB	
2Sg	ú VB	
2Pl	á VB	
3Sg	VB-wɔ́	contracts with some preceding vowels
3Pl	VB≡bɛ́	preceding vowel shifts to ɛ or e

NonhSg	VB≡kɔ́	zero agreement also possible
NonhPl	VB≡cɛ́	zero agreement also possible

10.2.2 Final /e/ or /ɛ/ for plural (especially third person) subject

3Pl ≡bɛ́ and NonhPl ≡cɛ́ frequently co-occur with the a variant of the inflectional suffix ending in -e rather than in the suffix's vowel, adopting the tone of the deleted vowel. I transcribe this as a suffix and gloss it "3PlS" in interlinears. It probably originated as an assimilation to the vowel of ≡bɛ́ or ≡cɛ́, but the vocalic change is now autonomous, and occurs optionally **whether or not** the final ≡bɛ́ or ≡cɛ́ **is present** as long as the subject is in one of the relevant third person plural categories. The vocalic change is also sporadically found in combination with **first or second person plural**. In (xxx), the -e form is shown with 3Pl ≡bɛ́.

(xxx)	category	suffix	with 3Pl ≡bɛ́ (assimilated variant)
	Perf	-wòrè	-wòr-è≡bɛ́
		-wɔ̀rè	-wɔ̀r-è≡bɛ́
	Perfective	-wòsǐ	-wòs-è≡bɛ́
		-wɔ̀sǐ	-wɔ̀s-è≡bɛ́
	PerfNeg	-rî	-r-é≡bɛ́
	Future	-yàrà	-yèr-è≡bɛ́
			-yèr-è≡bɛ́
		[Suffix-to-Suffix Vocalic Assimilation, §3.5.4]	
	Imperfective	-rò-, -rɔ̀-, -rà-	-r-è≡bɛ́
	ImpfNeg	-nó, -nɔ̀, -nà	-né≡bɛ́

The allomorphs in the "suffix" column are determined by the preceding verb stem. Variations in suffix-initial consonants are disregarded here.

Thus (human) 3Pl tórú-wòsǐ≡bɛ́ 'they jumped' and dɔ̀rú-wɔ̀sǐ≡bɛ́ are optionally pronounced tórú-wòs-è≡bɛ́ and dɔ̀rú-wɔ̀s-è≡bɛ́, respectively. Without the final ≡bɛ́ they can still be pronounced as tórú-wòs-è and dɔ̀rú-wɔ̀s-è, which index a third person plural subject (either human or nonhuman).

211

10.3 Temporal particles outside of the verb

10.3.1 Past nɔ̀ following predicate

An invariant particle nɔ̀ may follow a verb or other predicate (including statives) to indicate past time reference. It has low text frequency, especially for active verbs, but it can be readily elicited with any type of predicate. The Past particle is more common with stative verbs ('have', 'be sitting'), and with predicate nouns and adjectives ('be X' with zero copula), since such predicates make no perfective/imperfective opposition.

(xx1) a. órú   ǹ   sá   nɔ̀
           field   1Sg   have   Past
           'I had a field.'

       b. ɗiŋú   d-ɔ̌:   nɔ̀
           sit   be-3SgS   Past
           'He/She was sitting.' (ɗiŋé)

       c. m̀ᵇí   wàrà-wá-nú   nɔ̀
           1SgS   farming.L-do.farming.Agent.H-Sg Past
           'I was (=used to be) a farmer.'

       d. á   l̃i-r-è≡bɛ́   nɔ̀
           Impf   eat-Impf-3PlS-\3PlS   Past
           'They used to eat'

The Past particle is not common in my texts with active verbs. These verbs distinguish perfective from imperfective, and the perfective is generally understood to have past time reference. However, imperfective active verbs may combine with nɔ̀ to produce a past imperfective ('was VP-ing') or past habitual ('used to VP') (xx2.a). Perfective active verbs combine with nɔ̀, rarely, but this time the sense is **past perfect** ('had VP-ed'). The Perfective-II (rather than the Perfective-I) is used in this context (xx2.b).

(xx2) a. [sɔ́:rɔ̀   kù]   á   lèy-r-ɔ̌:   nɔ̀
           [upstairs   Loc] Impf   sleep-Impf-3SgS   Past
           'He/She was sleeping (or: used to sleep) upstairs.'

       b. lɛ́   lí-s-è≡bɛ́   nɔ̀
           meal   eat-Perf2-3PlS-\3PlS Past
           'They had eaten (a meal).'

10.3.2 Adverb dɔ̂m 'as of now, (not) yet' before or after predicate

Adverb dɔ̂m means '(as up, up to) now', implying a nonpermanent situation. It may occur clause-initially, before the subject, or it may occur after the predicate.

It is most common in negative utterances where the sense is 'not yet' (xx1).

(xx1) a. dɔ̂m   mî   [nàŋà   kúnú]   pàgù-rî
           yet   1SgS   [cow.L   DefSg]   tie-PerfNeg
           'I have not yet tied the cow.'

       b. mî   [nàŋà   kúnú]   pàgù-rî   dɔ̂m
           1SgS   [cow.L   DefSg]   tie-PerfNeg   **yet**
           [=(a)]

In positive utterances, the usual sense is 'for now, for the time being' (xx2).

(xx2) mî   [nàŋà   kúnú]   á   pàgù-rà   dɔ̂m
       1SgS   [cow.L   DefSg]   Impf   tie-Impf   **for.now**
       'I am tying the cow for now.'

10.4 Imperatives and Hortatives

The bare stem ending in a non-high vowel, here called Imperative, is also used before the same-subject 'and' subordinators mà and ⹀m̀ (§15.1.4-5), and at the end of one type of hálì 'until' clause (§15.2.2.2).

10.4.1 Positive imperative

Positive imperatives with **singular addressee** are expressed by an unsuffixed form that preserves lexical tones, which is all-high for Cv- stems (xx1.a) and some longer stems (xx1.b), and rising for other nonmonosyllabics (xx1.c).

(xx1) Singular Imperative (positive)

            gloss   imperative

a. 'go'   yá
   'go out'   gó
   'wrestle'   pó
   'arrive'   dɔ́
   'be tired'   dɛ́
   'eat'   lɛ́

b. 'give'   ów
   'go down'   sîgó
   'stop'   îgó
   'get up'   úró
   'do well'   céló
   'put down'   dèlé
   'wait'   céré
   'hit'   téwá
   'tie'   págá
   'jump'   tóró
   'call'   sóró
   'reply'   kîsó
   'speak'   tégó
   'go back'   bíríyó

b. 'kill'   wɔ̌:
   'sit'   điŋé
   'go up'   ùnɔ́
   'lie down'   ìsé
   'chase'   nàrⁿá
   'get old'   yɔ̀wɔ́
   'work'   b̀rá
   'get'   bèrá
   'cut meat'   dùŋgùrɔ́

   Although the imperative is unsuffixed, it is distinct from the combining form used in chains and before nonzero AN suffixes. The imperative **ends in a non-high vowel** (except for a couple of irregular verbs), while the combining form always ends in a high vowel (which may be zeroed). The imperative is useful as a citation form since it always expresses the harmonic status of the stem, which is based on a core distinction of {ɛ ɔ} (also associated with a) versus {e o} harmonic pairs. However, in some cases one could argue that the final vowel of the imperative is shifted from a lexical vowel.

214

Monosyllabic Cv- verbs may have any vowel other than high i or u, hence {e ɛ a ɔ o}. In bimoraic bisyllabics (C)vCv-, the vowel patterns in (xx2) are observed.

(xx2)   exanple   gloss

    a. identical vowels
        a...a   nàrⁿá   'chase'
        o...o   tóró   'jump'
        ɔ...ɔ   sɔ́wɔ́   'jab'
        e...e   céré   'wait'
        #ɛ...ɛ   —

    b. high vowel plus non-high vowel
        i...a   bĭrá   'work'
        i...o   sîgó   'go down'
        i...ɔ   —
        i...e   ìsé   'lie down'
        i...ɛ   —
        u...a   —
        u...o   lùwó   'fall'
        u...ɔ   ùnɔ́   'go up'
        u...e   —
        u...ɛ   —

    c. two distinct non-high vowels
        e...o   léyó   'sleep'
        ɛ...a   bɛ̀rá   'get'
        (others)   —

Of special interest are the two patterns in (xx2.c), both of which are common. e...o is more frequent than e...e, and ɛ...a is the only pattern possible for a bisyllabic with initial-syllable ɛ. Note also that in (xx2.b), /i/ may be followed by any of {a e o}, with /a/ likely reflecting *ɛ, while /u/ can only be followed by another back rounded vowel. In other words, there is a tendency to favor stem-final low vowels and back rounded vowels at the expense of front unrounded vowels (e ɛ).
    Irregular imperatives are in (xx3).

(xx3)   gloss   imperative

    a.   'come'   yèrí

b. 'go to'   yá
c. 'bring'   zéɽǐ

Sentence examples are in (xx4).

(xxx)   a. [nàŋà   ŋ̀gú]   págá
            [cow.L   Dem]   tie.Imprt
            'Tie-2Sg that cow!'

        b. [bèlù   ŋ̀gú]   cɛ́
            [sheep.L   Dem]   slaughter.Imprt
            'Slaughter-2Sg the sheep!'

A **plural-addressee** positive imperative is formed by adding to the (singular) imperative the 2Pl pronominal á in its normal subject position. Compare the singular (xxx.a) with its plural (xxx.b). Another plural example, with direct object, is (xxx.c).

(xxx)   a. ɗiŋé
            sit.Imprt
            'Sit-2Sg down!'

        b. á   ɗiŋé
            2PlS   sit.Imprt
            'Sit-2Pl down!'

        c. á   [nàŋà   ŋgú]   págá
            2PlS   [cow.L   Dem]   tie.Imprt
            'Tie-2Pl that cow!'

10.4.2   Negative imperative (prohibitive)

A **negative imperative** (prohibitive) for singular addressee is formed by adding either of two suffixes to the combining form of the verb. One is -kú, which forces tone-dropping on the preceding stem. The other is -lé or -ré, with variants -lɛ́ and -rɛ́ if required by vowel harmony. Here the stem preserves its lexical tone, except that verbs with rising tone contour have the LH tone split at the suffix boundary. The allomorph with /l/ is used after heavy stems (e.g. trisyllabics). The allomorph with /r/ is used after monosyllabic and light bisyllabics, i.e. Cv- and (C)vCv-, but the (C)vCv- verbs allow syncope, followed by the reduction of /rⁿl/ or /rl/ to /l/. Some examples of the -kú and

-lé/-ré prohibitives are given in (xxx), with the positive imperative stem shown in parentheses after the translation. The interlinear gloss of the suffix is "Imprt.Neg."

(xxx) a. yèr-kú
           yè-lé
           come.L-Imprt.Neg
           'Don't-2Sg come!' (yèrí)

       b. gù-kú
           gú-ré
           exit.L-Imprt.Neg
           'Don't-2Sg go out!' (gó)

       c. sĭg-kú
           sîgú-ré
           go.down.L-Imprt.Neg
           'Don't-2Sg go down!' (sîgó)

       d. mɔ̂m   mɔ̀m-kú
            "   mɔ̀m-ré
           laughter   laugh.L-Imprt.Neg
           'Don't-2Sg laugh!' (mɔ̌:)

       e. [bɛ̀l   ŋgú]   čĭ-kú
            "   "   čî-ré
           [sheep.L   DemSg]   slaughter-Imprt.Neg
           'Don't slaughter the sheep-Sg!' (cɛ́)

    Forms of -kú with irregular verbs are bòr-kú 'don't go (to ...)', zé:rù-kú 'don't bring!', and wɔ̀-kú 'don't see!' A sampling of forms of -lé/-ré is in (xxx).

(xxx)   gloss   Imperative   Prohibitive

       a. monosyllabic and light bisyllabic
            'eat'   lɛ́   lî-ré
            'drink'   nɛ́   nî-rⁿɛ́
            'go in'   ló   lú-ré
            'run'   zɔ̌:   zɔ̀w-ré
            'go up'   ùnɔ́   ùnù-ré

       b. heavy stems

217

'go back'	b̌ir̃iyó	b̌ir̃iy-lé
'rub (eyes)'	l̃ig̀isó	l̃ig̀isǐ-lé
'wipe'	súŋgúrɔ́	súŋgúrú-lé

    c. with /rⁿl/ or /rl/ simplifying to l

'do'	kárⁿá	ká-lɛ́
'come'	yèrî	yè-lɛ́

    d. with /lr/ assimilating to ll

'look'	èlá	èl-lɛ́

    e. irregular verbs

'bring'	zér̃i	zê:-lé
'go to'	yá	bò-lé
'see'	wɔ́	wɔ́-rɛ́

A **plural-addressee prohibitive** is formed, as with the positive imperative, by adding 2PlS pronominal á in the normal subject position to the prohibitive in -kú.

(xxx) a. á   yèrù-kú
             2PlS   come.L-Imprt.Neg
             'Don't-2Pl come!'

        b. á   mɔ̂m   mɔ̀m-kú
             2PlS   laughter   laugh.L-Imprt.Neg
             'Don't-2Pl laugh!'

        c. á   èl-lɛ́
             2PlS   look-Imprt.Neg
             'Don't-2Pl look!'

10.4.3   Double imperative ('go/come and ...')

Imperative verbs yá 'go!' and yèrî 'come!' may be used before another imperative VP: yá [lɛ́ lɛ́] 'go eat a meal!', yèrî [nàwⁿá kúwó] 'come eat meat!'

    Other verbs require a different (chained) construction, as in [điŋé mà] [lɛ́ lɛ́] 'sit down and eat a meal!' (lit., 'having sat down, eat a meal!').

10.4.4   Hortatives

There is a special **Hortative** verb form ('let's go!'). The suffix takes the form
-y^{n}é or -y^{n}ɛ́ after monosyllabics, the choice depending on the vowel-harmonic
status of the stem. For longer stems, -e or -ɛ replaces the stem-final vowel.
Stems with {ɛ a ɔ} in the Imperative have /ɛ/ in the suffix, those with {e o} in
the Imperative have /e/. The lexical tones of the stem are preserved.
Representative forms are in (xx1).

(xx1)		gloss	Imperative	Hortative	
	a.	'go out'	gó	gú-y^{n}é	
		'shave'	ká	ká-y^{n}ɛ́	
		'drink'	nɛ́	nî-y^{n}ɛ́	
	b.	'give'	ów	ów-é	
		'kill'	wɔ̆:	wɔ̀-yɛ́ (arguably: wɔ̀y-ɛ́)	
	c.	'go'	yàyá	yày-ɛ́	
		'work'	bǐrá	bǐr-ɛ́	
		'call'	sór^{n}ó	sór^n-é	
		'sleep'	léyó	léy-é	
		'hit'	téwá	téw-ɛ́	
		'look'	ɛ̀lá	ɛ̀l-ɛ́	
		'sit'	đĭŋé	đĭŋ-é	
		'go up'	ùnɔ́	ùn-ɛ́	
		'dig'	gàsá	gàs-ɛ́	
		'hear'	ɛ́gá	ɛ́g-ɛ́	
		'stop'	îgó	îg-é	
		'begin'	dɛ̀wrá	dɛ̀wr-ɛ́	
		'go back'	bíríyó	bǐrǐy-é	
		'be finished'		dùmù-lɔ́	dùmù-l-ɛ́ (2004-1a.10)

   Backward nasalization is seen in monosyllabics. A striking example is
'eat' (imperative lɛ́) which merges in the Hortative with 'drink' (imperative nɛ́).
The same pattern of backward nasalization was observed above in the
Imperfective Negative (§10.xxx). For 'see' (xx2.b), the stem has low tone as in
some other inflections.

(xx2)		gloss	Imperative	Hortative
	a.	'eat'	lɛ́	nî-y^{n}ɛ́

| | 'go in' | ló | nú-yⁿɛ́ |

'go in'   ló   nú-y^{n}ɛ́

b. 'see'   wɔ́   w^{n}ɔ̀-y^{n}ɛ́

Hortatives of **irregular verbs** are in (xx3). y^{n}ɛ̌: is perhaps from *yà-y^{n}ɛ́ via backward nasalized *y^{n}à-y^{n}ɛ́.

(xx3)	gloss	Imperative	Hortative
a.	'come'	yèrí	yèr-é
b.	'bring'	zéřì	zê:r-é
c.	'go to'	yá	y^{n}ɛ̌:

The first person inclusive hortative is expressed by clause-initial á î or just î, cf. 1Pl pronoun î (the optional á is possibly related to the Imperfective particle á, but to be safe I will gloss it as Hortative), and by adding a suffix -ɛ́ or -é (depending on stem harmony) to the verb.

(xxx) a. á   î   bǐr-ɛ́
           Hort   1PlS   work-Hort
           'Let's work!'

       b. á   î   điŋ-é
           Hort   1PlS   sit-Hort
           'Let's sit!'

       c. î   ɛ́g-ɛ́
           1PlS   hear-Hort
           'Let's hear (listen)!'

       d. á   î   èl-ɛ́
           Hort   1PlS   see-Hort
           'Let's look!'

       e. á   î   yày-ɛ́
           Hort   1PlS   go-Hort
           'Let's go!'

       f. á   î   y^n-ɛ̌:   [lú:mà   kù]
           Hort 1PlS go.to-Hort   [market   in]
           'Let's go to the market!.'

g. á   î   nú-y^{n}é
   Hort   1PlS   enter-Hort
   'Let's go in!'

h. á   î   gú-y^{n}é
   Hort   1PlS   exit-Hort
   'Let's go out!'

i. á   î   lέ   nî-y^{n}έ
   Hort 1PlS   meal   eat-Hort
   'Let's eat!'

For the Hortative form in purposive clauses with final ńdè, see §17.5.2.

A **negative hortative** can be expressed by using the same áy with a negative imperative (singular) verb.

(xxx) a. á   î   yèr-kú
         Hort   1PlS   come.L-Imprt.Neg
         'Let's not come!'

It is also possible to use simple **imperfective negatives** in negative hortative function.

(xxx) a. î   yày-ná
         1PlS   go-ImpfNeg
         'Let's not go!' = 'We will not go.')

      b. î   lέ   nì-r^{n}á
         1PlS meal   eat-ImpfNeg
         'Let's not eat!' (= 'We will not eat.')

10.4.5 Paired hortatives

Two adjacent hortatives may form a construction functioning as a kind of abstractive verbal noun, denoting back-and-forth actions. The combination is followed by a form of kár^{n}á 'do'. The textual examples involve sequentially anonymic (i.e. mutually reversive) pairs of motion verbs 'go and come' and 'enter and go out' (xx1.a-b). In each case, both hortatives show intonational prolongation (⇒). Combinations involving other verb pairs, such as a verb and its morphological reversive, were elicitable (xx1.d).

(xx1) a. [[nú-yⁿé⇒ gú-yⁿé⇒] kàrⁿ-ú] dɛ̀n-ná≡kɔ́
[[go.in-Hortgo.out-Hort] do-VblN] be.quiet-ImpfNeg-
\NonhSgS
'It goes in and comes out constantly.' (ló, dɛ̀lá) (2004-1a.10)
(lit. "It does not cease doing let's-go-in [and] let's-go'out")

b. ɛ̀sà-àrá [yⁿɛ̌:⇒ yèr-é⇒] á kà-là
chicken-male [go.to.Hort come-Hort] Impf do-Impf
'Rooster was going back and forth.' (2004-1b.01)
(lit. "rooster is/was doing let's-go [and] let's-come")

c. [cîr-é⇒ sîg-é⇒] [cîr-é⇒ sîg-é⇒] má-dógò
[fly-Hort go.down-Hort] [fly-Hort go.down-Hort]
only
'(grasshoppers keep doing) nothing but flying (a short distance) and
landing, (and more) flying and landing' (2004-1b.03)

d. [[nàŋà kúnú] pág-ɛ́:⇒ págú-r-ɛ́:⇒] á kà-l-ǒ:
[[cow.L DefSg] tie-Hort tie-Revers-Hort] Impf do-
Impf-3SgS
'He/She was tying and untying the cow.'

10.4.6 Linear ordering of pronominal objects with imperatives

With a **singular-subject imperative positive** verb, a (non-logophoric)
pronominal direct object optionally (but quite often) **follows the verb** (xx1).
The 1Sg form is mî with variant pronunciation m̀ᵇî, which is also the form used
as an independent pronoun. The other pronominal categories have forms
consistent with preverbal direct object function. In particular, the third person
forms have open mid-height vowels {ɔ ɛ}.

(xx1) a. téwá wɔ́
hit.Imprt 3SgO
'Hit-2Sg him/her!'

b. téwá kɔ́
hit.Imprt NonhuO
'Hit-2Sg it!'

c. téwá bɛ́
hit.Imprt 3PlO

'Hit-2Sg them!'

    d.   tɛ́wá   m̀ᵇì
              hit.Imprt   1SgO
              'Hit-2Sg me!'

    e.   tɛ́wá   î
              hit.Imprt   1PlO
              'Hit-2Sg us!'

This ordering is rather strange, since in indicative clauses there is no constraint against clause-initial object pronominals: bɛ́ tɛ́w-s-ɔ̀: 'he/she hit them' (3Pl object bɛ́). Indeed, even in singular-subject imperative positive clauses, the pronominal object may alternatively precede the verb. Thus each example in (xx1) has a Doppelgänger of the type wɔ́ tɛ́wá 'hit-2Pl him/her!', cf. (xx1.a).

The **singular-subject negative imperative** has the same linearization syntax as the corresponding positive form. Examples with the pronominal object following the verb are in (xxx).

(xxx)   a.   tɛ̀w-kú   wɔ́
              hit-Imprt.Neg   3SgO
              'Don't-2Sg hit him/her!'

    b.   tɛ̀w-kú   m̀ᵇì
              hit-Imprt.Neg   1SgO
              'Don't-2Sg hit me!'

In the less common ordering we get e.g. wɔ́ tɛ̀w-kú as an alternative to (xxx.a).

In the **plural-subject imperative**, both positive and negative, a pronominal direct object **must follow the 2Pl subject morpheme** á. My assistant rejected proposed alternatives with a postverbal pronominal object, e.g. #á tɛ́wá bɛ́ for (xxx.a).

(xxx)   a.   á   bɛ́   tɛ́wá
              2PlS   3PlO   hit.Imprt
              'Hit-2Pl them!'

    b.   á   ǹ   tɛ́wá
              2PlS   1SgO   hit.Imprt
              'Hit-2Pl me!'

c. á   wɔ́   tɛ̀w-kú
   2PlS   3SgO   hit.L-Imprt.Neg
   'Don't-2Pl hit him/her!'

The preferred position for a **nonpronominal direct object** is preverbal in both positive and negative imperatives (xxx.a-c), as in indicative clauses. However, postverbal position was also accepted by my assistant, especially when the NP is somewhat heavy (xxx.d).

(xxx) a. [nènù   ŋú]   tɛ́wá
           [dog.L   DemSg]   hit.Imprt
           'Hit-2Sg this dog!'

       b. nènú   tɛ̀w-kú
           dog   hit-Imprt.Neg
           'Don't-2Sg hit the dog!'

       c. [ì-rⁿì   ŋú]   ɛ̀lá
           [child-Sg.L   DemSg]   look.at.Imprt
           'Look-2Sg at this child!.'

       d. ɛ̀lá   [ì-rⁿì   ŋú]
           look.at.Imprt [child-Sg.L DemSg]
           [= (a)]

A **logophoric pronoun** (àsî, plural àsî mǎ:) is treated like a noun in this respect, and therefore precedes imperatives (which are necessarily embedded in quotations). My assistant did not accept postverbal position for àsî after a (reported) imperative (xxx).

(xxx) wó   gá-sà   [mî   àsî   tɛ́wá]
       3SgS   say-Perf2 [1SgS   LogoO   hit.Imprt]
       'He_x told me to hit him_x.'

In **hortatives**, nonpronominal and pronominal object pronouns have their usual preverbal position. My assistant rejected postverbal position for the pronominal object in (xxx.b).

(xxx) a. á   î   [bɛ̀l   ŋî]   kíyⁿ-έ
           Impf 1PlS   [sheep.L   DemPl] slaughter-Hort

224

'Let's slaughter these sheep!'

b. á   î   kɛ́   kîyⁿ-ɛ́
   Impf   1PlS   NonhPlO   slaughter-Hort
   'Let's slaughter them!'

10.4.7 Imperative and Hortative with third person (pseudo-)subject

A third person pronominal may appear before an imperative verb (xx1.a). On
the face of it, the third person pronominal has subject function, but it might also
be taken as an indirect-discourse vocative (e.g. 'he' representing original 'hey
you!'). When the third person reference is spelled out as a NP, it is topicalized,
and when human or even animate it may appear in dative form, which
strengthens the argument for an embedded quotation with implied 'say!'
imperative, which we may try to capture with the formulaic literal translation
"(Say) to the sheep, they (=vocative), go!" However, the topicalized NP is not
always dative, especially when it denotes a less than sentient entity (xx1.d).

(xx1) a. [běl   dè]   ké   yàyá
          [sheep Dat]   NonhPl   go-Imprt
          'The sheep must go!'
          (= 'Let the sheep go!', 'May the sheep go!')

       b. [àrà-pàynî   dè]   wó   àyⁿá   mĩrá
          [man.L-old   Dat]   3Sg   medicine   swallow.Imprt
          'The old man should swallow the medicine.'

       c. bé   gó
          3PlS   go.out.Imprt
          'They must go out!.'

       d. [tòkù   kúnú]   kó   gó
          [waterjar.L DefSg]   NonhSg   go.out.Imprt
          'The waterjar must go out(side)!'

   Negative imperatives are in (xx2).

(xx2) a. [ì-m-í: dè]   bé   gù-kú
          [child-Pl-Dimin Dat]   3PlS   go.out-Imprt.Neg
          'The children must not go out!'

225

b. ká   [nù-ŋ   kà: [bɔ̀sɔ̀   ǹgú]
say   [person-Sg.L   Rel   [excrement.L   DemSg]
bɔ̀sú   bè-ná   ń   kálá:],
defecate   can-ImpfNeg   Rel   any]
yěyyà   [[yⁿà-rⁿù   ŋú]   zâŋ-∅]   yè-lé
(warning) [[woman-Sg.L   DemSg]   seek-VblN.HL]
           come-ImprtNeg
'(Elephant said:) anyone who cannot defecate this (much) excrement should not (= tell him not to) come and court this woman!' (2004-1b.01)

10.4.8   Imperative with implied first person singular subject

In the context of uncertainty about an imperative (or sign) directed at oneself, one can inquire with a first person "imperative" as in (xxx). Again there is an implied quotation of the type "Did you say, 'me! (vocative), come!'?"

(xxx)   a.   ǹ   yèrí   má⇒↑,
             1SgS   come.Imprt   Q
             ǹ   yèr-kú   má⇒
             1SgS   come-Imprt.Neg   Q
             '(That) I come, or (that) I not come?'

What looks like a first person (or logophoric, representing a quoted first person) imperative can occur in the context of wondering whether one should do something, or which of two alternative courses of action one should take.

(xxx) lěy   àsî   kúwó   má⇒↓
       two   Logo   **devour.Imprt**   Q
       '(Hyena asked himself:) should I eat two (of them)?' (2004.1a.07)

11   VP and predicate structure

11.1   Regular verbs and VP structure

The VP follows the subject (and any fronted constituents such as topical or focalized NPs). A VP itself consists centrally of a clause-final verb plus any preceding complements or adverbials. Aspect and negation are expressed by AN suffixed on the verb.

11.1.1   Preverbal particles

11.1.1.1   *Focus kɔ́*

For this particle, which immediately follows a (fronted) focalized constituent, see §13.xxx.

11.1.1.2   *Imperfective (positive) á (â:)*

This particle is common in VPs that also contain a suffixally marked imperfective positive verb (Imperfective or Future). It normally **directly precedes the verb**, following any preverbal pronominals and NPs.

Before a verb with **Future suffix**, the form of the particle is consistently á, and there is no tonal effect on the verb. In most cases the verb in this combination begins with a low tone anyway (xx1.a). However, even with monosyllabic verb stems (whose future form begins with a high tone), the á does not affect the tone of the verb (xx1.b).

(xx1) a.   èsé   [ǹ   dé]   á   tòtî-yɔ̀r-ǒ: má
              what? [1Sg   Dat]   Impf   show-Fut-3SgS   Q
              'What will he/she show to me?'

        b.   èsé   á   lí-yàrà≡kɔ́   má
              what?   Impf   eat-Fut-NonhSgS   Q
              'What will it eat?'

Before a verb with **Imperfective suffix**, most textual occurrences belong to one of two patterns. (Recall that the Imperfective begins with high tones on the stem). Both patterns involve a combination of a high tone and a low tone associated with the particle. First, the particle may take the form â: with long vowel and falling tone; this is followed by the verb with its usual tone, i.e. beginning with a high-toned stem (xx2.a). Alternatively, the particle may take the short-voweled form á, with high tone, but an immediately following Imperfective verb **drops its tones** (xx2.b). I can find no clear basis for the choice between the two patterns.

(xx2) a. ìsó   â: lí-rà≡kɔ́
          earth   **Impf**   eat-Impf-\NonhSgS
          'It eats earth (=soil).' (2004-1b.03)

        b. yɔ̀rù-zègírè   á   kùw-rò≡kɔ́
          cloth.L-rag   Impf   eat-Impf-\NonhSgS
          'It eats rags (of clothing).' (kúw-rò-) (2004-1b.03)

á may **precede a chained verb** preceding the inflected (imperfective) verb. This includes cases where the inflected verb is tɔ́ŋ-rɔ̀- 'keep (VPing)'. Neither the uninflected chained verb that immediately follows á, nor the final inflected verb, drops its tones. Instead, á itself is realized either as â: or as low-toned à.

(xxx) a. [kó   kày]   sé:kěy   cɛ́k   à   céŋúrú   tɔ́ŋ-rɔ̀
          [NonhSg Top]   Calotropis exactly Impf   gnaw   keep-Impf
          'As for it (=grasshopper), it feeds strictly on *Calotropis* shrub.'
          (2004-1b.03)

        b. [kàsú   wòrò]   â: cɛ́rú   pútú-kú-tò≡kɔ́]
          [calabash root.L] Impf   bite   break-Caus-Impf-\NonhSgS
          'It (=grasshopper) bites and severs the root of the gourd plant.'
          (2004-1b.03)

á is occasionally absent before verbs with the Future suffix (xxx).

(xxx) a. dɛ̀:gá   zá   î   lí-yàrà
          afternoon millet.cake 1PlS   eat-Fut
          'In the afternoon (=early evening) we will eat millet cakes.'

        b. sîrà   bírá   m̀   bǐrí-yàrà   ìnî
          tomorrow work(noun) 1SgS   work-Fut   here
          'I will work here tomorrow.'

c. m̀   ú   tĕw-wàrà
   1SgS 2SgO   hit-Impf
   'I will hit you-Sg.'

d. [năy   kálá]   ǹ   zá   lí-yàrà
   [day   each]   1SgS   millet.cake eat-Impf
   'I eat millet cakes every day.'

á is used with dá 'be (somewhere)', the combination appearing as á dà. It is obligatory in the absence of an overt locational (xxx.b), and optional if dá is preceded by an overt locational expression. It is not used before dá if the subject is focalized (xxx.c).

(xxx) a. [àlá   kù]   (á)   dà-wɔ́
          [village   in]   (Impf)   be-3SgS
          'He/She is in the village.'

       b. á   d-ɔ̌:
          Impf   be-3SgS
          'He/she is present (e.g. here).'

       c. m̀bí   kɔ̀   ̀iní   (#á)   dà
          1Sg   Foc   here   (#Impf)   be
          'It is I [focus] who am here.'

á is not used with other statives such as 'have', the special stative 'want' and 'know' verbs (§11.2.4-5), predicate adjectives, or combinations of verbs plus dà 'be' in stative sense.

(xxx) a. ǹ   (#á)   sá   [bèrù   túrú]
          1SgS   (#Impf)   have   [sheep   one]
          'I have one sheep.'

       b. m̀ᵇ   (#á)   ùkú
          1SgS   (#Impf)   know
          'I know.'

       c. ní   m̀ᵇ   (#á)   íwà
          water   1SgS   (#Impf)   want
          'I want some water.'

229

d. ǹ   (#á)   sɛ́w
    1SgS   (#Impf)   fat
    'I am fat'

e. ǐnî   ǹ   (#á)   ɗɨŋú   dà
    here   1SgS   (#Impf)   sit   be
    'I am sitting here.'

With ordinary verbs, Imperfective á may occur in focalized clauses (xxx.a), in relative clauses (xxx.b), and in conditional antecedent clauses (xxx.c).

(xxx) a. àyé   ú   á   tɛ̀w-rà
           who?   2SgO   Impf   hit-Impf
           'Who is hitting you-Sg?'

       b. [nù-rⁿù   ú   á   tɛ̀w-rà   ŋ́]   wɔ̂:-rà-wɔ́
           [person-Sg.L2SgO Impf   hit-Impf   Rel]   see-Impf-3SgS
           'The person who is hitting you-Sg, he will see!'

       c. bé   bírá   á   bǐ-tà   má,
           3Pl   work(noun)   Impf   work-Impf   if,
           bé   hámnà   kàrⁿù-kú
           3PlO   bother   do-Imprt.Neg
           'If they are doing work (=working), don't-2Sg disturb them!'

Imperfective á does not occur under negation. This is brought out clearly in (xxx), which has has parallel positive and negative clauses.

(xxx) [nù-m   jérè]   â: kúw-rò⇑,
       [person-Pl.L   some]   **Impf** eat-Impf,
       [nù-m   jérè]   kùw-nó⇓
       [person-Pl.L   some]   eat-ImpfNeg
       'Some people eat them (=grasshoppers), some (other) people don't.'
       (2004-1b.02)

11.1.2   Verb types (valency)

write

11.1.3   Valency of causatives

write

11.1.4   Verb Phrase

write

11.1.5   Fixed subject-verb combinations

write

11.1.6   Idiomatic and cognate objects

Aside from cognate nominals, where the verb and the noun share some phonological material, there are many idiomatic expressions involving a noun (usually the direct object) and a verb. In (xx1), the verb carries the basic meaning.

(xx1)   a.   cîrⁿó   pɔ́rⁿɔ́
               snot   blow.nose
               'blow one's nose'

         b.   ká   kó
               mouth   yawn
               'yawn'

         c.   kàlú   tɔ́
               saliva   spit
               'spit'

         d.   gɔ́nú   gàgá
               snoring   pull
               'snore'

    Another type of idiom is the combination of a noun with verbal meaning and the more or less empty transitive verb kárⁿá 'do'. This is a common way of handling loanwords, for example from Fulfulde and nowadays also from French. Examples: tú:tà kárⁿá '(e.g. holy man) spit lightly into his hand (before giving a blessing)', jɔ́:rà kárⁿá '(running quadruped) stop abruptly', títà kárⁿá 'hold oneself up against (wall) with one's hand'.

11.1.6.1 Formal relationships between cognate nominal and verb

Some examples of verbs and their cognate nominals are in (xx1).

list cognate nominal

(xx1)	verb	gloss	nominal	comment
	bègó	'hiccup'	bégò	
	bòsɔ́	'defecate'	bɔ́sɔ́	
	dòró	'sweat'	dòró	
	tóró	'jump'	tóró	
	dùwɔ́	'forge'	dúwɔ́	
	wàrá	'do farm work'	wàrá	
	kɔ́sɔ́	'harvest'	kɔ̀sɔ́	
	céná	'have fun'	cèná	
	yàwrá	'crawl'	yáwrà	
	sáwrá	'do weeding'	sàwrá	
	tɔ́	'sow (seeds)'	tǒw	
	sɔ́	'lay 2nd layer'	sɔ́	
	jĩyⁿó	'harvest'	jĩyⁿ	
	zǐyⁿó	'fart'	zîwⁿ	
	mǒ:	'laugh'	môm	combining form: mɔ̌m
	ɛ́yⁿá	'do a thing'	ɛ̌yⁿ	
	ìsìyá	'sneeze'	ìsíyà	
	kósîyó	'cough'	kòsíyò	
	kájîyá	'clear throat'	kàjíyà	
	kúgîyɔ́	'foam, froth'	kùgíy	
	gùrɔ́	'slobber'	kà-gúrɔ̀	ká 'mouth'
	ánná	'urinate'	ànnà-ní	ní 'water'
	ósó	'hunt'	àrà-ósó	àrá 'male'
	zǐgó	'go on hunt'	dànà-zǐgá	Jamsay dàná 'hunt' (noun)
	kúró	'repound'	[yù kúrò]	
	gòwó	'harvest late'	yù-gô:	noun = 'late millet'
	kúró	'pound spikes'	kùrú	

tírⁿá	'go get wood'	tĩrⁿú	noun = 'firewood'	
térá	'chop off'	térù		

11.1.6.2 Grammatical status of cognate nominal

11.1.7 'Do' or 'be done' (kárⁿá)

The verb 'do', also used intransitively ('be done', 'happen, take place') is kárⁿá. It is used in a wide variety of phrases, e.g. lέ kárⁿá 'make (=cook) a meal'. A common method of nativizing Fulfulde and other loanwords is to borrow a noun-like form which is then followed by kárⁿá, the combination functioning syntactically as transitive or intransitive depending on the sense. The inflectional morphology is basically regular: Perfective kárⁿú-wⁿɔ̀sì- or kárⁿú-wⁿɔ̀rⁿè-, Perfective Negative kà-lî-, Imperfective ká-là (not #ká-tà) Imperfective Negative kà-ná-.

(xxx) a. žìrⁿá kárⁿú-wⁿɔ̀rⁿè
rainy.season be.done-Perf1a
'The rainy season took place (with normal rainfall).'

b. m̀ᵇ ɔ́ hámnà kárⁿú-sà
1SgS 3SgO bother do-Perf2
'I pestered him/her.'

11.2 'Be', 'become', 'have', and other statives

11.2.1 Copula 'be'

11.2.1.1 Positive copula ('X is Y')

There is no overt copula morpheme. A noun or adjective in predicate position, with a subject NP or pronominal, is interpreted as predicative. As with verbs, the subject may be expressed as either a nonpronominal NP (clause-initial), a 1st/2nd person subject pronoun (clause-initial), or as a 3rd person subject clitic (3Sg wɔ́, 3Pl bέ, Nonhuman kɔ́, following the predicate).

With a nominal predicate, in some examples there is both a nonpronominal subject NP and an agreeing 3rd person subject clitic; in others the agreeing 3rd person clitic is absent (as is regular when the predicate is an inflected verb or a predicate adjectdive). I am inclined to interpret the cases where both a subject NP and a 3rd person subject clitic are present as involving a topicalized NP

followed by the clause proper with a resuming pronoun, e.g. '(a) lion, it is a wild animal' (xx1.a).

In expressions like díŋá 'it's the truth' with nonreferential subject, no pronominal subject appears (xx1.e).

The predicate may have past time reference, made clear by (e.g. narrative) context (xx1.f).

(xx1) a. ów-[à-nú]   òw-ésú   kɔ́
           lion   bush-thing   NonhSg
           'The lion is a wild animal.'

       b. púlɔ̌-m   bɛ́
           Fulbe-Pl   3Pl
           'They are Fulbe.'

       c. púnɔ̀-rⁿú   wɔ́
           Fulbe   3SgS
           'He/She is a Fulbe (=Pullo).'

       d. à-nú   wɔ́
           man-Sg   3SgS
           'He is a man.'

       e. yⁿà-rⁿú   wɔ́
           woman-Sg   3SgS
           'She is a woman.'

       f. wàllây   ká   díŋá
           by.God   say   truth
           '(He) said: by God (=I swear), it's the truth.' (2004-1a.01)

       g. bɛ̀l-à:rá   kó   kɔ̀   [kɛ̀   bé-bè-nù]
           sheep-male   NonhSg   Foc   [NonhPlP   herder-Sg.HL]
           '<u>A ram</u> [focus] was their herder (shepherd).' (2004-1a.07)
           (bè-bé-nú)

First and second person subject (=topic) is expressed with the relevant pronoun in subject position, preceding the predicative NP, with no overt copula.

       d. mî   púnɔ̀-rⁿú
           1Sg   Fulbe-Sg
           'I am a Fulbe (=Pullo).'

234

e. î púlɔ̌-m
  1Pl Fulbe-Pl
  'We are Fulbe.'

With ì-rⁿú 'child', diminutive ì-rⁿ-î: is preferred in predicate function. Its plural likewise appears as ì-mî:.

(xxx) b. búrâ: ì-rⁿ-î: wɔ́
    Boura child-Sg-Dimin 3SgS
    'Boura is a child.'

  f. ì-m-î: bɛ́
    child-Pl 3PlS
    'they are children.'

  g. mî ì-rⁿ-î:
    1Sg child-Sg
    'I am a child.'

11.2.1.2 Negative copulas ('X is not Y')

A special Negative 'be' particle ɲ̃iní is used in negative copulas. The particle directly follows the predicative NP, and precedes a third person subject pronominal suffix if there is one.

(xx1) a. ì-rⁿ-î: ɲ̃iní-wɔ́
    child-Sg-Dimin not.be-3SgS
    'He/She is not a child.'

  b. mî púnɔ̀-rⁿú ɲ̃inî
    1Sg Fulbe-Sg not.be
    'I am not a Fulbe (=Pullo).'

  c. púlɔ̌-m   ɲ̃inî≡bɛ́
    Fulbe-Pl not.be-\3PlS
    'They are not Fulbe.'

  d. ténăm ì-rⁿî: ɲ̃inì
    hyena child not.be
    'Hyena was not small (juvenile).' (2004-1b.01, in a tale)

The third plural subject categories have an optional variant based on j̃irⁿ-é. Thus a variant of (xx1.c) is púlɔ̌-m j̃irⁿ-é≡bɛ́ 'they are not Fulbe'.

For j̃inî in negative focalized constructions ('it is/was not X [focus] who/that ...'), see §13.1.xxx.

11.2.2 Existential and locative quasi-verbs and particles

11.2.2.1 Positive locational-existential quasi-verb (dà, dá)

In existential-locative (as opposed to copular) sense, 'be' is expressed by dà or dá. The form also occurs as part of various verbal constructions (stative, progressive). The distribution of the low- and high-toned variants is summarized in (xx1).

(xxx) a. low-toned
         after Imperfective á in locational-existential function (see below);
         after combining form of verb in stative construction (§10.xxx);
         after verb plus dĕn in transitive stative construction (§10.xxx);
         in progressive construction -cî dà (§10.xxx).

       h. high-toned
         after ǹkǎyⁿ 'like that, thus' and related 'like' forms;
         following a locational expression (without á);
         in a temporal-simultaneity construction of verb plus dá gà (§15.2.1.3).

    dà is intrinsically stative, and makes no aspectual distinctions. The third-person subject forms add 3Sg -wɔ́, 3Pl ≡bɛ́, NonhSg ≡kɔ́, or NonhPl ≡cɛ́, as in copular constructions. The 3Sg combination dà-wɔ́ optionally contracts to d-ɔ̌:, while high-toned dá-wɔ́ optionally contracts to d-ɔ́:.

    When there is no overt locational, i.e. in existential sense or with tacitly understood locational sense, Imperfective particle á must precede dá, which is therefore never clause-initial.

(xxx)   a. á   d-ɔ̌:
            Impf   be-3SgS
            'He/She is present (=here, there).'

        b. î   á   dà
            1Pl   Impf   be

236

'We are present (=here, there).'

c. á   dà≡kɔ́
    Impf   be-\NonhSgS
    'It is present (=here, there).' or 'There is some.'

dà or dá is also common with an overt adverbial (locational or manner)
complement (xxx). Imperfective á is optional when the locational precedes the
quasi-verb, and obligatory when there is no overt locational (as in simple
existential function) or when the locational is postverbal. The combination is
heard as á dà with low tone on dà. (Imperative á has a similar effect on
Imperfective verbs, but not on Future verbs.) Without á, dá has high tone after a
locational. Clauses with dà are usually interpreted as being valid in a time frame
including the present. Where it is necessary to explicitly restrict its validity to a
past time frame, Past morpheme nɔ̀ may be added at the end (xxx.e).

(xxx) a. ǐnî   á   dà≡bɛ́
           ǐnî   dá≡bɛ́
           here   Impf   **be**-3PlS
           'They are here.'

       b. nàwⁿá   á   dà   ǐnî
           meat   Impf   **be**   **here**
           'There is some meat here.'

       c. [[îló   pùrù]   kù]   dá-wɔ́
           [[house   inside.L] **in]** **be**-3SgS
           'He/She is inside the house.'

       d. [tègù   mùtù   ŋú]   [[[àsî   mǎ:] zâ:]   kù]   dá
           [talk(noun).L   much.L DemSg]   **[[[**Logo Pl]   among]
                       in]   **be**
           '(He said:) … all that talk is around us.' (2004-1a.01)

       e. [wó   nà]   [ùró   kù]   dá-wɔ́   nɔ̀
           [3Sg   now]   [hole   **in]** **be**-3SgS Past
           'He now, he was in a (deep) pit.' (2004-1a.03)

       f. [nòndérⁿá   tà:lî],   yá   kɔ́   dá
           [day   three],   there   NonhSgS   be
           'He was there for three days.' (2004-1a.05)

237

g. [[[kɔ̀   púrò]   kù]   dá   ń
   [[[NonhSgP   belly.HL]   in]   be   Rel
   'that which is in its belly' (2004-1a.08)

In (xxx), an implicit manner expression ('the way') is omitted, as often in relative claues.

(xxx) sùŋù-ná: [níŋ   kày]   [[ú   dé]   á   ùsù-r-è]
      python   [now   Topic] [[2Sg   Dat]   Impf   ask-Pres-3PlS]
      [kà: kɔ̀   dá   ń]
      [Rel   NonhSgS   be   Rel]
      'Python now, they are asking you-Sg (the way) how it is.' (2004-1a.10)

A first or second person subject pronominal immediately precedes dá or á dà, and therefore follows any preverbal locational. In (xxx.a), the presence of 1Sg ǹ between the locational and dá has no effect on the tone of the latter. Logophoric àsî as subject behaves similarly (xxx.c).

(xxx)   a.   bó:nì   ǹ   dá
             Boni   1SgS   **be**
             'I am in Boni (=town).'

        b.   m̀ᵇ   á   dà
             1SgS   Impf   **be**
             'I am present (here).'

        c.   [nòndérⁿá   tà:lî]   [[ùrò   ń]   kú]   àsî   dá
             [day   three]   [[hole   DemSg]   in]   LogoS   **be**
             '(Hyena said: For three days I am (=have been) here in this hole.'
             (2004-1a.05)

11.2.2.2 Negative locational-existential quasi-verb (yⁿâŋgó)

The negative counterpart of dá is yⁿâŋgó. It may be followed by 3Pl bɛ́ or by Nonhuman kɔ́, but it contracts with 3Sg wɔ́ as yⁿâ:ŋg-ɔ́:.

(xxx)   a.   ìnî   yⁿâŋgó=bɛ́
             here   not.be-\3PlS
             'They are not here.'

238

b. [[íló   pùrù]   kù]   yⁿâŋgó≡kɔ́
   [[house   inside.L] in]   not.be-\NonhSgS
   'It (e.g. sugar) is not in the house; There is none in the house.'

c. [[àlá   pùrù]   kù]   î   yⁿâŋgó
   [[village inside.L] in]   1PlS   not.be
   'We are not in the village.'

d. ìnî   yⁿâŋg-ɔ́:
   here   not.be-3SgS
   'He/She is not here.'

e. [[pàŋá   pùrù]   kù]   ǹ   yⁿâŋgó
   [[granary   inside.L] in]   1SgS   not.be
   'I am not in the granary.'

11.2.3   Stative stance verbs 'be sitting', 'be lying down'

Stance verbs occur in active function (e.g. 'sit down', 'stand up', 'lie down'), in which case they have regular AN stems (perfective and imperfective). They also occur in stative function ('be sitting [seated]', 'be standing', 'be lying down [prone]'), in which case the perfective/imperfective opposition is neutralized. In positive indicative utterances, these statives show initial reduplication if the stem begins with a consonant; see §10.xxx for details. In negative indicative utterances, the reduplication is omitted, and a Stative Negative suffix -ŋ̀gó- is used; see §10.xxx for details. There is no imperative in stative function, since e.g. 'sit (down)!' is intrinsically active (kinetic).

    There are no suppletive or irregular verb stems in this domain used exclusively in stative function (as there are in Jamsay and some other Dogon languages).

11.2.4   'Want' (ìwá, îwà)

A stem ìwá 'want' is used in positive utterances for 'want', with an NP or clause as complement. It is intrinsically stative, and does not co-occur with Imperfective particle á. It has no AN suffixed forms, but may be followed by the usual third person subject pronominals. 3Sg ìw-ɔ́: and 3Pl ìw-é≡bé.

(xxx)   a. nî   m̀   ìwá
           water   1SgS   **want**

239

'I want (=would like) some water.'

When the clause has a focalized or relativized constituent, the **tone is HL** (xxx).

(xxx) a. èsé   ú   íwà   mà
         what? 2SgS **want.HL** Q
         'What do you-Sg want?'

      b. m̀   bɛ̀-lí   [ɛs kà: wɔ́ íwà   ŋ̀   kúnú]
         1SgS get-PerfNeg[thing.L Rel 3SgS **want.HL** Rel DefSg]
         'I didn't (=couldn't) get the thing that he/she wants.'

A future can be formed periphrastically by combining ìwá with the relevant form of kárⁿá 'do'. In (xxx.a), I hear ìwà with low tones, suggesting that this form is treated as a part of the inflected verb for tonal purposes. However, in the future negative (xxx.b) I hear ìwá with LH tone.

(xxx) a. màŋgórò   m̀ᵇ   ìwà   kàr̀ⁿí-yⁿàrⁿà
         mango   1SgS want   do-Fut
         'I will want a mango.'

      b. màŋgórò   m̀ᵇ   ìwá   kà-ná
         mango   1Sg   want   do-FutNeg
         'I will not want a mango.'

The 'want' predicate may also take a clausal complement, which may precede or follow. See §17.xxx for details and examples.

The negative counterpart (**'not want'**) is yⁿà-rⁿá- (3Sg yⁿà-rⁿ-ɔ́:, 3Pl yⁿà-rⁿá≡bɛ́). Morphologically, this is analysable as a (suppletive) perfective negative (§10.xxx).

(xxx) a. yⁿà-rⁿ-ɔ́:   zà-lí
         want-ImpfNeg-3SgS   millet.cake.L-eat
         'He/She doesn't want to eat millet cakes.'

11.2.5 'Know' (ùkú, úkù, ítá-)

In positive utterances, 'know' is expressed by irregular ùkú. It is treated as a stative verb, allows no AN suffixes, and is used without Imperfective á. It may

take a NP or clausal complement. Suffixed forms are 3Sg ùkú-wɔ́ and 3Pl ùkú≡bɛ́.

(xxx) a. m̀   ùkú
           1SgS   know
           'I know.'   (also pronounced [m̀ᵇ ùkú])

       b. bó:nǐ   ùkú-wɔ́
           Boni   know-3SgS
           'He knows Boni (a town).'

The stem appears with **HL tone** after a focalized or relativized constituent (xxx).

(xxx) a. ɛ̀s   kà: ú   úkù   ń
           thing.l   Rel   2SgS   know   Rel
           'what you-Sg know'

       b. ɛ̀sɛ́   úkù-wɔ́   má
           what?   know-3SgS   Q
           'What does he/she know?'

The negative counterpart (**'not know'**) is suppletive ínà-, which is also used as the Imperfective Negative of îtá (the regular form for this verb would be #îtù-ná-). Suffixed forms are 3Sg în-ɔ̌: and 3Pl în-è≡bɛ́.

(xxx) a. m̀   ínà
           1SgS   not.know
           'I don't know.'

       b. sáydù   în-ɛ̀≡bɛ́
           Seydou   not.know-3PlS-\3Pl
           'They do not know Seydou.'

       c. în-ɔ̌:   [àrⁿá   mùrú-wòrè   mà]
           not.know-3SgS   [rain   fall-Perf   Q]
           'He/She does not know that (=whether) rain has fallen.'

There is also a morphologically regular verb îtá (combining form îtú) which has the full range of inflections. Its basic sense is 'recognize (someone, something' or 'realize (that ...)', and is therefore not basically stative in sense. However, it may substitute for ùkú in perfective and future contexts.

11.2.6   Morphologically regular verbs

11.2.6.1   'Become' (táŋá-)

'Become' with a NP (rather than an adjective) as complement is expressed by
the verb táŋá-, which has regular AN stems.

(xxx)   a.   ànàsá:rá   táŋ-wɔ̀rè-wɔ́
             white.person   become-Perf1a-3SgS
             'He/She became a white person.'

        b.   dùŋù-nú   tàŋ-rí-wɔ́
             sorcerer-Sg   become-PerfNeg-3SgS
             'He/She did not become a sorceror.'

        c.   wàrà-wá-n   m̀   á   tăŋ-gàrà
             farmer   1SgS   Impf   become-Fut
             'I will become a farmer.'

        d.   ǹ   yⁿà-rⁿá   wàrà-wá-n   táŋ-é
             1Sg   want-Neg   farmer   become-Hort
             'I do not want to become a farmer.'

11.3   Quotative verb and particle

Reported speech is encoded grammatically in two ways. Most obviously, an
overt quotative marker (particle or inflectable verb) may precede the quoted
matter; see just below (ká, gá-). In addition, logophoric pronouns (Sg àsî, Pl àsí
bɛ́) replace original first person pronouns under most conditions; see §18.xxx
for details.

11.3.1   Uninflectable 'say' (ká)

ká is a common invariant, particle-like quotative marker, preceding the
quotation proper, when the latter is attributed to a third person (not the current
speaker or addressee). It is very common in narratives reporting conversations
between two or more characters, occurring at every switch in (original)
speakers.

(xxx) a. ká   àsí   bá-wɔ̀sǐ
        say   Logo   consent-Perf
        'He_x said that he_x agreed (=he gave his_x consent).'

      b. ká   ú   yè-rǐ
        say   2SgS come-Imprt
        'They say you should come (=they told you to come).'

11.3.2 Inflectable 'say' (gá-)

The all-purpose, inflectable quotative verb 'say' is gá-. It can take a (quoted) clause as complement, but it can also take NP complements like 'that', 'what?', and 'nothing'.

(xxx) a. èsé   gá-s-ɔ̌:   mà
        what?   say-Perf-3SgS Q
        'What did he/she say?'

      b. èsǐtúrúkòy   ŋ̀   gà-rí
        nothing   1SgS   say-PerfNeg
        'I didn't say anything.'

      c. [kò   dé]   á   gà-r-è   dèŋɗíŋ
        [NonhSg Dat]   Impf   say-Impf-3PlS stool
        'That is called "a stool."'

      d. èsé   w   â: gá:-rà   má
        what? 2SgS Impf say-Impf   Q
        'What will you-Sg say?'

      e. gà-rí-wɔ́   [àsí   â: yá-rà]
        say-PerfNeg-3SgS [Logo   Impf come-Impf]
        'She_x didn't say that she_x was coming.'

      f. [mí   ká]   [ù   dé]   gà-rí
        [1Sg   ?]   [2Sg Dat]   say-PerfNeg
        'I didn't say it to you.'

11.4   Adjectival predicates

11.4.1   Positive adjectival predicates.

An adjective can be made predicative in either of two ways. First, a de-adjectival inchoative or factitive verb ('become long', 'lengthen') can be derived from the adjective and used as an ordinary verb predicate; see §9.xxx.

Second, the adjective can function, without morphological additions, as a predicate if a subject NP (or pronoun) is present. Examples with pronominal subject are in (xx1); as with verbs, the 3rd person subject pronouns follow the predicative adjective, while 1st/2nd person subject pronouns are clause-initial. For examples with nonpronominal NP as subject, see §6.2.2 ('my house is big', etc.).

(xx1)   a.   gùrú-wɔ́
            long-3SgS
            'He/She is long (=tall).'

       b.   gùrú-bɛ́
            long-3PlS
            'They are long (=tall).'

       c.   gùrú-kɔ́
            long-NonhSgS
            'It is long.'

       d.   ŋ̀   gùrú
            1SgS   long
            'I am long (=tall).'

For negative counterparts, see §11.xxx, below.

11.4.2   Defocalized L-toned adjectival predicates without 'be'

write

11.4.3   Negative adjectival predicates (sàrà-)

The negative counterparts of the positive adjectival predicates discussed in §11.xxx, above, are formed by adding sàrà- after the adjective. The suffixed

forms are 3Sg sàr-ɔ́: and 3Pl sàrá-bɛ́. First and second person pronominals precede the adjective.

(xxx)   a.   gùrú   sàr-ɔ̌:
             long   Neg-3SgS
             'He/She is not long (=tall).'

        b.   gùrú   sàrá-bɛ́
             long   Neg-3PlS
             'They are not long (=tall).'

        c.   ŋ̀   gùrú   sàrà
             1SgS   long   Neg
             'I am not long (=tall).'

        d.   gùrú   sàrà
             long   Neg
             'It is not long.'

11.5   Possessive predicates

11.5.1   'Have' (sá-)

In the construction 'X have Y', the quasi-verb sá is used. It is intrinsically stative, and it makes no morphological distinction between perfective and imperfective. It also has no imperative. Suffixed forms are 3Sg sá-wɔ́ and 3Pl sá-bɛ́.

(xxx)   a.   [nàŋá   tóró]   ǹ   sá
             [cow   one]   1SgS   have
             'I have one cow.'

        b.   [yⁿà-mú   lěy]   sá-wɔ́
             [woman-Pl   two]   have-3SgS
             'He has two wives.'

        c.   [òrù   ná:]   sá-bɛ́
             [field.L   big]   have-3PlS
             'They have a large field.'

        d.   èsɛ́   ú   sá   má

what?   2SgS   have   Q
'What do you-Sg have?'

The negative counterpart is sá-rá- (3Sg sá-r-ɔ́:, sá-r-ɛ́-bɛ́), subject to tone-dropping.

(xxx)   a.   kèrú   ǹ   sà-rà
                money   1SgS   have-Neg
                'I have no money.'

          b.   èstúrúkòy   sà-r-ɔ̌:
                nothing   have-Neg-3SgS
                'He/She has nothing.'

11.5.2   'Have possession of' verbs (j̃inè-, jèrè-)

write

11.5.3   'Belong to' predicates (sî)

In this construction ('Y belongs to X'), the predicate consists of the X NP plus sî, which can be taken as a noun ('possession' or the like). Quasi-verb dà 'be' may be added.

(xxx)   a.   [ìlò   ŋ́   kày]   ǹ   sî
                [house.L   Dem   Topic]   1Sg   Poss
                'This house belongs to me (=is mine).'

          b.   [nàwⁿà   ŋú]   àyé   sî   má
                [meat.L   DemSg]   who?   Poss   Q
                'This meat belongs to whom (=is whose)?'

          c.   [[kò   sî]   dà]   [kɔ̀   sǎŋ]
                [[Nonh   Poss]   be]   [Def   woodland]
                'The woodland belongs to it (=elephant).' (2004-1a.10)

          d.   [bè   sî]   dà
                [3Pl   Poss]   be
                'It is theirs.'

          e.   [sáydù   sî]   dà

[S   Poss]   be
                    'It belongs to Seydou.'

Negation is with clause-final external negative j̃inî 'it is not (the case that …)' (xxx).

(xxx)   c.   [[ŋ̀gú   kày]   ú   sî]   j̃inî
               [[Dem   Topic]   2Sg   Poss]   Neg
               'That is not yours-Sg.'

The form sî is somewhat opaque semantically and grammatically, but it may also be discerned in the complex postposition sî kày^n 'like' (§8.4.1) and perhaps in sîmà (§xxx).

11.6   Verb iteration

write these sections

11.6.1   Symmetrical iteration ($\bar{v}_1$-$\bar{v}_1$-suffixes)

11.6.2   L-toned second verb ($\bar{v}_1$-$\grave{v}_1$ … $\bar{v}_2$-suffixes, $\bar{v}_1$-$\grave{v}_1$-$\bar{v}_1$-suffixes)

11.6.3   Uninflected iteration of type ($\hat{v}_1$-$\grave{v}_1$[-$\grave{v}_1$ …])

12 Comparatives

12.1 Asymmetrical comparatives

12.1.1 Predicate adjective with lexical tones or {HL} tone contour

A predicate adjective, in its **normal lexical tones** may form a comparative construction simply by adding a dative PP representing the comparandum. The examples in (xx1) were elicited.

(xx1) a. [ǹ   dé]   gùrú   wɔ́
        [1Sg   Dat]   long   3SgS
        'He/She is longer (=taller) than I (am).'

    b. ǹ   [wò   dé]   gùrú
        1SgS [3Sg   Dat]   long
        'I am longer (=taller) than he/she (is).'

An alternative in which the predicate adjective has a {HL} tone overlay is more common in my data.

12.1.2 Simple HL-toned adjective with dative or 'like' comparandum

An adjective may function as a comparative predicate. In this case it has {HL} tone contour. The comparandum appears as a dative PP. This is arguably just a reduction of the construction with jěn dà 'is more' plus a noun or adjective with {HL} tone contour defining the domain of comparison (§12.1.xxx, below).

(xx1) a.

examples
    ú ǹ dé   sêw   'you are fatter than I'
    mî [ú dé]   pây   'I am older than you-Sg'
reduction of fuller constructon with jěn dà
(xxx) a. mî   jěn   dà   [ú   dé]   pây
*   1Sg   pass be [2Sg   Dat] aged.HL*
*   'I am older than you-Sg (are).' (pǎy)*

The usual adjective for 'big' is ná:, which is attested in the comparative form nâ: 'be bigger than'. However, this may be suppleted by gá 'bigger' (xxx). gá is also the basis for the inchoative verb gá:-lá 'become big', since there is no inchoative verb related morphologically to ná:.

(xx2) [jîré   kà]   gá,   [pérá   dè]
      [front   end.L   bigger, [back   Dat]
      'the front (of an elephant) is bigger than the back.' (2004-1a.10)

12.1.3   Relative ŋ́ in comparatives

Bo: [[kò dé] ná: ŋ́] [[ǒw ɛ̀sù] kày], [kó kày] î wɔ̀-rí
Sa: [[kò dé] césú ŋ́] nà
Bo: We haven't seen any wild animal bigger than that.
Sa: Anything more powerful?
(2004-1a.10)

12.1.4   'Be more' (jĕn dà, jĕl dà)

The primary comparative construction is based on the verb jèlú\\jèló 'pass' (hence 'surpass, be better or more than'), in the stative inflected form jĕl dà. This is pronounced jĕn dà by many speakers, suggesting that it is in the process of diverging lexically from the 'pass' verb.

The construction takes a regular subject NP or pronominal. Suffixes third person forms are 3Sg jĕn d-ǒ: and 3Pl jĕn dà=bɛ́. The time reference is unspecified, but is most often timeless (gnomic), denoting permanent relationships. The comparandum is usually expressed in dative form (the dative PP may occur clause-initially, after jĕn dà, or clause-finally). It is also possible to have a clause-final reference comparandum with đɪ̀ŋŋémá 'than, instead of', but the dative is more common when subject NPs are compared.

In the simplest such construction, where two subject NPs are compared with respect to an intrinsic quality (age, height, hardness, etc.), the domain of reference is expressed as an **adjective with HL tone overlay**, in clause-final

position (except that it is optionally followed by the dative comparandum). Thus 'I am older than you-Sg (are)' is expressed as "I (am) more [to (=than) you] aged."

In this construction, gĕn-dà may be inflected for subject: 3Sg gĕn-d-ɔ̌:, 3Pl gĕn-dà-bɛ.

(xxx) a. mî   jĕn   dà   [ú   dé]   pây
           1Sg   pass   be   [2Sg   Dat]   aged.HL
           'I am older than you-Sg (are).' (pǎy)

       b. sáydù   jĕn   da   [ǹ   dé]   gúrù
           Seydou pass   be   [1Sg   Dat]   long.HL
           'Seydou is longer (=taller) than I (am).' (gùrú)

       c. púlɔ̌-m jĕn   dà   mútù   [tɔ̀rɔ̀-nù-m̀   dé]
           Fulbe-Pl pass be   many.HL [mountain.L-person-Pl Dat]
           'The Fulbe are more numerous than the Dogon.' (mútú)

       d. jĕn   dà≡bɛ́   [ǹ   dé]   gúrù
           pass   be-3PlS [1Sg   Dat]   long.HL
           'They are longer (=taller) than I (am).' (gùrú)

       e. kó   jĕn   dà   nâ:,   kó   jĕn   dà   gúrù
           NonhSg pass   be   big.HL, NonhSg pass   be   long.HL
           'That one (snake sp.) is bigger, (and) that one is longer.' (2004-1a.10) (ná:, gùrú)

A noun may also be used to indicate the domain of reference (xxx). This is the only construction available for concepts like 'strength' that do not have a simple adjectival expression.

(xxx) a. ǹ   [sáydù   dé]   jĕn   dà   césù
           1SgS   [Seydou   Dat]   pass   be   strength.HL
           'I am stronger than Seydou.'

Even with adjective-like domains of reference, an alternative construction involving a **regular VP** (rather than just a noun or adjective) is always possible. The examples in (xxx) have regular predicate adjectives with lexical tones (not nouns with the HL tone overlay). In this construction, third person subject pronominal marking is limited to the predicative adjective, and jĕn dà is invariant in form.

251

(xxx) a   [ǹ   dé]   jěn   dà   jêm   wɔ́
          [1Sg Dat] pass   be   black.HL   3SgS
          'He/She is blacker than I (am).'

When the reference domain is an **activity** (expressed as a VP) and the comparanda are subjects (agents), the construction with a regular VP is required (xxx). Here the dative phrase and jěn dà are preposed to the clause proper.

(xxx)   a.   [ú   dé]   jěn   dà   [lɛ́   m̀   á   lí-rà]
             [2Sg Dat] pass be   [meal 1SgS Impf eat-Impf]
             'I eat more than you-Sg (do).'

        b.   [ú   dé]   jěn   dà   [á   zɔ̀w-r-ɔ̌:]
             [2Sg Dat] pass be   [Impf run-Impf-3SgS]
             'He/She runs more than you-Sg (do).'

When **non-subject NPs** are compared, the reference comparandum is expressed not as a dative, rather with a morpheme ɗiŋŋémá or ɗìŋŋémá 'than, instead of'. In (xxx.b), 'to Boura' is dative as indirect object of 'give', not as a comparandum.

(xxx)   a.   [kàpé   jěn   dà   m̀   á   nǐ-rⁿà],
             [coffee pass be   1SgS Impf   drink-Impf]
             [àtê: ɗiŋŋémá]
             [tea   than]
             'I drink more coffee than (I drink) tea.'

        b.   [búrâ: dé]   jěn   dà   [m̀   á   ów-wàrà]
             [Boura Dat] pass be   [1SgS Impf give-Impf]
             [sáydù   ɗiŋŋémá]
             [Seydou than]
             'I will give more to Boura (man's name) than (I do to) Seydou.'

The **negative** counterpart of jěn dà is jèlú ŋ̀gó, with Stative Negative ŋ̀gó.

(xxx)   a.   mî   jèlú   ŋ̀gó   [wò   dé]   gúrù
             1SgS pass   Stat.Neg [3Sg Dat]   long.HL
             'I am not longer (=tallere) than him/her.'

In elicitation, I have occasionally recorded an adjective with its lexical tone in the construction with jěn dà (as an alternative to the same sequence with

{HL} tone overlay on the adjective). Thus (xx2.a) was elicited alongside (xx2.b). Textual data suggest that the type (xx2.b) with {HL} tone overlay is normal.

(xx2)   a.   m̀   [wò   dé]   jěn   dà   gùrú
             1SgS   [3Sg   Dat]   pass   be   **long**
             'I am longer (=taller) than he/she (is).'

        b.   m̀   [wò   dé]   jěn   dà   gúrù
             1SgS   [3Sg   Dat]   pass   be   **long.HL**
             'I am longer (=taller) than he/she (is).'

12.1.5   'Be better' (ìtó)

A defective stative verb ìtó is used in the sense 'be better'. No further expression of domain of reference is required. The reference comparandum appears in dative form. Suffixed forms are 3Sg ìt-ɔ́: and 3Pl ìtó-bɛ́.

(xxx)   a.   átté   ìtó   [káfé   dé]
             tea   be.better   [coffee   Dat]
             'Tea is better than coffee.'

        b.   [ǹ   dé]   ìt-ɔ́:
             [1Sg   Dat]   be.better-3SgS
             'He/She is better than I (am).'

    The negative is expressed by ìtó sà-rà.

(xx2)   m̀   [wò   dé]   ìtó   sà-rà
        1SgS   [3Sg   Dat]   be.better   not.be
        'I am not better than he/she (is).'

    It is also possible to use the regular 'be more' comparative jěn dà, followed by îtò 'be better' (note the HL tone) as domain of reference indicator. This construction is usual in the negative counterpart, with jèlú-ŋ̀gó 'not be more'/

(xxx)   a.   m̀ᵇ   [ò   dé]   jěn-dà   îtò
             1SgS   [3Sg   Dat]   be.more-Stat   being.better
             'I am better than he/she (is).'

253

b. [ǹ   dé]   jèlú-ŋg-ɔ́:   îtò
    [1Sg Dat]   be.more-Stat.Neg-3Sg   being.better
    'He/She is not better than I (am).'

12.1.6 'Be stronger than' (yⁿòmú-)

In contexts like wrestling, 'X is stronger than (=can easily defeat) Y' can be expressed by the verb yⁿóm\\yⁿówⁿó.

(xxx) a. ǹ   sáydù   á   yⁿòm-rò
           1SgS   Seydou   Impf   be.stronger.than-Impf
           'I can handle (=easily beat) Seydou.'

12.2 Symmetrical comparatives

12.2.1 'Be equal' (tùrî:)

In positive symmetrical comparatives, the two comparanda are normally conjoined. The predicate contains tùrî: '(one) single, sole, unitary', hence 'same (on some measure)'. It is morphologically a diminutive of túrú 'one'. tùrî: may be intensified by lók! (or lókù!), which here may be glossed 'exactly one (=exactly the same)'.

(xxx) a. [sáydù   [á:mádù lěy]] [césú   dé]   tùrî: lókù
           [Seydou   [Amadou and]] [strength Dat] one.single   exactly
           'Seydou and Amadou are exactly equal in strength.'

       d. [sáydù   [ǹ   lěy]   yà:fú:] [bɔ̀rùm   tùrî:]
           [Seydou   [1Sg and]   all]   [age.L   one.single]
           'Seydou and I are the same age.' (bɔ́rúm)

12.2.2 'Attain' (dɔ́-)

The verb dɔ́- 'reach, attain, arrive (at)' can be used in symmetrical comparatives ('X attains the size of Y'). It is most common in interrogatives ('Does X attain ...?') and in negative indicatives ('X does not attain ...'). The negatives constitute a translation equivalent for 'X is less ... than ...'.

(xxx) a. [sùŋù-ná: górò]   dɔ̀-rⁿɔ́   kɔ́

[snake.L-big length.HL] attain-ImpfNeg NonhSgS
'It (=snake) is not as long as a python.'
(lit.: "It does not attain the lengthe of a python.")

12.3 'A fortiori' (sáŋkɔ̀, sákkɔ̀)

The form sáŋkɔ̀ 'much less ..., a fortiori ...', variant sákkɔ̀, is an instance of a widespread regional form (with several variants), cf. Fulfulde sako, Bambara jonko, etc.

(xxx) m̀   pé-lěy   sà-rà,   sáŋkɔ̀   milyɔ̂ŋ   túrú
       1SgS   20   have-Neg, much.less   million   one
       'I don't have twenty (riyals), much less (do I have) a million (francs).'

13 Focalization and interrogation

13.1 Focalization

Focalization of a constituent (other than the verb) is expressed by the features in (xxx).

(xxx) a. the focalized constituent is **fronted** to clause-initial position (except that adverbs like 'yesterday' may precede them), leaving ∅ (zero) in the original position;

  b. a focalized pronominal takes **independent pronoun** form (e.g. 1Sg mî, Nonhuman kɔ́);

  c. a focalized third person subject does not take subject-pronominal agreement by suffixation on the verb;

  d. negative focalization ('it was not I who ...') is expressed by jĩnî ;

  e. (positive) **Focus** morpheme in the form of a low-toned Nonhuman pronominal, Singular kɔ̀ (occasionally Plural kɛ̀) follows the subject if it in turn is followed by a nonzero preverbal constituent;

  f. special morphology for **perfective positive** verbs.

WH-interrogatives ('who?', 'what?', 'how?', etc.) are intrinsically focal. In non-interrogative utterances, focalization expresses the highlighting of one constituent, with the remainder of the clause treated as backgrounded (presupposed, defocalized), as in giving a response to a WH-interrogative.

The special morphology of perfective positive verbs, notably the shift from Perfective-I to Perfective-II, is shared with relative clauses (§14.xxx).

13.1.1 Subject Focus morpheme (kɔ̀, Plural kɛ̀)

A **Focus** morpheme, usually kɔ̀ (identical in form to the low-toned Nonhuman Singular pronominal), appears in positive clauses after a focalized subject, if the latter would otherwise be directly followed by a **nonpronominal preverbal constituent**. Examples of relevant preverbal constituents are direct objects (xx1.a-c), spatiotemporal adverbials (xx1.d-e), and dative PPs.

(xx1) a. àyé   kɔ̀   bó:nì   bɔ̀   dá   má
       who?   **Foc**   Boni   go   be   Q

'Who is going to Boni (town)?'

b. sáydù   kɔ̀   nùŋó   nùŋó-sɔ̀
    Seydou   **Foc**   song   sing-Perf2
    'It was <u>Seydou</u> [focus] who sang (a song).'

c. ú   kɔ̀   gɛ́   á   gî-yàrà
    2Sg   **Foc**   dance(noun) Impf   dance-Fut
    'It is <u>you-Sg</u> [focus] who will dance (a dance).'

d. î   kɔ̀   ìnî   yè-só
    1Pl   **Foc**   here   come-Perf2
    'It was <u>we</u> [focus] who came here.'

e. mî   kɔ̀   yá: yè-só
    1Sg   **Foc**   yesterday   come-Perf2
    'It was <u>I</u> [focus] who came yesterday.'

f. yⁿà-mú   kɔ̀   ní   á   gágú-rà
    woman-Pl **Foc** water   Impf   draw-Impf
    'It's <u>women</u> [focus] who draw water.'

For **plural subject**, the corresponding Nonhuman Plural pronominal kè may be used when the focalized constituent is of this category (xx2).

(xx2) a. ké   kè   [[ùró   pùrò]   kù]   á   lù-rò
           NonhPl **FocPl** [[hole   belly] in]   Impf   go.in-Impf
           gàsì̀-n-ɛ́≡cɛ́
           dig-ImpfNeg-3PlS-\NonhPl
           'It's <u>they</u> (lizards) [focus] who go into the water, and they don't dig
           (burrows).' (2004-1a.10)

The Focus particle does not appear whent he subject is **directly followed by the verb**, i.e. in simple intransitives with subject focus (xxx.a)..

(xxx) a. mî   yè   dá
           1Sg   come   be
           'It was <u>I</u> [focus] who came.'

The Focus particle does not occur immediately preceding preverbal Imperfective particle á. In other words, á does not count as a "preverbal constituent" (xx2).

(xx2) àyé   á   gú-yàrà   má
      who?   **Impf** go.out-Fut   Q
      'Who will go out?'

   The Focus particle does not occur when the "preverbal constituent" immediately following the subject is **pronominal** (in any function) (xxx). This suggests that the following pronominals, e.g. 2Sg ú in (xxx.a) and the 2Sg dative PP in (xxx.b), are cliticized to the subject.

(xxx) a. mî   ú   wɔ̀-sɔ́
           1Sg   2SgO   see-Perf2
           'It was I [focus] who saw you-Sg.'

       b. àyé   [ú   dé]   ŋ̀gó   gá-sà   mà
           who?   [2Sg   Dat] Dem   say-Perf2   Q
           'Who said that to you-Sg?'

13.1.2   Negative focalization with jĩnî

Negative focalization, where the negation has scope over the focalized constituent itself ('it is/was not X [focus] who/that ...'), is expressed with jĩnî 'not be' (§11.2...) following the fronted focal constituent.

(xx1) a. mî   jĩnî   á   là
           1SgS   not.be   Impf   go.Impf
           'It's not I [focus] who is going.'

   This is of course to be distinguished from cases where the negation is internal to the backgrounded propositional material (e.g. 'it wax X [focus] who/that did not ...').

(xx2) sáydù   kɔ̀   yè-lí   ń
       S   Foc   come-PerfNeg   Rel
       'It was Seydou [focus] who didn't come.'

13.1.3 Inflectional (AN) modifications

The AN morphology of verbs is unaffected by the presence of a focalized constituent except in the perfective positive, on which see §13.xxx.

No change in AN suffixation occurs in simple intransitive 'go out' in the perfective negative (xx1.a-b) or in the imperfective positive (xx2.a-b). We get Perfective Negative gù-rí- and Imperfective (positive) gú-yàrà- whether the clause is unfocalized or focalized.

(xxx) a. gù-rí-wɔ́
           go.out-**PerfNeg**-3SgS
           'He/She did not go out.'

       b. àyé   gù-rí   má
           who?   go.out-**PerfNeg**   Q
           'Who did not go out?'

(xx2) a. á   gú-yɔ̀r-ǒː
           Impf   go.out-**Fut**-3SgS
           'He/She will go out.'

       b. àyé   á   gú-yàrà   mà
           who?   Impf   go.out-**Fut**   Q
           'Who will go out?'

There is likewise no change in AN morphology from unfocalized (xx3.a) to focalized (xx3.b-c) clauses in a transitive VP, using the imperfective positive. Note that tĕw-wàrà 'hit-Impf' is constant.

(xx3) a. nènú   î   á   tĕw-wàrà
           dog   1PlS   Impf   hit-**Impf**
           'We will hit the dog.'

       b. àyé   kɔ̀   nènú   á   tĕw-wàrà   mà
           who?   **Foc**   dog]   Impf   hit-**Impf**   Q
           'Who will hit the dog?'

       b. î   kɔ̀   nènú   á   tĕw-wàrà
           1Pl;S   **Foc**   dog   Impf   hit-**Impf**
           'It is <u>we</u> [focus] who will hit the dog.'

13.1.3.1 Perfective-II (-sɔ̀) replaces Perfective-I

All (non-stative) verbs make common use of either Perfective-Ia suffix -wɔ̀rè (-wòrè) or Perfective-Ib suffix -wɔ̀sǐ (-wɔ̀sǐ) in unfocalized clauses, though Perfective-II -sà (and variants) is also possible. When the clause includes a focalized constituent, these Perfective-I suffixes must be replaced. The simplest way to do this is to switch to Perfective-II -sà-. In the following section we will see that there is another option when the focalized constituent is the subject. Therefore Perfective-II -sà is regular under non-subject focalization, and competes with another construction under subject focalization.

(xx1) illustrates a simple unfocalized transitive with -wɔ̀sǐ-. (xx2.a-c) are focalized clauses involving the same verb and object as (xx1). Further examples of Perfective-II in focalized clauses are in (xx3).

(xx1) ǹ   nènú   wǒw-wɔ̀sǐ
       1SgS   dog   kill-**Perf1b**
       'I killed the dog.'

(xx2) a. àyé   kɔ̀   nènú   wǒw-sɔ̀   mà
           who?   **Foc** dog   kill-**Perf2**   Q
           'Who killed the dog?'

       b. mî̂   kɔ̀   nènú   wǒw-sɔ̀
           1SgS   **Foc**   dog   kill-**Perf2**
           'It was I [focus] who killed the dog.'

       c. [yàgá   dêŋ]   ú   kɔ̀   nènú   wǒw-sɔ̀   mà
           [which? place.HL] 2SgS **Foc** dog   kill-**Perf2** Q
           'Where did you-Sg kill the dog?'

(xx3) a. [yàgá   célà]   gú-s-ǒː   mà
           [which?   ?]   go.out-Perf2-3SgS   Q
           'When did he/she go out?'

13.1.3.2 Stative construction with dà or děn-dà 'be' replaces Perfective-I

As indicated in the preceding section, when any constituent in the clause is focalized, Perfective-I must be replaced. Perfective-II -sà is always available as an option, but in the special case where the focalized constituent is the subject, there is also another possibility. This is to combine the basic verb of the clause

(in its combining form, as in verb chains) with **intransitive** dà 'be' (§11.2.2) or **transitive** děn dà. This construction also occurs in main clauses as a stative derived from active verbs (§xxx). In each of (xx1-2), the (a) example is unfocalized and allows Perfective-I, while the (b) counterpart has a focalized subject and shifts to the stative construction.

(xx1) a. gú-wòr-ǒ:
           go.out-**Perf1a**-3SgS
           'He/She went out.'

       b. àyé   gú   dà   mà
           who?   go.out   **be**   Q
           'Who went out?'

(xx2) a. ìsî-wòr-ǒ:
           lie.down-**Perf1a**-3SgS
           'He/She lay down (=went to bed).'

       b. àyé   ìsî   dà   mà
           who?   lie.down   **be**   Q
           'Who lay down (=went to bed)?'

Transitive examples with děn dà are in (xx4).

(xx4) a. mî   kɔ̀   nàŋá   págî   děn   dà
           1Sg   Foc   cow   tie   **Trans** **be**
           'It was I [focus] who tied up the cow.'

       b. àyé   kɔ̀   nàwⁿá   kúw   děn   dà   mà
           who?   Foc   meat   eat   **Trans** **be**   Q
           'Who ate the meat?'

       c. [yó   kày]   ká
           [today   Topic]   say
           [ŋ̀gú   kɔ̀   [[ùró   kà   kù]   tígú   děn   dà]
           [DemSg   **Foc** [[hole   mouth]   in]   block   **Trans** **be**]
           [ùró   zú   dà   pét!]
           [hole   be.full   be   full.Intensifier]
           'Today, he said, when (=seeing that) that [focus] is what is blocking (=is stuck in) the opening of the burrow, the burrow is (=must be) chock full (of sheep).' (2004-1a.07)

13.1.4 Subject focalization

The structure of subject focalization can be pieced together from the preceding sections: clause-initial subject (if a pronoun, in independent pronoun form), no third person subject-pronominal suffixation on the verb, Focus morpheme kɔ̀ (under conditions given in §13.xxx, above) or its negation ȷ̃ı̂nı̂, and in the case of a perfective positive verb the morphological replacements described in §13.xxx-xxx, above).

(xx1)   a.   mı̂   ȷ̃ı̂nı̂   á   là
             1SgS   not.be   Impf   go.Impf
             'It's not I [focus] who is going.'

       b.   sáydù   á   wàsı̂-yàrà
             Seydou   Impf   remain-Fut
             'It's Seydou [focus] who will stay.'

       c.   á:dámà   gú   dà
             Adama   go.out be
             'It is Adama [focus] who has gone out.'

       d.   àyé   kɔ̀   nàŋá   kı̂-sà   mà
             who? Foc   cow   slaughter-Perf2   Q
             'Who slaughtered the cow?'

An adverb like 'yesterday' may precede the focalized subject. Such adverbs establish spatiotemporal settings and could be regarded as preclausal topical elements.

(xx2) yá: àyé kɔ̀   ı̌nı̂-sı̌   lá   dà   mà
       yesterday who? Foc   here-?   spend.night   be   Q
       'Who spent the night here yesterday?' [Tabi village dialect]
       (or: 'Yesterday, who spent the night here?')

13.1.5 Object focalization

The object (full NP or pronominal) is fronted. There is no Focus particle in positive clauses (xx1.a). Negative ȷ̃ı̂nı̂ if present directly follows the focalized object (xx1.b). In the perfective positive, Perfective-II -sà- or allomorph

replaces the Perfective-Ib suffix (xx1.d-e). Subject agreement is as in main clauses; note the 3SgS suffix in (xx1.a).

(xx1) a. cèrú   îw-ɔ̌:
           money   want-3SgS
           'He/She wants money.'

       b. cèrú   jĩnî   á   yⁿómú-r-ɔ̌:
           money   not.be   Impf   look.for-Impf-3SgS
           'It's not <u>money</u> [focus] that he's looking for.'

       c. èsé   ú   â: yⁿómú-rò   mà
           what?   2SgS   Impf   look.for-Impf   Q
           'What are you-Sg looking for?'

       d. èsé   ú   lí-sà   mà
           what?   2SgS   eat-Perf2   Q
           'What did you-Sg eat?'

       e.. èsé   m̀   [ú: dé]   ó:-sò   mà
            what?   1SgS   [2Sg   Dat]   give-Perf2   Q
            'What did I give to you-Sg?'

       f. àyé   ú   ∅   tɛ́w-sà   mà
           who?   2SgS   ∅   hit-Perf2   Q
           'Whom did you-Sg hit?'

An adverb like 'yesterday' may precede the focalized constituent.

(xx2) yá: yé   ú   lí-sà   mà
       yesterday   what?   2SgS   eat-Perf2   Q
       'What did you-Sg eat yesterday?' [Tabi village dialect]

13.1.6   Focalization of PP or other adverbial

The entire PP (not just the NP complement of the postposition) is fronted under focalization.

(xxx) a. [àyé   dé]   kɔ̀   cèrú   ó:-sò   mà
           [who?   Dat]   Foc   money   give-Perf2   Q

'To whom did you-Sg give the money?'

b. [[èsé   kú]   kù]
   [[what? head] in]
   ú   kɔ̀   súkkárà   kúl-sò   mà
   2SgS   Foc   sugar   put-Perf2   Q
   'What did you-Sg put the sugar in?'

13.1.7   Focalization of a clause

In response to a 'what are you doiing?' question (xxx.a), which presupposes a subject NP and calls for a reply with a (logical) focus on the VP, utterances like (xxx.b) were elicited. These have no specific marking of VP focus.

(xxx)   a.   èsé   ú   á   kà-là   mà
             what?   2SgS   Impf   do-Impf   Q
             'What are you-Sg doing?' (kár^{n}á)

        b.   m̀   ã̀:   zátú-rà
             1SgS   Impf   sweep-Impf
             'I am sweeping.'

13.1.8   Focalization of predicate nominal

An example of focalization of the subject (i.e. topic) of a NP predicate is (xxx).

(xxx)   ká   yé   kɔ̀   ŋú   nà   mà
        say   who?   Fos   DemSg   now   Q
        'It said (thought): who could that be?' (2004-1b.01)

13.2   Interrogatives

13.2.1   Polar (yes/no) interrogatives

The interrogative particle is clause-final ma, added to what is otherwise an ordinary main clause. The tone of the particle is often spread (i.e. copied) from the final tone of the preceding syllable. The form is often prolonged intonationally (⇒). When a yes/no question is expressed using both polar

clauses ('did he come, or didn't he come'), as is very common in dialogue, the intonational prolongation is conspicuous on the ma that concludes the first clause. In such paired interrogative clauses, the first also ends on higher-than-usual pitch (ma⇒↑), especially notable when the (copied) tone is low. Falling pitch, transcribed mâ⇒ has also been observed in a number of textual examples. In the paired polar interrogative construction, the second part is usually reduced by pruning out repeated nonverbal constituents, and its final ma may be more or less inaudible, but my assistant regularly restored it to full status in repeating taped occurrences during transcription.

(xx1)   a.   nì-né   ú   îwá   má
             water.L-drink 2SgS   want   Q
             'Do you-Sg want some water to drink?'

        b.   [[àw   wàsà   cín   nà]
             [[snake.L   other.L   DefPl   now]
             [ùró   mà]   á   gàsù-rà   mà⇒↑] [gàsù-ná   má⇒]
             [hole   ReflP] Impf   dig-Impf   Q]   [dig-Impf.Neg   Q]
             'The remaining snakes (and reptiles) now, do they dig their (own) burrow(s), (or) do they not dig (them)?' (2004-1a.10)

As a stalling or clarification device, a single ma phrase is often found at the beginning of a speaking turn in response to an interlocutor's question. Thus, when the question in (xx1.b) was posed, the other speaker began with àw wàsà cînî má 'the remaining snakes?', but then did not wait for the other speaker to confirm before beginning the actual reply.

ma is not confined to yes/no (polar) interrogatives. It optionally appears clause-finally in WH-interrogatives ('what?', etc.); examples occur in the sections below.

13.2.2   'Who?' (àyé)

'Who?' is àyé. Like other WH-type interrogative forms, it is understood as focalized and often appears with Focus particle kɔ̀.

(xxx)   a.   àyé   kɔ̀   ní   ní-sà   mà
             who?   Foc   water   drink-Perf2 Q
             'Who drank the water?'

        b.   àyé   ú   kɔ̀   lú:mà   wɔ̀-sɔ́   má
             who?   2SgS   Foc   market   see-Perf2 Q

'Who(m) did you-Sg see in the market?'

c. [wòtòrò   ŋú]   [àyé   sî]   má
   [donkey.cart.L Dem] [who   Poss]   Q
   'That donkey cart is whose?'

The overt plural àyé mǎ: is occasionally used to require a response involving a pluraltiy.

13.2.3 'What?' (èsé), 'with what?', 'why?'

'What?' is èsé in Tupere (yé in Tabi village). The plural èsé mǎ: 'what (things)?' is elicitable but uncommon.

(xxx) a. èsé   ú   îwà   mà
           what?   2SgS   want   Q
           'What do you-Sg want?'

       b. ŋ̀gú   [èsé   kɔ́   má]
           Dem   [what?   NonhSgS Q]
           'That, what is it?' (='What's that?')

'With (=by means of) what?' is èsé sǐ: (xxx).

(xxx) a. [èsé   sǐ:]   ú   kɔ̀   tĩrⁿú   á   kù-rò   mà
           [what?   with]   2SgS   Foc   firewood Impf split-Impf Q
           'With what do you-Sg split firewood?' (kú\\kó)

'Why?' (= 'for what?') is èsé kà:wà, with a possibly contracted variant èsé kà:. I have also heard the latter as ʾìsé kà:. It does not seem reasonable to connect this kà: with Relative kà: ~ kà:ⁿ, because of the semantics and because Relative kà: ~ kà:ⁿ occurs with a tone-dropped head NP.

(xxx) a. [èsé   kà:wà]   ú   yè-só   má
           [what?   because.of] 2SgS   come-Perf2 Q
           'Why (=for what reason) have you-Sg come?'

       b. [èsé   kà:]   lɛ́   l̃i-rĩ́-wó   má
           [what?   for]   meal   eat-PerfNeg-3SgS   Q
           'Why didn't he/she eat?'

267

13.2.4 'Where?' (yàgá, yà gírěy)

'Where?' as an adverb is yàgá. It is arguably a simplification of e.g. yàgá dêŋ 'which place?', which is also in common use. For yàgá 'which?', see §13.xxx, below.

(xxx) a. yàgá   ú   á   là   mà
       where?   2SgS   Impf   go.to.Impf   Q
       'Where are you-Sg going?'

      b. yàgá   î   kò   lέ   á   lí-yàrà   mà
       where?   1PlS   Foc   meal   Impf   eat-Impf   Q
       'Where are we going to eat?'

      c. yàgá   ú   á   gù-rò   mà
       where?   2SgS   Impf   go.out-Impf   Q
       'Where do you leave (=come) from?'

      d. yàgá   á   kò   [nàŋá   mǎ:]   pás-sà   mà
       where   2PlS   Foc   [cow   Pl]   leave-Perf2   Q
       'Where did you-Pl leave the cows?'

Predicate locational 'where is (X)?' is yàgá or the approximative yà gírěy 'around where?' (cf. *whereabouts?*). plus the locational quasi-verb dá 'be' (§11.xxx).

(xxx) a. yàgá   ú   dá   má
       where?   2SgS   be   Q
       'Where are you-Sg?'

      b. [yà   gírěy]   dá   bέ   má
       [where?   around]   be   3PlS   Q
       'Where are they?'

13.2.5 'When? (yàgá túŋò, yàgá célà, yàgá nây)

The forms in use are yàgá túŋò (cf. noun tùwⁿó 'time') and yàgá célà, both meaning 'when?' or 'what time?' (e.g. time of day), and yàgá nây '(on) what day?' For yàgá 'which?' see §13.xxx, below. The noun after yàgá has possessed-noun {HL} tone contour.

(xxx) a. [yàgá   túŋɔ̀]   î   á   lí-yàrà   mà
         [which?   time.HL]   1PlS   Impf   eat-Fut   Q
         'When are we going to eat?'

     b. [yàgá   nâyⁿ]   â: dɛ̌w-wàr-è≡bɛ́   má
         [which?   day.HL]   Impf   begin-Fut-3PlS-\3PlS   Q
         'When (=on which day) will they begin?' (dɛ̀wrá)

     c. [yàgá   célà]   gú-s-ɔ̌:   má
         [which?   time.HL]   go.out-Perf2-3SgS   Q
         'When did he/she go out?'

13.2.6   'How?' (yⁿàŋêy)

'How?' is yⁿàŋêy. It is often combined with kárⁿá 'do' ('do how?' = 'do what?')

(xxx) a. yⁿàŋêy   î   á   kàrⁿí-yⁿàrⁿà   mà
         how?   1PlS   Impf   do-Fut   Q
         'How (=what) will we do?'

     b. [yⁿàŋêy   kárⁿá   mà]
         [how?   do   and.SS]
         î   kɔ̀   îló   á   mǎyⁿ-yⁿàrⁿà   mà
         1PlS   **Foc**   house   Impf   build-Fut   Q
         'How do we build a house?'
         (lit.: "Doing how, we build a house")

13.2.7   'How much?', 'how many?' (àŋí)

'How much?' or 'how many?' is àŋí.

(xxx) àŋí   ú   îwà   mà
     how.much? 2SgS   want   Q
     'How much (or: how many) do you-Sg want?'

    The distributive reduplication is àŋí-àŋí 'how much (per unit, at a time, etc.)'.

13.2.8 'Which?' (yàgá)

'Which X?' with some noun X is [yàgá X] or [yàgá-sî X]. The noun X is treated tonally as a **possessed noun**, with {HL} tone contour overlaid.

(xxx) a. [[yàgá-sî îlò] kù] ẃ a: sǐgî-yàrà mà
           [[which house.HL] in] 2SgS Impf go.down-ImpfQ
           'In which house do you lodge ("go down," i.e. after work)?' (îló)

       b. [yàgá nâyⁿ] yè-s-é≡bɛ́ má
           [which? day.HL] come-Perf2-3PlS-\3Pl Q
           '(On) which day did they come?'

       c. [yàgá-sî ɛ́rⁿà] ú îwà mà
           [which? goat.HL] 2SgS want Q
           'Which goat do you-Sg want?' (ɛ̀rⁿá)

13.2.9 'Whatchamacallit?' (ɛ́n-ná, yⁿàŋêy dú)

In texts, 'whatchamacallit?' hesitations are often expressed by ɛ́n-ná, a contraction beginning with a variant of ɛ́sú 'thing'. Also attested in this function is yⁿàŋêy dú, which includes yⁿàŋây 'how?' (cf. French *comment dirais-je?*).

13.2.10 Embedded interrogatives

This section treats interrogatives embedded under a verb like '(not) know'.

    Embedded **polar interrogatives** may be expressed using clause-final **interrogative particle** ma. The embedded clause is otherwise similar to a main clause, except that a third-person pronominal subject is expressed by a **preverbal subject pronominal** rather than by a suffix. The embedded polar interrogation may be expressed as a single clause (whose truth is in play) (111.a), or the alternatives may be spelled out (xxx.b). In the latter case, the nonfinal embedded clause normally ends in nonfinal intonation (higher than usual terminal pitch).

(xxx) a. [m̀ înà] [wɔ́ yèrú-wòrè mà]
           [1SgS not.know] [3SgS come-Perf1a Q]
           'I did not know (=was unaware) that he/she had come.'

b. [m̀   ínà]   [wɔ́   bǎyⁿ   dà   mà⇒↑],
[1SgS not.know] [3SgS alive   be   Q],
[wɔ́   nù-núm   dà   mà]
[3SgS Rdp-die   be   Q]
'I don't know whether he/she is alive or has died.' (núwⁿó)

Alternatively, the explicit 'whether ...' particle yélà may be used. In this case, the 'whether ...' clause may precede or follow the higher clause (e.g. 'I don't know'). Again, third person pronominal subjects are expressed by preverbal pronominals.

(xxx) yélà   [kó   kày]   á   bǐ-bíw-rà,
whether [NonhSg Topic] Impf   Rdp-bury-Impf,
kɔ́   kɔ́   bǐw-nà,   [kó   kày] [m̀   ínà]
NonhSgS NonhSgO   bury-ImpfNeg,[NonhSg   Topic] 1SgS   not.know
'Whether that one (=lizard) buries (its egg), or (whether) it does not bury it, I don't know.' (2004-1a.10)

Embedded WH-interrogatives like 'I don't know [who is coming]' are expressed as e.g. 'I don't know [the person who is coming]'. That is, a generic noun ('person', 'thing', 'place', 'time', 'quantity', 'manner'), with an attached **relative clause**, is the direct object of 'know'. The Relative morpheme kà: is optional.

(xxx)   a. [m̀   ínà]   [nù-ŋ   kà: á   yà-rà   ń]
[1SgS not.know][person-Sg.L Rel   Impf   come-Impf   Rel]
'I don't know who is coming.'

b. [m̀   ínà]   [ɛ̀sù   î   á   lí-yàrà   ń]
[1SgS not.know] [thing.L   1PlS Impf   eat-Impf Rel]
'I don't know what we will eat.'

c. [m̀   ínà]   [dèŋ   kà: kálá: bé   núm-sò   ń]
[1SgS not.know] [place.L   Rel   any   3PlS   die-Perf2   Rel]
'I don't know where they died.'

d. [m̀   ínà]   [dèŋ   wɔ́   dá   ń]
[1SgS   not.know] [place.L   3SgS   be   Rel]
'I don't know where he/she is.'

14 Relativization

14.1 Basics of relative clauses

Relative clauses are characterized by a morpheme ŋ́ (arguably an allomorph of the demonstrative pronoun) at the end of the clause, by the absence of pronominal-subject suffixes on the verb, and by an optional but very common Relative morpheme kà: (variant kà:ⁿ in careful speech) that immediately follows the head NP, which remains within the relative clause proper (but see comments just below). The head NP's its tones drop to all-low, a detail that suggests a possible connection with adjectival modification. In a non-subject relative, a pronominal subject is expressed by a preverbal pronominal in regular subject position; this is not only true for 1st/2nd person pronouns but also for third person pronouns, which in main clauses are postverbal. Determiners, universal quantifiers, and Plural bέ associated with the head NP are shifted to clause-final position, following ŋ́.

Occasionally the head noun is repeated after the relative clause proper, in possessed-noun tonal form (§14.xxx). This is not a productive construction, and all textual examples involve a few semantically light spatiotemporal nouns ('place', 'day', etc.).

While other Dogon languages that I have worked on clearly have an internal head NP, which may be preceded by one or several other clausal constituents, in TT the great majority of textual (and elicited) occurrences position the head NP at the beginning of the clause. In view of this, and the fact that the head NP is optionally followed by Relative kà: (which has some features of a relative pronoun), one might argue that in TT the head NP precedes (i.e. is external to) the relative clause proper (as e.g. in English). However, there are some textual occurrences in which another clause-internal constituent precedes the head NP, like the adverb 'far away' in (xx1).

(xx1) [kó   kɔ̀]   [[wà:gá   nù'n   dá   ŋ́]
      [NonhSg Foc] [[far.away(adverb) person-Sg.L be   Rel]
      έgú'wɔ̀sǐ   tán]
      hear-Perf1b   if]
      'Then if (even) a person who was far away heard (it)' (2004-2a.08)

273

Note also the location of Relative kà: following 'Toupéré' (village name) in the headless relative in (xx2), suggesting that if a phonologically null (∅) head NP (with a meaning like 'manner, way') is considered to be virtually present, it would again be noninitial.

(xx2) tùpéré   ∅   kà: dĭŋ-sò   ń
        T   (way)   Rel   sit.down-Perf2   Rel
        'the way Toupéré (village) was established' (2004-2a.01)

Accordingly there is evidence that the head NP is (or can be) clause-internal, in spite of its frequent clause-initial position that hints at a shift to clause-external position.

§2.4 summarizes differences and similarities between TT and other Dogon (e.g. Jamsay) relative clauses.

14.1.1   Tone-dropping on final word(s) of NP in relative clause

A noun or adjective, as final word in a NP in a main clause, has at least one H-tone. As head NP of a relative, this word **drops its tones**. If the core NP (noun plus any modifying adjectives) has more than one word, the noninitial words are already tone-dropped. In interlinears, tone-dropping is indicated by ".L" after the gloss.

(xxx)   a.   nàwⁿà   kà: ǹ   zàlú-sà   ń
            meat.L   Rel   1SgS   cook-Perf2   Rel
            'the meat that I cooked' (nàwⁿá)

       b.   [nàwⁿà   jèrⁿù]   kà: ǹ   zàlú-sà   ń
            [meat.L   **good.L**]   Rel   1SgS   cook-Perf2   Rel
            'the good meat that I cooked' (nàwⁿà jèrⁿú)

In (xxx.a), nàwⁿá 'meat' is a one-word NP, and drops tones to nàwⁿà as relative head. In (xxx.b), this noun has already dropped its tones to nàwⁿà due to the following modifying adjective (§6.xxx), so it is not audibly affected by its status as part of the relative head NP. However, the adjective 'good' does audibly drop its tones.

In the combination of a **noun plus a numeral**, the noun does not undergo tone-dropping in a main clause, so both the noun and the numeral have at least one H-tone (xxx.a); see §6.xxx. When such a NP functions as relative head NP, **both words undergo tone-dropping** (xxx.b).

(xxx)   a.   nàŋá   tà:lî
             cow   three
             'three cows'

        b.   [nàŋà   tà:lǐ]   kà: ŋ̀   cî-sà   ŋ̀   kúnú
             [**cow.L   three.L**] Rel   1SgS slaughter-Perf2 Rel.L DefSg
             'the three cows that I slaughtered'

        c.   [àrà'm   tà:lǐ] kà:, [àrǎ'm   pé'tà:lí] yⁿŏm'sò   ŋ́
             [man-Pl.Lthree] Rel, [man-Pl thirty] be.stronger.than-Perf2Rel
             'the three men who overpowered thirty men' (2004-2a.01)

A possessor NP within the head NP is unaffected by this tone dropping. True possessor NPs, in fact, are always **tonosyntactic islands** that are never affected by the form of the possessed noun or by any wider syntactic constructions.

(xxx)   a.   sáydù   ɔⁿsùrⁿù
             S   younger.sibling.L
             'Seydou's younger brother'

        b.   [[sáydù   ɔⁿsùrⁿù]
             [[S   younger.sibling.L]
             kà: mótǐ   bîrá   á   bǐ-tà   ŋ̀   kúnú]
             Rel   Mopti work(noun) Impf work-Impf   Rel.L DefSg]
             â: yá-r-ǒ:
             Impf   come-Impf-3SgS
             'Seydou's younger brother who works in Mopti, he is coming.'

        c.   [sáydù   ǐlò]   (kà:)   lǔw   dà   ŋ̀   kúnú
             [S   house.L] (Rel)   fall   be   Rel.L DefSg
             'Seydou's house that has collapsed'

        d.   [sáydù   èrⁿà]   (kà:)   bùsú   dà   ŋ́
             [S   goat.L] (Rel)   animal.die be   Rel
             'Seydou's goat that died'

[my dog who died]
[this man's dog who died] etc.   (dog {HL} or {L} toned?)
from Hamma Tabi
     [ŋ̀ nénù núm sò ŋ̀] yàgá dà mà

275

'my dog that died'
[yⁿàrⁿù ŋ́gú nénù núm sò ŋ̀], yàgá dà mà
'where is this woman's dog that died?'

14.1.2 Restrictions on the head noun in a relative clause

A pronoun may not be relative-clause head. However, an independent pronoun may occur pre-clausally (in its normal tone contour), with an appositional "resumptive" noun nù-ŋ (from nù-rⁿú 'person') as clause-internal head noun.

(xxx) a. ú   [nù-ŋ   kà: ìnî   á   sîgú-rò   ŋ́]
           2Sg [**person-Sg.L** Rel   here Impf   go.down-Impf   Rel]
           'you-Sg who live here'

       b. î   [nù-m   kà: ìnî   dà   ŋ́]
           1Pl [person-Pl..L   Rel   here   be   Rel]
           'we who are here'

14.1.3 Relative clause with conjoined NP as head

When a conjoined NP of the type [X∴ Y lɛ̌y] 'X and Y' is the head NP of a relative, only the conjunctive morpheme lɛ̌y has its tones lowered. Thus contrast (xx1.a), whose simple head noun has its tones dropped, with (xx1.b), where except for the morpheme lɛ̌y the two NPs constituting the conjunction keep their tones. In other words, a NP inside a conjunction is a **prosodic island** not subject to syntactic tone dropping. Even the tone-dropping on lɛ̌y is hardly perceivable, since it is optionally pronounced lɛ̀y with low tone in non-relative contexts, especially before a pause.

(xx1) a. [àrà-m   zɔ̀ŋú-sɔ̀   ŋ̀   cînî]   tílú-wɔ̀s-è
           [man-Pl.L   fight-Perf2   Rel.L   DefPl]   shut-Perf1b-3PlS
           'They have shut up (=imprisoned) the men who fought.' (àrǎ-m)

       b. [[àrǎ-m∴ yⁿǎ-m   lɛ̌y] kà: zɔ́ŋɔ̀   zɔ̀ŋú-sɔ̀   ŋ̀   cînî]
           [[man-Pl-&   woman-Pl   and]   Rel
                    fight(noun)   fight-Perf2   Rel.L   DefPl]
           tílú-wɔ̀s-è
           shut-Perf1b-3PlS
           'They have shut up (=imprisoned) the men and women who fought.'

276

14.1.4   Generic head nouns ('someone', 'something')

Nouns denoting generic ontological categories (human, thing, time, place) occur frequently as heads of relative clauses. Some of them have slightly specialized form, and one ('day') has a suppletive lexical form.

(xxx)	gloss	independent	as relative head	gloss
	'person'	nù-rⁿú	nù-ŋ kà: ...	'a person who ...'
	'people'	nù-mú	nù-m kà: ...	'people who ...'
	'thing'	ésú	ès kà: ...	'a thing that ...'

In a given context, these heads may be definite, denoting a specific individual ('the person who ...', 'the thing that ...'). However, they may also be used generically: 'someone (anyone) who ...' = 'whoever ...', or 'something (anything) that ...' = 'whatever ...'. The distinction is usually made explicit by using either a determiner ('the', 'this/that') or a more general quantifier ('any', 'all') at the end of the clause.

As noted in the preceding subsection, nù-ŋ kà: 'person who ...' is also used in apposition to a first or second person pronoun. Other examples of nù-ŋ kà: are in §14.5 and §14.2.2 (the latter also has an example of its plural nù-m kà:).

(xxx) [ès   kà: ú   á   l̃i-rà   ŋ́]   jèrⁿú   sàrà
      [thing.L Rel   2SgS   Impf   eat-Impf   Rel]   good   not.be
      'What you-Sg eat isn't good.'

In negative contexts, '(not) any X' may be expressed using tíŋéy with one of the forms in (xxx), above. The most common combination is '(not) any thing', which is usually compressed into a single word as ès-tíŋéy or èn tíŋéy (there are also variants with -túŋéy). For '(not) any person' (i.e. 'no-one'), the attested form is nù-rⁿù tígéy.

For 'when(-ever) ...' and similar temporal clauses, see §xxx. For 'where(-ever) ...' and similar spatial clauses, see §xxx.

14.1.5   Headless relative clause

The head NP is sometimes omitted. The Relative morpheme kà: may or may not remain. The omission of a head NP occurs with high-frequency and

semantically light head nouns like 'place (where ...)' or 'way/manner (how ...)'. In (xxx), a 'way/manner' head is understood. kà:-yèrú is clearly not the head, as shown by the context and by its high tone.

(xx1) [[kà:-yèrú   ∅   kà: dá   ŋ́]   kâyⁿ]   dá≡kɔ́
     [[tree.locust Ø   Rel   be   Rel]   like]   be-\NonhSgS
     'It (= pilgrim locust) is like the way tree locust is.'

    A headless relative may also be used when the head is contextually understood due to prior discourse. This construction is facilitated by a preceding existential ('there is/are'), as in (xxx), which occurred in the middle of a text about mantises.

(xxx) á   dà   [kà: [kúrɔ́   sá]   á   cǐ-tò   ŋ́],
     Impf   be   [**Rel**   [hair   have]   Impf   fly-Impf   **Rel**]
     á   dà   [kà: kúrɔ́   sà-rá   ŋ́]
     Impf   be   [**Rel**   hair   have-not   **Rel**]
     'There are (some) that have wings and fly, and there are (some) that don't have wings.' (2004-1b.04) (cîró)

14.1.6   Preverbal subject pronominal in relative clause

Third person subject pronominals, which are expressed in main clauses by suffixed on the verb, are expressed in relative clauses by preverbal subject pronominals. They occur in the same position as first/second person subject pronominals, which are always preverbal.

(xxx)   a.   [lɛ̀   kà: wɔ́   lí-sà   ŋ́]   jɛ̀rⁿú   sàrà
         [meal.L   Rel   **3SgS**   eat-Perf2 Rel]   good   not.be
         'The meal that he/she ate was not good.' (jɛ̀rⁿú)

      b.   [này   kà: bɛ́   yǎy-sà   ŋ̀   kúnú]   àrⁿá   mùrú-sɔ̀
         [dayl.L   Rel   **3PlS**   go-Perf2 Rel.L   Def]   rain   rain.fall-Perf2
         'The day when they went, rain fell (=it rained).'

      c.   m̀   înà   [ɛ̀s   kà: kɛ́   á   lǐ-rà   ŋ́]
         1SgS   not.know   [thing.L   Rel   **NonhPlS**   Impf   eat-Impf   Rel]
         'I don't know what they (=animals) eat.'

278

14.1.7   Relative particle ń

In a relative clause, the Relative particle ń (syllabified with a preceding word-final vowel) comes at the end of the clause, i.e. following the verb and any postverbal adverbs. Unlike the "participial" verbal suffixes in relative clauses in other Dogon languages, such as Jamsay, this ń particle is not suffixed to the verb, and it does not agree with the head NP in nominal features (humanness, number).

   It is likely that Relative ń is etymologically related to the singular 'this/that' demonstrative ǹgú, which can reduce to ń when used as a postnominal modifier (§4.4.1). Definite dterminers are used in certain other languages of the region to mark the right edge of a relative clause (e.g. Humburi Senni dì).

   Plural particle mǎ: is optionally added after ń when the head NP is plural. The combination is pronounced [ńmǎ:]. Since the head NP is generally overt (except in adverbial clauses with covert 'time that ...' or 'place where ...' as implied head), mǎ: is redundant when the head NP contains a human noun that is already marked suffixally for plurality (xx1.b). When the head NP is based on a nonhuman noun that does not mark number, or when it is a human kin term that has no suffixal number marking, mǎ: may be the only marker of plurality (xx1.d). Plural mǎ: cannot be added to the head NP itself inside the relative clause; for example, (xx1.e) was rejected by my assistant.

(xxx)   a.   yⁿà-rⁿù   kà: yè-lî   ń
             woman-Sg.L   Rel   come-PerfNeg **Rel**
             'the woman who didn't come.'

        b.   yⁿà-m   kà: yè-lî   ń   (mǎ:)
             woman-Pl.L   Rel   come-PerfNeg **Rel**   **(Pl)**
             'the women who didn't come.'

        c.   nàŋà   kà: yè-lî   ń
             cow.L   Rel   come-PerfNeg   **Rel**
             'the cow that didn't come'

        d.   nàŋà   kà: yè-lî   ń   (mǎ:)
             cow.L   Rel   come-PerfNeg   **Rel**   **(Pl)**
             'the cows that didn't come'

        e.   #[nàŋà   mà:]   kà: yè-lî   ń
             [cow.L   **Pl.L**]   Rel   come-PerfNeg   **Rel**
             [ungrammatical version of (d)]

That ŋ́ need not be placed immediately after the verb is showed by such examples as (xx2), where an adverbial PP follows the verb and precedes ŋ́.

(xx2) a. [kó   zǒw   lú-sɔ̀≡kɔ́   [[ùró   pùrò]   kù]   ŋ́]
           [NonhSg run   enter-Perf2-\NonhSgS   [[hole   inside] in]
                   Rel]
           đirⁿú-sà≡kɔ́
           encounter-Perf2-\NonhSgS
           '(At the time) when it (= Hyena) ran inside the burrow, it found ...'
           (2004-1a.07)

       b. [níŋ   kày] [ès   kà: ú   úkù   [kè   dé]   ŋ́]
           [now Topic] thing.L Rel 2SgS know [**NonhPl Dat**]   **Rel**]
           'Now, (tell) what you know about them' (2004-1b.02)

14.1.8   Perfective-II replaces Perfective-I

The special morphological features of (defocalized) perfective positive verbs noted in the preceding chapter for focalized clauses also apply to relative clauses.

Perfective-II -sɔ̀ replaces Perfective-Ib -wɔ̀sǐ or Perfective-Ia -wòrè (and their variants) in any subject or non-subject relative.

(xxx) a. nènù   kà: ǹ   cérú-sà   ŋ́
           dog.L   Rel   1SgO   bite-**Perf2**   Rel
           'the dog that bit me'

In subject relatives, the speaker may alternatively use a construction with 'be' quasi-verb dà replacing of Perfective-Ia -wòrè for intransitives (xx2.a). The counterpart that replaces Perfective-Ib -wɔ̀sǐ with transitives is děn dà (xx2.b).

(xxx) a. bèlù   kà: [ùró   kù]   lú   dà   ŋ́
           sheep.L Rel   [hole   in]   enter   **be**   **Rel**
           'the sheep-Sg that went into the hole.'

       b. nènù   kà: ǹ   cér   děn   dà   ŋ́
           dog.L   Rel   1SgO bit   **Trans** **be**   Rel
           'the dog that bit me'

       c. [ès   kà: kárⁿú   děn   dà   ŋ́]
           [thing.L Rel   do   **Trans** **be**   Rel]

'the thing that it did' (2004-1b.01)

14.1.9 Relative clause based on negative verb or predicate

A relative may be created from any predication, positive or negative. Examples based on negative predicates are in (xx1). Incidentally, (xxx.a) is a possessor relative clause (§14.4).

(xxx)   a.   à-nù   kà: [j̃ìrò   kùrɔ̀]   ̀ŋgú   gúrù]
             man-Sg.L Rel   [eye.L   hair..L]   DemSg   long.HL]
             dɔ̀-rî   ́ŋ   yà:fú:
             reach-PerfNeg   Rel   all
             'anyone whose eyelash is not as long (as this)' (2004-1b.01)

        b.   [ìsɔ̀-súmĕy   káyà   kày]   [súrⁿú   j̃ìnî   ́ŋ]
             [sand   grasshopper   Topic]   [worm   is.not   Rel]
             'as for "sand grasshopper," (one) that is not (= unless you're talking
             about) a worm (= larva), …' (2004-1b.03)

See also (xx1) in §14.1.10 ('anyone who cannot …').

14.1.10 Final morphemes added to relative clause (non-tone-dropping)

Plural morpheme mă: may be added after the Relative marker ŋ, denoting plurality of the head NP. The presence of mă: has no tonal effect on the preceding words. However, mă: is added to Relaive kà: (i.e. as part of the head NP) in (xx1.b).

(xx1)   a.   nàŋà   kà: yè-lî   ́ŋ   mă:
             cow.L   Rel   come-PerfNeg   **Rel**   Pl
             'the cows who didn't come.'

        b.   [ès   kà: mă:]   kɔ́   á   l̃ì-rà   ́ŋ
             [thing.L Rel   Pl]   NonhSgS Impf   eat-Impf   Rel
             'the things that it (= grasshopper) eats' (2004.1b.02)

Distributive quantifier kálá: 'each', in the sense 'any', may occur at the end of a relative clause (xx2).

(xx1)   nù-ŋ   kà: [bɔ̀sɔ̀   ̀ŋgú]   bɔ̀sú   bɛ̀-ná   ́ŋ   kálá:

281

person-Sg.L   Rel   [excrement.L   DemSg]   defecate
              can-ImpfNeg   Rel   each
'anyone who cannot defecate this (much) excrement' (2004-1b.01)

14.1.11 Final morphemes added to relative clause (tone-dropping)

In (xx1.a-b), we find low tone on the Relative morpheme ǹ, which is otherwise high-toned ń. This is attributable to the **Definite morpheme** kúnú, which has a similar tone-dropping effect on simple preceding nouns (§6.xxx).

(xx1)   a.   yⁿà-rⁿù   kà: yè-lí   ǹ   kúnú
             woman-Sg.L Rel   come-PerfNeg   **Rel.L   DefSg**
             'the woman who didn't come.'

        b.   [yⁿà-m̀   tà:lì]   yè-lí   ǹ   cînî
             [woman-Pl.L   three.L] come-Perf.Neg Rel   DefPl
             'the three women who didn't come'

   The other morphemes that follows Relative ń with similar tone-dropping effect are the demonstrative pronouns, e.g. singular ǹgú (ŋú, ń), as in (xx2). These pronouns also produce tone-dropping on a preceding noun.

(xxx)   a.   àyé   kɔ̀   [ɗiŋgù-rí   ǹ   ŋú]   mà
             who? Foc [sit-PerfNeg **Rel.L   DemSg**]   Q
             'Who is this one who did not sit down?'

        b.   [kɔ̀   yⁿà-rⁿù   kà: àsí   á   zàŋgù-rà   ǹ   ŋú]
             [Def woman-Sg.L Rel   LogoS Impf seek-Impf**Rel.L DemSg**]
             'this woman that I am courting' (2004-1b.01)

   Observer that the verb of the relative clause is tonally unaffected by the tonal change on Relative ń in these examples.

14.1.12 Occasional repetition of low-toned head noun after relative clause

Repetition of the head noun following the relative clause proper, a typical feature of Jamsay, is not usual in TT. My data suggest that this repetition is typical only of semantically light spatiotemporal nouns, in spatiotemporal adverbial relatives, specifically nǎy 'day' (by extension, 'times', 'era') and děŋ

'place'. In the following textual examples, two occurrences of low-toned này flank the remainder of the relative clause.

(xx1) a. [này [ànànsá:rá níŋgèy] bɛ́ zɔ́ŋ'rɔ̀ ń] này
           [**day.L**[European beside] 3PlS fight-Impf **Rel**] **day.L**
           'at the time when they were fighting against the whites, …' (2004-
           2a.01)

       b. háɬì [[này ànànsá:rá tá á ùní'yⁿàrⁿàɲ́] này]
           until [[**day.L** European Tabi Impf go.up-Fut **Rel**] **day.L**
           'until the day when the white was about to go up Tabi Mountain'
           (2004-2a.01)

I heard low-toned này on the post-relative occurrence of nǎy in both textual examples. That is, the post-relative occurrence has possessed-noun tone contour, indicating that the relative clause proper is here functioning as possessor.

A similar example with repeated děŋ 'place', in two occurrences in low-toned form dèŋ, is (xx2). The Dative postposition dè is also repeated, the relative-internal occurrence following Relative kà:.

(xx2) [yá bɛ́ pás's'è]
       [there 3PlO leave-Perf2-3PlS]
       [[[dèŋ kà: dè kóy'kǒyrà á gà'r'è ń] dèŋ] dè]
       [[[**place.L** **Rel Dat** KK Impf say-Impf-3PlS **Rel**]
              place.L] **Dat**]
       'They left them there, for (= at) the place (= village) that they call
       Koykoyra.' (2004-2a.01)

In (xx3), a similar combination with two occurrences of bùrú 'year' might have been expected, but the one that would have been inside the relative clause proper is omitted. Again, the post-relative noun is a high-frequency spatio-temporal noun. I hear it as {HL}-toned búrù, which is one of the possible possessed-noun tone contours.

(xx3) [í kɔ́ bě:'sǐ ń] búrù kày,
       [1PlS NonhSgO get-Perf1b **Rel**] **year.HL** Topic,
       àlhámɖìřìllá:hì [í á ɬì'rà ní]
       praise.God [1PlS Impf eat-Impf Emph]
       [háɬì háɬì [yù kàlá] gó]

283

[until   until   [millet.L   new]   go.out.Imprt]
'(In) a year when we have gotten it (= had a good harvest), praise God, we will eat (from the previous harvest) until the new millet comes out.' (2004-2a.06)

14.2 Subject relative clause

14.2.1   Ordinary subject relative clause

Positive imperfective examples with Rel ending ɲ́ (or tone-dropped ɲ̀ before a determiner) are in (xxx).

(xxx) a. yⁿà-rⁿù   kà: [ìlò   ŋgú]   á   zàtù-rà   ɲ́
           woman-Sg.L Rel   [house.L Dem]   Impf   sweep-Impf **Rel**
           'the woman who is sweeping the house' (yⁿà-rⁿú)

       b. yó   à-rⁿù   yè-só   ɲ̀   kúnú   kày
           yesterday man-Sg.L come-Perf2   Rel.L   DefSg   Topic
           'as for the man who came yesterday' (2004-1b.01)

When the activity in question defines a type of person (e.g. by occupation), we get an Agentive construction with Singular suffix -nú ~ -n (Plural -mú ~ -m) instead of a Relative clause with final ɲ́, but otherwise identical in structure to the type (xxx); see §14.xxx, below.

Other AN categories require ɲ́ as the Relative morpheme. Examples with negative verbs are in (xxx).

(xxx) a. [nù-ŋ   kà: bírá   bǐ-ná   ɲ́]
           [person-Sg.L Rel   work(noun)   work-**ImpfNeg Rel**]
           dà   jɩ̃rî   wɔ́   lɛ́   l-ɛ́
           ?   not.be   3SgS   meal   eat-Hort
           'A person who doesn't work, he/she should not eat.' (nù-rⁿú)

       b. [nù-ŋ   kà: yá: bǐ-lî   ɲ́]
           [person-Sg.L Rel   yesterday   work-**PerfNeg Rel**]
           m̀   wɔ́   nàrⁿù   pàsí-yàrà
           1SgS   3SgO   chase.away.L   leave-Impf
           'The person who didn't work yesterday, I will chase him/her out (and leave him/her).' (nù-rⁿú)
           [for low-toned nàrⁿù before Future verb, see §3.7.2.3]

Examples with perfective positive verbs are in (xxx).

(xxx) a. m̀ ínà [yⁿà-rⁿù kà: yè-só ń]
1SgS not.know [woman-Sg.L Rel come-**Perf2** **Rel**]
'I don't know the woman who came.' (yⁿà-rⁿú)

b. yⁿà-rⁿù kà: yá: lέ kárⁿú-sà ń
woman-Sg.L Rel yesterday meal do-**Perf2** **Rel**
'the woman who cooked yesterday.' (yⁿà-rⁿú)

14.2.2 Clausal agentives

Clausal agentives (functioning like subject relatives that specify an occupation or other defining activity) are exemplified in (xxx). They are identical in structure with ordinary Imperfective subject relatives, except in using Agentive suffix -n rather than Relative particle ń.

(xxx) a. yⁿà-rⁿù kà: lέ á kà-là-n
woman-Sg.L Rel meal **Impf** do-**Impf-Agent**
'the woman who cooks'

b. nù-ŋ kà: kú á kà-rà-n
person-Sg.L Rel head **Impf** shave-**Impf-Agent**
'one who shaves heads'

c. nù-m kà: ̌ìnî bîrá á bǐ-tà-n
person-Pl.L Rel here work(noun) **Impf** work-**Impf-Agent**
'the people who work here.'

The attested lexicalized agentives are compounds of the *deerslayer* variety. In this case, the compound initial denotes a typical direct object, or is a cognate (or other default) nominal associated with the verb. The regular tonal pattern is [x̀ v́-Agentive], with low-toned (tone-dropped) noun stem as the initial, and H-toned verb stem in agentive form with Singular -nú ~ -n or Plural -mú ~ -m as the final (§5.1.9).

14.2.3 Relative from comparative

For the basic comparative construction, see §xxx. Relative ŋ **occurs clause-finally** after the adjective or noun denoting the domain of reference in (xxx).

(xxx) [[kò dé] ná: ŋ] î wɔ̀-ɽ́⇑,
[[Nonh Dat] size Rel] 1PlS see-PerfNeg,
[[kò dé] césú ŋ] mánǐ î wɔ̀-ɽ̌⇓
[[Nonh Dat] strengthRel] also 1PlS see-PerfNeg
'We haven't seen anything as big as that, (and) we also haven't seen anything as powerful as that.' (2004-1a-10, referring to elephants)

Likewise: [[ŋgù dé] gùrú ŋ́] ǹ̩ wɔ̀-ɽ́ 'I haven't seen anything as long as that' (gùrú 'long').

14.3 Object relative clause

14.3.1 Ordinary object relative clause

The direct object is relativized on in (xx1).

(xxx) a. [nàwⁿà î kúw-sò ŋ́] jɛ̀rⁿú sàrà
[meat.L 1PlS eat-Perf2 Rel] good not.be
'The meat that we ate is (was) not good.' (nàwⁿá, gɛ̀rⁿú)

b. [kɔ̀ kùwɔ̀-kà là:lèy] àsí á wɔ̀-rɔ̀ ǹ̩ ŋú nà
[Dem footprint.L tiny.L] LogoS Impf see-Impf now
Rel.L DemSg now
'(Elephant thought:) now (as for) those tiny footprints that I see' (2004-1b.01)

c. [kɔ̀ yⁿà-rⁿù] kà: àsí á zàŋù-rà ǹ̩ ŋú
[Dem woman-Sg.L] Rel LogoS Impf court-Impf
Rel.L DemSg
'(Elephant thought:) the woman that I am courting' (2004-1b.01)

14.4 Possessor relative clause

In this construction, both the possessor and the possessed drop tones. If present, kà: immediately precedes the possessed noun and can be taken as the immediate "possessor," with the logical possessor to its left. Examples are in (xx1). In (xx1.d), kà: is omitted. See also 'anyone whose eyelash ...', (xxx.a) in §14.1.9.

286

(xxx) a. nù-ŋ̀   kà: ǐlò   lǔw   sígú   dà   ŋ́
           person-Sg.L Rel   house.L fall   go.down be   Rel
           'the person whose house has fallen down (=collapsed).'

       b. nù-ŋ̀   kà: ǐlò   lùw-rí   ŋ́
           person-Sg.L Rel   house.L   fall.L-PerfNeg   Rel
           'the person whose house did not fall'

       c. nù-ŋ   kà: ǐ-rⁿù   màrú   dà   ŋ́
           person-Sg.L Rel   child-Sg.L be.lost   be   Rel
           'the person whose son was lost' (màrú)

       d. [nù'rⁿù   náˀǐlò]   [tál   tɔ́rɔ̀]   yⁿâŋgó ŋ́
           [person-Sg.Lmother-house]   [Sarinyere   mountain.HL]
                         not.be   Rel
           kálá⇒]   yⁿâŋgó   [tá   tɔ́rɔ̀]
           any]   not.be   [Tabi   mountain.HL]
           'There is nobody at Tabi Mountain whose kin (by marriage) at
           Sarinyere do not exist.' (2004-2a.05)

14.5 PP relative clause

14.5.1 With overt postposition

When the complement of a postposition is relativized on, the head noun drops
tones as usual, and Relative ká: is treated as the immediate complement of the
postposition.

      Relative kà: immediately precedes a **simple postposition**. Both the head
noun and the postposition drop tones to all-L. Examples are (xxx.a) with Dative
dé (dropped to dè), and (xxx.b) with Instrumental sî: (to sǐ:).

(xxx) a. [nù-ŋ   [kà: dè]   m̀   ów-sò   ŋ́]
           [**person-Sg.L   [Rel   Dat.L]** 1SgS   give-Perf2 Rel]
           [cèrù   cíní   yà:fú:]   lí   kám-mɔ̀sǐ-wɔ́
           [money.L   DefPl   all]   eat   do.completely-Perf1b-
           3SgS
           'The person (=man) to whom I gave (it), he completely ate (=spent)
           all the money.' (káwⁿá)

       b. sàwà   [kà: sǐ:]   gònó   î   á   gàsí-yàrà   ŋ́
           axe.L   [**Rel   Inst.L**] ditch   1PlS Impf dig-Impf   Rel

'the axe with which we (will) dig the ditch' (sáwà)

Both components of a **complex postposition** undergo tone-dropping. The final component is Locative kù, which is already L-toned, so here the tone-dropping is inaudible. The dropping of tones on the first, noun-like component, like pùrù 'interior' in [X pùrù kù] 'inside X', is already accounted for by its status as a possessed noun with preceding nonpronominal possessor (assuming that Relative kà: is nominal rather than pronominal).

(xxx) a. [tòkù   [kà: pùrò]   kù]
           [jar.L   [[**Rel inside.HL**] **in**]
           nî   ú   â: kúl-lò   ń],   jěn   sàrà
           water 2SgS Impf put-Impf Rel], good   not.be
           'The jar in which you put-Present the water isn't good.' (jèrⁿú)

14.5.2   Adverbial relatives without overt postposition

Spatial and temporal relatives may omit a locative postposition (xx1).

(xx1) a. [ìlò   kà: m̀   â: sígù-rò   ń] jěn sàrà
           [house.L Rel 1SgS Impf go.down-Impf Rel] good not.be
           'The house where I lodge ("go down" after work) is not good.'
           (jèrⁿú)

       b. [nàyⁿ   kà: àrⁿá   mùrú-sɔ̀   ń]
           [**day.L**   Rel   rain   rain.fall-Perf2 Rel]
           [nàyⁿ   kúnú] móptì   ǹ   ɗirⁿú-sà=kɔ́
           [day.L   Anaph] Mopti   1Sg   encounter-Perf NonhSgS
           'The day the rain fell, that day found me (=I happened to be) in
           Mopti.'

288

15 Verb (VP) chaining and adverbial clauses

15.1 Chaining

What might otherwise appear as a string of independent main clauses, for example denoting sequential events in a narrative, often takes the form of one or more **nonfinal chained clauses**, without AN inflection, followed by a single final main clause with regular AN inflection.

Unless otherwise indicated, the subjects of the nonfinal and final clauses are shared, and this **shared subject** (whether expressed as a NP or as a pronominal) normally appears only once. Therefore we may consider the nonfinal clauses to be VPs.

There are two basic types of nonfinal chained VP. One consists simply of the VP ending in a verb in the **bare combining form**, which for nonmonosyllables always ends in ú (the ú is is deleted by apocope after semivowels and m). In the other, the verb takes a form identical to the Imperative (hence always ending in a non-high vowel), followed by a morpheme mà or cliticized =m̀ that I gloss as 'and.SS', since it functions as a **same-subject switch-reference** marker.

15.1.1 Verbal Noun in -ú of VP chains

When a VP chain is nominalized by a Verbal Noun suffix -ú, this suffix appears on the final verb. An immediately preceding chained VP takes the combining form, but **drops its tones**, suggesting that it functions as a **compound initial**.

(xxx)   a.   tèw-[sǐg-ú]
             hit.L-go.down-VblN
             'going down hitting the ground' [excerpt from (xxx) in §17.5.1]

        b.   lùw-[sǐg-ú]
             fall.L-[go.down-VblN]
             '(act of) falling down'

        c.   bàr-[kǔw-∅]
             gather.L-[eat(meat)-VblN]
             '(act of) gathering up and eating'

d. yá   î   á   bò'tò   zàŋù'ní
    there   1PlS   Impf   go.to-Impf   plead.L-drink.VblN
    'We go there to ask (for wome water) to drink.' (2004-2a.04)

In (xx2), the speaker's brief pause (represented by the comma) between the nonfinal chained verb (téw) and the verbal noun was sufficient to permit the regular tones of the combining form to surface. In more fluent speech we would get tèw-[sǐg-ú].

(xx2) má   [á   bò-tò≡kɔ́]   [téw,   sǐg-ú⇓]
       and   [Impf   go.to-Impf-\NonhSgS] [hit,   go.down-VblN]
       'and it (=adder, after lunging) goes (back) down hitting (the ground).'
       (2004-1a.10)

15.1.2 Presence of AN suffix in nonfinal chained verb

I have observed no examples of a chained verb with a nonzero AN suffix.

15.1.3 VP-chaining using bare combining forms of nonfinal verbs

The construction with mà or ≡m̀ is used when the chained clauses are only loosely connected, as in narrative sequences. The construction with a bare combining-form verb and a following inflected verb requires a **tighter conceptual integration** of the two. This more tightly-knit construction could be thought of as the equivalent for verbs of noun-noun compounding.

Certain final verbs function somewhat like English **control verbs**, except that the TT verbs in question take complements in the form of VPs ending in combining forms of verbs (i.e. a compound-like construction). Examples: bèrá 'get, obtain' when used as a final verb meaning, 'can, be able to' (§xxx), mɔ̀tɔ́ 'get together' in the sense 'do together' (§xxx). However, care must be taken to distinguish those control verbs that take combining-form (i.e. chained verb) complements from those that take verbal-noun complements (with suffix -ú on the verb). For verbs with {LH} lexical tone, the combining form and the verbal noun in -ú are homophonous, but they are distinguishable for verbs whose lexical tone contour is all-high (§4.2.2.1).

Examples of verb chains not involving a fixed control verb are in (xx1). Note how the two verbs can be construed as expressing distinct elements of a single event type. See also the examples with pásá 'leave' in §15.xxx, below.

(xx1) a. bàrú   kúw-sò
           gather   devour-Perf2
           'They (= frogs) gathered up and devoured (termites).'
           [except from (xx1.e) in §xxx]

       b. lǔw   sígú   dà
           fall   go.down   be
           'It (= house) has collapsed.'

Some further examples (with the final verb cited in the Imperative): yèrî dɔ́
'come & arrive' = 'arrive here', bǐřy yèrî 'return & come' = 'come back here',
kúlú bàrá 'put & add' = 'increase (e.g. speed)'.
    An interesting feature of these verb chains is that a nonfinal verb may
appear with low tones as part of the domain of the {LH} tone contour imposed
on a final inflected verb with Future suffix -yàrà- or Progressive -cî dà
(§10.xxx).

15.1.4   VP-chaining with final mà 'and' (usually same-subject)

A very common nonzero clause-final morpheme for chains of nonstative VPs
(or verbs), usually involving shared subjects, is mà, which is glossed as
'and.SS' in interlinears. It occurs at the end of noninitial VPs (or verbs) in
chains, the final VP having a regular inflected verb. Stative verbs do not
combine with mà.

(xx1) a. ǹ   [yá   mà]   á   yà-rà
           1SgS [go   and.SS] Impf   come-Impf
           'I will go and come back.'

       b. [ténǎm   kɔ́   ségá   mà]
           [hyena   NonhSgO   encounter   and.SS]
           [[kò   dé]   á   ùsù'rò-∅]
           [[NonhSg Dat]   Impf   ask-Impf-3SgS
           'Hyena encountered him (= sheep), and he (= Hyena) asked: …'
           (2004-1a.02)

Before mà, the verb has a form **ending in a non-high vowel** (i.e. not i or u).
This is therefore not the usual combining form (which usually ends in a high
vowel). The form before mà is **often identical to the imperative** (xx2.a).
However, some irregular verbs have distinct forms for the two categories

291

(xx2.b). The irregular verb 'bring' idiosyncratically uses the combining form (ending in a high vowel) before mà (xx2.c).

(xx2)		gloss	Imperative	form with mà	combining form
	a.	'go in'	ló	ló mà	lú
		'go out'	gó	gó mà	gú
		'see'	wɔ́	wɔ́ mà	wɔ́
		'slaughter'	cɛ́	cɛ́ mà	cí
		'shave'	ká	ká mà	ká
		'give'	ów	ów mà	ów
		'sit'	ɗĭŋé	ɗĭŋé mà	ɗĭŋ
		'put down'	dèlé	dèlé mà	dèlú
		'squat'	tórĭyó	tórĭyó mà	tórĭy
		'work'	bǐrá	bǐrá mà	bǐrú
		'tie'	págá	págá mà	págú
	b.	'go'	yàyá	yá mà	yǎy
		'come'	yèrĭ	yèré mà	yèrĭ
		'go to'	yá	bòró mà	bòrú
		"		bèré mà	
		"		yá mà	
	c.	'bring'	zérĭ	zê:rú mà	zê:rú

The form in mà **does not allow third person subject pronominal suffixes**. It does allow preverbal first or second person subject pronominal morphemes, but once the subject has been established, a repetition of the subject pronominal in succeeding mà clauses is optional.

When a first or second person subject pronominal, or any noun-headed subject NP, precedes the VP ending in mà, it is possible to consider it to be part of the larger clause rather than inside this particular VP. This is seen by comparing e.g. 1Sg to 3Sg subjects in (xx3.a-b), noting the position of the third person subject marker on the final (fully inflected) verb.

(xx3) a. ǹ   [yá   mà]   á   yà-rà
            1SgS [go and.SS]Impf come-Impf
            'I will go and come back.'

       b.   [yá   mà]   á   yà-rà-wɔ́
                     [go and.SS]Impf come-Impf-3SgS
            'He/She will go and come back.'

A good example of the **same-subject preference** is (xx4). The mà clauses are not indented. The passage begins with three mà clauses with 1Pl subject. There is then a transition to another string of mà clauses with 'the woman who cooks the millet-cakes' (referent introduced in the fifth line, indented). Both mà series are terminated by a concluding clause (indented) with Perfective verb and clause-final high-toned má 'if, when' (§16.1).

(xx4) î   kɔ́   yàrá   mà,
     1PlS   NonhSgO measure **and.SS**,
     î   héló   mà,
     1PlS   distribute **and.SS**,
     î   nàwⁿá   mà,
     1PlS   grind   **and.SS**,
       î   năm'mɔ̀sĭ   má,
       1Pl   grind-Perf1b   **if**,
       kɔ̀   zà'[bǐ'nù]   kúnú,
       Def   millet.cakes.L-[cook.Agent-Sg].L   DefSg,
     yá   tòkú   látá   mà,
     there.Def   pot   set.up.on **and.SS**,
     [zà   ŋgú]   bǐrá mà,
     [millet.cakes.L   DemSg]   cook **and.SS**,
       má   [wɔ̀   zá]   bǐrú'wɔ̀sĭ má, …
       and.then [3SgP millet.cakes.HL] cook-Perf1b   **if**, …
'We go and pound them (to dislodge the grains),[1] then when we have come (back home), we measure it (=grain), we distribute it, and we grind it. (And) when we have ground it, the woman who cooks the millet-cakes sets the pot (on the fire) there, she cooks those millet cakes. (And) when she has cooked the millet cakes, …' (2004-2b.01)

In each of the mà chains in (xx4), the final clause with mà (lines 3 and 7) might well have been replaced with a fully inflected verb. This would make a natural "paragraph" break before the 'if/when' clauses (lines 4 and 8), which are naturally grouped (as backgrounded clauses) with the following rather than preceding clause.

---

[1] The pounding to dislodge grains from the millet spikes is generally done in a specific area at the edge of the village, where extra-large mortars and pestles are kept for community use.

The same-subject requirement for the mà clause and the reference clause is **not strict**. While the subjects are generally shared, there are textual occurrences that violate the same-subject generalization. In part this may reflect production problems, but there are several such textual examples and some show no prosodic sign of broken syntax. Indeed, mà chains can be rather long, to the point of having an almost incantational rhythm, and such long chains do not always end in a same-subject inflected clause.

In (xx5.a), the long chain does respect the same-subject preference. In (xx5.b), however, there is a subject switch; the woman is subject of 'hold' and 'come', and the man is the subject of 'pull' and of the final inflected verb 'give' (the man is inside a granary, providing a daily ration of millet grain spikes to his wife). In (xx5.c), a sequence of mà clauses forms its own paragraph, with no concluding fully inflected clause; recall also the comments on (xx3), above.

(xx5)   a.   [èrê:ré   kày]   kɔ́rú'wɔ̀s'è   má,
             [Boscia   Topic]   pick-Perf1b-3PlS   if,
             î   kɔ́   yàwrá   mà,
             1PlS   NonHSgO   crush   **and.SS**,
             î   kɔ́   sárá   mà,
             1PlS   NonHSgO   leach   **and.SS**,
             î   kɔ́   zàlá   mà,
             1PlS   NonHSgO   cook.in.pot **and.SS**,
             ɛ́rá   î   kùlî'yàrà
             potash   1PlS   put-Fut
             'When they have picked *Boscia* (fruits), we will crush them (to remove the skins), we will leach them (by soaking in water for one or more days), we will cook them, and we will put in (=add) (liquid) potash.' (2004-2b.02)

        b.   má   yⁿà-rⁿú   [[kɔ̀   ĩsá]   jèré   mà]
             and.then woman-Sg [[Def   gear]   hold   **and.SS**]
             [yèró   mà]
             [come   **and.SS**]
             [bàsá   mà]
             [take.out.provisions   **and.SS**]
             [yⁿà-rⁿú   dè]   á   òw-r-ɔ̌:]
             [woman-Sg Dat]   Impr   give-Impf-3SgS
             'Then the woman would come with the gear (=basket) and (he would) take out millet, (and) he would give it (millet) to the woman.' (2004-1a.04)

15.1.5 VP-chaining with =m̀

In addition to the combination with mà described in the preceding section, there is a form with =m̀ pronounced as a clitic (or suffix) at the end of the otherwise bare verb stem.

Unlike the combinations with mà, those with =m̀ do allow **optional third person subject** markers. This suggests that =m̀ may form a full-fledged clause, while mà may only form a (subjectless) VP.

(xx1) a. gó=m̀-wɔ́   lú-wòrè-wɔ́
            go out'=**and.SS**-3SgS go.in-Perf1a-3SgS
            'He/She went out and came (back) in.'

       b. gó=m̀=bɛ́   lú-wòrè=bɛ́
            go out'=**and.SS**=3PlS   go.in-Perf1a=3PlS
            'They went out and came (back) in.'

       c. [[tàgú mà]   póló=m̀-wɔ́]   [[nî   kù] yǎy-s-ɔ̌ː]
            [[shoe ReflPoss] take.off=**and.SS**-3SgS]   [[water   in]
                  go-Perf2-3SgS]
            'She took off her (own) shoes and waded into the water.'

In (xx2) we have two parallel clauses with =m̀. In the text, it is not obvious that the sequence as a whole is chained to any following verb.

(xx2) èsà-àrá   úŋgúrú-sò   [nǔ-m   mà]   jèré=m̀⇑,
        chicken-male get.up-Perf2 [person-Pl ReflP] hold=**and.SS**,

        [gɔ̌ŋ   máňì] úŋgúrú-sò [nǔ-m   mà]   jèré=m̀⇓
        [elephant also]   get.up.Perf2[person ReflP] hold=**and.SS**
        'Rooster got up and took his people (=winged creatures) with him, and Elephant likewise got up and took his people (=quadrupeds) with him.' (2004-1b.01)

In (xx3), the initial =m̀ clause has a third plural subject distinct from the nonhuman subject ('year') of the immediately following clause, and there is no prosodic evidence of broken syntax. The =m̀ clause is arguably subordinated directly to the third clause, which does revert to the same third plural subject, and the free translation is phrased accordingly. However, such examples show that the same-subject requirement is somewhat flexible.

(xx3) bɛ́   sáyá=m̀,   yàrú   sí'wòrè,

3PlS   disperse≡and.SS, year   year.begin-Perf1a,

[yó   nà],   kɔ́   á   hɪ̃lù   bɪ̃tɪ̃'yèr'è≡bɛ́

[again now], NonhSgS Impf raise.L do.again-Fut-3PlS≡3PlS

'They would disperse, and (when) a rainy season had begun (the following year), again, they would recommence (the funeral rites).' (2004-2a.08)

For those verb stems of two or more syllables whose regular form before ≡m̀ ends in {o ɔ a}, the stem-final vowel optionally shifts to e, or to ɛ for verbs with {ɔ ɛ} vocalism, when the subject is a third person plural category. Thus contrast the stem shapes in (xx4.a) and (xx4.b).

(xx4) a. bà:ⁿsá   kúló≡m̀   pású-s-ɔ̌:
           bowl   put.in-\and   leave-Perf2-3SgS
           'He put the bowl in (the container) and left it.'

       b. bà:ⁿsá   kúl-é≡m̀   pású-s-è≡bɛ́
           bowl   put.in-3Pl-\and leave-Perf2-3Pl-\3PlS
           'They put the bowl in (the container) and left it.'

Examples of the special third plural forms are given in (xx5.a). For the verbs in (xx5.b-c), there is no audible distinction between the two stem forms. In (xx5.b) this is because the stem is monosyllabic, and therefore does not allow the {e ɛ} ending. In (xx5.c), the stem is bisyllabic but already ends in e, so we cannot determine whether the e ending is present. The forms of ≡m̀ with irregular verbs are given in (xx5.d).

(xx5)		gloss	Imperative	before ≡m̀	3Pl before ≡m̀
	a.	'put in'	kúló	kúló≡m̀	kúl-é≡m̀
		'take out'	gùŋó	gùŋó≡m̀	gùŋ-é≡m̀
		'wash'	dĭ-ró	dĭ-ró≡m̀	dĭ-r-é≡m̀
		'tie'	págá	págá≡m̀	pág-é≡m̀
		'buy'	ɛ́wá	ɛ́wá≡m̀	ɛ́w-ɛ́≡m̀
		'sell'	dɔ̀rɔ́	dɔ̀rɔ́≡m̀	dɔ̀r-ɛ́≡m̀
	b.	'go in'	ló	ló≡m̀	ló≡m̀
		'dance'	gɛ́	gɛ́≡m̀	gɛ́≡m̀
	c.	'put down'	dèlé	dèlé≡m̀	dèl-é≡m̀

	d.	'come'	yèrí	yèró≡m̀	yèr-é≡m̀
		'bring'	zérȉ	zê:ró≡m̀	zê:r-é≡m̀
		'go to'	yá	yá≡m̀	yá≡m̀

15.1.6   Arguments of chained verbs

The topics of this section are a) the position of the subject NP or pronominal, and b) the position of any non-subject arguments (direct objects, adverbs, etc.). Recall that VP chains normally require that the subjects of the respective clauses be shared (coindexed), so there is only one occurrence of the subject NP or pronominal. Non-subject arguments may be shared ('I [dropped and picked up] the package'), or they may belong to just one of the verbs ('[I dropped the package] [and picked up the bag]').

Recall that third person subject pronominals are usually suffixed on an inflected verb. Therefore such suffixes appear on the final verb in the chain, i.e. the verb that carries normal AN inflections, regardless of whether the chain involves nonfinal bare verb stems or has a chaining particle or suffix (xx1.a). First and second person pronominals are particles that occur in or near clause-initial position. In chains, such subject pronominals **precede a nonfinal chained verb**, usually when there is a chaining particle or suffix (xx1.b) and always when the nonfinal verb is in bare form (xx1-c). Likewise with nonpronominal (noun-headed) subject NPs (xx1.d). One can argue in such cases whether the subject constituent should be bracketed with the chained verb, or whether it should be considered to be the subject of the final inflected verb.

(xx1) a.   [mɔ̀tɔ́   mà]   yè-s-é≡bɛ́
            [be.together and.SS] come-Perf2-3PlS-\3PlS
            'They came together.'

       b.   î   mɔ̀tɔ́≡m̀   yè-só
            1PlS   be.together≡and.SS   come-Perf2
            'We came together.'

       c.   ǹ   lǔw   sîgú-wòrè-∅
            1SgS   fall   go.down-Perf1a-3SgS
            'I fell down.'

       d.   sáydù   lǔw   sîgú-wòrè-∅
            S   fall   go.down-Perf1a-3SgS
            'Seydou fell down.'

297

In direct chains with no chaining particle or suffix, as in (xx1.c-d), my assistant rejected proposed alternative versions with the subject intervening between the two verbs in a direct chain, as in the ungrammatical #lǔw ǹ sîgú-wòrè 'I fell down'.

When two VPs containing different non-subject arguments are combined in a chain, the linear ordering of constituents generally respects the logically correct bracketing. For example, in (xxx) 'inside the burrow' belongs with 'dig', and 'there' (referring to the site of digging inside the burrow) belongs with 'take down (= lay)'.

(xxx) ùgùnú   mánĭ⇑,
      whiptail   too,
      [kó   mánĭ]   [[[ùró   pùrò]   kù]   gàsá   mà]
      [NonhSg   too]   [[[**hole inside.L**] **in**]   dig   and.SS]
      [kó   mánĭ]   [yá   á   sĭtù-rò]
      [NonhSg   too]   [**there** Impf   take.down-Impf]
      'The whiptail (lizard), for its part, digs inside (the) hole (=burrow), it too lays (eggs) there.' (2004-1a.10)

15.1.7   Chains including pásá 'leave'

Transitive verb pásá 'leave, abandon' is often added after a chained action verb such as 'put down' where it would be omitted in colloquial English. The chained verb may have mà (xx1.a), or it may appear as a bare combining form like tám 'kick' in (xx1.b).

(xxx)   a.   [dèŋ-dǐŋ   dèlé   mà]   [pásá   kó]
             [stool   put.down and.SS] [**leave.Imprt**   NonsgO]
             'Put-2Sg the stool down (and leave-2Sg it)!'

        b.   ténăm   [[kú   mà]   yàsá=m̀]   cέk
             hyena   [[head   ReflPoss] snatch≡and.SS]   only
             [kó yὲ]   [jĕm   tám   pásá=m̀] ...
             [then]   [shard kick   **leave≡and.SS**] ...
             'Hyena snatched (=pulled away) his head, then kicked away (=knocked) the shard (off the hearth) (and left it), and ...' (2004.1a-06)

See also (xxx.b) in §14.2.1.

15.1.8 Chains including mɔ̀tɔ́ 'be/do together'

The verb mɔ̀tɔ́ can be intransitive 'assemble, come together' or transitive 'gather, put together'. In intransitive function, it occurs with mà or ≡m̀ when the following clause (which may be intransitive or transitive) shares the same subject.

(xxx) a. mɔ̀tɔ́≡m̀   yè-sé≡bé
           do.together-and   come-Perf-3PlS
           'They came together.' (lit. "They got together and came.")

       b. [î   mɔ̀tɔ́   mà]   bîrá   á   bǐ-tà
           [1PlS do.together and.SS] work(noun) Impf   work-Impf
           'We work together.'

When a non-subject NP (e.g. direct object) of the substantive clause denotes what comes together, we get sentences like (xxx) with combining form mɔ̀tú.

(xxx) a. cěwlà:fú: î   mɔ̀tú   dèlú-wòsǐ
           everything 1PlS   do.together   put.down-Perf
           'We put everything together.'

       b. î   ké   mɔ̀tú   dèl-lí
           1PlS   NonhPlO   do.together   put.down-PerfNeg
           'We didn't put them together.'

It is also possible to use mɔ̀tɔ́ with a preceding chained verb in the combining form.

(xxx) ɛ̀sà-àrá   [jètà-cîrò   yà:fú:⇒] sórⁿú   mɔ̀tɔ́≡m̀
       chicken-male [wing.L-fly.HL all]   call   do.together≡and.SS
       [kè   dé]   tégú-sò]
       [NonhPl   Dat]   speak-Perf2
       'Rooster called all flying creatures together and spoke to them.' (2004-1b.01)

These constructions get some competition from single-clause comstrucions involving lěy 'with, and' (§xxx).

(xxx) a. mǒ   î   á   zàlí-yàrà   [nǐŋʊ   kó   lěy]

299

rice 1PlS Impf   cook-Impf   [sauce NonhSg and]
'We will cook the rice (together) with the sauce.' (zàlá)

15.1.9   Chains with zí plus motion verb ('deliver')

zí is arguably a verb in its chaining form, but it occurs only as nonfinal element in chains. That is, it cannot be directly inflected. It occurs with a following motion verb ('go' or less often 'come') and means 'deliver (there)' or 'deliver (here)' accordingly.

(xx1)   a.   [nuˀrⁿú   kálá] [wò   sí]   à   zí   bò'tˀè
             [person-Pl each] [3SgP Poss] Impf **deliver go.to**-Impf-3PlS
             'Everyone delivers his (own) portion (to his own home).' (2004-2b.01)

        b.   [ànànsá:rá dè] yòrú zí   yɛ́≡m̀≡bɛ́,   lámpò dè
             [European Dat] cloth **deliver come**≡and.SS≡3PlS, tax
                             Dat
             'They brought the cloths to the white (man), for (= as) taxes.'
             (2004-2a.01)

15.1.10 Durative á ... tòŋgù-rɔ̀- 'keep VP-ing'

A construction expressing extended duration of an activity consists of an Imperfective verb tɔ́ŋgú-rɔ̀- plus a preceding nonfinal chained VP ending in a verb in the combining form. The Imperfective particle á is always present, preceding the nonfinal chained verb (in the combining form), and as usual this particle forces tone-dropping on the inflected Imperfective verb, resulting in á ... tòŋgù-rɔ̀-. The verb form is compatible with an underlying /tɔ́ŋ-rɔ̀-/.

(xx1)   a.   bàyló   á   zɔ̀gú tòŋgù-rɔ̀
             population Impf break **keep-Impf**
             '(He) keeps breaking (destroying) the population.' (2004-1b.01)

        b.   kɛ́   tùrí:-tùrí:,   á   cîrú tòŋgù-rɔ̀   ŋ́
             NonhPl one.single-one.single, Impf fly **keep-Impf** Rel
             '... and when they (= locusts) keep flying around here individually'
             (2004-1b.02)

15.1.11 Chains with sá 'have'

The quasi-verb sá 'have' does not readily function as a nonfinal element in chains. However, the (headless) relative clause in (xx1) does contain sá followed by an AN-inflected verb.

(xx1) á   dà   [kà: [kúrɔ́   sá]   á   čǐ-tò   ń]
       Impf be   [Rel [hair   have] Impf   fly-Impf   Rel]
       ''there are those (mantises) that have wings and fly' (2004-1b.04)

15.1.12 Negation of verb chains

Only the final, inflected VP in a chain carries overt negation, even when the negation takes the entire sequence in its scope logically. This is illustrated in (xxx.a), where 'go' and 'come' are chained. In (xxx.b), 'go' is positive while 'come' is negated, so instead of being chained the two are independently inflected.

(xx1) a. [yá   mà]   yè-lî-wɔ́
           [go.to   and.SS]   come-PerfNeg-3SgS
           'He/She did not go (there) and come (back).'

       b. yǎy-wɔ̀r-ɔ̌:   yè-lî-wɔ́
           go-Perf1a-3SgS   come-PerfNeg-3SgS
           'He/She went, (but) he/she did not come (back).'

   (xx2) may be used in contexts where the individuals did in fact come, but did not come together. Therefore the negation, though expressed on the inflected 'come' verb, focuses on the material in the chained VP.

(xx2) í   [mɔ̀tɔ́   mà]   yè-lî
       1PlS   [be.together and.SS]   come-PerfNeg
       'We did not come together.'

301

15.2 Adverbial clauses

15.2.1 Temporal adverbial clauses ('when ...')

Unambiguously temporal adverbial clauses are dealt with under this rubric. Conditional antecendent ('if ...') clauses may also be used in roughly similar contexts.

15.2.1.1 Particle *ní* 'if/when ...', 'just', etc.

The uses of this particle are subtle, and analysis of multiple textual passages is called for. In clause-final position it is frequently translatable as 'if/when ...', establishing a temporal and often causal connection between the two clauses (xx1).

(xx1) a. [órú   bàsà]   yèrú-wòrè   ní⇒,
            [field   owner.L]   come-Perf1a **when**,
            [wǒ:-sǐ [á   yà-rà]]   má,
            see-Perf1b Impf   come-Impf   if
            'if/when the owner of the field came, if he (= crippled thief) saw (in time) that he (= owner) was coming, ...' (2004-1a.09)

        b. tàrú   ké   sǐtú-wòsǐ   ní,
            egg   NonhPlS   take.down-Perf1b **when**,
            má   [níŋ kày]   sàrí,   á   bǐ-bíw-rà
            and [now Topic] monitor.lizard, Impf Rdp-bury-Impf
            'When they (= reptiles) have laid eggs, now the Nile monitor lizard buries (the eggs).' (2004-1a.10)

        c. [kɔ́   tórú-wòsǐ ní]   [[jètà kúnú] sǐ:]   tégěy,
            [NonhSgS jump-Perf1b **when**] [[wing.L   DefSg]
                    with]   a.little,
            [jètà   kúnú] kɔ́ á   bà-tà
            [wing.L   DefSg] NonhSgO   Impf help-Impf
            'When it (= grasshopper) jumps, (it's) with (=by means of) those wings, (and just) a little. Those wings help it (jump).' (2004-1b.03) (bàrá)

See also gá≡m̀ ní in (xx1.a) in §15.2.1.5.
    ní also occurs in marked conversational and narrative constructions, often with intonational prolongation (⇒). In (xx2.a), a blind thief shouts a somewhat

exasperated command to his partner (only realizing later, after the latter's silence, that he is not present). Here I gloss the final nî as 'just', in the pragmatic-particle sense. In (xx2.b), nî occurs at the end of the first of two paired clauses with 'go' and 'come', respectively, in an idiomatic and prosodically marked narrative construction that describes repeated back-and-forth action. The entire two-part 'go/come' construction is then repeated verbatim. As in (xx2.a), the 'go' and 'come' verbs are imperative in form, though here there is no quotation. In (xx2.c), nî occurs in three identical clauses, with a Perfective-II verb, emphasizing the sheer extent of the gathering and devouring. nî again seems to help emphasize the aspectual prolongation.

(xx2) a. wó   súgúm   zéřì   nî⇒,
           3Sg   pick   bring.Imprt   **just**,
           à:!   ká   wɔ́   bèré   tùg-ú
           ah!   say 3SgS   go.to.Perf1a   cut.off-VblN
           '(He called to his fellow thief:) You, just pick it (=grain) off and bring it! (To himself:) Ah, he (=cripple) has (=must have) gone to cut off (millet grain spikes).' (2004-1a.09)

       b. ténǎm   [bǎm   dá   gà]   yá   nî⇒↑,
           hyena   [go.around be   while]   go.Imprt **just**,
           [bǎm   dà   gà]   yèrí⇓,
           [go.around   be   while]   come.Imprt,
           ténǎm   [bǎm   dá   gà]   yá   nî⇒↑,
           hyena   [go.around be   while]   go.Imprt **just**,
           [bǎm   dà   gà]   yèrí⇓,
           [go.around   be   while]   come.Imprt,
           ténǎm   èlú-sà
           hyena   look-Perf2
           'Hyena kept going around and coming around, he kept going around and coming around. He looked.' (2004-1a.05)

       e. [èwrá   [cǐsù   ŋgú]   bàrú   kúw-sò   nî]
           [frog   [termite.L DemSg]   gather   devour-Perf2 **just**]
           [bàrú   kúw-sò   nî]
           [gather   devour-Perf2 **just**]
           [bàrú   kúw-sò   nî]
           [gather   devour-Perf2 **just**]
           [háℓì   [kɔ̀   bétè]   sálú-sà
           [until   [NonhSgP   belly.HL] fill.up-Perf2

303

'The frogs gathered up and ate the winged termites, they gathered up and ate (them), they gathered up and ate (them), until their bellies filled up (and were stretched).' (2004-1b.01)

There are also some examples of **phrase- or clause-initial** nî. The effect seems to be a stylistic framing, and the particle shows intonational prolongation. (xx3.a) is a difficult example from a somewhat choppy passage, but nî seems to introduce a point added on to the preceding ones. In (xx3.b), nî could be translated as 'or', but it is the 'or' of vagueness (as in 'three or four times'), so here too the nî phrase might be a kind of add-on to the preceding phrase.

(xx3) a. tɔ́bbɛ̀-tɔ́bbɛ̀,   sîttǐ-kɔ́⇑,   jɛ́m-jêm
           spotted,   sulphur-NonhSgS, black-black.HL
           [[kɔ̀   jésù]   tɔ́bbà   kárⁿú   dà]
           [[NonhSgP body]   spot   do   be]
           [nî⇒   [bàrⁿ-î:]-[bárⁿ-ǐ:]]
           [**and.also**   red-red.HL]
           '(This grasshopper is) spotted. It's sulphur (=yellow) and blackish. Its body is spotted (with black), along with reddish (=orange).

       b. [kó   kày]   lěy-lěy   [nî   túr-túrú]
           [NonhSg   Topic] two-two   [**or.also**   one-one]
           [kó   kà]   á   yày-rà
           [NonhSg   Topic] Impf   go-Impf
           'As for it, it (= grasshopper) goes around by twos or singly.' (2004-1b.03)

In (xx4), nî occurs at the end of one phrase, then again at the beginning of the next phrase. The two phrases ('unfertilized fields' and 'fields') overlap referentially. I tentatively gloss 'just', but the effect is largely stylistic and therefore difficult to translate.

(xxx) [kɔ̀   dêŋ],   [òrù   séwtîré]   nî⇒↑,
      [NonhSgP place.HL], [field.L   unfertilized] **just**,
      nî⇒   [[órú   pùrò]   kù],
      just   [[field   inside.L] in],
      [[òrù   sèwtǐrè]   pású   dà   ń]   [[órú   pùrò]   kù]
      [[field.L unfertilized.L]   leave   be   Rel]   [[field   inside]
          in]
      'Its habitat is just infertile fields (without manure) in (=among) the fields, abandoned infertile fields in (=among) the fields.' (2004-1b.03)

nî is also a part of kàmá-nî 'so, ...' (kàmá not otherwise attested), see §19.2.3, and perhaps also a part of mánî:nî 'also, furthermore' (extension of mánî 'also').

15.2.1.2 'And then' (gá≡m̀ 'saying')

The combination gá≡m̀ is common as a clause-linking device. It literally means 'saying' or 'having said'; for ≡m̀ after a chained verb see §xxx. In this context it indicates a temporal sequence (rather than an actual quotation), hence free translations with 'after VP-ing' or with '...VP, and then ...'. It is often combined with a preceding verb also with ≡m̀, as in (xx1.a). Many of the examples below happen to involve quotations, which are very common in my animal-tale texts, but gá≡m̀ in this temporal-sequencing function is not quotative, as can be seen more clearly in e.g. (xx1.e).

(xx1) a.   [[àsî   èrⁿá   dǐrⁿá≡m̀]   gá≡m̀
            [[LogoS   goat   encounter≡and.SS] **say≡and.SS**
            [àsî   bò-só   ǎw]
            [LogoS   go.to-Perf2   catch]
            '(you must have intended) that you (logophoric) encounter the goat and then go to catch (it).' (2004-1a.05)

       b.   àsî   èrⁿà-àrá   ká   dàgú-sà   [ósú   kù],
            Logo   goat-male   say   encounter-Perf2 [road   in],
            gá≡m̀   àsî   [kò   dé]   èn-túkěy   kà-lí
            say≡and.SS   Logo   [NonhSg   Dat]   anything   do-PerfNeg
            '(if you-Sg the Hyena say) that you encountered a billygoat on the road, and (that) then you did nothing to it, ...' (2004-1a.01) (kárⁿá 'do')

       c.   àsî   tátúrá≡m̀   ká   [àsî   á   jèl-lò   gá≡m̀]
            Logo   slip≡and.SS   say   [Logo   Impf   pass-Impf   **say≡and.SS**]
            [àsî   lǔw-sò]
            Logo   fall-Perf2
            '(He said:) I slipped, and I was passing by (the hole), then I fell (in).' (2004-1a.05)

       d.   háyà   àsî   kɔ́   gùŋú-sò,   kó   nà⇒,
            well   Logo   NonhSgO   take.out-Perf1, NonhSg   now,
            àsî   kɔ́   gùŋó≡m̀   gá≡m̀,

Logo   NonhSgO   take.out≡and   **say≡and.SS,**
[kó   nà]   ká   wɔ́   ká   àsî   èlá
[NonhSg now]   say   3SgS   say   Logo   look.Imprt
'(Monkey said:) Well, I got him out. Then, after I got him out, now he tells me to look ...' (2004-1a.05)

    e.   kó   zɔ̌w-sɔ̀≡cɛ́   [kò   dé],
           NonhSg run-Perf2-\NonhPlS   [NonhSg Dat],
           kó   zɔ̀wɔ́≡m̀≡cɛ́,   yèré≡m̀≡cɛ́
           NonhSg   run≡and.SS-\NonhPlS, come≡and.SS-\NonhPlS
           gá≡m̀   [kó   kɔ̀]
           say≡and.SS [NonhSg Foc]
           [[[àwⁿà-ùrò   kún]   púrò] kù]   lú-s-è≡cɛ́
           [[[aardvark-hole.L DefSg] inside]in]   go.in-Perf2-3PlS-\3PlS
           '... so they (= sheep) ran for it (burrow). They came running to it, then they went inside that aardvark burrow.' (2004-1a.07)

    f.   [[yù   cínî]   kɔ́sɔ́≡m̀   gá≡m̀]
           [[millet   DefPl   harvest   **say≡and.SS**
           [[tɛ̀wá   kù]   m̀bɔ̀tú'wɔ̀rè]
           [[large.harvest.pile in]   be.gathered-Perf1a]
           'After the millet (grain spikes) were harvested, they wes gathered together in the large heaping area.' (2004-2a.06)

15.2.1.3 *Temporal simultaneity (dá gà 'while …')*

A sequence dá gà, presumably including dá 'be' (§11.2.2.1) and with a mysterious final element, is added to a verb stem (in the latter's combining form) to constitute a temporal adverbial clause denoting simultaneous (or background) activity. In interlinears, gà will be glossed 'while' for lack of a better gloss. The construction is common in texts. The subject of the clause is coindexed with that of the main clause. The clause with dá gà may be repeated several times for narrative effect ('kept VP-ing and VP-ing') (xx1.d).

(xx1) a.   [bírá   m̀   bìrú   dá   gà]
           work(noun) 1Sg   work   **be**   **while**]
           [nùŋɔ́   m̀   â: núŋgú-rɔ̀]
           [song   1SgS   Impf sing-Impf]
           'I sing while I work.'

    b.   [lɛ́   lí   dá̀   gà]   tɛ̀gú   tɛ̀gù-kú

[meal eat **be** **while**] speech speak-Imprt.Neg
'Don't-2Sg speak while eating!'

c. [[ŋ̀gí sí kàyⁿ] [cîrú dá gà]
[[DemPl kind like] [fly **be** **while**]
á yày-rà ŋ́] sàrà
Impf go-Impf Rel] not.be
'There is none of its (=*Kraussaria* grasshopper) going (along) flying like those other (species).' (2004-1b.03)

d. [kɔ́ yɛ̀] [níŋ kày] [zǒw dá gà] [zǒw dá gà]
[then] [now] [run be while] [run **be** **while**]
[zǒw dá gà] [zǒw dá gà] [zǒw dá gà]
[run **be** **while**] [run **be** **while**] [run **be** **while**]
[zǒw dá gà] [zǒw dá gà] [zǒw dá gà]
[run **be** **while**] [run **be** **while**] [run **be** **while**]
[kó yè-só] [kó îgú dà]
[NonhSg come-Perf2] [NonhSg stand be]
'Then it (=hyena) ran and ran and ran and ran and ran and ran and ran and ran, it came, it came, it stopped.' (2004-1a.07)

15.2.1.4 Clause-initial *má* '(and) then ...'

A distinction must be made between the clause-initial má … considered here and various similar-looking particles that occur at the end of constituents or clauses: interrogative ma (which acquires its tones from the preceding morpheme), the perhaps related 'or' disjunction mà⇒, clause-final má 'if', clause-final VP-chaining mà (glossed 'and.SS'), and Reflexive Possessor mà following a noun or core NP.

The clause-initial particle má indicates a **chronological sequence** between the current event and the previously described one. (xx1.a) and (xx1.b) are from the same text; in (xx1.a) the woman specifies that eating the meal precedes the rescue effort, while in (xx1.b) Crane insists that the chronological order be reversed, using tî⇒ (and kà:ⁿ-tî⇒) 'first(ly)' in preceding clauses (rescue effort), followed by the má clause (eating the meal), which also includes an explicit 'now (= at this/that point)' adverbial. In (xx1.b), the relevant má is in the final line of text; the example also includes clause-final má 'if' (line 2) and clause-chaining mà 'and.SS' (line 4).

(xx1) a. ká ké yèrî [kɔ̀ lɛ̀ kúnú] lɛ́≡m̀, má ká,

say NonhPl come [Def meal.LDefSg] eat≡and.SS, **then**
saying

| ké | [[àsî | égà] | jèrê | mà] | yèrí | [àsî | dé], |

NonhPl [[LogoP husband.HL] hold and.SS] come.Imprt
[Logo Dat]

| [[àsî | égà] | dùrⁿó | mà] | yèrí |

[[LogoP husband.HL] track and.SS] come.Imprt

'(Woman to birds:) hey you-Pl, come and eat the meal, **and then** (she continued) you-Pl come back with my husband for me, (go) track down my husband and come (back)!' (2004-1a.04)

b.
| kùwⁿá | ká, | [àsî | kày] | kà:ⁿ-tí⇒, |

crane say, [Logo Topic] **firstly**,

| [àsî | [kɔ̀ | égà] | wɔ̌:-sǐ | má] |

[LogoS [NonhSgP husband.HL] see-Perf1b if,

| [ɛ̀s | [kà: sǐ:] | [kɔ̀ | égà] | á | sòrⁿí-yàrⁿà | ɲ́ |

[thing.L[Rel with] [NonhSgP husband.HL]Impf call-Fut Rel

| tí⇒], | [àsî | kày] | [wò | dé] | nùŋú | tótó | mà, |

firstly], [Logo Topic] [3Sg Dat] sing show and.SS,

| má | [nîŋ | kày] | [àsî | kày] | àsî | á | lí-yàrà |

then [now Topic] [Logo Topic] Logo Impf eat-Fut

Crowned crane said: as for me, **first**, when I see your husband, that with which (=the way) I will call the husband **first**, having sung ("sung and shown") for him, **(only) then**, as for me, will I eat.' (2004-1a.04)

In narrative, several má clauses may follow each in rapid-fire succession, giving an incantational effect. In (xxx) we see five such clauses. má is apparently absent from the 'stir' clause, but I interpret this as a repair of the final part of the immediately preceding 'do whatchamacallit?' clause. In the fifth and final clause beginning with má, the particle ccurs not only at the beginning (before a dative PP), but also again in the middle. The clauses are also linked by clause-final mà 'and.SS', and in one case by clause-final má 'if/when'.

(xxx)
| má | núwⁿɔ́ | bǐtó | mà, |

then fire set and.SS,

| má | [kɔ̀ | jèm | kúnú] | látá | mà, |

then [Def shard.L DefSg] put.up and.SS,

| má | [kɔ̀ | jèm | kúnú] | dǒy-wɔ̀rè | má, |

then [Def shard get.hot-Perf1a if,

[má	[kɔ̀	àyⁿà	kúnú]	én-ná	kárⁿá	mà]
then	[Def	medicine	DefSg]	whatchamacallit	do	and.SS]

[hîló	mà],
[stir	and.SS]

má	[ǒw-[à-nú]]	dè]	[má	én-ná	kárⁿá	mà]
then	[lion	Dat]	[then	whatchamacallit	do	and.SS

'(Goat, to lioness and hyena:) **Then** we will set a fire, **then** put a waterjar shard up on it, **then** when the shard has become hot, **then** do whatchamacallit to that medicine (= magical potion), stir it (with a ladle), and **then** make whatchamacallit for Lioness …' (2004-1a.06)

15.2.1.5 Headless or headed (tùŋ kà:) relative '[the time] when …'

In (xx1.a), tùŋ kà: '(the) time when ...' is the head of a rather long relative clause that is finally brought to a close with Relative ŋ́ and yàgàfú: 'all'. tùŋ is the slightly reduced low-toned form taken here by tùwⁿɔ́ 'time, moment', as in tùwⁿɔ́ jérè 'sometimes'. The Perfective-Ib in (xx1.a) is unusual in a relative, but the complexity of this example (i.e. the distance between the head NP and the inflected verb) seems to have allowed it. In (xx1.b-c), a similar head '(the) time when ...' is understood, but omitted. In both the headed and headless versions, the usual interpretation is 'after ...', indicating sequence rather than simultaneity.

(xx1) a.
ká	tùŋ	kà:	[àsí	mǎ:]	[kɔ̀	bàtú]	mɔ̀tɔ́≡m̀
say	time.L	Rel	[Logo	Pl]	[Def	meeting]	gather≡and.SS

gá≡m̀	ní,	níŋ	kày⇑,	tégú-wɔs-è	ŋ́	yàgàfú:,
say≡and.SS	just,	now	Topic,	speak-Perf1b-3PlS	Rel	all,

háyà	ká	kó	ɛ̀lá
well	say	NonhSg	look.Imprt

'(saying:) when we have gathered for the meeting, and after that now when they have said everything, well, you, look!' (2004-1b.01)

b.
[àrⁿá	mùrú-sɔ̀	ŋ́	yà:fú:]
[rain	rain.fall-**Perf2**	**Rel**	**all**]

[àrǎ-m	yà:fú:]	[ór	kù]	bò-só
[man-Pl	all]	[field	in]	go.to-Perf

'After the rain fell, all the men went to the fields.'

c.
[bɛ́	lɛ́	lî-sà	ŋ́	yà:fú:]
[3PlS	meal	eat-**Perf2**	**Rel**	**all**]

[lú:mà   kù]   bò-s-é≡bɛ́
[market   in]   go.to-Perf2-3Pl-3PlS
'After they ate (the meal), they went to the market.'

A recurring discourse function of headless relatives (with final ŋ́, but without kà:) is in narrative sequences of the type [... X; *when/after X*, Y], where X and Y represent events. On its first occurrence, X is a foregrounded event. It is then repeated as background for the next foregrounded event Y. In (xxx), note the verbatim repetition of '(a/the) storm encountered them in the bush', except for Relative ŋ́ in the second occurrence.

(xxx) àrⁿà-kúsó   kɛ́   ɗìrⁿú-sà   [sǎŋ   kù],
        storm   NonhPlO encounter-Perf2 [bush   in]
        [àrⁿà-kúsó   kɛ́   ɗìrⁿú-sà   [sǎŋ   kù]   ŋ́]
        [storm   NonhPlO encounter-Perf2 [bush   in]   Rel]
        [[àwⁿà-ùrò   pòtú],   á   dà],
        [[aardvark-hole.L former], Impf   be],
        kó   zǒw-sɔ̀≡cɛ́   [kò   dé]
        NonhSg   run-Perf2-\NonhPlS [NonhSg Dat]
        '... a storm encountered them (= animals) in the bush. When the storm encountered them in the bush, there was an old aardvark burrow there, so they ran for it (= burrow).' (2004-1a.07)

15.2.2 'Since …' and 'until ...' clauses

15.2.2.1 *'Since ...' (zǎ: ...)*

Clause-initial zǎ: 'since ...' has temporal rather than causal ('because') reference. It is borrowed from Songhay. The verb of the clause has Relative ŋ́ following the Perfective-II suffix, suggesting the virtual presence of an implicit relative-clause head ('since [the moment] when …'). (xxx.b) has paired 'since …' and 'until …' clauses, giving boundaries on both sides of a temporal span.

(xxx) a. [zǎ: wó   yè-só   ŋ́]
             [**since**   3SgS   come-Perf2 Rel]
             [nî   ɗì-rí-wɔ́]
             [water   bathe-PerfNeg-3SgS]
             'Since he/she came, he/she has not bathed.'

b. [ză: wɔ́ lăr-s-è ŋ́]
[**since** 3SgO bear-Perf2-3PlS Rel]
[háɬi nŭm-s-ǒ:]
[**until** die-Perf2-3SgS]
[kɔ̀:ⁿsɔ́ nì-rⁿì-wɔ́]
[millet.beer drink-PerfNeg-3SgS]
'From (the time) they bore him (=he was born), until he died, he did
not drink millet beer.'

15.2.2.2 'Until ...' (háɬi ...) plus "imperative" verb

The 'until' word is háɬi (variant hâl), preceding its complement. (It is also used
in the sense 'all the way to' with a nominal or adverbial complement). háɬi is
found in all languages of the region in one variant or another.

In one quite common pattern, the háɬi clause ends with an **unsuffixed verb
identical to the Imperative** (not the combining form, or any verbal noun). The
imperative-like form is unmistakable from the stem-final non-high vowel in
(xx1.a-c), though of course the functional label "imperative" would be
nonsensical here. One can think of this (unaffixed) form as a pure lexical stem
that can be used without further morphology as an imperative, in this 'until'
construction, etc. A subject pronominal appears preverbally as needed (xx1.a)
but it is omitted in some fixed phrases (xx1.b-c).

(xx1) a. [[gàllè ŋú] zàtí-yàrà-wɔ́]
[[courtyard.L DemSg] sweep-Fut-3SgS]
[háɬi kɔ́ dùwⁿɔ́]
[**until** NonhSgS **be.finished.Imprt**]
'He/She will sweep this courtyand until it is finished.'

b. [â: lí-rà≡kɔ̀] [háɬi dùwⁿɔ́]
[Impf eat-Impf-\NonhSgS] [**until** **be.finished.Imprt**]
'they (=locusts) eat (the millet) until it is finished (=nothing left).'
(2004-1b.03)

c. [kó kày] [círú dá gà] [á yăy bè-tà],
[NonhSg Topic] [fly be while] [Impf go can-Impf]
[háɬi wⁿáŋú-lá]
[**until** **far-Inch.Imprt**]
'As for it (=grasshopper), it is capable of flying along until it has
gone a long way.' (2004-1b.03)

311

d. pè:l'lò   kún,   zákkà,   î   á   gùŋgù'rò,
   ten-Ordinal.L DefSg,   annual.charity, 1PlS Impf   take,out-Impf,
   háɺì [yù   ú   bɛ̀'sá   ɲ́   yà:fú:] dùwⁿɔ́
   until [millet.L 2SgS get-Perf2   Rel   all]
      be.finished.Imprt
   'We take out (= reserve) the tenth (basketful of millet grain spikes)
   as charity (Islamic zakat), until all the millet that you-Sg have
   gotten is finished.' (2004-2a.06)

The examples in (xx2) may well be of the same type as in (xx1), but for the
verbs in question ('arrive', 'come') there is no audible distinction between the
Imperative and the combining form.

(xx2)   a. yǎy-yɛ̀r-è≡bɛ́   [háɺì   bɛ́   ǐnî   yèrí   dɔ́]
      go-Fut-3PlS-\3PlS [**until** 3PlS   here   come   **arrive.Imprt**]
      'They will walk until they come and arrive here.'

      b. [î   bírá   bǐrí-yàrà]   [níŋǐ   só]
         [1PlS   work(noun)   work-Fut]   [now   take]
         [háɺì   nǔ-m   yèrí]
         [**until**   person-pl   **come.Imprt**]
         'We will work from now until the people come.'

      c. [gǒŋ   mánǐ]   [kúwɔ́-nây   yà:fú:] sɔ́rⁿú   mɔ̌t-tɔ̀,
         [elephant too]   [foot-four.HL   all]   call   be.together-
         Perf2,
         háɺì   [èwrá   jèsù]   dɔ́
         until   [frog   on]   **arrive.Imprt**
         'Elephant likewise called all the quadrupeds together, until it
         arrived on (=ended with) frog.' (2004-1b.01)

      d. [nî   î   á   nǐ'rⁿà]
         [water   1PlS   Impf   drink-Impf]
         [háɺì   [žǐrⁿà   làgú]   bǐřǐy   yèrí]
         [until   [rainy.season.L other] go.back come.Imprt]
         'We drink water (from artificial ponds) until another (= the next)
         rainy season comes back.' (2004-2a.04)

It is semantically natural that 'arrive' be so common as the final verb in an
'until ...' clause, especially since this verb is easily chained to preceding VPs. In
addition to the construction illustrated above, I have several examples where the

dɔ́ is followed by a form of dà 'be'. This is the regular **stative construction** (§xxx), and here the dɔ́ must be taken as the combining form, which is used in the stative construction, rather than as (a form identical to) the Imperative. Examples are in (xx3). (xx3.a) is my assistant's rephrasing of (xx2.c), above.

(xx3)   a.   mɔ̀tú-s-è≡bɛ́   [hálǐ   [èwrá   jèsù] dɔ́   dà]
           come.together-Perf2-3PlS-\3PlS   [**until** [frog on]   arrive
                              be]
           'They (=quadrupeds) came together until it arrived at (=ended with) frog.'

        b.   hâl   [kɔ̀   kúrɔ̀]
           until [NonhSgP   hair]
           [[[kɔ̀   púrɔ̀]   kà]   kù]   dɔ́   dà
           [[[NonhSgP belly] mouth.L] in]   arrive   **be**
           'until (=to the point that) its (=grasshopper's) outer wing ("hair/feather") reaches the tip of its abdomen ("belly").' (emended from 2004-1b.03)

        c.   yǎy-s-è≡bɛ́   [hálǐ ìnî   yèrî   dɔ́   d-è≡bɛ́]
           go-Perf2-3PlS-\3PlS   [**until** here   come   arrive   **be**-3Pls-\3PlS]
           'They walked until they had come and arrived here.'

15.2.2.3 Clause with final "imperative" verb and implied 'until'

In (xxx), the final clause [kɔ́ yàyá] has no overt complementizer, and the preceding clause is in chained VP (rather than inflected main-clause) form. However, yàyá is identical in form to the corresponding Imperative, and the context suggests that this clause expresses a final outcome, so some connection between this and the overt 'until …' construction with imperative-like verb (described in the preceding section) seems likely.

(xxx) ú   ká   àsí   kɔ́   áw-é   tán⇑,
      2SgS   say   Logo NonhSgO catch-Hort if,
      má   á   bàmbù-rà≡kɔ́,
      then   Impf   go.around-Impf-NonhSgS,
      [má   kɔ́   tóró   mà]   [kɔ́   yàyá]
      [then NonhSgS jump   and.SS]   [NonhSgS   go.Imprt]

'Just when you say (= think) you'll try to catch it (= grasshopper), then it moves around, then it hops until it has gone (away).' (2004-1b.03) (bàwⁿá)

15.2.2.4 'Until ...' (ħálǐ ...) plus perfective verb

See (xx1.b) in §15.2.2.1, above, for an example with a simple perfective verb in the 'until' clause.

15.2.3 'Before …' clause (tùŋ kà: ... VERB-rĕŋ célà)

A 'before …' clause is multiply characterized by the features in (xxx).

(xxx)   a. optionally, clause-initial tùŋ kà: ('time when ...' including Relative
            kà:, cf. tùŋ kálá 'always');
         b. Verbal Noun with suffix -rĕŋ;
         c. clause-final temporal adverbial célà (cf. yàgá célà 'when?')

One might speculate that this use of -rĕŋ may have originally represented a negative participle of some kind (cf. Perfective Negative -rí-, Participial -ŋ), hence an original structure of the type 'at the time when [subject NP] had not (yet) VP-ed'. This would make sense of the relative-clause structure (including kà:). Whether or not there is any truth to this etymological speculation, synchronically this -rĕŋ is just a special case of the Verbal Noun suffix, whose consonantal morphophonology of -rĕŋ is usually distinct from that of Perfective Negative -rí- (§18. while matching that of Imperfective -rà-, Therefore a specific etymological equation of -rĕŋ with Perfective Negative -rí- is ruled out on multiple grounds: consonantal morphophonology, vocalism, and word-level tone contour.

A pronominal subject (including third person) is preverbal, not suffixed (xx1.d-e).

(xxx)   a. [lɛ́   î   lí-yàrà]
             [meal   1PlS   eat-Impf]
             tùŋ   kà: lú:mà   î   bó-tĕŋ   célà
             time.L Rel   market 1PlS   go.to-**VblN**   **time**
             'We will eat, before we go to the market.'

         b. [gǐró   léy   céló]

314

[eye   sleep   do.well.Imprt]
tùŋ   kà: ú   wàrá   wá-lěŋ   cɛ́là
time.L Rel 2SgS   farming   farm-**VblN**   **time**
'Sleep-2Sg well (imperative), before you do farm work.'

c.   tùŋ   kà: ú   nùŋɔ́   núŋú-rěŋ   cɛ́là
time.L   **Rel**   2SgS song   sing-**VblN**   **time**
'before you-Sg sing (a song)'

d.   jîŋgá:rú   kárⁿú-wɔ̀sǐ-wɔ́
prayer   do-Perf1b-3SgS
wɔ́   lɛ́   lî-rěŋ   cɛ́là
3SgS   meal   eat-**VblN**   **time**
'He said a prayer before eating.'

e.   zɔ̌w-s-ɛ̀≡cɛ̀
run-Perf2-3Pl-\NonhPl
[tùŋ   kà: kɔ́   yé-těŋ   cɛ́là]
[**time.L Rel** NonhSg come-**VblN**   **time**]
'They (=sheep) fled, before it (=hyena) came (back).' (2004-1a.07)

f. î   bírǐy-těŋ   cɛ́là
1PlS   go.back-VblN   time
'before we return'

The alternative is a **negative temporal adverbial clause** (in the form of a relative clause with overt or covert 'time', 'moment', 'day', or the like as head) e.g. 'since (the time when) we have not (yet) eaten' = 'before we eat'.

(xx2) jérè   wá⇒, [á   bǐrǐy   yè'tò]
      certain certain, [Impf go.back   come-Impf]
      [zǎ: î   wàrá   dɔ̀'rí   ŋ́]
      [**since** 1PlS do.farming **arrive-PerfNeg** **Rel**]
      'Some of them (young people who work seasonally in the south) come back, before we have reached the farming (season).'

15.2.4 Spatial adverbial clause ('where …')

děŋ 'place' occurs as the head of a relative clause, in L-toned form dèŋ.

(xx1) dèŋ   kà: á   là   ŋ́
place.L   Rel   Impf   go.Impf   Rel
'(they considered) where to go' (2004-1a.05)

For dèŋ … dèŋ in a single relative clause, see §14.1.12.

15.2.5   Manner adverbial clause ('how …')

A headless relative clause (§14.1.5.) may have a manner-adverbial interpretation depending on context.

(xx1) ká,   kùlɔ́,   kà: á   kùl'l'è   ŋ́
say,   cooking,   Rel   2PlS   cook-Impf-3PlS   Rel
'He said (= asked about) cooking, (about) the way they cook.' (2004-2b.01)

An irregularly reduplicated form ká-kâ:^{n} is attested in an embedded question in manner-adverbial function, in the same textual passage. Cf. kâ:^{n} (variant of kálá:) 'any'.

(xx2) [[[yù'kúsù   mà]   dè]   só   mà]
[[[millet-spike   ReflP]   Dat]   take   and.SS]
[ká'kâ:^{n} á   bǐ't'è   ŋ́
[**how**   Impf   cook-Impf-3PlS   Rel
'the way use ("take") their millet grain spikes and cook' (2004-2b.01)

16   Conditional constructions

16.1   Hypothetical conditional with má

The clause-final particle má is used in conditional antecedent ('if') clauses. It should not be confused with clause-chaining mà (§15.xxx) or with interrogative particle ma (which acquires its tone from the preceding word and is often prolonged intonationally). A historical connection with the interrogative particle cannot be ruled out. In conditionals, má follows a verb with regular AN inflection, and does not contract to ⸗m̀. Also, má may be followed by Topic morpheme kày (§xxx).

   The **antecedent** and **consequent** clauses may have shared or distinct subjects, as usual cross-linguistically with conditionals. The unmarked aspectual categories are Perfective for the antecedent clause, and Imperfective (future) with suffix -yàrà for the consequent clause. This assumes that both clauses denote temporally bounded events.

(xxx)   a.   [bèlù   ŋ̀gú]   ̌inî   lú-wòrè   má,
             [sheep.L Dem]   here   enter-**Perf1a** **if**,
             ̂i   kɔ́   cî-yàrà
             1PlS   NonhSgO   slaughter-**Impf**
             'If that sheep comes in here, we will slaughter it.'

        b.   [cèrù   mútú]   m̀   bɛ̌:-sǐ   má,
             [money.L much]   1SgS   get-**Perf2**   **if**,
             ̌inî   máyⁿ   m̀   mǎyⁿ-yàrⁿà
             here   construction   1SgS   build-**Impf**
             'If I get (=make) a lot of money, I will build (a home) here.'

   The particle má **may be repeated at the onset of the consequent** clause. This is especially helpful to the listener parsing the utterancet, in cases where the antecedent is complex (multi-clausal), so any clues as to the location of the break between antecedent and consequent is much appreciated. In (xxx.a), two antecedent ('if') clauses are followed by a consequent that begins with má.

(xxx)   a.   [àrⁿá   mùrú-wòrè   má]
             [rain   rain.fall-Perf1a   **if**]
             [nǔ-m   bɛ̀-rɛ́   tòw-tɔ́   má]

317

[person-Pl   go.to-Perf1a   seedstock.L-sow.VblN   **if**]
[má   jɛ́   á   jî-yèr-è≡bɛ́]
[**then**   dance(noun)   Impf   dance-Fut-3PlS-\3Pl]
'When the rain has fallen, and when the people have gone in order
to sow the (millet) seedstock, then they will dance.'

Where required by the context, the antecedent may be **imperfective or
stative**.

(xxx)   a.   nî   děŋ   dɔ̌y   dà   má   kày,
             now   place   hot   **be**   **if**   **Top**,
             kŭmnò   î   á   òn-nò
             above   1PlS   Impf   go.up-Impf
             'If (=when) the place is hot, we go up on the roof (to sleep).'

        b.   lɛ́   î   á   l̆i-rà   má,
             meal   1PlS   Impf   eat-Impf   if,
             î   tègú   tègù-nó
             1PlS   talk(noun)   speak-ImpfNeg
             'If we are eating, we don't talk.'

The consequent may also be an **imperative** (positive or negative) or a
hortative.

(xxx)   a.   àrⁿá   mù-tɔ̀   má,   [lú:mà   kù]   bòrù-kú
             rain   rain.fall-be   if,   [market   in]   go-ImpfNeg
             'If it's raining, don't-2Sg go to the market!' (mùrɔ́)

        b.   [àrⁿá   mù-lî   má]   [á   î   yⁿɛ̆:   lú:mà]
             [rain   rain.fall-PerfNeg if]   [Hort   1Pl   go.to.Hort   market]
             'If it doesn't rain, let's go to the market!' (mùrɔ́)

Third person subject pronominals are preverbal (like first and second
person subject pronominals) rather than suffixed in conditional antecedents.

(xxx)   a.   wɔ́   lɛ́   nǐ-rⁿá   má,
             3SgS   meal   eat-ImpfNeg   **if**,
             sὲw-lù-n-ɔ́:
             fat-Inch-ImpfNeg-3SgS
             'If he/she doesn't eat, he/she won't grow.'

        b.   bɛ́   yèrú-wòrè   má,   lɛ́   î   lí-yàrà

318

3PlS come-Perf1a **if**, meal 1PlS eat-Impf
'If they come, we will eat.'

c.   wó   sátállà   zê:rú-wòrè   má,
    3SgS   kettle   bring-Perf1a   **if**,
    lέ   lî-yòr-ǒ:
    meal   eat-Impf-3SgS
    'If he/she brings the kettle, he/she will eat.'

The antecedent normally precedes the consequent, but of course an antecedent added as an afterthought follows the consequent.

(xxx) a.   lέ   î   lî-yàra
      meal   1PlS   eat-Impf,
      bέ   kò   lέ   zê:rú-wòsĭ   má
      3PlS   ?   meal   bring-Perf1b   **if**
      'We will eat — if they bring the meal.'

For yà:fú: 'all' as right-edge marker in conditionals, see under "willy-nilly" antecedents, just below.

16.2   Hypothetical conditional with táŋ

táŋ is borrowed from Fulfulde tan 'only'. It is used in T-S in its secondary Fulfulde function as a clause-final 'if' particle. It is a little more emphatic than má in stressing the causal relationship between the antecedent and the consequent.

(xxx) a.   nî   àrⁿá   mù-nɔ́   táŋ,
      now   rain   rain.fall-ImpfNeg   **only**,
      [àrzàkà   ŋí]   nŭm-màrà
      [animal.L   DemPl]   die-Impf
      'If it doesn't rain, the animals will die.' (mùrɔ́, nùwⁿó)

b.   [bùréymá   sátállà   zê:-nó   táŋ],
      [Boura   kettle   bring-ImpfNeg   **only**]
      lέ   nĭ-rⁿ-ǒ:
      meal   eat-ImpfNeg-3SgS
      'If Boura doesn't bring the kettle, he won't eat.'

319

16.3 'Even if …' (fây … ńdè, mú:rà:)

The most direct translation of 'even if ...' is a construction with initial fây 'even' (§19.1.4) and a clause-final ńdè 'if' (xx1).

(xx1) a. fây   [ǹ   dé]   àtê: ów-s-è   ńdè]
           even   [1Sg   Dat]   tea   give-Perf2-3PlS if]
           ǹ   nǐ-rⁿá
           1SgS   drink-PerfNeg
           'Even if they give tea to me, I don't drink (it).'

       b. húwⁿɔ̀   î   bírá   bǐrí-yàrà
           tomorrow   1PlS   work(noun) work-Fut
           fây   ú   yè-nó   ńdè
           even   2SgS   come-ImpfNeg   if
           'Tomorrow we will work, even if you-Sg don't come.'

An alternative 'even if' construction is with initial mú:rà:. For the relevant textual example see (xx1.c) in §19.4.3.

16.4 Willy-nilly and disjunctive antecedents ('whether X or Y …')

In this construction, the two polar opposite propositions (the second normally being the negation of the first) are conjoined, so lěy 'and, with' is added to the second. This in turn is followed by yà:fú: 'all'. There is no 'if' conjunction, and there is no special preference for perfective aspect in the antecedent clauses. The consequent has ordinary main-clause form.

(xxx) a. ú   â: yá-rà∴,
           2SgS   Impf   come-Impf-&,
           [ú   yè-nó]   lěy]   yà:fú:,
           [2SgS   come-ImpfNeg]   **and]**   **all**,
           î   [lɛ́   mà]   lí-yàrà
           1PlS   [meal ReflPoss] eat-Fut
           'Whether you-Sg are coming or aren't coming, we will eat our meal.'

See also §7.1.3 and the introduction to §7.2.

320

16.5 'Unless' antecedent

A regular negative antecedent is sufficient to translate 'unless …'.

(xxx) sîrà   wàrá   î   wàrí-yàrà,
     tomorrow   farming   1PlS   farm-Impf,
     nî   àrⁿá   mù-lí   má
     if   rain   rain.fall-PerfNeg   if
     'Tomorrow we will farm (=work in the fields), if if doesn't rain.' (=
     '…unless it rains')

16.6 'Supposing that' antecedent (săn-sà ... má)

A form săn-sà, possibly in the form of an otherwise unattested inflected verb (Perfective-II), may occur at the beginning of a conditional antecedent clause with final má. The meaning is 'if it's the case that ...', 'in the event that ...', or 'supposing that ...' Since there is otherwise no clear break between 'if ...' and 'when ...' in TT conditionals, săn-sà emphasizes the hypothetical or even unlikely status of the antecedent proposition.

(xxx) săn-sà   [à-nù   kúnú]   yèrú-wòrè   má,   ká   wó   tégó
     supposing [man-Sg.L DefSg] come-Perf1a if,   say   3Sg   speak.Imprt
     'If that man happens to come, let him say: ...' (2004-1b.01)

16.7 Counterfactual conditional

Counterfactuals differ in form from ordinary conditionals chiefly in including the Past morpheme nɔ̀ in the antecedent. The verb of the antecedent is Perfective-II (positive) or Perfective Negative, and the usual conditional particles (final má or tán, occasionally initial nî) are present. tán is the preferred particle in this context, but má is accepted. A negative consequent is expressed by the Perfective Negative, since the corresponding positive event is assumed to have actually taken place before the present. A positive consequent is expressed by the Future in my examples, here as a "future in the past" denoting an event that would have ensued.

(xx1)   a.   bɛ́   bá-sà   [[ìwá   túrú]   bîr-ù]   nɔ̀   tán,
          3PlS   accept-Perf2 [[month one]   work-VblN.HL] **Past** if,
          téwó   gàsù   dɔ̀-lí-yèr-è≡bɛ́

well   dig.L   arrive-Caus-Fut-3PlS-\3PlS
'If they had accepted (=been willing to do) one month's work, they
would have finished digging the well.'

b. nî   wɔ́   sîgásò   bò-lî   nɔ̀   tán
    if   3SgS   S   go.to-PerfNeg   **Past**   if
    ìnî   wàrá   wàrî-yàra-wɔ́
    here   farming   farm-Fut-3SgS
    'If he hadn't gone to Sikasso, he would have done some farming
    work here.'

c. wɔ́   [[gɔ̌ŋ   jĩrè]   kà   yày-rî   nɔ̀   tán,
    3SgS   [[elephant front]   at]   go-PerfNeg   **Past**   if,
    gɔ̌ŋ   wɔ́   wɔw-nɔ́
    elephant   3SgO   kill-PerfNeg
    'If he hadn't walked in front of the elephant, the elephant wouldn't
    have killed him.'

322

17   Complement and purposive clauses

17.1   Quotative complement

In reported speech, pronominals and spatiotemporal deictics are updated to conform to the here-and-now of the current speech event, as in English ('he tole me that he would come here to see me', where the second 'he' along with 'here' and 'me' have been updated from the original utterance 'I will go there to see you').

For Logophoric pronoun àsî (plural àsî mǎ:) replacing an original first person pronominal if coindexed with a higher-clause third person reported speaker, see §18.xxx.

17.1.1   'Say that …' with inflectable 'say' verb (gá-)

gá- is the morphologically regular 'say' verb, with a quotative complement in the form of a main clause (indicative, interrogative, imperative, etc., as in the original utterance).

(xxx)   a.   ǹ   gà-rî   [ǹ   yè-nó]
             1SgS   say.L-PerfNeg [1SgS   come-ImpfNeg]
             'I didn't say I am not coming.'

       b.   gâ:-r-ɔ̌:   [àsî   â: yá-rà]
             say-Impf-3SgS   [LogoS   Impf   come-Impf]
             'He$_x$ will say that he$_x$ is coming.'

       c.   ú   ǹgú   gá   bè-ná
             2SgS   DemSg   say   can-ImpfNeg
             'You-Sg cannot say that.'

17.1.2   Quotative particle ká

This particle takes no AN suffixes and cannot be negated. It is interpreted as perfective positive. It may be preceded by a subject NP or pronominal. If the

reference of the speaker is understood, as in extended reported speech, the subject is usually omitted.

(xx1) a. ká   [súkkárà   yⁿâŋgó]
           say   [sugar   not.be]
           'He/She said, there is no suger.'

       b. ǹ   ká   [súkkárà   yⁿâŋgó]`
           1SgS   say   [sugar   not.be]
           'I said, there is no sugar.'

Quotative ká does not occur with inflectional or derivational affixation. When such affixation is necessary, the regular verb gá- 'say' must be used. Likewise, ká does not occur as a verb in a verb chain, e.g. before bèrá 'be able to'.

In addition to cases like those in (xx1), where ká functions like a 'say' verb and has an overt or understood subject, ká is often repeated inside the quoted matter itself. Long quotations attributed to a single speaker may be peppered with many such occurrences of ká. I will use the interlinear gloss 'saying' rather than 'say' in such cases, but will generally disregard them in the free translation. In this 'saying' function, ká typically occurs at the beginning of a clause, or after a subject NP or a vocative. In (xxx) there is an initial ká 'say' indicating that Squirrel's speaking turn has begun, and this is followed by two further instances of ká glossed 'saying' within the quoted matter.

(xxx) mɨ́ʔm̀!   kúyⁿɔ́   ká   kɔ̀rú,
      no!   squirrel   **say**   lie,
      yàgá   ká   wɔ́   [[lòg-gònò   ń]   kú]
      how   **saying** 3Sg   [[pit.L   DemSg]   in]
      ká   [kɔ̀   ténăm]   á   gùŋú   bè-tà   mà
      saying [Dem   hyena]   Impf   take.out   be.able-Impf   Q
      '"Nope," said Squirrel, "that's a lie. How could you-Sg get the hyena out of the (deep) earth pit?"' (2004-1a.05)

17.1.3   Jussive complement

17.1.3.1   Embedded imperative

In this construction, an original imperative is reported (i.e. embedded under a 'say' verb). Unlike unembedded imperatives, whose second person subject is

not overtly indicated by a pronominal, embedded imperatives require an overt NP or pronoun corresponding to the originally addressed person. An overt nonpronominal NP in this function is clearly a reported vocative, and is set off intonationally from the imperative clause itself. In the absence of a nonpronominal NP, we get an independent pronoun. Unless the original addressee happens to correspond to a current speech-act participant, as in (xx1.a), the independent pronoun is in third person form. Therefore an independent third person pronoun in a quotative context (with ká 'say') and preceding an imperative (or hortative) clause, as in (xx1.b-c), should be interpreted as a **reported vocative**, i.e. an original 'hey you!'.

The verb of the embedded imperative is morphologically the regular Imperative form (xxx.a-b), or where appropriate the regular imperative negative (xxx.c).

(xxx)　a.　[ú　　bá]　ká　　　[ú　　　yèrí]
　　　　　　　[2SgP　father]　say　　　[**2SgS**　come.Imprt]
　　　　　　　'Your-Sg father said for you to come.'

　　　　b.　ǹ　　　ká　　[[ì-mú　yà:fú:]　dé]　　[bé　　yèrí]
　　　　　　　1SgS　say　　[[child-Pl all]　　　Dat]　[**3PlS**　come.Imprt]
　　　　　　　'I told all of the children to come.'

　　　　c.　ǹ　　　ká　[[ì-mú　yà:fú:]　dé]　　[bé　yèrǐ-kú]
　　　　　　　1SgS　say　[[child-Plall]　　Dat]　　[**3PlS** come-Imprt.Neg]
　　　　　　　'I told all of the children not to come.'

17.1.3.2　Embedded hortative

Since a hortative ('let's …!') presupposes the participation of the speaker along with one or more others, in embedded hortatives the subject takes logophoric plural form àsî mǎ: (§18.xxx). The regular Hortative suffix appears on the verb.

(xxx)　a.　ká　　[àsî　mǎ:]　[lú:mà　　kù]　yⁿ-ě:
　　　　　　　say　　[Logo　Pl]　[market　　in]　**go.to-Hort**
　　　　　　　'He/She said, let's go to the market!'

　　　　b.　gà:　　sîrà,　　　[dèŋ　ŋgú]　　dé,
　　　　　　　but　　tomorrow,　[place.L DemSg]　Dat,
　　　　　　　wàgàtù　ŋú,　　[àsî　　mǎ:]　túnǒm-mà　ká　　dàg-έ
　　　　　　　time.L　DemSg,　　[Logo　Pl]　each.other　saying
　　　　　　　meet-Hort

325

'(Sheep to Hyena:) But tomorrow, at this place, at this time, let's meet each other!' (2004-1a.02)

17.2 Factive (indicative) complements

17.2.1 'Know that …' complement clause

The complement of 'know' has the form of an ordinary main clause. The complement clause follows the 'know' quasi-verb ùkú (§11.2.5).

(xxx) a. ú   ùkú   má   [ìlò   ŋú]   lǔw-wòrè   má
           2SgS   **know**   Q   [house.L   DemSg]   fall-Perf1a   Q
           'Do you-Sg know that the house fell?'

       b. m̀   ùkú   [wɔ́   kɔ̀   [ǹ̩   cɛ́rù]   lí-wɔ̀sǐ]
           1SgS   **know**   [**3SgS**   Focus [1SgP   money.HL]   eat-Perf1b]
           'I know that it was <u>he/she</u> [focus] who ate (=spent) my money.'

       c. m̀   ùkú   ɛ̀s-túrú-kòy   pàsù-rí≡cɛ́
           1SgS   find-Perf   anything   leave-PerfNeg-NonhPlS
           'I know that they-Nonh had not left anything.'

17.2.2 'See (find, hear) that …'

write
[àsǐ wɔ̀-cí dà] [wɔ́ á làpù-r-è ŋ́⇑], àsǐ [wɔ̀-cí dà] [wɔ́ á zɔ̀w-rɔ̀ ŋ́⇓]
'(He said:) I could see that they were whipping you. I could see that you were running.' (2004-1a.9)

17.2.2.1 Direct-perception type (relative-clause complement)

The higher clause precedes the complement, which has main-clause form. The sense is basically 'observe (the situation) that ...'.

(xxx) a. ǹ   dìrⁿ˝-sà   [kàyá   [m̀   órù]   lí-wɔ̀sǐ
           1SgS   find-Perf2   [grasshopper [1SgP field.HL] eat-Perf
           'I found that the grasshoppers (=locusts) had eaten my field.'

       b. ǹ   dìrⁿú-sà   [ɛ̀s-túrú-kòy   pàsǐ-rí≡cɛ́]

326

1SgS   find-Perf2   [anything   leave-PerfNeg-NonhPlS]
'I found that they-Nonh had not left anything.'

c.   ǹ   wɔ̀-kî   dà   [ú   yⁿàrⁿá   [m̀   bárù]]
    1SgS   see.L-Prof   be   [2SgS   not.want   [1SgP
        help.HL]]
    'I see that you-Sg don't want to help me.'

d.   yⁿà:ŋá   m̀   á   ègù-rà
    night   1SgS   Impf   hear-Impf
    [[nǐwⁿěy   mǎ:]   zɔ́ŋɔ̀   â: zɔ́ŋgú-rɔ̀
    [[cat   Pl]   fighting   Impf   fight-Impf
    'At night, I hear the cats fighting.' (zɔ́ŋ\\zɔ̀ŋɔ́)

17.2.2.2 Recognition (inference, hearsay) construction

(xxx)   a.   m̀   ɛ́gú-sà   [[yá   gǐrěy]   àrⁿá   mùrú-wɔ̀rè   sánní]
        1SgS   hear-Perf2 [[there   around]   rain
        rain.fall-Perf   much]
        'I heard that it rained a lot around there.'

17.2.3 Obligationals

17.2.3.1 Weak obligational (dàgú dà 'be right, proper')

The fixed stative verb phrase dàgú dà means 'it is right, normal, proper' (i.e. the socially approved thing to do). It is close to the English modals *should* or *ought to*, but has a stronger sense of social norms. It may occur with a following clause with a verb in Imperative form, often with 'and' particle má. The subject may precede dàgú dà, and other constituents may also be fronted (topicalized).

(xxx)   a.   dàgú   dà-∅   [ǹ   yá   [yá   gǐrěy]]
        be.proper be-3SgS [1SgS go.Imprt [there   around]]
        'I am supposed to go there.'

b.   sáydù   dàgú   dà-∅   [má   [yá   gǐrěy]   yá]
    Seydou be.proper be-3SgS [and   [there around]   go.Imprt]
    'Seydou is supposed to go there.'

c.   dàgú   dà-∅   [má   ǹ   wàsá   ìní]

be.proper be-3SgS   [and 1SgS   remain.Imprt here]
'I am supposed to stay here.'

dàgú\\dàgá is also a common verb meaning 'encounter (someone, on a path)', with extended meanings like '(man) marry (woman)'.

Negation is expressed in the higher clause. The negative counterpart of dàgú dà is dàgù-rí, with Perfective Negative suffix.

(xxx) a. ìnî   dàgì-rí-∅   [bé   yèrí]
           here   be.proper-PerfNeg-3SgS [3PlS come.Imprt]
           'They shouldn't come here.'

       b. dàgù-rí-∅   [ú   ǹ   dɔ́]
           be.proper-PerfNeg-3SgS [2SgS   1SgO   insult.Imprt]
           'You-Sg shouldn't insult me.'

17.2.3.2 *Strong obligational (kàlà 'must')*

kàlà (probably borrowed from Songhay) is a sentence-initial impersonal 'must' expression similar to French *il faut (que)* and Spanish *hay (que)*.

(xx1) kàlà   àrǎ'm   mɔ̀tɔ́   mà, …
       must man-Pl   assemble   and.SS, …
       'The men had to come together, and …' (2005-2a.03)

17.3 Verbal Noun -rɛ̌ŋ/-tɛ̌ŋ or -ú (and other nominal) complements

A number of main-clause verbs take complements whose verb appears in the form of a verbal noun.

Of the two morphological verbal nouns, that in -ú is used in this type of complement **chiefly when the complement precedes the main-clause verb**. (I have some elicited examples where the -ú complement is extraposed, but this may be a case where my assistant was influenced by the linear order in the French cues.) The type in -rɛ̌ŋ (-tɛ̌ŋ) is used **when the complement follows the main-clause verb**. There is a distinct construction, often interpreted as purposive, where the -ú verbal noun complement follows an inflected motion verb, see §17.5.1. For -rɛ̌ŋ (-tɛ̌ŋ) in a 'before ...' clause construction, see §15.2.3.

In the -ú verbal noun type, there is no suffix for monosyllabic Cv́- stems. For longer stems, the suffix imposes a {LH} contour, only the suffixal vowel being high-toned. The final -ú is apocopated after semivowels and m, including m from /wⁿ/, in which case the resulting final CvC syllable ends up with rising tone. The -ú verbal noun is always segmentally identical to the combining form of the same verb, but if the verb is nonmonosyllabic and has lexical all-high tone, the combining form remains all-high while the -ú verbal noun has {LH} contour.

-rěŋ has variants -těŋ, -lěŋ, etc., due to CC-cluster rules following Early u-Syncope; see §4.2.2.2.

17.3.1 Structure of -Verbal-Noun phrase

17.3.1.1 Structure of -ú Verbal-Noun phrase

The verbal noun with -ú is more nouny than that with -rěŋ (discussed in the following section), and it lends itself to compounding, usually with a nominal initial that represents the logical direct object. The nominal compound initial **drops its tones** to all low.

Many compounds of this type are **lexicalized**, and may be used as nouns in any syntactic function. Two tonal types are distinguished. In both, the compound initial is a bare noun stem (or compound) without determiners or quantifiers (other than suffixes), and is low-toned. In one tonal type (x̀ n̄), the verbal noun has its regular tone {LH} tone contour; for examples see §5.1.3. In the other tonal type (x̀ ń), the verbal noun unexpectedly shifts to all-high tone contour; for examples see §5.1.4. The two tonal types can only be distinguished when the verbal noun is bisyllabic or longer. (xx1) is an example with a monosyllabic verbal noun that could be of either tonal type; see §5.1.5 for more such cases.

(xx1) sáydù   lὲ-lî   îwà   [nîŋ   dà]
       Seydou   meal.L-**eat** want   [now   Emph]
       'Seydou wants to eat a meal right now.' (lέ 'meal')

Other direct object NPs (e.g. those with determiners or quantifiers) and proper nouns have their **regular tone contours** and are treated as **possessors** of the verbal noun. A pronominal direct object also functions as a possessor. After a possessor, the verbal noun itself has the usual tone overlays of possessed nouns, i.e. {HL} after a pronoun (xx2.b) or a complex NP (xx2.c), and all-low

after a simple noun such as a personal name (xx2.a). The absolute (unpossessed) forms of the verbal nouns are given in parentheses after the free translations.

(xx1)   a.   á:mádù   [sáydù   tɛ̀w-∅]   îwà
            A   [S   hit-VblN.L]   want
            'Amadou wants to hit Seydou.' (tɛ̌w-∅)

        b.   á:mádù   [ǹ   têw-∅]   îwà
            A   [1SgP   hit-VblN.L]   want
            'Amadou wants to hit me.' (tɛ̌w-∅)

        c.   sáydù   [[nàwⁿà   ŋú]   kûw-∅   îwà
            Seydou   [[meat.L   DemSg]   eat(meat)-VblN.HL want
            'Seydou wants to eat this meat.' (nàwⁿá, kǔw-∅)

        d.   [[yⁿà-rⁿù   ŋú]   zân-∅]   yè-lé
            [[woman-Sg.L DemSg]   seek-VblN.HL] come-ImprtNeg
            '(He) should not (= tell him not to) come and court this woman!'
            (2004-1b.01) (zàŋ-ú ~ zǎŋ-∅)

        e.   má   [níŋ   kày]   [[nù'mú   yà:fú:]   hél'ù],
            and.then   [now   Topic] [[person-Pl all]   distribute-VblN.HL]
            And now (there is) the distribution of (= to) all the people.' (2004-
            2b.01) (hèl-ú)

In addition to direct objects, **other non-subject constituents** may function as possessors, as shown by the appearance of possessed-noun tone contours on the verbal noun (xx3).

(xx2)   a.   ká   àsî   bá-wɔ̀sǐ   [[î   níŋèy]   bór-ù]
            say   LogoSgS consent-Perf1b   [[1Pl beside]   go-**VblN.HL**]
            'He said he agreed to go along with us.' (bòr-ú)

        b.   [[órú   kù]   bór-ù]   îw-ǒ:
            [[field   in]   go-VblN.HL]   want-3SgS
            'He/She wants to go to the field(s).' (bòr-ú)

        c.   [[kàrá   kù]   îs-ù]   îw-ǒ:
            [[mat   in]   lie.down-VblN.HL] want-3SgS
            'He/She wants to lie down on the mat.' (ìs-ú)

        d.   [yó   yèr-ù]   yⁿà-rⁿ-ɔ́:,

330

[today   come-VblN.L]   (not)want-Neg-3SgS,
[sîrà   yèr-ù]   îw-ǒ:
[tomorrow   come-VblN.L] want-3SgS
'He/She doesn't want to come today, (rather) he/she wants to come tomorrow.' (yèr-ú)

In constructions with main-clause verbs like gàŋá 'prevent' that do not typically have coindexed subjects, a **lower-clause subject** NP or pronominal may also occur with a verbal noun in -ú. If there is no direct object, the subject may function as possessor of the verbal noun. If there is a direct object, the preferred construction is one where the logical lower-clause subject is expressed as the direct objet of gàŋá.

(xx1) a. àrⁿá   [ŋ̀   yér-ù]   gàŋú-sà
             rain   [1SgP   come-Nom.HL]   prevent-Perf2
             'The rain prevented my coming.'

      b. àrⁿá   ŋ̀   gàŋú-sà   [yù-[zé:r -ú]]
             rain   1SgO   prevent-Perf2 [millet.L-[bring/VblN.H]]
             'The rain prevented me from bringing millet (to market0.'

A **verb chain** also takes compound form when converted into a verbal noun with -ú. The final verb is the morphological verbal noun. The nonfinal verb stem occurs in the combining form and is low-toned (as a compound initial). See §15.1.1 for examples.

17.3.1.2 Structure of -rěŋ / -těŋ Verbal-Noun phrase

The verbal noun with suffix -rěŋ allows direct objects and other nonsubject constituents to appear **in their normal form** (i.e. with no special tone-contour overlays or other modifications). For examples with 'want' see (xx2) in §17.3.6, below.

However, I do have one textual occurrence where the -rěŋ (-těŋ) verbal noun is possessed by a pronominal direct object. The verbal noun therefore has overlaid possessed-noun {HL} tone contour (xx1).

(xx1) [kùwɔ̀-kà   ŋ̀gú]   ĩw-ná
      [foot-mouth.L   DemSg]   be.afraid-ImpfNeg
      [kɔ̀   záŋgú-rèŋ]   mà
      [NonhSgP   seek-VblN.HL]   Q

'Is not (the owner of) these tracks afraid to court her?' (2004-1b.01)

17.3.2 'Prevent' (gàŋá)

When the main-clause verb is gàŋá, the logical structure is of the type [X prevent [Y VP]], with lower-clause subject Y. This construction is favored when the VP does not include non-subject constituents other than the verb. It is realized with Y as possessor of the verbal noun in -ú of the lower clause.

A 'prevent' construction may also be structured as [X prevent Y [VP]], where Y is treated as the direct object of the 'prevent' verb, so the complement is reduced to the lower-clause VP. This construction is favored when the VP includes a direct object or other complement, which becomes the possessor (or compound initial) of the verbal noun.

(xx1) a. àrⁿá   [ǹ̀   yér-ù]   gàŋú-sà
           rain   [1SgP   come-Nom.HL]   prevent-Perf2
           'The rain prevented my coming.'

       b. àrⁿá   ǹ̀   gàŋú-sà   [yù-[zé:r -ú]]
           rain   1SgO   prevent-Perf2 [millet.L-[bring/VblN.H]]
           'The rain prevented me from bringing millet (to market0.'

When the complement follows gàŋá, the verb of the complement may also have its verb appear in the verbal noun form with -rěŋ or -těŋ (xx2).

(xx2) àrⁿá   ǹ̀   gàŋú-sà   [ú   kà-dágú-rěŋ]
      rain   1SgO   prevent-Perf2   [2SgO   meet.L-meet-VblN]
      'The rain prevented me from meeting you-Sg.'

For 'prevent', see also há:mnà kárⁿá (§17.xxx).

17.3.3 'Consent' (bá)

bá means 'consent, agree to, accept (a proposal)'. When the complement has the same subject as 'consent', it has verbal-noun form (xx1).

(xx1) a. ká   àsî   bá-wɔ̀sǐ   [[î   níŋèy]   bór-ù]
           say   LogoSgS   consent-Perf1b [[1Pl   beside]   go-
                                           VblN.HL]

332

'He said he agreed to go along with us.'

b. bá-wɔ̀sǐ-wɔ́ [ǹ dé] mòbîl ów-rěŋ
   consent-Perf1b-3SgS [1Sg Dat] car give-VblN
   'She agreed to give me the car.'

With a switch in subjects, my elicited data show a Hortative verb in the complement (xx2).

(xx2) [m̀ bá] bá-sà [ǹ yⁿɛ̌: bámákò]
     [1SgP father.HL] consent-Perf2 [1SgS go.to.Hort
         B]
     'My father consented that I go to Bamako.'

17.3.4 'Want' (íwà, ìwá)

The basic 'want' predicate is a defective stative verb íwà or ìwá (§11.2.4). A clausal complement may take either of two forms when the subjects of the higher and complement clauses are coindexed.
    When the complement **precedes** 'want', the tone of the latter is íwà. The verb of the complement shows up as a **Verbal Noun** with suffix -ú (xx1); further examples are in (xx1) in §17.3.1, above.

(xx1) a. sǎy cǐr-ú íwà≡kɔ́
        bird fly-VblN want-\NonhSgS
        'The bird wants to fly.' (cîró)

      b. sáydù lè-lî íwà [nĩŋ dà]
         Seydou **meal.L-eat.VblN** want [now Emph]
         'Seydou wants to eat a meal right now.' (lɛ́ 'meal')

When the complement **follows** 'want', the tone of the latter is ìwá. The verb of the complement appears as the other Verbal Noun with suffix -rěŋ (§xxx). A direct object has the same form as it has in main clauses, and there is no possessor-possessed tonology.

(xx1) a. sǎy ìwá≡kɔ́ cí-těŋ
        bird want fly-VblN
        'The bird wants to fly.'

333

b. sáydù   ĭwá   [[nàwⁿà ŋú]   kúw-rěŋ
   Seydou want   [[meat.L DemSg] eat(meat)-VblN
   'Seydou wants to eat this meat.' (nàwⁿá)

c. á:mádù   ĭwá   [sáydù   téw-rěŋ]
   A   want   [S   hit-VblN]
   'Amadou wants to hit Seydou.'

d. á:mádù   ĭwá   [ǹ   téw-rěŋ]
   A   want   [1SgO   hit-VblN]
   'Amadou wants to hit me.'

'Negation ('not want to …') is expressed by a suppletive 'not want' verb yⁿàrⁿá- (§11.xxx) in the main clause. Either of the two verbal noun constructions, with -ú (xxx.a-d) and with -rěŋ (xxx.e), with their associated differences in syntax, may be used.

(xxx) a. yⁿàrⁿ-ɔ̌:   [bámákɔ̀   bór-ù]
          not.want-3SgS [Bamako   **go.to-VblN.HL**]
          'He/She doesn't want to go to Bamako.

       b. yⁿàrⁿ-ɔ̌:   lὲ-lí
          not.want-3SgS   meal.L-eat.VblN
          'He/She doesn't want to eat (a meal).'

       b. yèr-ú   yⁿàrⁿ-έ≡bέ
          come-VblN   not.want-3PlS
          'They don't want to come.'

       c. [èsé   dé] ú   àtὲ:-nî   yⁿàrⁿá   má
          [what?   Dat] 2SgS tea.L-**drink**   not.want   Q
          'Why don't you-Sg want to drink (the) tea?'

       d. yⁿàrⁿ-ɔ̌:   [ǹ   téw-rěŋ]
          not.want-3SgS   [1SgO   hit-VblN]
          'He/She doesn't want to hit me.'

With **non-coindexed subjects**, either a **hortative verb or a verbal noun** (-rěŋ) occurs in the complement. The lower-clause subject must be expressed, minimally by a subject pronominal. The subject and all complements have their regular main-clause forms, as usual in hortatives (which are fully finite) and in the -rěŋ verbal noun.

(xxx) a. [ù   bá:ⁿsà]   ká
      [2SgP   owner]   say
      àsî   ǐwá   [ú   gònó   gàs-έ]
      LogoSgS   want   [2SgS   pit   dig-**Hort**]
      'Your boss said that he wants you-Sg to dig a pit.'

      b. m̀ᵇ   ǐwá   [ìnî   ú   wású-rěŋ]
      1SgS   want   [here   2SgS   remain-**VblN**]
      'I want you-Sg to stay here.'

17.3.5 'Forget' and 'remember'

'Forget' is ná, while 'remember' is nátúrá (somewhat frozen reversive derivative, i.e. originally 'un-forget'). A clausal complement, in the sense 'forget/remember to (do something)' is expressed with the -rěŋ verbal noun.

(xxx) a. ná-wⁿɔ̀rⁿ-ǒ: [bǐdôŋ   ɔ́tú-m-těŋ]
      forget-Perf1a-3SgS [jug   wet-Fact-**VblN**]
      'He/She forgot to moisten the jug.'

      b. ǹ   nà-rⁿî   [bèrǐm   bérúm-těŋ]
      1SgS   forget-PerfNeg [greeting   greet-**VblN**]
      'I did not forget to give greetings.'

      c. [sáydù   dé]   ǹ   ná-wⁿɔ̀rⁿè   [kèrú   ów-rěŋ]
      [Seydou   Dat]   1SgS   forget-Perf1a [money   give-**VblN**]
      'I forgot to give the money to Seydou.'

      d. ǹ   nátúrú-wɔ̀sǐ   [bǐdôŋ   ɔ́tú-m-těŋ]
      1SgS   remember-Perf1b[jug   wet-Fact-**VblN**]
      'I remembered to moisten the jug.'

17.3.6 'Be afraid to, fear' (líwá)

This verb takes a complement with -rěŋ VblN. The complement follows the 'be afraid' clause.

(xxx) a. m̀   â: líw-rà   yé-těŋ
      1SgS   Impf   fear-Impf   come-**VblN**

335

'I am afraid to come.'

b. sáydù   lǐw-wɔ̀rè   [nǎ: kúw-rěŋ]
   Seydou   fear-Perf1a   [meat   eat(meat)-**VblN**]
   'Seydou was afraid to eat the meat.'

c. [bɔ̀ŋù-nú á   lǐw-rà]   [[mǐrá   mà]   tégú-rěŋ]
   [cripple-SgImpf fear-Impf] [[voice   ReflP   speak-VblN]
   'The cripple was afraid to speak (in) his voice (=out loud).' (2004-1a.09)

d. [kùwɔ̀-kà   ŋ̀gú]   lǐw-ná≡kɔ́   záŋú-rěŋ   má
   [footprint.L Dem] fear-ImpfNeg-NonhSgS   court-VblN   Q
   'Does not (the owner of) these footprints fear to court it (=female)?'
   (2004-1b.01)

17.3.7   'Be capable of doing' (wɔ́-)

The verb wɔ́- attested as Imperfective wɔ́-rɔ̀- and Imperfective Negative wⁿɔ̀-rⁿɔ́-, homophonous with and perhaps equatable with the corresponding forms of wɔ́- 'see', is used in combination with kàr-ú, verbal noun of kárⁿá 'do', in the sense 'be capable of'. A domain of reference is added as a NP (perhaps deverbal) with Dative postposition dè. One might compare colorful English idioms like *X can(not) hack it*. For the common 'be able to VP' construction with bèrá 'get', see §17.xxx.

(xxx) a. [yú   dè]   kàrⁿ-ú   wⁿɔ̀-rⁿ-é≡cɛ́
      [millet   Dat]   do-VblN   be.capable-ImpfNeg-3PlS-\NonhPl
      'They (=small grasshoppers) aren't as strong as (=cannot eat) millet.' (2004-1b.03)

b. [ǐlɔ̀-máy dè]   á   kàrⁿ-ú   wɔ̀-rɔ̀-wɔ́
      [house.L   Dat]   Impf   do-VblN   be.capable-Impf-3SgS
      'He/She has the ability (skill) to build houses.'

17.3.8   Complements with dative of -ú verbal noun

Since the -ú verbal noun is highly nouny, it may function as NP complement of a postposition. Certain main-clause verbs take dative verbal noun complements.

336

17.3.8.1 'Cease' (dèlá)

The main clause has dèlá 'stop (halt), stand up' in the sense 'cease (an activity)'. The complement is expressed as a nominal with Dative dé, or as a chained VP. The subject of the complement is coindexed with that of the main clause and is not overtly expressed in the complement.

In the type with nominal complement, a (generic) object NP in the complement may appear as a compound initial (xxx.a). Other constituents such as adverbials may also appear (xxx.b).

(xx1) a. [sǐgǐrɛ̀t-nî   dé]   ǹ   dèlú-wɔ̀rɛ̀
           [cigarette.L-drink.VblN **Dat**] 1SgS   **cease**-Perf1a
           'I have stopped (=abandoned) smoking.'

       b. [ìnî   jĩrò-lêy   dé]   ǹ   dèlú-wɔ̀rɛ̀
           [here   eye.L-sleep.HL   **Dat**] 1SgS   **cease**-Perf1a
           'I have stopped sleeping (=no longer sleep) here.'

The chain construction is seen in (xx2).

(xx2) ànànsá:rá [nîŋ   kày]   bɛ́   táy   dɛ̌l'sà
       European [now   Topic] 3PlO   shoot   **cease**-Perf2
       'Now the white ceased shooting at them.' (2004-2a.01)

The negation of dèlá ('not cease') is used in the sense '(do) continuously'.

(xx3) a. háɾi   yó   mà,   î   gàsú   dɛ̀l'li
           until   today   also, 1PlS   dig   cease-PerfNeg
           'Even nowadays, we have (still) not ceased excavating (artificial ponds).' (2004-2a.04)

       b. [ú   ùsú   dɛ̀l'lî   tán]   [ú   ɛ̀gî'yàrà]
           [2SgS   ask   **cease**-PerfNeg   if]   [2SgS   hear-Fut]
           'If you-Sg haven't stopped asking (= have more questions), you-Sg will hear.' (2004-2b.02)

17.3.8.2 'Prevent' (há:mnà kárⁿá)

Alongside gàŋá 'prevent, obstruct' (§17.xxx) is a synonymous expression há:mnà kárⁿá-, consisting of a noun há:mnà (from Fulfulde) and the normal 'do' verb. The complement is expressed as a dative PP including the -ú verbal noun (xx1.a).

(xx1) sáydù   m̀   há:mnà   kárⁿú-wɔ̀sĭ
       Seydou   1SgO   prevention   do-Perf1b

       [bɛ̀lù-cî   dè]
       [[sheep.L-slaughter.VblN] Dat]
       'Seydou prevented me from slaughtering the sheep.'

17.4 Verbs with preceding chained VP as complement

A number of constructions involving a control verb and an infinitival or similar complement in English, requiring shared subjects, are in fact expressed as VP chains in TT. Typically there is a high-frequency, perhaps semantically specialized final verb ('begin', 'be able to', etc.), which is preceded by a VP ending in the combining form of a verb. As a reminder, the combining verb is homophonous with the Verbal Noun in -ú for those verbs with lexical {LH} tone contour, and for Cv́- monosyllabic stems. It is therefore useful to give examples with nonmonosyllabic, lexically high-toned verb stems to demonstrate that the chained verb is in its combining form. In addition, in chained VPs the direct object has its regular tones (it does not drop tones in compound-initial style).

Chaining generally indicates that the two (or more) linked verbs denote aspects (or co-events) of a conceptually integrated event type.

As noted in §xxx, the shared subject NP (or first or second person pronominal) typically appears before the first chained verb. I normally bracket it with the final (i.e. the inflected) verb. Non-subject constituents such as direct objects and adverbials are often best bracketed with the relevant nonfinal verb, but some adverbials (e.g. temporals) may have scope over the entire chain and are therefore not bracketed with nonfinal verbs. Non-subject constituents that ought to be bracketed with a nonfinal verb optionally appear after the final verb, making it difficult to bracket. This is because such elements may not intervene between the nonfinal and final verb, which are directly adjacent.

For bàrá 'help' (§17.4.3), as an alternative to the regular chain construction, the complement may also be expressed as a postposed verbal noun clause with

suffix -rĕŋ. The other verbs covered in this section always use the chain construction.

17.4.1 'Begin' (dèwrá)

'Begin' is dèwrá, but in the Perfective-Ia it often irregularly contracts from dèwrú-wɔ̀rè- to dĕw-wɔ̀rè-. The complement VP is the combining form, hence e.g. tórú 'jump'. from lexically high-toned verbs. The complement may include a direct object with its normal tones (i.e. not as L-toned compound initial).

(xxx) a.   ǐ-rⁿú   [yɛ́   yî]   dĕw-wɔ̀rè
           child-Sg   [weeping   weep]   begin-Perf1a
           'The child began to weep.'

        b.   [jɛ́   jî]   dĕw-wɔ̀r-è≡bɛ́
           [dance(noun) dance]   begin-Perf1a-3PlS-\3PlS
           'They have begun to dance.'

        c.   [nàwⁿá   kúw]   dĕw-wɔ̀r-è≡bɛ́
           [meat   eat]   begin-Perf1a-3PlS-\3PlS
           'They have begun to eat the meat.'

        d.   á   [lɛ́   kárⁿú]   dèwrá
           2PlS   [meal   make]   begin.Imprt
           'Begin-2Pl cooking the meal!'

        e.   dɔ̂m   [nùŋɔ́   nùŋú]   dèw-l-é≡bɛ́
           yet   [song   sing]   begin-PerfNeg-3PlS-\3PlS
           'They have not yet begun to sing.'

        f.   [nàwⁿá   dùŋgùrú]   dĕw-wɔ̀r-è≡bɛ́
           [meat   cut]   begin-Perf1a-3PlS-\3PlS
           'They have begun to cut the meat.'

17.4.2 'Finish' (dùwⁿɔ́)

The complement clause has a verb in the combining form. The usual perfective positive form is Perfective-Ia dŭm-bɔ̀rè- (dŭm-mɔ̀rè-, dùm-mᵇɔRè)

(xxx)   a   [ú   lɛ́   lí]   dŭm-mɔ̀rè   mà ?

[2Sg   meal   eat]   finish-Perf1a Q
'Have you-Sg finished eating?'

b.   nò-mú   [[nǎ: kúw]   dùmbù-rí
     person-Pl [[meat   eat]   finish-PerfNeg
     'The people have not finished eating the meat.' (nàwⁿá)

c..   tórú   dǔm-mɔ̀rè-wɔ́
     jump   finish-Perf1a-3SgS
     'He/She finished jumping.'

17.4.3   'Help' (bàrá)

'Help' is bàrá. The relevant core sense of the verb is 'add, gather', implying that the helper is adding his effort to those of others. A direct object (denoting the person or entity helped) is present. The complement denoting the collective action may be a dative NP, perhaps one denoting an action (xx1).

(xx1) sáydù   m̀   bàrú-wɔ̀sǐ   [bîrá   dè]
     Seydou   1SgO   **help**-Perf1a   [work   Dat]
     'Seydou helped me work.' (lit. "... for work[noun]")

When the complement is expressed as a clause, its verb appears in the combining form in the usual case where the complement precedes the 'help' verb (xx2). In (xx2.a), combining form wàrú has low tones (wàrù) because it is linked prosodically to the following Future verb (which begins with low tones). That the two verbs are closely linked is also suggested by (xx2.b), where the logical object of 'dig', namely 'well', appears to the right of the 'help' verb (it could also be placed before the 1Pl object morpheme).

(xx2)   a.   m̀ᵇí   [ú   bá]   wàrù   bàrí-yàrà   [wò órù   kù]
             1SgS [2SgP   father] farming.L **help**-Fut   [3SgP field.HL
                    in]
             'I will help your father farm in his field.' (órú)

       b.   [nù-m   ŋî]   î   gàsú   bàrú-sà   téwó
             [person-Pl.L DemPl] 1PlO   dig   **help**-Perf2 well
             'Those people helped us dig a well.'

       c..   lɔ̀gú   m̀ᵇí   ú   á   tɔ́   bàrú   bɛ̀-tà

340

banco 1SgS   2SgO Impf stomp.on **help**   can-Impf
'I can help you-Sg stomp on the banco (mud for bricks).'

d. lɔ̀gú   ǹ   tɔ́   bà-lí-wɔ́
    banco 1SgO   stomp.on   **help**-PerfNeg-3SgS
    'He/She didn't help me stomp on the banco.'

e. ǹ   tórú   bàrú-s-ɔ̌:
    1SgO   jump   help-Perf2-3SgS
    'He/She helped me jump.'

In (xx3), the complement is **postverbal**. The combining form of the verb is not generally used in this position. In (xx3.a), the verbal noun -rě̌ŋ occurs. In (xx3.b), a nominal compound ('house-building') is used; here a Dative postposition is understood and may appear overtly.

(xxx) a. î   bàrá   [kà: kárⁿá mà]   [gònó gású-rě̌ŋ]
           1PlO **help**.Imprt [Rel do   and.SS] [hole dig-VblN]
           'Help us manage (find a way) to dig the hole.'

       b. ǹ   bàrú-s-ɔ̌:   [ìlò-máyⁿ   (dè)]
           1SgO   help-Perf2-3SgS   [house.L-build.H   (Dat)]
           'He/She helped me build a house.'

17.4.4 'Be able to, can' (bèrá)

The verb bèrá 'get, obtain' is used, as in several other Dogon languages (e.g. Jamsay) with a complement clause in the sense 'be able to'. The two clauses have a shared subject. The complement appears as a subjectless VP ending in a verb in the combining form that immediately precedes bèrá. In the future form bèrí-yàrà 'will be able to', the complement verb is low-toned by virtue of being prosodically linked to bèrí-yàrà (which begins with an overlaid low tone required by the Future suffix), as in (xx1.

(xxx) a. m̀   ùrú   bè-ná
           1SgS   get.up   can-ImpfNeg
           'I can't get up.'

       b. [ú   bá]   túrǐ⇒   wàrá   wàrú   bè-ná
           [2SgP father] singly   farming farm(verb) can-ImpfNeg
           'Your father can't do the farming alone.'

c. àyé   kɔ̀   [îló   kù]   á   gú   bὲ-tà   mà
    who? Foc [house in] Impf go.out can-Impf Q
    'Who can go out of the house?'

d. ú   á   wɔ̌w   bὲ-t-ɔ̌:
    2SgO   Impf   kill   can-Impf-3SgS
    'He/She can kill you-Sg.'

e. [nàwⁿá   yà:fú:]   kúw   kám   bὲ-n-ɔ́:
    [meat   all]   eat   complete can-ImpfNeg-3SgS
    'He/She cannot complete eating all the meat.'

f. tòrù   bὲrî-yàrà-wɔ́
    jump.L   can-Fut-3SgS
    'He/She will be able to jump' (tórú)

See also the less common construction with wɔ́- 'be capable of (doing)' (§17.xxx).

17.4.5 'Be accustomed' (lɔ́wɔ́)

The verb lɔ́w\\lɔ́wɔ́ is used with a preceding VP ending in a verb in the combining form. It has a full paradigm, but in time contexts including the present it is used in a stative form; positive lɔ́w dà, negative lɔ́w ŋ̀gó. The sense is 'be accustomed to VP' or '(be known to) VP occasionally'.

(xxx) a. [yàgá   dêŋ]   ǐsú   lɔ́w   d-ɔ̌:   mà
           [which? place.HL] lie.down be.accustomed be-3SgS   Q
           'In what place is he accustomed to sleeping?'

       b. [hálǐ   bó:nî]   î   kɔ́w   lɔ́w   dà
           [until   B]   1Pl   go.get.water   be.accustomed
                   be
           'We have been known to (go and) get water as far away as Boni.'
           (2004-2a.04)

       c. ǹ   túsú   lî   lɔ́w   ŋ̀gó
           1sgS sorghum   eat   be.accustomed   not.be
           'I am not accustomed to eating sorghum.'

The tones of túsú in (xx1.a) show that it is not a compound initial for 'eat'.

17.5 Purposive, causal, and locative clauses

17.5.1   Purposive clause with -ú verbal noun after motion verb

This construction is common when the main clause has a simple **motion verb** ('go', 'come', etc.). The verbal noun with purposive sense follows the motion verb. Admittedly, with motion verbs the semantic distinction between chronological sequence and purpose is subtle, as in 'went and ate' versus 'went to eat'.

For the forms of this verbal noun, see §4.2.2. There is no -ú suffix for monosyllabic stems, and the -ú is apocopated to -∅ after semivowels. For many verbs, the verbal noun in -ú and the combining form are homophonous, but the verbal noun always has rising tone when added to stems of more than one mora.

Although the verb may have its usual all-high or rising tone, when the purposive clause consists only of the verb it may have low pitch phonetically (I consider this to be intonational and indicate it by ⇓).

(xx1)   a.   [ténǎm   bò-só]   ǎw-∅⇓
             [hyena   go.to-Perf2]   catch-VblN
             'Hyena went (there) to grab (at it).' (2004-1a.05)

        b.   à:!   [kɔ́   bɛ̀rɛ́]   tùg-ú
             ah!   [NonhSgS   go.to.Perf1a]   cut.off-VblN
             'Ah, so it (=he) must have gone (elsewhere in the field) to cut off (millet stems).' (2004.1a.09)

        c.   bɛ̀-rɛ́-wɔ́   ɛl-ú
             go.to-Perf1a-3SgS   look-VblN
             'He/She went (there) to look.'

        d.   àsî   á   là   ɛl'ú
             LogoS   Impf   go.to.Impf look-VblN
             'He$_x$ said he$_x$ would (first) go and (= in order to) look.' (2004-2a.01)

This purposive clause type may be expanded by **adding an object**. In (xx2), this takes the form of a simple noun, in **L-toned form**, suggesting that it functions morphologically as a **compound initial** (with the verb as compound head). The verb 'drink' has the regular verbal-noun form -nî in most

combinations, hence sĭgĭrèt-nî 'smoking ("drinking") cigarettes' and èm-nî 'drinking milk'. In the high-frequency combination 'water-drink' (with nî 'water' as initial, in low-toned form), 'drink' regularly appears in the form -nέ (identical to the combining form), as in (xx1.a). A variant with -nî was also accepted by my assistant (nǐ-nî). See §5.1.3-5 for discussion and examples of such compounds.

(xx2) a. bèrέ-wɔ́   nǐ-nέ
           go.to.Perf1a-3SgS   water.L-drink
           'He/She went (there) to drink water.' (nî 'water')

       b. yèrú-wòrè-wɔ́   yèwtà-kàrⁿ-ú
           come-Perf1a-3SgS   chat.L-do-VblN
           'He/She came to have a chat.' (yέwtà)

       d. bèrέ-wɔ́   kòlù-lî
           go.to.Perf1a-3SgS   lunch.L-eat.VblN
           'He/She went (there) to eat lunch.' (kòlú)

   If the **object is a pronoun**, or a complex NP (i.e. with a determiner and/or nonsuffixal quantifier), it functions as a possessor. The verb therefore takes the overlaid {HL} tone contour of possessed nouns after such a possessor. See §17.3.1.1 for more details.

(xx3) a. bè-rέ-wɔ́   [ú   él-ù]
           go.to-Perf1a-3SgS   [2SgP   look-VblN.HL]
           'He/She went (there) to look for you.' (èlú)

       b. bèrέ-wɔ́   [î   têw-∅]
           go.to.Perf1a-3SgS   [1PlP   hit-VblN.HL]
           'He/She went (there) to hit you.' (tέw)

   An **adverbial PP** may also appear in the verbal-noun clause. It too functions as a possessor, imposing {HL} tone on the verbal noun. In (xxx), the final verbal noun has a basic form bǎm-∅ with rising tone, but here it adopts possessed-noun {HL}.

(xx4) èsé ú   kúlú-sò   ká   [[[ùró kà]   kù] bâm-∅]
      what? 2SgO put-Perf2 saying [[[hole mouth] in] go.around.VblN.HL
      '(He) said: what put (=brought) you, (for you to) circle around at the mouth of the hole …?' (2004-1a.05)

344

If the purposive clause contains two chained verbs, the final verb takes its verbal noun shape, and the nonfinal verb is in combining form but with tones dropped (as a compound initial); see §15.1.1 for this construction.

17.5.2   Purposive clause with final ńdè after Hortative or (quasi-)Imperative

In this construction, the verb of the purposive clause ends in phonetic ...ndè. Perhaps dè here is the Dative postposition (for a clearer case of Dative dè in a purposive clause see §17.5.5, below), and one might connect the nasal with Relative ń, but the morphemic segmentation is far from clear.

   In (xx1), we have a **same-subject** construction, and the verb of the purposive clause is in **Hortative** form with suffix -έ, -é, or other allomorph, e.g. tór-é ńdè 'in order to jump', téw-έ ńdè 'in order to hit', nî-yⁿέ ńdè 'in order to drink' (§10.4.4). The purposive clause may precede or follow the main clause.

   I transcribe e.g. téw-έ ńdè, though with different segmentations and morphemic identifications we could write e.g. téwέ-ndè, téwέ-n dè, téwέ ń dè, etc.

(xx1)   a.   îgú-s-è≡bέ   [ǹ   téw-έ   ńdè]
             stop-Perf2-3PlS-\3PlS [1SgO hit-**Hort**   **Purp**]
             'They stopped in order to hit me.'

        b.   îgú-s-ɔ̌:   [ǹ   téw-έ   ńdè]
             stop-Perf2-3SgS   [1SgO hit-**Hort**   **Purp**]
             'He/She stopped in order to hit me.'

        c.   [[sɔ́gɔ́ sǐ:]   tĩrⁿú   dùŋgùr-έ ńdè] îgú-s-è≡bέ
             [[ax   with] firewood chop-**Hort Purp**]   stop-Perf2-3PlS-
             \3PlS
             'They stopped in order to chop the firewood with an ax.'

        d.   îgú-s-è≡bέ   [tùwó [dèlé   mà]   pás-έ   ńdè]
             stop-Perf-3PlS-\3PlS   [stone [put.down   and.SS]
                                     leave-**Hort**   **Purp**]
             'They stopped in order to put down and leave the stone.'

        e.   îgú-s-è≡bέ   [[sîgîrétĩ mà]   nî-yⁿέ   ńdè]
             stop-Perf2-3PlS-\3PlS [[cigarette ReflPoss] drink-**Hort Purp**]
             'They stopped in order to smoke their cigarettes.'

345

f. m̀   bírá   bǐré-sà   [ɛ́rⁿásòŋî: ɛ́w-ɛ́   ńdè]
    1SgS   work(noun) work-Perf2 [bicycle   buy-**Hort Purp**]
    'I worked in order to buy a bicycle.'

In (xx2), we again have ńdè but this time with a **switch in subjects**. The verb of the purposive clause is now in the **Imperative** stem. (xx2.a) should be compared to (xx1.f), above.

(xx2) a. [sáydù   dè]   ŋ̀   cèrú   ów-sò
           [Seydou   Dat] 1SgS   money   give-Perf2
           wɔ́   ɛ́rⁿásòŋî: éwá   ńdè
           3SgS   bicycle   buy.H   Purp
           'I gave Seydou some money, so that he could buy a bicycle.'

       b. bámákò   m̀   wɔ́   tíw-sò
           Bamako   1SgS   3SgO   send-Perf2
           wɔ́   [m̀   bá]   bàrá   ńdè
           3SgS   [1SgS father] help.H   **Rel   Dat**
           'I sent him/her to Bamako (city), to help my father.'

17.5.3   Purposive clause in compound form (ǹ v́)

With 'go' and 'come', a following transitive complement may be expressed by a compound consisting of a **low-toned initial** plus a **high-toned verb** stem that is segmentally compatible with either the combining form or the -ú verbal noun (the shift to all-high tone wipes out the tone contours that elsewhere distinguish the two). In (xx1), I give the Imperative of the final verb in parentheses after the free translation, since the Imperative clearly shows the lexical tone.

(xxx) a. bɛ̀-ré-wɔ́   [àlá   kù]   bǐrà-élú
           go-Perf-3SgS [city   in]   **work.L-look.for.H**
           'He/She went in order to look for work in the city.' (èlá)

       b. yè   dá-wɔ́   bǐrà-bírú
           come   be-3SgS   **work(noun).L-work.H**
           'He/She has come in order to work.' (noun bírá, verb bǐrá)

       c. yè-d-é≡bɛ́   cèrù-bérú
           come-be-3PlS-\3Pl **money.L-get.H**
           'They came in order to gain (=earn) money.' (bɛ̀rá)

346

d. bɛ̀-rɛ́-wɔ́   tĭrⁿù-dúŋgúrú
go.to-Perf1a-3SgS   **firewood.L-chop.H**
'He/She went (there) to drink water.' (dùŋgùrɔ́)

17.5.4 Purposive compound plus dà 'be'

This purposive compound with **low-toned initial** and **high-toned verb** also occurs with a following dà 'be' (in invariant form). My examples show the purposive clause preceding rather than following the main verb. This construction may involve some focalization of the purposive clause.

(xxx) a. [nàwⁿà-kúw dà]   kɔ́   á   yè-tò
            [**meat.L-eat.H be**]   NonhSgS Impf come-Impf
            'It (= animal) comes to eat meat.'

      b. [gàllè-zátú   dà]   á   yè-t-ɔ̌:
            [**courtyard.l-sweep.H**   **be**]   Impf   come-Impf-3SgS
            'He/She comes to sweep the courtyard.'

      c. [gàllè-zátú   dà]   á   yè-t-è≡bɛ́
            [**courtyard.l-sweep.H**   **be**]   Impf   come-Impf-3PlS≡
            'They come to sweep the courtyard.'

      d. [[yⁿà-rⁿù]-záŋgú   dà]   kɔ́   á   yè-tò
            [[**woman-Sg.L]-court.H be**] NonhSgS Impf come-Impf
            'It comes in order to court a woman.' (2004-1b.01)

17.5.5 Purposive compound plus Dative dè

In (xx2), a verbal noun of the type with suffix -ú (§4.2.2.1) with low-toned compound initial takes Dative dè to form a purposive clause. (Monosyllabic verbs have no suffix in this verbal-noun form.) That the dè here is not 3Pl d-è 'they are' is shown by the invariability of dè across numbers and persons of subjects.

(xxx) a. [sǐgǐrɛ̀t-nî   dè]   m̀   îgú-wòrè
            [cigarette.L-drink.VblN Dat] 1SgS   stop-Perf1a
            'I stopped in order to smoke.' (sǐgǐrɛ̂t)

      b. dĭŋ-wòr-è≡bɛ́   [lɛ̀-lí   dè]

sit-Perf1a-3PlS-\3PlS [meal.L-eat   Dat
'They sat down in order to eat a meal.' (lɛ́)

c. dǐŋ-wòrè-wɔ́   [lɛ̀-lî   dè]
    sit-Perf1a-3SgS   [meal.L-eat   Dat
    'He/She sat down in order to eat a meal.' (lɛ́)

d. yèrú-wòrè-bɛ́   [gàs-ú   dè]
    come-Perf1a-3PlS   [dig-VblN   Dat]
    'They came in order to dig.'

17.5.6   Verbal Noun -rɛ̌ŋ as purposive

In (xx1), a subject ('water') distinct from that of the main clause is present,
along with an adverbial PP. The purposive clause 'so that the water can run out
of the shed' is expressed as a verbal noun 'going out' with a full set of
intraclausal constituents. Here the verbal noun is with suffix -rɛ̌ŋ.

(xx1) [î   póló   gàsî-yàrà]
      [1PlS   canal   dig-Impf]
      [kà: kárⁿá   mà]
      [Rel   do   and.SS]
      [ní   [dáŋkǐ   dòsù]   gú-rɛ̌ŋ]
      [water   [shed   under.L]   go.out-VblN]
      'We will dig a (rainwater) channel in such a way that the water can run
      out of the shed.'

    A textual example with two parallel occurrences is (xx2).

(xx2) èrⁿá   á   ɛ̀w'rà-∅,   mɔ́yⁿ'rⁿɛ̌ŋ,
      goat   Impf   buy-Impf-3SgS,   raise-**VblN**,
      zàndúrú   á   ɛ̀w'r'è,   mɔ́yⁿ'rⁿɛ̌ŋ
      donkey   Impf   buy-Impf-3PlS,   raise-VblN
      '… he buys a goat, for raising; (or) they buy a donkey, for raising.'
      (2004-2a.06)

17.5.7 Causal ('because') clause (ká:wá)

The noun ká:wá means 'reason, cause'. A kind of causal clause may be
constructed by treating ká:wá as a possessed noun, where the possessor is either
a headless relative clause or a verbal noun phrase. ká:wá therefore appears with
possessed-noun tone contour as ká:wà or kà:wà depending on the type of
possessor.

    Headless relative-clause examples are in (xx1). The construction resembles
English *because of the fact that* ... with the empty noun *the fact* omitted.

(xxx)   a.   [m̀   bèlú   wɔ̆w-wɔ̀sĭ]
            [1SgS sheep   kill-Perf1b]
            [kɛ́   [m̀   mɔ́ŋgɔ̀rɔ̀] lî-sà   ń]   ká:wà
            [NonhPlS [1SgP mango.HL] eat-Perf2 Rel] **because**
            'I killed the sheep, because (of the fact that) they ate my mango
            (tree).'

(xxx)   b.   [m̀   [wò dé]   cèrú   ów-sò]
            [1SgS [3Sg Dat]   money   give-Perf2]
            [m̀   [wò dé]   á   yírîmînà kà-là   ń]   ká:wà
            [1SgS [3SgS Dat] Impf pity(noun) do-Impf Rel] **because**
            'I gave him some money, because (of the fact that) I had pity for
            him.'

    In (xx2), kà:wà follows a verbal noun in -rɛ̆ŋ. Whereas in (xx1) the
'because' clause has its own subject (whether or not it happens to be coindexed
with the subject of the main clause), in (xx2) the two clauses have coindexed
subjects and the 'because' clause omits the subject. This suggests that the
verbal-noun phrase here may be a subordinated VP rather than a full clause in
form. The 'because' phrase is literally "(for) reasons of stepping in the water,"
since it is not morphologically possible to negate 'step in' in verbal-noun form.

(xx2) [tórú   yⁿàŋú-s-ɔ̆:]
      [jump   go.past-Perf2-3SgS]
      [[[ní   kù]   tɔ́-rɛ̆ŋ]   kà:wà]
      [[[water in]   step.in-VblN] reason.L]
      'He jumped across, so as not to step in the water.'

17.5.8 'Because of' (ká:wà)

ká:wà 'because of, due to' may also take a NP complement (xxx). After a simple nonpronominal NP it has L-tones (NP kà:wà), indicating that it behaves like a possessed noun (or noun-like postposition). It has the {HL} tone contour after a pronoun (ú ká:wà 'because of you') and after a more complex NP (e.g. with a determiner, or a conjoined NP).

'Because of' may have the simple retroactive causal sense 'due to' (xxx.a), but it may also mean 'for the sake of, out of respect for' with human or divine complement (xxx.b).

(xxx) a. [àrⁿá   kà:wà]   zǒw-s-è≡bɛ́
            [rain   **because.of.L**] run-Perf-3PlS-\3PlS
            'They fled because of the rain.'

        b. m̀   [wò   dé]   ów-sò   [đĭsĭ-ná: kà:wà]
            1SgS [3Sg Dat] give-Perf2   [God   **because.of.L**]
            'I gave him/her (something) for the sake of God.'

17.5.9 Negative purposive (=prohibitive) clause

Negative purposive clauses are uncommon but it was possible to elicit some.

In (xx1), the negative purposive clause contains an Imperative Negative verb in a relative clause that is followed by the {HL}-toned possessed form of ká:wá 'reason' (§17.5.7-8).

(xx1) î   [tĭwⁿá   lò   mǎ:]   tígú-wòsĭ,
       1PlS   [tree   hand   Pl]   block-Perf1b,

       [[àrzàká   mǎ:]   lù-kú   ŋ́]   ká:wà
       [[animal   Pl]   enter-Imprt.Neg   Rel] reason.HL
       'We made tree branches into a barrier (= fence), so that the animals won't get inside.'

A similar example, but with the ńdè clause-final Purposive morpheme instead of the Relative ŋ́ and ká:wá is (xx2).

(xx2) î   [íló   kà]   sɔ̀gî-yàrà
       1PlS   [house   mouth.L]   lock-Fut

       [ĩ-m-í: lù-kú   ńdè]
       [child-Pl-Dimin   go.in-Imprt.NegPurp]

350

'We'll lock the door, so the kids don't come in.'

In (xx3), the word yěyyà appears to function as a 'lest' operator. The verb of the purposive clause is (otherwise) in positive form (Hortative verb and clause-final Purposive ńdè).

(xx3) î   [màŋgòrò   ŋ̀gú]   sàrí-yàrà,
      1PlS   [mango.L   DemSg]   soak-Fut,
      kɔ́   yěyyà   ɔ́r-ɛ́   ńdè
      NonhSgS   lest   rot-Hort   Purp
      'We'll moisten these mangoes, lest they rot (= so that they don't rot).'

18 Anaphora

18.1 Reflexive

18.1.1 Reflexive possessor (mà, nà)

18.1.1.1 With clause-mate subject as antecedent

When a non-subject NP has a possessor that is coindexed with the **clause-mate subject** (whether the latter is pronominal or nonpronominal), the possessor is expressed by **Reflexive Possessor** morpheme mà, following the possessed noun, which has its normal tones. A variant nà is attested, with n by dissimilation to an m in the preceding word (xx1.g).

(xx1) a. m̀   [ìrⁿú   mà]   téw-wɔ̀sǐ
           1SgS   [child   **ReflP**]   hit-Perf
           'I hit-Past my child.'

        b. [èsé   dé]   ú   [ìrⁿú   mà]   téw-sà   mà
            [what? Dat]   2SgS   [child   **ReflP**]   hit-Perf2   Q
            'Why did you-Sg hit your-Sg child?'

        c. ɛ̌yⁿ   [[ùró   mà]   kù]   lú-wòrè
            mouse   [[hole   **ReflP**]   in]   enter-Perf1a
            'The mouseₓ went (back) into itsₓ burrow.'

        d. sáydù   [ìrⁿú   mà]   wɔ̌:-sǐ
            Seydou   [child   **ReflP**]   see-Perf1b
            'Seydouₓ saw hisₓ child.'

        e. [sáydù   [á:mádù   lɛ̌y]]   [ǐ-m   mà]   wɔ̌:-sǐ
            [Seydou   [Amadou   and]]   [child-Pl **ReflP**]   see-Perf1b
            'Seydouₓ and Amadouᵧ saw theirₓᵧ (own) chidren.' (ǐ-mú)

        f. m̀   sáydù gǎŋ-wɔ̀sǐ   [wɔ́   [ǐ-rⁿú   mà]   wɔ́-rɛ̌ŋ]
            1SgS Seydou prevent-Perf1b   [3SgS [child-Sg
                                          ReflP] see-VblN]
            'I prevented Seydouₓ from (himₓ) seeing hisₓ child.'

g. [ì-m-î: nà]   pású-wɔ̀sǐ
   [child-Pl-Dimin **ReflP**] leave-Perf1b
   'They (=animals) abandoned their offspring.' (2004-1a.06)

mà directly follows the head noun of the possessed NP, and may itself be
followed by modifiers, such as 'all' (xxx.a), or an adjective and a numeral
(xxx.b).

(xxx) a. [nù-mù   ŋí]   [bɛ̌l   má   yà:fú:]   màr-kú-wɔ̀sǐ
           person-Pl DemPl [sheep **ReflP** all]   be.lost-Caus-Perf
           'These people lost all of their sheep.'

       b.. m̀   [bɛ̌l   mà   šɛ́w   lɛ̌y]   màr-kú-wɔ̀sǐ
            1SgS   [sheep **ReflP** big   two]   be.lost-Caus-Perf
            'I lost my two big sheep.'

Reflexive Possessor mà may be followed by Plural mǎ: (xxx).

(xxx) m̀   [bɛ̌l   mà   mǎ:]   màr-kú-wɔ̀sǐ
       1SgS   [sheep **ReflP** **Pl**]   be.lost-Caus-VblN
       'I lost my sheep-Pl.'

18.1.1.2 With other antecedent

Reflexive possessor mà is occasionally used when the antecedent is in a higher
clause. This is especially the case when there is no other intervening third
person NP (as clause-mate subject) that could be (mis-)interpreted as the
antecedent. So (xx1.a) with the general reflexive (and logophoric) pronoun àsî
as possessor, and (xx1.b) with Reflexive Possessor mà, are synonymous. In
(xx1.c), the clause-mate NP (Amadou), not the more distant higher NP
(Seydou), is interpreted as the antecedent of mà. Therefore (xx1.d) with àsî is
used in the long-distance antecedent sense.

(xx1) a. sáydù   ŋ̀   gǎŋ-wɔ̀sǐ   [[àsî   î-rⁿu%]   wɔ́-rɛ̌ŋ]
           Seydou   1SgO prevent-Perf[[**ReflP** child-Sg.HL] see-VblN]
           'Seydou_x prevented me from seeing his_x child.'

b. sáydù   ǹ   găŋ-wɔ̀sɪ̌ [[ì-rⁿú   mà]   wɔ́-rɛ̌ŋ]
   Seydou   1SgO prevent-Perf [[child-Sg   **ReflP**] see-VblN]
   'Seydou$_x$ prevented me from seeing his$_x$ child.'

c. sáydù   á:mádù găŋ-wɔ̀sɪ̌ [[ì-rⁿú   mà]   wɔ́-rɛ̌ŋ]
   S   A   prevent-Perf [[child-Sg **ReflP**] see-VblN]
   'Seydou prevented Amadou$_x$ from seeing his$_x$ child.'

d. sáydù   á:mádù găŋ-wɔ̀sɪ̌ [àsî   î-rⁿù]   wɔ́-rɛ̌ŋ]
   S   A   prevent-Perf [[child-Sg **ReflP**.HL]   see-VblN]
   'Seydou$_x$ prevented Amadou from seeing his$_x$ child.'

A **topicalized NP** may be followed by a clause beginning with a subject NP containing Reflexive Possessor mà coindexed with the topic (xx2).

(xx2) [kúyⁿɔ́   àyⁿà   kày]
      [genital.disease   medication.L Topic]
      [lúgúró   mà]   dùm'nɔ́-∅
      [count(noun)   **ReflP**] finish-ImpfNeg-3SgS
      'As for the (medicines for) genital disease, they are innumerable ("their number does not end").' (2004-2a.07)

18.1.2   Reflexive non-subject arguments with kú 'head'

'I hit myself' is expressed as a transitive sentence with possessed 'head' as the object: 'I hit my head' (xxx). The possessor of 'head' in this construction is coindexed with the clause-mate subjectd, so this possessor appears in Reflexive Possessor form. The result is kú mà, an invariant form used with plural as well as singular antecedent.

(xxx) a. ǹ   [kú   mà]   téw-wɔ̀sɪ̌
          1SgS   [**head** **ReflP**] hit-Perf
          'I hit myself.'

      b. î   [kú   mà]   téw-wɔ̀sɪ̌
          1PlS   [**head** **ReflP**] hit-Perf
          'We hit ourselves.'

c. [kú   mà]   sǐ:]   gàsí   bὲ-n-ὲ
[**head   ReflP**]   Instr]   dig   be.able-ImpfNeg-3PlS
'They (lizards) cannot dig by themselves (=on their own).' (2004-
1a.10)

18.1.3   Non-reflexive emphatics with tùrí: 'alone, singly'

tùrí:, an archaic Diminutive of túrú 'one', optionally accompanied by intensifier
lók!, can be used to express e.g. 'myself' in the non-reflexive emphatic sense
(i.e. 'by myself, without help').

(xxx) [ǹ   tùrí: lók!]   lɔ̀gú   tɔ́-sɔ̀
[1SgS   **one.single alone**]   banco   stomp. on-Perf2
'I stomped on the banco by myself (=without help).'

18.1.4   Non-reflexive emphatics with húlè

Another type of emphatic involves a noun-like form húlè. Perhaps its tone
contour was originally the HL overlay for possessed nouns, but húlè does not
drop tones after a nonpronominal NP. It is followed by Topic particle kày
(§19.xxx) or by mánǐ 'even, too' (§19.xxx).

(xxx)   a.   [ǹ̀   húlè   kày]   bò-nò
[1SgP   **self**   Top]   go.to-ImpfNeg
'Myself, I'm not going.'

b.   [sáydù   húlè   mánǐ]   bò-nò
[Seydou   **self**   too]   go.to-ImpfNeg
'Seydou himself is not going.'

18.2   Logophoric pronouns and related forms

18.2.1   True logophoric function (àsí)

The form àsí is the basic Logophoric pronoun. That is, in reported speech, àsí
replaces a 1Sg pronoun in the original utterance, when this pronoun denotes the
(original) speaker. The plural form àsí mǎ: is likewise used to replace an

original 1Pl pronoun. Logophorics are used chiefly when the reported speaker is a third person (not the current speaker or addressee).

(xxx) a. sáydù ká [àsî lɛ́ ɪ̌-rí]
        Seydou say [**LogoS** meal eat-PerfNeg]
        'Seydou_x said that he_x hasn't eaten.'

    b. sáydù ká [ú ká àsî téw-wɔ̀sɪ̌]
        Seydou say [2SgS saying **LogoO** hit-Perf1b]
        'Seydou said that you-Sg hit him.'

    c. sáydù ká [ú ká [àsî dé] kɛ̀rú òw-rí]
        Seydou say [2SgS saying [**Logo** Dat] money give-PerfNeg]
        'Seydou said that you-Sg didn't give the money to him.'

Logophoric pronouns are not absolutely restricted to third person antecedents. In (xxx), the quoted speaker/thinker is in the form of a generic second person (as in: *if you can't beat 'em, join 'em*), but it is co-indexed with a logophoric. The original thought, in hortative form, might have been "hey, let me catch it!"

(xxx) [ú yèrú-wòrè] [ú ká [àsî kɔ́ áw-é]]
    [2SgS come-Perf1a] [2SgS say [**LogoS** NonhSgO grab-Hort]
    '(suppose) you have come, and say (think) you'll try to catch it.'

A logophoric may be a **possessor**. In this case, the possessed noun takes the {HL} falling tone contour, as with other pronominal possessors (and plural NP possessors with mǎ:).

(xxx) a. sáydù ká [àsî bélù] mᵇàrú-wɔ̀rè
        Seydou say [**LogoP** sheep.HL] be.lost-Perf1a
        'Seydou said that his sheep-Sg was lost.'

    b. ká [àsî mǎ:] bélù] mⁿàrú dà
        say [**Logo Pl**] sheep.Hl] be.lost be
        'They said that their sheep-Pl were lost.'

In a context like 'X said that X slaughtered X's (own) sheep', [X's own sheep] is expressed using Reflexive Possessor mà rather than another logophoric àsî.

(xxx) a. gá-s-ǒ: [àsí [bèlú mà] cí-sà]
       say-Perf2-3SgS   [LogoS [goat   ReflP] slaughter-Perf2
       'He$_x$ said that he$_x$ slaughtered his$_x$ (own) goat.'

    b. àsî símà [nàwⁿá mà] kúw-é [cǐló dòsù]
       Logo for.self [meat **ReflP**] devour-Hort   [shade
          under.L]
       '(Hyena thought:) ... and (let me) eat my meat like that in the
       shade.' (2004-1a.06)

Aside from examples like this in which a more local anaphoric trumps the logophoric, there are no syntactic barriers that prevent the use of logophorics. In particular, an intervening subject NP denoting a different referent does not block the use of a logophoric in a lower clause if it is coindexed with the quoted speaker (xxx).

(xxx) sáydù ká [m̀ ów mú:dù [[àsí î-rⁿù] dè]]
    Seydou say [1Sg give money [[LogoP child-Sg.HL] Dat]]
    'Seydou$_x$ told me to give the money to his$_x$ child.'

As might be expected, informants had difficulty (in direct elicitation) with logophoric usage in the lower syntactic depths of stacked reported quotations. However, a logophoric can certainly be used with either higher or lower reported speaker as antecedent, as long as there is only one logophoric in the clause. In (xxx.a), I take àsî to refer back to the higher antecedent 'Seydou', since it is singular in form. In (xxx.b), the plural logophoric unmistakably refers back to the lower antecedent 'children'. However, the informant who provided these foms did not seem to like having two referentially distinct logophorics in the same clause. In (xxx.a), one really should have a (plural) subject logophoric àsî mǎ: preceding the singular object logorphoci àsî, but the speaker left it out.

(xxx) a. sáydù ká [ǐ-mù ŋí] ká àsí wǒw-wàrà
       Seydou   say [child-Pl.L DemPl] say **LogoO** kill-Impf
       'Seydou said that the children said they would kill him.'

    b. sáydù ká ǐ-mǐ ŋí ká
       Seydou   say   [child.Pl-L   DemPl]   say
       àsî mǎ: yèrǐ-kî dà
       LogoS Pl come.L-Prog   be
       'Seydou said that the children$_x$ said they$_x$ will come.'

With an embedded imperative, (xxx) has double logophorics, each logophoric corresponding to a different level of quotation. The first two occurrences of ká are genuine 'say verbs with subjects. The third occurrence (inside the bracket) is a pure quotative, here glossed 'saying' and disregarded in the free translation (which also uses masculine and feminine gender to clarify the references).

(xxx) ká   [wó   ká   [ká   àsî   àsî   téwá]]
       say   [3SgS say [saying Logo Logo hit.Imprt]]
       'He$_x$ said that she$_y$ told him$_x$ to hit her$_y$.'

18.2.2 Logophoric àsî not used in (non-logophoric) topic-indexing function

I did not observe àsî in cases like (xxx), where a preposed topical NP is coindexed with the subject of a following conditional antecedent or similar backgrounded (e.g. 'when ...') clause. Instead, the regular 3Sg pronominal is used, as in the 'if he comes here' clause in (xx1).

(xxx) búrâ:,   ĭnî   á   yè-t-ǒ: má,
       Boura,   here   Impf   come-Impf-3SgS if,
       [lè   cíní]   á   lí   kàmbù-r-ǒ:
       [meal.L Dem]   Impf   eat   do.completely-Impf-3SgS
       'Boura, if he comes here, he eats all of the food.' (kám\\káw^{n}á)

try relative with subject coindexed to matrix subject
       lòsìnú   [zà   w   á   ĭwá-ŋ] áĩ-yàrà wɔ
       'a guest will eat (any) meal that he wants.' [Tabi village dialect]

18.3 Reciprocal

18.3.1 Simple reciprocals (túnŏm-mà)

The Reciprocal morpheme is túnŏm-mà. It arguably ends in Reflexive Possessor mà, and the initial portion may be related to noun túnú 'comrade', but the form is not completely transparent and I transcribe it as one word.

    The examples in (xxx) illustrate túnŏm-mà in various syntactic functions, in each case coindexed with the clause-mate subject.

(xxx) a. [ǒw   kù]   î   túnǒm-mà ká   dàg˴-sà
           [bush   in]   1PlS   **Recip**   meet encounter-Perf2
           'We encountered each other in the bush.'

       b. [túnǒm-mà   kù]   tór-s-è≡bɛ́
           [**Recip**   in]   jump-Perf2-3PlS-\3Pl
           'They jumped (or: fell) on each other.'

       c. dàgú-dà   nù-mú   [túnǒm-mà dè]   cèrú   ów
           must-be   person-Pl [**Recip**   Dat]   money give.Imprt
           'The people must give money to each other.'

       d. [nù-ŋ   kálá:] [túnǒm-mà îlò]   á   ìsú   bè-tà
           [person-Sg.L   each]   [**Recip**   house.HL]   Impf
                       lie.down   can-Impf
           'Each person goes to bed (=sleeps) in the other's house.'

In examples like (xxx), the antecedent is the clausemate direct object (with a verb like 'put'), and the Reciprocal occurs in an adverbial adjunct.

(xxx) a. [kàrà   ŋgî]   î   kɛ́   ɲ̀ipú-wɔ̀sĭ
           [mat.L   DemPl] 1PlS   NonhPlO   superimpose-Perf1b
           [túnǒm-mà   kù]
           [**Recip**   in]
           'These mats, we piled them one on top of the other.' (ɲ̀ipá)

18.3.2 'Together'

Adverbial 'together' in English is often expressed by chaining mɔ̀tɔ́ 'be/do together' (hence mɔ̀tɔ́ mà, variant mɔ̀tɔ́-m̀) with a regular VP. See §15.xxx for examples and further details.
    An adverb níŋèy (níŋgèy) can also be used in the sense '(physically) together'. For its postpositional function with sense 'beside X' see §8.2.10, cf. also §6.3.3.3

18.4 Restrictions on reflexives

18.4.1 No antecedent-reflexive relation between coordinands

In a conjunction, the left conjunct does not induce a Reflexive Possessor form in a coindexed possessor of the right conjunct. Therefore in (xxx), 'his' in 'his father' may or may not be coindexed with 'Seydou'. The result is the same kind of ambiguity in T-S as in the English counterpart.

(xxx) a. sáydù [wɔ̀ bá lěy] zɔ̌ŋ-gɔ̀r-è
       Seydou [3SgP father and] squabble-Perf1a-3PlS
       'Seydou and his father squabbled.'

     One would infer from this that 'I and my father' would appear as #ǹ [m̀ bá lěy], beginning with two consecutive 1Sg pronominals that would probably blur into a single nasal phonetically. In fact, this is avoided by shifting the simple pronoun to **right conjunct** position (xxx).

(xxx) a. [m̀ bá] [ǹ lěy]
       [1SgP father] [1Sg and]
       'I and my father'

     b. [ú áwⁿà] [ú lěy]
       [2SgP aunt.HL] [2Sg and]
       'you-Sg and your aunt'

     c. [î bá mǎ:] [î lěy]
       [1PlP father Pl] [1Pl and]
       'we and our fathers'

18.4.2 Reflexives in causative clauses

write

18.5 Self-Benefactive símà 'for oneself'

This element is common in texts, but its sense is subtle and I often omit it in free translations. Since it does not correspond to anything in Jamsay or other Dogon languages known to me, I will delve into it here in some detail.

The form itself could be decomposed into sí 'thing, possession', as used in 'X is Y's possession' = 'X belongs to Y' predications (§xxx), plus Reflexive Possessive mà, i.e., '(one's) own (thing)'. My assistant made this connection in discussing the form. However, it is usually not possible to translate it in this fashion. Often the sense seems to be something like 'for oneself'. I will gloss it as 'for.self' in interlinears.

sîmà does occur in some passages where acquisition or possession are part of the context (xx1). However, a gloss 'for oneself' would work here as in other cases, and sîmà co-occurs with (rather than replacing) a possessed NP; in (xx1.a) and (xx1.b) the possessed noun (with Reflexive Possessive mà) follows sîmà.

(xx1) a. [níŋ kày] ɛ̀sà-àrá   sîmà   [yⁿà-rⁿú   mà]   bɛ̆:-sĭ
           [now Topic] chicken-male **for.self** [woman-Sg
               ReflPoss]   get-Perf1b
           'Now Rooster got his wife (after a difficult courtship).' (2004-1b.01)

       b. [jèré mà]   sîmà   [tórú dá   gà] [á   yày-rà≡kɔ́]
           [hold and.SS] **for.self** [jump be   while] [Impf   go-
           Impf-\NonhSgS
           'It (= female grasshopper) holds (male grasshopper) and it goes hopping around.' (2004-1b.03)

       c. má   [àsí   èlá   mà]
           and   [Logo   look   and.SS]
           [àsí   sîmà   [èrⁿá   mà]   téw   sîtó   mà],
           [[Logo **for.self** [goat   ReflP] hit   take.down and.SS],
           àsí   sîmà   [nàwⁿá mà] kúw-é   [čìló   dòsù]
           Logo **for.self** [meat   ReflP] devour-Hort   [shade
               under.L]
           '(Hyena to himself: ... I will look (for a good spot), and knock down (=kill) my goat, and eat my meat like that in the shade.' (2004-1a.06)

In several passages, sîmà co-occurs with a topic switch, and I have been tempted to consider topic-switching as one of its functions. However, in the passages in question, the 'for oneself' reading is also possible (and therefore preferable), since the actions involve eating food, keeping something, escaping from a predator, or some other action beneficial to the agent. In (xx2.c), the parallel occurrences of sîmà in combination with jérè 'some [as opposed to others]' at first led me to think that sîmà is conceptually connected with the

millet rather than with the humans, but since the verbs involve eating and holding (= keeping), the sense 'for oneself' is again reasonable.

(xx2) a. [tùŋ   kà: kɔ́   bǐřǐy   yé-těŋ   célà]
[time.L   Rel   NonhSgS go.back   come-VblN   time]
[bɛ̀l-à:rá   sîmà]   yǎy-wɔ̀rè
[goat-male **for.self**]   go-Perf1a
'Before he (=hyena) came back, (the) ram itself went (and escaped).
' (2004-1a.07)

    b. [ŋ̀kǎyⁿ   kárⁿá≡m̀] [ŋ̀gí   kày]   sîmà   sáy-s-è≡bɛ́
[thus   do≡and.SS]   [DemPl   Topic] **for.self**
              scatter-Perf2-3PlS-\3PlS
'In that way (=doing thus), as for those (animals), they scattered (and escaped).' (2004-1a.05)

    c. [yù   cîní]   yàwá mà,   sîmà   á   tɛ̀mbù-r-è≡bɛ́⇑,
[millet.L DefPl] roast and.SS, **for.self**   Impf   munch-Impf-
3PlS-3PlS,
[jérè   sîmà   jèré   mà]   [á   yày-r-è≡bɛ́]
[**some** **for.self** hold   and.SS] [Impf go-Impf-3PlS-\3PlS]
'... they were roasting the millet (grain spikes) lightly on the fire. Some (of it) they munched on, some (=the rest) they held on to (as) they were going along.' (2004.1a.09) (tɛ́m\\tɛ́wⁿá)

    d. [[kɔ̀   yⁿá-rù]   sîmà   [pùró   kù]   lí-sà]
[[NonhSgP woman-Sg.HL]   **for.self** [inside in]   eat-
Perf2]
[kó   nà]   kúwó≡m̀   [sîmà ǐlǐ-ká   á   gù-rò]
[NonhSg now]   devour≡and.SS   [**for.self**
              outside   Impf   go.out-Impf]
'Its (=Hyena's) wife herself ate in the burrow. She ate and was going outside.' (2004.1a.07) [introduction of new discourse referent at end of tale about Hyena]

    Further textual examples supporting the 'for oneself' reading of sîmà are in (xx3). The hatching of eggs in (xx3.d) is reminiscent of the 'escape' context of some earlier examples.

(xx3) a. [ŋ̀gú   gòlú   ŋ́]   ɛ̀n-n-é≡cɛ́,
[DemSg   bitter   Rel]   look-ImpfNeg-3PlS-\NonhPlS,
[ŋ̀gú   gòlú   sàrá   ŋ́]   ɛ̀n-n-é≡cɛ́,

[DemSg   bitter   not.be   Rel]   look-ImpfNeg-3PlS-\NonhPlS,
kĕwlà:fú: á   lǐ-r-è≡cɛ́   sîmà
everything   Impf   eat-Impf-3PlS-\NonhPlS   **for.self**
'They (tree locusts) don't consider ("look") whether it's bitter-
tasting, they don't consider whether it isn't bitter, they eat
everything.' (2004-1b.02) (èlá 'look')

b.   [pàŋá   kù]   kɔ́   lú-wòrè   má   nà,
[granary   in]   NonhSgS   go.in-Perf1a   if   now,
nùm-nó≡kɔ́   sîmà   [yù   màyⁿ   kúnú]
die-ImpfNeg-\NonhSgS   **for.self**   [millet.L   dry.L   DefSg]
sîmà   â: lí-rà≡kɔ́,   á   wày-rà≡kɔ́
for.self   Impf   eat-Impf-\NonhSgS,   Impf   remain-Impf-
\NonhSgs
'If now it (= grasshopper) has gone into the granary, it doesn't die.
It eats that dry millet (in granaries), it remains.' (2004-1b.03)

c.   [... jéyⁿ-cǐrǐ   jéyⁿ-jéyⁿ-cǐrǐ]   sîmà   [níŋ   kày]
[(sound of drums)]   **for.self**   [now   Topic]
[cèná   mà]   cɛ́k!   á   cèn-n-è≡cɛ́
[fun   ReflP]   only   Impf   have.fun-ImpfNeg-3PlS-\NonhPlS
'... jeykiri jeyjeykiri [sound of drums]. Now they (= birds) were just
having their fun (= dancing).' (2004-1b.01)

d.   pɛ́ⁿ-wⁿɔ̀rⁿè   má,
be.ripe-Perf1a   if,
[yá   sîmà   [tɔ́lɔ́   mà]   gú-yàrà≡kɔ́]
[there   **for.self**   [hatch   and.SS]   go.out-Fut-\NonhSgS
'... when they (= pythons) are ready to hatch, they will hatch there
and go out.' (2004-1a.10)

In (xx4), sîmà occurs in contexts where the speaker is summing up a
description of general nature (appearance and behavior) of an insect, reptile, or
similar creature. Here it would be difficult to construe sîmà as meaning 'for
oneself', so I gloss in this context as 'by.nature'.

(xx4)   a.   dɔ̀ymú   dà≡kɔ́   sánnî
be.fast   be-\NonhSgS   very
kò   sîmà   ŋkǎyⁿ   dá≡kɔ́
NonhSg   **by.nature**   thus   be-\NonhSgS
'... (and) it (= reptile) is very fast. It's like that (as described above,
by nature).' (2004-1a.10)

364

b. [ɛ̀sù   ŋ̀gú]   mɔ̀sú, [kó   sîmà   yá]
[thing.L DemSg] nasty, [NonhSg   **by.nature** there]
'(to conclude:) this thing (= snake) is nasty (= dangerous), it (by nature) is there (=what I've said).' (2004-1a.10)

19   Grammatical pragmatics

19.1   Topic

19.1.1   Topic (kày, kà)

This is a general topicalizing particle ('as for X, ...'). It is especially common after (independent) personal pronouns and after demonstrative pronouns, but it also occurs after nonpronominal NPs and adverbials. The full form is kày, sometimes reduced to kà especially after personal pronouns. In most cases, a topicalized constituent with kày is presentential and is set off with a pause or other prosodic marking. The adverb 'now' is more often [nîŋ kày] than simple nîŋ.

Pronominal combinations include Pronominal forms include 3Sg wó kày, 3Pl bé kày, Nonhuman Sg kó kày, Nonhuman Pl ké kày, 2Sg ú kày, and 1Sg mí kày.

(xxx)   a.   [mí   kà]   [ù   dé]   bírá   bǐ-ná
             [1Sg   Topic]   [2Sg   Dat]   work(noun) work-ImpfNeg
             'As for me, I don't do work for you-Sg.'

Less often, kày occurs at the end of a clause. This construction may be glossed 'as for (the case that) ...', and occurs in discourse contexts of the type 'if A, then B; if however C (=as for the case that C), then D'.

(xxx)   a.   wó   ìnî   yèrú-wòrè   kày,   jèrⁿú-jèrⁿú   lí-yàrà-wɔ́
             3Sg   here   come-Perf1a   Topic, good-good   eat-Fut-3SgS
             '(As for) if she comes here, she will eat well.'

        b.   gà: nîŋ,   àrkírí   kɔ́   sà-rá,
             but   now,   hunger   NonhSgS   have-Neg,
             àrkírí   kɔ́   sá   má   kày,
             hunger   NonhSgS   have   if   Topic,
             dógò   àsí   kǔw-wàrà   nà
             only   LogoO   devour-Fut   now
             '(Sheep said:) But now you (=hyena) are not hungry. When on the other hand you are hungry (at a later time), only then will you devour me.' (2004-1a.02)

19.1.2   'Now' (nà)

A particle nà may be roughly glossed 'now', in the context of discourse-internal immediacy, rather than in the external temporal sense 'at this moment', which is expressed by nîŋ or more often by nîŋ kày. The combination níŋî nà 'now' is also found but is less common than nîŋ kày. Another common temporal expression is yó nà, which can mean 'today' or 'again'.

This nà should be distinguished from ná 'mother', which has a low-toned form when preceded by a simple nominal possessor (yⁿà-rⁿú nà 'the woman's mother'). It should also be distinguished from the occasional nà variant of Reflexive Possessor mà, which follows nominal direct objects (never pronouns). There is also a verb ná 'forget'.

nà is basically a **topicalizer**, and it cliticizes to a preceding constituent, usually a pronoun or other NP. It differs from the common Topic morpheme kày only in that nà explicitly refers to a chronological sequence in the discourse, as one topic is brought to a close and a new one is opened. It is common in texts where, for example, two related topics are discussed in succession, with a well-defined break point where the second topic is introduced. This is the case in (xxx), uttered by a speaker playing the role of interviewer, asking the featured speaker to describe various reptile species, one at a time.

(xxx) *bon*, [àw   jɛ́m   nà]   yⁿàŋêy   á   kà-là   mà
       well, [snake.L black now]   how   Impf   do-Impf Q
       'Well, (turning to) spitting cobra now, what is it like?'

Pronominal forms include 3Sg wó nà, 3Pl bé nà, Nonhuman Sg kó nà, Nonhuman Pl ké nà, 2Sg ú nà, and 1Sg mî nà. The 1Sg form in particular shows that independent pronouns must be used. These forms are tonally distinct from combinations of these pronominals, as possessors, with ná 'mother' (e.g. wó ná 'his/her mother', note the high tone on ná).

kó nà, with Nonhuman Singular pronoun in abstract function (i.e. not denoting a specific discourse referent), is common at the beginning of clauses. It may be glossed 'then', 'at that point', or 'thereupon', but it has no strong chronological sequencing element. Mainly it helps to frame a narrated event, and it is sometimes best left untranslated. There are two instances in (xxx), which also begins with the more vivid framing particle zákà 'lo!'.

(xxx) zákà   ˇìndêy   kà:yǔŋ   tíw   děn   d-è,
       lo!   over.there bee   send   Trans   be-3PlS,

[kó   nà]   [yày-cî   d-è≡cɛ́]
[Nonh now]   go-Prog   be-3PlS-\NonhPlS
túnǒm-mà   ká   dàgú-s-è≡cɛ́,
each.other   say   encounter-Perf2-3PlS-\NonhPlS,
[kó   nà] kà:yǔŋ, ténǎm bèrú děw-sà
[Nonh now] bee,   hyena get   begin-Perf2
'Lo, over there they had sent the honey bees. **Then** they (=hyenas and
honey bees) were going, they encountered each other. **Thereupon** the
honey bees began to get (= attack) the hyenas.' (2004-1b.01) (dèwrá)

In (xxx), the topical pronoun with nà occurs at a strongly contrastive topic
switch-point, though a chronological element is still present.

(xxx) ká   àsî   < àsî--, >   àsî   césú   kúw-é,
      say   LogoS   < LogoO—, >   LogoO   cut   devour-Hort,
      [àsî   nà]   ká   [[kó   kày]   kà-ná]
      [**Logo** **now**]   say   [[NonhSg   Topic]   be.done-ImpfNeg
      '(Monkey:) He (= Hyena) says (=intends) that he will cut up and eat me. I
      now (= on the contrary) say, as for that, it won't happen!' (2004-1a.05)

nà occasionally comes at the end of a clause. An example is (xxx) in the
preceding section ('... only then will you devour me'). In (xxx), nà follows má
'if/when'.

(xxx) [[ní   pùrò]   kù]   [kɔ̀   déŋ-đǐŋ],
      [[water   inside.L] in]   [NonhSgP   place.sit-HL]
      ní   dǔm-bɔ̀rè   má   nà,
      water   finish-Perf1a   **if**   **now**,
      [[ùró   kù]   ló   mà]   á   húrà   kà-là≡kɔ́
      [[hole   in]   enter and.SS]Impf hibernation do-Impf-\NonhSgS
      'Its (= python's) dwelling is in the water. If now the water is finished
      (= dried up), it hibernates in a hole.' (2004-1a.10)

19.1.3   'Also' (mánǐ ~ mà, mánǐ:nî)

The particle mánǐ means 'also, too' or sometimes 'even' (cf. fây 'even'). It is
grouped prosodically (i.e., cliticized to) some preceding constituent, such as a
NP.

Pronominal combinations: 3Sg wó mánǐ, 3Pl bé mánǐ, Nonhuman Sg kó mánǐ, Nonhuman Pl ké mánǐ, 2Sg ú mánǐ, and 1Sg mí mánǐ. In these pronominal combinations, mánǐ it may reduce to mà, hence wó mà, etc. This mà should not be confused with Reflexive Possessor mà (the latter can only follow a noun) or with verb-chain morpheme mà (which follows a verb stem).

The sense may be logically simple ('also, too'), focusing on one constituent, as in 'X went, and Y went too'. Here a prior proposition is extended, by expanding the referential range of one constituent (Y). This is usually a NP or adverbial, and since this constituent is necessarily topical, it is usually positioned at the beginning of the clause. However, mánǐ may also follow a predicate that adds more information about a discourse referent that has already been activated (xx1.b).

(xx1) a. [sày bólíkǐ]   lí-sà, …
           [firefinch]   eat-Perf2, …
           kó   [[sày   pírí]   mánǐ]   lí-sà
           Nonh   [[bird.L white] **also**]   eat-Perf2
           'Firefinch ate … Then golden sparrow too ate.' (2004-1a.04)

       b. àrà-jèrⁿú   sá≡kɔ́⇑,   bà:ní   sá\-kɔ́⇓,
           male.L-beauty   have-\NonhSgS, peace   have-\NonhSgS,

           gùrú≡kɔ́   mánǐ
           long-\NonhSgS   **also**
           'It (= python) is pretty, it's peaceful (= harmless to humans). It's also long.' (2004-1a.10)

mánǐ may also have sentence-wide scope, not focusing semantically on any one constituent, so that the free translation should begin with presentential 'furthermore, …', 'moreover, …', 'in addition, …', or 'likewise, …' It is difficult to detect this wide-scope sense, since mánǐ is prosodically cliticized to a constituent (usually a pronoun), so there is no surface-syntactic difference between cases of wide scope and cases with local constituent scope. In (xxx.a), [kó mánǐ] could be rendered 'likewise', with Nonhuman kó interpreted as nonreferential (or as resuming the entire proposition); alternatively, kó here could be taken as the indirect discourse version of an original second singular pronoun addressed to the (nonhuman) hyena, hence in the free translation 'You too, if you go ...'. In (xxx.b), though, the wide-scope 'furthermore' translation seems inescapable.

(xxx) a. … àsí   [bèlù   làgù   cíní]   bà-rⁿá,
           … Logo   [sheep.L other.L DefPl]   accept-ImpfNeg,

kó   mánǐ,   [tènàm   làgú]   dè
NonhSg too,   [hyena.L other]   Dat
'(Sheep to hyena:) … the other sheep won't believe me. Likewise, if you (H) go (and say something incredible) to the other hyenas …' (2004-1a.2)

b. záká   [kɔ̀gùsù   kúnú]   jěn   dà, ú   á   wɔ̀-rɔ̀⇑,
    lo!   [roughness DefSg]   more   be, 2SgS   Impf see-Impf
    [kɔ̀   kɔ́rù kún]   điŋŋémá,   kó   mánì,
    [NonhP spots DefSg] than,   **NonhSg   too**,
    [kɔ̀gùsù   kúnú]   á   gà:-lù-tà≡kɔ́   wállà:⇑
    [roughness DefSg]   Impf   big-Fact-Impf-\NonhSgS   *voilà!*,
    You see (=notice) its (= snake's) roughness (coarse skin) more than its markings. Furthermore, its roughness increases (its size).' (2004-1a.10)

An extended form mánǐ:nî is also found in the texts. Aside from mánǐ, it may contain nî (§15.2.1.1) but its morphological composition is nontransparent. The wide-scope 'furthermore' sense is present in (xxx.a). A narrow constituent-specific scope is probably present in (xxx.b), which responds to the question 'Does it (= grasshopper species) eat millet or not?' (other species, including some millet pests, had been previously discussed).

(xxx) a. kúrɔ́   sà-rá≡cɛ́,   báná   sá≡cɛ́,
           hair have-Neg-\NonhPlS,   tail   have-\NonhPlS,
           kɛ̀   kú   mánǐ:nî, [[ǎw   kù]   kâyⁿ]   dà   dá
           NonhPlP head also,   [[snake head.L] like.HL] Emph be
           They (= lizards) have no hair (fur). They have a tail. Their head, moreover, is like a snake's head.' (2004-1a.10)

    b. kó mánǐ:nì,   yú   â: céŋgúrú-tò
        NonhSg   also,   millet   Impf   gnaw-Impf
        'It (=grasshopper) too, (it) eats millet.' (2004-1b.03)

19.1.4 'Even' (fây)

This particle precedes the foregrounded topical constituent.

(xx1) [fây   zèrí]   bɛ̀w'rí-∅
      [**even** Eragrostis] sprout-PerfNeg-3SgS

371

'Not even the *Eragrostis* grass has sprouted.' (2004-2a.03)

For clause-initial fây in conditional antecedent clauses in the sense 'even if', see §16.3.

19.2 Presentential discourse markers

19.2.1 'Well, …' (háyà)

háyà (also pronounced hàyà and hà:) is the common presentential 'well, ...' morpheme, essentially a hesitation form, as in some other languages of the zone. French *bon* is also in the process of becoming common.

(xxx) háyà,   ténǎm   èrⁿá   á:≡m̀   kúw-wòsǐ-∅
      well,   hyena   goat   seize≡and.SS   devour-Perf1b-3SgS
      'Well, Hyena seized and devoured Goat.' (2004-1a.01) (/áwá≡m̀/)

19.2.2 'But …' (gà:)

The usual 'but' discourse marker is ga:, which is heard variably with high or low pitch at the beginning of a clause. Perhaps one should take low-toned gà: as the lexical form, with the high-pitched variant reflecting a nonterminal intonation rise, but I hesitate on this point and I transcribe either gà: or gá: depending on how I hear the pitch in a particular instance.

'X but Y' with two propositions means that X and Y are mildly discordant in some fashion, as in 'I did smoke marijuana once, but I didn't inhale.' (xx1) is in answer to the question whether people eat a particular grasshopper species. The point of the gá: clause is that although this species is not edible, it does have other uses.

(xx1) kɔ́   kùw-n-é,   gá: [àyⁿá   níŋèy   kày]
      NonhSgO   devour-ImpfNeg-3PlS, **but** [medicine with   Topic]
      kɔ́   â: dɔ́   mɔ́tú-r-è
      [NonhO   Impf   burn   do.together-Impf-3PlS
      'They don't eat them. But they (=sorcerors) do put them together and roast them with a potion.' (2004-1b.03)

19.2.3 'So, …' (kàmá-nî)

The particle (or particle complex) kàmà-nî is used like English discourse marker 'so, ...' or French *donc*, ... (i.e. with or without some causal connection). It may contain nî (§15.2.1).

(xxx) [yó   kày]   [tègù   mútú   kálá:⇒] yⁿâŋgó,
     [today   Topic] [talk(noun).L much   any]   not.exist,
     kàmá-nî àsî   kɔ́   áw   kúwó
     so   Logo   NonhSgO   catch   eat.Imprt
     '(Hyena to goat:) 'today (=this time), there is not (= there won't be) any great deal of talk; so, I must just catch and eat you.' (2004-1a-01)

19.2.4 'Lo, …' (zákà)

As a preclausal particle, zákà marks striking or surprising events in a narrative. I render as 'Lo, ...' in free translations. However, it may also be used to introduce a striking revelation, in which case English 'Now, ...' might be better in a free translation. I will normalize as 'lo!' in interlinears because of the ambiguity of 'now'.

    This preclausal zákà should be distinguished from the complex postposition [[X zákà] kù] 'among X, in the midst of X'.

(xx1) a. [yⁿà-rⁿú dè]   á   òw-r-ɔ̌:,   zákà   dǔm-bɔrè
         [woman-Sg Dat] Impr give-Impf-3SgS], lo! finish-Perf1a
         '... (and) he would give it (= millet) to the woman. Lo, (one day) it (= millet in granary) was exhausted.' (2004-1a.04) (dùwⁿɔ́)

      b. zákà   [jèrèŋgésî: kày]
         lo!   [pigeon   Topic]
         fây   [à-n   tùrî⇒]   [wò   dé]   césù
         even   [man-Sg.L one.single] [3Sg   Dat] strength.HL
         'Lo, as for Pigeon, even one (ordinary) man is stronger than he (is).' (2004-1a.03) (surprising revelation, since Pigeon had been thought to have a huge body)

19.3 'Only' particles

19.3.1 'Only (cɛ́k)

An interjection cɛ́k! (variant cɛ́kù) is very common in texts. It can be glossed, in various contexts, as 'exactly, precisely' or as 'only'.

(xxx)   a.   àrⁿá   mùrú-sɔ̀   tégɛ̌y   kɛ́k!
             rain   rain.fall-Perf2   a.little   only
             'It rained only a little.'

19.3.2 'Exclusively' (má-dógò, dógò)

A form má-dógò is fairly common in texts. It has a range of meanings in the general area of 'exclusively, strictly, invariably, necessarily'.

(xx1) [kó   kày]   sɔ̀lɔ́   má-dógò⇑,
      [NonhSg   Topic]   grass   **exclusively**,
      [yú   kày]   ŋ̀   wɔ̀-rí   [kɔ́   á   ĩ-rà   ŋ́]
      [millet Topic] 1SgS see-PerfNeg [NonhSgS Impf eat-Impf Rel]
      'As for that (grasshopper species), (it feeds on) grass exclusively.
      Regarding millet, I haven't observed that it (=grasshopper) feeds on it.'
      (2004-1b.03)

    The initial element má- is usually present. However, dógò occurs by itself
in (xx2). Here it occurs at the intersection of two clauses that denote causally
linked eventualities, and it seems to mean 'only then (will ...)'

(xx2) gà: nîŋ,   àrkírî   kɔ́   sà-rá,
      but   now,   hunger   NonhSgS   have-Neg,
      àrkírî   kɔ́   sá   má   kày,
      hunger   NonhSgS   have   if   Topic,
      dógò   àsí   kǔw-wàrà   nà
      only   LogoSgO   devour-Fut   now
      '(Sheep to Hyena:) "but now you are not hungry. (Later) if/when you are
      hungry, only then will you devour me."' (2004-1a.02)

19.3.3 'A mere …' (lók)

lók! (variant lókù) is another interjection-like intensifier. It is used after tùrî:
'one (single)'. Its core meaning is 'precisely one', but in many contexts 'merely
one' (or something stronger) is more idiomatic in translation, cf. English *he
gave me one lousy dollar*.

19.4 Phrase-final emphatics

19.4.1 Phrase-final já:tĭ

The regionally ubiquitous form já:tĭ 'indeed, exactly' is used as a one-word
confirmation of the truth of what the interlocutor has just said. It is also attested
in the combination [já:tĭ ní] at the beginning of a clause, where it seems to take
the truth of the proposition expressed by the clause in its scope.

(xxx) [já:tĭ   ní]   àsî   bɛ́   ɗirⁿú-wⁿɔ̀rⁿè
      [indeed just]   LogoSg   3PlO   encounter-Perf1a
      '(He said:) "Indeed, now I have found you all."' (2004-1a.04)

19.4.2 Phrase-final dá

While dá is most familiar as the high-toned version of dà 'be' (§xxx), there are a
few textual passages where dá seems to function as a phrasal emphatic (there
are similar uses of da in Songhay languages).

(xxx) [yⁿà:ŋá-yⁿà:ŋá   dá]   á   yày-rà≡kɔ́
      [night-night   **Emph**]   Impf   go-Impf-\NonhSgS
      'It (= pilgrim locust) goes around at night.' (2004-1b.03)

19.4.3 Clause-final kɔ̌y

This clause-final particle strongly asserts the truth of a proposition, or confirms
a proposition made by an interlocutor.

(xx1) a. [wɔ́   yè-nó   déy]   [àsî   kày]   sĭgî-yàrà   kɔ̌y
          [3SgS   come-ImpfNeg if]   [Logo   Topic] go.down-Fut **Emph**

'(Man inside granary, to himself:) if (=seeing that) she isn't coming, as for me, I will definitely go down.' (2004-1a.04)

b. [kó   kày]   mɔ̀sú   kǒy
   [NonhSg Topic]   nasty   **Emph**
   'That one (= viper) is definitely nasty (=dangerous).'

c. ȷ̃ir̃ɩm-nú   ká   [mú:rà: wɔ́   sîsà-sîsà]
   blind.person-Sg   say   [even.if 3SgS
                              whistling.sound]
   [àsɩ́   yè-nó   kǒy]
   [LogoS   come-ImpfNeg   Emph]
   'The blind man said (=thought): even if he (plays) the flute, I sure as hell won't come!' (2004-1a.10)

19.4.4 Clause-final láy

This final Emphatic particle (also found in Humburi Senni) is used with positive (xx1.b) as well as negative clauses (xx1.b). Negative contexts are more common, and the translation 'not at all' is often appropriate; cf. féy (§19.4.6). The particle is usually clause-final but occasionally precedes a negative verb (xx1.c).

(xxx) a. [nîŋ kày] á   sàtù-r-ɔ̌:   cɛ́k!, ɩ̌gù-n-ɔ́:   láy
         [now Topic] Impf   flee-Impf-3SgS   only,
               stand-ImpfNeg-3SgS   **Emph**
         'Now he was just fleeing, he wasn't stopping at all.' (2004-1a.09)

b. [yú   jèsù]   jěn   dà   mɔ́sù≡kɔ́   láy,
   [millet on]   be.more be   nasty.HL-\NonhSgS**Emph**,
   [kɔ̀   sɔ̀lɔ̀   péré]   jèsù
   [Def   grass.L free]   on
   'It (= harmful grasshopper) is definitely worse (=more harmful) on millet than on ordinary grass.' (2004-1b.03)

c. [bùrú   jérè   nà],   láy   bè'n'é
   [year.L   certain now], **Emph** get-ImpfNeg-3PlS
   'Some years, they don't get (anything) at all.' (2004-2a.03)

376

19.4.5 Clause-final dɛ́

This particle is similar to kòy in its emphasis on the truth of a proposition. In (xx1), the particle is used in a forceful reply to a question.

(xx1) Q: má sùŋù-ná: [tàrù mútú] á sĭtù-rò mà⇒↑,
    and python [egg.L many] Impf take.down-Impf Q,
    tègěy mà
    little Q
    'Does a python lay lots of eggs? Or (just) a few?'

     A: sùŋù-ná: [tàrù mútú] á sĭtù-rò dɛ́
    python [egg.L many] Impf take.down-Impf **Emph**
    'A python lays lots of eggs indeed!' (2004-1a.10)

However, dɛ́ may also have an admonitive flavor, warning the addressee about a danger.

(xx2) a. wó ségìlà kárⁿá dɛ́
    3Sg readiness do.Impf **Emph**
    '(She told him:) (you had better) get ready (for a fight)!' (2004-1b.01)

     b. á! ká [[ŋkǎyⁿ má kày] ká,
    ah! say [[thus if] Topic] say,
    [àsî mǎ:] dŭm-bàrà dɛ́
    [Logo Pl] be.finished-Fut **Emph**
    '(They) said: ah, if it's (= if it keeps up) like that, we will be wiped out indeed!' (2004-1b.01) (dùwⁿɔ́)

19.4.6 Clause-final '(not) at all!' particle (fɛ́y!)

The usual clause-final emphatic '(not) at all!' particle is fɛ́y!.

(xxx) lî kàmbù-rí-wɔ́ fɛ́y!
    eat do.completely-PerfNeg-3SgS at.all
    'He/She didn't eat (anything) at all.' (ka´m\\ka´wⁿa´)

Several such particles are used in other languages in the area and they are easily borrowed back and forth.

See also láy (§19.4.4).

19.5   Greetings

The verb 'to greet' is bèrŭ-m.

19.5.1   Time-of-day greetings

Some basic greetings related to times of day and night are in (xx1). Paired forms consist of a greeting and the standard response to it. Unless otherwise indicated the form is the same for singular and plural addressee.

(xx1)		form	gloss	time
	a.	náwⁿá⇒	'good morning'	morning
		ná: kɔ̀	[response]	
	b.	ú bà:nî lá dà (mà)	'have you passed the night well?'	
		morning		
		bà:nî kɔ́ⁿ⇒	[response]	
	c.	ú bà:nî děn dà (mà)	'have you passed the day well?'	mid-day to
		dusk		
		bà:nî kɔ́ⁿ⇒	[response]	
	d.	á pó: děn dà (mà)	'good afternoon' (2+ people)	2 PM to dusk
		sîyè⇒		
	e.	dèrmá	'good evening'	after sunset
		(á dèrmá if more than one addressee)		
		sîyè⇒		
	f.	áy bà:nî ná-yⁿɛ́	'good night'	before retiring
		bà:nî lá [î dé]		

The forms in (xx1.a) are grammatically opaque. In (xx1.b-d), we have 2Sg ú, bà:nî 'peace, well-being' borrowed from Songhay greetings, and a stative form of the verb lá 'spend night' or dèrⁿá 'spend mid-day'. The response bà:nî kɔ́:ⁿ is not fully transparent, but by analogy to other Dogon, Fulfulde, and

378

Songhay greetings it should mean 'peace only' (Jamsay jàmî săy, Humburi Senni kàl bà:nǐ, etc.).

The greeting in (xx1.f) is a hortative, literally 'let us spend the night in peace' (verb lá-).

19.5.2   Nontemporal situation greetings

Greetings associated with situations other than times of day are in (xx1). The response to any of these greetings is either bárá:jĩ (as in Fulfulde) or bárkà.

(xx1)	form	gloss	situation
a.	pô⇒	'greetings!'	esp. to one in or coming from the fields
b.	pó là	'greetings!'	to one at or coming from work
c.	pó tàgà	'greetings!'	to one at or coming from a well
d.	pó bǐrǐ	'greetings!'	to one at or coming from a market

19.5.3   Islamic greetings

The formal greeting to one or more men, as when entering a room or courtyard, preceding any other individualized greetings, is the inevitable àsàlà:mú àlè:kûm (Arabic for 'peace to you-Pl'). The response is wà'álè:kûmmàsálâ:m (Arabic 'and to you-Pl peace!').

Another Arabic expression is àlbárkà (compare bárkà as greeting response, §19.5.2 just above). The original sense is 'blessing', but it is used primarily in either of two contexts: a) a polite rejection of a price offered, while haggling; b) a 'thank you' expression on finishing a meal offered by one's host.

The invitational greeting ('welcome!' or 'come join us!') is bǐsǐmíllà (Arabic for 'in the name of God'). The response is sá:ŋà.

àmî:nà 'amen!' (variant à:mî) is a response to various formulae expressing best wishes (for a safe trip, etc.).

19.5.4   Condolences and holy days

When a death occurs, it is customary for friends and relatives to visit the family of the deceased to express condolences.

Informants indicated that there was no specialized formula for the greetings exchanged by the visitor and the surviving relatives in this context.

However, a visitor who is leaving after paying his or her respects is told: ɗiʃǐná: [yó yây ŋ̀gú kâyⁿ] wⁿáŋú'lá, literally something like 'may God keep you far from this today's going' (i.e. from death).

pò zôw is the greeting to one returning from giving condolences.

On annual holy days (Feast of the Ram, and the holy day at the conclusion of Ramadan), and at marriages, it is customary to wish other villagers good health until the same time the following year. The expressions used in TT are from Songhay. ká-yé:sî, response îbérǐ mà yé:sî.

19.5.5   Other formulaic expressions

'Bon voyage' (i.e. 'have a safe trip') is bà:ní yèrí ('come back in peace') or [yá mà] yèrí bà:ní ('go and come back in peace'). Response is àmî:nà or à:mí 'amen!'.

20 Text

add text