**A Grammar of Tiranige**

Dogon language family

Mali

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based on brief fieldwork

index etc. to be added later

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color coding (excluding section and chapter headings)

black new material typed in for this language

blue transcriptions for this language

green transcriptions for other languages, reconstructions, and formulas

pink data to be incorporated later into the section

red comments to oneself (e.g. data to be elicited, section to be rewritten)

orange temporary cross-refs to examples in other sections

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# Introduction

## Dogon languages

Dogon is a well-defined genetic family of languages spoken on the Dogon plateau, the cliffs and slopes that lead down from them, the sandy plains that stretch out to their north and east, and scattered inselbergs separated from the plateau to the north. Not all varieties have been surveyed professionally, but there are at least 80 varieties with distinct local names, and we currently think that these can be grouped into about 20-25 units of the sort that linguists generally consider to be “languages.”

Dogon is generally thought to belong to Niger-Congo. No close relationships to specific NC families have been demonstrated, and a reasonable working hypothesis is that Dogon (perhaps along with Ijoid) split off at a very early point from what later became the core groups of NC. One argument in favor of this position is that Dogon (and Ijoid) lack the noun-class prefix system which is a major defining characteristic of core Niger-Congo groups like Gur and Bantoid.

Dogon internal classification, as I currently understand it, can be summarized as in (xx1). There is a basic “western” versus “eastern” split, imperfectly correlating with the western and eastern cliffs of the main Dogon plateau. The cliffs on both sides are actually skewed diagonally, running from northeast to southwest. Yanda Dom and Tebul Ure are on the eastern cliffs and are separated from the rest of western Dogon by Tommo So. The columns in (xx1) disregard these points, and are tweaked to bring out geographical (and therefore contact) relationships both within each division and across the divide.

(xx1) western eastern

Toro Tegu

Ben Tey, Bankan Tey

Yanda Dom, Tebul Ure Jamsay group, Nanga

Najamba-Kindigué-Bondu

**Tiranige** Tommo So

Dogul Dom Donno So, Toro So group

Bunoge, Mombo, Ampari, Penange Tengou-Togo group

Tomo Kan

Tiranige is squarely in the western division. From a glance at maps one can see that their geographical neighbors within Dogon are the Bondu subgroup of Najamba-Kindigué-Bondu to the northeast, Tommo people to the south-east, and Dogul people to the south. Social contact with these other Dogon groups is limited as explained below.

## Tiranige (aka Duleri) language and Tiranou people

Tiranige (*tírá-ní-gé* ) is the endonym used by native speakers to denote the language. *-gé* is a suffix found in language names. The people who speak this language are called *tírá-nú:*, singular *tírá bɔ́lɛ̀*.

Fulbe call the Tiranou and their language *nduuleri*. In the form Duleri this term is widely used among non-Tiranou speakers including other Dogon to denote the Tiranou and their language, and has appeared in early Dogon dialect surveys.

The language is spoken in a number of villages in a rather rocky zone along and to the south of the western edge of the Dogon high plateau, and in a few newer villages that hug the cliffs on the plains below. The geographic limits are north latitude 14 42 (Embali) to 14 51 (Korendiou), and west longitude 03 36 (Degui and Toumba) to 03 46 (Semo). Parenthesized coordinates are estimated from maps. Others, those with three decimal points, are our own.

(xx1) village native name north latitude west longitude

Beri (Biri) *bìlì* (14 47 03 37)

Boui *bùrù* (14 48 03 44)

Damagari *dáŋálí* (14 48 03 43)

Degui (Digui) *déjí* 14 49.064 03 36.078

Djigui *jígí* 14 46.357 03 39.607

Dougo *dò:* 14 48.441 03 41.884

Embali (Emmbari) *èmbàlì* (14 42 03 44)

Gourari *gúlálí* 14 49.382 03 41.113

Guimari *gímálí* ~ *jímálí* 14 48.337 03 40.921

Keti *kérí* 14 49.079 03 41.055

Korendiou *délí* (14 51 03 42)

Nefari *nɛ̀wàlí* (14 43 03 44)

Neou *nɛ̀:* 14 49.079 03 41.055

Ningo *ìŋì* (14 50 03 38)

xxx Pandali (abandoned) *pandali* (?) —

Semo *sémá* (14 44 03 46)

Some *sɔ̀mɛ̀yà* (14 44 03 38)

xxx Sora (abandoned) *so:ra* (?) —

Tanga *táŋgá* 14 48.742 03 38.691

Toumba *tùmbà* (14 48 03 36)

Of these villages, only Boui, Ningo, and Korendiou are on the plains, all other villages being on the plateau above. However, in places the cliffs are easily climbed, and children from Ningo commute on foot to Tanga for schooling. (Boui has its own school.)

Sora (near Tanga) and Pandali (near Guimari), both now abandoned, are said to have been the oldest Tiranige speaking settlements. Embali (near Nefari), which is partially abandoned but still inhabited by a few people, is said to be the third oldest.

The coordinates given are from our own GPS readings where shown with fractions to three decimal points (the readings being degrees, minutes, and fractions of minutes from .000 to .999). The coordinates given without three decimal points are estimated from the old colonial government map (dated 1957) which is still in use. Our readings for Neou are significantly different from its position on the old map (N 14 44, W 03 42); either somebody goofed or the village has relocated.

Surnames at Boui are Bassaga, Bassely, Yanogo, Bakandia, Kouba, Guindo, Dolo, and Dicko. Surnames at Ningo are Bakendia and Dicko. In Tanga we were told that all Tiranou on the plateau are Dicko, but this needs checking.

The bulk of the Tiranou population is concentrated in a line of villages near the edge of the plateau (Toumba, Degui, Tanga, Guimari, Gourari, Dougo, Damagari) and the immediately adjacent plains below the cliffs (Ningo, Boui, Korendiou). There is no road leading down from the plateau to the plains in the Tiranou zone (vehicles including motorcycles must go to Borko far to the east to get down to the plains), so the weekly market at Ningo can only be reached on foot from the plateau villages. On the plateau itself, motorcycles can get around, but the terrain is too rocky for donkey-drawn carts, so there are no weekly markets. A few villages in the rugged area farther south (like Neou and Nefari) might have some contact with speakers of other Dogon languages (Bunoge, Dogulu, Tommo So). At the northeastern extremity of the main line of villages (e.g. Degui), Tiranige abuts the Bondu subgroup of Najamba-Kindigué-Bondu, which begins at Tapou and extends eastward to the more heavily populated Dogani-Borko-Tintam area. At the southwestern extremity of this main line (e.g. Damagari) there is some contact with Bangande (speakers of the language isolate Bangime). The Bangande occupy several villages on the slopes of a valley that cuts into the plateau, but they regularly climb up and walk over a section of high plateau to reach Boui and the market village Ningo at the base of the cliffs. In the sandy plains stretching out north and west from the cliffs are a mix of Bozo-Jenaama (locally called Marka) and Fulbe villages.

In our visits to Boui and Tange, we found no significant bilingualism with any other Dogon language or with Bangime or Jenaama. Of course, some individuals there are bilingual due to particular family connections and life histories.

This leaves Fulfulde and Bambara. Fulfulde is the main language of the large market towns in the plains, the most important being Konna. Fulfulde is also used alongside Tiranige at the smaller weekly market in Ningo. There are numerous Fulfulde-speaking villages in the plains north and west of the cliffs, mostly populated by Rimaibé (ex-slaves of Fulbe). Fulbe women commute on foot to Dogon villages to sell fresh and curdled milk and butter. Many Dogon who own livestock entrust their animals to Fulbe herders. Fulfulde is also still important in Douentza and Mopti-Sevare in spite of inroads from Bambara. Some of the most southwesterly Tiranige-speaking villages in the plateau may have some contact with a cluster of Fulbe-speaking villages just to their south (Gasi, Madina, and Anga) on the edge of the Dogul area. Overall Fulfulde is the dominant second language and lingua franca in much of the Tiranige zone.

Some Tiranou young men travel to southern Mali for seasonal work, generally after the main harvest around late October. Others stay there for several years or move permanently, returning occasionally. Bambara is the dominant language in the south and some younger Dogon who have returned from there can speak Bambara to varying degrees. Bambara is also gradually spreading into Mopti-Sevare, Konna, and Douentza, at the expense mainly of Fulfulde. However, we found very few Bambara-speaking Dogon in our visits to Boui and Tanga.

We found it very difficult to find Tiranou who had been to school long enough to learn French well. The situation was not helped by a mass dropping out of school in Boui a few years before fieldwork began in 2011, as the community came to doubt the effectiveness and value of schooling. The school in Tanga is newer, and its first recruits had worked their way up to the fifth grade at the time of our visit in 2011. As time goes on there will be more French-speaking Dogon in the area.

Tiranige names for the contact languages are: *yómbólí-gé* (Najamba-Kindige aka Bondu), *púndání-gé* (Fulfulde), *bàmbàlà-gé* (Bambara), *tòmò-gè* (Tommo So), *ɛ́láw-gé* (Bangime), and *sámíyá-gé* (Jenaama).

## Environment

Most Tiranige speakers live on the high plateau, which is separated from the sandy plains below by cliffs. The old maps show an altitude of 380 m. on the plains near Ningo, and 609 m. at nearby Tanga on the edge of the plateau. The cliffs, however, are not steep and are easily climbed in several places.

The plateau, once one gets there, is fairly flat, with no imposing peaks. However, it is generally rocky with many slabs and boulders. The road along the edge of the plateau from Borko and Dogani southeast to the Tiranige speaking villages becomes progressively rockier as one approaches Tanga, and going farther east to Dougo, Guimari, and Gourari the road is difficult even for a 4x4. The southern part of the zone (Neou, Some, Semo, Nefari) is particularly uneven and rocky.

The rocks, however, trap water and make farming possible. Some small dams (*barrages*) have been built in the hope of facilitating rice farming and dry-season cash-crop farming (onions), but the results have not lived up to expectations.

Fields in the sandy plains, particularly near the base of the cliffs, are exploited by residents of the villages located down below, and to some extent by residents of villages up above who climb up and down the cliffs. Although the soil is sandy, precious water including direct rainfall and runoff from the plateau accumulates at the base. There is some dry-season gardening (papaya, mango, lettuce, tomato) just south of Boui.

The predominant staple crop, as elsewhere in Dogon country, is millet (*Cenchrus spicatus*, formerly *Pennisetum glaucum*). Other rainy-season crops are sorghum, peanut, groundnut (*Vigna subterranea*), cow-pea (*Vigna unguiculata*), and sesame.

Both the rocky plateau and the sandy plains permit herding of sheep and goats. Cattle herding is mostly done on the plains, but is often carried out there by Fulbe.

## Previous study of and current fieldwork on Tiranige

### Previous study

This language has been mentioned in the various surveys of Dogon languages/dialects, as either Duleri or Tiranige. No significant documentation of the language has been done previously.

### Fieldwork

I first visited Boui (in the plains) briefly in 2010. I spent three days there, primarily collecting flora-fauna terminology.

During a 20-month field trip in 2011 and part of 2012, Tiranige was one of several Dogon languages that I worked on. I had hoped to have a junior project member undertake this assignment, but the deteriorating security situation beginning in early 2012 made this impossible.

I worked with a young assistant from Boui (born 1987) who knew some French for a total of about four weeks in two sessions, the main one in April-May 2012. I was able to draft most of the grammar and to fill out a basic lexicon. Unless otherwise indicated the elicited examples in this grammar are from this assistant. However, he vanished into the Dogon diaspora shortly thereafter and I have not had access to him since then.

In 2013 I worked for about one week with an an older assistant who was a shopkeeper in Ningo. He was a member of the “cordonnier” caste (*jâŋ*, dialectally *yâwⁿ*), which is dominant in the settled area immediately around the Ningo market. There are considerable differences between this speaker and the other assistant. For example, shifts of intervocalic \*b to w and some other similar consonantal lenitions have occurred in the Boui data but not in the Ningo data. There are also some lexical and grammatical differences. At this point it is not clear how much of the variation is due to geography (Boui versus Ningo), the age difference, or the caste difference.

I also transcribed some texts (see end of this grammar) with the Ningo speaker. He was more comfortable with dictation than with recording.

In early 2017 I continued the grammatical and lexical elicitation and transcribed some freshly recorded texts from Ningo.

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During academic year 2011-12 I received salary support in the form of a sabbatical from the University of Michigan and a fellowship from the Guggenheim foundation.

### Additional resources

In addition to grammars, lexical data, and texts, the project has done extensive work in the following areas: a) flora-fauna (native terminology, identification), b) GPS mapping and photography of Dogon and other villages, and c) production of many documentary-style videos (2 to 20 minutes) dealing with practical activities and with cultural events such as festivals. See the project website at www.dogonlanguages.org for access to this material.

# Sketch

## Phonology

### Segmental phonology

Tiranige has a fairly conventional Dogon phoneme inventory, including the usual seven vowel qualities with [±ATR] opposition in mid-height vowels. Long and short vowel length are distinguished. Nasalized vowels occur but are uncommon.

*rⁿ* is absent as *n* is not lenited. However, yⁿ and wⁿ are common word-finally (§3.2.7).

### Prosody

Nouns (and to some extent numerals) have a range of lexical tone melodies: /H/, /HL/, /LH/, /L/, and a few cases of /LHL/ and /HLH/. Tones of verbs, and of modifying adjectives that are not also used as nouns, are supplied by the grammar.

In *CvCvCv*, the medial syllable is in the weak metrical position. Short vowels in this position are subject to raising to {i u} and to syncope in some morphological contexts, especially suffixed *CvCv-Cv* verb forms.

Modifying adjectives and possessors are the major tonosyntactic controllers. The formula for noun-adjective combinations is NL Adj (LAdj). The first adjective after the noun is {H}-toned (arguably this is the lexical or at least default tone for adjectives). The noun, and a second adjective if present, are dropped to {L} tones.

Preposed possessors control {LH} on a following possessed noun and its modifiers; the H appears on the final syllable (the final mora for monosyllabics).

Basic numerals drop to {L} tone after a noun, or a noun-adjective sequence, if there are no further modifiers. However, the further addition of a demonstrative triggers morphological and tonal changes in the numeral.

Definite *rì* can affect the tones of the final syllable of the preceding word in the NP. Definite *rì* and the basic demonstrative *mbó* trigger more substantial morphological and tonal changes on preceding sequences ending in a numeral.

*mbó* is itself dropped to L-tone except when alone in the NP.

Head NPs in relative clauses undergo no additional tonal changes.

A {LH} overlay with H-tone on the final mora is also common in predicates, specifically in focalized and relative clauses.

Intonational prolongation (symbol →) is lexicalized in a few grammatical morphemes (e.g. *bà→* ‘than’) and advebs (*wàgà→* ‘far away’). There are no Jamsay-type “dying quail” intonation effects.

### Key phonological rules

In the metrically weak position, short vowels raise to {i u} and may syncopate. Syncope can trigger various minor processes to modify the resulting consonant clusters, e.g. /nw/ → *mb*.

There is no systematic nasalization-spreading.

Constituents (NPs, PPs, verbs) ending in a […LH] tone sequence with a final-syllable (or final-mora) H-tone lose this H-tone before another constituent beginning with a H-tone. This is analysed here as Rightward L-Spreading.

## Inflectable verbs

Suffixal verb-to-verb derivations are reversive (‘un-VERB’), causative, mediopassive vs. transitive, and reciprocal. Many adjectives have corresponding inchoative verbs, whose causatives function as factitivs.

Verbal inflection consists chiefly of perfective/imperfective aspect crossed with positive/negative polarity. Additional categories for aspect-marked indicative verbs include experiential perfect, resultative, and progressive.

There is also a capacitative form (‘can VP’).

There are aspect-neutral statives. These include statives derived from active verbs (‘sit down’ becomes ‘be sitting’) and a few underived defective quasi-verbs (‘be’, ‘have’, ‘know’, ‘want’).

For all of these aspect-marked, capacitative, and stative forms, the temporal reference point can be shifted from the moment of speaking to a point in the past by mutating suffixal vowels to *ɛ* or adding *-yɛ*. For example, imperfective becomes past imperfective. The morphological “past” form of the simple perfective functions as a recent perfect.

Deontic moods are imperative, hortative, and a third-person (or indirect) hortative used in quoted imperatives.

## Noun phrase (NP)

The noun that heads the NP may be preceded by a possessor, otherwise all modifiers follow the noun. Nonpronominal possessors precede the noun, as do pronominal possessors for inalienable nouns (kin terms). Pronominal possessors for alienables (i.e. most nouns) usually follow the noun (and any modifying adjectives or numerals).

## Case-marking and PPs

Accusative *gì* is a postposition-like morpheme that follows a complete NP (DP). It is generally limited to pronouns and to human NPs. Indirect as well as direct objects are accusative-marked.

There are various other postpositions, the most basic ones being locative, instrumental, and purposive.

## Main clauses and constituent order

The basic order is SOV, as best seen when both subject and object in a transitive clause are nonpronominal (xx1).

(xx1) *[mó:wélì rì] [à:màdú gì]* L*bɛ̀ndɛ̀-∅*

[vehicle Def] [A Acc] Lbump.Pfv-3SgSbj

‘The vehicle bumped LAmadou.’ (Boui)

A spatiotemporal adverb that sets the scene may precede or follow the subject (xx2a). Other adverbial phrases, including spatiotemporals that have a more argument-like relationship to the predicate, typically intervene between subject and object (xx2bc).

(xx2) a. *à:màdù á:gá ámbá sɛ́:m-bò-∅*

A tomorrow sheep slaughter-Ipfv-3SgSbj

‘Amadou will slaughter a sheep tomorrow.’ (Boui)

[or: *á:gá à:màdù ámbá sɛ́:m-bò-∅*]

b. *à:màdú [bɔ̀mɔ̀kɔ́ ŋà] wàlè kám-bò-∅*

A [B Loc] work(n) do-Ipfv-3SgSbj

‘Amadou will work in Bamako.’ (Boui)

c. *à:màdù jíwâ: sìkɔ̀rɔ́* L*gànì-∅*

A house.Loc sugar Lput.Pfv-3SgSbj

‘Amadou put (the) sugar in the house.’ (Boui)

Double objects occur with ditransitive verbs (xx3). The recipient can be marked as accusative.

(xx3) *à:màdú á:gá [ámbá nɛ̀-wɛ́] [mì gí] túlɔ́-wò-∅*

A tomorrow [sheep 3Sg-Poss] [1Sg Acc] sell-Ipfv-3SgSbj

‘Amadou will sell me his sheep-Sg tomorrow.’ (Boui)

In imperatives, for the Boui assistant a NP or PP may follow the verb (xx4b). The Ningo assistant accepted this but preferred the regular verb-final order (xx4c)

(xx4) a. *[námà rì] [tànà yà] tɛ̀lɛ̀-∅*

[meat Def] [knife Inst] cut.Pfv-3SgSbj

‘He/She cut the meat with a knife.’ (*námá*) (Boui)

b. *[tànà yà] tèlà [námà rì]*

[knife Inst] cut.Imprt [meat Def]

‘Cut-2Sg the meat with a knife!’ (Boui)

c. *[tànà yà] [námà rì] tèlà*

[knife Inst] [meat Def] cut.Imprt

[=(b)] (Boui)

## Relative clauses

The relative construction as a whole functions as a NP (DP) in the higher clause. The overt head NP, maximally Poss-N-Adj-Num, is internal to the relative clause. It has the same form as it would have as a main-clause NP (there is no tone-dropping attributable to the relative clause). Determiners and ‘all’ quantifiers follow the verb. The verb it agrees in plurality with the head NP. The verb lacks the usual pronominal-subject suffixes for 1Sg, 2Sg, and 3Pl as found in main clauses. There is no pronominal-subject marking in subject relatives; if the subject of a nonsubject relative is pronominal, it is marked by a proclitic pronoun. Verbs in relative clauses do mark regular aspect-negation and past-time categories; the morphology is usually the same from main to relative clauses, but there is some specialization of perfective positive verbs in relatives. The verb is usually the same from subject to nonsubject relatives, but the two are distinguished morphologically in the imperfective positive.

## Interclausal syntax

There is no “bare” verb form, but the E/I-stem that functions in simple main clauses as the perfective positive is also found on nonfinal verbs in chains that resemble the direct chains of other Dogon languages (§15.2.2.1). In more loosely adjoined temporal adverbial clauses, the main distinction is between imperfective clauses with -wⁿ ‘while’ (§15.2.1.3) and various perfective (anterior) clauses (‘after’) (§15.2.2.1). Same-subject and different-subject subordinators do not have distinct subordinating morphemes. As in some other Dogon languages, anterior adverbial clauses (‘after’) sharply distinguish past time (i.e. realis) from future time (irrealis) contexts (§15.2.2.3).

Conditional constructions are of standard Dogon type, with a clause-final ‘if’ particle *mɛ̀* (§16.1). Counterfactuals make use of past-time marking in both antecedent and consequent clauses (§16.3).

Quotative complements make an interesting distinction between same-subject (‘X said that X …’) and different-subject (‘X said that Y …’) constructions, for second as well as third person subject. Although Tiranige has no logophoric (or other pure anaphoric) pronouns, quotative clauses have two ways of marking pronominal subject. A preverbal proclitic without quotative marker is associated with same-subject constructions, while a clause-initial pronoun with quotative marker is associated with different-subject constructions (§17.1.1.3). There is a special verb form used for quoted imperatives, which require a clause-initial subject (§17.1.2.1).

True factive clauses as complements of ‘know’ and ‘see’ take the form of headless relatives, cf. English *the fact that …*

The majority of complements of “control” matrix-clause verbs are verbal-noun complements, which may include objects and other nonsubject constituents, similar to English infinitival VP complements (§17.4).

# Phonology

## Internal phonological structure of stems and words

### Syllables

Primary syllabic shapes that occur within stems are *Cv*, *Cv:*, *CvL* with sonorant *L*, and occasionally *Cv:L*. Word-initially, the *C* position may be vacant. The occasional syllable of type *CvT* with some stop *T* is the result of syncope from *CvTv* before a suffix or compound final.

Nouns, verbs, adjectives, and numerals have at least two moras (no monomoraic *Cv* stems). For verbs, see the full inventory of monosyllabic stems in §10.1.2.1. Examples of other monosyllabic stems are in (xx1).

(xx1) a. *Cv:* (including *v:*, *Cv:ⁿ*, and *Cwv:*)

*ɛ̀:* ‘jaw’

*nú:* ‘oil’ cf. *míɲú-nù* ‘shea-butter’

*nú:* ‘5’

*tó:* ‘other’

*gó:ⁿ* ‘body’

*kwɛ̌:* ‘calabash plant’

*gwí:* ‘skin’

b. *CvL*

*kóy* ‘tree bark; shell’

*bèl* ‘animal’

c. *Cv:L*

*sɔ́:y* ‘7’

*á:y* ‘yawn(n)’

*bɛ́:w* ‘belching(n)’

In words like *ní:ŋgà* ‘two’, the nasal-stop cluster is arguably the onset of the final syllable, in which case such words have no superheavy *Cv:L* syllables.

### Metrical structure

In *CvCvCv*, the medial syllable is metrically weak. In this position, a short nonhigh vowel may be raised to a high vowel, variably *i* or *u* (depending on vocalic and consonantal environment). A short high vowel in this position, whether lexical or due to the raising just mentioned, is syncopated under some conditions (§3.4.2.2). Raising and syncope do not occur in all grammatical contexts; they occur in certain verbal derivations (reversive, mediopassive, transitive) of *CvCv-* stems, and in certain verbal inflections when the medial *C* of a *CvCv-* stem is homorganic to the initial suffixal *C*.

## Consonants

The consonant phonemes are in (xx1). Marginal ones are parenthesized

(xx1) Consonants

1 2 3 4 5 6 7 8 9 10

labial *p b m (f) (v) w wⁿ*

alveolar *t d n s (z) l r rⁿ*

alveopalatal *c j ɲ*   *y yⁿ*

velar *k g ŋ*

laryngeal *(h) ((ʔ))*

*c* is IPA [tʃ], *j* is [dʒ], *y* is [j].

key to columns: 1. aspirated voiceless stops (c is affricated); 2. voiced stops; 3.nasals, 4. voiceless fricatives (including sibilants); 5. voiced fricatives (including sibilants); 6. laterals; 7-8. unnasalized then nasalized sonorants; 9-10. laryngeals

### Alveopalatals (*c*, *j*) distinct from velars (*k*, *g*)

*c* is distinct from *k* even before front vowels. Likewise, *j* (afficate) is distinct from g before front (as well as back) vowels.

Examples: *kìrì-kírì* ‘dizziness’, *cìwàlà* ‘hat’, accusative particle *gì*, *jìwé* ‘carrion’.

### Back nasals (*ŋ*, *ɲ*)

Velar *ŋ* and palatoalveolar *ɲ* are distinct even before front vowels: *yáŋí-yó* ‘fight (v.)’, *míɲí-yó* ‘grind into powder’.

### *g*-Spirantization (*g* → *γ*) absent

There is no systematic spirantization of g between back/low vowels.

### Labials (*f*, *w*)

*p*, *m*, and *b* are basic consonants. *f* is rare. It occurs in a few loanwords like *sàlfàná* ‘2 PM prayer’, but other loanwords replace original *\**f with *p* (*àlpàjìrí* ‘pre-dawn prayer’).

In word-initial “clusters,” *Cw* before a vowel can represent a desyllabified *o* or *ɔ*, as in the perfective of monosyllabic verb stems (§10.2.1.1).

Elsewhere, unclustered *w* has an articulation approaching [β], i.e. a bilabial approximant, before front vowels {*i e ɛ*}. The linguist’s pronunciation with English-type [w] was frequently corrected.

### Laryngeals (*h*, *ʔ*)

*h* and *ʔ* are not regular phonemes in Tiranige. There are a few Fulfulde loanwords with initial *h* such as *hàlí* ‘until, even’ and *hà:ráwⁿ* ‘a minor Muslim holy day’.

### Sibilants (*s*, *z*)

*s* is a common consonant: *sáŋgó* ‘cook (rapidly)’, *sùmá* ‘waterskin’, *sâ:-* ‘have’. It replaces source-language [ʃ] in borrowings: *síŋgɔ́m* ‘chewing gum’ with *s* for French [ʃ]. Some speakers pronounce [ʃ] as an allophone of *s* before *i*, as in *síŋgá* ‘blister beetle’, pronounced [síŋgá] ~ [ʃíŋgá] depending on the speaker.

z occurs (rarely) in loanwords from source-language [z] or [ʒ]: *àlzérí* ‘Algeria’, *zándármú* ‘gendarme’. Palatoalveolar {*š* *ž*} are essentially absent. *síŋgɔ́m* ‘chewing gum’ has *s* for French [ʃ].

### Nasalized sonorants (*rⁿ* absent, *wⁿ* and *yⁿ* word-finally)

There is no *rⁿ* (nasalized tap).

*wⁿ* occurs word-finally, in some cases as an independent morpheme (suffix or clitic). Examples are *cɛ̂wⁿ* ‘a little’, *nɛ́wⁿ* ‘salt’, *yá: tèwⁿ* ‘around there’, *ɛ́wⁿ* ‘wet; fresh’, *mìlyôwⁿ* ‘million’ (< Fr), *dèwⁿ* ‘day’. The progressive aspect is expressed by suffixing *-wⁿ*, which is followed by auxiliary verb *bǒ:-* (§10.2.2.3), the combination being variably heard as [mbǒ:-] plus lengthening of the preceding stem-final vowel. *=ẁⁿ* is also an important allomorph of the ‘it is’ clitic, which occurs in identificational predicates (§11.2.1.1) and as a focus marker (§13.1.1.4).

Word- or stem-final *wⁿ* is easily heard prepausally, as when words are pronounced in isolation. Before a consonant, *wⁿ* behaves like an assimilating nasal. For example, *nɛ́wⁿ* ‘salt’ has a possessed form *nɛ́wⁿ mɛ̀:* ‘my salt’ pronounced [nɛ́m:ɛ̀:]. Word-final *wⁿ* also combines irregularly with interrogative particle *le* as [n:i] (§13.2.1). In my ordinary transcription I usually write *wⁿ* word-finally since it clarifies the morphemic composition.

*-yⁿ* is common as the regular 1Sg pronominal-subject suffix on verbs (§10.3.1). Like *wⁿ*, word-final *yⁿ* combines with interrogative particle *le* as [n:i] (§13.2.1). I can cite one intervocalic case: *gáyⁿá* ‘wild fonio grass (*Panicum*)’.

Phonemically nonnasal syllable-final *w*, as in verbs ending with 2Sg subject suffix -*w*, can be more or less phonetically nasalized when syllabified with a preceding *Nv*. However, this low-level nasalization is not systematic.

### Consonant clusters

#### Word- and morpheme-initial *CC* clusters

There are some initial nasal-stop clusters: *ndó-* (Boui) ~ ndɔ́- (Ningo) ‘give’ (only known verb of this type), *ndà:* ‘person’, *ŋgàlà-ŋgàlà* ‘gallbladder’, *mbásáⁿ* ‘bassam (fabric)’. After a pause, the nasal is pronounced as its own syllable. However, the nasal does not have an independent tone; it is pronounced with L-tone except when it syllabifies with a final H-toned vowel in the preceding word.

This aside, initial clusters are of the form *Cw* before a front or low vowel {*i e ɛ a*} in monosyllabic stems. In attested examples the initial *C* is {*d g t k n s*} This type of cluster occurs in monosyllabic nouns such as *dwɛ́:* ‘ashes’ and *gwí:* ‘skin’, and in the apparent compound final in *òlò-kwá* ‘flint lighter’. It is common in perfective positives forms of *Cv:-* verb stems with *C* not a palatoalveolar (*dwɛ̀:-* ‘insulted’ or ‘pounded’, *gwè:-* ‘went out’, see 10.2.1.1). The “w” is articulated as ‑ATR before *ɛ*, i.e. as a desyllabified *ɔ̯* (more open than the usual *w*), and one could analyse it phonologically in this fashion.

#### Medial geminated *CC* clusters

Stem-internal geminate clusters are uncommon, and are probably confined to loanwords (geminates are common in Fulfulde) and to stems that have undergone syncope of a short high vowel. An example of each attested cluster is in (xx1). If I have one or more stem-internal example, one such is given.

(xx1) *bb íbbà* ‘handle (of kettle)’

*cc* *pɛ̀ccɛ̀rɛ́* ‘half’

*dd*

*ff*

*gg*

*jj*

*kk*

*ll mbòllí* ‘knobbed end (of stick)’

*mm*

*nn ɔ̀lɔ̀-ɔ̀lɔ̀ kùnnɛ́* ‘Adam’s apple’

*ɲɲ*

*ŋŋ kàŋŋɛ́* ‘gold’ (regional word)

*pp jìrò-sàppà:rɛ́* ‘eyedrops’

*rr*

*ss*

*tt*

*ww*

*wⁿwⁿ*

*yy ìjò yéyyá* ‘home town’

*yⁿyⁿ*

#### Medial nongeminate *CC* clusters

Obstruents (stops, affricates, fricatives) do not occur as first members of clusters. This leaves sonorant-obstruent and sonorant-sonorant combinations.

The only common medial clusters within stems are {mb nd nj ŋg}, i.e. nasal and homorganic voiced stop/affricate. Other CC clusters are generally either limited to loanwords, or occur only at stem-suffix or compound boundaries, usually as the result of syncope. In the lists below, if a stem-internal example is known it is given. If not, if an example involving a morpheme boundary is known it is given. Failing that, — is shown.

(xx1) Nasal plus consonant

*mb ámbá* ‘sheep’

*nd kándá* ‘new’

*nj kúnjúgɔ́* ‘knee’

*ŋg tíŋgó* ‘choke (on food)’

*mp sálámpɔ́* ‘alms’

*nt ɛ̀ntí kán(ú)* ‘wean’

*nc* — —

*ŋk sàŋkúnɛ̀* ‘waterbag’

*nz* — —

*ns* *ŋgàràn-sá:kú* ‘grain sack’

*mj* — —

*my* — —

*ny bún(í)-yó-* ‘become red’

*ɲy* — —

*ŋy yáŋ(í)-yó-* ‘kneel’

*mw* [→ *mb*]

*nw* [→ *mb*]

*ɲw* — —

*ŋw* — —

*ml* — —

*nl bín(í)=là* ‘not be fat’

*ɲl* — —

*ŋl* — —

*mr* [→ *md* ]

*nr* [→ *md* ]

*ɲr* — —

*ŋr* — —

(xx2) Liquid plus consonant

*lb* — —

*ld* — —

*lj* — —

*lg* — —

*lp* — —

*lt* — —

*lc* — —

*lk pɛ́l-kúlêyⁿ* ‘60’

*lz* — —

*ls sèl-sèl* ‘pointed’

*lm* — —

*ln* — —

*lɲ* — —

*lŋ* — —

*ly gúl(í)-yó-* ‘thunder(v)’

*lw* — —

*lr* — —

*rb* — —

*rd* — —

*rj* — —

*rg* — —

*rp* — —

*rt* — —

*rc* — —

*rk* — —

*rz* — —

*rs* — —

*rm* — —

*rn* — —

*rɲ* — —

*rŋ* — —

*ry yígír-yé* ‘stirring-stick’ (verb *yígíró-*)

*rw* — —

*rl* — —

(xx3) Semivowel plus consonant

*yb* — —

*yd* — —

*yj* — —

*yg* — —

*yp* — —

*yt* — —

*yc* — —

*yk* — —

*yz* — —

*ys* — —

*ym* — —

*yn báy-nâ-* ‘not be big’

*yɲ* — —

*yŋ* — —

*yl* — —

*yw* — —

*yr pɔ̀yrɛ́* ‘light (illumination)’

*wb* — —

*wd* — —

*wj* — —

*wg* — —

*wp* — —

*wt* — —

*wc* — —

*wk* — —

*wz* — —

*ws* — —

*wm* — —

*wn* — —

*wɲ* — —

*wŋ* — —

*wy ów-yó* ‘sit’

*wr ów-ró‑* —

*wl* — —

Nasalized semivowels *yⁿ* and especially *wⁿ* are common stem-finally and may be followed by another consonant, especially in compounds. However, in examples like *bówⁿ-bè* ‘key’ (lit. “door-child”) my transcription is somewhat abstract, and the *wⁿ* (or *yⁿ*) normally behaves like an assimilating nasal consonant, hence [bómbè].

#### Medial triple *CCC* clusters

Medial triple clusters are probably confined to loanwords (such clusters are common in Fulfulde), compounds, and nouns with frozen inanimate class suffix beginning in *ŋg*. From the latter category I can cite *pólŋgé* ‘egg’, *bɔ̀lŋgɔ́* ‘vestibule’, *tílŋgɔ́* ‘tree’, *bélŋgé* ‘grass’, and *sɔ̀lŋgɔ́* ‘Bozo (ethnic group)’. Clearly *lŋg* is a favored triple cluster, with a liquid followed by a homorganic nasal plus voiced stop cluster. Another cluster of this type, lmb, is attested: *kɔ̀lmbɛ́* ‘gecko’.

Allowing morpheme boundaries, we can add *y-nd* in *báy-ndó-* ‘become big(ger)’.

#### Final *CC* clusters

Final *CC* clusters have not been observed.

## Vowels

The vowels are given in (xx1). Nasalized vowels are uncommon.

(xx1) oral nasalized

short long short long

*u u:* (*uⁿ* ) *u:ⁿ*

*o o:* (*oⁿ* ) *o:ⁿ*

*ɔ ɔ: ɔⁿ* (*ɔ:ⁿ* )

*a a: aⁿ a:ⁿ*

*ɛ ɛ: ɛⁿ* (*ɛ:ⁿ* )

*e e:* (*eⁿ* )(*e:ⁿ* )

*i i: iⁿ* (*i:ⁿ* )

### Oral vowels

All oral short and long vowels are common. Monosyllabic noun, verb, adjective, and numeral stems require two moras, so *Cv:* (along with *CvC*) are OK while *Cv* is not. Within nonmonosyllabic stems, long vowels usually occur in initial syllables, though there are some borrowed nouns with medial long vowels: *jìrò-sàppà:rɛ́* ‘eyedrops’. Particles, clitics, and suffixes can be *Cv*.

Long vowels occur in verbal inflectional suffixes, specifically combinations of an aspect-negation suffix and the 3Pl subject suffix (§10.3.1).

### Nasalized vowels

Nasalized vowels are rare. Long nasalized vowels are attested in a few monosyllable nouns (xx1). The gaps are probably accidental.

(xx1) *i:ⁿ* —

*e:ⁿ* —

*ɛ:ⁿ* —

*a:ⁿ pá:ⁿ kán(ú)* ‘understand’

*ɔ:ⁿ* —

*o:ⁿ gó:ⁿ* ‘body’

*u:ⁿ kǔ:ⁿ* ‘skiff (boat)’

Short nasalized vowels are attested in a loanword (‘bassam’), an onomatopoeic word, and two reduplicative stems (xx2). The gaps are again most likely accidental.

(xx2) *iⁿ bíⁿ gún(ú)* ‘vibrate’ (onomatopoeic)

*eⁿ* —

*ɛⁿ tɛ́ⁿ-tɛ́wⁿ* ‘straight’

*aⁿ mbásáⁿ* ‘bassam (fabric)’

*ɔⁿ bɔ́ⁿ-bɔ́ⁿ* ‘candy’ (< French *bonbon*)

*oⁿ* —

*uⁿ* —

### Initial vowels

Since the initial consonantal slot of a syllable can be unfilled stem- and word-initially, initial vowels are unrestricted: *áyó-* ‘arrive’, *ɛ̀:lɛ̀ŋgè* ‘peanuts’, *órâ-* ‘not be (somewhere)’.

### Stem-final vowels

All vowel qualities may occur stem- and word-finally in nonverbs. For verbs, the situation is complicated by extensive vocalic ablaut, particularly affecting the final vowel, but all oral vowel qualities are attested stem-finally.

### Vocalic harmony

Advanced tongue root (ATR) distinguishes two sets of mid-height vowels, +ATR {*e o*} and -ATR {*ɛ ɔ*}. The two sets normally do not combine within a stem, so we can speak of ATR harmony. High vowels {*i u*} are extraharmonic; they can combine in a stem with vowels of either ATR category. Examples: *(cínjó) ímbó-* ‘blow (nose)’ versus *ímbɔ́-* ‘pull’ or ‘shut’. Low vowel *a* can combine with +ATR but not -ATR vowels, so *a* could be considered a member of the +ATR set.

Some exceptions to ATR harmony occur in noun stems that contain a frozen classifier suffix; see end of §4.1.1.

In verbal morphology, the A/O-stem (one of three vocalically defined forms of each verb stem) involves overlaying +ATR values on all vowels in the stem, with final {*ɛ ɔ*} becoming *a* and nonfinal {*ɛ ɔ*} becoming {*e o*}.

### Vocalism of verb-stem alternations

Verbs have four vocalism stems defined by vocalic ablaut. The vocalism is determined by the stem’s prosodic shape, ATR value, and presence/absence of nonfinal *a*-vowels. The vocalically defined stems are cross-cut by tone contours (melodies) for particular AN categories. The vocalic patterns are summarized in (xx1). I will generally use the O-stem as the citation form, but other choices would also be possible. For this stem, the Boui assistant kept lexical -ATR vowels (leftmost column)

(xx1) O-stem A/O-stem E/I-stem I/U-stem gloss

a. -ATR stems [for Ningo dialect see comments below]

*monosyllabic, a in A/O-stem, C onset in E/I-stem*

*ɲɔ: ɲa: ɲɛ: ɲi:* ‘eat, drink’

*monosyllabic, ɔ in A/O-stem, Cw onset in E/I-stem*

*dɔ: dɔ: dwɛ: dwi:* ‘pound’ or ‘insult’

*nonmonosyllabic, final a in A/O-stem, nonfinal nonlow vowel*

*jɛyɔ jeya jɛyɛ jeyi* ‘kill’

*tɔyɔ toya tɔyɛ toyi* ‘step on’

*diyɔ diya diyɛ di:* ‘abandon’

*duyɔ duya duyɛ duyi* ‘bathe’

b. +ATR stems

*monosyllabic, final o in A/O-stem, Cw onset in E/I-stem*

*go: go: gwe: gwi:* ‘go out’

*nonmonosyllabic, final o in A/O-stem, nonfinal nonlow vowel*

*gujo gujo guje guji* ‘dig’

*jiyo jiyo jiye ji:* ‘harvest’

*noyo noyo noye noyi* ‘sleep’

*nonmonosyllabic, a in A/O-stem, nonfinal a-vowel*

*najo naja naje naji* ‘have fun’

*dayo daya daye dayi* ‘lay out’

c. final-high-vowel type

*nonmonosyllabic, final u in A/O-stem, nonfinal nonlow vowel*

*un(u) uno uni uni* ‘go’

*sin(u) sino sini sini* ‘convey’

*nonmonosyllabic, final a in A/O-stem, nonfinal a-vowel*

*kan(u) kana kani kani* ‘do’

*bamu bama bami bami* ‘beat (tomtom)’

d. irregular

*ndo nda: ndɛ: ndi:* ‘give’

*gun(u) guna gunɛ guni* ‘say’

The Ningo assistant, on the other hand, shifted -ATR to +ATR in the O-stem as in the A/O‑stem, hence O-stems *ɲo:* ‘drink’, *jeyo* ‘kill’, etc.

Inflectional categories associated with the various vocalism stems are given in (xx2). Categories are positive unless otherwise indicated. The groupings are valid for the majority final-nonhigh-vowel verb stems.

(xx2) O-stem imperfective; imperfective negative; prohibitive; hortative negative; verbal noun (§4.2.2)

A/O-stem imperative; perfective negative; *-wⁿ* ‘while’ subordinator (§15.2.1.2)

E/I-stem perfective; recent perfect; experiential perfect; hortative

I/U-stem quoted imperative (§10.7.3.1)

One could perhaps add an I-stem to account for agentive forms of verbs (§5.1.5), and an A-stem for one type of purposive clause (§17.6.2).

The stems with final high vowel (xx1c) are best treated separately from the main set of verbs exemplified in (xx1a-b). For these final-nonhigh-vowel verbs, the underlying ATR value is clearly seen in the O-stem, which ends in *o* or *ɔ*, and in the E/I-stem, which ends in *e* or *ɛ*. The underlying ATR value is disguised in the A/O- and I/U-stems, which allow only +ATR vowels and *a* along with extraharmnic {*i u*} throughout the stem. We can recover the underlying ATR value even from the A/O-stem by a somewhat tortuous calculation: stems with final o, and stems with nonfinal *a* vowel plus final *a,* are +ATR, while stems with final *a* and nonfinal vowel other than *a* are ‑ATR. In other words, unless the stem has a nonfinal *a*, a final *a* in the A/O-stem is an indirect (but reliable) indicator of ‑ATR quality. Therefore an A/O-stem like toya can only be from a -ATR verb, in spite of the +ATR *o* in the penult and the final nonharmonic *a*. We are not so lucky with the I/U stem, which completely neutralizes ATR values, except that a nonfinal *a* vowel points to +ATR.

Stems with final high vowel are arguably classifiable as +ATR. This is because those with high-vowel penult have final *o* rather than *ɔ* in the A/O-stem. On the other hand, those with *a* in the penult also have final *a* in the A/O-stem. Another irregularity is that final-high-vowel stems with high-vowel penult use the O-stem (with final *u*) rather than the A/O-stem (with final *o*) in the imperative. As a result, the A/O-stem for these verbs is confined to the perfective negative.

## Segmental phonological rules

### Trans-syllabic consonantal processes

#### Nasalization-Spreading

There is no regular process of nasalization spreading from one syllable to the next.

### Nonharmonic vocalic processes

#### V-lengthening before *nd*

The alternation in (xx1) seems to involve a combination of syncope (medial vowel) and lengthening of the first-syllable vowel before *nd*, which is itself derived from /nr/, see §9.4.1.

(xx1) *túní-yó‑* ‘put on (clothes)’ (Boui)

*tú:n-dó-* ‘put (clothes) on (sb)’ (Boui)

A lexical search brings out a suspiciously large number of stems of the shape *Cv:NCv* (generally for both Boui and Ningo dialects) suggesting that \*CvNCv may have evolved into *Cv:NCv* by lengthening the first vowel. However, in most cases there is no synchronic alternation calling attention to the lengthening. Examples with *nd* include *gɔ́:ndú* ‘hooked end’, *dù:ndú* ‘stump’, *nɔ́:ndɔ́* ‘left (hand)’, *kú:ndù* ‘intact’, *yá:ndó* ‘remember’, *nɛ́:ndɛ̀* ‘tongue’, *só:ndí* ‘saliva’, *nó:ndí* ‘marrow’, *sɛ́:ndɛ̀* ‘piece’, *pà:ndé* ‘trap(n)’. Examples with *mb* include *cé:mbè* ‘stone’, *tɔ́:mbɛ́* ‘protrusion on tree trunk’, *tà:mbé* ‘double hitching post’, *dò:mbé* ‘threshold’, *í:mbè* ‘heart of palm’, and *dà:mbú* ‘tinder’. Examples with *nj* include *ní:njí* ‘sweet’, *mà:njó* ‘papaya’, and *í:njɛ́* ‘dog’. Examples with *ŋg* include *nì:ŋgà* ‘2’, and *sà:ŋgá* ‘thick-lipped vat’. There are other *Cv:ŋgv* stems that I exclude here since they are or may be frozen combinations of *Cv:* plus an old inanimate suffix.

Lengthening before *NC* cluster is not a productive synchronic process: *kándá* ‘new’, *bémbé* ‘chest (torso)’, *tíŋgé* ‘choke’, *énjí* ‘vomiting’. The examples above, mostly nouns, are therefore simply flagged for diachronic analysis. Among other Dogon languages, engthening before *NC* is found chiefly in Nanga, an eastern Dogon language that is geographically separated from Tiranige and not closely subgrouped with it.

#### Syncope

Short high vowels are subject to syncope (i.e. word-medial vowel deletion) in the medial syllable of a trisyllabic. Specifically, medial *i/u* in *CvC2i/uC3v* usually syncopates when *C2* is an unclustered {*y w l n ŋ r*}, i.e. a sonorant other than {*m ɲ*}. If *C2C3* does not work as a cluster, syncope is blocked, as in *yáŋú‑ró‑* ‘cause to kneel’, since *ŋr* is a bad cluster. However, in some cases the *C*3 position may be a *NC* cluster whose nasal then may then combine with a preceding nasal: *wén-dó-* ‘become small’ from /wéní‑ndó-/. Unreduced clusters like *lŋg* are allowable elsewhere in the language (*pólŋgé* ‘egg’) and could presumably be generated by syncope.

Transparent examples of syncope occur in certain suffixal derivations in verbs that convert a *CvCv-* stem into *CvCi-* or *CvCu-*. This is the case with the reversive (§9.1), and with the (often paired) mediopassive and transitive suffixes (§9.4). Finally, syncope occurs in verbal inflectional morphology, notably in the imperfective positive and capacitative verb forms.

(xx1) a. syncope only

*reversive*

*tíyó-* ‘lock(v)’ *tíy-ló-* ‘unlock’

*gúwɔ́-* ‘hook, hang’ *gúw-lɔ́-* ‘unhook’

*pɛ́lɔ́-* ‘fold’ *pɛ́l-lɔ́-* ‘unfold’

*mediopassive (syncope optional)*

*yáŋú-ró-* ‘cause to kneel’ *yáŋ(í)-yó-* ‘kneel’

*búní* ‘red’ *bún(í)-yó-* ‘become red’

b. syncope, consonantal adjustments

*transitive*

*túní-yó-* ‘put on (clothes)’ *tú:n-dó-* ‘put (clothes) on (sb)’ (< /túní‑ró-)

*wéní-wè* ‘small’ *wén-dó-* ‘become small’ (< /wéní‑ndó-)

c. no syncope after *m*

*kúmú-ló-* ‘open (eye)’ *kúmí-yó-* ‘shut (eye)’

Somewhat specialized patterns of syncope and associated consonant-cluster modifications occur in inflectional verbal morphology, involving *CvC2v‑* stems and *-C3v-* suffixes where *C2* and *C3* are homorganic, either both labial or both alveolar. The relevant data are presented in depth in §10.1.2.5-6.

#### Apocope

Apocope is word-final vowel deletion. There is no widespread apocope in Tiranige, and final short {*i u*} can occur after consonants that allow them to syncopate word-medially. For example, imperative ‘go!’ is *ùnù*, contrast syncopated imperfective *úm-bò-* ‘goes’ from /únú‑wò-/. I initially transcribed the noun ‘dance’ as *yèw* but an assistant corrected my pronunciation to bisyllabic *yèwù*, cf. definite *yèwú rì* ‘the dance’, so even word-final homorganic semivowel-vowel sequences do not allow apocope.

### Local consonant sequence rules

#### Semivowel assimilation

*wⁿ* is fairly common stem- and word-finally. When followed by another consonant it behaves like an assimilating nasal consonant (xx1a). *yⁿ* is less common but has the same behavior (xx1c). Oral semivowel *w*, at least in 2Sg suffix *‑w*, shows similar assimilation before high-frequency clitics (xx1b).

(xx1) a. *wⁿ m* → *mm nɛ́wⁿ mɛ̌:* ‘my salt’ [nɛ́m:ɛ̀:]

*wⁿ n* → *nn nɛ́wⁿ nɛ̀-wɛ́* ‘his/her salt’ [nɛ́n:ɛ̀wɛ́]

*wⁿ l* → *ll nɛ́l=là* ‘it isn’t salt’ (< *nɛ́wⁿ)*

*wⁿ b* → *mb ɲà:-wⁿ bǒ-yⁿ* ‘I am eating’ [ɲà:mbǒj]

b. *-w l* → *-l l* 2Sg *-ẁ* plus interrogative *lè* → *-l lè*

*-w m* → *-m m* 2Sg *-ẁ* plus *mɛ̀* ‘if’ (§16.1)

c. *yⁿ m* → *mm* *dèyⁿ mɛ̌:* ‘my day’ (but *-yⁿ mɛ̀* §16.1)

*yⁿ n* → *nn* *dèyⁿ nɛ̀-wɛ́* ‘his/her day’

*yⁿ l* → *nn* 1Sg *-ỳⁿ* plus interrogative *lè* → *n nì*

#### *b* ~ *w* alternations (fortition or lenition?)

A lenition of intervocalic \*b to w is at various stages of completion. For the older speaker from Ningo, *b* is generally retained. For the younger speaker from Boui, the lenition has been completed. However, for this speaker there are some *b* ~ *w* alternations due to the fact that the segment in question can occur both intervocalically and adjacent to a consonant.

Some *b* ~ *w* alternations arise when a suffix beginning with *w* is preceded by a stop or nasal. For example, verbal nouns suffix *-wà* (§4.2.2) and imperfective nonsubject relative morpheme *-wá* show up as *-bà* and *-bá*, respectively, when syncope leaves them preceded by *m* or (less often) *n*. This process is clearly best analysed as fortition (hardening) of /w/ to *b*.

The other major set of *b* ~ *w* alternations is more difficult to model because of heavy grammaticalization. The relevant forms, as pronounced by my Boui assistant, are those in (xx1).

(xx1) *bǒ:-* ‘be’ in progressive (§10.2.2.3) or with adjectival predicate (§11.4.1)

*bò-* ‘be (somewhere)’ (§11.2.2.2)

*é wò* ‘be present (here/there)’ (§11.2.2.2)

*-wò-* (*-bò-*) imperfective (§10.2.2.1)

Imperfective *-wò-* itself hardens to *-bò-* after a stop or nasal, so the same fortition rule mentioned above can take care of this alternation. However, the alternation of *bò-* ‘be’ (after a locational expression) and *é wò-* looks more like a highly morphologed lenition of *b* to *w*, especially if we agree that *bò-* ‘be somewhere’ is still synchronically connected to *bǒ:-*.

Particularly intriguing are *w*-medial verb stems like *táwó‑* ‘touch’ and imperfective *táb‑bò*, which can be derived from /táw‑wò/ after syncope from /táwó‑wò/. Here, synchronic /ww/ appears to harden to *bb*. For more examples see (xx2c) in §10.2.2.1. For the older speaker from Ningo, we have *tábó‑* and *táb‑bò*, with no consonantal alternation.

#### *nj* ~ *ɲ*

A minor alternation of *nj* and *ɲ* has been observed intervocalically at the beginning of the second syllable in a few words. The reduced form *ɲ* occurs when a syllabic suffix has been added to make the stem or word trisyllabic, so that the second syllable is in a weak metrical position.

(xx1) *ní:njí* ‘sweet’ *ní:ɲí-nâ-* ‘not be sweet’ (§11.4.2)

*mɛ́njí-wè* ‘thin’ *mɛ́ɲí-ndó-* ‘become thin’ (§9.6)

*mínjí* ‘shea tree’ *míɲí-nù-* ‘shea butter’

*ánjó-* ‘be left over’ *àɲì-nɛ́* ‘remainder, the rest’

#### *r* → *d* after alveolar sonorant or stop

Tap r does not cluster with preceding consonants except semivowels {y w}. After a stop or sonorant, /r/ hardens to d. This happens with imperfective negative *‑râ-* when a preceding Cv syllable beginning with alveolar {n l r} loses its vowel by syncope. Data are in §10.1.2.6-7. For my Ningo assistant, similar syncope before definite rì can trigger the rule, as in tɔ́n dì ‘the planting’ from /tɔ́wⁿ ri/.

We can add *d* to the list of consonants that shift a following r to d, based on the negative predicative form *búrád-dâ-* ‘not be smooth’, cf. *búrádá* ‘smooth’ (§11.4.2).

#### *rd* → *dd*

/rd/ clusters are created when /rv-d/ or /rv-r/ syncopates. There is some variation in pronunciation between *rd* and *dd* in this case. In (xx1), the suffix is *‑râ‑* ‘not be (adjective)’, see (xx2) in §11.4.2.

(xx1) adjective gloss ‘not be ADJ’

*yágárá* ‘coarse’ *yágár-dâ- ~ yágád-dâ-* (Boui)

For Ningo, imperfective negative gíd-dà-∅ ‘he/she doesn’t get’ suncopated from /gír(o)-rà/ shows /rr/ → *dd*, probably via /rd/ (see preceding section).

### Vowel-vowel and vowel-semivowel sequences

Monosyllabic verbs whose citation form is *Có:-* and *Cɔ́:-* have perfectives that I transcribe *Cwɛ̀:-* and *Cwè:-*, see (xx2) in §10.2.1.1. Here the w is essentially a devocalized *ɔ* or *o*, respectively, and one could alternatively transcribe *Cɔ̯ɛ̀:-* and *Co̯è:*-. I know of no cases of #*Ca̯ɛ̀:-*, since *Ca:-* verbs in other Dogon languages appear in Tiranige as bisyllabic *Cayo‑* with perfective *Caye‑* (*nàyè-* ‘spent the night’, *kàyè-* ‘shaved’).

#### *VV*-Contraction

If the vocalic alternations in verb stems are analysed in terms of ablaut (i.e. mutations among vowel qualities), there is no need to posit underlying vowel sequences at the stem-suffix boundary. For example, the *Cwɛ̀:-* and *Cwè:-* perfectives just mentioned could be analysed as reflecting the application of an ablauted E-vocalism to /Cɔ:-/ and /Co:-/.

Clearly suffixal morphemes in verbal derivation and inflection are nearly all *C*-initial (for 3Pl subject see below). This leaves little scope for a putative VV-contraction process. At regular word-boundaries, I did not observe contractions involving word-final and word-initial vowels, like *i* and *u* in (xx1).

(xx1) *[bé-gè rì] úm-b-à:*

[child-Pl Def] go-Ipfv-3PlSbj

‘The children went (away).’ (Boui)

The best case of *vv*-Contraction is in 3Pl subject forms of verbs. The final verb in (xx1) reflects /ún-wò-/, cf. 3Sg *úm-bò-∅*, plus the 3Pl suffix. The latter is rather variable segmentable and tonally, depending on the particular aspect-negation category, making phonological analysis nontransparent. In this imperfective combination, however, it is fairly clear that /o/ in /‑wò‑*/* combines with something like 3Pl allomorph /-à:/ to produce a long *a:*. The full list of input-output relations for vowel quality in nonpast 3Pl subject forms is given in (xx2).

(xx2) input output

*a*-X *a:* resultative *-s-â:* , imperfective negative *-r-â:*

*o*-X *a:* imperfective *-w-à:* ~ *-b-à:*

*i-*X *i:* perfective negative *-n-î:*

“ *a:* experiential perfect negative *-tè:-n-â:*

This points to /a/ as the probable vowel quality of the 3Pl suffix. Note, however, that the “same” perfective negative suffix *-ni-* has two distinct outputs for 3Pl, depending on whether it is preceded by the experiential perfect morpheme.

In corresponding past forms, we always get *ɛ* outputs in 3Pl as in other forms, but it isn’t clear whether this is due to contractions of the type /ɛ-a/ → *ɛ:*, or whether past forms are produced by *ɛ*-ablaut overlaid on the corresponding nonpast forms (§10.6.1).

#### Monophthongization (/iy/ to *i:*, /uw/ to *u:*)

Monophthongization happens when a suffix or clitic consisting of a semivowel is added to a homorganic vowel, or when combinations like *Cuwi‑Cv* and *Ciyi‑Cv* syncopate to *Cuw‑Cv* and *Ciy‑Cv*.

## Cliticization

There are no second-position clitics of the Wackernagel type. The extent to which we should recognize phonological clitics is debatable. There are many function elements, often monosyllabic or subsyllabic, that could be considered as affixes, clitics, or particles (or, in verb complexes, auxiliaries). Analytic choices among these possibilities depend on the fixity of linear relationships and on phonological interactions, and the different considerations may diverge and may be individually fuzzy or moot. There is no stress or accent system that would clearly distinguish affixes, clitics, and particles.

I take 1Sg (*-ỳⁿ*), 2Sg(*-ẁ*),, and 3Pl (e.g. *-íyè*) subject morphemes in verbal morphology to be suffixes. However, the 1Pl and 2Pl morphemes precede the verb; I incline to take them as proclitic to the verb but there is no strong argument against particle status and I transcribe them as separate words. Likewise for the 1Sg, 2Sg, 3Sg, and 3Pl preverbal subject pronominals in nonsubject relative clauses.

A similar case is existential *è* ~ *é* and its specifically distant counterpart *yà* ~ *yá* (§11.2.2.1), which precedes inflected verbs and quasi-verbs. Based on its linear position it could be considered a proclitic to the verb. It has no segmental phonological interactions with the stem, but it does affect the form of the ‘be (somewhere)’ quasi-verb. Again, I prefer to transcribe it as a separate word.

The past-time forms of verbs involve replacement of the final vowel of the nonpast form by *ɛ*, sometimes with a similar change in the penult. I take this to be suffixation, or better yet as vocalic mutation (ablaut), rather than as cliticization (§10.6).

I accept clitic status for the ‘it is’ morpheme, usually *=ẁⁿ*, which is added at the end of NPs and related constituents (§11.2.1.1). In favor of clitic (rather than particle) status is the fact that it has allomorphs that depend on the form of the host. I extent this to the negative counterpart *=là* ‘it is not’ (§11.2.1.2).

I take plural *-gè* and *-ŋgè* to be suffixes rather than clitics or particles since they may occur two or more times within an NP, suggesting that they are parts of individual words. This contrasts with e.g. definite *rì*, accusative *gì*, and postpositions, which can occur only once in a NP.

## Tones

### Lexical tone melodies

#### Lexically /L/-melody stems allowed

In nouns and numerals, and to a lesser extent adjectives, stems have a lexical tone melody. I sometimes write specifically lexical melodies in slashes, e.g. /HL/, though curly brackets as in {HL} are used for stem-/word-level tone overlays and can be used informally whenever the specifically lexical element is not at issue.

Tiranige belongs to the subset of Dogon languages that allow lexically /L/-toned stems, so there is no requirement that all stems have at least one H-tone.

#### Lexical tones of verbs

Verbs have no lexical tone melodies, and there are no “bare” verb stems. Verbs occur in several vocalism stems (E/I-stem, A/O-stem, etc.), either with or without further inflectional suffixes. The tones of the stem depend on the inflectional category.

#### Lexical tone→melodies for unsegmentable noun stems

Nouns do have lexical melodies. The majority are /H→H/, /H→L/ (explained below), /L/, /LH/, and /HL/, along with a few more complex or shifting melodies especially in trisyllabic and longer stems. Because the lexical melodies can be modified, erased, or inverted in specific grammatical contexts, it is necessary to “peek” ahead into NP tonal grammar in order to tease apart the lexical melody.

In one set of contexts, the distinguishable melodies are /H/, /L/, /LH/, and /HL/. The forms in (xx1) and similar arrays below show the **phonetic** tone in prepausal position. Using x as dummy, x́ is H, x̀ is L, x̌: is <LH>, x̂: is <HL>, x̄ is M[id] tone, and x᷆ is <HM>. Phonetic M‑tone is a realization of phonemic H‑tone in prepausal position in words that also have another H syllable. For example, phonemic HH is realized as HM, and HLH as HLM, in this position. These data are from Ningo for which I have fuller information (Boui variations are mentioned at the end of this section).

(xx1) isolation ‘it isn’t a \_’ plural gloss

a. /H/

te᷆: té:=là té:-gē ‘tea’

ye᷆: yé:=là yé:-gē ‘woman’

gíbā gíbá=là gíbá-gē ‘house’

tóŋgíyē tóŋgíyé=là tóŋgíyé-gē ‘foot’

númíyɛ̄ númíyɛ́=là númíyɛ́-gē ‘hand’

b. /L/

wɛ̀: wɛ̀:=là wɛ̀:-gè ‘thing’

ìjò ìjò=là ìjò-gè ‘village’

c. /LH/

tě: tě:=là tě:-ŋgē ‘firewood’

kwɛ̌: ‘gourd/calabash vine’

gàbú gàbú=là gàbú-gē ‘onion’

gùlùmbá gùlùmbá=là gùlùmbá-gē ‘pigeon’

d. /HL/

níyè níyè=là níyè-gē ‘bird’

kúmìyɛ̀ kúmìyɛ̀=là kúmìyɛ̀-gē ‘calabash’

If some additional morphosyntactic contexts (definite singular, singular or plural noun plus numeral) are added, the result is (xx2). The /L/, /LH/, and /HL/ melodies are still clearly distinguishable. However, the /H/ category in (xx1a) above must now be split into two subtypes, which I label /H→H/ and /H→L/. The /H→H/ type is phonologically unproblematic, except that nonmonosyllabics dissimilate to a following H‑toned numeral (here ‘three’), becoming L‑toned. The /H→L/ type shifts its H‑tones onto a following L‑toned numeral (here ‘one’ and ‘two’), but fails to dissimilate (alternatively, it re‑assimilates) to a following H‑toned numeral. Another difference between /H→H/ and /H→L/ is that the /H→H/ type merges with /L/ melody before the definite marker, ending up as LH-toned.

(xx1) DefSg ‘one \_’ ‘two \_s’ ‘three \_s’ gloss

a. /H/

*subtype /H→H/*

té: rì té: tò:mà té:-gé nì:ŋgà té:-gē tá:ndī ‘tea’

tòŋgìyé rì tóŋgíyé tò:mà tóŋgíyé-gé nì:ŋgà tòŋgìyè-gè tá:ndī ‘foot’

*subtype /H→L/*

yé: rì yè: tó:mā yè:-gè ní:ŋgā yé:-gé tá:ndī ‘woman’

gíbà rì gìbà tó:mā gìbà-gè ní:ŋgā gíbá-gé tá:ndī ‘house’

númíyɛ́ rì nùmìyɛ̀ tó:mā nùmìyɛ̀-gè ní:ŋgā númíyɛ́-gé tá:ndī ‘hand’

b. /L/

wɛ̌: rì wɛ̀: tò:mà wɛ̀:-gè nì:ŋgà wɛ̀:-gè tá:ndī ‘thing’

ìjó rì ìjò tò:mà ìjò-gè nì:ŋgà ìjò-gè tá:ndī ‘village’

c. /LH/

tě: rì tě: tò:mà (tě:-ŋgé nì:ŋgà) tè:-ŋgè tá:ndī ‘firewood’

[tones variable]

gàbú rì gàbú tò:mà gàbú-gé nì:ŋgà gàbú-gè tá:ndī ‘onion’

gùlùmbá rì gùlùmbá tò:mà gùlùmbá-gé nì:ŋgà gùlùmbá-gè tá:ndī ‘pigeon’

d. /HL/

níyè rì níyè tò:mà níyè-gé nì:ŋgà níyè-gè tá:ndī ‘bird’

kúmìyɛ́ rì kúmìyɛ̀ tò:mà kúmìyɛ̀-gé nì:ŋgà kúmìyè-gè tá:ndī ‘calabash’

Based on a preliminary working lexicon, the distribution of these nominal melodies for three common stem shapes is summarized in (xx3).

(xx3) a. Cv: /H→L/ dominant

/LH/, /L/ attested

/H→H/ attested in a borrowing (‘tea’)

b. CvCv /H→L/ and /L/ co-dominant

/LH/ attested (borrowings, cultural vocab)

/HL/ attested (old diminutive)

/H→H/ unattested

c. trisyllabics /H→H/, /H→L/, /HL/ attested for at least two stems

/LH/ attested in cultural vocab

/L/ unattested

Overall, /H→H/ and /HL/ are largely confined, in native vocabulary, to extra-heavy (e.g. trisyllabic) stems, and /LH/ is strong associated with loanwords (especially from Fulfulde) and with regionally widespread cultural vocabulary of variable origin. /L/ is unattested in trisyllabics and uncommon in monosyllabics. Therefore /H→L/ is the most productive melody overall, with strong competition from /L/ in bisyllabics.

Two melodies other than /H→H/, /H→L/, /L/, /LH/, and /HL/ are attested for trisyllabics. One is **/LHL/**, attested in àlpú:jù ‘lung’, plural àlpú:jì-gē. This stem appears to be a hybrid between a widespread Dogon iterated onomatopoeic term, e.g. Yanda Dom *pú:zù-pá:zù* ‘lung’, and the set of borrowings from Arabic via Fulfulde beginning with àl-.

The second unusual trisyllabic melody might be represented either as **/HLH/** or as **/HL/+H**, i.e. /HL/ plus a floating H‑tone that is variably realized on a following morpheme or on the final syllable of the stem itself. This is ‘mango’, which is realized prepausally as singular máŋgòrō (H.L.H) and plural máŋgòrò‑gē (H.L.L-M). This differs tonally only in the singular from regular /HL/ trisyllabics, as in táŋgìlè (H.L.L) ‘split nut’, plural táŋgìlè-gē (H.L.L-M).

My Boui assistant pronounced *gùlùmbà-gé* ‘pigeons’ versus Ningo gùlùmbá-gē (xx1c), and *gàw-gé* ‘onions’ for Ningo *gàbú-gè*, shifting a final H‑tone onto the plural suffix.

All lexical melodies of noun stems are erased in connection with stem-wide {L} overlay (before a modifying adjective) or {LH} overlay (after a possessor).

#### Lexical tone melodies for adjectives and numerals

Adjectives do not have lexical tone melodies, except for a few that can also be used as nouns. Modifying adjectives appear with {H} overlay when immediately following a noun, and with {L} overlay when following another adjective.

The independent forms of numerals, also heard in some complex numerals, bring out the lexical tones. *tò:mà* ‘1’, *nì:ŋgà* ‘2’, *cɛ̀:jɔ̀* ‘4’, *kùlèyⁿ* ‘6’, and *pìyɔ̀lù* ‘10’ have lexical /L/ melodies. Numerals with /H/ melody are *tá:ndí* ‘3’, *nú:* ‘5’5, *sɔ́:y* ‘7’, *sé:lé* ‘8’, and *tó:wá* ‘9’.

#### Tone-Component location for bitonal noun stems

The tone break is generally between penult and ultimate for nonmonosyllabic stems: *táŋgílè* ‘side’, *gùlùmbá* ‘pigeon’.

#### Tone-Component location for tritonal noun stems

There are few uncompounded tritonal nouns (likewise for other stem-classes). For /LHL/ I can cite *àlpús(ù)* ‘lung’ (§4.1.1.1), *gùyɛ́ŋgɛ̀* ‘aquatic tortoise’, and *sànásà* ‘paper wasp’. *máŋgòró* ‘mango’ and *dólèlé* ‘circle’ are among the few /HLH/ cases.

### Grammatical tone patterns

#### Grammatical tones for verb stems

Verb stems have no intrinsic (lexical) tones. The tone of a stem depends on a combination of a) the inflectional category (e.g. perfective negative) and b) the person and number of the subject. Details are given in the relevant sections of chapter 10.

The regular tone patterns for each inflection/subject combination can then be overridden by a {LH} overlay applicable to defocalized predicates (i.e. predicates in clauses containing a more or less focalized constituent) and to relative clauses.

#### Grammatical tones for noun stems

Nouns become {LH} toned when preceded by a possessor, erasing lexical tones (§6.2.1-2).

Nouns drop tones to {L} when followed by a modifying adjective (§6.3.1), and as initials in some types of compound (§5.1.2-3, §5.1.4).

There are changes limited to final-syllable tones of noun stems when followed by definite *rì* (§4.4.4.1) or plural suffix *-gè* (64.1.1.1). These changes affect the final syllable of the noun, and do not erase the entire lexical tone melody. They belong to fairly ordinary tonology rather than to abstract tonosyntax.

#### Grammatical tones for adjectives and numerals

Within NPs, the tones of modifying adjectives are determined by their linear position: {H} for the first adjective after a noun, {L} for the second (§4.5.1, §6.3.3.1). A minor exception is that diminutive adjectives like *wéní-wè* have a final L-tone as first modifying adjective.

Numerals do distinguish lexical tones. However, the distinction is suppressed in simple N-Num combinations, where the numeral drops to {L} (§4.7.1.2).

### Low-level tone rules

#### Contour-Tone Resyllabification

A final falling-toned syllable that is followed by a *Cv̀* clitic merges its L-tone element with the L-tone of the clitic.

(xx1) a. prohibitive *-lâ* plus quotative *wà* → *-lá wà*

b. imperfective negative 3Sg *-râ-∅* plus *wà* → *-rá wà*

#### Contour-Tone Mora-Addition

A word-final *Cv* syllable that acquires a rising tone contour is extended to *Cv:*. The best examples of this are forms of *bò-* ‘be (somewhere)’ and *sà-* ‘have’.

*bò*- ‘be (somewhere)’ used with locational phrases has conjugated forms like 1Sg *bò‑yⁿ* and 1Pl *ni bò‑∅* (§11.2.2.2). There is also a rising-toned variant *bǒ:-* used in the progressive (§10.2.2.3) and in adjectival predicates (§11.4.1.1). *bǒ:-* has conjugated forms like 1Sg *bǒ-yⁿ* and 1Pl *nì bǒ:*. A reasonable underlying form for this variant is /bǒ-/. No lengthening is needed in 1Sg *bǒ-yⁿ* since the semivowel constitutes a second mora (tone-bearing unit). However, 1Pl *nì bǒ:* and other forms with no suffix are lengthened to allow the rising tone to be articulated.

The ‘have’ quasi-verb (§11.5.1) has forms like 1Sg *è sâ-yⁿ* and 1Pl *nì è sâ:* (shown with existential *è*). The underlying form is /sâ-/. The suffixed 1Sg form is unproblematic, but the unsuffixed forms like 1Pl require a lengthened vowel. The rising-toned variant *sǎ:* in relative clauses (§14.4.2) likewise has a long vowel.

#### Rightward L-Spreading

When a word ending in a rising pattern, either a L.H syllable sequence or a single <LH>-toned syllable, is followed by a word beginning with a H-tone, the final H-tone element of the first word is deleted. One way to formulate this is as spreading of the L-tone component in the first word to its boundary with the next word.

This process routinely affects {LH}-toned nouns, whether lexically so as with *sàydú* ‘Seydou (man’s name)’, or whether due to a {LH} overlay, such as that of possessed nouns like *mì bàwá* ‘my father’. The final H-tone is audible prepausally, and when the following word begins with a L-tone.

(xx1) a. *sàydú / [mì* LH*bàwá] gwè:-∅*

Seydou / [1Sg LHfather] go.out.Pfv-3SgSbj

‘Seydou / My father has gone out.’ (Boui)

b. *sàydù / [mì* LH*bàwà] gó:-wò-∅*

Seydou / [1Sg LHfather] go.out-Ipfv-3SgSbj

‘Seydou / My father will go out.’ (Boui)

(Ningo *[mì* L*bà:] gó:-bò-∅* )

In such cases the interlinear includes LH even when the H-tone is not overtly realized.

#### Rightward H‑Spreading

Inconsistently, and often partially, the first L-toned syllable in a […HL][L…] sequence can be tone-raised. In other words, the H-tone of the preceding syllable can spread rightward. This is parallel to Rightward L-Spreading but it is less systematic.

For example, *cé:mbè* ‘rock, mountain’ is a lexically {HL}-toned noun. When it is followed by a L-tone (including <LH>), as in *cé:mbè mɛ̌:* ‘my stone’, the pitch of the stem-final *e* is variably raised, so it can be heard as [tʃé:mbèmɛ̌:], [tʃé:mbēmɛ̌:] (with mid-level pitch), or [tʃé:mbémɛ̌:] (with higher pitch).

Postpositions like locative *ŋà* can also be affected: *bɔ̀mɔ̀kɔ́ ŋà* ‘in Bamako’, but sometimes *[bɔ̀mɔ̀kɔ́ ŋá] bǒ:-∅* ‘he/she is in Bamako’.

This spreading is distinct from the process where a floating H-tone jumps from one syllable to another, leaving a L-tone in its original location.

## Grammaticalized intonation

### Morphemes with lexically specified prolongation (*→*)

Some elements relevant to grammar that regularly have terminal prolongation are *bà→* ‘than’ (§12.1.-2), *mà→* ‘or’ (§7.2.1.1), *wá→* ‘or’ (§7.2.2), and *kùnú→* ‘a lot’. There are also some examples of expressive adverbials with final prolongation (§8.4.5).

# Nominal, pronominal, and adjectival morphology

## Nouns

### Simple nouns

Most ordinary singular nouns are monomorphemic. There are no synchronic gender or noun-class morphemes, though there are some frozen vestiges of class suffixes (§4.1.1.2). There are also some suffixal derivations and some reduplicated or iterated stems (§4.1.4, §4.1.6 below). There are also some suffixally derived nouns, both adnominal and deverbal (§4.2).

For the lexical tone contours of nouns, see §3.6.1.3. The lexical tone plays an important role in the phonology of suffixed plurals (§4.1.1.1 just below). Lexical tones of nouns may be overridden by syntactically controlled tonosyntactic overlays.

Most nouns are bisyllabic or longer. Monosyllabic *CvC* and *Cv:C* nouns include *bèl* ‘animal’, *kɔ́y* ‘grass’, *á:y* ‘yawn(n)’ and *bɛ́:w* ‘belching’ (cognate nominal). There are a few examples of *Cv:*, as in *bé:* ‘child’, *yé:* ‘woman’ (but often compounded *ndà‑yé:*), *gó:ⁿ* ‘body’, *mɔ́:* ‘neck’, *dɔ́:* ‘back of skull’, *sɔ́:* ‘fabric’, and *yɛ́:* ‘fart’. *gwí:* ‘skin’ is similar in structure.

#### Singular (zero) and plural (‑*gè*)

Plurality of nouns (and of noun-adjective combinations) is marked by suffix ‑*gè*, whose surface tone depends on the tone class of the noun and the presence of a following numeral or definite marker. ‑*gè* pluralizes human, animate, and inanimate nouns. There is no synchronically recognizable singular morpheme.

Singular/plural pairs showing the basic tonology are in (xx1).

(xx1) singular plural gloss

a. lexically /H/-toned noun

*ámbá ámbá-gé* ‘sheep’ (Boui)

b. lexically /HL/-toned noun

*níyè níyè-gé* ‘bird’

c. lexically /LHL/-toned noun (rare)

*àlpús àlpús(ù)-gè* ‘lungs’

d. lexically /LH/-toned noun

*gùlùmbá gùlùmbà-gé* ‘pigeon’ (Ningo Pl *gùlùmbá-gè*)

e. lexically /L/-toned noun

*ìjò ìjò-gè* ‘village’

Since *-gè* is tone-raised to *-gé* after /H/ and /LH/ lexical melodies, but not after /HL/, /LHL/, or /L/, clearly the tone-raising happens by spreading from the final H-tone of the stem. In (xx1d), the final H-tone appears to jump from the stem to the suffix for the Boui assistant, leaving the stem {L}-toned; see Rightward L-Spreading §3.6.3.2. This did not happen with the Ningo assistant.

*-gè* is also used after modifying adjectives and relative-clause verbs. Numerals have a different allomorph *-ŋgè*.

#### Frozen classifying suffixes (\*-ŋge, \*-ge, \*-ŋgɔ)

There are many nouns that appear to end in a **frozen** animacy-number suffix *‑ŋge*, *‑ge*, or *‑ŋgɔ*, which matches a segmentable **inanimate singular** classifying suffix in Najamba. For each of the items in (xx1) there are cognates in other Dogon languages that lack any trace of the original suffix. The tone of *-ŋge* or *-ge* is spread from the preceding syllable in almost all cases. Most of the words in question are level {H}- or {L}-toned.

(xx1) a. frozen \*-ŋge (alphabetical)

*bélŋgé* ‘grass’ (Ningo *béléŋgé* )

*kɛ̀:lɛ̀ŋgè* ‘horn’

*dé:ŋgé* ‘hip’

*ɛ̀:lɛ̀ŋgè* ‘peanut’

*ɛ̀mɛ̀ŋgè* ‘milk’ *ɛ́mɔ́-* ‘milk (a cow)’

*íníŋgé* ‘tooth’

*jé:ŋgé* ‘blood’

*kùlèŋgè* ‘hair’

*kàjìŋgè* ‘tendon’

*ɲà:ŋgè* ‘meal’ *ɲɔ́:-* ‘eat (meal)’

*pégíŋgé* ‘button’ *pɛ́gɛ́-* ‘button (a shirt)’

*pólŋgé* ‘egg’

*pùnàŋgè* ‘flour, powder’ *pórí pùnàŋgé* ‘néré-tree flour’, *pórí-pùnà* ‘yellow’

*séŋgé* ‘grain, seed’ (especially millet grain)

*tè:ŋgè* ‘wood’

*yìlìŋgè* ‘root’

b. frozen \*-ge after nasal other than *ŋ* (could reflect \*-ge or \*-ŋge)

*béngé* ‘fodder’

*yángé* ‘supper’

c. frozen \*-ge after vowel (alphabetical)

*ámúgé* ‘reddish fuzz (flowers) on millet spike’

*í:gé* ‘honey’

*ɔ́rɔ́gé* ‘millet cakes’

*sɔ̀:gè* ‘dried wild grape seeds or cow-peas’

*ùnjìgè* ‘breast’

d. frozen \*-ŋgɔ

*tílŋgɔ́* ‘tree’

Segmentation is synchronically possible in a few cases based on a cognate verb or other form. One can argue that segmentation is possible in all cases, at least for trisyllabic stems, and especially with *-ŋge* because of its frequency, its lexical semantic associations (vegetation, food, body parts), and its invariant (nonharmonizing) +ATR vowel. However, the Tiranige nouns in (xx6) are morphologically invariant as nouns in the senses indicated, and may combine with plural morpheme *‑ge*, e.g. *pólŋgé-gé* ‘eggs’. In addition, *-ŋge* and *-ge* do not appear on adjectives: *pòlŋgè mɔ́:* ‘a good egg’, *ɛ̀rɛ̀gè mɔ́:* ‘good rice’.

Because *-gé* ~ *-gè* is the plural suffix in Tiranige, and is not limited to animates, one can easily imagine how nouns ending in this syllable could be reanalysed as plurals with collective sense. This does seem to have happened with several names of cultivated cereals and other seed crops, for which the singular-plural distinction would be difficult to apply (individual grains, grain spikes, fruits, and plants are expressed as compounds). The nouns in (xx2) are examples. Although some of them do not occur in a distinct singular form, they have 3Pl agreement on verbs when they function as clausal subjects. I suspect that there is some variation among speakers regarding verbal agreement for some of the terms in (xx1) and (xx2).

(xx2) *nù:ŋ-gè* ‘cow-pea’

*pàlèŋ-gé* (Boui) ‘sesame’ (Ningo *pàlyéŋgé*, cf.Tebul Ure *pɔ̀lɛ́:*, Najamba *pǎ:lè*)

*ánjí-gé* ‘roselle (bissap)’

*ɛ̀rɛ̀-gè* ‘rice’

*yò:-gè* ‘millet’

*émá-gé* ‘sorghum’ (Ningo)

### High-frequency nouns (‘woman’, ‘man’, ‘child’, ‘person’, ‘thing’)

*ndà:* ‘person’, with regular plural *ndà:-gè* ‘people’, is the basis for *ndà-báná* ‘man’ and *ndà-yé:* ‘woman’, with adjectives ‘male’ and ‘female’ respectively. Uncompounded *yé:* ‘woman’ and (low-toned) *bànà* ‘man’ are also in use.

*bé:* ‘child’ has a slightly irregular plural *bé-gé* with shortened vowel.

*wɛ̀:* ‘thing’ has a regular plural *wɛ̀:-gè*.

### Initial *Cv‑* reduplication in nouns rare

Initial *Cv-* reduplication is not common or conspicuous in Tiranige noun stems. The nouns (‘grasshopper’, ‘beetle’, ‘hyena’, etc.) that often show initial reduplication in other Dogon languages either lack Tiranige cognates or have unreduplicated cognates (*kà:* ‘grasshopper’, *tá:* ‘hyena’).

A few nouns and compound finals that have a reduplicative appearance are in (xx1). Forms are from Boui.

(xx1) a. *gɔ́gɔ́jɛ́* ‘tree gecko’

*bɔ̀bɔ̀rí* ‘colubrid snake sp. (*Psammophis*)’

*gógóró* ‘padlock’

*gúgúlú* ‘kneading stick’

b. *kà:-dú:dù* ‘grasshopper sp. (*Kraussaria*)’

### Final reduplication in nouns

Final reduplication is also not a clearly definable type in Tiranige noun stems.

### Nouns with full-stem iteration

Several noun stems are full-stem iterations in form, though the stem does not occur in unreduplicated form. In a few cases there is a nasal or *a:* extension at the end of the first iteration. Forms are from Boui.

(xx1) a. LL-LH

*kù:-kǔ:* ‘machete blade’ (local Fr. *coupe-coupe*)

*kùlà-kùlá* ‘hump (cow, camel)’

*kùnù-kùnú* ‘white acacia’

*ìnì-ìní* ‘scorpion’

*tùmbù-tùmbú* ‘mistletoe’

*tìmì-tìmí* ‘bush sp. (*Scoparia*)’

*bùlà-bùlá* ‘blue (dye or color)’

b. H-HL

*sɛ́ⁿ-sɛ̂wⁿ* ‘shrub sp. (*Cassia*)’

c. LL-HL

*wèlè-wélè* ‘sandgrouse’

*pèlè-pélè* ‘dove’

*kɔ̀nɔ̀-kɔ́nɔ̀* ‘long-tailed starling’

*kòjì-kójì* ‘viper sp. (*Echis*)’

*màyè-máyè* ‘zorilla (mammal)’

*kìyà-kíyà* ‘lightning flash’

*kìrì-kírì* ‘epilepsy’

*yùgù-yùgú* ‘used-clothing pile in market’

*kàlàŋ-kálàwⁿ* ‘hail (stones)’ or ‘tall herb sp. (*Cassia*) ‘

*with medial nasal*

*tìlà-ⁿ-tílà* ‘thick-knee (bird)’

*with medial à:*

*pìlà:-pílì* ‘butterfly’ and ‘winged termite’

*tòŋgà:-tóŋgì* ‘woodpecker’ verb *tóŋgó-* ‘drill’

Some iterations involve vocalic mutations, with a-vowels favored in the second iteration. Triple iterations are always of this type, with the third iteration reverting to the vowel quality of the first.

(xx2) a. LL-LH

*kòlò-kàlá* ‘tree locust’

b. L-L-H

*tò:-tà:-tó:* ‘Vieillot’s barbet (bird)’ onomatopoeic

*tèⁿ-tàⁿ-têwⁿ* ‘tree sp. (*Cassia*)’

c. H-H-H

*dín-dán-díwⁿ* (sound of footsteps)

### Frozen initial *a‑* or *aN‑* in nouns

I have not found any examples that suggest segmentation of initial *a-* or variant.

## Derived nominals

### Characteristic derivative (*-ŋgá*, *-gá* )

A few cases involving a suffix *-ŋgá* have been observed (xx1).

(xx1) characteristic gloss input noun gloss

a. {H}-toned

*kɛ́:lɛ́-ŋgá* ‘having a horn’ *kɛ̀:lɛ̀-ŋgè* ‘horn’

*kùlà-kúlá-ŋgá* ‘humped’ *kùlà-kùlá* ‘hump’

*kó:ní-ŋgá* ‘sorceror’ *kó:ní* ‘evil spell’

*dé:ní-ŋgá* ‘crazy person’ *dè:nì-ŋgè* ‘craziness’

*yɔ́rɛ́-ŋgá* ‘stingy person’ *yɔ́rɛ́* ‘avarice’ (Ningo *jɔ́:rɛ́* )

b. {L}-toned

*bànà-ŋgà* ‘fearless person’ *bànà* ‘man’

*-ŋgá* recurs in *tó:má-ŋgá=ẁⁿ* ‘is the same’ (§12.2.2). L-toned *-ŋgà* in *áná-ŋgà* ‘when?’ is obscure.

In (xx2), *-gá* seems to have a similar function.

(xx2) *úrú-gá* ‘sick person’ *úrú* ‘illness’

*gólońjí-gá* ‘lazy person’ *gólónjó* ‘laziness’

Elicitation of other hoped-for examples usually produced a periphrasis with *sâ:-* ‘have’ in participial form *sà:* (plural *sà:-gè*): *[yéná kùlèŋgé] sà:* ‘one who has a beard, bearded one’.

### Deverbal -ŋgo nominals

The examples in (xx1) are from Ningo. The nominals denote either places or objects. óbó-ŋgó is morphologically closer to stative óbà ‘be sitting (=seated)’ than to mediopassive óbí‑yó.

(xx1) verb gloss nominal gloss

óbí-yó ‘sit down’ óbó-ŋgó ‘sitting place, seat; chair’

bí-yó ‘lie down’ bí:-ŋgó ‘mat’

For other verbs, like ‘sleep’, that might lend themselves to such a formation (‘sleeping place’), my Ninggo assistant rejected this construction in favor of a relative clause with gɛ́lɛ́ ‘place’ as head. However, -ŋgo can appear in various semantic functions with some verbs other than ‘sit’ and ‘lie down’. In (xx2), my Ningo assistant suggested that yógí-ŋgó means something like ‘reason for coming’.

(xx2) [yógí-ŋgó [ò LHwɛ̌:]] ndé kàn-á: LHyògé-ẃ

[come-Nom [2Sgposs LHthing]] what? do-Purp LHcome.Pfv-2SgSbj

‘Your-Sg (reason for) coming, why did you come?’

### Abstractive deverbal nominals

By “abstractive” I refer to nominalizations that primarily denote an event type or an instantiation of such an event type. Cf. English *-ing* and some (but not all) cases of *-tion* and the like.

#### Productive verbal noun (-wà ~ -bà)

An abstractive verbal noun is freely formed by suffixing *-wà* (Boui) or *‑bà* (Ningo) to the {H}-toned O-stem of the verb. The (morpho-)phonology is the same as for imperfective *‑wò* (§10.2.2.1). In other words, a final *u* is syncopated before the suffix, a final {*o ɔ*} is syncopated after an unclustered {*m w*}, the suffixal *w* in Boui hardens to *b* after syncope, /nb/ assimilates to *mb*, and in Boui some stems lengthen *Cv́m-bà* to *Cv́:m-bà*.

(xx1) O-stem verbal noun gloss

(Boui forms)

a. final nonhigh vowel, +ATR

*gó:- gó:-wà* ‘going out’

*yógó- yógó-wà* ‘coming’

b. final nonhigh vowel, -ATR

*tɔ́nɔ́- tɔ́nɔ́-wà* ‘butchering’

*yɛ́gɔ́- yɛ́gɔ́-wà* ‘falling’

*ɛ́mɔ́- ɛ́:m-bà* ‘milking (cows)’

*ɲɔ́:- ɲɔ́:-wà* ‘eating (meals); drinking’

c. final nonhigh vowel, unclustered medial *w* or *m*

*áwó- áb-bà* ‘accepting’

*sɛ́mɔ́- sɛ́:m-bà* ‘slaughtering’

c. final high vowel

*dámú- dá:m-bà* ‘speaking’

*kán(ú)- kám-bà* ‘do’

It is not clear whether verbal noun *-wà* has any historical or synchronic relationship to *‑wá* in nonsubject imperfective relative clauses (the H-tone of *‑wá* is part of a {LH} tone overlay). See §14.4.2.

#### Deverbal *-ŋgé* ~ *-ŋgè* nominals

Suffix *-ŋge* may have originally been an inanimate singular class suffix (cf. Najamba). The deverbal nominals with *-ŋge* that have been observed are in (xx1). Some of them have {HL}‑toned stem plus H-toned *-ŋgé*. Others have word-level {H} melody. Semantically, they are similar to verbal nouns in many cases.

(xx1) nominal gloss verb gloss

a. {HL-H}-toned

*túmù-ŋgé* ‘measurement’ *túmɔ́-* ‘measure (tr)’

*nónì-ŋgé* ‘writing’ *nɔ́nɔ́-* ‘write’

*úlɛ̀-ŋgé úlɔ́-* ‘drop seeds’ (noun-verb collocation)

b. {H}-toned

*á:rí-yá-ŋgé* ‘fatigue’ *á:rí-yó-* ‘become tired’

*álándí-yá-ŋgé* ‘rest (n)’ *álándí-yó-* ‘rest, have a rest’

#### Minor deverbal abstractive nominals

The nominal *nó:-gú* ‘(re-)entry’, attested in the compound *nó:-gú* LH*dèní* ‘(re‑)entry day’ (Ningo dialect), refers to the re-entry of circumcision novices into the village after 30-40 days of seclusion while their wounds heal. It is derived from the verb *nó:‑gó* ‘(re-)enter’ (§9.3).

*[yè-kìndò]-[sígí-rí]* ‘sunset’ and *[yè-kìndò]-[túmí-rí]* ‘sunrise’, cf. *yé-kìndó* ‘sun’, are derived from *sígó* ‘descend’ and *túmú* ‘(sun) rise’. The *‑rí* may be a resegmented definite marker.

There are a number of similar nominals ending in *i* or *u*, now functioning mostly as cognate nominals in collocations with the cognate verb (§11.1.2.5).

### Instrument nominals with *-yé*

I can cite the uncompounded examples in (xx1). Forms are from Boui.

(xx1) nominal gloss verb gloss

a. input already +ATR compatible

*yígír-yé* ‘stirring stick’ *yígíró-* ‘stir (with stick)’

*bímbí-yé* ‘file (tool)’ *bímbɔ́-* ‘file (sth), scrape with a file’

*tóŋgí-yé* ‘mortar ax’ *tóŋgó-* ‘chop out (interior of a mortar)’

*ó:ndí-yé* ‘hooked hammer’ *ó:ndí-yó-* ‘bend over, bow’

b. overt shift to +ATR

*wélí-yé* ‘scraper’ *wɛ́lí-yɔ́-* ‘scrape out (interior of calabash or mortar)’

*pégí-yé* ‘hobbles (rope)’ *pɛ́gɛ́-* ‘hobble (animal)’ (by tying its front legs together)

*cénjí-yé* ‘chisel, wedge’ *cɛ́njɛ́-* ‘apply chisel or wedge to’

*yémbí-yé* ‘fan(n)’ *yɛ́mbɛ́* ‘fan (something)’

*-yé* here is +ATR even with a lexically -ATR verb (xx1b). It is therefore distinct from *-yɛ́* ~ *‑yé* in product-of-action nominals, which preserves the lexical ATR class (§5.1.11).

In some other cases there are noun/verb pairs but no obvious derivational suffix: *íjílí* ‘broom’, *íjíló-* ‘sweep’, perhaps *tìmbì-rì* ‘lid (e.g. of waterjar)’*, tímbí‑ró‑* ‘put lid on, cover with lid’.

For compounds including *-yé* see §5.1.11.

### Uncompounded agentives

The attested agentives are nearly all compounds; see §5.1.5.

*ká:ŋgá* ‘thief’ is obscurely related to verbs *kám(ú)-* ‘steal (something)’ and *kámú-ró-* ‘rob (someone)’. *-ŋgá* is found in a few characteristic derivatives (§4.2.1).

## Pronouns

### Basic personal pronouns

The forms of personal pronouns, excluding postposed possessor forms, are in (xx1). There are no special inanimate pronouns or anaphoric pronouns, except that possessed ‘my head’, ‘your head’, etc. is used for reflexive objects.

The “independent” forms shown are not very common in texts. In main clauses, subject pronominal category is indicated by a mix of suffixes (1Sg, 2Sg, 3Pl), proclitics (1Pl, 2Pl), and zero (3Sg). Proclitic forms for all pronouns are used in most other combinations, including the accusative (shown), and to mark pronominal subjects of nonsubject relatives (also shown). These proclitics are L‑toned in most contexts. In the independent” form and certain other combinations, such as with *là* ‘also’ the pronouns are H‑toned.

(xx1) Personal pronouns

subject

Indep ‘also’ Acc proclitic main clause relative clause

1Sg *mí-wⁿ* *mí là* *mì-gí mì* VERB*-ỳⁿ* *mì* VERB

1Pl *ní-wⁿ* *ní là* *nì-gí nì ní/nì* VERB *nì* VERB

2Sg *ó:* *ó là* *ò-gí ò* VERB*-ẁ ò* VERB

2Pl *é-wⁿ* *é là* *è-gí è é/è* VERB *è* VERB

3Sg *ná-wⁿ* *ná là* *nà-gí nà* VERB-∅ *nà* VERB

3Pl *cé-wⁿ* *cé là* *cè-gí cè* [variable] *kè* VERB

My Boui assistant affricated the initial consonant of the 3Pl, except as relative-clause subject. In Ningo the 3Pl begins with *k* in all positions (*ké là*, etc.).

The ‘also’ series with H‑toned pronoun and L‑toned *là* is distinct from the combination of L‑toned subject proclitic with future *‑lá* (dropped to *‑là* before an H‑tone), as in 1Sg future *mì‑lá*.

### Personal pronouns as possessors

Pronominal possessors are usually postposed to alienably possessed nouns, and have special forms (original ‘my thing’, ‘your thing’, etc.), see §6.2.1.2. With inalienables (kin terms), and optionally with alienables, pronominal possessors are preposed, and have their regular, morphologically simple form, see §6.2.2.

## Definite and deictic words

### Determiners

#### Definite marker (*rì* )

A clitic-like definite morpheme *rì* can be added after a noun and any modifiers (adjective, numeral, pronominal possessor). It follows plural *‑ge* if present, and requires plural *‑ŋge* on an immediately preceding numeral. It is followed by *címà* ‘all’, accusative *gì*, and of course postpositions. For my Ningo assistant, plural *‑ge rì* can be elaborated as *‑ge r‑gè*, i.e. with the plural suffix repeated on the definite marker.

*rì* is L-toned. In a preceding nonmonosyllabic word ending in two H-toned syllables, the final syllable drops to L-tone (xx1ab). A monosyllabic stem is not affected (xx1c). A preceding entirely {L}-toned word adds a final H-tone. This is indicated in interlinears by “.+H”. The effect of these final-syllable tone changes is to reduce nonmonosyllabic preceding words to contoured {LH} or {HL} melodies.

(xx1) a. *ná:-gè rì*

cow-Pl Def

‘the cows’ (< *ná:-gé* ) (Boui)

(Ningo *ná:-ŋgé rì* )

b. *kɔ́njɛ̀ rì*

beer Def

‘the beer’ (< *kɔ́njɛ́* ) (Boui)

(Ningo *kɔ́njɛ́ rì* )

c. *bé: rì*

child Def

‘the child’ (*bé:*) (Boui = Ningo)

d. *ìjó rì*

village Def

‘the village’ (< *ìjò*) (Boui = Ningo)

e. *ná:-gé mɛ̀:-gé rì*

cow-Pl 1SgPoss-Pl Def

‘my cows (definite)’ (Boui)

f. *[[bùní* *rì] gì]* L*ìwè-∅*

[[red Def] Acc] Lcatch.Pfv-3SgSbj

‘He/She caught the white (“red”) person.’ (< *bùnì* )

e. *[nà:-gè* L *tá:ndí-ŋgè rì címà] ùn-íyè*

[cow-PlL three-Pl Def all] go.Pfv-3PlSbj

‘All three (of the) cows went away.’ (Boui)

[Ningo: *[ná:-ŋgé* L *tá:ndí-gé rí pɔ́y] ùnì-yè* ]

In the combination of *rì* with plural *-gè* (~ -*ŋgè*), when the preceding noun is {H}-toned, I hear *‑gè rì* (~ *‑ŋgè rì)* instead of #*‑gé rì* (~ #*‑ŋgé rì*), and in (xx1e) above and (xx2a). Other nouns have the same tone on *‑gè* with or without *rì* (xx2b). This is consistent with the usual phonology of *rì*, which requires contour tone melodies on preceding nonmonosyllabic nouns.

(xx2) noun gloss ‘Xs’ ‘the Xs’

a. *ná:* ‘cow’ *ná:-gé ná:-gè rì*

b. *gùlùmbá* ‘pigeon’ *gùlùmbà-gé gùlùmbà-gé rì*

*níyè* ‘bird’ *níyè-gè níyè-gè rì*

*àlpús* ‘lung’ *àlpús-gè àlpús-gè rì*

Postposed pronominal possessors show rising tone before *rì* even when they would be heard with {L} tone elsewhere. *séŋgé mɛ̌:* ‘my millet’, *séŋgé mɛ̌: rì* ‘all my millet’.

#### ‘This/that’ (deictic demonstrative pronouns)

The basic deictic demonstratives are in (xx1). They make no distinction between human, animate, and inanimate. They take the normal plural morpheme *-gè*. Demonstrative *mbó* is used for distant as well as proximal deixis. It does not combine with definite *rì*. In the proximate, there is a dialectal difference.

The explicitly near-distant and far-distant demonstratives are really specialized definite relative clauses. *-wò* is a form of *bò-* ‘be (somewhere)’. In these combinations, *é-* functions as near-distant marker and *yá-* as far-distant marker. Elsewhere, *é wò-* (with existential clitic *é*) means ‘be present (here/there)’ with no explicit spatial circumscription.

Discourse-definite *érì* occurs in contexts like *érì=wⁿ* ‘that’s it’ (e.g. confirming an interlocutor’s statement). It may contain definite *rì* etymologically, but the plural *érì-gè* shows that *rì* is now fused to the stem.

(xx1) unmarked definite gloss

a. General deictic

*Boui*

*mbó* — ‘this’

*mbó-gè* — ‘these’

*Ningo*

*ɛ́nì* — ‘this’

*ɛ́ní-gè* — ‘these’

b. Near-Distant

— *é-wò rì* ‘that (near)’

— *é-wò-gé rì* ‘those (near)’

[Ningo: *-bò* instead of *-wò*]

c. Far-distant

— *yá-wò rì* ‘that (far)’

— *yá-wò-gé rì* ‘those (far)’

[Ningo: *-bò* instead of *-wò*]

d. Discourse-definite

*érì* — ‘that (aforementioned)’

*érì-gè* — ‘those (aforementioned)’

[plural in Ningo often contracted to *ég-gè* ]

A demonstrative may be used absolutely, or it may follow a noun, core NP (N‑Adj), or a numeral-final phrase N(-Adj)-Num. *mbó* drops its tones to *mbò* (plural *mbò-gè*) in these combinations, but the other demonstratives do not drop tones; see §6.5.

### Demonstrative adverbs

#### Locative adverbs

The basic locational demonstrative adverbs are in (xx1). *gì* and *ŋà* are locative postposition allomorphs but are here written as suffixes since the forms are rather fused.

(xx1) form gloss

*mbé:* ‘here’ (Boui = Ningo)

*mó-ŋà* ‘here’ (Boui)

*ɛ́nì-gì* ‘here’ (Ningo)

*é-ŋà* ‘over there (nearby)’ (Boui)

*ɛ́rì-ŋà* ‘over there (nearby)’ (Boui)

*é-bó-r-gì* ‘over there (nearby)’ (Ningo)

*yá:* ‘over there (farther away or discourse-definite) (Boui = Ningo)

*é-bó-r-gì* can be parsed as ‘at/in what is there (nearby)’, with definite *rì*.

#### Emphatic and approximative modifiers of adverbs

Modifiers of spatial adverbs are in (xx1). *tɔ̀rɔ̀* has a basic sense ‘like’ but here it can mean ‘around, approximately’.

(xx1) form gloss

a. *mó-ŋà yɛ̀rɛ́* ‘right here’

*mó-ŋà jà:tí* ‘right here’ (Ful jaati)

b. *mó-ŋà tɔ̀rɔ̀* ‘around here’

*é-ŋà tɔ̀rɔ̀* ‘around there (nearby)’

*yá: tɔ̀rɔ̀* ‘around there (farther away)

c. *mbé: tèwⁿ* ‘this way’

*yá: tèwⁿ* ‘around (over) there’

#### ‘Like this/that’ (*mbɔ́rɔ̀*)

Manner adverbial ‘like this/that, thus, so’ is *mbɔ́-rɔ̀* in Boui It is obscurely related to *mbó* ‘this/that’. The predicative form is *mbɔ́rɔ̀ wò-∅* ‘it’s like that, that’s how it is’, with the same lenition of *bò-* ‘be’ seen in existential *é wò-* ‘be present’ (§11.2.2.2). The negative predicate is *mbɔ́l-là* ‘it’s not like that’.

For the Ningo assistant, *ɛ́n-dɔ̀* ‘like this’ is used in deictic contexts (pointing or showing), and *ɛ́-rɔ̀* means ‘thus’ in discourse-definite sense. Compare *ɛ́nì* ‘this’ and *érì* ‘that (definite)’ in Ningo dialect.

### Presentatives (‘here’s …!’) (*-nì* )

Presentatives distinguish three spatial categories: proximal, near-distant, and far-distant. The presentative word may precede or follow the relevant NP.

(xx1) form category gloss

*mbó-nì* proximal ‘here’s X’

*é-wò-nì* near-distant ‘there’s X (nearby)’

*yá-wò-nì* far-distant ‘there’s X (far away)’

## Adjectives

Adjectives can be postnominal modifiers, or they can be predicates. This section describes their forms as modifiers. For adjectival predicates see §11.4.1.

Within the NP, adjectives follow nouns and precede numerals. Sequences of two or more adjectives are possible. Adjectives induce tone-dropping on the preceding noun, hence [NL Adj]. A second adjective is itself tone-dropped: [NL Adj LAdj]. See §6.3 for the syntax.

### Morphologically simple adjectives

Morphologically simple adjectives are illustrated in (xx1). Forms are from Boui.

(xx1) simple adjectives

dimensions

*báy* ‘big (house, tree); wide (passageway); spacious (courtyard)’

*bíní* ‘big, fat, stout (animal, person, mountain); thick (wall)’

*yálá* ‘long, tall’

*nímí* ‘deep (well, hole)’

*íjígɔ́* ‘empty’ = ‘deserted’

*né:ŋgó:* ‘heavy’ (for ‘lightweight’ see §4.6.1)

age and state

*kúnjú* ‘old (man, woman)’

*kándá* ‘new’

*yɔ́gɔ́rɔ́* ‘ruined, kaput’

*ɛ́wⁿ* ‘fresh (vegetation)’ (also ‘wet’)

*ílɔ́* ‘ripe (grain, fruit); cooked, done (meat); sour, curdled (milk)’

*kóló* ‘fresh (milk); unripe; raw (meat)’

*yáŋgá* ‘lean (animal, meat)’

temperature

*númá* ‘hot (water, food)’

*témúm* ‘cold, cool (water); slow-moving’

speed

*númá* ‘fast-moving, rapid’ (for ‘slow’ see §4.5.4)

texture and hardness

*búrádá* ‘smooth, sleek (surface)’

*yágárá* ‘coarse (surface)’

*málání* ‘soft (skin), fragile (string, dry leaf, i.e. snaps if pulled)’

taste and smell

*ámámú* ‘sour, acrid (like lemon)’

*kújájá* ‘rotten (meat, fruit)’

*ní:njí* ‘sweet, delicious’ (also ‘sharp’)

*gálágá* ‘bitter’

sharpness

*ní:njí* ‘sharp’ (also ‘delicious, sweet’)

*dúmbú* ‘blunt (blade)’

evaluation

*mɔ́:* ‘good’ (for ‘bad’ see §4.5.4)

*yágá* ‘pretty’

difficulty (for ‘easy’ see §4.5.4)

*má:gá* ‘difficult (work)’

color

*búní* ‘red (brown)’

*jɛ́mɛ́* ‘black (dark)’

*púlɛ́* ‘white (light-colored)’

moisture

*máyⁿ* ‘dry’

*ɛ́wⁿ* ‘wet’

Of semantic interest is the syncretism of ‘sweet (taste)’ and ‘sharp (blade)’, which has a regional distribution (some Dogon languages, Songhay, Bangime, Bozo-Jenaama), and that of ‘hot’ and ‘fast’.

### Iterated adjective stems

A few adjectives are optionally iterated with no clear change in sense (even with singular reference), though perhaps slightly emphatic: *bíní-bíní*, *báy-báy*, *númá-númá* (in the sense ‘fast-moving’), *yálá-yálá*. For other adjectives in the section above, an assistant rejected iterations.

Another adjective is always iterated (xx1). It is a borrowing, probably originally from the name of a soap product.

(xx1) *bùlà-bùlá* ‘blue’

### Phrasal adjectives (exemplars)

Two complex adjectives, perhaps pressed into service to fill out a European color-adjective system, are in (xx1). They denote exemplars of the colors in question. They have parallels in other languages of the zone.

(xx1) adjective gloss literal sense

a. *pórí-pùnà* ‘yellow’ *pórí pùnàŋgé* ‘néré-tree flour’ (bright yellow)

b. *kɔ̀y-kóló* ‘green’ ‘fresh grass’

### Negative adjectives (*-ná* )

Suffix *-ná* can be added to adjectives to reverse their polarity. This is possible for any adjective denoting an asymmetrical bipolar scale, i.e. one with an unmarked pole. English pairs like *helpful*, *unhelpful* might give the flavor, but the semantics are somewhat different here. An assistant rejected #*kándá-ná* ‘not new, un-new’, presumably since ‘new’ does not really satisfy the semantic criteria.

Certain adjectival senses rendered by a simple lexical item in English are expressed by the negation of the polar adjective (xx1). Forms are from Boui.

(xx1) Pairs of positive and negative (polarized) adjectives

a. evaluation

*mɔ́:* ‘good’

*mɔ́:-ná* ‘bad, no good’

*yágá* ‘pretty’

*yágá-ná* ‘ugly’

b. difficulty

*má:gá* ‘difficult (work)’

*má:gá-ná* ‘easy (work)’

c. dimension

*nímí* ‘deep’

*nímí-ná* ‘shallow’

d. speed

*númá* ‘fast-moving, rapid’

*númá-ná* ‘slow-moving’

For predicative forms see §11.4.1.1 and §11.4.1.3 (‘good’).

### Diminutive adjectives (*-wè* )

A few adjectives end in a kind of diminutive suffix *-wè* (Boui) or *‑bè* (Ningo), undoubtedly derived from *bé:* ‘child’. The adjectives in question denote relatively low valued on zero-to-infinity scales (as opposed to bipolar scales with a neutral midpoint).

(xx1) form gloss

(Boui)

*wéní-wè* ‘small (house); narrow (passage)’ (Ningo *wéní-bè* )

*mɛ́njí-wè* ‘thin, slender (person, tree); thin (wall)’ (Ningo *mɛ́njí* or *mɛ́njí-bè* )

*déŋí-wè* ‘short (rope, person)’ (Ningo *déŋí* or *déŋí-bè* )

The Boui assistant allows no nondiminutive counterpart in the singulars. However, *-wè* is optionally omitted before plural *‑ge*, hence *wéní-wè-gé* or *wéní-gé*. Plural suffix -*gé* is H‑toned in both variants. The Ningo assistant requires *‑bè* in singular ‘small’, but allows both nondiminutive and diminutive forms for the two others. He produced plurals like *tùmà-gè*L *mɛ́njí-gé* LH*bè‑gé* ‘thin sticks’, where the diminutive is treated like a possessed form of *bé‑gé* ‘children’ with {LH} overlay. This plural construction occurs even in Boui for morphologically similar nominal diminutives (§5.1.6).

## Participles

The main section of participles (i.e. forms of verbs used in relative clauses) is §14.4.

Some simple English adjectives have derivational features, including participle-like features, in Tiranige (xx1). The most common is that in *-sá* (xx1a), cf. *‑sá* in resultative participles, but the adjectives in (xx1a) are {H}-toned whereas true participles have {LH} melody. It is possible that the {H}-toned stems with *-sá* in (xx1a) are relics of an original {H} overlay on verbs in subject relatives (§14.4). Forms are from Boui.

(xx1) Derived adjectives

a. with *-sá*

*sómbé-sá* ‘wet, moistened (clothing)’

*kúnɛ́-sá* ‘hard (rock)’

*málé-sá* ‘supple, stretchable

*máníyé-sá* ‘dry, dried (clothing, wood)’

*yám-sá* ‘spoiled, rotten (fruit, meat)’, ‘damaged (implement)’

*síyé-sá* ‘plump, fatty (animal)’

*pílé-sá* ‘plump (animal)’

*ywé-sá* ‘full (container)’

*kúré-sá* ‘undiluted (milk, cream of millet)’

*tíwɛ́-sá* ‘dead’

b. with *-má*

*dú:rú-yó-má* ‘fast’ (< ‘run’)

*dú:rú-yó-má-ná* ‘slow’

c. with *-ní*

*tíwá-ní* ‘alive, living’

d. with *-yé*

*súlí-yé* ‘slightly diluted (milk, cream of millet)’

*máŋgámí-yé* ‘heavily diluted, watery’

Some other “adjectival” senses are expressed by perfective participles of *kándí‑yó‑* ‘make’ or ‘fix’, irregularly related to *kán(ú)-* ‘do’, following an expressive adverbial (xx2).

(xx2) *sèl-sèl kàndì-yé* ‘pointed’

*tɔ̀pɛ́-tɔ̀pɛ́ kàndì-yé* ‘spotted’

*ɔ̀lú-ɔ̀lú kàn­dì-yé* ‘easily broken (infected sore etc.)’

### Negative participial adjectives (*-rá* )

In the polar adjective-like pairs in (xx1), the negatively defined quality is expressed as a negative form (with suffix *-rá* ) of the positively definied quality. Forms are from Boui.

(xx1) a. *né:ŋgó:* ‘heavy’

*né:ŋgó-rá* ‘lightweight’

b. *gálágá* ‘bitter’

*gálágó-rá* ‘bland-tasting’

## Numerals

### Cardinal numerals

Counting sequence (‘1’ to ‘10’): *tò:mà*, *nì:ŋgà*, *tá:ndí*, *cɛ̀:jɔ̀*, *nú*, *kùlèyⁿ*, *sɔ́:y*, *sé:lé*, *tó:wá*, *pìyòl(ù)*. In the middle section from ‘2’ to ‘7’ the alternation of /L/ and /H/ melodies gives the sequence an incantational quality. However, ‘8’ breaks the pattern.

#### ‘One’ (*tò:mà*), ‘same (one)’ (*tò:mà*), and ‘other’ (*tó:*)

*tò:mà* is used in the counting sequence, absolutely, and as modifier after a noun or core NP: *í:njɛ́ tò:mà* ‘one dog’, *ìjò tò:mà* ‘one village’. It is {L}-toned in such combinations, and does not affect the lexical tone melody of the noun.

As predicate, in the sense ‘be (one and) the same, be identical’, *tómá-ŋgá* hosts the ‘it is’ clitic (xx1). See also plural *tómá-ŋgá-gé=ẁⁿ* in §12.2.2.

(xx1) *[mbó yà] [mbó yà] tómá-ŋgá=ẁⁿ*

[Dem and] [Dem and] one=it.is

‘This and that are one (=the same).’ (Boui)

*tó:* ‘other’ is a regular adjective morphosyntactically. It controls tone-dropping on the noun: *ì:njɛ̀*L *tó:* ‘another dog’ (< *í:njɛ́* )

#### ‘2’ to ‘10’

The numerals from ‘2’ to ‘10’ are shown in (xx1). After a noun, or a N-Adj combination, the tones of the numeral are {L}, except that the only monosyllabic stem (‘5’) fluctuates between H- and L-tone. Lexical tones appear in the independent form, used as a one-word NP. ‘2’, ‘4’, and ‘10’ have lexical /L/ melodies.

Numerals ‘2’ and up are added to plural forms of nouns with *-gè* (except for ‘\_ hundred’ and ‘\_ thousand’, see below). There is no tonal interaction between the numeral and the preceding string. For Ningo, there is no tonal difference between numerals ‘2’ to ‘10’ in modifying function and the isolation/independent forms. My Boui assistant generally dropped all of these numerals to L‑toned in modifying function, but his isolation/independent forms showed an /L/ versus /H/ distinction as in Ningo.

(xx1) gloss after N(-Adj) independent

Boui Ningo Boui Ningo

‘2’ *nì:ŋgà nì:ŋgà nì:ŋgà nì:ŋgà*

‘3’ *tà:ndì tà:ndì tá:ndí tá:ndí*

‘4’ *cɛ̀:jɔ̀ kɛ̀:jɔ̀ cɛ̀:jɔ̀* *kɛ̀:jɔ̀*

‘5’ *nù:* (~ *nú:*) *nú:*: *nú: nú:*

‘6’ *kùlèyⁿ kùlèyⁿ kùlèyⁿ* *kùlèyⁿ*

‘7’ *sɔ̀:y sɔ́:y sɔ́:y sɔ́:y*

‘8’ *sè:lè síyélé sé:lé* *síyélé*

‘9’ *tò:wà tó:wá tó:wá tó:wá*

‘10’ *pìyɔ̀lù pìyɔ̀lù pìyɔ̀lù pìyɔ̀lù*

When followed by a demonstrative, definite marker, and/or a pronominal possessor, plural ‑(ŋ)gé is added to the numeral, which has {H} overlay. Boui examples are *ní:ŋgá-ŋgé mbò-gè* ‘these/those two’, and *ní:ŋgá-ŋgé mɛ̀:-gé* ‘my two’. Ningo has ɛ́ní-gè nì:ŋgá ‘these two’ with ‘2’ as modifier rather than head, but definite ní:ŋgá-ŋgé rì ‘the two’ and ní:ŋgá-ŋgé mɛ̀:-ŋgé ‘my two’.

A numeral may follow a pronoun. In this case, the numeral gets a {LH} overlay, like a possessed noun: *nì* LH*nì:ŋgá* ‘us two’ (Boui & Ningo), *cè* LH*cɛ̀:jɔ́* (Boui) ‘the four of them’. As usual, the final H of {LH} is dropped if the following word begins with an H-tone.

#### Decimal multiples (‘20’, …) and combinations (‘11’, ‘59’, …)

The multiples of ‘10’ are given in (xx1). Forms are from Boui.

(xx1) gloss form

‘10’ *pìyɔ̀lù*

‘20’ *pɛ́-nɛ́ŋgà*

‘30’ *pé-rá:ndí*

‘40’ *dɛ́:*

‘50’ *dɛ́: pìyɔ̀lù*

‘60’ *pɛ́l-kúlêyⁿ*

‘70’ *síŋgí-gí pìyɔ̀lù ɔ̀rá*

‘80’ *síŋgí*

‘90’ *síŋgí yá pìyɔ̀lù*

*pɛ́-nɛ́ŋgà* ‘20’, *pé-rá:ndí* ‘30’, and *pɛ́l-kúlêyⁿ* ‘60’ are composite, with a variant of *pìyɔ̀lù* ‘10’ followed by a variant of the single-digit numeral.

*síŋgí* ‘80’ is the so-called ‘Dogon hundred’, and ‘70’ and ‘90’ are phrases subtracting or adding ‘10’.

Decimal plus single-digit numerals like ‘47’ consist of the decimal numeral followed by the single-digit numeral, in some cases with *sùgɔ́* ‘plus’ or *yà* ‘and’ intervening. Forms are from Boui.

(xx2) a. *dɛ́: sɔ́:y*

40 seven

‘47’

b. *pɛ́-nɛ́ŋgá sùgɔ́ nú:*

10-two plus five

‘25’

c. *síŋgí yà tá:ndí*

80-plus and three

‘83’

The Boui forms of the various decimal numerals in such combinations are given in (xx3).

(xx3) independent before single-digit numeral X

‘10’ *pìyɔ̀lù pɛ̀-sùgɔ́ X*

‘20’ *pɛ́-nɛ́ŋgà pɛ́-nɛ́ŋgá sùgɔ́ X*

‘30’ *pé-rá:ndí pé-rá:ndí sùgɔ́ X*

‘40’ *dɛ́: dɛ́: X*

‘50’ *dɛ́: pìyɔ̀lù [dɛ́: pìyɔ̀lù] sùgɔ́ X*

‘60’ *pɛ́l-kúlêyⁿ pɛ́l-kúlêyⁿ sùgɔ́ X*

‘70’ *síŋgí-gí pìyɔ̀lù ɔ̀rá [síŋgí-gí pìyɔ̀lù ɔ̀rá] sùgɔ́ X*

‘80’ *síŋgí síŋgí yà X*

‘90’ *síŋgí-yá pìyɔ̀lù [síŋgí-yá pìyɔ̀lù] sùgɔ́ X*

For ‘50’, my Ningo assistant produced dɛ́: yà pìyɔ̀lù, with yà ‘and’ separating ‘40’ from ‘10’.

Except for the irregularly contracted *[pɛ̀-sùgɔ́ X]* with “teen” numerals, the decimal term always has the same form in independent and composite contexts. Most are followed by the ‘plus’ morpheme *sùgɔ́*, but *dɛ́:* ‘40’ allows no ‘plus’ morpheme, and *síŋgí* ‘80’ takes *yà* ‘and’ instead of *sùgɔ́*.

#### Large numerals (‘100’, ‘1000’, …) and their composites

The stems in (xx1) are usually noun-like morphosyntactically. Forms are from Boui.

(xx1) gloss independent form modifying a plural noun *[X ge]*

a. ‘hundred’ *tɛ̀:mdɛ̀rɛ́ [X ge] tɛ̀:mdɛ̀rɛ̀* (Boui)

*tɛ̀:mɛ̀dɛ̀rɛ́ [X ge] tɛ̀:mɛ̀dɛ̀rɛ́* (Ningo)

b. ‘thousand’ *mújú-sìlà:mú [X ge] mújú-sìlà:mú*

or: *mújú-sìlà:mú [X ge]*

c. ‘million’ *mìlyôwⁿ* (<French) *mìlyôwⁿ* [X ge]

These are noun-like syntactically and can be followed by single-digit numerals (‘two hundred’, ‘three thousand’, etc.). *tɛ̀:mdɛ̀rɛ́* is contracted in Boui to *tɛ̀:mɛ̀* before another numeral, which has its lexical tones (*tɛ̀:mɛ̀ nú:* ‘five hundred’). The composite *mújú‑sìlà:mú* reduces to {H}‑toned *mújú* in such combinations, before a {L}-toned single-digit numeral (*mújú nù:* ‘five thousand’, Ningo mújú LHnǔ:).

The Ningo forms for ‘hundred’ and ‘thousand’ are in (xx2a‑b). In (xx2a), tɛ̀:mɛ̀dɛ̀rɛ́ is usually truncated before the single-digit term, though fuller, untruncated pronunciations are possible in careful speech. The two single-digit terms beginning with n (‘2’ and ‘5’) have geminated nn. The extra n is transcribed here as though a suffix on ‘hundred’; it is likely a vestige of the d or r of an older partially contracted form of tɛ̀:mɛ̀dɛ̀rɛ́. In (xx2b), there are no segmental issues, but note the tones of the single-digit numeral.

(xx2) a. ‘\_ hundred’ tones of single-digit numeral

tɛ̀:mɛ̀dɛ̀rɛ́ ‘100’

tɛ̀:mɛ́-n nì:ŋgà ‘200’ L

tɛ̀:mɛ̀ tá:ndí ‘300’ H

tɛ̀:mɛ́ kɛ̀:jɔ̀ ‘400’ L

tɛ̀:mɛ̀-n nú: ‘500’ H

tɛ̀:mɛ́ kùlèyⁿ ‘600’ L

tɛ̀:mɛ̀ sɔ́:y ‘700’ H

tɛ̀:mɛ̀ síyélé ‘800’ H

tɛ̀:mɛ̀ tó:wà ‘900’ H

b. ‘\_ thousand’ tones of single-digit numeral

mújú ‘1000’

mújú Hní:ŋgá ‘2000’ H

mújú LHtà:ndí ‘3000’ LH

mújú Hkɛ́:jɔ́ ‘4000’ H

mújú LHnǔ: ‘5000’ LH

mújú Hkúléyⁿ ‘6000’ H

mújú LHsɔ̌:y ‘7000’ LH

mújú LHsìyèlé ‘8000’ LH

mújú LHtò:wá ‘2000’ LH

Combining the isolation form with the tone formulae in (xx2a) and (xx2b) results in (xx3). Clearly the tonal form of the numeral used with ‘hundred’ is the regular tone. With ‘thousand’, on the other hand, lexical /H/ has {LH} overlay and lexical /L/ has {H}.

(xx3) digit isolation lexical ‘\_ hundred’ ‘\_ thousand’

‘2’ nì:ŋgà L L H

‘3 tá:ndí H H LH

‘4’ kɛ̀:jɔ̀ L L H

‘5’ nú: H H LH

‘6’ kùlèyⁿ L L H

‘7’ sɔ́:y H H LH

‘8’ síyélé H H LH

‘9’ tó:wá H H LH

‘Million’ is rarely used except in connection with currency.

#### Currency

The currency unit in Mali and several other Francophone West African states is the CFA franc (FCFA). As of 2012, one US dollar was worth about 500 FCFA. In the native languages, counting is based on a unit equal to five FCFA, except for amounts of one million FCFA or greater. In Tiranige this unit is called *m̀bù:dú-wè* in the singular, with diminutive *-wè*, and as plural *m̀bù:dù-gé* before numerals ‘2’ and up.

(xx1) a. *m̀bù:dú-wè*

currency.unit-Dim

‘5 FCFA’ (Boui)

b. *m̀bù:dù-gé nì:ŋgà*

currency.unit-Pl two

‘10 FCFA’ (Boui)

#### Distributive numerals

Numerals are iterated to make distributives (‘two by two’, ‘two currency units each’, etc.). The numerals ‘1’ to ‘10’ divide into two tonal types, one having L-LH tones (i.e. {L} on the initial and {LH} on the final), the other having H-L tones (i.e. {H} on the initial and {L} on the final. The initial {H} in the latter case may just be the lexical melody, if we assume that lexical /HL/ surfaces as {H} after the H-tone extends rightward to the boundary. ‘100’ clearly shows the lexical /LH/. Forms are from Boui.

(xx1) gloss simple distributive tones

‘1’ *tò:mà tò:mà-tò:má* L-LH

‘2’ *nì:ŋgà nì:ŋgà-nì:ŋgá* L-LH

‘3’ *tá:ndí tá:ndí-tà:ndí* H-LH

‘4’ *cɛ̀:jɔ̀ cɛ̀:jɔ̀-cɛ̀:jɔ́* L-LH

‘5’ *nú: nú:-nǔ:* H-LH

‘6’ *kùlèyⁿ kùlèyⁿ-kùlěyⁿ* L-LH

‘7’ *sɔ́:y sɔ́:y-sɔ̌:y* H-L

‘8’ *sé:lé sé:lé-sè:lé* H-L

‘9’ *tó:wá tó:wá-tò:wá* H-L

‘10’ *pìyɔ̀lù pìyɔ̀l(ù)-pìyɔ̀lú* L-LH

‘20’ *pɛ́-nɛ́ŋgà [pɛ́-nɛ́ŋgá]-[pɛ̀-nɛ̀ŋgà]* H-L

‘40’ *dɛ́: dɛ́:-dɛ̀:* H-L

‘80’ *síŋgí síŋgí-sìŋgì* H-L

‘100’ *tɛ̀:mdɛ̀rɛ́* *tɛ̀:mdɛ̀rɛ́-tɛ̀:mdɛ̀rɛ̀* LH-L

The negative predicative form is with *=là* ‘it is not’, as in *nì:ŋgà-nì:ŋgá=là* ‘it isn’t two by two’.

### Ordinal adjectives

For interrogative *áŋgá-n* ‘how many-eth?’ see §13.2.7. Other ordinals are covered below.

#### ‘First’ (*dílɔ́*, *gó:*) and ‘last’ (*kùgùrìyàŋgé*)

Ordinal adjective ‘first’ is *dílɔ́* (Ningo), as in *nwɛ̀:*L *dílɔ́* ‘(the) first song’, and gó: in Boui, as in *bè:* L *gó: mɛ̌:* ‘my first child’. Both forms can also be used adverbially to mean ‘(in) the old days; in the past’.

Adjective ‘last’ is *kùgùrìyàŋgé*, as in *bè: kùgùrìyàŋgé mɛ̌:* ‘my last (i.e. most recent) child’.

For adverbial ‘first(ly), at first’’, see §8.4.6.2

#### Other ordinals (suffix *-n*)

Other ordinal adjectives are formed by adding suffix *-n* (Boui) or -nù (Ningo) to the numeral, whose tones are raised to {H}. This raising affects only the final word in composite numerals, i.e. it does not extend to *[X sùgɔ́]* or *[X yà]*. In fact, *sùgɔ́* takes {L}-toned form as *sùgɔ̀* in ordinals. There are slight segmental irregularities in ‘third’ (stem-final *e* for *i*) and in ‘fifth’ (a kind of reduplication, cf. independent *nú:* ‘5’). Forms are from Boui.

(xx1) form gloss

a. single-digit numeral

*ní:ŋgá-n* ‘second’

*tá:ndé-n* ‘third’

*cɛ́:jɛ́-n* ‘fourth’

*nú:nú-n* ‘fifth’

*kúlé-n* ‘sixth’

*sɔ́:y-n* ‘seventh’

*sé:lé-n* ‘eighth’

*tó:wá-n* ‘ninth’

*píyɔ́lú-n* ‘tenth’

b. decimal

*pɛ́-náŋgá-n* ‘twentieth’

*dɛ́:-n* ‘fortieth’

c. decimal plus single-digit numeral

*pɛ̀-sùgɔ̀ tó:má-n* ‘eleventh’

*dɛ́: tó:má-n* ‘forty-first’

d. hundred

*tɛ́:mdɛ́rɛ́-n* ‘hundredth’

e. hundred plus ‘1-99’ numeral (two levels)

*[tɛ̀:mdɛ̀rɛ́ yà] pénáŋgá-n* ‘hundred and twentieth’

### Fractions and portions

Fraction terms are *pècì-kámbà* ‘half’, which assumes a binary division, and *pɛ̀cɛ̀rɛ́* ‘portion, division’, which can be anything from binary on up.

# Nominal and adjectival compounds

The compound types in this chapter are distinguished by the word-classes of the initial and final, and by tone-contour. Using *n* for noun, *a* for adjective, *num* for numeral, *v* for verb, and *x* for a variable word class (noun, adjective, perhaps adverb), one can represent the types with notation like [x n], [n n], [n v], and (with a suffix) [n v-VblN], with diacritics to mark tones (x́ = all high tone, x*̂* = falling melody, x̌ = rising melody, x̀ = all low tone, x̄ = regular lexical tone). Example: [ǹ n̄] is a noun-noun compound whose initial is dropped to {L} tone contour and whose final has its lexical tones.

## Nominal compounds

### Compounds of type [n̄ n̄]

This type, which involves no tonal change on either initial or final, is not attested.

### Compounds of type [ǹ n̄]

In this type, the initial drops tones, while the final keeps its regular tones. The tonosyntax is therefore the same as for noun-adjective combinations. In Tiranige, this type is occasionally indistinguishable from possessive-type compounds, viz., when the initial is lexically {L}‑toned and the final is lexically {LH}-toned. Forms are from Boui.

(xx1) compound gloss initial and final

*jìwà* L*-jíró* ‘storage structure’ *jíwá* ‘house’, *jíró* ‘eye’

*jìrò* L*-úmbúlú* ‘face’ *jíró* ‘eye’ (final obscure)

*ɔ̀mɔ̀* L*-págá* ‘Ramadan (fasting)’ *ɔ̀mɔ̀* ‘mouth’, cf. *págó-* ‘tie’

### Compounds with final verbal noun, type [ǹ v́-VblN]

The noun is {L}-toned as compound initial. The verbal noun has its regular form, i.e. {H}-toned verb plus suffix *-wà*. The noun may be a cognate nominal, although in this case the compound is somewhat superfluous when the cognate nominal by itself can denote the action (e.g. *tà:nì* ‘hunt’).

(xx1) a. with cognate nominal

*tà:nì* L*-[tá:ní-wà] tà:nì* ‘hunt’ ‘hunting’

b. with noncognate noun

*kògò* L*-[púló-wà] kógó* ‘head’ ‘undoing old braids (before braiding)’

### Possessive-type compounds [n̄ ň]

In this type, the initial behaves morphologically like a possessor, and the final has the possessor-controlled {LH} contour. This compound pattern is very productive in Tiranige.

(xx1) compound gloss initial and final

*númá* LH*dùjɛ́* ‘bracelet’ *númá* ‘hand’, *dùjɛ̀* ‘necklace’

*séŋgé* LH*pùnàŋgé* ‘millet flour’ *séŋgé* ‘(millet) grain’, *pùnàŋgè* ‘flour’

*kà:gè* LH*mǐ:* ‘swill’ *kà:gè* ‘bran’, *mí:* ‘water’

Although the compound has possessive form, it functions syntactically as a common noun. With a real possessor is added, as in *númá* LH*dùjɛ́ mɛ̀:* ‘my bracelet’ or *à:màdú* LH*[nùmà dùjɛ́]* ‘Amadou’s bracelet’, there is no tonal indication of internal bracketing (recursive possession) of the type [[Poss LHN] LHN], and a pronominal possessor follows the entire compound: one says ‘my hand-necklace’ rather than ‘[my hand’s] necklace’.

### Agentive compounds of type [ǹ v́]

The agentive form of the verb is {H}-toned, shifts -ATR to +ATR in nonfinal syllables, and ends in *i*. It normally occurs in compounds with initials denoting characteristic objects. A cognate nominal can serve as a default initial. Monosyllabic *Cɔ́:-* verbs appear as *-Cí:* or as *-Cwí:* depending on the point of articulation of the consonant, as with the simple perfective, see ‘singer’ (xx1a) and ‘millet-cake eater’ (xx1b). Forms are from Boui.

(xx1) compound gloss initial (glossed) and final

a. cognate nominal as initial

*nwɛ̀:-nwí* ‘singer’ *nwɛ́:* ‘song’, *nɔ́:-*

*twɛ̀:-twí* ‘liar’ *twɛ́:* ‘falsehood’, *tɔ́:-*

*tà:nì-tá:ní* ‘hunter’ *tà:nì* ‘hunt’, *tá:nó-*

*yèwù-yéwí* ‘dancer’ *yèwù* ‘dance’, *yɛ́wɔ́-*

*kùwɔ̀-kúwí* ‘farmer’ *kùwɔ̀* ‘farming’, *kúwɔ́-*

*tà:nì-tá:ní* ‘hunter’ *tà:nì* ‘hunt(n)’, *tá:n(ú)*

b. noncognate noun as initial

*ɔ̀rɔ̀gè-ɲí:* ‘millet-cake eater’ *ɔ́rɔ́gé* ‘millet cake’, *ɲɔ́:-*

*kògò-múndí* ‘braiding lady’ *kógó* ‘head’, *múndó-*

*jɛ̀jì-tí:* ‘weaver’ *jɛ́jí* ‘cotton thread’, *tíyɔ́-*

*nàmà-témí* ‘meat-eater’ *námá* ‘meat’, *tɛ́mú-*

The plural of *-Cwí* agentives is *-Cúy-gé*, often heard as *-Cu:-gé* or as [Cý:ge] with high front rounded vowel.

### Compounds with *bé:* or *-bè* ~ *-wè* ‘child’

For lexicalized diminutive *-wè* with some adjectives denoting relatively low values on zero-to-infinity scales (‘small’, ‘thin’, ‘short’), see §4.5.5. Diminutive *‑wè* is related etymologically to *bé:* ‘child’, plural *bé-gé* ‘children’.

*bé:* ‘child’ itself occurs as final in possessive-type compounds, denoting a fruit or similar product associated with the larger entity (xx1).

(xx1) *tílŋgɔ́* LH*bě:*

tree LHchild

‘tree’s child (i.e. fruit)’ (Boui)

[plural *tílŋgɔ́* LH*bè-gé* ]

There are also some compounds where the ‘child’ term is reduced to *‑wè* ~ *‑bè* in the singular, resembling a suffix. Compare the three adjectival diminutives in *-wè* (§4.5.5). However, for the nouns in (xx2), plural -ge is added to both the noun stem and to ‘child’, which takes the possessed plural form LH*bè-gé*. Forms are from Boui.

(xx2) compound plural gloss initial gloss

a. *bówⁿ-bè* *bówⁿ* LH*bè-gé* ‘key’ *bówⁿ* ‘door’

*númáŋgé-bè númáŋgé* LH*bè-gé* ‘twin’ *númáŋgé* ‘pair of twins’

b. *dégé-wè dégé-gé* LH*bè-gé* ‘kidney’ — —

c. *bè-báná-wè bè-báná-gé* LH*bè-gé* ‘boy’ *bànà* ‘man’

*bé-yé-wè bé-yé-gé* LH*bè-gé* ‘girl’ *yé:* ‘woman’

The plurals have the form of possessive-type compounds with plural possessor and {LH}-toned possessed noun. In (xx2c), ‘child’ occurs both as the initial (with *báná* ‘male’ and *yé:* ‘female’) and as the final.

For ‘eye(s)’ I recorded *jíró* in Boui and *gíríyé* in Ningo. The latter form resembles ‘child’ or diminutive compounds in some other Dogon languages, e.g. Yanda Dom *gìd-íyè* alongside *gìdè* ‘eye(s)’.

### Compounds with ‘man’ (*bànà*) and ‘woman’ (*yé:*)

For *bànà* or *ndà-báná* ‘man’ and for *yé:* or *ndà-yé:* ‘woman’ as nouns (cf. *ndà:* ‘person’), see §4.1.2. As adjectives, ‘male’ is *báná* and ‘female’ is *yé:*, for example following a name for an animal species.

For the compounds ‘boy’ and ‘girl’ see (xx2c) in §5.1.6 above.

I have not noticed any other irregularities for ‘woman’ in compounds or in noun-adjective combinations. In e.g. *yè:*L *kándá* ‘new bride’ and *ndà-yè:*L *kúnjú* ‘old woman’, for example, there are no irregularities in segmental form.

### Compounds with *tìŋgà* or *gùnàrì* ‘owner’

A possessive-type compound of the type *X* LH*tìŋgá* or *X* LH*gùnàrí* means ‘owner of X’. LH*tìŋgá* and LH*gùnàrí* have the {LH} overlay of possessed nouns. The initial noun X has its regular tones, as in *jíwá* LH*tìŋgá* or *jíwá* LH*gùnàrí* ‘homeowner, head of household’. The lexical melodies are /L/: *tìŋgà,* *gùnàrì*. These nouns can also be used in the sense ‘master (of a slave)’, where they pattern as inalienables (in Boui, where alienability is more clearly demarcated than Ningo). ‘My master’ is *mì* LH*tìŋgá*, *mì* LH*gùnàrí*.

*X* LH*tìŋgá* can also be used abstractly to define an individual by reference to a medical condition or other attribute: *kìrì-kírì-gè* LH*tìŋgá* ‘epileptic (person)’.

### Natural-species compounds (*X-nà(:)-X*)

This pattern, with a medial linker like *-nà(:)-* or *-mà(:)-* flanked by an iterated stem, occurs in a small number of flora-fauna terms in several Dogon languages. For Tiranige I can cite the two examples in (xx1), which denote small but unpleasant species. The medial element is short-voweled in ‘spider’ and long-voweled in ‘burry herb’.

(xx1) *kòbì-nà-kóbì* ‘spider’

*nòŋgì-nà:-nóŋgì* ‘burry herb sp. (*Pupalia*)’ (burrs stick to clothing)

For ‘spider’, the apparent stem *kòbì-* is not otherwise known. For *Pupalia*, the collocation *nóŋgè-nóŋgè-wⁿ bǒ:-* ‘be sticky (adherent)’ is related. Terms for *Pupalia* are also of this iterative pattern, but with a different iterated stem, in a number of other Dogon languages.

### Instrumental compounds (*-wà*, *-yé* )

In (xx1), two functionally distinct types of water are expressed by adding a verbal noun with *-wà* that denotes the associated activity. The noun ‘water’ is not tone-dropped, so the verbal noun is not treated as an adjectival modifier.

(xx1) a. *mí: ɲɔ́:-wà*

water drink-VblN

‘drinking water, water for drinking’ (Boui)

b. *mí: dú-yɔ́-wà*

water bathe-MP-VblN

‘water for bathing’ (Ningo)

Another construction is exemplified in (xx2). Here the noun ‘stick’ is syntactically possessed, as shown by its rising tone melody. It is preceded by a compound describing the instrumental function of the stick, consisting of an object noun (‘donkey’) and a form of the verb with *-yé* added to a +ATR form of the verb (contrast *tɛ̀w-ìyɛ̀* ‘they hit’ with the lexical ‑ATR vocalism). We have seen this morphological formation in uncompounded form in §4.2.4.

(xx2) *[kɔ́lɔ́ŋɔ̀ téw(í)-yé]* LH*tùmá*

[donkey hit-Inst] LHstick

‘stick for beating donkeys’ (verb *tɛ́wɔ́-* ‘hit’) (Boui)

(xx3) has a similar syntactic structure, but the verb ‘pick’ appears to occur in an otherwise unattested nominal form, with {LH} overlay consistent with it being possessed by ‘tooth’. As in (xx2) above, this compound itself functions as the possessor of the final noun (‘wood’).

(xx3) *[íníŋgé* LH*tòŋgòjé]* LH*tè:ŋgé*

[tooth LHpicking] LHwood

‘twig used as toothpick’ (verb *tóŋgójó* ‘pick [teeth]’) (Boui)

### Product-of-action compounds (*-yɛ́* ~ *-yé* )

A product-of-action expression can be generated by adding a form of the action verb with suffix *-yɛ́* ~ *-yé* to a noun denoting the type of entity. The noun is tone-dropped to {L}, indicating that the verb with *-yɛ́* ~ *-yé* functions morphosyntactically as a modifying adjective.

(xx2) a. *ɛ̀:lɛ̀ŋgè*L / *nàmà*L *áŋání-yé*

peanutL / meatL dry.roast-Prod

‘roasted peanuts/meat’ *(ɛ̀:lɛ̀ŋgè*, *nàmá* ) (Boui)

b. *ɛ̀:lɛ̀ŋgè*L / *sèŋgè*L *dú:-yɛ́*

peanutL / milletL pound-Prod

‘pounded peanuts/millet’ (*ɛ̀:lɛ̀ŋgè*, *séŋgé* ) (Boui)

c. *sèŋgè* L *námí-yé*

milletL stone.grind-Prod

‘(stone-)ground millet’ (< *séŋgé* ) (Boui)

d. *bèlèŋgè* L *sɛ́mí-yɛ́*

fodderL cut-Prod

‘the (already) cut grass’ (Ningo)

The suffix *-yɛ́* ~ *-yé* resembles passive stative *‑yɛ́=ẁⁿ* ~ *‑yé=ẁⁿ* (§10.4.2.1), as well as perfective 3Pl subject *‑ìyɛ̀* ~ *‑ìyè*. The passive stative is the most compelling connection. *-yɛ́* ~ *-yé* is distinct from *-yé* in instrument nominals (§4.2.3, §5.1.11), which requires stem-wide conversion to +ATR vocalism.

## Adjectival compounds

### Bahuvrihi (“Blackbeard”) compounds

#### With adjectival compound final [ǹ ǎ]

An adjectival bahuvrihi like ‘big-bellied’ takes the form of the underlying noun-adjective combination with tone-dropped noun and with rising melody on the adjective. The compound may itself function as an independent noun. It may also follow a noun as a kind of modifier, but it does not control tone-dropping on the noun in the fashion of ordinary modifying adjectives. Overall the tones are identical to those of possessives (and possessive-type compounds).

In (xx1a,c) we have simple noun-adjective combinations. These are converted into bahuvrihis (xx1b,d). The adjectives (‘fat’, ‘black’) differ tonally in the two constructions.

(xx1) a. *pìndì* L *bíní*

bellyL fat

‘(a) big belly’ (*pìndì* ) (Boui)

b. *yé: pìndì* L-LH*bìní*

woman bellyL-LHfat

‘pot-bellied (big-bellied) woman’ (Boui)

c. *kògò* L *jɛ́mɛ́*

headL black

‘(a) black head’ (*kògò*) (Boui)

d. *déŋí-wè kògò* L-LH*jɛ̀mɛ́*

snake-Dim headL-LHblack

‘black-headed snake’ (Boui)

#### With numeral compound final

I was not able to elicit a similar bahuvrihi compound for numerals from the Boui assistant. Instead, a relative clause with the regular NP (e.g. ‘one eye’) as object of *kándí-yó* ‘make’ or ‘fix’ was produced; compare (xx2) in §4.6. In (xx1), both ‘man’ and ‘one eye’ have the same forms they have elsewhere as NPs.

(xx1) *ndà-báná [jíró tò:mà] kàndì-yé*

man [eye one] make-MP.Pfv.Rel

‘a man with (lit. “who made”) one eye’ (Boui)

For the Ningo assistant, a similar construction was found but without the final verb.

(xx2) a. *ndà: [gíríyé tò:mà]*

person [eye one]

‘one-eyed person’ or ‘one eye’ (Ningo)

b. *ná: [kògò-gè nì:ŋgà]*

cow [head-Pl two]

‘a two-headed cow’ (Ningo)

# Noun Phrase structure

## Organization of NP constituents

### Linear order

The basic linear oder of elements is (xx1). The plural morpheme is omitted from the formulae since it may occur after two or more words within the same NP.

(xx1) -2 prenominal demonstrative (e.g. é)

-1 preposed possessor (nonpronominal or pronominal)

0 noun

+1 modifying adjective

+2 cardinal numeral

+3 postposed pronominal possessor

+4 determiner (demonstrative or definite)

+5 universal quantifier (*címà* ‘all’)

Adjectives and numerals optionally invert in the presence of a preposed possessor, see §6.2.4.

Examples illustrating the relative ordering of adjacent elements are in (xx2). The overall linear ordering in (xx1) is cobbled together from such examples. In the “type” formulae, n = noun and a = adjective.

(xx2) type

a. *jìwà* L *wéní-wè* [n-a]

houseL small

‘(a) small house’

b. *jìwà* L *wéní(-wè)-gé nì:ŋgà* [n-a-num]

houseL small(-Dim)-Pl two

‘two small houses’

c. *jíwá-gé tà:ndì-ŋgé* L*mbò-gè* [n-num-dem]

house-Pl three-Pl LDem-Pl

‘these/those three houses’

d. *jíwá-gé* L*mbò-gè* L*cìmà*  [n-dem-’all’]

house-Pl LDem-Pl Lall

‘all of these/those houses’

e. *à:màdú* LH*jìwá* [poss-n]

A LHhouse

‘Amadou’s house’

f1. *à:màdú* LH*[jìwà wènì-gè tà:ndì-ŋgé*] [poss-n-a-num]

A LH[house small-Pl three-Pl]

‘Amadou’s three small houses’

or:

f2. *à:màdú* LH*[jìwà tà:ndì-ŋgè wènì-gé ]* [poss-n-num-a]

A LH[house three-Pl small-Pl]

‘Amadou’s three small houses’

g1. *à:màdú* L*[jìwà wènì-gè tà:ndī-ŋgè] mbó-gè* [poss-n-a-num-dem]

A L[house small-Pl three-Pl] Dem-Pl

‘these/those three small houses of Amadou’s

or:

g2. *à:màdú* L*[jìwà tà:ndī-ŋgè wènì-gè] mbó-gè* [poss-n-num-a-dem]

A L[house three-Pl small-Pl] Dem-Pl

‘these/those three small houses of Amadou’s

h. *jíwá-gé tà:ndì-ŋgé mɛ̀:-gé* [n-num-poss]

house-Pl three-Pl 1SgPoss-Pl

‘my three houses’

i. *jìwà* L *wéní-gé tà:ndì-ŋgé mɛ̀:-gé* [n-a-num-poss]

houseL small-Pl three-Pl 1SgPoss-Pl

‘my three small houses’

l. *jíwá mɛ̀: mbó* [n-poss-dem]

house 1Sg Dem

‘this/that house of mine’

m. *jíwá-gé mɛ̀:-gɛ̀ mbó-gè* [n-poss-dem]

house-Pl 1SgPoss-Pl Dem-Pl

‘these/those houses of mine’

### Headless NPs (absolute function of non-noun NP constituents)

A NP component may (apparently) head the NP if the noun slot is empty. The examples in (xx1) are shown with definite *rì* where possible, and can function as NPs in clauses, as in ‘give me \_\_ !’.

(xx1) a. *bùní rì* ‘the red one’

b. *tá:ndí-ŋgè rì* ‘the three’

c. *mbó* ‘that (one)’

d. *címà* ‘all, everything’

Plural *-gè* and definite *rì* cannot be used in isolation; they must follow a noun or similar element.

### Apparent bifurcation of relative-clause head NP

In a relative clause, the head NP is (seemingly) divided into two parts. The core, consisting maximally of Poss-N-Adj-Num, remains internal to the relative clause. Determiners and ‘all’ quantifiers, as well as any discourse-function markers, are separated from this internal head NP and appear after the verb. See §14.6.

### Internal bracketing and tone-dropping within an NP

A noun is tone-dropped to {L} before a modifying adjective, see §6.3.1 below.

A plural noun or noun-adjective combination (with plural *‑gè*) undergoes no tonal change when followed by a NP-final numeral from ‘2’ up. See §6.4.1 below.

A demonstrative like *mbó* ‘this/that’ does not affect the tones of preceding words in the NP (except when combined with a numeral), but the demonstrative itself is tone-dropped (§6.5.2). The definite morpheme *rì*, which is already L-toned, does not interact tonally with preceding words (unless combined with a numeral).

Adding a demonstrative or definite marker to a numeral results in tonal changes. The numeral shifts to {H} tone, and an immediately preceding noun shifts to {L}-tone.

‘All’ quantifiers do not interact tonally with preceding words in a NP (§6.6).

Postposed pronominal possessors do not interact tonally with preceding words. However, preposed possessors control a {LH} contour on the following possessed NP, as described in the following section.

## Possessives

Kin terms and a few other relationship terms (inalienables) differ from ordinary nouns in requiring that all possessors, including pronouns, be preposed. Alienables may have preposed or postposed possessors, and the two series differ in form. The distinction between inalienable and alienable is less sharp than in some other Dogon languages.

There is no genitive morpheme on the possessor, and no genitive linker between possessor and possessed NP.

### Alienable possession

Nonpronominal alienable possessors are always preposed. Pronominal alienable possessors are usually postposed but can be preposed. Preposed possessors but not postposed possessors control {LH} overlay on the possessed NP.

#### Nonpronominal NP as prenominal alienable possessor

A nonpronominal possessor precedes the possessed NP with no explicit Genitive morpheme. The possessor has the same form it would have as a self-standing NP. The possessor-controlled tone contour is {LH}, erasing the lexical tone contour. Examples with unmodified possessed nouns, singular and plural, are in (xx1). When the possessed NP ends in plural *-gè*, the floating H-tone of the {LH} overlay is realized on it (*-gé* ).

(xx1) noun (X) gloss ‘Amadou’s X’ ‘Amadou’s Xs’

a. X is lexically {H}

*ná:* ‘cow’ *à:màdú* LH*nǎ:* *à:màdú* LH*nà:-gé*

*jíwá* ‘house’ *à:màdú* LH*jìwá à:màdú* LH*jìwà-gé*

b. X is lexically {L}

*ɛ̀:* ‘jaw’ *à:màdú* LH*ɛ̌:* *à:màdú* LH*ɛ̀:-gé*

*gà:nà* ‘cat’ *à:màdú* LH*gà:ná à:màdú* LH*gà:nà-gé*

c. X is lexically {HL}

*níyè* ‘bird’ *à:màdú* LH*nìyé à:màdú* LH*nìyè-gé*

d. X is lexically {LH}

*gàndìré* ‘yoke’ *à:màdú* LH*gàndìré à:màdú* LH*gàndìrè-gé*

*sìjá* ‘chicken’ *à:màdú* LH*sìjá à:màdú* LH*sìjà-gé*

#### Pronominal alienable possessor

The postposed pronominal possessor forms for alienables follow the noun along with any adjective and/or numeral. The forms in (xx1) occur with unmodified possessed nouns. These postposed possessor forms do not change the tone of the preceding word(s). Alienables may alternatively use the preposed forms discussed below in connection with kin terms.

(xx1) Postposed pronominal possessors

category basic form tone-dropped

a. 1Sg *mɛ̌: mɛ̀:*

1Pl *nì-wɛ́ nì-wɛ̀*

b. 2Sg *ɔ̀-wɛ́ ɔ̀-wɛ̀*

2Pl *ɛ̀-wɛ́ ɛ̀-wɛ̀*

c. 3Sg *nɛ̀-wɛ́ nɛ̀-wɛ̀*

3Pl *cɛ̀-wɛ́ cɛ̀-wɛ̀*

For one assistant, the rising tone of the basic form is always audible in clear pronunciation. For another, the tone-dropped form is usual after a noun that contains a H-tone. For this speaker, the rising tone of the basic form is most clearly audible after a true {L}-toned noun. However, there is little doubt that the rising tone is lexically basic in these forms.

If the possessed noun is nonsingular, the plural suffix *-gè* is added both to the noun and to the possessor, suggesting a semi-appositional structure with *‑wɛ* reduced from the noun *wɛ̀:* ‘thing’ (xx2b,d). After the pronominal possessor, Plural *-gè* always becomes H-toned *-gé*, suggesting that even superficially {L}-toned pronominal possessors like *mɛ̀:* (xx2a) are covertly {LH} toned, cf. plural *mɛ̀:‑gé*.

(xx2) a. *gùlùmbá mɛ̌:*

pigeon 1SgPoss

‘my pigeon’

b. *gùlùmbà-gé mɛ̀:-gé*

pigeon-Pl 1SgPoss-Pl

‘my pigeons’

c. *ìjò mɛ̌:*

village 1SgPoss

‘my village’

d. *ìjò-gè mɛ̀:-gé*

village-Pl 1SgPoss-Pl

‘my villages’

The syntactic distinction between alienable possession (pronominal possessor is postposed) and inalienable possession (pronominal possessor is preposed) is not consistent across all contexts. In elicitation, an assistant allows preposed pronominal possessors for alienables as an alternative to postposed possessors. He appears to favor preposed pronominal possessors when the NP is predicative, i.e. with the ‘it is’ clitic or the homophonous focus clitic. While he regularly gives (xx2a) above for ‘my pigeon’ as an argument in a clause (‘my pigeon flew away’, ‘I found my pigeon’), he regularly shifts to a preposed possessor with the ‘it is’ or focus clitic, as in (xx3a), though he also accepts the postposed construction (xx3b).

(xx3) a. *mbó [mì* LH*gùlùmbá]=ẁⁿ*

Dem [1SgPoss LHpigeon]=it.is

‘That’s my pigeon.’

b. *mbó [gùlùmbá mɛ̌]=ẁⁿ*

Dem [pigeon 1SgPoss]=it.is

‘That’s my pigeon.’

#### Tone contour of modifiers following an alienably possessed noun

This section considers combinations involving an alienable possessor (preposed or proposed) and an adjective, a numeral, or both. Combinations involving a determiner are dealt with in §6.5 below.

In the sequence Poss-N-Adj(-Pl), the possessor-controlled contour {LH} is realized on the N-Adj(-Pl) sequence taken as a whole, not just on the noun.

(xx1) a. *nà:* L *jɛ́mɛ́(-gé)*

cowL black(-Pl)

‘black cow(s)’

b. *à:màdú* LH*[nà: jɛ̀mɛ́]*

A LH[cow black]

‘Amadou’s black cow’

c. *à:màdú* LH*[nà: jɛ̀mɛ̀-gé]*

A LH[cow black-Pl]

‘Amadou’s black cows’

Likewise, the possessor-controlled {LH} is realized on the entire sequence N-Pl-Num (xx2b) or N-Adj-Num-Pl (xx2d) when a numeral is added to the mix. Observe that the plural morpheme (allomorph *ŋ̀gé*) follows the numeral when both a possessor and an adjective are present (xx2d). This suggests that the bracketing in (xx2c) breaks down when a possessor is added, fusing the N-Adj and numeral into a more tightly-knit unit, in both linear syntax and tonosyntax. Perhaps related to this fusion is the fact that Adjective-Numeral Inversion optionally applies (xx2e). In (xx2e), the full roster of three plural morphemes seems to be the ideal, but in multiple repetitions by an assistant one or both of the nonfinal plural morphemes was sometimes omitted.

xxx

(xx2) a. *ná:-gé tà:ndì*

cow-Pl three

‘three cows’

b. *à:màdú* LH*[nà:-gè tà:ndì-ŋ̀gé]*

A LH[cow-Pl three-Pl]

‘Amadou’s three cows’

c.  *[nà:* L *jɛ́mɛ́-gé] tà:ndì*

[cowL black-Pl] three

‘three black cows.’

d. *à:màdú* LH*[nà: jɛ̀mɛ̀ tà:ndì-ŋ̀gé]*

A LH[cow black three-Pl]

‘Amadou’s three black cows.’

e. *à:màdú* LH*[nà:(-gè) tà:ndì(-ŋ̀gè) jɛ̀mɛ̀-gé]*

A

[=(d)]

A postposed pronominal possessor follows N-Adj and may precede or follow a numeral. The possessor has no effect on the tones of these other words, consistent with its basically appositional nature. However, when a numeral precedes, the presence of a possessor forces the numeral to add an overt plural morpheme; contrast (xx3b) with (xx2a) above. When both an adjective and a numeral are present, the linear order may be N-Adj-Num-Poss (xx3c) or N-Adj-Poss-Num (xx3d). Interestingly, an assistant rejected Adjective-Numeral Inversion (xx3e), regardless of tones on the words preceding the adjective, though he freely allowed inversion with a preposed nonpronominal possessor, see (xx2e) above. A possible explanation for the badness of (xx3e) is that such a sequence forces the speaker to decide whether to allow the adjective to control tone-dropping on the numeral and (at a distance) on the noun. This issue does not arise with a preposed possessor, which itself controls tones on the following words.

xxx

(xx3) a. *[nà:* L *jɛ́mɛ́] mɛ̌:*

[cowL black] 1SgPoss

‘my black cow’

b. *ná:-gé tá:ndí-ŋ̀gé mɛ̀:-gé*

cow-Pl three-Pl 1SgPoss-Pl

‘my three cows’

tone c. *[nà:* L *jɛ́mɛ́-gé] mɛ̀:-gé tá:ndí*

[cowL black-Pl] 1SgPoss-Pl three

‘my three black cows’

d. *[nà:* L *jɛ́mɛ́-gé tá:ndí-ŋgé mɛ̀:-gé*

[cowL black-Pl three-Pl 1SgPoss-Pl

[=(c)]

e. #*[na:(-ge) ta:ndi(-ŋge) jɛ́mɛ́-gé] mɛ̀:-gé*

[cow(-Pl) three(-Pl) black-Pl] 2SgPoss-Pl

[ungrammatical regardless of tones on ‘cow’ and ‘three’]

### Inalienable possession

Kin terms and other inalienables differ from ordinary (alienable) nouns in that a pronominal (as well as nonpronominal) possessor must precede the possessed NP. Alienables allow both preposed and postposed possessors, so it is not clear how sharp the alienability distinction is.

A preposed pronominal possessor controls the same {LH} overlay on the possessed NP as does a preposed nonpronominal possessor: *mì* LH*kògó* ‘my head’ (alternative to *kògò mɛ̌:*), *ò* LH*tùmá* ‘your-Sg stick’ (alternative to *túmá ɔ̀‑wɛ́*).

#### Kin terms and similar relationship terms

The basic forms of inalienable relationship terms are given in (xx1). The older/younger sibling terms are also used for parallel cousins and for siblings-in-law. All noncomposite kin terms are lexically /L/-toned, and have {LH} tone when possessed. The terms in (xx1a) are more or less unsegmentable. In (xx1b), the possessed form appears to be reduplicative. In (xx1c), the stem (possessed or not) looks like a frozen reduplication. In (xx1d), the final *-yò* is clearly segmentable in *nèjì-yò* ‘nephew/niece’, compare *nèjì* ‘mother’s brother’, and one might extend this to *sèjì-yò* ‘grandchild’ (another descending genealogical category) in spite of the absence of an unsuffixed counterpart. The terms in (xx1e) are optional composite kin terms, combining ‘father’ or ‘mother’ with ‘small’ (*wéní-wè*) or *páy*, cf. *báy* ‘big’. Father’s brothers may also be called just ‘father’, and mother’s sisters may also be called just ‘mother’.

(xx1) Kin terms (Boui)

unpossessed ‘my X’ gloss

a. simple kin terms

*bɔ̀: mì* LH*bɔ̌:* ‘agemate’

*mbɔ̀: mì* LH*mbɔ̌:* ‘grandfather’

*èlà mì* LH*èlá* ‘co-wife’

*màmà mì* LH*màmá* ‘grandmother’

*nèjì mì* LH*nèjí* ‘mother’s brother’

*nɛ̀njɛ̀ mì* LH*nɛ̀njɛ́* ‘father’s sister; mother’s co-wife’

*sìjɔ̀ mì* LH*sìjɔ́* ‘father’s younger brother’

*tìyɛ̀ mì* LH*tìyɛ́* ‘cross-cousin’

*wàyà mì* LH*wàyé* ‘friend’

*nɛ̀:wɛ̀ mì* LH*nɛ̀:wɛ́* ‘younger sibling’

*àmàlì mì* LH*àmàlí* ‘parent-in-law’

*nòmòlì mì* LH*nòmòlí* ‘person with the same name’

b. *bà: mì* LH*bàwá* ‘father’

*dè: mì* LH*dèdé* ‘elder sibling’

c. *nɛ̀: mì* LH*nɛ̌:* ‘mother’

*nɛ̀nɛ̀ mì* LH*nɛ̀nɛ́*

d. *sèjì-yò mì* LH*sèjì-yó* ‘grandchild’

*nèjì-yò mì* LH*nèjì-yó* ‘nephew/niece’

e. *bà: páy mì* LH*[bà: pǎy]* ‘father’s elder brother’

*nɛ̀: páy mì* LH*[nɛ̀: pǎy]* ‘mother’s elder sister’

*nɛ̀: wéní-wè mì* LH*[nɛ̀: wènì-wé]* ‘mother’s younger sister’

(xx2) Kin terms (Ningo)

unpossessed ‘my X’ gloss

a. simple kin terms

*{LH} possessum overlay as in Boui*

*bɔ̀: mì* LH*bɔ̌:* ‘agemate’

*dè: mì* LH*dě:* ‘elder sibling’

*mbɔ́: mì* LH*mbɔ̌:* ‘grandfather’ (either side)

*èlà mì* LH*èlá* ‘co-wife’

*màmà mì* LH*màmá* ‘grandmother’ (either side)

*nàlì* *mì* LH*nàlí* ‘friend’ (more common)

*nɛ̀njɛ̀ mì* LH*nɛ̀njɛ́* ‘father’s sister; mother’s co-wife’

*nɔ̀bɛ̀ mì* LH*nɔ̀bɛ́* ‘younger same-sex sibling’

*tìyè mì* LH*tìyé* ‘cross-cousin’

*wàyè mì* LH*wàyé* ‘friend’ (less common word)

*àmàlì mì* LH*àmàlí* ‘parent-in-law’

*nòmòlì mì* LH*nòmòlí* ‘person with the same name’

*pògìyè mì* LH*pògìyé* ‘cross-sex sibling’

*{L} possessum overlay versus {H} in Boui*

*nèjì mì* L*nèjì* ‘mother’s brother’

*sìjɔ̀ mì* L*sìjɔ̀* ‘father’s younger brother’

*sèjì mì* L*sèjì* ‘grandmother’ (either side)

b. *bà: mì* L*bà:*, *mì* L*bàbá* ‘father’

c. *nì:* *mì* LH*nì:* ‘mother’

d. *sèjì-yò mì* LH*sèjì-yó* ‘grandchild’

*nèjì-yò mì* LH*nèjì-yó* ‘nephew/niece’

e. parents siblings (noun plus adjective)

*parent term with shortened vowel*

*bà páy mì* LH*[bà pǎy]* ‘father’s elder brother’

*parent term with long vowel*

*nì: páy mì* LH*[nì: pǎy]* ‘mother’s elder sister’

*nì:* L *sɛ́gɛ́ mì* LH*[nì: sɛ̀gɛ́]* ‘mother’s younger sister’

Certain close kin terms may be used as **vocatives**, in the possessed-noun tonal form but without an overt 1Sg possessor. The reduplicated forms of ‘father’ and ‘mother’ are required in this context. ‘(Hey) Dad!’ is *bàwá* (Boui) or bàbá (Ningo). ‘(Hey) Mom!’ is *nɛ̀nɛ́* (Boui = Ningo). Boui also has *dèdé* ‘hey (elder sibling)!’ versus unreduplicated Ningo vocative dě: . Other vocatives are *mbɔ̌:* ‘(hey) Grandpa!’ and *màmá* ‘(hey) Grandma!’ These forms may also be used to address nonrelatives of the appropriate age relative to the speaker.

*bé:* ‘child’, *bànà* ‘man’, and *yé:* ‘woman’ are basically alienable nouns, though they can take possessors in kin-term contexts, in which case *bànà* means ‘husband’ and *yé:* means ‘wife’. In Boui, a pronominal possessor may be preposed (inalienable pattern) or postposed (alienable pattern), e.g. *mì*  LH*bě:* or *bé: mɛ̌:* ‘my child’, *mì*  LH*bàná* ‘my husband’, *mì*  H*yé:* ‘my wife’.

#### Tone contour of modifiers following an inalienably possessed noun

There is a bracketing difference between Poss-N in alienable and inalienable constructions. The difference has consequences both for tones and for morphology (presence/absence of plural suffix). Consider (xx1).

(xx1) a. *sàydú* LH*[jìwà-gè kùlèyⁿ-ŋgé]*

Seydou LH[house-Pl six-Pl]

‘Seydou’s six houses’

b. *[sàydú* LH*sìjɔ̀-gé] kùlèyⁿ*

[Seydou LHuncle-Pl] six

‘Seydou’s six uncles’

In (xx1a), the phrase [house six] as a whole is subject to the {LH} possessor-controlled overlay. In addition, since the numeral is part of the possessor-controlled domain, it must have the plural suffix *-ŋge*. By contrast, in (xx1b), only ‘uncle’ is subject to the {LH} overlay, and the following numeral lacks the plural suffix, just as in simple N-Num combinations like *jíwá-gé kùlèyⁿ* ‘six houses’.

There is no bracketing difference between alienable and inalienable when the possessed NP is just a N-Adj combination (xx2).

(xx2) a. *sàydú* LH*[jìwà bày-gé]*

Seydou LH[house big-Pl]

‘Seydou’s big houses’

b. *sàydú* LH*[sìjɔ̀ bày-gé]*

Seydou LH[uncle big-Pl]

‘Seydou’s big uncles’

There is no overt difference between alienably and inalienably possessed N-Dem sequences. However, the domain of the {LH} overlay is not transparent in these combinations (it could be analysed as ending with the noun, or as including *mbó*), and a covert bracketing distinction cannot be ruled out.

(xx2) a. *sàydú* LH*jìwà-gè mbó-gè*

Seydou LHhouse-Pl Dem-Pl

‘these houses of Seydou’s’

b. *sàydú* LH*sìjɔ̀-gè mbó-gè*

Seydou LHuncle-Pl Dem-Pl

‘these uncles of Seydou’s’

### Recursive possession

Recursive possession of the type [[X’s Y]’s Z] is possible. It comes out as [[X LHY] LHZ] with both Y and Z marked by the possessor-controlled {LH} overlay, as in (xx1c). Kin terms have the same structure (xx1d).

(xx1) a. *í:njɛ́* LH*dìlɔ́*

dog LHtail

‘(the) dog’s tail’

b. *à:màdú* LH*ì:njɛ́*

Amadou LHdog

‘Amadou’s dog’

c. *[à:màdú* LH*ì:njɛ́ rì]* LH*dìlɔ́ rì*

[Amadou LHdog Def] LHtail Def

‘Amadou’s dog’s tail’

d. *[sàydú* LH*sìjɔ́]* LH*bàwá*

[Seydou LHuncle] LHfather

‘Seydou’s uncle’s father’

However, when Y is indefinite in form, Y and Z are sometimes treated as a unit. In effect, Y behaves like a compound initial in this case (xx2). Compare the bracketing difference in English (audible prosodically and visible orthographically even without brackets) between *[Henry’s girls’] school* and *Henry’s [girls school]*.

(xx2) *à:màdú* LH*[ì:njɛ̀ dìlɔ́]*

Amadou LH[dog tail]

‘Amadou’s dog’s tail’

## Noun-adjective

### Noun plus regular modifying adjective

A noun can be followed by one or more modifying adjectives (including ordinals) within the NP. The noun is tone-dropped to {L} before an adjective. The first adjective retains its lexical tones. Plural *-gè*, if present, follows the adjective only (xx1b). The tonosyntactic formula (L marks tone-dropping), disregarding the tone of the plural morpheme, is therefore [NL Adj(-Pl)].

(xx1) a. *í:njɛ́* ‘dog’

*ì:njɛ̀* L *jɛ́mɛ́* ‘black dog’

*ì:njɛ̀* L *bíní-bíní* ‘big dog’

b. *í:njɛ́-gé* ‘dogs’

*ì:njɛ̀* L *jɛ́mɛ́-gé* ‘black dogs’

*ì:njɛ̀* L *bíní-bíní-gé* ‘big dogs’

If a second modifying adjective is added, it drops to {L} tones. See §6.3.3.1 below.

### Numeral-like *àmbìlè-gè* ‘certain (ones)’

This stem occurs in {L}-toned form after a lexically-toned noun (or N-Adj combination). This tonal pattern is regular for N-Num combinations, so *àmbìlè-gè* is arguably a numeral rather than an adjective syntactically. Both the noun and *am̀bìlè* have plural suffix *-gè*. This differs both from true N-Adj combinations (plural *-gè* only on the adjective) and from true N‑Num combinations (plural *-gè* only on the noun, in the absence of a determiner). Definite rì is frequently added to the quantifier (rather than to the noun) as in (xx1) below.

*àmbìlè-gè* is commonly used in parallel paired clauses. The two NPs with *àmbìlè-gè* carve up a large set into two, usually exhaustive, subsets with different properties (xx1a). The noun denoting the set need not be repeated in the second clause. The first clause may end with high pitch (intonational mark of noncompletion), the second in very low pitch (completion), symbols *↗* and *↘*.

(xx1) *[yé:-gé àmbìlè-gé rì] ùn-ìyè↗,*

[woman-Pl certain-Pl Def] go.Pfv-3PlSbj,

*[àmbìlè-gé rì] ànj-ìyè↘*

[certain-Pl Def] remain.Pfv-3PlSbj

‘Some women went away, some (i.e. the others) stayed.’

My assistants rejected singular NPs with #*àmbìlè* ‘a certain (one)’.

For the Ningo assistant, *àmbìlè‑gè* is in free variation with *àmbìlè‑gé‑r‑gè*. Etymologically, this consists of definite *àmbìlè‑gé rì*, reanalysed as an unsegmentable stem without morpheme boundaries, plus another occurrence of plural *‑gè* (which normally cannot follow the definite marker).

### Expansions of adjective

#### Adjective sequences

§6.3.1 illustrated the noun-adjective construction, i.e. [NL Adj (Pl)]. When a second adjective is added, it is tone-dropped, leaving the first adjective as the only tonosyntactically free word. The plural morpheme, if relevant, follows each adjective (xx1b), so the formula (disregarding the tones of the plural morphemes) is [NL Adj (Pl) LAdj (Pl)].

(xx1) a. *ì:njɛ̀* L *bíní(-bíní)* L*jɛ̀mɛ̀*

dogL big-big Lblack

‘big black dog’

b. *ì:njɛ̀* L *bíní-bíní-gé* L*jɛ̀mɛ̀-gè*

dogL big-big-Pl Lblack-Pl

‘big black dogs’

c. *jìwà* L *báy* L*pùlɛ̀*

houseL big Lwhite

‘a big white house’

#### Adjectival intensifiers

Adjectival intensifiers are a subset of expressive adverbials that are associated with adjectival senses and may co-occur with an adjective. See §8.4.5.

#### ‘Good to eat’

A verbal noun of the relevant verb (here ‘eat’) is preposed to an adjectival predicate. The construction is therefore of the literal type ‘[eating X] is good’. For positive ‘be good’, the predicative form used here is (3Sg) *mɔ̀:-wⁿ bó-∅* rather than the usual *mɔ̀:-∅* ‘it is good’ (§11.4.1.3).

(xx1) a. *[tílŋgɔ́* LH*pùnì-gé] ɲɔ́:-wà mɔ̀:-wⁿ bó-∅*

[tree LHflower-Pl] eat-VblN good be-3PlSbj

‘The flowers of (the) tree are good to eat.’

b. *ɲɔ́:-wà mɔ̀:-nà-∅*

eat-VblN good-StatNeg-3SgSbj

‘It isn’t good to eat.’

## NPs containing a numeral

For the forms of cardinal numerals see §4.7.1. Ordinals are not considered here since they are syntactically like other adjectives.

### Ordinary N-(Adj-)Num sequences

Examples of nouns with numerals are in (xx1). Plural *-gè* is required by numerals greater than ‘1’. In these nonsingular combinations, the noun retains its lexical tone and the numeral is {L}-toned.

(xx1) a. *í:njɛ́ tò:mà*

dog one

‘one dog’

b. *í:njɛ́-gé nì:ŋgà* / *tà:ndì* / *nù:* / *pìyɔ̀lù*

dog-Pl two / three / five / ten

‘two/three/five/ten dogs’

If a determiner (demonstrative or definite) is added, a nonsingular numeral now requires plural *-ŋge* (xx2b,d). Demonstrative *mbó* retains its lexical H-tone after *tò:mà* ‘1’ (xx2a). After a nonsingular numeral, plural *mbó-gè* drops to *mbò-gè*, and the preceding numeral gets a {LH} overlay, with the H-tone appearing on the plural suffix *‑ŋgé* (xx2b). In (xx2b), regardless of which of the numerals is chosen, the NP has three occurrences of the plural suffix (on the noun, on the numeral, and on the demonstrative). For Ningo dialect, the noun drops to {L}, the numeral is {H}-toned, and the demonstrative has its regular tones (xx2c)

(xx2) a. *í:njɛ́ tò:mà mbó*

dog one Dem

‘this/that one dog’ (Boui)

b. *í:njɛ́-gé nì:ŋgà-ŋgé* / *tà:ndì-ŋgé* / *nù:-ŋgé* / *pìyɔ̀lù-ŋgé mbò-gè*

dog-Pl two-Pl / three-Pl / five-Pl / ten-Pl Dem-Pl

‘these two/three/five/ten dogs’ (Boui)

c. *ì:ŋgɛ̀-gè ní:ŋgá-ŋgé ɛ́nì-gè*

dog-Pl two-Pl Dem-Pl

‘these two dogs’ (Ningo)

When definite *rì* is added to *tò:mà* ‘1’, we get the expected output *tò:má rì* (xx3a), consistent with the usual addition of a final H-tone to a {L}-toned word before *rì*. When *rì* is added to a nonsingular numeral, the numeral is treated as {H}-toned, so the regular dropping of the final H-toned syllable of a {H}-toned word before *rì* takes place, the effect being that the plural suffix drops to *‑ŋgè* before *rì* (xx3b).

(xx3) a. *í:njɛ́ tò:má rì*

dog one Def

‘the one dog’ (Boui)

check tone (Boui)

b. *í:njɛ́-gé ní:ŋgá-ŋgè rì*

dog-Pl two-Pl Def

‘the two dogs’ (Boui)

c. *ì:ŋgɛ̀-gè ní:ŋgá-ŋgè rì*

dog-Pl two-Pl Def

‘the two dogs’ (Ningo)

As shown in §6.3.1 above, if a modifying adjective is added to a noun, the noun drops tones to {L} and the adjective preserves its lexical tone. *bíní* ‘big’ is included in the NPs in (xx4), beginning with the simple N-Adj combination (xx4a). The tone pattern for the N-Adj sequence in (xx4a) is preserved when a numeral is added (xx4b-c), when a numeral and a demonstrative are added (xx4d), and when a numeral and definite *rì* are added (xx4e). The morphological and tonal form of the Num-Dem sequence (xx4d) and that of the Num-Def sequence (xx4e) are identical to those seen in (xx2b) and (xx3b) above, respectively.

(xx4) a. *ì:njɛ̀* L *bíní*

dogL big

‘a big dog’

b. *ì:njɛ̀* L *bíní tò:mà*

dog L big one

‘one big dog’

c. *ì:njɛ̀* L *bíní-gé nì:ŋgà*

dogL big-Pl two

‘two big dogs’

d. *ì:njɛ̀* L *bíní-gé nì:ŋgà-ŋgé mbò-gè*

dogL big-Pl two-Pl Dem-Pl

‘these two big dogs’

e. *ì:njɛ̀* L *bíní-gé ní:ŋgá-ŋgè rì*

dogL big-Pl two-Pl Def

‘the two big dogs’

When a N-(Adj-)Num sequence functions as internal head NP in a relative, it undergoes no further tonal changes. For example, (xx3c) above reappears as relative head in (xx5). (Determiners do not occur in internal head NPs.)

(xx5) *[ì:njɛ̀* L *bíní-gé nì:ŋgà] mì-gí cɛ̀rɛ̀-gé rì*

[dogL big-Pl two] 1Sg-Acc bite.Pfv.Rel-Pl Def

‘the two big dogs that bit me’

The form of numerals and their effects on other words in unpossessed NPs can be summarized as (xx6) for the Boui dialect. The various numerals are lexically either /L/ or /H/-toned, but in all combinations discussed in this section the lexical tones are overridden by tonosyntactic overlays.

(xx6) a. Numerals greater than ‘1’ end in plural *-ŋge* only when followed within the NP by a determiner (demonstrative or definite).

b. Numerals greater than ‘1’ require plural marking on the preceding N(-Adj).

c. In the absence of a determiner, a numeral has no tonal effect on a preceding N(-Adj) combination, and the numeral itself drops to {L} tones if not already lexically /L/-toned.

d. In a Num-Dem sequence, if the numeral is *tò:mà* ‘1’ the demonstrative retains its H-tone (*mbó*); if the numeral is nonsingular, the demonstrative drops to {L} and the numeral is subject to {LH} with the H-tone on the plural suffix.

e. In a Num-Def sequence, nonsingular numerals are treated as {H}-toned if not already lexically /H/-toned, and the tonal changes on the final syllable of the numeral (singular or nonsingular) are those that are regular before definite *rì*.

### Adj-Num Inversion

In the presence of a possessor or demonstrative, the sequence N-Adj-Num is optionally reordered as N-Num-Adj.

Examples involving a possessor (‘Amadou’) were given as (xx2f1/f2) and (xx2f1/g2) in §6.1.1 above.

An assistant rejected this inversion in relative-clause heads. He accepted (xx1a) but not (xx1b). # means ungrammatical.

(xx1) a. *[jìwà* L *wéní(-wè)-gé nì:ŋgà]* LH*dùmbɛ̀-sà-gé rì*

[houseL small(-Dim)-Pl two] LHfall-Reslt-Pl Def

‘the two small houses that fell’

b. #*[jìwà* L *ní:ŋgá-ŋgé* L*wènì(-wè)-gè]* LH*dùmbɛ̀-sà-gé rì*

[houseL two-Pl Lsmall(-Dim)-Pl] LHfall-Reslt-Pl Def

[intended sense = (a)]

He likewise rejected inversion in N-Adj-Num combinations with a following demonstrative.

(xx2) a. *jìwà* L *wéní-(wè-)gé ní:ŋgá-ŋgé mbò-gè*

houseL small-(Dim-)Pl two-Pl Dem-Pl

‘these two small houses’

b. #*jìwà* L *ní:ŋgá-ŋgé wéní-(wè-)gé mbò-gè*

houseL two-Pl small-(Dim-)Pl Dem-Pl

[intended sense = (a)]

While grammaticality judgements in elicitation sessions need checking, the present data suggest that inversion is associated with possessed NPs for the Boui assistant.

The Ningo assistant allowed inversion in the combination with a demonstrative. Both uninverted N-Adj-Num and inverted N-Num-Adj have {L}-toned noun, {H}-toned first modifier, and {L}-toned second modifier before the demonstrative (xx3a-b).

(xx2) a. *gìbà-gè* L *wéní-ŋgé* L*nì:ŋgà-ŋgè ɛ́nì-gè*

house-PlL small-Pl Ltwo-Pl Dem-Pl

‘these two small houses’ (Ningo)

b. *gìbà-gè* L *ní:ŋgá* L*wènì-ŋgè ɛ́nì-gè*

house-PlL two Lsmall-Pl Dem-Pl

[= (a)] (Ningo)

## NP including a determiner

### Prenominal demonstratives absent

For the Ningo speaker (at least), an impersonal morpheme é can precede a noun (or a noun-like postposition), the common expression being *[é* LH*tùnú] gì* ‘behind/after that’, hence ‘in addition to that, moreover’. é is treated as a possessor (note the {LH} tones on the noun), so there is no additional prenominal slot aside from possessor.

### Noun plus demonstrative

For demonstratives including *mbó* ‘this’ and its plural *mbó-gè*, see §4.4.1.1. This demonstrative may follow a noun, N-Adj, or N-(Adj-)Num. It drops tones to *mbò* (plural *mbò-gè*) in these combinations. It has no tonal effect on the preceding elements. It does, however, force a preceding numeral to add plural suffix *-ŋgé* (xx1c). This suffix is H-toned whether the numeral stem itself is {L}-toned (i.e. after a noun or N-Adj) or {H}-toned (absolute function).

(xx1) a. *í:njɛ́ mbò* ‘this/that dog’

*í:njɛ́-gé mbò-gè* ‘thise/those dogs’

b. *ì:njɛ̀* L *jɛ́mɛ́ mbò* ‘this/that black dog’

*[ì:njɛ̀* L *jɛ́mɛ́-gé] mbò-gè* ‘these/those black dogs’

c. *[í:njɛ́-gé tà:ndì-ŋ̀gé] mbò-gè* ‘these/those three dogs’

In (xx1a-b), *mbò* has no tonal or other effect on the preceding NP-internal string. In (xx1c), it again has no tonal effect, but it does require the additional plural morpheme (here -*ŋgé*) after the numeral, compare *í:njɛ́-gé tà:ndì* ‘three dogs’.

When the noun is possessed (alienably or inalienably), *mbó* recovers its lexical H-tone (xx2).

(xx2) a. *à:màdú* LH*ì:njɛ̀ mbó*

A LHdog Dem

‘this/that dog of Amadou’s’

b. *à:màdú* LH*sìjɔ̀-gè mbó-gè*

A LHuncle-Pl Dem-Pl

‘these/those uncles of Amadou’s’

One could alternatively attempt to account for H-toned singular *mbó* in (xx2a) as subject to the H-tone component of the {LH} overlay controlled by the possessor. In this analysis, the tonosyntactic bracketing of (xx2a) would be *à:màdú* LH*[ì:njɛ̀ mbó]*. However, the fact that we get plural *mbó-gè* rather than #*mbò-gé* in (xx2) shows that the demonstrative is external to the domain of the {LH} overlay. Therefore ‘dog’ in (xx2a) and ‘uncles’ in (xx2b) must constitute the domains of the {LH} contour; the final H-tone is eventually lost by phonological rule before H-toned *mbó*. Contrast (xx2b) above with (xx3ab) below, where plural *-gè* on the adjective does become H-toned, and is therefore clearly within the domain of the {LH} overlay controlled by the possessor.

(xx3) a. *à:màdú* LH*[ì:njɛ̀ jɛ̀mɛ̀-gé]*

Amadou LH[dog black-Pl]

‘Amadou’s black dogs’

b. *à:màdú* LH*[ì:njɛ̀ jɛ̀mɛ̀-gè] mbó-gè*

*Amadou* LH[dog black-Pl] Dem-Pl

‘these/those black dogs of Amadou’s

A noun may also be followed by a composite demonstrative, near-distant *é-wò rì* or far-distant *yá-wò rì* (§4.4.1.2). These are specialized, slightly irregular relative clauses and include definite *rì*. The definite morpheme is not used after *mbó*.

(xx4) a. *ì:njɛ̀* L *jɛ́mɛ́-gé é-wò-gé rì*

dogL black-Pl NearDist-Pl Def

‘those black dogs (nearby)’

b. *à:màdú LH[ì:njɛ̀ jɛ̀mɛ̀] yá-wò rì*

Amadou LH[dog black] FarDist Def

‘that black dog of Amadou’s (distant)’

### Noun plus definite *rì*

Definite *rì* (§4.4.1.1) can be added to a singular or plural noun, N-Adj, or N-(Adj-)Num combination. It cannot be used absolutely (i.e. as one-word pronoun-like NP). It is always itself L-toned. It has no tonal effect on a preceding noun or N-Adj combination, except that a directly preceding {L}-toned word gets a final H-tone. This happens when *rì* follows a lexically /L/-toned noun (xx1a), or when it follows a N-Adj-Adj combination where the second adjective has {L} melody (xx1b). If the preceding word already has at least one H-tone, its tone is not affected by adding *rì* (xx1c-f).

(xx1) a. *ɲà:ŋgé rì*

meal Def

‘the meal’ (*ɲà:ŋgè*)

b. *ì:njɛ̀* L *wéní-wè* L*jɛ̀mɛ́ rì*

dogL small-Dim Lblack Def

‘the small black dog’ (*ì:njɛ̀ wéní-wè jɛ̀mɛ̀*)

c. *í:njɛ́ rì*

dog Def

‘the dog’ (*í:njɛ́*)

d. *í:njɛ́-gé rì*

dog-Pl Def

‘the dogs’

e. *ì:njɛ̀* L *wéní-wè rì*

dogL small-Dim Def

‘the small dog’

f. *sàydú* LH*jìwá rì*

Seydou LHhouse Def

‘Seydou’s house (definite)’

The high-frequency ontological noun gɛ́lɛ́ ‘place’ (plural gɛ́lɛ́-gé) has /H/ melody, but has {LH} overlay before the definite marker: [ LHgɛ̀lɛ́ r] gì ‘in the place’, plural [ LHgɛ̀lɛ̀‑gé r] gì ‘in the places’. In effect, there is a covert possessor that triggers the {LH} possessum overlay. [ LHgɛ̀lɛ̀‑gé r] gì ‘in the places’ is frequent in the pragmatic sense ‘in our country/zone’. See T7 @ 09:34 and @ 14:36.

Like demonstratives, definite *rì* forces plural suffix *‑ŋgé* on a preceding numeral. Unlike demonstrative, definite *rì* also forces {H} overlay on the numeral stem, not just on the plural suffix.

(xx2) *ì:njɛ̀* L *jɛ́mɛ́-gé cɛ́:jɔ́-ŋgé* H *rì*

dogL black-Pl four-PlH Def

‘the four black dogs’ (*ì:njɛ̀ jémɛ́-gé cɛ̀:jɔ̀*)

Definite *rì* is not added to demonstrative *mbó*, but it is a fixed part of the alternative, relative-clause-like demonstratives *é‑wò rì* and *yá‑wò rì*.

Definite *rì* is very common after the verb in relative clauses (chapter 14).

## Universal and distributive quantifiers

### ‘All’ (*cìmà*, *póy*)

The universal quantifier *cìmà* (Boui) or *póy* ~ *pɔ́s* (Ningo) ‘all’ occurs at the end of a NP, following even definite *rì*. When it follows a noun or other NP component, it is {L}-toned, like numerals. It does not “float” away from its NP (cf. “floating quantifiers” in English). The NP is generally determined (definite or demonstrative). If the quantified-over NP is countable, plural *‑gè* is present.

(xx1) a. *[sàgàdàlà-gé rì cìmà] [jɛ̀lɛ̀ ŋá] ùní-yè*

[young.person-Pl Def **all**] [exodus Loc] go.Pfv-3PlSbj

‘All the young people have gone away (to work).’ (Boui)

b. *[nà:-gè* L *tá:ndí-ŋgé mɛ̀:-gé rì címà] túlɛ́-yⁿ*

[cow-PlL three-Pl 1SgPoss-Pl Def **all**] sell.Pfv-1SgSbj

‘I sold all three of my cows.’ (Boui)

[confirmed by Ningo *nà:-ŋgè tá:ndí-ŋgé mɛ̀:-ŋgé rì*]

c. *[[séŋgé mɛ̌: rì] cìmà] túlɛ́-ỳⁿ*

[[millet 1SgPoss Def] all] sell.Pfv-1SgSbj

‘I sold all my millet.’

In absolute form (i.e. as a one-word NP), we get {H}-toned *címá*.

(xx2) *sàydù* *címá ɲɛ̀:-∅*

Seydou all eat.meal.Pfv-3SgSbj

‘Seydou ate everything.’

## Accusative (*gì*)

Accusative *gì* occurs optionally with human nouns and pronouns that function as direct objects. The form is L-toned *gì* after a word (or compound final) containing a H-tone, including {LH} toned nouns, but it is raised to H-toned *gí* after an all {L}-toned word, such as a lexically /L/-toned noun (xx1c) or the second adjective in N-Adj-Adj (xx2).

(xx1) noun with *gì* gloss

a. {H}-toned

*dú: dú: gì* ‘(a/the) blacksmith’

*ndà-yé: ndà-yé: gì* ‘(a/the) woman’

b. {LH}-toned

*à:màdú à:màdú gì* ‘Amadou’ (man’s name)

c. {HL}-toned

*bɔ́:wɔ̀ bɔ́:wɔ̀ gì* ‘Bobo (ethnic group) person’

c. {L}-toned

*bùnì bùnì gí* ‘(a/the) white person’

(xx2) *[bè:* L *bíní-bíní* L*jɛ̀mɛ̀ gí] mì* LH*tɛ̀wɛ́*

[childL fat-fat Lblack Acc] 1SgSbj LHhit.Pfv.Rel

‘I hit-Past the fat black child [focus].’

The accusative marker cannot be combined with the focus clitic (which is identical to the ‘it is’ predicative clitic). When the object is focalized, one or the other but not both may occur.

# Coordination

## NP coordination

### NP conjunction (*X yà Y yà*)

The conjunction particle *yà* ‘and’ is added to both left and right conjuncts.

(xx1) a. *[bànà-gè yà] [yé:-gé yà]*

[man-Pl and] [woman-Pl and]

‘men and women’

b. *[à:màdú yà] [nà* LH*bàwá yà]*

[Amadou and] [3SgPoss LHfather and]

‘Amadou and his father’

This construction can be used to conjoin NPs (including pronouns) and adverbial phrases (including PPs).

(xx2) *[bɔ̀mɔ̀kɔ́ ŋà yà] [sègù ŋá yà]* L*b-à:*

[Bamako Loc and] [Segou Loc and] Lbe-3PlSbj

‘They are in Bamako and Segou (cities).’

#### Ordering of conjuncts

The order of the conjuncts is usually free. In cases like ‘Amadou and his father’ just given, where one referent is defined with respect to the other, the central referent normally precedes the other.

When both conjuncts are pronouns, an assistant preferred ordering based on 1st > 2nd > 3rd (xx1), but the order is not rigid.

(xx1) a. *[mì yà] [ò yà]*

[1Sg and] [2Sg and]

‘you-Sg and me’

b. *[ò yà] [nà yà]*

[2Sg and] [3Sg and]

‘you-Sg and him/her’

#### ‘X and Y’ with internally complex conjuncts

NP-internal modifiers that have scope over both conjuncts are normally repeated to form parallelistic NPs. For example, ‘fat men and women’ is expressed as ‘fat men and fat women’ (if that is the sense intended). Likewise, ‘my sheep and goats’ is expressed as ‘my sheep and my goats’ (xx1). Even a nonpronominal possessor NP can be repeated, though it can alternatively be replaced by a resumptive third person possessor pronoun (xx1).

(xx1) *[sàydú* LH*àmbá yà] [sàydú* / *nà* LH*ùná yà]*

[Seydou LHsheep and] [Seydou / 3SgPoss LHgoat and]

‘Seydou’s sheep and goats’

(xx1) also shows that *yà* is external to the domain of the {LH} overlay controlled by the possessor.

Accusative *gì* and postpositions are added once, after the entire conjoined NP.

(xx2) *[[yé:-gé yà] [bànà-gè yá] gì] bálí-yé-ỳⁿ*

[[woman-Pl and] [man-Pl and] Acc] see-MP.Pfv-1SgSbj

‘I saw (the) women and (the) men.’

*yà* is basically L-toned. However, it is raised to H-tone before accusative *gì* (xx2), even though lexically /L/-toned nouns remain low-toned before *gì*, as in *bànà gì* ‘(a) man (accusative). In addition, the left conjunct optionally has an intonational pitch rise on the final syllable, i.e. on *yà*, so it may sound H-toned.

For conjoined NPs as relative heads, see §14.2.4.

#### List “intonation” with yâ: in longer conjoined NPs

Extended conjunctions with three or more conjuncts may be treated prosodically as open-ended lists. The ‘and’ conjunction occurs after each conjunct, but now takes the form yâ: with prolonged vowel and <HL> tone (or falling pitch). One can argue that this is a special intonational modification of yà, but it is distinct from the simple terminal pitch rise typical of “incompleteness” intonation, as in simple two-part [X yà] [Y yà] conjunctions (preceding subsection).

(xx1) nà:-ŋgè-gír-gé yâ:, ùnà-gír-gé yâ:,

cow-Pl-herder-Pl **and**, goat-tend.Agent-Pl **and**,

à:nà-gír-gé yâ:, kàlmà-kání-gé yâ:,

sheep-tend.Agent-Pl **and**, clear.field-do.Agent-Pl **and**,

tɔ̀n-tómí-gé yâ:, ɛ́rɔ̀ nì LHbǒ:

planting(n)-plant(v).Agent-Pl **and**, thus 1Pl LHbe

‘(They are) cowherds, and goatherds, and sheep-herds, and field clearers, and planters. That [focus] is how we are.’ (Ningo, T7 @ 09:52)

### “Conjunction” of verbs or VP’s

The rough equivalent of conjunction for verbs, VPs, and clauses (including subjects) is direct or loose chaining, see chapter 15. Verbs, VPs, and clauses are not conjoined by *yà*. However, terminal high pitch (symbol ↗), marking incompletion, can function somewhat like conjunction (‘and’ or ‘then’).

(xx1) a. nǎ: bèjè↗, kè-lá àlàndì-yè,

3SgSbj.Fut store(v).Pfv, 3Pl-Fut rest(v)-MP.Pfv,

‘He will store it (=clothing) away, (then) they (=novices) will rest.’

(Ningo T7 @ 08:56)

b. nǎ: ùnjùgè↗, nǎ: páŋgá dɛ̀nɛ̀↘

3Sg.Fut get.up.Pfv, 3SgSbj.Fut granary take.out.ration.Pfv

‘He will get up and he will take out the daily ration from the granary.’

(Ningo T7 @ 12:01)

## Disjunction

### ‘Or’ particles

‘Or’ disjunctive particles are unrelated in Tiranige to the polar interrogative clitic *lè* and itsvariants (§xxx).

#### *mà→* ‘or’ preceding second disjunct in indicative context

*mà→* ‘or’ is added before the second NP coordinand in (xx1). The ‘or’ phrase is added after a complete clause, in the fashion of an afterthought.

(xx1) *[dèwⁿ címà] [ámbá nì sɛ́:m-bò] [mà→ ùnà]*

[day all] [sheep 1PlSbj slaughter-Ipfv] [or goat]

‘Every day we slaughter a sheep or a goat.’

#### *wá* after each disjunct in interrogative context

In interrogative contexts, *wá* ‘or’ is added at the end of both disjuncts if they are clause-internal constituents (NPs, adverbial phrases).

(xx1) *[ámbá wá] [ùnà wá]* LH*sɛ̀:m-bǒ-w*

[sheep **or**] [goat **or**] LHslaughter-Ipfv-2Sg

‘Will you-Sg slaughter a sheep or a goat [focus]?’

#### Numerical range (e.g. ‘one or two’)

When the “disjunction” is really a range from a low number to a slightly higher number, there is no disjunctive particle. In textual excerpt (xx1), the lower value comes first, and is marked by nonterminal intonation (final pitch rise).

(xx1) *[yà:gú tò:mà↗] [yà:g-gé nì:ŋgà] kè-lá nàyè*

[night one] [night-Pl two] 3Pl-Fut spend.night.Pfv

‘They will spend one or two nights (there).’ (Ningo T7 @ 09:17)

### Clause-level disjunction

If the choice is between two entire propositions, *wá* is added once, after the first alternative. In this position it is intonationally prolonged (xx2).

(xx1) *[bɔ̀mɔ̀kɔ́ ŋà]* LH*ùm-bò-w wá→,*

[Bamako Loc] LHgo-Ipfv-2Sg or,

*[sègù ŋá]* LH*ùm-bǒ-w*

[Segou Loc] LHgo-Ipfv-2Sg

‘Is it to Bamako [focus] that you-Sg will go, or is it to Segou [focus] that you-Sg will go?’

# Postpositions and adverbials

Tiranige has postpositions for spatiotemporal relations, and for instrumental and purposive. accusative *gì* can also be considered to be a postposition since it follows complete NPs.

## Dative and instrumental

### Dative absent

No dative postposition occurs with ditransitives like ‘give’ and ‘say’. Such verbs use the regular accusative marking for indirect objects (xx1a-b). The same ditransitive syntax is used with the interesting verb *ká:n-dó-* ‘do (sth) for (sb)’, which replaces *kán(ú)-* ‘do (sth)’ when a beneficiary is expressed (xx1c).

(xx1) a. *[à: gí] cɛ́lɛ́ŋgé* L*ndɛ̀-w*

[who? Acc] money Lgive.Pfv-2SgSbj

‘To who(m) did you-Sg give the money?’ (Boui)

b. *[mì gí] wɛ́:-wɛ̀ gúná-nú-ẁ*

[1Sg Acc] anything say-PfvNeg-2SgSbj

‘You didn’t say anything to me.’ (Boui)

c. *[hàl wɛ́:-wɛ̀] [mì gì] ká:n-dá-nù-w*

[even anything] [1Sg Acc] do-for-PfvNeg-2SgSbj

‘You-Sg didn’t do anything for me.’ (Boui)

An assistant rephrased some French cues with possessives instead of dative PPs with simple transitives wherever this made sense, e.g. ‘I will cook [your meals]’ instead of ‘I will cook meals [for you]’. Where this does not work, a purposive PP can be used (§8.3).

### Instrumental (*yà*)

Examples are in (xx1). *yà* does not interact tonally with the complement NP and is always itself L-toned.

(xx1) a. *[íjílí yà] ìjìlè-∅*

[broom Inst] sweep.Pfv-3SgSbj

‘He/She swept with a broom.’ (Boui)

b. *[tànà yà] tèlà [námá rì]*

[knife Inst] cut.Imprt [meat Def]

‘Cut-2Sg the meat with a knife!’ (Boui)

c. *[[dúwá mɛ̌:] yá]* L*kùb-bò‑∅*

[[daba 1SgPoss] Inst] Ldo.farming-Ipfv-3SgSbj

‘He/She will farm with my daba.’ (Boui)

‘By force’ is *sɛ̀mbɛ̀ yà*.

*yà* after a NP can also function as an ‘and’ conjunction.

## Locational postpositions

### Locative, allative, and ablative functions

As in other languages of the zone, the burden of expressing allative ‘to’ and ablative ‘from’ falls on verbs rather than on postpositions. For example, ablative sense is expressed by *gó:-* ‘go out, leave’, perhaps chained with another verb. Therefore all adverbial phrases, including PPs, that denote locations or positions can be used in (static) locative, allative, or ablative contexts.

### Simple and composite PPs

In addition to simple (monomorphemic) postpositions, there are several composite postpositions. These are generally transparent combinations of the general locative postposition *ŋa* with a possessed [X’s Y], where Y is a body part term or similar noun with spatial reference. The Y noun has the usual possessor-controlled {LH} tone contour in this construction. It is therefore followed by L-toned *ŋà* ‘in’, though this is raised to *ŋá* before a L-toned syllable.

A difference between such composite postpositions and simple PPs that happen to have a possessed noun as complement (e.g. ‘in my head’) is that pronominal possessors are always preposed to the Y noun in the composite postpositions. Thus *[mì* LH*dànà] ŋá* ‘on me’ (composite postposition), but usually *[dànà mɛ̌:] ŋà* ‘in/on my head’.

### Locative ‘in, at, on’

#### Locative suffix -à

There are a handful of lexicalized locative forms of high-frequency bisyllabic nouns that likely represent contraction from a PP with postposition \*Cà (such as \*ŋà). Known examples from Ningo are in (xx1).

(xx1) noun gloss locative gloss

a. gíbá ‘house’ gíb-à: ‘at home, at the house’

b. gúló ‘the bush, the outback’ gúl-à: ‘out in the bush’

This is not productive. For example, ìjò ‘village’ has locative ìjò gí.

Boui has *jíwá* ‘house’, locative *jíw-â:* with final <HL>-toned syllable, cf. (xx1a). However, ‘out in the bush’ was recorded as góló ŋà.

Jamsay and Togo Kan “tonal locatives” expressed by changing a final H‑tone to <HL> (with lengthening as needed) likely originated in the same way, but independently of Tiranige.

#### Locative postposition (*ŋà*, *yà*, *gì*)

For the Boui assistant, the primary locative postposition ‘in, at’ (occasionally ‘on’) is *ŋà* (for other variants see below).

The postposition is common with place names as well as with common nouns denoting objects or spaces. It is H-toned after a {L}-toned word, and L-toned (in isolation or before H‑tone) after words that include a H-tone element.

(xx1) noun locative gloss

xxx

a. H-toned *ŋá* (Ningo dialect *gí*)

*ìjò ìjò ŋá* ‘in the village’

*ɔ̀mɔ̀ ɔ̀mɔ̀ ŋá* ‘in the mouth’

*èwà èwà ŋá* ‘in/at the market’

b. L-toned *ŋà* (Ningo dialect *gì*)

*bɔ̀mɔ̀kɔ́* *bɔ̀mɔ̀kɔ́ ŋà* ‘in Bamako (city)’

*pà:ndé pà:ndé ŋà* ‘in the trap’

*nɛ́:ndɛ̀ nɛ́:ndɛ̀ ŋà* ‘in the tongue’

*yálá* *yálá ŋà* ‘in the field(s)’

*órí órí ŋà* ‘in the waterjar’

*góló góló ŋà* ‘in the bush (outback)’

*mí: mí: ŋà* ‘in the water’

*númá númá ŋà* ‘on/in the arm’

c. possessed nouns

*yálá mɛ̀:* *[yálá mɛ̌:] ŋà* ‘in my field’

*X yàlá [X yàlá] ŋà* ‘in X’s field’

d. determined and quantified nouns

*ìjó rì [ìjó rì] ŋà* ‘in the village’ (definite)

*ìjò mbó [ìjò mbó] ŋà* ‘in this/that village’

*ìjò-gé rì címà [ìjò-gé rì címà] ŋà* ‘in all (the) villages’

The H-toned variant *ŋá* in (xx1a) reverts to L-toned *ŋà* when followed by a H-tone. This is attributable to Rightward L-Spreading (§3.6.3.2).

*ŋà* is not common with temporal NPs, which are used adverbially without overt locative marking (xx2).

(xx2) a. *yà:gù wàlè kán-dâ-yⁿ*

night work(n) do-IpfvNeg-1SgSbj

‘I do not work at night.’

b. *yéná:gú [ìjò ŋá]* LH*ùm-bǒ-y*

rainy.season [village Loc] LHgo.Ipfv-1SgSbj

‘In the rainy season, I go to the village.’

*ŋa* is also part of some complex postpositions described below.

A variant *yà* is used with many local place names: *mótí yà* ‘in Mopti’, *sèwàré yà* ‘in Sevare’, *kárí yá* ‘in Konna’, *bùrì yà* ‘in Boui’. More distant communities (Bamako, Segou, Outer Mongolia) have *ŋà*.

With unmodified *jíwá* ‘house’, the locative is *jíwâ:* ‘(at/to) home’.

The older Ningo assistant used *gì* as the common locative postposition, along with *yà* as in Boui. He explained that gì is used by leatherworkers versus *ŋà* for Dogon. In his speech, ‘(at/to) home’ is *gíbà*: .

#### ‘Chez X’ (*X ŋâ:* or *X ŋà:*)

With a human complement, this postposition means ‘at the place of, *chez’* or more abstractly ‘around (someone)’

The tone is <HL> after an L‑toned syllable (xx1a‑b), and L after a an H‑toned syllable (xx1c). The examples in (xx1) are from my Ningo assistant.

(xx1) a. L‑toned pronouns (Ningo)

*mì ŋâ:* ‘at my place, *chez moi*’

*nì ŋâ:* ‘at our place, *chez nous*’

*ò ŋâ:* ‘at your place, *chez toi*’

*è ŋâ:* ‘at your-Pl place, *chez vous*’

*nà ŋâ:* ‘at his/her place, *chez lui/elle*’

*kè ŋâ:* ‘at their place, *chez eux/elles*’

b. NPs ending in L‑tone (Ningo)

*[mí bà:] ŋâ:* ‘at my father’s place’

*[mí nèjì] ŋâ:* ‘at my uncle’s place’

c. NPs ending in H‑tone (Ningo)

*sé:dú ŋà:* ‘at Seydou’s place’

*[mì nàlí] ŋà:* ‘at my friend’s place’

### ‘Inside X’ or ‘under X’ (*[X* LH*kùlyé] ŋà*)

From noun *kùlyè* ‘interior’ and PP *kùlyè ŋá* ‘in the interior, on the inside’, we get complex postposition *[X* LH*kùlyé] ŋà* ‘inside X’, literally ‘in [X’s interior]’. Prototypically, X is ‘house’.

(xx1) a. *[té: rì] [[jíwá* LH*kùlyé] ŋá] bǒ-∅*

[tea Def] [house LHinterior] Loc] be-3SgSbj

‘The tea is in(side) the house.’

b. *[kúnɛ́ rì] [[[té:nì rì]* LH*kùlyé] ŋá]*

[calabash Def] [[[well Def] LHinterior] Loc]

*dùmbɛ̀* LH*sìgé-∅*

fall LHgo.down.Pfv-3SgSbj

‘The calabash fell to the bottom of the well.’

This postposition is also used in the sense ‘under X’ if X more or less completely encloses the trajector.

(xx2) *[kílé rì] [[[bǐ: rì]* LH*kùlyé] ŋá]* LH*tùná-∅*

[key Def] [[[mat Def] LH**interior**] Loc] LHbe.laid.Stat-3SgSbj

‘The key is under the mat.’

The Ningo assistant pronounced *kùlìyè* as a trisyllabic, and used *gì* rather than *ŋà*.

When X is not a containing structure, a dedicated ‘under X’ expression is used (§8.2.10).

### ‘At the bottom/base of X’ (*[X* LH*sìgí] ŋà]*)

This expression denotes a position just next to the base of an entity (tree, mountain), but not directly under it.

(xx1) *[ìjó rì] [[[cé:mbè rì]* LH*sìgí] ŋá] bǒ:-∅*

[village.+H Def] [[[stone Def] LH**base**] Loc] be-3SgSbj

‘The village is at the base of the mountain.’

Adverb *sígí-yá* means ‘at the base’.

### ‘On (the head of) X’, ‘over X’ (*[[X* LH*dàná] ŋà*)

The postposition ‘on (a more or less horizontal surface)’ or ‘over, above’ is *[X dàná] ŋà*. It consists of a possessed form of noun *dànà* ‘head’ (synonym of *kògò*) plus locative *ŋà*. In the sense ‘on X’, *[[X dàná] ŋà]* may be followed by the simple predicate *bò-* ‘be’ or, for inanimates, by a form (e.g. stative) of *ságí-yó-* ‘(object) be on (a surface)’.

(xx1) a. *[yòmbú rì] [[[bǐ: rì]* LH*dàná] ŋá]*

[blanket Def] [[[mat Def] LHhead] **Loc**]

LH*sàgá-∅*

LHbe.on.Stat-3SgSbj

‘The blanket is on the mat.’ (*yòmbù*, *bì:*)

b. *[[tèmbè* LH*dàná] ŋá] bò-y*

[[roof LHhead] **Loc**] be-1SgSbj

‘I am on the roof.’ (Boui)

c. *[mì* LH*dàná] ŋá]* LH*dùmbɛ́-∅*

[1Sg LHhead] **Loc**] LHfall.Pfv-3SgSbj

‘It fell on me (=on my head).’ (Boui)

d. *[níyè gé rì] [nì* LH*dàná] ŋá] pìlìyò mb-á:*

[bird Pl Def] [1Pl LHhead] **Loc**] fly Prog-3PlSbj

‘The birds are flying above us (=over our heads).’ (Boui)

Other verbs that make reference to position on surfaces, *dáŋgí-yó-* ‘be on (horizontal or vertical surface)’ and *bí-yó-* ‘lie down’, take simple locative PPs with *ŋa* (xx2).

(xx2) a. *[bóló rì] [jíwá* LH*bàŋgá] ŋà]* LH*dàŋgá-∅*

[agama Def] [house LHwall] in] LHbe.on.Stat-3SgSbj

‘The agama lizard is on the wall.’ (Boui)

b. *[bì: ŋá]* LH*bì-y-â:*

[mat in] LHlie.down-MP.Stat-3PlSbj

‘They are lying down on a mat.’ (Boui)

Without a possessor, the simple PP *dànà ŋá* means ‘on top, above, overhead’.

### ‘Next to, beside X’ (*[X* LH*ɛ̀:lɛ́] ŋà*, *[X* LH*jɛ̀lɛ́] ŋà*)

When a person is the reference point, ‘next to/beside X’ is expressed by a composite postposition based on *ɛ́:lɛ́* ‘flank, side (of body, at ribs)’, viz., *[X* LH*ɛ̀:lɛ́] ŋà* (xx1a).

From (Boui dialect) noun *jɛ́lɛ́* ‘place’, a composite postposition *[X* LH*jɛ̀lɛ́] ŋà* is formed. Ningo has gɛ́lɛ́ ‘place’ and postposition *[X* LH*gɛ̀lɛ́ r(ì)] gì* including the definite marker. The composite postposition can mean ‘next to, in the vicinity of’, with reference to e.g. a landmark (xx1b). Close proximity to the landmark is not required as long as the zone in question is defined in some sense by the landmark.

(xx1) a. *[[mì* LH*ɛ̀:lɛ́] ŋà] bò-∅*

[[1SgPoss LHside] in] be-3SgSbj

‘He/She is beside (=next to) me.’ (Boui)

b. *[[[mínjílì rì]* LH*jɛ̀lɛ́] ŋà]*

[[[mosque Def] LHside] in]

*[mì gí] sìgò-m*

[1Sg Acc] go.down-Caus.Imprt

‘Let-2Sg me off (this vehicle) next to (=in the area of) the mosque!’ (Boui)

*ɛ̀:ŋgó* ‘proximity, vicinity’, locative *ɛ̀:ŋgó ŋà* ‘nearby, in the vicinity’, can also form a composite postposition when distance as such is relevant: *[[X* LH*ɛ̀:ŋgó ŋà]* ‘in the vicinity of X’.

### ‘In front of’ (*[X jíró] ŋà*)

From *jíró ŋà* ‘in front, forward, ahead’ we get *[X jíró] ŋà* ‘in front of X’. The Ningo counterpart is *[X gíró] gì*. The tones are incorrect for the usual [[X LHnoun] *ŋà*] composite postposition type. ‘In front of X’ has the same spatial parameters as in English.

(xx1) a. *[[nì jíró] ŋá] bò-∅*

[[1Pl front] in] be-3SgSbj

‘He/She is in front of us.’ (Boui)

b. *[[tílŋgɔ́ rì] jíró] ŋá]* L*bì-y-ìyè*

[[tree Def] front] in] Llie.down-MP.Pfv-3PlSbj

‘They lay down in front of the tree.’ (Boui)

c. *àmìrí [[[[jàmá rì] címà] jíró] ŋá]*

chief [[[[community Def] all] front] in]

LH*dàmí-∅*

LHspeak.Pfv-3SgSbj

‘The chief spoke in front of the (whole) community.’ (< *jàmá* ) (Boui)

### ‘Behind/after X’ (*[X* LH*tǔ:ⁿ] ŋà* or *[X* LH*tùnú] gì*)

‘Behind X’ is *[X tǔ:ⁿ] ŋà* for the younger Boui speaker, and *[X tùnú] gì* for the older Ningo speaker. Its core sense is spatial (xx1a), but it can be used in temporal senses as well (xx1b‑c). The related noun is *tú:ⁿ* ~ *túnú* ‘rear (of sth)’. In *[X tǔ:ⁿ] ŋà*, the nasalization of *tǔ:ⁿ* is difficult (perhaps impossible) to hear separately because of the following *ŋ*.

(xx1) a. *[[mì* LH*tǔ:ⁿ] ŋá] bǒ-∅*

[[1Sg LHbehind] in] be-3SgSbj

‘He/She is behind me.’ (Boui)

b. *[sà:ní* LH*tǔ:ⁿ] ŋá]* LH*yògò-wǒ-y*

[[holy.day LHbehind] in] LHcome-Ipfv-1SgSbj

‘I will come (back) after the holy day.’ (Boui)

c. *[[jíwá rì] [[nì* LH*tǔ:ⁿ] ŋá]* LH*ìmbɔ̀-w-â:*

[[house Def] [[1Pl LHbehind] in] LHclose-Ipfv-3PlSbj

‘They will close up the house after us (=after we leave).’ (Boui)

*[é* LH*tùnú] gì* (Boui) or *[ét* LH*tùnú] gì* (Ningo) means ‘thereafter, afterwards, after that’, with reference to a contextually understood event. The full form is *[érí* LH*tùnú] gì* (Ningo) with demonstrative *érì*.

### ‘Under X’ (*[X dùŋó] ŋà*)

‘Under X’ is conflated with ‘inside X’ when X is a house or similar containing struture that is closed on the top and sides (§8.2.4). If X is an object that does not contain the trajector, the pure ‘under X’ construction is *[X dùŋó] ŋà* based on noun *dúŋó* ‘bottom, below’, or with a pronominal complement e.g. [*dúŋó mɛ̌:] ŋà* ‘under me’.

(xx1) *[[tílŋgɔ́* LH*dùŋó] ŋà] nì* LH*òw-yò-wó*

[[tree LHunder] Loc] 1PlSbj LHsit-MP-Ipfv

‘We will sit under (the) tree [focus].’ (Boui)

### ‘Between’ (*[[X Y]* LH*bèná] ŋà*)

‘Between X and Y’ or ‘between X-Pl’ is expressed with the composite postposition *[X* LH*bèná] ŋà*, cf. noun *béná-ŋgá* ‘(the) middle’.

(xx1) a. *bùrù [[[[sèwàré yá] [dwánzá yà]]* LH*bèná] ŋá]*

Boui [[[[S and] [D and]] LHmiddle] in]

*bǒ:-∅*

be-3SgSbj

‘Boui (village) is located between Sevare and Douentza.’ (Boui)

b. *[nì* LH*bèná] ŋà*

[1Pl LHmiddle] in

‘between us’ (Boui)

### ‘From X to Y’

‘All the way to X’ or ‘until X’ is expressed with *hàlí* before the locational phrase. It becomes *hàlì* before a H-tone, and the final *i* is subject to apocope. The verb of the ‘until’ clause has {LH} overlay.

(xx1) *dù:rù-yò-wⁿ [hàl [mótí yà]* LH*ùnì-ýⁿ]*

run-MP-while [until [Mopti Loc] LHgo.Pfv-1SgSbj]

‘I ran all the way to Mopti.’ (Boui)

(lit. “I went all the way to Mopti while running.”)

The starting point can also be expressed. This is done using a subordinated clause with *gó:-* ‘go out, leave, depart’.

(xx2) *[mbé: gwè:-sà-wⁿ] [hàl yá:* LH*ùnì-ýⁿ]*

[here go.out-Reslt-while] [until there.Def LHgo.Pfv-1SgSbj]

‘I walked all the way from here to there.’ (Boui)

(lit. “After going from here, I went all the way to there.”)

## Purposive-causal ‘for’ (*dàgá* )

*[X* LH*dàgá]* means ‘for X’, in a prospective sense (e.g. ‘in order to get X’), as in (xx1).

(xx1) *[í:gé* LH*dàgá]* LH*yògè-s-â:*

[honey LHfor] LHcome-Reslt-3PlSbj

‘They have come for honey.’ (Boui)

The sense can also be retrospective (‘because of, due to, as a result of’), as in (xx2a), or abstract ‘on account of’, as in (xx2b-c).

(xx2) a. *[á:mì* LH*dàgá] jíwâ: nì* LH*nwɛ̀:-sá*

[rain(n) LH**for**] house.in 1PlSbj LHgo.in-Reslt

‘We went into the house because of the rain (outside).’ (Boui)

b. *[mì* LH*dàgá]* LH*yògè-s-â:*

[1Sg LH**for**] LHcome-Reslt-3PlSbj

‘They have come for (i.e. to visit) me.’ (Boui)

c. *[á:* LH*dàgá] [ò gí]* LH*bàrò-wò-ýⁿ*

[God LH**for**] [2Sg Acc] LHhelp-Ipfv-1SgSbj

‘I will help you-Sg on account of God (i.e. as a charitable act).’ (Boui)

## Other adverbs (or equivalents)

### Similarity ( LH*tɔ̀rɔ́* ‘like’)

‘Like (similar to) X’ is *[X* LH*tɔ̀rɔ́]*.

(xx1) a. *[mì* LH*tɔ̀rɔ́] bǒ:-∅*

[1Sg LHlike] be-3SgSbj

‘He/She is like me.’ (Boui)

b. *[bé:* LH*tɔ̀rɔ́]* LH*kɔ̀:m-bǒ-w*

[child LHlike] LHweep-Ipfv-2SgSbj

‘You-Sg weep like a child.’ (Boui)

Note also *mbɔ́rɔ̀* ‘like this/that’ (cf. *mbó* ‘this/that’).

### Extent (*kùnú→* ‘a lot’, *cɛ̂wⁿ* ‘a little’)

*kùnú→* ‘a lot’ can function as a NP argument (xx1a), or as an adverb (xx1b).

(xx1) a. *mì-gì kùnú→ ndɛ̀-∅*

1Sg-Acc a.lot give.Pfv-3SgSbj

‘He/She gave me a lot.’ (Boui)

b. *[jɛ̀lɛ̀ ŋá] kùnú→* LH*ùm-bǒ-y*

[travel(n) Loc] a.lot LHgo-1SgSbj

‘I travel a lot.’ (Boui)

The antonym is *cɛ̂wⁿ* ‘a little’.

(xx2) a. *mì-gì cɛ̂wⁿ ndɛ̀-∅*

1Sg-Acc a.little give.Pfv-3SgSbj

‘He/She gave me a little.’ (Boui)

b. *cɛ̂wⁿ [jɛ̀lɛ̀ ŋá]* LH*ùm-bǒ-y*

a.little [travel(n) Loc] LHgo-1SgSbj

‘I travel a little (i.e. occasionally).’ (Boui)

### Specificity

#### ‘Approximately’ (*bɛ́lɛ́wò*)

To indicate that a number is approximate, *bɛ́lɛ́wò* can be added. This looks vaguely like an imperfective verb but it is unanalysable.

(xx1) *ámbá dɛ́: bɛ́lɛ́wò*

sheep 40 roughly

‘approximately forty sheep’ (Boui)

#### ‘Exactly’ (*kák*)

With numbers, *kák* can be used (xx1).

(xx1) *ámbá dɛ́: kák*

sheep 40 exactly

‘exactly forty sheep’ (Boui)

To emphasize identity, *nɛ́nɛ̀yⁿ* can be used. In (xx2) the speaker points at an object in a context where it might not be obvious to the addressee which object is intended. nɛ́nɛ̀yⁿ follows the focal constituent.

(xx2) a. *ɛ́nì=yò nɛ́nɛ̀yⁿ*

Dem.Near=it.is **exactly**

‘It’s precisely that (over there)’ (Ningo)

b. *[ɛ́rɔ̀ nɛ́nɛ̀yⁿ]* LH*bìyɔ̀-bó-∅*

[thus **exactly**] LHbe-Ipfv-3SgSbj

‘It may (=should) be exactly like that.’ (Ningo)

To confirm that what the addressee has just said is exactly correct, the widespread (e.g. Fulfulde) já:tì occurs, either alone (cf. English *precisely!*) or clause-finally.

(xx3) *ɛ́rɔ̀* LH*bìyɔ̀-bò-∅ já:tì,*

thus LHbe-Ipfv-∅-3SgSbj indeed

‘That (=what you just said) is exactly how it should be!’ (Ningo, T7 @ 09:40)

### Spatiotemporal adverbials

#### Temporal adverbs

Some of the major temporal adverbs are in (xx1).

(xx1) a. *yò:* ‘today’

*ájá là* ‘again’

*kòndè* ‘again’

*níŋá* ‘yesterday’

*nìŋà-mólí* ‘day before yesterday’

*ájá* ‘now’

b. *á:gá* ‘tomorrow; in the future’

*à:gà dɛ́nɛ́* ‘day after tomorrow’

*à:gà dɛ́nɛ́ yàlàŋgé* ‘second day after tomorrow’ (third from today)

*à:gà dɛ́nɛ́ yàlàŋgé-yàlàŋgé* ‘third day after tomorrow’ (fourth from today)

c. *gólí* ‘last year’

*wáyé* ‘next year’

*nɔ̀:* ‘this year’

As in other languages of the zone, ‘today’ and ‘yesterday’ can expand to ‘nowadays’ and ‘in the past, formerly’.

#### ‘First’ (*tápòwⁿ* )

*tápòwⁿ* ‘at first, firstly, to begin with’ is illustrated in (xx1).

(xx1) *tápòwⁿ [sègù ŋá]* LH*ùm-bǒ-y,*

firstly [Segou Loc] LHgo-Ipfv-1SgSbj

*mɛ̀: [tú: ŋà] [[jɛ̀lɛ̀* L *tó:] ŋà]* LH*ùm-bǒ-y*

but [behind Loc] [[placeL other] Loc] LHgo-Ipfv-1SgSbj

‘First I’ll go to Segou (city), but later on I’ll go somewhere else.’

#### Spatial adverbs

The following are the main nondemonstrative spatial adverbs. Some contain locative postposition *ŋa*.

(xx1) a. *dànà ŋá* ‘above, on top, overhead’

*sígíyá* ‘(down) below, underneath’

b. *à:-dúŋó* ‘east’

*à:-sélé* ‘west’

*bàlèrí* ‘south’

*kɔ̀rɔ̀m-báná* ‘north’

c. *tú: ŋà* ‘in the rear; afterward’

*jíró ŋà* ‘forward; in front’

For demonstrative locative adverbs, see §4.4.2.1.

‘Left’ (*nɔ́:ndɔ́*) and ‘right’ (*ɲɔ́:*) are adjectives that modify e.g. ‘hand’ and ‘foot’. *ɲɔ́:* may be related to *ɲɔ́:-* ‘eat’.

### Expressive adverbials (EAs)

Expressive adverbials (aka ideophones) are basically one-word adverbial phrases, sometimes with colorful senses. They do not combine into other words into phrases like NP, they cannot be focalized, and they have no tonosyntactic interactions wtih other elements. There are, however, ways to make them predicative, see §11.1.3.1.

Expressive adverbials are often marked phonologically. Some have intonational prolongation (xx1a), others are iterated (xx1b), and others look more like normal stems (xx1c).

(xx1) a. *dúrù→* ‘sticking out’

b. *téyⁿ-téyⁿ* ‘(looking) straight at’

*tɛ̀:-tɛ̀:* ‘silent’

*díŋàwⁿ-díŋàwⁿ* ‘(walking) awkwardly’

*yɛ́lí-yɛ́lí* ‘flapping (in the wind)’

*áŋálá-áŋálá* ‘(walking) with legs widely separated’

c. *dóróy* ‘wide-eyed, gaping’

Some expressive adverbials function as adjectival intensifiers. They combine with ordinary adjectives, cf. *jet black* and *snow-white*, but the Tiranige intensifiers do not denote exemplars. The intensifier is usually treated as a compound final following the adjective, which appears with {L} tones. Intensifiers are iterative in form, and may be {H}- or {L}-toned.

(xx2) adjective gloss intensifier

*jɛ́mɛ́* ‘black’ *jɛ̀mɛ̀-[kàrì-kàrì]*

*púlɛ́* ‘white’ *pùlɛ̀-[tàw-tàw]*

*búní* ‘red’ *bùnì-[dɛ́yⁿ-dɛ́yⁿ]*

#### ‘Apart, separate’ (*to᷈wⁿ* ~ to᷈:)

*to᷈wⁿ* (Boui) and *to᷈:* (Ningo) are frequently used in parallelistic constructions, with NPs denoting the two separate sets. Intonation marks incompletion by final high pitch on the first element, and completion by final low pitch on the final one. In either case the ‘apart’ EA can be prolonged.

(xx1) *[ámbá-gè rì] to᷈wⁿ↗, [ùnà-gé rì] to᷈wⁿ↘*

[sheep-Pl Def] apart, [goat-Pl Def] apart

‘The sheep apart (e.g. on one side), the goats apart (e.g. on the other side).’ (Boui)

When not spelled out in this parallelistic fashion, the sense can be expressed by the iteration *tǒwⁿ-tǒwⁿ* (Ningo to᷈:-to᷈:)‘separately, apart (in distinct locations)’

#### ‘Always’ (*wàkàtì címà*), ‘never’ (*àbádá*)

‘Always’ is the uninteresting collocation *wàkàtì címà* ‘(at) all times’.

Emphatic ‘never!’ is *àbádá*, a ubiquitous Arabic loanword. It can be used as a one-word expression with a pragmatic sense similar to ‘not on your life!’. As part of a clause, ‘never’ can often be translated by using the experiential perfect negative (‘have never VPed’), see §10.2.3.2.

### ‘Together’ (*bɔ́:gù*)

Adverb *bɔ́:gù* ‘together’ is illustrated in (xx1).

xxx

(xx1) *[nì címá] bɔ́:gù wàlè nì* LH*kàm-bó*

[1Pl all] together work(n) 1PlSbj LHdo-Ipfv.Rel

‘We will all work together.’

#### ‘All, entirely’ (*címà*)

*címà* ‘all’ can be made into an adverb-like phrase by following a pronoun. In (xx1), 3Sg *nà* is resumptive for ‘vehicle’.

(xx1) *[mówélì rì] [nà címà] yàmì-∅*

[vehicle Def] [3SgPoss all] be.ruined.Pfv-3SgSbj

‘The vehicle was completely ruined.’

# Verbal derivation

The productive suffixal derivations (stem to stem) for verbs are the reversive (‘un-…’), the causative, the inchoative and factitive of adjectives, and in many languages the alternation of mediopassive (*-yv*) and transitive *(-tv*, *-dv*, *-rv*, or -lv). In some languages the mediopassive/transitive alternation is vestigial.

For a passive stative (*-yɛ́=ẁⁿ* and variants), see §10.4.1.2

## Reversive verbs (*-ló-* ~ *-lɔ́-*)

The reversive suffix is *-lv-* , in the O-stem *-lo-* or *-lɔ́-* depending on ATR type. The majority of reversives are from bisyllabic inputs. The medial syllable in *CvCv-ló-* is weakened to a high vowel, appearing as *i* or *u* depending on adjacent consonants and on flanking syllable vowels (including inflectional suffix vowels). Front vowels and palatoalveolars favor *i*. The citation form (the O-stem) generally has medial *u* unless the preceding syllable has {*i e*}, but the E/I-stem (perfective), not shown here, often has *i*.

A preceding action (e.g. ‘tie’) that produces a resulting state is presupposed. The reverse action brings back the original state. The range of senses can be observed in the data in (xx1).

The medial vowel is not syncopated after an obstruent or *m*, or after a *CC* cluster (xx1a), but does syncopate after unclustered *y*, *l*, and (usually) *w* (xx1b).

The reversive suffix replaces mediopassive and transitive suffixes (xx1c).

(xx1) input gloss reversive gloss

a. simple inputs, no syncope

*béjó‑* ‘bury’ *béjí-ló‑* ‘disinter’

*dágó‑* ‘attach blade’ *dágú-ló‑* ‘remove blade’

*págó‑* ‘tie (up)’ *págú‑ló-* ‘untie’

*pɛ́gɔ́‑* ‘button’ *pɛ́gú-lɔ́‑* ‘unbutton’

*dúŋgó‑* ‘bury’ *dúŋgú-ló‑* ‘disinter’

*púndó‑* ‘roll up (mat)’ *púndú‑ló-* ‘unroll (mat)’

*yámbó‑* ‘cover (object)’ *yámbú-ló‑* ‘uncover (object)’

*ímbɔ́‑* ‘shut (door)’ *ímbí-lɔ́‑* ‘open (door)’

*púndó-* ‘tangle’ *púndú-ló-* ‘untangle’

*kɔ́ŋgɔ́-* ‘roll up (pants)’ *kɔ́ŋgú-lɔ́-* ‘unroll (pants)’

*dáŋgó-* ‘affix, post’ *dáŋgú-ló-* ‘un-post’

b. syncope after {*y w l*}

*tíyó‑* ‘lock’ *tíy-lo‑* ‘unlock’

*ɔ́yɔ́‑* ‘braid (rope)’ *ɔ́y-lɔ́‑* ‘unbraid (rope)’

*tɔ́yɔ́‑* ‘step on’ *tɔ́y-lɔ́-* ‘remove foot from’

*gúwɔ́-* ‘hook, hang’ *gúw-lɔ́‑* ‘unhook’

*pɛ́lɔ́‑* ‘fold’ *pɛ́l-lɔ́-* ‘unfold’

c. mediopassive and transitive inputs, no syncope

*mediopassive, from Cv-*

*dú-yɔ́-* ‘carry on head’ *dú:-lɔ́-* ‘take (load) off head’

*mediopassive, from bisyllabic*

*dómí‑yó-* ‘put on (hat)’ *dómú-ló-* ‘take off (hat)’

*kúmí-yó‑* ‘shut (eye)’ *kúmú‑ló-* ‘open (eye)’

*págí-yó‑* ‘get dressed’ *págú-ló‑* ‘get undressed’

*kúmbí-yó‑* ‘clench (fist)’ *kúmbú-ló‑* ‘unclench (fist)’

*transitive*

*tímbí-ró* ‘put lid on’ *tímbí-ló-* ‘take lid off’

*kóndú-ró‑* ‘bend’ *kóndí-ló* ‘unbend’

d. no syncope after *w* (in some cases)

*íwí‑yó-* ‘put on (wrap)’ *íwí‑ló-* ‘take off (wrap)’

Transitive reversives can be chained to a following *gó-m(ú)-* ‘remove’. The nonfinal verb takes perfective form (§15.2.2.2), as in *tùnì-lè gó‑m(ú)-* ‘get undressed’. Intransitive reversives can be chained to *gó:-* ‘go out’, as in *màŋgì-lè gó:-* ‘(sth) unfold (itself)’.

I have one example where the reversive suffix follows a transparently segmentable causative suffix *‑m(ú)‑*. In (xx2), X denotes a group. The key form is *máŋgá‑m‑ló‑*.

(xx2) a. *máŋgó-* ‘X assemble, X come together’

*máŋgá-m(ú)-* ‘Y assemble X, Y have X assemble’

b. *máŋgí-ló-* ‘X break up (after assembling)’

*máŋgá-m-ló-* ‘Y break up X (after assembling them)’

Some synchronically unsegmentable trisyllabic stems ending in *-lv-* may have originated as reversives.

## Deverbal causative verbs

### Productive causative with suffix *-m(ú)-*

The productive causative suffix added to verb inputs is *-m(ú)-*. It can be added to a wide variety of verbs, including transitives, in a range of causative senses (‘force X to VP’, ‘have X VP’, ‘let X VP’).

Partial paradigms of *sígó-m(ú)-* ‘take down’ and of *yégá-m(ú)-* ‘cause to fall’, with tones based on 3Sg forms, are in (xx1). The final /u/ of the O-stem is regularly syncopated/apocopated except before *r*. The verb takes the A/O-stem of the input verb. However, stem-final *o* in nonmonosyllabics often shifts to *e* in the perfective before *-mì-*, as in *sìgè-mì-*. It is difficult to tell whether this is low-level assimilation (to the *i* in *‑mì‑*) or a morphologically significant ablaut-like alternation.

(xx1) category ‘take down’ ‘cause to fall’

perfective *sìgè-mì-* *yègà-mì-*

imperfective *sígó-m-bò-* *yégá-m-bò-*

imperfective neg *sígó-mú-râ-* *yégá-mú-râ-*

capacitative *sígó-m-mâ-* *yégá-m-mâ-*

imperative *sìgò-m* *yègà-m*

Further examples of causatives are in (xx2). Note in particular the -ATR input stems in (xx2b).

(xx2) input gloss causative gloss

a. monosyllabic

*ɲɔ́:-* ‘eat, drink’ *ɲá:-m(ú)-* ‘give drink to’

*nɔ́:-* ‘enter’ *nɔ́:-m(ú)-* ‘make enter, take in’

*yó:-* ‘(sth) fill up’ *yó:-m(ú)-* ‘fill (sth)’

*ndó-* ‘give’ *ndá:-m(ú)-* ‘cause to give’

*irregular*

*gó:-* ‘go out’ *gó-m(ú)-* ‘take out, remove’

~ *gó:-gó-m(ú)-*

b. bisyllabic

*input already +ATR compatible*

*táŋgó-* ‘go past’ *táŋgá-m(ú)-* ‘take past’

*dám(ú)-* ‘speak’ *dámá-m(ú)-* ‘make speak’

*yógó-* ‘come’ *yógó-m(ú)-* ‘cause to come’

*sígó-* ‘go down’ *sígó-m(ú)-* ‘take down’

*input -ATR*

*yɛ́gɔ́-* ‘fall’ *yégá-m(ú)-* ‘cause to fall’

*sɛ́mɔ́-* ‘slaughter’ *sémá-m(ú)-* ‘cause to slaughter’

*kɔ́mɔ́-* ‘weep, cry’ *kómá-m(ú)-* ‘make cry’

c. input already has derivational suffix

*reversive*

*ímbí-lɔ́-* ‘open (door)’ *ímbí-lá-m(ú)-* ‘have (sb) open (door)’

*mediopassive*

*ów-yó-* ‘sit’ *ów-yó-m(ú)-* ‘cause to sit’

*dú:rú-yó-* ‘run’ *dú:rú-yó-m(ú)-* ‘cause to run’

*bándílí-yó-* ‘go back’ *bándílí-yá-m(ú)-* ‘take/send back’

*transitive*

*ígí-rí-* ‘stop (sth)’ *ígí-rá-m(ú)-* ‘have (sb) stop (sth)’

*causative -gó-*

*pájá-gó-* ‘tear, rip’ *pájá-gá-m(ú)-* ‘have (sb) rip (sth)’

*causative -mú-*

*sígó-m(ú)́-* ‘take down’ *sígó-má-m(ú)-* ‘have (sb) take down (sth)’

To my knowledge, causative *-m(ú)-* cannot be followed by other derivational suffixes except itself and the reciprocal.

### Minor causative suffix *-gó-*

Several causative-like action verbs, generally involving destructive impact, have a suffix *‑gó‑* added to that A/O-stem. The causative is often as common as, or more common than, the intransitive counterpart.

(xx1) Causative *-gó-* (all known examples)

input gloss causative gloss

a. nonhigh vowel before suffix

*yám(ú)-* ‘malfunction’ *yámá-gó-* ‘ruin (sth)’

*páró-* ‘(sth) snap’ *párá-gó-* ‘snap, break (sth)’

*pájó-* ‘be torn’ *pájá-gó-* ‘tear, rip’

*pújó-* ‘expode’ *pújó-gó-* ‘detonate’

*káwó-* ‘be cut open’ *káwá-gó-* ‘cut open (belly)’

*cémbó-* ‘be broken up’ *cémbó-gó-* ‘break up (bread)’

*with overt ATR alternation*

*pɔ́jɔ́-* ‘be crumbled’ *pójá-gó-* ‘crumble (sth)’

b. mediopassive suffix dropped

*tɛ́wí-yɔ́-* ‘(sth) shatter’ *téwá-gó-* ‘shatter (sth)’

c. high vowel or syncope before suffix

*múró-* ‘be punctured’ *múrú-gó-* ‘puncture’

*ním(ú)-* ‘(fire) go out’ *ním-gó-* ‘extinguish (fire)’

*púnjó-* ‘lump break up’ *púnjú-gó-* ‘break up (lump of flour)’

d. *-ŋgó-* variant

*jínɔ́-* ‘hide [intr]’ *jíná-ŋgó-* ‘hide (sth)’

In some other cases, like *píyágó-* ‘chase away, drive out, expel’, we can suspect that the same suffix is present etymologically, but there is no unsuffixed counterpart, so segmentation is questionable.

## *-gv-* suffix with ‘enter’ and ‘exit’

‘Enter, go/come in’ has two variants, *nɔ́:-* and *nó:‑gó‑*. Similarly, ‘exit, go/come out’ has two variants, *gó:‑* and *gó:‑gó‑*. The short forms are semantically as well as morphologically unmarked, typically denoting single events (xx1a). The suffixed forms suggest repetitive entry and exit, including re-entry after an exit or re-exit after an entry (xx1b).

(xx1) a. *nwà:*

enter.Imprt

‘Come/Go in!’

b. *[gwè: ŋá] nò:-gò-bó-yⁿ*

[exit(v) and.Nonpast.SS] enter-Repet-Ipfv-1SgSbj

‘I’ll go out and come/go (back) in.’

A similar *gv* syllable occurs in some other motion verbs: *yógó-* ‘come’, *sígó-* ‘descend’, *únjúgó-* ‘get up, arise’, and *élégó-* ‘go up on (sth)’ (cf. *ílɛ́* ‘ascend’), but not *ún(ú)* ‘go’ or *áyó* ‘arrive’. This syllable is etymologically just part of the stem in *sígó-* ‘descend’ as shown by multiple bisyllabic cognates, but in the other cases it might reflect an original suffix. It is possible that the suffix was originally related to *gó:-* ‘exit’ in a reversive (‘un-’) rather than directional sense, which has clear parallels in Jamsay and other eastern Dogon languages.

## Mediopassive and transitive

### Mediopassive *‑yó‑* ~ *-yɔ́-* and transitive *‑ró-* ~ *-rɔ́-* (*-dó-* ~ *-dɔ́-*)

There is a fairly productive alternation of mediopassive *‑yó‑* ~ *-yɔ́-* and transitive *‑ró-* ~ *-rɔ́-*. The latter becomes *-dó-* ~ *-dɔ́-* after certain consonants following syncope. The mediopassive denotes an internally experienced event (voluntary or not), while the corresponding transitive requires an external agent. The transitive is therefore essentially the causative of the mediopassive.

Transitive *‑ró-* ~ *-rɔ́-* is clearly distinct phonologically from reversive *‑ló‑* ~ *‑lɔ́‑*, which can occur with some of the same verb stems. However, mediopassive *‑yó‑* ~ *‑yɔ́‑* is arguably the same morpheme as reciprocal *‑yó‑* ~ *‑yɔ́‑* (§9.5). Both mediopassive and reciprocal are intransitivizing derivations.

(xx1) MP gloss Tr gloss

a. stance

*bí-yó‑* ‘lie down’ *bí:-ró‑* ‘have lie down, put to sleep’

*ów-yó‑* ‘sit down’ *ów-ró‑* ‘have (sb) sit, seat (sb)’

*ígí-yó‑* ‘stand up, stop’ *ígí-ró‑* ‘stop (sth)’

*yáŋ(í)-yó‑* ‘kneel’ *yáŋú-ró‑* ‘cause to kneel’

*sómbí-yó-* ‘squat’ *sómbú-ró-* ‘cause to squat’

b. wearing clothes

*págí-yó‑* ‘get dressed’ *págú-ró‑* ‘dress (sb)’

*yámbí-yó‑* ‘put on (boubou)’ *yámbú-ró‑* ‘put (boubou) on (sb)’

*túní-yó‑* ‘put on (clothes)’ *tú:n-dó-* ‘put (clothes) on (sb)’

*dómí-yó‑* ‘put on (headware)’ *dómú-ró‑* ‘put (headware) on (sb)’

*íwí-yó‑* ‘tie on (belt)’ *íwí-ró‑* ‘tie belt on (sb)’

c. carrying/holding

*kúmí-yó-* ‘carry on back’ *kúmú-ró* ‘put on (sb’s) back’

*dú-yɔ́-* ‘carry on head’ *dú:-rɔ́-* ‘put on (sb’s) head’

d. other

*mí:* *dú-yɔ́-* ‘bathe’ *mí:* *dú:-rɔ́-* ‘bathe (sb)’

*kóndú‑yó-* ‘become crumpled’ *kóndú‑ró-* ‘crumple (sth)’

Phonologically, *bí:-ró‑* from *bí-yó-* in (xx1a) and *dú:-rɔ́-* from *dú-yɔ́-* in (xx1d) suggest lengthening of *Cv-* to *Cv:-* before the transitive but not mediopassive suffix. *tú:n-dó-* from *túní-yó‑* in (xx1b) requires syncope of a medial-syllable short high vowel and lengthening of the initial-syllable vowel (§3.4.3.1).

From underived *nóyó-* ‘sleep’ we get transitive *nóyú-ró-* ‘cause (sb) to sleep, put (sb) to sleep’.

### Benefactive function of transitive derivative

#### Benefactive *‑ró-* ~ *-rɔ́-* (*-dó-* ~ *-dɔ́-*)

As shown above, in most cases the transitive derivative with suffix *‑ró-* ~ *-rɔ́-* adds an agent who creates, or helps to create, the state denoted by the mediopassive.

The same transitive suffix can be added to verbs to promote a benefactive to direct-object status. Simple intransitive (xx1a) becomes transitive with accusative-marked but semantically benefactive object in (xx1b).

(xx1) a. *ílɔ́-bò-yⁿ*

go.up-Ipfv-1SgSbj

‘I will go up.’

b. *[sé:dù gì] ìl-dɔ̀-bò-ýⁿ*

[S Acc] go.up-Tr-Ipfv-1SgSbj

‘I will go up for Seydou.’

(xx2a) is already transitive. In (xx2b) a semantically benefactive accusative-marked argument is added.

(xx2) a. *á:ná sɛ́mɛ́-ỳⁿ*

sheep slaughter.Pfv-1SgSbj

‘I slaughtered a sheep.’

b. *á:ná [sé:dú gì] sɛ́mí-rɛ́-ỳⁿ*

sheep [S Acc] slaughter-Tr.Pfv-1SgSbj

‘I will slaughter a sheep for Seydou.’

With ‘bring’ and ‘convey’, what is expressed as a dative in English is phrased as possessor of the theme (entity transferred). The possessum classifier

(xx3) a. *[ò* LH*wɛ̌:] sógó-vò-yⁿ*

[2SgPoss LHPsm] bring-Ipfv-1SgSbj

‘I have brought it for you.’ (lit. “I have brought yours.”)

b. *[ò* H*té:] sógó-vò-yⁿ*

[2SgPoss Htea] bring-Ipfv-1SgSbj

‘I have brought your tea.’ (= ‘I have brought some tea for you.’)

#### *kán(ú)-* ‘do (sth)’ and *ká:-ndó-* ‘do (sth) for (sb)’

The common verb *kán(ú)-* ‘do’ is replaced by *ká:-ndó-* when a beneficiary is expressed. *ká:‑ndó‑* has the form of a transitive suffixal derivative with *‑ró‑* ~ *‑dó‑* (§9.4.1). The semantics are those of benefactives in §9.4.2.1 above. For the phonology (syncope, vowel-lengthening, /r/ to *d*), compare the mediopassive/transitive pair *túní-yó‑* ‘put on (one’s shoes, pants)’ and *tú:n-dó-* ‘put (shoes/pants) on (sb)’ (§9.4.1).

## Reciprocal (*‑yó‑* ~ *-yɔ́-*)

A derivation identical in form to the mediopassive in *‑yó‑* ~ *-yɔ́-* can be used as a reciprocal derivative.

(xx1) a. *nì tɛ̀wì-yɛ̀*

1PlSbj hit-Recip.Pfv

‘we hit-Past each other’

b. *á:gá nì tɛ́wí-yɔ́-wò*

tomorrow 1PlSbj hit

‘Tomorrow we will hit each other’

Some verbs can take both the mediopassive and the reciprocal. An example is *bálí-yó-* which can mean ‘see’ (mediopassive form) or ‘see each other’. Since verbs that can take the reciprocal are necessarily transitive, one can usually distinguish mediopassive from reciprocal since the mediopassive remains syntactically transitive while the reciprocal intransitivizes the verb.

## Deadjectival inchoative and factitive verbs

Many adjectives X correspond to an intransitive verb ‘become X’ that I call inchoative. Morphologically, it is not always clear that the verb is derived from the adjective, so “deadjectival” should be taken loosely. Glosses are of the type ‘become small’, but other nuanced glosses such as ‘become smaller’ are also possible in context.

In one type, attested with mono- and bisyllabic adjectives, the inchoative verb has essentially the same shape as the adjective (xx1a). The vocalism and especially the final vowel of the verb is affected by the vocalism stem (the O-stem is the cituation form). In another type, a suffix *-ndó-* is added to the adjective (xx1b). The three adjectives with diminutive *-wè* belong to this class. The *-wè* of the adjective is dropped. The only case of *-ndó-* with a -ATR stem is *mɛ́ɲí-ndó-* ‘become thin’ from adjective *mɛ́njí-wè* (xx1b). It may be that the deleted *-wè* covertly determines the ATR value of *-ndó-*.

(xx1) a. zero derivational suffix

*yáŋgá* *yáŋgó-* ‘become lean’

*né:ŋgó:* *né:ŋgó-* ‘become heavy’

*kúnjú* *kúnjɔ́-* ‘get old, age’

*dúmbú dúmbó-* ‘become blunt (blade)’

b. suffix *-ndó-* ~ *-ndɔ́-*

*báy* *báy-ndó-* ‘become big, wide’

~ *bá:-ndó-*

*nímí* *nímí-ndó-* ‘become deep’

*yálá* *yálá-ndó-* ‘become long, tall’

*yágá yágá-ndó-* ‘pretty’

*nj ~ ɲ, diminutive -wè dropped*

*mɛ́njí-wè mɛ́ɲí-ndó-* ‘become thin’

*syncopated*

*bíní* *bín-dó-* ‘become fat’

*diminutive -wè dropped*

*wéní-wè wén-dó-* ‘become small’

*déŋí-wè déŋí-ndó-* ‘become short’

Many inchoatives are in mediopassive form, with suffix *-yó-* ~ *-yɔ́-*. The preceding vowel is weakened to *i* and may syncopate. Mediopassive inchoatives are usual for trisyllabic adjectives but there are also some bisyllabics. ‘Become white’ shifts the stem from bi- to trisyllabic by reduplicating a syllable (xx2e).

(xx2) a. phonologically regular

*númá* *númí-yó-* ‘hot, fast’

*jɛ́mɛ́ jɛ́mí-yɔ́-* ‘black’

*ní:njí ní:njí-yó-* ‘sweet, delicious; sharp’

*má:gá má:gí-yó-* ‘difficult (work)’

*búrádá búrádí-yó-* ‘smooth, sleek (surface)’

*yágárá yágárí-yó-* ‘coarse (surface)’

*gálágá gálágí-yó-* ‘bitter’

*ámámú ámámí-yó-* ‘sour, acrid’

*kújájá kújájí-yó-* ‘rotten (meat, fruit)’

b syncopated

*ílɔ́* *íl-yɔ́-* ‘ripe; cooked’

*búní bún(í)-yó-* ‘red, brown’ (optional syncope)

c. C-final adjective adds a vowel

*témúm* *témémí-yó-* ‘cold, cool (water); slow-moving’

d. switch in ATR harmonic class

*yɔ́gɔ́rɔ́* *yógárí-yó-* ‘ruined, kaput’

e. irregular

*mɔ́: mɔ́y-yɔ́-* ‘become good, improve’

*púlɛ́ púlá-lí-yó-* ‘white’

*máyⁿ mání-yó-* ‘dry’

Factitive (transitive) versions, as in ‘X whitened Y, X made Y white’, are the regularly formed causatives in *-m(ú)-* of these inchoatives: *púlá-lí-yá-m(ú)* ‘whiten (something)’. Examples are *yálá‑ndá-m(ú)-* ‘lengthen (sth)’, *nímí‑ndó-m(ú)-* ‘deepen (sth)’. In *mɛ́ɲí-ndó-m(ú)-* ‘make slender’, we see that inchoative *‑ndó‑* protects the adjectival stem from conversion to +ATR (otherwise required by the causative suffix).

Adjectives that do not correspond to an inchoative verb can be verbalized by adding *bíló-* ‘become’ to the form in *-ẁⁿ*, which is usually pronounced *‑m* before *b*. This construction can also be used as an alternative to any of the inchoative verbs listed above.

(xx3) *ɛ́wⁿ ɛ́-ẁⁿ bíló-* ‘wet’

*íjígɔ́* *íjígɔ́-ẁⁿ bíló-* ‘become empty’

*kándá* *kándá-ẁⁿ bíló-* ‘become new’

*kóló* *kóló-ẁⁿ bíló-* ‘fresh (milk); unripe; raw (meat)’

*málá-ní málá-ní-ẁⁿ bíló-* ‘soft’

## *-lv́-* for multiplicity

The forms in (xx1) show a derivational suffix *-lv́-*, semantically unrelated to the reversive, in contexts involving multiple subjects (or, in the causative, objects).

(xx1) a. *máŋgó* ‘(two entities) come together, assemble’

*máŋgá-lí-yó* ‘(several entities) come together, assemble’

b. *máŋgá-m(ú)* ‘put (two entities) together, assemble (two entities)’

*máŋgá-lá-m(ú)* ‘put (several entities) together, assemble (several entities)’

# Verbal inflection

## Inflection of regular indicative verbs

For indicative categories, the verb occurs in a vocalism stem form, which is followed by an aspect-negation suffix (except that perfective positive is unmarked suffixally). Verbs have a similar structure in deontic modal categories such as imperative and hortative, with imperative (singular) being unmarked.

The aspect-negation system is effectively doubled by superimposing a past-time marker (with characteristic vowel *ɛ*) on the regular aspect-negation forms.

Pronominal subject category for indicative categories is marked by suffixes for 1Sg, 2Sg, and 3Pl, by proclitics for 1Pl and 2Pl, and by zero for 3Sg (represented as *‑∅*). For the deontic moods, plural addressee is marked suffixally.

Verbs in relative clauses undergo some tonal and morphological changes; see §14.4.

### Overview of indicative (aspect-negation) categories

The main inflectional categories (other than pronominal subject) marked on verbs in indicative clauses are those in (xx1), which is organized into four groups based on aspect and polarity.

(xx1) a. perfective positive system

perfective E/I-stem, no other aspect-negation suffix

experiential perfect E/I-stem plus *-tèy* ~ *-tê-*

recent perfect E/I-stem plus *‑sɛ́*-

resultative E/I-stem plus *sà-* ‘have’

b. imperfective positive system

imperfective O-stem plus *-wò* ~ *-bò*

progressive A/O-stem plus aux *mbó ~ -bó*

c. perfective negative system

perfective negative A/O-stem plus *-nì-*

experiential perfect negative E/I-stem plus *-té:-nì-*

recent perfect negative A/O-stem plus *-nì-yɛ́-*

d. imperfective negative system

imperfective negative O-stem plus *-râ-*

progressive negative A/O-stem plus aux *órâ-*

Other indicative categories not fitting into these four systems are the derived stative (e.g. ‘be sitting’ from active verb ‘sit down’), which is marked primarily by vocalic ablaut, and the capacitative (‘can VP’) with suffix *-má-*.

The recent perfect is morphologically the past form of the perfective. The other categories listed above, including stative and imperfective, also have past-time forms involving the vowel *ɛ*.

### Verb stem shapes

Since some aspects of inflectional morphology depend on the syllabic shape (as well as vocalism) of the stem, I begin with the syllabic shapes themselves.

#### *Cv:* verb stems

The known monosyllabic verb stems are listed in (xx1) in the most important vocalic stem forms. Tones are omitted. All known examples have {*e ɛ*} rather than *i* in the E/I-stem; i.e. there are no final-high-vowel *Cv:* stems. I know of no *Cv:ⁿ* stems with nasalized vowel. I know of no irregular *Cv:* stems. The consonantal onset of the E/I-stem for ‑ATR verbs (*Cwɛ:-* versus *Cɛ:-*) depends on the point of articulation of the initial *C*, palatoalveolar {*y ɲ*} versus other. For +ATR stems, even *y* does not prevent the following *w*, see ‘fill up’ in (xx1c), where *yw* is pronounced as IPA [yw] with front rounded [y].

(xx1) Monosyllabic with final vowel

stems gloss

O A/O E/I

a. *Cv:* with long oral vowel, -ATR

*ɔ in A/O-stem*

*dɔ:- dɔ:- dwɛ:-* ‘pound’ or ‘insult’

*sɔ:- sɔ:- swɛ:-* ‘douse (fire)’

*tɔ:- tɔ:- twɛ:-* ‘pour’ or ‘tell a lie’ or ‘make bunches’

*nɔ:- nɔ:- nwɛ:-* ‘sing’ or ‘go in’

*a in A/O-stem*

*yɔ:- ya:- yɛ:-* ‘pick up’, ‘(day) break’

*ɲɔ:- ɲa:- ɲɛ:-* ‘eat (meal)’

b. *Cv:-* with long oral vowel, +ATR

*o in A/O-stem*

*go:- go:- gwe:-* ‘go out’

*so:- so:- swe:-* ‘dip’

*wo:- wo:- we:-* ‘sip’

*yo:- yo:- ywe:-* ‘(sth) fill up’

c. *Cv:ⁿ-* with long nasal vowel

[none]

d. *Ci:-* in E/I-stem

[none]

*Ca:-* verbs in other Dogon languages appear have bisyllabic Tiranige cognates of the shape *Cay‑* (*nayo-* ‘spend the night’, *kayo-* ‘shave’).

#### *CvC* verb stems

No lexically *CvC-* stems have been observed. The surface shape *CvC-* can appear due to syncope of a short high vowel in /CvCi-/ or /CvCu-/.

#### *nCv‑* verbs

There is one lexically *nCv-* verb (‘give’). It is slightly irregular in having both ‑ATR and +ATR variants of the O-stem. The A/O-stem (with *a:* rather than *o:*) and the E/I-stem (with *ɛ:*) are ‑ATR features.

(xx1) *nCv-* stem

stems gloss

O A/O E/I

*ndo- nda:- ndɛ:-* ‘give’

~ *ndɔ-*

The paradigm is (xx2). The two variants of the O-stem are seen in (xx2a-b). The forms in (xx2a) are +ATR. Those in (xx2b-d) point to lexical ‑ATR.

(xx2) a. O-stem (+ATR version)

*ǹdó-râ-* imperfective negative

*ǹdó-má-* capacitative

*ǹdó-lá-* prohibitive

*ǹdó-wà* verbal noun

b. O-stem (-ATR version)

*ǹdɔ́-wò-* imperfective

c. A/O-stem

*ǹdà:* imperative

d. E/I-stem

*ǹdɛ̀:-* perfective

*nì ǹdɛ̂-yⁿ* hortative

e. I/U-stem

*ǹdí:* quoted imperative

This is a ditransitive verb. Both the theme and the recipient are treated morphologically as objects. The effect is that the recipient, which is normally animate, is often followed by the accusative marker; see §11.1.3.3-4.

#### Regular bisyllabic stems

Bisyllabic stems may be *CvCv*, *CvCCv*, *Cv:Cv,* and rarely *Cv:NCv* (with nasal consonant N). The initial C position is vacant for vowel-initial stems. It is necessary to distinguish final-high-vowel from final-nonhigh-vowel types.

**Final-nonhigh-vowel** stems are illustrated in (xx1). The {H}-toned O-stem is the citation form. One example of each vocalism pattern is given. For stems with high vowel {*u i*} in the penult, the ATR value must be calculated from the final *ɔ* or *o* in the O-stem. Stems with *a* in the penult are +ATR.

(xx1) Final-nonhigh-vowel class (one example per vowel sequence)

stem gloss

a. *CvCv*

*yɛ́gɔ́* ‘fall’

*tɔ́gɔ́* ‘pick up’

*CeCo* —

*yógó* ‘come’

*nájó* ‘have fun’

*cíjɔ́* ‘reply’

*dú-yɔ́* ‘bathe’

*bí-yó* ‘lie down’

*gújó* ‘dig’

b. *CvCCv*

*ɛ́mbɔ́* ‘winnow in wind’

*dɔ́njɔ́* ‘throw’

*CeCCo* —

*tómbó* ‘jump’

*dámbó* ‘push’

*CiCCɔ* —

*CuCCɔ* —

*ímbó* ‘pull’ or ‘shut’

*búŋgó* ‘bump’

c. *Cv:Cv*

*Cɛ:Cɔ* —

*Cɔ:Cɔ* —

*sé:gó* ‘come down’

*Co:Co* —

*á:gó* ‘reach’

*Ci:Cɔ* —

*Cu:Cɔ* —

*Ci:Cɔ* —

*Cu:Cɔ* —

d. (uncommon) *Cv:NCv*

*yú:ndó* ‘find’

The major ablauted stems are illustrated for representative *CvCv* verbs in (xx2). *CvCCv* and *Cv:Cv* verbs follow the same pattern.

(xx2) Final-nonhigh-vowel *CvCv* vocalism stems

stems gloss

O A/O E/I

a. -ATR

*dɔnɔ dona dɔnɛ* ‘buy’

*cijɔ cija cijɛ* ‘reply’

b. +ATR (vowel other than *a* in penult)

*yogo yogo yoge* ‘come’

biyo biyo biye ‘lie down’

c. +ATR (*a* in penult)

*najo naja naje* ‘have fun’

For discussion of the vocalism stems, see §3.4.6.

Underived stems with **final high vowel** (*i* in the E/I-stem, *u* in the O-stem) are illustrated in (xx3). Except for causatives, only a few *CvCv* stems belong to this type, but they are high-frequency verbs. The final *ú* in the O-stem is parenthesized, since it is normally syncopated.

(xx3) Final-high-vowel class (excluding causatives)

stem gloss

a. *CvC(u)*, all known examples

*with high-vowel in penult*

*ún(ú)* ‘go’

*ním(ú)* ‘(fire) die out’

*sín(ú)* ‘convey, take away’

*tún(ú)* ‘put (object) in’

*túm(ú)* ‘(sun) rise’

*with a in penult*

*gán(ú)* ‘put (grain, liquid) in’

*kán(ú)* ‘do’

*ám(ú)* ‘sprinkle’

*dám(ú)* ‘speak’

*bám(ú)* ‘beat (tomtom)’

*kám(ú)* ‘steal’

*ním(ú)* ‘(fire) go out’

*náŋ(ú)* ‘lay across’

b. *CvCCu*

[none]

c. *Cv:Cu*

[none]

d. *Cv:NCu*

[none]

Causative *‑m(ú)‑* combines with *Cv:* stems to create bisyllabic verbs, e.g. *ɲá:-mì* (perfective) ‘cause to eat, feed’.

The vocalism stems for final-high-vowel verbs are illustrated in (xx4).

(xx4) Final-high-vowel *CvCv* vocalism stems

stems gloss

O A/O E/I

a. with high vowel in penult

*ún(ú) únó uni* ‘go’

b. with *a* in penult

*kán(ú) káná kani* ‘do’

In the imperative, verbs like *ún(ú)* with high-vowel penult use the O-stem rather than the A/O-stem: *ùnù* ‘go!’, *sìnù* ‘take (away)!’, *tùnù* ‘put (object) in!’. For these few verbs, the main-clause imperative is identical in form to the quoted imperative. By contrast, those like *kán(ú)* with *a* in the penult join the majority final-nonhigh-vowel verb class in using the A/O-stem in the imperative: *kànà* ‘do!’, *gànà* ‘put (grain/liquid) in!’.

#### Syncopating final-nonhigh-vowel bisyllabics (*Cvwv-*, *Cvmv-*)

*CvCv-* stems with medial {*w m*} syncopate the stem-final vowel in the O-stem before another labial {*w m*}. My Boui assistant appears to have no *Cvbv-* or *Cvfv-* verb stems, and no nonalternating *-bv* or *-fv* verbal suffixes, so the generalization is that syncope occurs between labials. Under very limited conditions these stems simultaneously lengthen the first vowel. Syncope produces consonant clusters that must then undergo various assimilation and fortition processes.

The verbs in (xx1a) that also occur in Ningo have medial *b* (perfectives *kùbɛ̀‑*, *tìbɛ̀‑*, *gùbɛ̀‑*, *yɛ̀bɛ̀‑*, *ìbè‑*, *sùbì‑yɛ̀‑*, *àbè‑*, *tàbè‑*). Ningo shares the forms in (xx1b) except that the vowel-lengthening in the imperfective does not occur (*tɛ́m-bò-*, etc.).

(xx1) Pfv Imprt IpfvNeg Ipfv Capac gloss

a. *Cvwv-* (Boui)

*kùwɛ̀- kùwà kúwɔ́-râ- kúb-bò- kúm-mâ-* ‘do farming’

*tìwɛ̀- tìwà tíwɔ́-râ- tíb-bò- tám-mâ-* ‘die’

*gùwɛ̀- gùwà gúwɔ́-râ- gúb-bò- gúm-mâ-* ‘hang’

*yɛ̀wɛ̀- yèwà yɛ́wɔ́-râ- yɛ́b-bò- yɛ́m-mâ-* ‘dance’

*tɛ̀wɛ̀- tèwà tɛ́wɔ́-râ- tɛ́b-bò- tɛ́m-mâ-* ‘hit’

*ìwè- ìwò íwó-râ- íb-bò- ím-mâ-* ‘catch’

*sùwè- sùwò súwó-râ- súb-bò- súm-mâ-* ‘point at’

*àwè- àwà áwó-râ- áb-bò- ám-mâ-* ‘accept’

*tàwè- tàwà táwó-râ- táb-bò- tám-mâ-* ‘touch’

b. *Cvmv-* (Boui)

*ɛ̀mɛ̀- èmà ɛ́mɔ́-râ- ɛ́:m-bò- ɛ́m-mâ-* ‘milk (cow)’

*tɛ̀mɛ̀- tèmà tɛ́mɔ́-râ- tɛ́:m-bò- tɛ́m-mâ-* ‘eat (meat)’

*sɛ̀mɛ̀- sèmà sɛ́mɔ́-râ- sɛ́:m-bò- sɛ́m-mâ-* ‘cut off; slaughter’

The O-stem forms in (xx1) are the imperfective negative (*-râ-*), the imperfective, and the capacitative. No syncope occurs in the imperfective negative. There is likewise no syncope before prohibitive *-lâ* (*yɛ́wɔ́-lâ* ‘don’t dance!’, *tɛ́mɔ́-lâ* ‘don’t eat [meat]!’). However, the imperfective and capacitative suffixes begin with labials and induce syncope. The imperfective is *-wò-* for all other verbs, and the capacitative suffix is *-mâ-*. Given a *w* ~ *b* alternation in the imperfective suffix, the obvious choice is between underlying *w* subject to fortition, and underlying *b* subject to lenition. The latter is probably correct historically, but given the broad distribution of the *-wò-* variant, a good case can be made for synchronic underlying *w* subject to fortition. In this view, the consonantal changes following syncope are those in (xx2).

(xx2) *w-w* → *b-b* double fortition

*w-m* → *m-m* assimilation

*m-w* → *m-b* fortition of *w* to *b* after nasal

In addition to syncope and consonantal adjustments, we observe lengthening of the first vowel in the imperfective (but not capacitative) of *Cvmv-* stems only, as in *ɛ́:m-bò-* ‘will milk’ in (xx1b). *Cvwv-* stems do not lengthen: *kúb-bò-* ‘will do farming’. This lengthening is somewhat irregular synchronically, but there are several other examples where original \*CvNCv (with \*NC a homorganic nasal plus voiced stop sequence like *mb*) has lengthened to *Cv:NCv*, see §xxx.

The verbal noun suffix *-wà* behaves phonologically like imperfective *-wò*, including vowel-lengthening, as we see in *ɛ́:m-bà* ‘milking cows’.

#### Syncopating final-nonhigh-vowel bisyllabics (*Cvnv-, Cvlv-*, *Cvrv-*)

Parallel to syncope between labial consonants (preceding section), we observe syncope between stem and suffixal alveolars. The attested examples involve *Cvnv-*, *Cvlv-*, and *Cvrv-* verbs, before imperfective negative *-râ-* (which hardens to *-dâ-*). I know of no *Cvdv-*, *Cvsv-*, or *Cvtv-* verb stems, so the generalization is that syncope occurs between alveolars.

Data are in (xx1). Syncope occurs in the imperfective negative only. There is no vowel-lengthening.

(xx1) Pfv Imprt IpfvNeg Ipfv Capac gloss

a. *Cvnv-*

*mìnɛ̀ mìnà mín-dâ- mínɔ́-wò- mínɔ́-mâ-* ‘taste’

*dɔ̀nɛ̀ dònà dɔ́n-dâ- dɔ́nɔ́-wò- dɔ́nɔ́-mâ-* ‘buy’

*tɔ̀nɛ̀ tònà tɔ́n-dâ- tɔ́nɔ́-wò- tɔ́nɔ́-mâ-* ‘butcher’

b. *Cvlv-*

*ìlɛ̀- ìlà íl-dâ- ílɔ́-wò- ílɔ́-mâ-* ‘go up’

*tùlɛ̀- tùlà túl-dâ- túlɔ́-wò- túlɔ́-mâ-* ‘sell’

*nàlè- nàlà nál-dâ- náló-wò- náló-mâ-* ‘give birth’

*yɔ̀lɛ̀- yòlà yɔ́l-dâ- yɔ́lɔ́-wò- yɔ́lɔ́-mâ-* ‘look for’

*tɛ̀lɛ̀- tèlà tɛ́l-dâ- tɛ́lɔ́-wò- tɛ́lɔ́-mâ-* ‘cut’

c. *Cvrv-*

*bàrè- bàrà bár-dâ- báró-wò- báró-mâ-* ‘increase’

*pɔ̀rɛ̀- pòrà pɔ́r-dâ- pɔ́rɔ́-wò- pɔ́rɔ́-mâ-* ‘throw’

*ɔ̀rɛ̀- òrà ɔ́r-dâ- ɔ́rɔ́-wò- ɔ́rɔ́-mâ-* ‘draw water’

*ìrɛ̀- ìrà ír-dâ- írɔ́-wò- írɔ́-mâ-* ‘get’

The main consonant-cluster adjustment is that /r/ hardens to *d* after {*n l r*}. The combination r-d is optionally assimilated to d-d.

#### Syncopating final-high-vowel bisyllabics (*Cvnv-*, *Cvmv-*)

There are several *Cvnv-* and a few *Cvmv-* verb stems of the final high-vowel class. I know of no *Cvwv-* stems in this class. The *Cvnv-* stems syncopate not only before alveolar-initial suffixes, but also before labial-initial suffixes. The *Cvmv-* verbs undergo syncope before labial-initial suffixes, but only one of them lengthens its vowel. Overall, then, final-high-vowel verbs differ considerably in their phonology from the final-nonhigh-vowel verbs covered in the preceding sections.

The irregular verb ‘say’, which has a final nonhigh vowel in the perfective (*gùnɛ̀-*), is treated as a final-high-vowel verb in the O-stem and therefore syncopates in the relevant inflections.

(xx1) Pfv Imprt IpfvNeg Ipfv Capac gloss

a. *Cvnv-*

*kànì- kànà kán-dâ- kám-bò- kám-mâ-* ‘do’

*gànì- gànà gán-dâ- gám-bò- gám-mâ-* ‘put in’

*tùnì- tùnò tún-dâ- túm-bò- túm-mâ-* ‘put in’

*ùnì- ùnù ún-dâ- úm-bò- úm-mâ-* ‘go’

*sìnì- sìnù sín-dâ- sím-bò- sím-mâ-* ‘take, convey’

*irregular*

*gùnɛ̀- gùnà gún-dâ- gúm-bò- gúm-mâ-* ‘say’

b. *Cvmv-*

*lengthen vowel in imperfective*

*dàmì- dàmà dámú-râ- dá:m-bò- dám-mâ-* ‘speak’

*no lengthening imperfective*

*kàmì- kàmà kámú-râ- kám-bò- kám-mâ-* ‘steal’

*bàmì- bàmà bámú-râ- bám-bò- bám-mâ-* ‘beat tomtom’

For the *Cvnv-* stems (xx1a), syncope occurs in the imperfective negative before an alveolar, and in the imperfective and capacitative before a labial. The n assimilates to the point of articulation (labial) of the suffixal consonant. Suffix *-râ-* hardens to *-dâ-* as usual after *n*. The *Cvmv-* stems (xx1b) syncopate only before labial-initial suffixes. Imperfective *-wò-* hardens to *-bò-* after the nasal in both (xx1a) and (xx1b). The consonantal adjustments are therefore those in (xx2).

(xx2) *n-w* → *m-b* fortition and assimilation

*n-m* → *m-m* assimilation

*m-w* → *m-b* fortition of *w* to *b* after nasal

(xx1b) shows that the first vowel is lengthened in only one verb (‘speak’), and does not occur with ‘steal’ or ‘beat (tomtom)’. In the case of ‘steal’ (xx1b), the failure of first-vowel lengthening to occur results in homophony with ‘do’ (xx1a) in the imperfective and capacitative.

#### Trisyllabic stems

Causatives in *-m(ú)* and *-gó* are treated separately below. For other trisyllabic stems, including other suffixal derivatives, the medial syllable (which is in a weak metrical position) is realized as *i* or *u*, and the final vowel is nonhigh. The variable vowels are the initial and the final. (xx1) gives one example for each attested vowel sequence.

(xx1) Trisyllabic stems (excluding causatives)

stem gloss

a. initial high vowel

*tímbí-rɔ́* ‘close (mouth)’

*CuCiCɔ* —

*ígí-yó* ‘stand, stop’

*kúmí-yó* ‘shut (eye)’

b. initial mid-height vowel

*bɛ́gílɔ́* ‘winnow (by shaking)’

*CɔCiCɔ* —

*jélíyó* ‘hold’

*kóndú-ró* ‘crumple’

c. initial *a* (treated as +ATR)

*bálí-yó* ‘see’

*págú-ló* ‘untie’

Trisyllabic causatives with suffix *-m(ú)* or *-gó* have different vocalism, frequently with a nonhigh vowel in the middle syllable: *yógó-m(ú)* ‘cause to come’, *téwá-gó* ‘shatter (sth)’. See §9.2.1-2 for discussion.

## Positive indicative AN categories

### Perfective positive system (including perfect)

Perfective positive categories are associated with the E/I-stem.

#### (Simple) perfective (E/I-stem)

The basic perfective form is characterized by {*e ɛ*} replacing the stem-final {*o ɔ*} for most verbs, and by final *i* replacing *u* (or zero after apocope/syncope) for the remaining minority. This is the **E/I-stem**, with no further aspect-negation suffix (compare the recent perfect, described below). In the 3Pl, the stem-final vowel is *i* even for verbs with E‑stem perfectives in the other categories. (xx1) illustrates the paradigms for a -ATR stem (‘fall’), a +ATR stem (‘come’), and an *i*-final stem (‘rob’), all of *CvCv‑* shape, and one monosyllabic stem.

(xx1) category form ‘fall’ ‘come’ ‘rob’ ‘go in’

1Sg {H}*-ỳⁿ* *yɛ́gɛ́-ỳⁿ* *yógé-ỳⁿ* *kámí-ỳⁿ nwɛ́-ỳⁿ*

1Pl *nì* {L} *nì yɛ̀gɛ̀* *nì yògè* *nì kàmì nì nwɛ̀:*

2Sg {H}*-ẁ* *yɛ́gɛ́-ẁ* *yógé-ẁ* *kámí-ẁ nwɛ́-ẁ*

2Pl *è* {L} *è yɛ̀gɛ̀* *è yògè* *è kàmì è nwɛ̀:*

3Sg {L}*-∅* *yɛ̀gɛ̀-∅* *yògè-∅* *kàmì-∅ nwɛ̀:-∅*

3Pl a. {L}*-ìyɛ̀/-ìyè* *yɛ̀g-ìyɛ̀* *yòg-ìyè* *kàm-ìyè nùy-ɛ̀:*

b. {LHL}*-íyɛ̀/-íyè* *yɛ̀g-íyɛ̀* *yòg-íyè* *kàm-íyè nǔy-yɛ̀:*

The variant tone patterns for the 3Pl were those of the younger Boui assistant (a) and the older Ningo assistant (b).

For **monosyllabic** stems, the stem vowel is long in the zero-suffix form, and short before nonzero suffixes (1Sg *-yⁿ*, 2Sg *-w*). For example, the perfective of *gó:-* ‘go out’ is *gwè:-∅* or suffixed *gwê-yⁿ* (1Sg), *gwê-w* (2Sg). The 3Pl form *gw-íyè* also has short vowels.

A sample of verbs with *-e* or *-ɛ* (depending on ATR type of the stem)is given in (xx2). The 3Sg form is given. Verbs of this type are the majority. They include all monosyllabics, all trisyllabic and longer stems, all heavy bisyllabics (*CvCCv-*, *Cv:Cv-*, *Cv:CCv-*), all light bisyllabics (*CvCv-*) with a mid-height vowel {*ɛ e ɔ o*} in the first syllable, and some light bisyllabics with high or low vowel {*i u a*} in the first syllable. Monosyllabics are shown in the long-voweled form (used with zero suffix).

(xx2) Simple perfective in *-ɛ/-e*

stem Perfective gloss

a. monosyllabic *Cv:‑*

*-ATR stems, initial C not palatoalveolar*

*dɔ́:- dwɛ̀:-* ‘pound’ or ‘insult’

*tɔ́:- twɛ̀:-* ‘pour’

*nɔ́:- nwɛ̀:-* ‘sing’ or ‘go in’

*sɔ́:- swɛ̀:-* ‘douse (fire)’

*-ATR stems, initial C palatoalveolar*

*ɲɔ́:- ɲɛ̀:-* ‘eat, drink’ add 3Pl

*yɔ́:- yɛ̀:-* ‘pick up’ add 3Pl

*+ATR stems*

*gó:- gwè:-* ‘go out’

*só:- swè:-* ‘dip’

*yó:- ywè:-* ‘(sth) fill up’

*wó:- wè:-* ‘sip’

b. *NCv(:)‑*

*-ATR stems*

*ǹdó- ǹdɛ̀:-* ‘give’ add 3Pl

c. bisyllabic

*-ATR stems*

*cíjɔ́- cìjɛ̀-* ‘reply’

*ímbɔ́- ìmbɛ̀-* ‘pull’ or ‘shut’

*gúwɔ́- gùwɛ̀-* ‘hang up’

*tɔ́gɔ́- tɔ̀gɛ̀-* ‘gather (wood)’

*jɛ́yɔ́- jɛ̀yɛ̀-* ‘kill’

*mínɔ́- mìnɛ̀-* ‘taste’

*+ATR stems*

*áwó àwè-* ‘accept’

*gújó- gùjè-* ‘dig’

*bí-yó- bì-yè-* ‘lie down’

*sé:gó- sè:gè-* ‘come down’

*dámbó- dàmbè-* ‘push’

d. trisyllabic and longer

*-ATR stems*

*ígí-yɔ́- ìgì-yɛ̀-* ‘stand, stop’

*+ATR stems*

*bálí-yó- bàlì-yè-* ‘see’

*báŋgílí-yó- bàŋgìlì-yè-* ‘go back’

Stems with perfective …*i-* are in (xx3). Again the 3Sg form is used. The verbs in question have the shapes *Cámú-*, *Cán(ú)-*, *Cín(ú)-*, and *Cún(ú)-*.

(xx3) Simple perfective in *…i*

stem Perfective gloss

bisyllabic

*CaCv‑*

*dámú- dàmì-* ‘speak’ add 3Pl

*kámú- kàmì-* ‘steal’

*bámú bàmì-* ‘beat (tomtom)’

*gán(ú) gànì-* ‘put (grain, liquid) in’

*kán(ú) kànì-* ‘do’

*CuCv‑, CiCv-*

*ún(ú) ùnì-* ‘go’

*sín(ú) sìnì-* ‘take (convey)’

*tún(ú) tùnì-* ‘put (sth) in (sth)’

The perfective can be used with or without preceding constituents (i.e. it does not require defocalization of the verb). It does not change form before clause-final particles such as *mɛ̀* ‘if/when’ (xx4b) and interrogative *le* (xx4d).

(xx4) a. *dwɛ̀:-∅*

pound.Pfv-3SgSbj

‘She pounded.’

b. *[dwɛ̀:-∅ mɛ̀] kándíyó-wò-∅*

[pound.Pfv-3SgSbj if] cook-Ipfv-3SgSbj

‘When she has pounded (the grain), she will cook.’

c. *ndà-yé dwɛ̀:-∅*

woman pound.Pfv-3SgSbj

‘a woman pounded.’

d. *dwɛ̀:-∅ lé*

pound.Pfv-3SgSbj Q

‘did he/she pound?’

e. *yò: dwɛ̀:-∅*

today pound.Pfv-3SgSbj

‘he/she pounded today.’

f. *yò: dwɛ̀:-∅ lé*

today pound.Pfv-3SgSbj Q

‘Did he/she pound today?’

#### Perfective-1a and ‑1b absent

Suffixally marked perfectives (as opposed to perfects) have not been observed.

#### Experiential perfect ‘have ever’ (*-tèy* ~ *-té-*)

This form is used in contexts like ‘have you ever (been to Paris, seen an elephant, etc.)?’ *-tèy* ~ *-té-* is added to the E/I-stem of the verb. The shortened form *-té-* presumably reflects loss of /y/ before a suffixal semivowel. The paradigm is (xx1).

(xx1) Experiential perfect

category form ‘see’ ‘go’

1Sg {L}*-té-yⁿ* *bàlì-yè-té-yⁿ* *ùnì-té-yⁿ*

1Pl *nì* {L}*-tèy* *nì bàlì-yè-tèy* *nì ùnì-tèy*

2Sg {L}*-té-w* *bàlì-yè-té-w* *ùnì-té-w*

2Pl *è* {L}*-tèy* *è bàlì-yè-tèy* *è ùnì-tèy*

3Sg {L}*-tèy-∅* *bàlì-yè-tèy-∅* *ùnì-tèy-∅*

3Pl {L}*-tèy-â:* *bàlì-yè-tèy-â:* *ùnì-tèy-â:*

The low tone of the 3Sg form is supported by the interrogative combination *‑tèl‑∅ lé*, contrast 2Sg *‑té‑l lè*. The past-time counterpart is likewise *‑tèy‑yɛ́‑∅* (§10.6.1.5).

For the combination of an unconjugated perfect verb with clause-initial subject pronominal and particle *là* in habitual sense, see §10.xxx.

The negative counterpart is common (‘have never VPed’); see §10.2.3.2.

#### Recent perfect (*‑sɛ́-*)

This category has suffix *‑sɛ́-* ~ *-sɛ̌-*, added to a {L}-toned form of the E/I-stem of the verb. *-sɛ́-* can be analysed morphologically as the **past-time form of resultative** *-sà-* (see the following section). Another way to phrase this is that *‑sɛ́‑* could be connected with *sɛ̂:-* ‘had’, past form of *-sâ:-* ‘have’ (§10.6.1.3). Since resultative *-sà-* functions in some contexts (notably relative clauses) as a suffixally marked equivalent of the perfective, one could expand on this by analysing *‑sɛ́-* ~ *-sɛ̌-* as the past-time form of the perfective itself. The perfective (E/I-stem, no suffix) has no other past-time form. Further support for this idea comes from the recent perfect negative, which is morphologically the past-time form of the perfective negative (§10.2.3.3).

The paradigm is (xx1).

(xx1) Recent perfect

category form ‘has gone’

1Sg *{L}-sɛ̌-yⁿ* *ùnì-sɛ̌-yⁿ*

1Pl *nì {L}-sɛ́* *nì ùnì-sɛ́*

2Sg *{L}-sɛ̌-w* *ùnì-sɛ̌-w*

2Pl *è {L}-sɛ́* *è ùnì-sɛ́*

3Sg *{L}-sɛ́* *ùnì-sɛ́*

3Pl *{L}-s-ɛ̂:* *ùnì-s-ɛ̂:*

The tone contour of the suffixes (other than 3Pl) is LH, with just the final mora H-toned. Accordingly, there is no distinction between regular and defocalized forms of this inflectional category. When polar interrogative *lè* is added, the H-tone is realized on this particle: 3Sg *-sɛ̀ lé*, 2Sg *-sɛ̀-l lé*, 1Sg *-sɛ̀-n ní*.

A sample of 3Sg recent perfect forms for stems with final nonhigh vowels are in (xx2). There is no special phonology (syncope does not occur).

(xx2) Recent perfect (final-nonhigh-vowel class)

stem Recent perfect 3Sg gloss

a. *Cv:*

*nɔ́:- nwɛ̀:-sɛ́* ‘go in’

*gó:- gwè:-sɛ́* ‘go out’

*ɲɔ́:- ɲɛ̀:-sɛ́* ‘eat’

b. *NCv(:)*

*ndó- ndɛ̀:-sɛ́* ‘give’

c. *CvCv*

*gújó- gùjè-sɛ́* ‘dig’

*cíjɔ́- cìjɛ̀-sɛ́* ‘reply’

*dú-yɔ́- dù-yɛ̀-sɛ́* ‘carry on head’

*táwó- tàwè-sɛ́* ‘touch’

*tɛ́mɔ́- tɛ̀mɛ̀-sɛ́* ‘eat (meat)’

*tɔ́nɔ́- tɔ̀nɔ̀-sɛ́* ‘butcher’

*túlɔ́- tùlɛ̀-sɛ́* ‘sell’

d. *CvCCv*

*ɛ́mbɔ́- ɛ́mbɔ́-wò* ‘winnow in wind’

*tómbó- tòmbè-sɛ́* ‘jump’

e. *Cv:Cv*

*sé:gó- sè:gè-sɛ́* ‘come down’

f. trisyllabic

*yígíjó- yìgìjè-sɛ́* ‘shake’

*ígí-yɔ́- ìgì-yɛ̀-sɛ́* ‘stand, stop’

g. irregular

*gún(u)- gùnɛ̀-sɛ́* ‘say’

Forms for verbs ending in a high vowel are in (xx3).

(xx3) Recent perfect (final-high-vowel class)

stem Recent perfect 3Sg gloss

a. *CaC(ú)*-

*dámú- dàmì-sɛ́* ‘speak’

*kámú- kàmì-sɛ́* ‘steal’

*Cán(ú-)*

*kán(u)- kànì-sɛ́* ‘do’

b. *CíC(ú)*-, *CúC(ú)-*

*Cvn(ú)-*

*ún(u)- ùnì-sɛ́* ‘go’

This inflectional form appears to add a recent perfect nuance (‘has already VPed’). An assistant regularly produced *yògè‑∅* ‘he/she came’ as the perfective form in unmarked contexts, but suggested that *yògè‑sɛ́* ‘he/she has come’ might be used when the person in question has recently come and gone. He likewise suggested that *ɲɛ̀:-sɛ́* ‘he/she has eaten’ could be used in the context of having recently eaten (and therefore not hungry).

No special past-time form of this category could be elicited. The regular form, however, can be used in past perfect as well as (present) perfect contexts (e.g. ‘they had gone’, ‘I had eaten’).

#### Resultative (*-sà-*)

This forms contains a {H}-toned E/I form of the verb stem (segmentally equivalent to the 3Sg simple perfective), plus *‑sà‑*, which is probably related to the ‘have’ quasi-verb *sâ:-* (§11.5.1).

The sense is resultative, i.e. denoting both an event and the resulting state or situation. It competes to some extent with the stative inflection for stance verbs, e.g. *ígí‑yɛ́‑sà‑∅* ‘he/she has stood up (and is standing)’ versus the more purely stative *ígà‑∅* ‘he/she is standing (French *debout*)’. However, the resultative can be used with a wider range of verbs than the stative, and it may describe a general situation. For example, a visitor asks ‘is Amadou there?’, and the answer is ‘he has gone out’ (*gwé:-sà-∅*), the point being that he is not present. Statives are not used in such situations and are not formed from motion verbs.

The paradigm is (xx1).

(xx1) Resultative

category form ‘go out’ ‘fall’

1Sg {H}*-sà-y* *gwé:-sà-yⁿ yɛ́gɛ́-sà-yⁿ*

1Pl *nì {H}-sà* *nì gwé:-sà nì yɛ́gɛ́-sà*

2Sg {H}*-sà-w* *gwé:-sà-w yɛ́gɛ́-sà-w*

2Pl *è {H}-sà* *è gwé:-sà è yɛ́gɛ́-sà*

3Sg {H}*-sà-∅* *gwé:-sà-∅ yɛ́gɛ́-sà-∅*

3Pl a. {H}-*s-â:* *gwé:-s-â: yɛ́gɛ́-s-â:*

b. {H}-*s-à:* *gwé:-s-à: yɛ́gɛ́-s-à:*

The (a) pattern for 3Pl was from the younger Boui assistant, the (b) pattern was from the older Ningo assistant

. Representative 3Sg forms for stems ending in a nonhigh vowel are in (xx2).

(xx2) Resultative (final-nonhigh-vowel type)

stem Resultative 3Sg gloss

a. *Cv:*

*nɔ́:- nwɛ́:-sà-∅* ‘go in’

*gó:- gwé:-sà-∅* ‘go out’

*ɲɔ́:- ɲɛ́:-sà-∅* ‘eat’

b. *NCv(:)*

*ndó- ndɛ́:-sà-∅* ‘give’

c. bisyllabic

*gújó- gújé-sà-∅* ‘dig’

*túlɔ́- túlɛ́-sà-∅* ‘sell’

*sé:gó- sé:gé-sà-∅* ‘come down’

d. trisyllabic

*yígíjó- yígíjé-sà-∅* ‘shake’

*ígí-yɔ́- ígí-yɛ́-sà-∅* ‘stand, stop’

e. irregular

*gún(u)- gúnɛ́-sà-∅* ‘say’

Forms for verbs ending in a high vowel are in (xx3).

(xx3) Resultative (final-high-vowel type)

stem Resultative 3Sg gloss

a. *CaC(ú)*-

*dámú- dámí-sà-∅* ‘speak’

*kámú- kámí-sà-∅* ‘steal’

*Cán(ú-)*

*kán(ú)- kání-sà-∅* ‘do’

b. *CíC(ú)*-, *CúC(ú)-*

*Cvn(ú)-*

*ún(ú)- úní-sà-∅* ‘go’

An assistant rejected a negative version, i.e. with *sà:-nà-* ‘not have’. Depending on the verb type, the stative negative (‘is not standing’) or the ordinary perfective negative (‘did not go out’ = ‘has not gone out’) may be used to convey the intended sense.

The resultative tends to replace the simple perfective in relative clauses.

#### Reduplicated perfective absent

Reduplicated perfectives have not been observed.

### Imperfective positive system

#### Imperfective (*-wò-* ~ *-bò-*)

The basic imperfective (positive) verb form has suffix *-wò-* or *‑bò‑* (Boui) or invariant *‑bò‑* (Ningo) added to a {H}-toned version of the **O-stem**. The Boui form is normally *‑wò‑* but hardens to *‑bò‑* after a consonant. The same alternation was observed with the verbal noun suffix *-wà* (§4.2.2). For the Boui assistant, the imperfective paradign is (xx1).

(xx1) Imperfective paradigm

category form ‘go in’ ‘dance’ ‘go out’

(< *nɔ́:* ) (< *yɛ́wɔ́* ) (< *gó:*)

1Sg {H}*-wò-y nɔ́:-wò-y yɛ́b-bò-y gó:-wò-y*

1Pl *nì* {H}*-wò nì nɔ́:-wò nì yɛ́b-bò nì gó:-wò*

2Sg {H}*-wò-w nɔ́:-wò-w yɛ́b-bò-w gó:-wò-w*

2Pl *è* {H}*-wò è nɔ́:-wò è yɛ́b-bò è gó:-wò*

3Sg {H}*-wò-∅ nɔ́:-wò-∅ yɛ́b-bò-∅ gó:-wò-∅*

3Pl {H}*-w-à: nɔ́:-w-à: yɛ́b-b-à: gó:-w-à:*

For my older assistant from Boui, the form is *‑bò‑* after vowels as well as after consonants, e.g. *nɔ́:-bò-∅* ‘he/she will go in’, *gó:-bò-∅* ‘he/she will go out’.

The imperfective undergoes syncope of stem-final vowels after {*w m*} and in one case (‘say’) after *n*, in *CvCv* stems. For the younger speaker from Boui, after syncope /ww/ surfaces as *bb* and /mw/ surfaces as *mb*. The older speaker from Ningo has *b* rather than *w* in the relevant verbs (*tábó‑*, *tíbɛ́‑*, etc.) as well as in the imperfective morpheme *‑bò‑*, and the imperfective forms have *bb* and *mb* as for the other speaker. *Cvmv-* stems lengthen the first vowel in connection with syncope in Boui, resulting in *Cv:m-bò-*.

(xx2) Imperfective (final-nonhigh-vowel class)

stem imperfective gloss

a. *Cv:*

*nɔ́:- nɔ́:-wò* ‘go in’

*gó:- gó:-wò* ‘go out’

*ɲɔ́:- ɲɔ́:-wò* ‘eat’

b. *NCv(:)*

*ndó- ndɔ́-wò* ‘give’

c. *CvCv*

*gújó- gújó-wò* ‘dig’

*cíjɔ́- cíjɔ́-wò* ‘reply’

*dú-yɔ́- dú-yɔ́-wò* ‘carry on head’

*Cvwv* (Ningo dialect *Cvbv*)

*táwó- táb-bò* ‘touch’

*tíwó- tíb-bò* ‘die’

*áwó- áb-bò* ‘accept’

*yɛ́wɔ́- yɛ́b-bò* ‘dance’

*kúwɔ́- kúb-bò* ‘do farming’

*súwó- súb-bò* ‘point at’

*Cvmv* (imperfectives short-voweled in Ningo: *tɛ́m-bò*, *sɛ́m-bò*)

*tɛ́mɔ́- tɛ́:m-bò* ‘eat (meat)’

*sɛ́mɔ́- sɛ́:m-bò* ‘slaughter’

*Cvnv, nonsyncopating*

*tɔ́nɔ́- tɔ́nɔ́-wò* ‘butcher’

*dɔ́nɔ́- dɔ́nɔ́-wò* ‘buy’

*mínɔ́- mínɔ́-wò* ‘taste’

d. *CvCCv*

*ɛ́mbɔ́- ɛ́mbɔ́-wò* ‘winnow in wind’

*tómbó- tómbó-wò* ‘jump’

e. *Cv:Cv*

*sé:gó- sé:gó-wò* ‘come down’

f. trisyllabic

*yígíjó- yígíjó-wò* ‘shake’

*ígí-yɔ́- ígí-yɔ́-wò* ‘stand, stop’

Stems with final high vowel are in (xx3). *Cvnu-* stems syncopate, unlike *Cvnv-* with final {*o ɔ*}. After syncope, /n/ assimilates in position, producing *mb*. This assimilation creates accidental homophonies such as imperfectives of ‘steal’ and ‘do’. Vowel-lengthening occurs in connection with syncope in the case of ‘speak’ but not for other verbs of this class.

(xx3) Imperfective (final-high-vowel class)

a. *CaC(ú)*-

*dámú- dá:m-bò-* ‘speak’ (Ningo *dám-bò-*)

*kámú- kám-bò-* ‘steal’

*Cán(ú-)*

*kán(u)- kám-bò-* ‘do’

b. *CíC(ú)*-, *CúC(ú)-*

*Cvn(ú)-*

*gún(u)- gúm-bò-* ‘say’

*ún(u)- úm-bò-* ‘go’

c. causatives

*yógó-mú- yógó-ḿ-bò-* ‘send here’

*málámú- málám-bò-* ‘squeeze’

This is a broad imperfective that translates in different contexts as a general (i.e. habitual) present (‘I work here’) or as a future (‘I will go there tomorrow’). With reference to eventualities whose time interval spans the moment of speaking, its use is circumscribed by the stative (‘I am sitting’), the resultative (‘I am sitting, I have sat’ or ‘he is gone’), and the progressive (‘I am sweeping’).

Imperfectives with suffix *-wá* or *-bá* are participial in form and occur prototypically in relative clauses.

#### Reduplicated imperfective absent

Reduplicated imperfectives have not been observed.

#### Progressive (*-wⁿ bǒ:-*)

The progressive (‘be VP-ing’) is expressed by adding an auxiliary verb *bǒ:-*, a variant of ‘be (somewhere)’ with rising tone, to a {L}-toned A/O form of the stem with imperfective suffix *-wⁿ*. Except in careful speech, the combination of *-wⁿ* with *b* is heard as lengthening of the preceding vowel plus [mb]. For example, *kànà-wⁿ* *bǒ:-* ‘be doing’ is often heard as [kànà:mbǒ:-].

The paradigm is (xx1).

(xx1) Progressive paradigm

category form ‘eat’ ‘do’

1Sg {L} *bǒ-yⁿ ɲà:-wⁿ bǒ-yⁿ kànà-wⁿ bǒ-yⁿ*

1Pl {L} *nì bǒ: ɲà:-wⁿ nì bǒ: kànà-wⁿ nì bǒ:*

2Sg {L} *bǒ-w ɲà:-wⁿ bǒ-w kànà-wⁿ bǒ-w*

xxx 2Pl {L} *è bǒ: ɲà:-wⁿ è bǒ: kànà-wⁿ è bǒ:*

3Sg {L} *bǒ:-∅ ɲà:-wⁿ bǒ:-∅ kànà-wⁿ bǒ:-∅*

3Pl {L} *bà-â: ɲà:-wⁿ bà-â: kànà-wⁿ bà-â:*

For Ningo, the verbal suffix is lengthening and nasalization of the final vowel, as heard most clearly in 2Pl forms like *ɲà:-ⁿ è bǒ:* [ɲa:ⁿèbǒ:].

Representative 3Sg forms for verbs ending in nonhigh vowel are displayed in (xx2).

(xx2) Progressive (final-nonhigh-vowel class)

stem Progressive gloss

a. *Cv:*

*with ɔ:*

*nɔ́:- nɔ̀:-wⁿ bǒ:-∅* ‘go in’

*with o:*

*gó:- gò:-wⁿ bǒ:-∅* ‘go out’

*with a:*

*ɲɔ́:- ɲà:-wⁿ bǒ:-∅* ‘eat, drink’

b. *NCv:*

*with a:*

*ndó- ndà-wⁿ bǒ:-∅* ‘give’

c. *CvCv*

*with o*

*gújó- gùjò-wⁿ bǒ:-∅* ‘dig’

*with a from CaCv-*

*náló- nàlà-wⁿ bǒ:-∅* ‘give birth’

*with a from -ATR stem*

*dú-yɔ́- dù-yà-wⁿ bǒ:-∅* ‘carry on head’

*tíwɔ́- tìwà-wⁿ bǒ:-∅* ‘die’

*yɛ́wɔ́- yèwà-wⁿ bǒ:-∅* ‘dance’

*kúwɔ́- kùwà-wⁿ bǒ:-∅* ‘do farming’

*tɛ́mɔ́- tèmà-wⁿ bǒ:-∅* ‘eat (meat)’

*dɔ́nɔ́- dònà-wⁿ bǒ:-∅* ‘buy’

c. *CvCCv*

*with o*

*tómbó- tòmbò-wⁿ bǒ:-∅* ‘jump’

*with a from CaCCv-*

*dámbó- dàmbà-wⁿ bǒ:-∅* ‘winnow in wind’

*with a from -ATR stem*

*ɛ́mbɔ́- èmbà-wⁿ bǒ:-∅* ‘winnow in wind’

d. *Cv:Cv*

*with o*

*sé:gó- sè:gò-wⁿ bǒ:-∅* ‘come down’

*with a from Ca:Cv-*

*já:ló- jà:là-wⁿ bǒ:-∅* ‘build’ or ‘look’

e. trisyllabic

*with o*

*yígíjó- yìgìjò-wⁿ bǒ:-∅* ‘shake’

*with a from -ATR stem*

*ígí-yɔ́- ìgì-yà-wⁿ bǒ:-∅* ‘stand, stop’

f. irregular

*gún(u)- gùnà-wⁿ bǒ:-∅* ‘say’

Forms from verbs with final high vowel are in (xx3).

(xx3) Progressive (final-high-vowel class)

stem Progressive gloss

a. *CáC(ú)-*

*dámú- dàmà-wⁿ bǒ:-∅* ‘speak’

*kámú- kàmà-wⁿ bǒ:-∅* ‘steal’

b. *CíC(ú)-*, *CúC(ú)-*

*ún(u)- ùnà-wⁿ bǒ:-∅* ‘go’

*kán(u)- kànà-wⁿ bǒ:-∅* ‘do’

c. causatives

*ɲá:-mú- ɲà:-mà-wⁿ bǒ:-∅* ‘let/make (sb) drink’

*yógó-mú- yògò-mò-wⁿ bǒ:-∅* ‘send here’

*málámú- màlàmà-wⁿ bǒ:-∅* ‘squeeze’

Examples are in (xx4).

(xx4) a. *ɲà:ŋgè ɲà:-wⁿ bǒ-yⁿ*

meal eat-Ipfv Prog-1SgSbj

‘I am eating.’

b. *wàlè kànà-wⁿ nì bǒ:*

work(n) do-Ipfv 1PlSbj Prog

‘We are working.’

c. *sà:ní kànà-wⁿ bǒ:-∅*

prayer do-Ipfv Prog-3SgSbj

‘He/She is praying.’

For the past progressive with *bɛ̌:-*, see §10.6.1.4.

#### Future with *‑lá* and perfective

A future construction that occurs repeatedly in the Ningo texts consists of a subject pronoun with suffix *‑lá*, followed by an unconjugated {L}-toned perfective verb, with or without intervening constituents. For 3Sg, contracted nǎ: occurs alongside uncontracted *nà‑lá*. The contraction is likely favored by the identical flanking *a*‑vowels. The paradigm is therefore (xx2).

(xx1) 1Sg *mì-lá*

1Pl *nì-lá*

2Sg *ò-lá*

2Pl *è-lá*

3Sg *nà-lá* ~ *nǎ:*

3Pl *kè-lá*

Before an H‑tone, the combinations in (xx1) flatten to L‑tone. This does not happen when these forms are immediately followed by the {L}-toned perfective, but it can happen when there is an intervening constituent.

If the subject is expressed as a nonpronominal NP, it is resumed as a 3Sg or 3Pl pronoun plus -lá.

(xx2) *[[kéléŋgé rì] nǎ: tàŋgè*

[marriage Def] **3SgSbj.Fut** pass.Pfv

‘the marriage ceremony will pass (=be over)’ (Ningo, T7 @ 02:37)

The context is a general or habitual present, but my Ningo assistant states that the reference is future. It occurs in texts describing regularly occurring activities, such as the sequence of events in a week-long marriage ceremony. Typically each succeeding new event is presented in this future form, then it is echoed in a conditional antecedent clause with a conjugated perfective verb in the sense ‘when …’. For example, (xx2) was immediately followed by (xx3), which sets up the next event.

(xx3) *kéléŋgé tàŋgè-∅ mɛ̀-nɛ̀, …*

marriage pass.Pfv if, …

‘When the marriage ceremony has passed, …’ (Ningo, T7 @ 02:40)

The Ningo assistant sometimes adds a clause-final *ó* to the lá construction. He glosses this construction with ‘now’ or ‘first(ly)’.

(xx1) a. *nì-lá ɲɛ̀: ó*

1PlSbj eat.Pfv first

‘We/I will eat first.’ (Ningo)

b. *sěydù nà-lá ɲɛ̀: ó*

Seydou 3SgSbj eat.Pfv first

‘Seydou will eat first.’ (Ningo)

#### Future tense absent

There is no distinct future inflectional category, apart from the broad imperfective.

### Negation of indicative verbs

#### Perfective negative (*-nì-*)

The perfective negative suffix is *-nì-* . The stem is in the A/O-stem, with +ATR vocalism. The stem is {L}-toned in the 3Sg, 1Pl, and 2Pl, {H}-toned in the 1Sg and 2Sg, and {HL}-toned in the 3Pl. The stem-final vowel is lengthened in the 3Pl form if not already long. The paradigm is (xx1).

(xx1) Paradigm of perfective negative

category PfvNeg form ‘go in’ ‘dance’’ ‘go out’

1Sg {H}*-ní-ỳⁿ nɔ́:-ní-ỳⁿ yéwá-ní-ỳⁿ gó:-ní-ỳⁿ*

1Pl *nì* {L}*-nì nì nɔ̀:-nì nì yèwà-nì nì gò:-nì*

2Sg {H}*-ní-ẁ* ~ *-nú-ẁ nɔ́:-nú-ẁ yéwá-nú-ẁ gó:-nú-ẁ*

2Pl *è* {L}*-nì è nɔ̀:-nì è yèwà-nì è gò:-nì*

3Sg {L}*-nì-∅ nɔ̀:-nì-∅ yèwà-nì-∅ gò:-nì-∅*

3Pl {HL}:*-n-î: nɔ̂:-n-î: yéwà:-n-î: gô:-n-î:*

Examples of stems with final nonhigh vowel in the 3Sg perfective negative are in (xx2).

(xx2) Perfective negative (final-nonhigh-vowel class)

stem PfvNeg 3Sg gloss

a. *Cv:*

*with ɔ̀:*

*nɔ́:- nɔ̀:-nì-∅* ‘go in’

*with ò:*

*gó:- gò:-nì-∅* ‘go out’

*with à:*

*ɲɔ́:- ɲà:-nì-∅* ‘eat, drink’

b. *NCv(:)*

*with à:*

*ndó- ndà:-nì-∅* ‘give’

c. *CvCv*

*with stem-final o*

*yógó- yògò-nì-∅* ‘come’

*súwɔ́- sùwò-nì-∅* ‘point at’

*íwó- ìwò-nì-∅* ‘catch’

*with stem-final a, CaCv-*

*áwó- àwà-nì-∅* ‘accept’

*táwó- tàwà-nì-∅* ‘touch’

*náló- nàlà-nì-∅* ‘give birth’

*with stem-final a from -ATR stem*

*tíwɔ́- tìwà-nì-∅* ‘die’

*yɛ́gɔ́- yègà-nì-∅* ‘fall’

*ílɔ́- ìlà-nì-∅* ‘go up’

*gúwɔ́- gùwà-nì-∅* ‘hang up’

*pɔ́rɔ́- pòrà-nì-∅* ‘throw’

d. *CvCCv*

*with stem-final o*

*ów-yó- òw-yò-nì-∅* ‘sit’

*with stem-final a, CaCCv-*

*dámbó- dàmbà-nì-∅* ‘push’

*with stem-final a from -ATR stem*

*ímbɔ́- ìmbà-nì-∅* ‘pull’ or ‘shut’

*ɛ́mbɔ́- èmbà-nì-∅* ‘winnow (in wind)’

*dɔ́njɔ́- dònjà-nì-∅* ‘throw’

e. *Cv:Cv*

*with stem-final o*

*sé:gó- sè:gò-nì-∅* ‘come down’

*with stem-final a, Ca:Cv-*

*já:ló jà:là-nì-∅* ‘build’ or ‘look’

f. trisyllabic

*with stem-final o*

*yígíjó- yìgìjò-nì-∅* ‘shake’

*with stem-final a, CvCaCv-*

*téwá-gó- tèwà-gà-nì-∅* ‘shake’

*with stem-final a from -ATR stem*

*ígí-yɔ́- ìgì-yà-nì-∅* ‘stand, stop’

*bɛ́gílɔ́- bègìlà-nì-∅* ‘winnow by shaking’

The class of verbs with stem-final high vowel has final *a* if the penult has a, and *u* if the penult has *i/i*, before *-nì* (xx3).

(xx3) Perfective negative (final-high-vowel class)

bare stem PfvNeg 3Sg gloss

a. *CáC(ú)-*

*kán(ú)- kànà-nì-∅* ‘do’

*bámú- bànà-nì-∅* ‘beat (tomtom)’

b. *CíC(ú)-*, *CúC(ú)*

*ún(ú)- ùnù-nì-∅* ‘go’

*sín(ú-) sìnù-nì-∅* ‘convey’

c. causatives

*yógó-mú- yògò-mò-nì-∅* ‘send here’

*málámú- màlàmà-nì-∅* ‘squeeze’

#### Experiential perfect negative (*-tè:-nì*)

Experiential perfect *-tèy* is negated as *-tè:-nì-*, with the familiar perfective negative *-nì‑*. The stem is {L}-toned throughout. The paradigm is (xx1). The 3Pl form ends in *-n-â:* with different output vowel than in regular perfective negative *-n-î:*.

(xx1) Experiential perfect negative

category suffix ‘see’ ‘go’

1Sg {L}*-té:-nî-yⁿ* *bàlì-yè-té:-nî-yⁿ* *ùnì-té:-nî-yⁿ*

1Pl *nì* {L}*-tè:-nì* *nì bàlì-yè-té:-nì* *nì ùnì-tè:-nì*

2Sg {L}*-té:-nî-w* *bàlì-yè-té:-nî-w* *ùnì-té:-nî-w*

2Pl *è* {L}*-tè:-nì* *è bàlì-yè-té:-nì* *è ùnì-tè:-nì*

3Sg {L}*-tè:-nì-∅* *bàlì-yè-tè:-nì-∅* *ùnì-tè:-nì-∅*

3Pl {L}*-tè:-n-â:* *bàlì-yè-tè:-n-â:* *ùnì-tè:-n-â:*

This is the normal way to express ‘have never VP-ed’, denying any occurrence of the VP event type during the lifetime of the subject (xx2).

(xx2) a. *nígé bàlì-yè-tè:-nì-∅*

elephant see-MP-ExpPf-PfNeg-3SgSbj

‘He/She has never seen an elephant.’

b. *[bɔ̀mɔ̀kɔ́ ŋà] ùnì-té:-nî-yⁿ*

[B in] go-ExpPf-PfNeg-1SgSbj

‘I have never gone to Bamako.’

#### Recent perfect negative or past perfect negative (*-nì-yɛ́-*)

Morphologically, this is the past-time version of the perfective negative (*-nì-*). For the Boui assistant, it functions as the **negation of the recent perfect**, whose morphology is likewise a kind of past-time of the perfective. An example is (xx1).

(xx1) *gò:-nì-yɛ́-∅*

go.out-PfvNeg-Past-3SgSbj

‘He/She has not gone out (i.e. is still inside).’

The paradigm is (xx2)

(xx2) Recent perfect negative

category form ‘has not gone/come out’

1Sg {H}*-nì-yɛ̀-yⁿ gó:-nì-yɛ̀-yⁿ*

1Pl *nì* {L}*-nì-yɛ́* *nì gò:-nì-yɛ́*

2Sg {H}*-nì-yɛ̀-yⁿ gó:-nì-yɛ̀-w*

2Pl *è* {L}*-nì-yɛ́* *è gò:-nì-yɛ́*

3Sg {L}*-nì-yɛ́-∅* *gò:-nì-yɛ́-∅*

3Pl {HL}*-nì-y-ɛ̂:* *gô:-nì-y-ɛ̂:*

For the Ningo speaker, the form in *‑nì‑yɛ̀* has the expected sense past perfect negative (xx3).

(xx3) *ɲà:-nì-yɛ̀-ýⁿ*

eat.meal-PfvNeg-Past-1SgSbj

‘I hadn’t eaten’ (Ningo)

For this speaker, a ‘not yet’ form, functioning semantically as a kind of negative of the recent perfect, is produced by chaining the perfective negative of a verb *síŋó* to the main verb (xx4a). The positive counterpart ‘have (already/just now) VPed’, has a positive perfective form of the verb *gímɔ́* (xx4b).

(xx4) a. *ɲɛ̀: síŋó-ní-ỳⁿ*

eat.meal have.yet-PfvNeg-1SgSbj

‘I haven’t eaten yet.’ (Ningo)

b. *ɲɛ̀: gímɛ́-ỳⁿ*

eat.meal have.just.Pfv-1SgSbj

‘I have (already/just now) eaten.’ (Ningo)

#### Imperfective negative (*-râ-* ~ *-dâ-*)

The imperfective negative has a suffix *-ra* (3Sg *-râ-∅* in Boui) after the O-stem. The tone of the stem depends on the pronominal-subject category: {H} for 1Sg/2Sg/3Sg, {L} for 1Pl/2Pl, {HL} for 3Pl. In nonmonosyllabic stems, syncope occurs after unclustered {*n l r*}. After syncope, *-ra* hardens to *‑da* postconsonantally. The paradigm is (xx1).

(xx3) Paradigm of imperfective negative

category IpfvNeg ‘go in’ ‘lie down’ ‘shake’

1Sg {H}*-rà-yⁿ nɔ́:-rà-yⁿ bí-yó-rà-yⁿ yígíjó-rà-yⁿ*

1Pl *nì* {L}*-rá nì nɔ̀:-rá nì bì-yò-rá nì yìgìjò-rá*

2Sg {H}*-rà-w nɔ́:-rà-w bí-yó-rà-w yígíjó-rà-w*

2PL *è* {L}*-rá è nɔ̀:-rá è bì-yò-rá è yìgìjò-rá*

3Sg a. {H}*-râ-∅ nɔ́:-râ-∅ bí-yó-râ-∅ yígíjó-râ-∅*

b. {H}*-rà-∅ nɔ́:-rà-∅ bí-yó-rà-∅ yígíjó-rà-∅*

3Pl a. {HL}*-r-â: nɔ̂:-r-â:* *bí-yò-r-â: yígíjò-r-â:*

b. {HL}*-r-à: nɔ̂:-r-à:* *bí-yò-r-à: yígíjò-r-à:*

The (a) pattern for 3Sg and 3Pl is from the Boui assistant, the (b) pattern is from the Ningo assistant.

The final H-tone on *-rá* in 1Pl/2Pl forms is of the LH type, and the H-tone appears on a following polar interrogative particle, as in *-rà lé* (§13.2.1).

A sample of 3Sg imperfective negative forms from stems ending in nonhigh vowels is in (xx2). Forms are from Boui.

(xx2) Imperfective negative (final-nonhigh-vowel class)

stem IpfvNeg gloss

a. *Cv:*

*dɔ́:- dɔ́:-râ* ‘pound’ or ‘insult’

*gó:- gó:-râ* ‘go out’

*ɲɔ́:- ɲɔ́:-râ* ‘eat, drink’

b. *NCv:*

*ndó- ndó-râ* ‘give’

c. *CvCv*

*gújó- gújó-râ* ‘dig’

*cíjɔ́- cíjɔ́-râ* ‘reply’

*yɛ́gɔ́- yɛ́gɔ́-râ* ‘fall’

*sɛ́mɔ́- sɛ́mɔ́-râ* ‘slaughter’

*dú-yɔ́- dú-yɔ́-râ* ‘carry on head’

*tɛ́wɔ́- tɛ́wɔ́-râ* ‘hit’

*Cvnv*

*dɔ́nɔ́- dɔ́n-dâ* ‘buy’

*mínɔ́- mín-dâ* ‘taste’

*Cvlv*

*ílɔ́- íl-dâ* ‘go up’

*yɔ́lɔ́- yɔ́l-dâ* ‘look for’

*náló- nál-dâ* ‘give birth’

*Cvrv* > *Cvr-dâ*

*pɔ́rɔ́- pɔ́r-dâ* ‘throw’

*ɔ́rɔ́- ɔ́r-dâ* ‘draw (water)’

*Cvrv* > *Cvd-dâ*

*írɔ́- í(d)-då* ‘get’

d. *CvCCv*

*ów-yó- ów-yó-* ‘sit’

*dámbó- dámbó-râ* ‘push’

*ɛ́mbɔ́- ɛ́mbɔ́-râ* ‘winnow in wind’

e. *Cv:Cv*

*sé:gó- sé:gó-râ* ‘come down’

*já:ló- já:ló-râ* ‘build’ or ‘look’

f. trisyllabic and longer

*sómbí-yó sómbí-yó-râ* ‘squat’

*téwá-gó- téwá-gó-râ* ‘shatter’

*CvCvlv-*

*bɛ́gílɔ́- bɛ́gíl-dâ* ‘winnow by shaking’

*ígíló- ígíl-dâ* ‘sweep’

g. irregular

*gún(ú)- gún-dâ* ‘say’

Stems ending in high vowels are in (xx3).

(xx3) Imperfective negative (final-high-vowel class)

bare stem IpfvNeg gloss

a. *CaC(ú)-*

*dámú- dámú-râ* ‘speak’

*kámú- kámú-râ* ‘steal’

*Cán(ú)-*

*kán(ú)- kán-dâ* ‘do’

b. *CiC(ú)-, CuC(ú)-*

*Cún(ú)-*, *Cín(ú)-*

*ún(ú-) ún-dâ* ‘go’

*sín(ú)- sín-dâ* ‘take (convey)’

c. causatives

*yógó-mú- yógó-mú-râ* ‘send here’

*málámú- málámú-râ* ‘squeeze’

#### Progressive negative (*órâ-*)

The progressive negative replaces *mbó* ~ *-bó* ‘be’ in the positive progressive by *órâ-* (3Sg *órâ*), the ‘not be (somewhere)’ predicate, which may contain a variant of imperfective negative *-râ-*. The verb stem has the same form, including {L} tone contour and imperfective *-wⁿ*, as in the positive. The paradigm is (xx1).

(xx1) Paradigm of progressive negative

category ProgNeg ‘do work’

1Sg {L} *órâ-yⁿ wàlè kànà-wⁿ órâ-yⁿ*

1Pl {L} *nì òrá wàlè kànà-wⁿ nì òrá*

2Sg {L} *órâ-w wàlè kànà-wⁿ órâ-w*

2PL {L} *è òrá wàlè kànà-wⁿ è òrá*

3Sg {L} *órâ-∅ wàlè kànà-wⁿ órâ-∅*

3Pl {L} *ór-â: wàlè kànà-wⁿ ór-â:*

An example is (xx2).

(xx2) *íjílí ìjìlò: órâ-yⁿ*

sweeping(n) sweep not.be-IpfvNeg-1SgSbj

‘I am not (engaged in) sweeping.’

## Pronominal paradigms for non-imperative verbs

### Subject pronominal suffixes

1Pl and 2Pl are expressed by proclitics *ní/nì* and *é/è*, respectively. These proclitics are usually in immediate preverbal position. However, existential proclitic *è* ~ *é* (or distant *yà* ~ *yá*) intervenes between 1Pl/2Pl proclitics and the verb. I write proclitics as separate words in my normal orthography.

1Sg is expressed by suffix *-yⁿ*. The nasalization is not distinctively audible in the sequence *Ni-yⁿ* (*N* a nasal or nasalized consonant) due to monophthongization to phonetic [Ni:]. The 2Sg counterpart is *-w*. If the preceding vowel is *u*, monophthongization produces phonetic [Nu:], where the nasalization of the final semivowel is not distinctively audible.

3Sg is the zero category. 3Pl is expressed by a variable suffix, depending on the particular AN category, involving a long vowel or a syllable *ya*.

(xx1) category affixes

1Sg STEM*-ỳⁿ*

1Pl *nì* STEM

2Sg STEM*-ẁ*

2Pl *è* STEM

3Sg STEM

3Pl STEM plus variable suffix

Depending on the AN category, the stem may have different tone contours associated with subject categories. 1Sg and 2Sg always share a stem tone contour, as do 1Pl and 2Pl. In some categories, 1Pl and 2Pl also have the same stem tone as the 3Sg.

1Sg *-ỳⁿ* and 2Sg *-ẁ* are subject to phonological modification before yes/no interrogative particle *lè*, resulting in *n nì* and *l lè*, respectively.

3Pl is expressed by a variable ending (xx2), generally with falling tone.

(xx2) 3Pl category

*-ìyè* ~ *-iyɛ̀* perfective

*-w-à:* imperfective

*-n-î:* perfective negative

*-r-â:* imperfective negative

*-â:* stative

*-mà-â:* capacitative

### Tones of subject pronominal suffixes

In the pronominal-subject paradigms of the various aspect-negation categories, 1Sg/2Sg are usually opposed tonally to 1Pl/2Pl. The relationship of 3Sg and 3Pl to each other and to the 1st/2nd person categories is variable. The summary formulae below show the stem melody in curly brackets. Tones are marked on x (aspect-negation suffix), y (1Pl/2Pl proclitic), and z (1Sg/2Sg/3Pl suffix). Unhyphenated xz in 3Pl forms indexes fusion into one syllable.

(xx1) category 1Sg/2Sg 1Pl/2Pl 3Sg 3Pl

a. 1Sg/2Sg falling, all others {L}

Pfv {H}*-z̀* *ỳ* {L} {L} {L}*-z̀*

‘know’/’want’ (*yey-/cey-*) {H}*-z̀* *ỳ* {L} {L} {L}*-ẑ*

StatNeg (*-na-*) {H}*-x́-z̀* *ỳ* {L}*-x̀* {L}*-x̀* {L}*-x́z̀*

PfvNeg (*-ni-*) {H}*-x̀-z̀ ỳ* {L}*-x̀* {L}*-x̀* {L}*-x́z̀*

b. 1Sg/2Sg rising, others {L}

ExpPf (*-tey-*) {L}*-x́-ź ỳ* {L}*-x̀* {L}*-x̀* {L}*-x̀-ẑ*

c. 1Sg/2Sg falling, 1Pl/2Pl {L}, 3rd persons falling

IpfvNeg (*-ra-*) {H}*-x̀-z̀ ỳ* {L}*-x́* {H}*-x̂* {HL}*-x́z̀*

d. all 1st/2nd falling, 3rd person {L}

Result (*-sa-*) {H}*-x̀-z̀* *ỳ* {H}*-x̀* {L}*-x̀* {L}*-x́z̀*

e. all rising

RecPf (*-sɛ-*) {L}*-x̀-ź ỳ* {L}*-x́* {L}*-x́* {L}*-x́z̀*

‘resemble’ (*mola-*) {LH}*-ź ỳ* {LH} {LH} {L(H)}*-x́z̀*

f. all falling

stative (final *a*) {HL}*-z̀ ỳ* {HL} {HL} {HL}*-ẑ*

imperfective (*-wò-*) {H}*-x̀-z̀ ỳ* {H}*-x̀* {H}*-x̀* {HL}*-x̀z̀*

We observe a broad association of 1Sg/2Sg with {H}-toned stem, and of 1Pl/2Pl and third person with {L}-toned stem. The experiential perfect (xx1b) can be merged into (xx1a) if the “suffix” *-tey-* itself is equated with the stems in (xx1a). Aside from the cases in (xx1de) where the stem-tones are constant, the remaining irregularities are the H-tone in the stem in 3rd person forms for the imperfective negative (xx1c), and the {H}-toned stem in the 1Pl/2Pl in the resultative (xx1d).

## Stative form of verbs (reduplicated and unreduplicated)

This section covers stative forms derived from regular (active) verbs. For defective stative quasi-verbs that do not have active forms, notably ‘be (somewhere)’, ‘have’, ‘want’, and ‘know’, see Chapter 11.

### Stative positive

#### Type with final *a*

Statives are derived from regular verbs to denote a continuing state that has resulted from an event of motion, of taking hold, or the like. Statives do not distinguish perfective from imperfective. Tiranige differs from several other Dogon languages in also forming statives from perception verbs (‘see’, ‘hear’). There is no initial reduplication.

Stative forms are normally bisyllabic, have {HL} tone contour (unless defocalized with {LH}), and end in *a*. Nonfinal vowels shift to +ATR. Many of the relevant verbs elsewhere have mediopassive suffix *-yv*, but this is dropped in the stative (unless the verb would otherwise be monosyllabic). The paradigm is (xx1). Data are from Boui unless otherwise noted.

(xx1) Stative

category form ‘stand’

1Sg {HL}*-yⁿ* *ígà-yⁿ*

1Pl *nì* {HL} *nì ígà*

2Sg {HL}*-w* *ígà-w*

2Pl *è* {HL} *è ígà*

3Sg {HL}*-∅* *ígà-∅*

3Pl {HL}*-â:* *ígà-â:*

Representative pairs of regular and stative stem are in (xx2).

(xx2) gloss stem stative

a. from a bisyllabic stem that is not obviously segmentable

‘hear’ *nú:ndó- nú:ndà-*

‘be hung’ *gúwɔ́-*  *gúwà-* (Ningo gùbì-yɛ̀, gúbà-)

‘sleep’ *nóyó- nóyà-* (cf. *nóyú-ró-* ‘make sleep’)

b. from bisyllabic mediopassive(*‑yv‑* omitted in stative)

‘sit’ *ów-yó- ówà-* (Ningo óbí-yó-, óbà-)

‘stand’ *ígí-yɛ́- ígà-*

‘squat’ *sómbí-yó- sómbà-*

‘carry on back’ *bámbí-yó- bámbà-*

‘see’ *bálí-yó- bálà-*

‘be on’ *ságí-yó- ságà-*

‘be on (wall)’ *dáŋgí-yó- dáŋgà-*

*-ATR vowel in penult shifts to +ATR*

‘be tilted’ *jɛ́ŋgí-yɔ́- jéŋgà-*

c. from frozen mediopassive *Cv-yv‑* (*-yv-* retained in the stative)

‘lie down’ *bí-yó- bí-yà-*

For ‘hear’, a distinction is made between two stative forms: intransitive *nú:ndà-* ‘hear, be able to hear’ and transitive *nú:ndú-rà-* ‘hear of (sb)’.

Existential particle *è* (or distant *yà*) is not required with statives, but it can occur with some of them in unfocalized positive main clauses (xx3).

(xx3) a. *nì è nú:ndà*

1PlSbj Exist hear.Stat

‘We hear (i.e. are not deaf).’ (Boui)

b. *[yé: rì] yà ówà-∅*

[woman Def] Exist.Dist sit.Stat-3SgSbj

‘The woman is sitting (some distance away).’ (Boui)

Existential particles are not allowed in combination with a focalized constituent, negation, or relativization.

Statives have a past-time form with *ɛ* replacing the final *a*, see §10.6.1.3.

For the negative stative see §10.4.3 below.

#### Passive stative with *-yɛ́=ẁⁿ* ~ *-yé=ẁⁿ*

For ‘shut (door)’ and other transitive verbs, a different intransitive stative-like construction is attested (xx1a). I call this the passive stative. Its form resembles that of a 3Pl subject perfective verb as in (xx1b), but it is used impersonally and the two differs both tonally and in the final *=ẁⁿ*, a variant of the ‘it is’ clitic. (Ningo has unnasalized =ẁ.) If =ẁ(ⁿ) is correctly identified as the ‘it is’ enclitic, which follows NPs, this implies that the form in *‑yɛ́* is syntactically nominal. I gloss *-yɛ́* as “Pass[ive]” in interlinears.

(xx1) a. *[bówⁿ rì] ímbí-yɛ́=ẁⁿ*

[door Def] shut-Pass=it.is

‘The door is shut.’ (Boui)

(Ningo: [bón dì] jáy-yé=ẁ )

b. *[bówⁿ rì] ìmb-ìyɛ̀*

[door Def] shut.Pfv-3PlSbj

‘They shut-Past the door.’ (Boui)

Consistent with the analysis of *-yɛ́* ~ *-yé* as a nominal, the plural of (xx1a) is (xx2). Plural suffix *-gè* intervenes between *‑yɛ́* and *=ẁⁿ*.

(xx2) *[bówⁿ-gè rì] ímbí-yɛ́-gé=ẁⁿ*

[door-Pl Def] shut-Pass-Pl=it.is

‘The doors are shut.’ (Boui)

(Ningo: [bóŋ-gé rì] jáy-yé-gé=ẁⁿ )

The reversive of *ímbɛ́-* ‘shut (door)’ is *ímbí-lɛ́-* ‘open (door)’. Its passive stative form is *ímbí‑lí‑yɛ́=ẁⁿ* ‘it is open’ (Boui). The Ningo equivalent is jáy‑lí‑yé=ẁⁿ ‘it is open’.

From *págó-* ‘tie (up)’, we get passive stative *págí-yé=ẁⁿ* ‘it (e.g. cow) is tied up’.

For *-yɛ́* ~ *-yé* in product-of-action compounds with a preceding noun, see §5.1.12.

#### ‘Be known’ (yèyy‑á: plus ‘it is’ enclitic)

The stative quasi-verb yèy ‘know’ (§11.2.5.1) has a passive form consisting of yèyy‑á: plus either ‘it is’ enclitic =wò or its negative =là. Thus yèyy‑á:=wò ‘is known’ or yèyy‑á:=là ‘is not known’. The positive form is attested in a text with an NP “subject” (xx1a). Follow-up elicitation shows that yèyy‑á: is nominal and can takes plural -gé (xx1b), and that the “subject” may really be an object.

(xx1) a. pàŋgà-dɛ́ní yèyy-á:=wò

granary-taking.out know-Pass=it.is

‘The person charged with taking out the day’s grain rations from the granary is known (to everyone).’ (Ningo, T7 @ 12:01)

b. bé-gé yèyy-á:-gé=wò

child-Pl know-Pass-Pl=it.is

‘The children are known.’ (Ningo)

c. mì-gí yèyy-á:=wò

1Sg-Acc know-Pass=it.is

‘I am known.’ (Ningo)

yèyy-á: is phonologically similar to 3Pl subject yèyy-â: ‘they know’, which likewise takes objects and which can be used in nonspecific indefinite contexts that resemble the present construction. However, yèyy-á:=wò does not fit precisely into any regular morphosyntactic construction (e.g. relative clause, agentive) that would account for the ‘it is’ enclitic.

### Stative negative

#### Basic stative negative (*-nà-*)

Stative negative suffix (or enclitic) *-nà-* is added to the stative stem (which is always bisyllabic and ends in *a*). The stem and suffix are {L}-toned, except in the 1Sg and 2Sg. Data are from Boui.

(xx1) Stative negative

category form ‘not be standing’

1Sg {H}*-ná-ỳⁿ* *ígá-ná-ỳⁿ*

1Pl *nì* {L}*-nà* *nì ìgà-nà*

2Sg {H}*-ná-ẁ* *ígá-ná-ẁ*

2Pl *è* {L}*-nà* *è ìgà-nà*

3Sg {L}*-nà* *ìgà-nà*

3Pl {L}*-n-â:* *ìgà-n-â:*

For past forms with *-nɛ́-*, see §10.6.1.3.

Stative negative *-nà-* is also found in *sà:-nà-* ‘not have’. A variant *-là-* occurs in *cè-là-* ‘did not want’. Unusually, *yé-nì-* ‘not know’ has the regular perfective negative suffix.

For adjectives with *-ná* negating another adjective (e.g. ‘not good’ = ‘bad’), see §4.5.4 and §11.4.1.3.

#### Passive stative negative

The passive stative in *-yɛ́=ẁⁿ* ~ *-yé=ẁⁿ* has negative counterparts as in (xx1). The verb stem now ends in ‑*à:‑* and is followed by a H-toned variant of the perfective negative suffix *‑nì‑*. Just as *-yɛ́* resembles a 3Pl subject suffix for the perfective, so the ‑*à:‑* resembles some other 3Pl subject suffix allomorphs, though here the construction is an impersonal passive. There is no clear indication that the form is nominal syntactically, and there is no plural *‑gè‑* in examples like (xx1b) with plural subject.

(xx1) a. *[bówⁿ rì] ímb-à:-ní*

[door Def] shut-Pass-PfvNeg

‘The door is shut.’ (Boui)

b. *[ná:-gè rì] pág-à:-ní*

[cow-Pl Def] tie-Pass-PfvNeg

‘The cow is tied up.’ (Boui)

## Capacitative (‘can, be able’)

### Derivational suffix (-*má-*)

*-má-* is added to the O-stem of the verb, which has {H} melody except in 1Pl/2Pl. The negative form is *‑má‑nâ*‑, cf. stative negative *-nà* (§10.4.2). The paradigms are in (xx1).

(xx1) ‘can sweep’ ‘cannot sweep’

1Sg *ígíló-má-yⁿ ígíló-má-ná-yⁿ*

1Pl *nì ìgìlò-má nì ìgìlò-mà-ná*

2Sg *ígíló-má-w ígíló-má-ná-w*

2Pl *è ìgìlò-má è ìgìlò-mà-ná*

3Sg *ígíló-mâ-∅ ígíló-má-nâ-∅*

3Pl *ígíló-mà-â: ígíló-mà-n-â:*

From -ATR *dɔ́nɔ́-* ‘buy’ we get 3Sg *dɔ́nɔ́-mâ-∅* ‘he/she can buy’ and so forth, showing that this is the O-stem, not the A/O-stem.

For past-time counterparts (*-mɛ̀-* or negative *-mɛ̀-nɛ̀-* following the E/I-stem), see §10.6.1.6.

### Verb *ímá-* ‘be capable’

The stative stem *ímá-* ‘be capable, have (enough) strength or capability’, negative *ímá‑ná‑* ‘not be capable’, is a kind of default, corresponding to English *X can/cannot* or *X is (un)able*, without specifying the domain of capability. Most often it means more specifically ‘(not) have the power, (not) be strong enough’. *má‑* might be analysed as containing the derivational suffix *‑má‑*, or it may have been the etymological source of the suffix. The form *ímí‑yɔ́*, with apparent mediopassive suffix, means ‘be stronger than, be able to defeat’ or simply ‘defeat’ (e.g. in wrestling or a political election).

## Nonpast versus past time

### Past-time forms (ablaut to *ɛ* or suffixation of *-yɛ-*)

Past-time forms are especially common with statives (‘was sitting’), compensating for their lack of a perfective/imperfective aspectual distinction. They are also common with imperfectives (‘was dancing’), displacing the temporal reference point from the moment of speaking to some time in the past. I use the label **past time** rather than past tense since the eventuality in question is not itself specified as having occurred prior to the moment of speaking. The normal translation equivalent of the English past tense (*he jumped*) is a simple perfective verb in Tiranige, i.e. part of the unmarked non-past inflectional system. Rather, past-time forms shift the abstract temporal reference point into the past.

The past-time form is consistently **marked by *ɛ*-vowels**, regardless of the ATR harmonic class of the stem. *-yɛ̀* is suffixed to the simple form if the latter ends in *i* or *y*, which includes the shape *Cey-* (‘want’, ‘know’, experiential perfect), see also *-ni-yɛ́-* in §10.2.3.3. In other cases, we seem to have an ablaut process by which vowels are mutated to *ɛ*. Unlike the E/I-stem, this mutation can extend over into the penult in negative forms, see for example ‘had not’ in §10.6.1.3.

The recent perfect *-sɛ́* (§10.2.1.4) has suffixal vocalism compatible with the other explicitly past forms. Morphologically, it might be considered to be the past form of the perfective. Since the perfective already ends in *ɛ* for many verbs, it is necessary to add a syllabic suffix. Such a suffix is already available, since the resultative in *‑sà‑* can replace the perfective in relative clauses. However, *-sɛ́* is mainly used synchronically as a present perfect (‘has eaten’, etc.) rather than as a specifically past perfect (‘had eaten’).

#### Past *bɛ̀:-* ~ *wɛ̀:-* ‘was’

Locational *bò-* ~ *wò-* ‘be (somewhere)’, see §11.2.2.2, has a past form *bɛ̀:-* ~ *wɛ̀:-*. In both cases the form with *w* is used after existential *é* (in this combination harmonized to *ɛ́*), which again functions as the obligatory default in the absence of another locational phrase. The paradigm is (xx1). 3Sg and 3Pl differ tonally.

(xx1) Past ‘was/were (in a place)’ or ‘existed’

category after locational with existential

1Sg *bɛ̀-yⁿ ɛ́ wɛ̀-yⁿ*

1Pl *nì bɛ̀: nì ɛ́ wɛ̀:*

2Sg *bɛ̀-w ɛ́ wɛ̀-w*

2Pl *è bɛ̀: è ɛ́ wɛ̀:*

3Sg *bɛ̀:-∅ ɛ́ wɛ̀:-∅*

3Pl *bɛ̀-ɛ̂: ɛ́ wɛ̀-ɛ̂:*

Examples are in (xx2).

(xx2) a. *gólí [bɔ̀mɔ̀kɔ́ ŋà] bɛ̀-yⁿ*

last.year [B in] be.Past-1SgSbj

‘Last year I was in Bamako (city).’

b. *mó-ŋà bɛ̀:-∅ lé*

here be.Past-3SgSbj Q

‘Was he/she here?

c. *mó-ŋà bɛ̀-ɛ̂:*

here be.Past-3PlSbj

‘They were here.’

#### Past *ɔ́rɛ̀-* ‘was not’

The past form of *órá-* ‘is not (in a place)’, see §11.2.2.3, is *ɔ́rɛ̀-*. As always in negative clauses, the existential morpheme is not allowed. The paradigm is (xx1). 3Sg and 3Pl differ only in vowel length.

(xx1) Past ‘was/were not (in a place)’ or ‘did not exist’

category form (with or without locational)

1Sg *ɔ́rɛ̀-yⁿ*

1Pl *nì ɔ́rɛ̀-∅*

2Sg *ɔ́rɛ̀-w*

2Pl *è ɔ́rɛ̀-∅*

3Sg *ɔ́rɛ̀-∅*

3Pl *ɔ́r-ɛ̀:*

Examples are in (xx2). In (xx2a), 2Sg *-w* assimilates to the *l* of the interrogative particle.

(xx2) a. *ɔ́rɛ̀-l lè*

not.be.Past-2SgSbj Q

‘Weren’t you-Sg present?’ (< /ɔ́rɛ̀-w lè/)

b. *gólí té: ɔ́rɛ̀-∅*

last.year tea not.be.Past-3SgSbj

‘Last year there was no tea.’

c. *[bɔ̀mɔ̀kɔ́ ŋà] ɔ́rɛ̀-yⁿ*

[Bamako Loc] not.be.Past-1SgSbj

‘I was not in Bamako.’

#### Past forms of other statives

Past forms of ‘have’ and ‘have not’ (§11.5.1) are in (xx2). There are slight differences in the forms elicited from the Boui and Ningo assistants

(xx1) ‘had’ ‘had not’

Boui Ningo Boui Ningo

1Sg *è sɛ́-ỳⁿ ɛ́ sɛ̀-ỳⁿ sɛ́:-nɛ̀-yⁿ sɛ́:-nɛ́-ỳⁿ*

1Pl *nì-è sɛ̂: nì ɛ́ sɛ̀: nì-sɛ̀:-nɛ́ nì sɛ̀:-nɛ̀*

2Sg *è sɛ́-ẁ ɛ́ sɛ̀-ẁ sɛ́:-nɛ̀-w sɛ́:-nɛ́-ẁ*

2Pl *è-è sɛ̂: è ɛ́ sɛ̀: è sɛ̀:-nɛ́ è sɛ̀:-nɛ̀*

3Sg *è sɛ̂:-∅ ɛ́ sɛ̀-∅ sɛ̀:-nɛ́-∅ sɛ̀:-nɛ̀-∅*

3Pl *è sɛ̀-ɛ̂: ɛ́ sìyⁿ-yɛ̀ sɛ̀:-n-ɛ̂: sɛ̀:-níy-yɛ̀*

For the Ningo speaker, the tones are different from regular ‘have’ (xx2a) to past-time ‘had’ (xx2b). In the latter, the existential morpheme (*ɛ* unmarked, *ya* distant) is H-toned and the verb is L-toned.

(xx2) a. *gíbá è* / *yà sá-ỳⁿ*

house Exist / Exist.Dist have-1SgSbj

‘I have a house (here/there).’ (Ningo)

b. *gíbá ɛ́* / *yá sɛ̀-yⁿ*

house Exist / Exist.Dist have.Past-1SgSbj

‘I had (used to have) a house (here/there).’ (Ningo)

Past forms of ‘know’ (§11.2.5.1) are in (xx3). In ‘know’ and ‘want’ (see just below), *-yɛ́-* is suffixed to the regular positive form, where the *e*-vowel of the stem is shifted (Ningo assistant) or remains *e* (Boui assistant). In the negative, for Boui the shift to *ɛ* applies twice, to the stem-vowel /e/ and to the vowel of the suffix *-nì-*. For Ningo the suffix keeps its *i*-vowel.

(xx3) category ‘knew’ ‘did not know’

Boui Ningo Boui Ningo

1Sg *yéy-yɛ̀-yⁿ yɛ́y-yɛ́-ỳⁿ yɛ́-nɛ̀-yⁿ yɛ́-ní-ỳⁿ*

1Pl *ní yèy-yɛ́ ní yɛ̀y-yɛ̀: nì yɛ̀-nɛ́ nì yɛ̀-nì*

2Sg *yéy-yɛ̀-w yɛ́y-yɛ́-ẁ yɛ́-nɛ̀-w yɛ́-nú-ẁ*

2Pl *é yèy-yɛ́ é yɛ̀y-yɛ̀: è yɛ̀-nɛ́ è yɛ̀-nì*

3Sg *yèy-yɛ́-∅ yɛ̀y-yɛ̀:-∅ yɛ̀-nɛ́-∅ yɛ̀-nì-∅*

3Pl *yèy-y-ɛ̂: yɛ̌y-y-ɛ̀: yè-n-ɛ̂: yè-n-â:*

Past forms of ‘want’ and ‘not want’ (§11.2.5.2) and of ‘resemble’ and ‘not resemble’ (§11.2.5.3) are in (xx4). The ‘resemble’ forms are from the Ningo assistant. The morphophonology is similar to that for ‘knew’ and ‘did not know’.

(xx4) category ‘wanted’ ‘did not want’

1Sg *céy-yɛ̀-yⁿ cɛ́-lɛ̀-yⁿ*

1Pl *nì cèy-yɛ́ nì cè-là-∅*

2Sg *céy-yɛ̀-w cɛ́-lɛ̀-w*

2Pl *e cèy-yɛ́ è cè-là-∅*

3Sg *cèy-yɛ́-∅ cɛ̀-lɛ́-∅*

3Pl *cèy-yɛ̂: cè-l-ɛ̂:*

‘resembled’ ‘did not resemble’

1Sg *mòlɛ́-yⁿ mólɛ́-nɛ́-ỳⁿ*

1Pl *nì mòlɛ́ nì mòlɛ̀-nɛ̀*

2Sg *mòlɛ̀-ẃ mólɛ́-nɛ́-w*

2Pl *è mòlɛ́ è mòlɛ̀-nɛ̀*

3Sg *mòl-ɛ́:-∅ mòlɛ̀-nɛ̀-∅*

3Pl *mòlíy-yɛ̀ mòlɛ̀-níy-yɛ̀*

Derived statives like *bámbà-* ‘be carrying (on back)’, see §10.4.1, form the past by changing the stem-final *a* to *ɛ*, and making the same change in the vowel of stative negative *-na-* (xx5).

(xx5) category ‘was carrying on back’ ‘was not carrying on back’

1Sg *bámbɛ̀-yⁿ* *bàmbɛ́-nɛ̀-yⁿ*

1Pl *nì bámbɛ̀ nì bàmbɛ̀-nɛ́*

2Sg *bámbɛ̀-w bàmbɛ́-nɛ̀-w*

2Pl *è bámbɛ̀* *è bàmbɛ̀-nɛ́*

3Sg *bámbɛ̀-∅ bàmbɛ̀-nɛ́*

3Pl *bámbɛ̀-ɛ̂:* *bàmbɛ̀-n-ɛ̂:*

#### Past imperfective and past progressive

Since the imperfective and progressive forms end in variants of *bò-* ~ *wò-* ‘be’, past forms are easily created by shifting the final vowel to *ɛ*.

Positive past imperfectives with contextual senses like ‘used to go in’ and ‘was about to go in’ are in the first two data columns in (xx1). The suffixal vowel of the 3Sg form is short. The negative counterparts are based on -rɛ-, shifted from the usual imperfective negative *-râ-*.

(xx1) Past imperfective paradigm

category ‘went in’ ‘danced’ ‘did not go in’

1Sg *nɔ́:-wɛ̀-y yɛ́b-bɛ̀-yⁿ nɔ́:-rɛ̀-yⁿ*

1Pl *nì nɔ́:-wɛ̀ nì-yɛ́b-bɛ̀ nì-nɔ̀:-rɛ́*

2Sg *nɔ́:-wɛ̀-w yɛ́b-bɛ̀-w nɔ́:-rɛ̀-w*

2Pl *è-nɔ́:-wɛ̀ è-yɛ́b-bɛ̀ è-nɔ̀:-rɛ́*

3Sg *nɔ́:-wɛ̀-∅ yɛ́b-bɛ̀-∅ nɔ́:-rɛ̀-∅*

3Pl *nɔ́:-wɛ̀-ɛ̂: yɛ́b-bɛ̀-ɛ̂: nɔ̂:-r-ɛ̂:*

The close parallelism between imperfective and past imperfective is brought out in (xx2).

(xx2) a. *mbé: wàlè* LH*kàm-bò-ýⁿ*

here work(n) LHdo-Ipfv-1SgSbj

‘I work here.’ (< *kán(ú)*)

b. *mbé: wàlè* LH*kàm-bɛ̀-ýⁿ*

here work(n) LHdo-**Ipfv.Past**-1SgSbj

‘I used to work here.’

A **past progressi**ve paradigm is (xx3). The forms of simple ‘was (somewhere)’, see §10.6.1.1, reappear here but with final rising tone. The regular progressive form *-wⁿ bǒ:-* likewise has final rising tone (§10.2.2.3). The corresponding negation is with *ɔ́rɛ̀-* ‘was not (somewhere)’.

(xx3) Past progressive paradigm

category ‘was doing’ ‘was not doing’

1Sg *kànà-wⁿ bɛ̌-yⁿ kànà-wⁿ ɔ́rɛ̀-yⁿ*

1Pl *kànà-wⁿ nì-bɛ̌: kànà-wⁿ nì-ɔ̀rɛ́*

2Sg *kànà-wⁿ bɛ̌-w kànà-wⁿ ɔ́rɛ̀-w*

2Pl *kànà-wⁿ bɛ̌: kànà-wⁿ è-ɔ̀rɛ́*

3Sg *kànà-wⁿ bɛ̌:-∅ kànà-wⁿ ɔ́rɛ̀-∅*

3Pl *kànà-wⁿ bɛ̀-ɛ̂: kànà-wⁿ ɔ́r-ɛ̀:*

#### Past experiential perfect (*-tèy-yɛ́-*)

The past experiential perfect (§10.2.1.3), glossable ‘had (at least once) VPed’, is formed by suffixing *-yɛ́-* to the regular ending *-tèy ~ -té-*, resulting in *‑tèy‑yɛ́‑* ~ *‑téy‑yɛ̀‑*. The corresponding negation is *-tè:-nɛ́‑* ~ *-té:-nɛ̀-*, with unshifted *e* in the penult.

(xx1) category ‘had (once) seen’ ‘had never seen’

1Sg *bàlì-yè-téy-yɛ̀-yⁿ* *bàlì-yè-té:-nɛ̀-yⁿ*

1Pl *nì-bàlì-yè-tèy-yɛ́* *nì-bàlì-yè-tè:-nɛ́*

2Sg *bàlì-yè-téy-yɛ̀-w* *bàlì-yè-té:-nɛ̀-w*

2Pl *è-bàlì-yè-tèy-yɛ́* *è-bàlì-yè-tè:-nɛ́*

3Sg *bàlì-yè-tèy-yɛ́-∅ bàlì-yè-tè:-nɛ́-∅*

3Pl *bàlì-yè-tèy-y-ɛ̂:* *bàlì-yè-tè:-n-ɛ̂:*

#### Past capacitative (*-mɛ̀-*)

The past version of capacitative *-mâ-* (§10.5) is *-mɛ̀*-. The preceding stem also switches from the O-stem to the E/I-stem, which is elsewhere associated with the perfective positive. The negative forms have *‑mɛ̀‑nɛ̀‑* corresponding to nonpast *‑ma‑nâ‑*. Sample positive and negative paradigms are in (xx1).

(xx1) ‘could sweep’ ‘could not sweep’

1Sg *ígílé-mɛ̀-yⁿ ígílé-mɛ̀-nɛ̀-yⁿ*

1Pl *nì-ìgìlè-mɛ́ nì-ìgìlè-mɛ̀-nɛ́*

2Sg *ígílé-mɛ̀-w ígílé-mɛ̀-nɛ̀-w*

2Pl *è-ìgìlè-mɛ́ è-ìgìlè-mɛ̀-nɛ́*

3Sg *ígílé-mɛ̀-∅ ígílé-mɛ̀-nɛ̀*

3Pl *ígílé-mɛ̀-ɛ̂: ígílé-mɛ̀-n-ɛ̂:*

With a -ATR stem: *dɔ́nɛ́-mɛ̀-∅* ‘he/she could buy’, etc.

## Imperatives and hortatives

### Imperatives and prohibitives

#### Imperative (unsuffixed singular, plural *-yⁿ* )

The imperative stem, which without further affixation is the singular-addressee imperative, consists for most verbs of a **{L}-toned A/O-stem** of the verb (xx1a). The plural-addressee form adds suffix *-ýⁿ*, which raises the tone of its syllable to H, and shortens the long vowel of a monosyllabic stem. For *sé:gó-* ‘come down’, the imperative is {H}-toned and the plural suffix L-toned (xx1b).

(xx1) gloss stem Sg Imprt Pl Imprt

a. ‘eat, drink’ *ɲɔ́:- ɲà: ɲá-yⁿ*

‘pull’ or ‘shut’ *ímbɔ́-* *ìmbà* *ìmbá-y*ⁿ

‘go’ *ún(ú)-* *ùnù* *ùnú-y*ⁿ

‘build’ *já:ló- jà:là jà:lá-yⁿ*

‘bring’ *sógó- sògò sògó-yⁿ*

‘sleep’ *nóyó- nòyò nòyó-yⁿ*

‘go down’ *sígó- sìgò sìgó-yⁿ*

‘shave’ [tr] *káy-rá- kày-rà kày-rá-yⁿ*

‘sit’ *ów-yó- òw-yò òw-yó-yⁿ*

‘jump’ *tómbó- tòmbò tòmbó-yⁿ*

‘stand, stop’ *ígí-yɔ́- ìgì-yà ìgì-yá-yⁿ*

‘send here’ *yógó-mú- yògò-m yògò-mú-yⁿ*

b. ‘come down’ *sé:gó- sé:gó sé:gò-yⁿ*

Imperative stems for verbs with final nonhigh vowels are in (xx2).

(xx2) Imperative (final-nonhigh-vowel class)

stem Imprt gloss

a. *Cv*, *Cv:*

*+ATR*

*gó:- gò:* ‘go out’

*-ATR*

*dɔ́:- dɔ̀:* (Boui)‘pound’ or ‘insult’

*dwà*: (Ningo)

*tɔ́:- tɔ̀:* (Boui)‘pour’

*twà*: (Ningo)

*ɲɔ́:- ɲà:* ‘eat, drink’

b. *NCv(:)*

*ndó- ndà* ‘give’

c. *CvCv*

*with a from CaCv-*

*dáyó- dàyà* ‘lay out’

*with o from other +ATR stems*

*yógó- yògò* ‘come’

*bí-yó- bì-yò* ‘lie down’

*with a from -ATR stem*

*yɛ́gɔ́- yègà* ‘fall’

*tɔ́gɔ́- tògà* ‘gather (wood)’

*dìyɔ́- dìyà* ‘abandon’

c. *CvCCv*

*+ATR*

*ów-yó- òw-yò* ‘sit’

*-ATR*

*ɛ́mbɔ́- èmbà* ‘winnow in wind’

d. *Cv:Cv*

*já:ló- jà:là* ‘build’ or ‘look’

*irregular tones*

*sé:gó- sé:gó* ‘come down’

e. trisyllabic and longer

*ímbí-lɔ́- ìmbì-l-à* ‘open (door)’

*jínáŋgó- jìnàŋgà* ‘break’

*kándíyó- kàndìyà* ‘do well’

Counterparts from verbs with final high vowels are in (xx3).

(xx3) Imperative (final-high-vowel class)

stem Imperative gloss

a. *CaC(ú)-*

*dámú- dàmà* ‘speak’

*kámú- kàmà* ‘steal’

*Cán(ú)-*

*kán(ú)- kànà* ‘do’

*gán(ú)- gànà* ‘put’

b. *CiC(ú)-, CuC(ú)-*

*Cún(ú)-*, *Cín(ú)-*

*ún(ú-) ùnù* ‘go’

*sín(ú)- sìnù* ‘take (convey)’

c. causatives

*dú:rú-yó-mú- dù:rù-yò-mù* ‘make (sb) run’

*yógó-mú- yògò-mò* ‘send here’

*témá-mú-* *tèmà-mà* ‘cause to eat (meat)’

*ɲá:-mú- ɲà:-mà* ‘cause to eat, feed’

Although the second person agent is normally unexpressed, in some ways it functions syntactically as a subject. A direct object has accusative marking under the same conditions as in indicative clauses (xx4a). The second person subject can bind anaphoric reflexives (xx4b), though in Tiranige these are of the ‘your head’ type rather than transpersonal reflexive pronouns of the sort found in Tomo Kan and Togo Kan.

(xx4) a. *[mì gí] jà:là*

[1Sg Acc] look.at.Imprt

‘Look-2Sg at me!’

b. *[ò* LH*kògó] jà:là*

[2SgPoss LHhead] look.at.Imprt

‘Look at yourself!’

Under conditions that are not fully understood, simple spatiotemporal adverbs that always precede indicative verbs can be postposed to imperatives. In the current data I have found this chiefly with ‘come’. For example, *mó-ŋà* or *mbé:* ‘here’ follows ‘come!’ as in (xx5a), but precedes ‘he/she came’ (xx5b).

(xx5) a. *yògò mbé:*

come.Imprt here

‘Come here!’

b. *mbé: yògè-∅*

here come.Pfv-3SgSbj

‘He/She came here.’

Imperatives of ‘go’ and ‘come’ may combine with imperatives of another verb. In the case of ‘go’, the second verb takes {HL} overlay, even when separated from ‘go’ by an intervening constituent (xx6ab). Only the second verb is marked for plurality.

(xx6) a. *ùnì ɲà:ŋgè ɲâ:*

go.Imprt meal eat.Imprt.HL

‘Go-Sg eat!’

[plural: *ùnì ɲà:ŋgè ɲâ-yⁿ*]

b. *ùnù bí-yò*

go.Imprt lie.down-MP.Imprt.HL

‘Go-Sg (there) and go to bed!’

With ‘come’, there is no {HL} overlay on the following verb.

(xx6) a. *yògò ɲà:ŋgè ɲà:*

come.Imprt meal eat.Imprt

‘Come-Sg eat!’

[plural: *yògò ɲà:ŋgè ɲá-yⁿ*]

b. *yògò bì-yò*

come.Imprt lie.down-MP.Imprt

‘Come-Sg (here) and go to bed!’

#### Prohibitive (*-lâ* ~ *-là*, plural *-lâ-y*)

For the younger assistant from Boui, the prohibitive (negative imperative) is formed, for most verbs, by adding suffix *-lâ* to the **{H}-toned O-stem** of the verb. The stem-final vowel is therefore normally *o* or (syncopatable) *u* (§3.3.6). The form for plural addressee is *‑lâ‑y*. The older Ningo assistant had the same plural *‑lâ‑y* but pronounced the singular suffix as L-toned *-là*.

The prohibitive suffix *-lâ* is clearly distinct from stative negative *-na* (§10.4.2). For *sé:gó-* ‘come down’, singular *sé:gó-lá* has H-toned suffix, while plural *sé:gò-là-y* has {HL} stem and L-toned suffixes. Syncope occurs after unclustered medial {*n l*}, i.e. between two alveolar sonorants. After syncope, a resulting /nl/ assimilates to *nn*, and a resulting /rl/ assimilates to *ll*.

(xx1) gloss stem Sg Proh Pl Proh

a. ‘eat, drink’ *ɲɔ́:- ɲɔ́:-lâ ɲɔ́:-lâ-y*

‘pull’ or ‘shut’ *ímbɔ́-* *ímbɔ́-lâ* *ímbɔ́-lâ-y*

‘go’ *ún(ú)-* *ún-nâ* *ún-nâ-y*

‘bring’ *sógó- sógó-lâ sógó-lâ-y*

‘sleep’ *nóyó- nóyó-lâ nóyó-lâ-y*

‘go down’ *sígó- sígó-lâ sígó-lâ-y*

‘shave’ [tr] *káy-rá- kày-rà kày-rá-y*

‘jump’ *tómbó- tómbó-lâ tómbó-lâ-y*

‘stand, stop’ *ígí-yɔ́- ígí-yɔ́-lâ ígí-yɔ́-lâ-y*

‘send here’ *yógó-mú- yógó-m-lâ yógó-m-lâ-y*

b. ‘come down’ *sé:gó- sé:gó-lá sé:gò-là-y*

Further examples of the singular prohibitive from verbs with final nonhigh vowel are in (xx2).

(xx2) Prohibitive (final-nonhigh-vowel class)

stem Prohibitive gloss

a. *Cv*, *Cv:*

*gó:- gó:-lâ* ‘go out’

*dɔ́:- dɔ́:-lâ* ‘pound’ or ‘insult’

*tɔ́:- tɔ́:-lâ* ‘pour’

*ɲɔ́:- ɲɔ́:-lâ* ‘eat, drink’

b. *NCv(:)*

*ndó- ndó-lâ* ‘give’

c. *CvCv*

*CaCv-*

*dáyó- dáyó-lâ* ‘lay out’

*nájó- nájó-lâ* ‘have fun’

*other +ATR stem*

*yógó- yógó-lâ* ‘come’

*bí-yó- bí-yó-lâ* ‘lie down’

*-ATR stem*

*yɛ́gɔ́- yɛ́gɔ́-lâ* ‘fall’

*tɔ́gɔ́- tɔ́gɔ́-lâ* ‘gather (wood)’

*díyɔ́- díyɔ́-lâ* ‘abandon’

*kúwɔ́- kúwɔ́-lâ* ‘do farming’

*medial n*

*tɔ́nɔ́- tɔ́n-nâ* ‘butcher’

*medial l*

*túlɔ́- túl-lâ* ‘sell’

*medial r*

*pɔ́rɔ́- pɔ́l-lâ* ‘throw’

c. *CvCCv*

*ów-yó- ów-yó-lâ* ‘sit’

ch *ɛ́mbɔ́- ɛ́mbá-lâ* ‘winnow in wind’

d. *Cv:Cv*

*já:ló- já:l-lâ* ‘build’ or ‘look’

*irregular tones*

*sé:gó- sé:gó-lá* ‘come down’

e. trisyllabic and longer

*ímbí-lɔ́- ímbí-l-lâ* ‘open (door)’

*jínáŋgó- jínáŋgó-lâ* ‘break’

*kándíyó- kándíyó-lâ* ‘do well’

Singular-addressee prohibitives from verb stems with final high vowels are in (xx3).

(xx3) Prohibitive (final-high-vowel class)

stem Prohibitive gloss

a. *CaC(ú)-*

*dámú- dámú-lâ* ‘speak’

*kámú- kámú-lâ* ‘steal’

*Cán(ú)-*

*kán(ú)- kán-nâ* ‘do’

*gán(ú)- gán-nâ* ‘put’

b. *CiC(ú)-, CuC(ú)-*

*Cún(ú)-*, *Cín(ú)-*

*ún(ú-) ún-nâ* ‘go’

*sín(ú)- sín-nâ* ‘take (convey)’

c. causatives

*dú:rú-yó-mú- dú:rú-yó-m-lâ* ‘make (sb) run’

*yógó-mú- yógó-m-lâ* ‘send here’

*témá-mú-* *témá-m-lâ* ‘cause to eat (meat)’

*ɲá:-mú- ɲá:-m-lâ* ‘cause to eat, feed’

The syntax is the same as that of the positive imperative regarding accusative case-marking and anaphoric objects.

(xx4) a. *[mì gí] já:l-lâ*

[1Sg Acc] look.at.Proh

‘Don’t look-2Sg at me!’

b. *[ò* LH*kògó] já:l-lâ*

[2SgPoss LHhead] look.at.Proh

‘Don’t look at yourself!’

### Hortatives

#### Hortative (*-yⁿ*, plural *-yàyⁿ*)

By “hortative” without other modifier I mean the usual first person inclusive hortative, where the speaker proposes that he/she and the addressee(s) perform some action. As with the imperative, the hortative has two forms, the choice depending on number (singular versus plural) of addressees, excluding the speaker. The form for singular addressee could be described either as first person inclusive dual (‘you-Sg and I’) hortative, including all prospective agents, or as singular-addressee hortative.

The hortative is based on a **{HL}-toned E/I-stem**. The {HL} contour is realized as <HL> (monosyllabic), H.L, H.H.L, etc. The suffixes are *‑yⁿ* for singular addressee (monophthongizes with preceding *i* to [i:], transcribed *ì‑yⁿ* ) and *‑yàyⁿ* (Boui) for plural addressee. For Ningo a plural-addressee form *-yⁿyⁿà* was elicited but does not seem to be very common. The high-frequency hortative of ‘go’, *ní únì‑yⁿ* (plural *ní únì‑yàyⁿ* ), is often contracted to *ní:-nì-yⁿ* (plural *ní:-nì-yàyⁿ* ) in Boui, and to *nú:-ní-ỳⁿ* (note the tone as well as the vocalism) in Ningo. 1Pl subject morpheme *nì* precedes the verb, as in indicative inflections. There is no stem-final syncope even between like consonants (i.e. y): *nì jíyè-yàyⁿ* ‘let’s-Pl harvest!’

The forms in arrays (xx1‑3) are from my Boui assistant unless otherwise indicated.

(xx1) gloss stem hortative

singular addressee plural addressee

a. uncontracted

*E-stem*

‘eat, drink’ *ɲɔ́:- nì ɲɛ̂-yⁿ nì ɲɛ́-yàyⁿ*

‘pull’ or ‘shut’ *ímbɔ́-* *nì ímbɛ̀-yⁿ nì ímbɛ̀-yàyⁿ*

‘bring’ *sógó- nì sógè-yⁿ nì sógè-yàyⁿ*

‘sleep’ *nóyó- nì nóyè-yⁿ nì nóyè-yàyⁿ*

‘go down’ *sígó- nì sígè-yⁿ nì sígè-yàyⁿ*

‘come down’ *sé:gó- nì sé:gè-y nì sé:gè-yàyⁿ*

‘shave’ [tr] *káy-rá- nì káy-rè-yⁿ nì káy-rè-yàyⁿ*

‘jump’ *tómbó- nì tómbè-yⁿ nì tómbè-yàyⁿ*

‘stand, stop’ *ígí-yɔ́- nì ígí-yɛ̀-yⁿ nì ígí-yɛ̀-yàyⁿ*

*I-stem*

‘send here’ *yógó-mú- nì yógó-mì-yⁿ yógó-mì-yàyⁿ*

b. optionally contracted

*I-stem*

‘go’ *ún(ú)-* *nì únì-yⁿ nì únì-yàyⁿ*

~ *ní:-nì-yⁿ* (Boui)~ *ní:-nì-yàyⁿ*

~ *nú:-ní-yⁿ* (Ningo)

More examples of singular-addressee E‑stem hortatives with verbs ending in a nonhigh vowel are in (xx2).

(xx2) gloss stem hortative (singular addressee)

a. monosyllabic

*+ATR*

‘go out’ *gó:- nì gwê-yⁿ*

*-ATR*

‘pound’ *dɔ́:- nì dwɛ̂-yⁿ*

‘eat, drink’ *ɲɔ́:- nì ɲɛ̂-yⁿ*

b. *nCv(:)*

‘give’ *ndó-* *ndɛ̂-yⁿ*

c. *CvCv*

*+ATR*

‘lay out’ *dáyó- nì dáyè-yⁿ*

‘come’ *yógó- nì yógè-yⁿ*

‘lie down’ *bí-yó- nì bí-yè-yⁿ*

*-ATR*

‘fall’ *yɛ́gɔ́- nì yɛ́gɛ̀-yⁿ*

‘gather (wood)’ *tɔ́gɔ́- nì tɔ́gɛ̀-yⁿ*

‘abandon’ *dìyɔ́- nì díyɛ̀-yⁿ*

c. *CvCCv*

*+ATR*

‘sit’ *ów-yó- nì ów-yè-yⁿ*

*-ATR*

‘winnow in wind’ *ɛ́mbɔ́- nì ɛ́mbɛ̀-yⁿ*

d. *Cv:Cv*

‘build’ or ‘look’ *já:ló- nì já:lè-yⁿ*

*irregular tones*

‘come down’ *sé:gó- nì sé:gè-yⁿ*

e. trisyllabic and longer

‘open (door)’ *ímbí-lɔ́- nì ímbí-l-ɛ̀-yⁿ*

‘break’ *jínáŋgó- nì jínáŋgè-yⁿ*

‘do well’ *kándíyó- nì kándíyè-yⁿ*

More examples of singular-addressee I‑stem hortatives from stems with final high vowel are in (xx3).

(xx3) gloss stem Hort

a. *CaC(ú)-*

‘speak’ *dámú- nì dámì-yⁿ*

‘steal’ *kámú- nì kámì-yⁿ*

*Cán(ú)-*

‘do’ *kán(ú)- nì kánì-yⁿ*

‘put’ *gán(ú)- nì gánì-yⁿ*

b. *CiC(ú)-, CuC(ú)-*

*Cún(ú)-*, *Cín(ú)-*

‘go’ *ún(ú)-* *nì únì-yⁿ*

~ *ní:-nì-yⁿ*

‘take (convey)’ *sín(ú)- nì sínì-yⁿ*

c. causatives

‘make (sb) run’ *dú:rú-yó-mú- nì dú:rú-yó-mì-yⁿ*

‘send here’ *yógó-mú- nì yógó-mì-yⁿ*

‘make eat (meat)’ *témá-mú-* *nì témá-mì-yⁿ*

‘make eat, feed’ *ɲá:-mú- nì ɲá:-mì-yⁿ*

As indicated and illustrated above, there is an overt 1Pl subject (xx4a‑b). A direct object, if present, can take accusative marking (xx4a). Anaphoric objects such as reflexives (xx4b) can be used.

(xx4) a. *[nà gí] nì tɛ́lɛ̀-yⁿ*

[3Sg **Acc**] **1PlSbj** cut-HortSg

‘Let’s-Dual cut him/her!’

b. *[nì* LH*kògó] nì tɛ́lɛ̀-yⁿ*

[1PlPoss LHhead] 1Pl cut-HortSg

‘Let’s-Dual cut ourselves!’

The singular-addressee hortative is phonologically similar to the 1Sg perfective. For nonmonosyllabic stems, hortative *tɛ́lɛ̀-yⁿ* in the preceding examples is tonally distinct from 1Sg perfective *tɛ́lɛ́-ỳⁿ* ‘I cut-Past’. For monosyllabic stems the two are homophonous in spite of my orthographic differentiation: *nì gwê‑yⁿ* ‘let’s go out!’ and *gwé‑ỳⁿ* ‘I cut’. In any event there is no possibility of confusion since the hortative verb is preceded by the 1Pl subject proclitic *nì*.

#### Hortative negative (*-lâyⁿ*, plural *-láyⁿyⁿà*)

The hortative negative is based on the {L}-toned **O-stem** of the verb. The suffix is *-lâyⁿ* for singular addressee in Boui (Ningo -lâ:yⁿ with long vowel), *-láyⁿyⁿà* for plural addressee. *-lâyⁿ* closely resembles prohibitive *-lâ*, and the same segmental morphophonology occurs in both (syncope after unclustered medial {*l n r*}, then /nl/ > *nn* and /rl/ > *ll*). Moreover, both are based on the O-stem of the verb. These similarities are not surprising given the close pragmatic connection between imperatives and hortatives, and the fact that addressee number is marked in both. However, in addition to the small difference in suffixal segments, the two differ in stem tone contour, which is {L} for hortative negative and {H} for prohibitive.

(xx1) Hortative negative (Sg and Pl addressee)

gloss stem Sg HortNeg Pl HortNeg

‘eat, drink’ *ɲɔ́:- nì ɲɔ̀:-lâyⁿ nì ɲɔ̀:-láyⁿyⁿà*

‘go’ *ún(ú)-* *nì ùn-nâyⁿ nì ùn-náyⁿyⁿà*

Further examples of singular-addressee hortative negatives from stems with final nonhigh vowels are in (xx2).

(xx2) Hortative negative (final-nonhigh-vowel class)

stem HortNeg gloss

a. *Cv*, *Cv:*

*gó:- nì gò:-lâyⁿ* ‘go out’

*ɲɔ́:- nì ɲɔ̀:-lâyⁿ* ‘eat, drink’

b. *NCv(:)*

*ndó- nì ndò-lâyⁿ* ‘give’

c. *CvCv*

*CaCv-*

*dáyó- nì dàyà-lâyⁿ* ‘lay out’

*other +ATR stem*

*bí-yó- nì bì-yò-lâyⁿ* ‘lie down’

*-ATR stem*

*díyɔ́- nì dìyɔ̀-lâyⁿ* ‘abandon’

*medial n*

*tɔ́nɔ́- nì tɔ̀n-nâyⁿ* ‘butcher’

*medial l*

*túlɔ́- nì tùl-lâyⁿ* ‘sell’

*medial r*

*pɔ́rɔ́- nì pɔ̀l-lâyⁿ* ‘throw’

c. *CvCCv*

*ów-yó- nì òw-yò-lâyⁿ* ‘sit’

*ɛ́mbɔ́- nì ɛ̀mbɔ̀-lâyⁿ* ‘winnow in wind’

d. *Cv:Cv*

*já:ló- nì jà:l-lây* ‘build’ or ‘look’

*sé:gó- nì sè:gò-lâyⁿ* ‘come down’

e. trisyllabic and longer

*ímbí-lɔ́- nì ìmbì-l-lâyⁿ* ‘open (door)’

*jínáŋgó- nì jìnàŋgò-lâyⁿ* ‘break’

Singular-addressee hortative negatives from verb stems with final high vowels are in (xx3).

(xx3) Hortative negative (final-high-vowel class)

stem Prohibitive stem gloss

a. *CaC(ú)-*

*dámú- nì dàmù-lâyⁿ* ‘speak’

*Cán(ú)-*

*kán(ú)- nì kàn-nâyⁿ* ‘do’

b. *CiC(ú)-, CuC(ú)-*

*Cún(ú)-*, *Cín(ú)-*

*ún(ú-) nì ùn-nâyⁿ* ‘go’

*sín(ú)- nì sìn-nâyⁿ* ‘take (convey)’

c. causatives

*dú:rú-yó-mú- nì dù:rù-yò-m-lâyⁿ* ‘make (sb) run’

This hortative negative form is also used in quoted prohibitives (§10.7.3.2).

### Quoted imperatives and hortatives

#### Quoted imperatives (I/U-stem)

This form (**QuotImprt**) is used in quoted imperatives in a broad sense, including indirect imperatives that are conveyed by another person (xx1a), clarification requests regarding possible commands (xx1b), and regular quoted imperatives (jussives) as in narratives (xx1c). It is usually followed by either quotative *wa* or interrogative *ni*, but it can also be used without such a particle in imprecations (wishes, blessings, curses) involving third-party agents (‘may God help you!’), on which see §10.7.3.3 below. In reported imperatives, the subject is separated from the remainder of the clause, both portions being followed by quotative particle *wà*.

(xx1) a. *[ò* LH*bàwá] [ò wà] [yògù wà]*

[2SgPoss LHfather] [2Sg Quot] [come.QuotImprt say]

‘Your-Sg father says (for you-Sg) to come.’

b. *(mì) yògì ní*

(1Sg) come.QuotImprt Q

‘(Did you say/signal) (for me) to come?

c. *[à:màdú wà] [yògù wà]*

[A QuotSbj] [come.QuotImprt Quot]

‘He told Amadou to come.’

(= ‘He said to Amadou, come!’ or ‘He said: hey Amadou, come!)

The tone contours (including irregularities) are identical to those of the imperative. The vocalism is unique to this verb form, and could be called the **I/U-stem**. It resembles the E/I-stem, but vowels of nonfinal syllables are shifted from ‑ATR to +ATR, and final {*e(:}* *ɛ(:)*} are raised to {*i i:*}. This form with final {*i i:*} is the only surface form for monosyllabic verbs whose E/I-stems do not contain *w* (*Cɛ:‑*, *NCɛ:‑*). It is also the only surface form for nonmonosyllabic verbs whose E/I-stem otherwise ends in *iye-* or *iyɛ-*, including underlying /iye/ or /iyɛ/ whose /i/ is elsewhere syncopated (‘sit’). For these nonmonosyllabic verbs, the final long *i:* of the I/U-stem could be analysed as the result of monophthongizing /iyi/. All other verbs, i.e. monosyllabic stems whose E/I-stem contains *w* (*Cwe:-*, *Cwɛ:-*, *we:-*) and most nonmonosyllabic stems, shift the final {*i i:*} to {*u u:*} before quotative *wa* (xx1a,c), but keep {*i i:*} before the interrogative particle, which itself appears in the allomorph *ni* (rather than *le*) in this combination (xx1b).

Representative forms for stems with final nonhigh vowels are in (xx2).

(xx2) QuotImprt (final-nonhigh-vowel class, Boui)

stem QuotImprt gloss

a. *Cv*, *Cv:*

*+ATR*

*gó:- gù:\\gwì:* ‘go out’

*-ATR*

*dɔ́:- dù:\\dwì:* ‘pound’ or ‘insult’

*ɲɔ́:- ɲì:* ‘eat, drink’

b. *NCv(:)*

*ndó- ndì:* ‘give’

c. *CvCv*

*+ATR*

*dáyó- dàyù\\dàyì* ‘lay out’

*yógó- yògù\\yògì* ‘come’

*bí-yó- bì:* ‘lie down’

*-ATR*

*yɛ́gɔ́- yègù\\yègì* ‘fall’

*tɔ́gɔ́- tògù\\tògì* ‘gather (wood)’

*dìyɔ́- dì:* ‘abandon’

c. *CvCCv*

*+ATR*

*ów-yó- òwì:* ‘sit’

*-ATR*

*ɛ́mbɔ́- èmbù\\èmbì* ‘winnow in wind’

d. *Cv:Cv*

*já:ló- jà:lù\\jà:lì* ‘build’ or ‘look’

*irregular tones*

*sé:gó- sé:gû\\sé:gî* ‘come down’

[with particles: *sé:gû wà*, *sé:gí nì*]

e. trisyllabic and longer

*ímbí-lɔ́- ìmbù-l-ù\\ìmbì-l-ì* ‘open (door)’

*jínáŋgó- jìnàŋgù\\jìnàŋgì* ‘break’

*kándíyó- kàndì:* ‘do well’

Corresponding forms from verbs with final high vowels are in (xx3).

(xx3) QuotImprt (final-high-vowel class, Boui)

stem QuotImprt gloss

a. *CaC(ú)-*

*dámú- dàmù\\dàmì* ‘speak’

*Cán(ú)-*

*kán(ú)- kànù\\kànì* ‘do’

b. *CiC(ú)-, CuC(ú)-*

*Cún(ú)-*, *Cín(ú)-*

*ún(ú-) ùnù\\ùnì* ‘go’

c. causatives

*ɲá:-mú- ɲà:-mù\\ɲà:-mì* ‘cause to eat, feed’

As noted above, interrogative particle (usually *lè*) takes the form *nì* in this combination. This *nì* is elsewhere found as the fusion of /le/ with preceding 1Sg pronominal-subject suffix *-yⁿ* (§xxx). A reasonable hypothesis is that the quoted imperative originally had a suffix \*-y (or \*-yⁿ), which monophthongized with a preceding high vowel.

#### Quoted prohibitives (*-lâyⁿ* )

Quoted prohibitives have the same verb form as the regular **hortative negative** (§10.6.2.2), with suffix *-lây* added to the **{L}-toned O-stem**. The suffix combines with quotative *wa* as *-lá wà*, and with the interrogative particle *le* as *‑lá nì*. The full form *-lâyⁿ* is heard in wishes and imprecations involving third-party agents such as ‘God’, as in the (improbable) (xx1b).

(xx1) a. *[ò* LH*bàwá] [ó wá] yògò-lá wà*

[2SgPoss LHfather] [2Sg QuotSbj] come-HortNeg say

‘Your-Sg father says (for you) not to come.’ (Boui)

b. *(mì) yògò-lá nì*

(1Sg) come-HortNeg Q

‘(Did you say/signal) (for me) not to come?’ (Boui)

#### Quoted hortative

A hortative may be quoted. The regular hortative verb form is used. Plural-addressee marking is not present in my examples (from Ningo). This may be a hard grammatical restriction (as in other Dogon languages), but it is difficult to show this since plural-addressee marking is uncommon anyway in this dialect.

(xx1) *sé:dú [bɔ́: gì] nú:-ní-ýⁿ wá* LH*gùnɛ́-∅*

S [together Loc] 1PlSbj-go-Hort Quot LHsay.Pfv-3SgSbj

‘Seydou said (to me), “let’s go together!” ’ (Ningo)

#### Imperative and hortative imprecations (rewrite)

After developing this hypothesis based on the Boui data, I was pleased to find forms with *-yⁿ* in the Ningo dialect. This form, however, is not used in simple quoted imperatives, which have the same bare I/U-stem as in Boui (xx4)

(xx4) *[ò* LH*bàbá] [ò wá] [yògù wà]*

[2SgPoss LHfather] [2Sg Quot] [come.QuotImprt say]

‘Your-Sg father says (for you-Sg) to come.’ (Ningo)

Rather, the *-yⁿ* forms are found only in wishes and imprecations, generally with ‘God’ as subject. I will call it the third-person hortative (**3Hort**). Some examples are in (xx5). (xx5a) is the Ningo counterpart of (xx1d) above.

(xx5) a. *á: yógó-bó nà tà:rì-yⁿ*

God come-Ipfv.Rel 3SgSbj show-3Hort

‘May God show you what is coming (=give you long life)!’ (Ningo)

b. *á: [írò gì] nà bàrì-yⁿ*

God [better Loc] 3SgSbj help-3Hort

‘May God help (you) get better!’ (to a sick person) (Ningo)

c. *á: nà bì:-rì-yⁿ*

1SgSbj 3SgSbj lie.down-Tr-3Hort

‘May God have (him) lie down (=rest in peace)!’ (after a death) (Ningo)

d. *á: yògó: nà tà:rì*

God future 3Sg show.QuotImprt

‘May God show you the future (=give you long life)!’

(said e.g. on holy days) (Boui)

(Ningo has *á: yógó-bó nà tà:rì-yⁿ*)

[*yògó:* contracted from \*yógó-bó ‘what is coming’]

b. *á: yògó: nà tà:l-lâyⁿ*

God future 3Sg show-HortNeg

‘May God not show you the future!’ (from /tà:rì-/) (Boui)

# Clause, VP, and predicate structure

## Clausal constituents

Linear order is SOV, where S and V are nonpronominal VPs. Setting adverbs like ‘yesterday’ often precede the subject NP.

### Subjects

#### Subjects in indicative main clauses

Subject NPs are clause-initial, except for setting adverbs. Third person subject NPs require agreement in the verb, though 3Sg is the zero category. 1st/2nd person subjects, barring focalization, are expressed by a combination of suffixes (1Sg, 2Sg, 3Pl) and proclitic-like preverbal elements (1Pl, 2Pl).

Subjects are the normal antecedents for reflexive objects, though in Tiranige these are of the type ‘my head’ (‘I saw my head’ = ‘I saw myself’).

#### Subjects in relative and complement clauses

Subjecthood plays a role in some subordinated clauses, to the extent that they require coindexation of the subjects of the subordinated and matrix clauses. However, switch-reference subordination is only moderately well-developed in Tiranige. See §15.2.1.2 and $15.2.2.1-4 for discussion.

In relative clauses, the usual pronominal-subject elements (suffixes, proclitics) are modified. Subject relatives have no such pronominal marking since the head NP is itself the subject. In nonsubject relatives, all pronominal subjects are expressed by preverbal proclitics; see §14.3.

#### Subjects of imperative and hortative verbs

In imperatives, the implied second person agent is not directly expressed, except that addressee number is indicated by presence/absence of a plural-addressee suffix on the imperative verb (§10.7.1.1).

The implied second person agent can bind a reflexive object, as in ‘look at yourself!’ However, reflexive objects have the form of possessed nouns (‘your head’).

In hortatives (‘let’s VP!’), there is an overt 1Pl subject pronoun, in addition to the marking of addressee number.

#### Subjects of lexicalized subject-verb combinations

There are a few subject-verb collocations where either the subject NP or the verb has little independent semantic content. In (xx1a), two collocations involving *yé* as pro forma subject denote day/night transitions. *yé* is not elsewhere attested as a noun, and monomoraic *Cv* is too small for a normal noun stem. In (xx1b), on the other hand, the subject is *á:mì* ‘rain’, and the verb is pro forma. Data are from Boui.

(xx1) a. *yé dɛ́nɔ́-* ‘night fall’ *yà:gù* ‘night’, *dɛ́nɔ́-* ‘spend mid-day’

*yé yɔ́:-* ‘day break’ cf. *yɔ́:-* ‘pick up’

b. *á:mì tɛ́gɔ́-* ‘rain fall’` (*tɛ́gɔ́-* not attested elsewhere)

### Simple transitives

#### Direct objects of simple transitives

There is a clear difference between subject and objects. If both are nonpronominal, subjects normally precede objects. Subjects but not objects are involved in pronominal agreement in verbs, and subjects but not objects are involved in determining same-subject status.

On the other hand, there is no sharp difference between direct objects and dative-like indirect objects, especially for ditransitive verbs like ‘give’. Pronominal and human direct or indirect objects can be marked by postposition-like accusative *gì* (§6.7) following the NP.

Perception verbs like *bálí-yó-* ‘see’ and *nú:ndó-* ‘hear’ are ordinary transitives with subjects and objects like those of canonical transitives.

Many activity verbs that are low in transitivity (e.g. ‘dance’, ‘cough’) are transitive in that they commonly occur with an object-like cognate nominal (‘dance a dance’, ‘cough a cough’); see §11.1.2.5-6 below.

#### *kán(ú)* ‘do’ with nouns and unconjugatable words

*kán(ú)* ‘do’ can combine with nouns (especially borrowings) or semi-onomatopoeic elements (‘hiccup’, ‘bellow’) that cannot otherwise function as predicates. This construction is very characteristic of Tiranige. Examples from Boui are below.

(xx1) a. *jìwé* ‘carrion (unslaughtered dead animal)’

*jìwé kán(ú)* ‘(livestock animal) die naturally’

b. *bìgè-bígè* ‘hiccups’

*bìgè-bígè kán(ú)* ‘have the hiccups’

c. *újé* ‘sweat(n)’

*[X gì] újé kán(ú)* ‘X sweat, perspire’ (X is object)

d. *pèɲí* ‘comb(n)’ (Fr. *peigne*)

*pèɲí kán(ú)* ‘comb (something)’

e. *hùbí* ‘bellowing’ (< Ful.)

*hùbí kán(ú)* ‘(adult male animal) bellow’

f. *kúná* ‘oath, sworn statement’

*kúná kán(ú)* ‘swear, take an oath’

g. *wà:jú* ‘Muslim sermon’

*wà:jú kán(ú)* ‘deliver a sermon’

h. *sà:ní* ‘prayer’

*sà:ní kán(ú)* ‘pray, perform a prayer’

i. *wàlè* ‘work(n)’

*wàlè kán(ú)* ‘perform work’

In inflected forms in which *kán(ú)* begins with a H-tone, a preceding {LH}-toned word drops its final H-tone by phonological rule. In (xx1d), for example, the H-tone in *pèɲí* is actually incorrect before *kán(ú)*, but here (and in the lexicon) I write the H-tone to present the lexical tone, which is audible in isolation or before a L-tone. In sentence examples and in texts I transcribe the actual output tone, e.g. *pèɲí* (xx2a) versus *pèɲì* (xx2b).

(xx2) a. *pèɲí kànì-∅*

comb do.Pfv-3SgSbj

‘He/She combed.’ (Boui)

b. *pèɲì kání-ỳⁿ*

comb do.Pfv-1SgSbj

‘I combed.’ (Boui)

#### *gún(ú)-* ‘say’ and causative *gúná-m(ú)-* with onomatopoeias

*gún(ú)-* ‘say’ and its causative *gúná-m(ú)-* are the auxiliaries of choice with more transparent onomatopoeias. *gúná-m(ú)-* suggests volitional agency, *gún(ú)-* does not.

(xx2) a. *bíⁿ→ gùnɛ̀-∅*

vibrate say.Pfv-3SgSbj

‘It (e.g. motor) vibrated.’ (Boui)

b. *dín-dán-díwⁿ gùnà-mì-∅*

pitter-patter say-Caus.Pfv-3SgSbj

‘He/She went pitter-patter (sound of footsteps).’ (Boui)

*gúná-m(ú)* can also be used as a true causative of the collocation with *gún(ú)-*, as in *bíⁿ→ gúná-m(ú)-* ‘cause (something) to vibrate’.

#### Collocations with low-referentiality objects

‘X bathe’ is expressed as *mí: dú-yɔ́-* including *mí:* ‘water’. *dú-yɔ́-* (or a homonym) by itself means ‘carry (from underneath, esp. on one’s head)’. Data are from Boui.

(xx1) *mí: dú-yɔ́-* ‘bathe’ *mí:* ‘water’, *dú-yɔ́-* ‘carry’

*pɛ́lɛ́ bám(ú)-* ‘applaud’ *bám(ú)-* ‘beat (tomtom)’

*kó:ní gó:gó-m(ú)-* ‘cast a spell’ *gó:gó-m(ú)-* ‘take out’

*tóndá: ún(ú)-* ‘take a walk’ *ún(ú)-* ‘go’

*pólŋgé súgó-* ‘lay an egg’ *súgó-* ‘go down’

*só:ndí tɔ́:-* ‘spit’ *só:ndí* ‘saliva’

*bɛ́:w gún(ú)-* ‘belch’ *gún(ú)-* ‘say’

*ɛ̀njɛ̀ élógó-* ‘chew one’s cud’

Cognate nominals may also be low in referentiality, see below.

#### Forms of cognate nominals associated with verbs

Examples of collocations involving a verb and a cognate nominal are in (xx1). The nominals are of two main phonological types. One, which includes all trisyllabics and many bisyllabics, ends in a short high vowel {*i u*}, the choice between them probably predictable from surrounding consonants and vowels. The other type, which includes all monosyllabics and many bisyllabics, ends in a non-high vowel that is consistent with the E/I-stem or A/O-stem of the corresponding verb. Data are from Boui.

(xx1) a. *Cv:* including *Cwv:*

*Cv: after non-alveolar*

*yɛ́: yɔ́:-* ‘fart’

*Cv: after alveolar*

*nwɛ́: nɔ́:-* ‘sing (a song)’

*dwɛ́: dɔ́:-* ‘insult’

*twɛ́: tɔ́:-* ‘lie, tell a lie’

b. *CvCv*

*CvCu*

*péwú péwó-* ‘whistle’

*yèwù yɛ́wɔ́-* ‘dance (a dance)’

*wògù wógó-* ‘(dog) bark’

*núgú núgó-* ‘count (1, 2, 3, 4, ...)’

*nújú nújó-* ‘groan, moan’

*yàŋù yáŋí-yó-* ‘have a fight’

*ségú sɛ́gɔ́-* ‘make a contribution, pay dues’

*CvCi*

*ónjí ónjó-* ‘urinate’

*nàjì nájó-* ‘have fun’

*cìrì círí-yó-* ‘have a discussion’

other *CvCv*

*túlɛ́ túlɔ́-* ‘give out a shout’

*kúwɔ́ kúwɔ́-* ‘do farm work, work in fields’

*jìyò jíyó-* ‘harvest (with knife)’

*súgɔ́ súgɔ́-* ‘defecate’

*kɔ́mɔ́ kɔ́mɔ́-* ‘weep’

c. *CvCCv*

*CvCCi*

*ɛ́njí ɛ́njɔ́-* ‘vomit’

*màndì mándó-* ‘laugh’

other *CvCCv*

*sàmbò sámbó-* ‘do the second round of weeding’

d. *Cv:Cv*

*Cv:Ci*

*tà:nì tá:nú-* ‘go hunting’

other *Cv:Cv*

*tí:lé tí:ló-* ‘tell a story’

e. trisyllabic

*CvCvCu*

*túgújú túgújó-* ‘stutter’

*CvCvCi*

*kóródí kóródó-* ‘cough’

*kárádí kárádó-* ‘clear one’s throat’

*újárí újáró-* ‘ask a question’

*gúrádí gúrádó-* ‘snore’

*yámánjí yámánjó-* ‘have a dream’

Interesting vocalic differences (disregarding the final vowel of the verb, which is subject to ablaut) occur in (xx2).

(xx2) *nógórí nágárí-yó* ‘think; be worried’ (Boui)

Other similar deverbal nominals include those with suffix *-ŋgé* (§4.2.2). All verbs can form the productive verbal noun with *-wà* (§4.2.3).

#### HHGrammatical status of cognate nominal

Although in many cases the cognate nominal in such collocations is generic, it can be determined or modified and is therefore not always a mere pro forma element. For one thing, particles like *là* ‘also’ cannot take a verb, VP, or clause in its scope, and they must therefore attach to a cognate nominal or some other noun-like element in a clause. Therefore ‘he sings too’ must be phrased as “[songs too] he sings.” Likewise, when the event unit is quantified over, as in ‘he laughed three times’, this is normally phrased as “[three laughs] he laughed.”

A good example of an adjectivally modified cognate nominal is (xx1), which refers to the very important first of two rounds of weeding in the millet fields during the rainy season.

(xx1) *[kùwɔ̀*L *gó:] kúwɔ́-*

[farmingL first] do.farming-

‘do the first round of weeding’ (Boui)

### Clauses with additional arguments and adjuncts

#### Syntax of expressive adverbials (EAs)

Expressive adverbials (§8.4.5) are often optional adjuncts in clauses. However, they be made predicative by adding quasi-verb *bǒ:-* ‘be (somewhere)’, its negation *órâ-* ‘not be, be absent (somewhere)’, or a form (positive or negative) of the regular verb *bíló-* ‘become’.

(xx1) a. *[ìjó rì] tɛ́ⁿ-tɛ́wⁿ nì ùnì*

[village Def] straight 1PlSbj go.Pfv

‘We went straight to the village.’ (Boui)

b. *tɛ́ⁿ-tɛ́wⁿ bǒ:-∅*

straight be-3SgSbj

‘It (path, stick) is straight.’ (Boui)

c. *tɛ́ⁿ-tɛ́wⁿ órâ-∅*

straight not.be-3SgSbj

‘It is not straight.’ (Boui)

d. *tɛ́ⁿ-tɛ́wⁿ bìlè-∅*

straight become.Pfv-3SgSbj

‘It became straight.’ (Boui)

#### Adverbial phrases with verbs of motion, being in, and putting

Motion verbs like ‘go’ and ‘come’ are intransitive and may combine with a locational adverb or adverbial phrase (PP or spatial relative clause). Even place names such as city names are overtly marked with a locative postposition in such clauses.

(xx1) a. *[mótí yá]* LH*ùní-∅*

[Mopti Loc] LHgo.Pfv-3SgSbj

‘He/She went to Mopti [focus].’ (Boui)

b. *[mótí yá] gwè:-∅*

[Mopti Loc] go.out.Pfv-3SgSbj

‘He/She left (or: came from) Mopti.’ (Boui)

Most predicates of spatial position involve *bò-* ‘be (somewhere)’ plus a locational expression. This applies, for example, to ‘be [in X]’ predicates (xx2a). Some other spatial relationships are commonly expressed by specialized stative verbs like *dàŋgà-* ‘be on wall (i.e. on a vertical plane)’ and *sàŋgà-* ‘be up on (something)’, but the locational expression still has locative rather than object form (xx2bc).

(xx2) a. *[mí: rì] [[órí* LH*kùlyé] ŋà]* LH*bǒ:-∅*

[water Def] [[waterjar LHinside] Loc] LHbe-3Sg

‘The water is in the waterjar.’ (Boui)

b. *[bó:lò rì] [[jíwá* LH*bàŋgá] ŋà] dàŋgà-∅*

[agama Def] [[house LHwall] Loc] be.on.wall.Stat-3SgSbj

‘The agama lizard is on the wall.’ (*bó:ló* ) (Boui)

c. *[bàràdá rì] [púrnɛ́ ŋà] sàŋgà-∅*

[tea.kettle Def] [burner Loc] be.up.on.Stat-3SgSbj

‘The tea kettle is (set) up on the burner.’ (Boui)

‘Put’ verbs take an object and a locational expression.

(xx3) *[máŋgòró rì] [[órí* LH*dùŋó] ŋà]* LH*dìyɛ̌-ýⁿ*

[mango Def] [[waterjar LHunder] Loc] LHput.Pfv-1SgSbj

‘I put the mangoes under the waterjar [focus].’ (Boui)

#### Ditransitives

Verbs like ‘give’ and ‘show’ take two direct objects morphologically. Specifically, the indirect object (usually human and often pronominal) is regularly marked by accusative *gì*.

#### Valency of causatives

Causatives can have two or even three object NPs, including the agent of the subordinated clause. In ‘cause X to give Y to Z’, both X and Z are normally human and are marked with accusative *gì*. The theme Y is usually inanimate and lacks accusative marking but is presumably also an object.

(xx1) *[sàydú gì] [à:màdú gì] cɛ́lɛ́ŋgé ndá:-mí-ỳⁿ*

[Seydou Acc] [Amadou Acc] money give-Caus-1SgSbj

‘I had Seydou give (some/the) money to Amadou.’ (Boui)

### Verb Phrase

VP is useful in connection with verb(-phrase) chains (chapter 15), where the subject is held constant over the two clauses. It is also useful in verbal nouns, which can function as subjectless VP complements.

## ‘Be’, ‘become’, ‘have’, and other statives and inchoatives

### ‘It is’ clitics

#### Positive ‘it is’ (*=ẁⁿ* ~ *=wò* ~ *=yò*)

The ‘it is’ clitic, used in identificational predicates (‘it’s me’, ‘it’s s bird’), is also used to focalize a nonpredicative constituent, see §13.1.1.3.

The clitic has syllabic and nonsyllabic variants. The syllabic variants are *=wò* and *=yò*, which shift to H-tone after a {L}-toned word or pronoun. We get *=yò* (becoming *=yó*) after pronouns ending in *i* (1Sg, 1Pl) and just *=yò* after names ending in a high vowel (*à:màdú* ‘Amadou’, *sì:dí* ‘Sidi’). This leaves *=wò* (sometimes becoming *=wó*) after pronouns and names ending in a nonhigh vowel. Pronouns have long vowels before *=wó* but not before *=yó*.

The nonsyllabic variant is nasalized *=ẁⁿ*. This form is used after common nouns, and after plural -*gè*. The L-tone is normally audible, but in interrogatives the usual final intonational pitch rise obscures the L-tone. In cases where I initially transcribed unnasalized *=ẁ*, this turned out to be a phonetic variant of the syllabic form *=wò* (see above), and the syllabic form was preferred in careful speech.

Demonstrative *mbó* ‘this/that’ forms *mbô=:* with long vowel and falling tone. Data are from Boui.

(xx1) a. interrogative

*à:=wó* ‘who is it?’

*áŋgá=ẁⁿ↗* ‘it is how many?’

*ndégé=ẁⁿ↗* ‘what is it?’

b. with noun

*jíwá=ẁⁿ* ‘it’s a house’

*níyè=ẁⁿ* ‘it’s a bird’

*ná:-gé=ẁⁿ* ‘they are cows’

*ná=ẁⁿ* ‘it’s a cow’ (from *ná:*)

*ámbá=ẁⁿ* ‘it’s a sheep’

*ùnà=ẁⁿ* ‘it’s a goat’

*ndà:-yé=ẁⁿ* ‘it’s a woman’

*mì bàwá=ẁⁿ* ‘it’s my father’

c. with pronoun

*mì=yó* ‘it’s me’

*nì=yó* ‘it’s us’

*ò:=wó* ‘it’s you-Sg’

*è:=wó* ‘it’s you-Pl’

*nà:=wó* ‘it’s him’

*cè:=wó* ‘it’s them’

d. with name

*à:màdú=yò* ‘it’s Amadou’

*sì:dí=yò* ‘it’s Sidi’

*hà:wá=wò* ‘it’s Hawa’

*à:dàmá=wò* ‘it’s Adama’

*dìkó=wò* ‘it’s Dicko’

*sìdìbé=wò* ‘it’s Sidibe’

*bɔ̀mɔ̀kɔ́=wò* ‘it’s Bamako (city)’

e. other

*mbô=:* ‘that’s it’

The topic (the referent who is identified or specified) may appear as a kind of subject NP preceding the identificational predicate (‘that’ in ‘that’s a bird’), or it may be covert if understood in context.

The ‘it is’ clitic is not morphologically conjugatable. However, preposed subject pronouns can be added to specify a pronominal theme. Data are from Boui.

(xx2) *mì sójó=ẁⁿ* ‘I am a Dogon.’

*nì sójó-gé=ẁⁿ* ‘we are Dogon.’

*ò sójó=ẁⁿ* ‘you-Sg are a Dogon.’

#### ‘It is not’ (*=là* ~ *=lá* )

The negative counterpart of the ‘it is’ clitic is *=là*. It replaces, rather than being superimposed on, the positive ‘it is’ clitic. Data are from Boui.

(xx1) *ná:=là* ‘it’s not a cow’

*mì sójó=là* ‘I am not a Dogon.’

*nì sójó-gé=là* ‘we are not Dogon.’

*ò sójó=là* ‘you-Sg are not a Dogon.’

*cè sójó-gé=là* ‘they are not Dogon’

After an {L}-toned word, H-toned *=lá* appears, as in *sùŋùnù=lá* ‘it is not an ear’.

*=là* is also found in the negative predicative form of some adjectives, especially basic color adjectives and diminutive adjectives with suffix *-wè*. See the end of §11.4.2 for details.

*=là* can be confused with *là* ‘also, too’ (§19.1.3), which has the same tonal alternation.

### Existential and locative quasi-verbs and particles

#### Existential particles *è* ~ *é* and (distant) *yà* ~ *yá*

These particles, which occur in immediate preverbal position, following even 1Pl and 2Pl subject pronouns (xx1b), occur with stative predicates in unfocalized positive main clauses. They do not occur in the presence of a focalized constituent, in negative clauses, or in relative clauses. With these exceptions one or the other is obligatory with ‘have’, and with ‘be’ in the absence of another specified location. *è* ~ *é* is by far the most common, and can be used in any spatial context; it puts more emphasis on existence than on location and will be glossed simply “Exist” in interlinears. *yà* ~ *yá* is a marked form that additionally specifies a distant location and will be glossed “Exist.Dist”.

Examples with ‘have’ are in (xx1). L-toned *è* occurs in (xx1a-b) but not in negative (xx1c), focalized (xx1d), or relative clause (xx1e).

(xx1) a. *jíwá è sâ-yⁿ*

house **Exist** have-1SgSbj

‘I have a house.’ (Boui)

b. *jíwá nì è sá*

house 1PlSbj **Exist** have

‘We have a house.’ (Boui)

c. *jíwá sá:-nâ-yⁿ*

house have-StatNeg-1SgSbj

‘I do not have a house.’ (Boui)

d. *à:-wó jíwá* H*sá*

who? house Hhave

‘Who has a house?’ (Boui)

e. *jíwá jɛ́lɛ́ mì* LH*sǎ:*

house place 1SgSbj LHhave

‘the place where I have a house’ (Boui)

Examples with *bò-* ‘be (somewhere), exist’ are in (xx2). The combination of the existential particle and *bò-* comes out as *é wò*. The particle is present in (xx2a), but absent in (xx2b) in the presence of a more specific locational expression. It is also absent in negative (xx2c) and in focalized (xx2d-e).

(xx2) a. *tê: é wò*

tea **Exist** be.3SgSbj

‘There is some tea.’ (Boui)

b. *[[nì* LH*ìjó] ŋá] bò-∅*

[[1PlPoss LHvillage] in] be-3SgSbj

‘He/She is in our village.’ (Boui)

c. *tê: órâ-∅*

tea not.be-PfvNeg.3SgSbj

‘There is no tea.’ (Boui)

d. *àná bò-∅*

where? be.3SgSbj

‘Where is he/she?’ (Boui)

(Ningo áníyá LHbǒ: )

e. *à:=wò* H*bó-∅*

who?=Foc Hbe.3SgSbj

‘Who is there?’ (Boui)

(xx1ab) and (xx2a) above involve the unmarked locative particle *è* ~ *é*. Counterparts with the marked form specifying distance are in (xx3).

(xx3) a. *jíwá yà sâ-yⁿ*

house **Exist.Dist** have-1SgSbj

‘I have a house (e.g. in another region).’ (Boui)

b. *tê: yá wò*

tea **Exist.Dist** be.3SgSbj

‘There is some tea (in another location).’ (Boui)

H-toned forms *é* and *yá* are used before L-toned syllables, while L-toned *è* and *yà* are used before H-toned syllables.

(xx4) a. *yà ówà-∅*

Exist.Dist sit.State-3SgSbj

‘He/She is sitting.’ (Boui)

b. *yá w-à:*.

Exist.Dist be-3PlSbj

‘They are present (here/there).’ (Boui)

For other stative verbs, see §10.4. For demonstratives *é-wɔ̀ rì* (near distant) and *yá-wɔ̀ rì* (far distant), which are specialized and somewhat reduced definite relative clauses, see §4.4.1.2.

#### ‘Be (somewhere)’ (*bò-* ~ *wò-*)

The stative quasi-verb used in the locational sense ‘be (in a place), be present’ and by abstraction ‘exist’, is *bò-* after a locational phrase (‘here’, ‘in Bamako’, etc.). It lenites to *wò-* when preceded by existential particle *é* (or distant *yá*) as the default locational, or after *mbɔ́rɔ̀* ‘like this/that’ (§4.4.2.3). Either a locational phrase or *é* (*yá*) is required in unfocalized positive main clauses. In the 3Pl, the tone is bell-shaped in *bà-â:* but low in *é w-à:* and *yá w-à:*. In other words, the quasi-verb is slightly reduced phonologically when combined with the existential particle.

There is the usual pronominal-subject paradigm as with regular inflected verbs. There is no AN marking (perfective, imperfective, etc.), though it does have a past form (see below), and there is no imperative or hortative.

The paradigms are in (xx1). Forms are from Boui.

(xx1) Nonpast ‘be (in a place)’ or ‘exist’

category after locational with existential

1Sg *bò-yⁿ é wô-yⁿ*

1Pl *nì bò-∅ nì é wò-∅*

2Sg *bò-w é wô-w*

2Pl *è bò-∅ è é wò-∅*

3Sg *bò-∅ é wò-∅*

3Pl *bà-â: é w-à:*

Examples are in (xx2).

(xx2) a. *[bɔ̀mɔ̀kɔ́ ŋà] bà-â:*

[B in] be-3PlSbj

‘They are in Bamako (city).’ (Boui)

b. *é wô-m mɛ̀*

Exist be-2SgSbj if

‘if you-Sg are present’ (< /wô-w/) (Boui)

In the presence of a preceding focalized constituent, *bò-* becomes /bǒ-/ with the regular {LH} defocused overlay (realized as 1Sg *bǒ-y*, 3Sg *bǒ:-∅*, etc.). An assistant also invariably used this rising-toned form before *mɛ̀* ‘if’. Existential *é* does not occur in focalized clauses. *é wò-* has its usual form before *mɛ̀* ‘if’ (*é wò-∅ mɛ̀* ‘if he/she is here’).

There is no clear synchronic connection between (stative) *bò-* and (inchoative) *bíló-* ‘become’.

For durative background clauses with *bí:-nì* ‘keep being (thus)’, see §15.2.1.5.

For **past time** ‘was/were’, *bò-* is replaced by *bɛ̀:-* ~ *wɛ̀:-*, see §10.6.1.1.

#### Negative *órá-* ‘is not (in a place)’

*bò-* ‘be (in a place), be present’ is **negated** by *órá-* ‘not be (present), be absent’. It does not co-occur with the existential particle, but it may be used by itself (an overt locational expression is optional). The paradigm is (xx1).

(xx1) ‘is/are absent’ or ‘does/do not exist’

category form (with or without locational)

1Sg *órâ-yⁿ*

1Pl *nì órâ-∅*

2Sg *órâ-w*

2Pl *è órâ-∅*

3Sg *órâ-∅*

3Pl *ór-â:*

Examples are in (xx2).

(xx2) a. *(móŋà) órâ-yⁿ*

(here) not.be-1SgSbj

‘I am not present (here).’ (Boui)

b. *té: órá-∅ lè*

tea not.be-3SgSbj Q

‘Is there is no tea?’ (from /órâ le/) (Boui)

Past *bɛ̌(:)*- ‘was (somewhere)’ is similarly negated by *ɔ́rɛ̀-* ‘was not (present), was absent’ or ‘did not exist’, see §10.6.1.2.

### Other stative locational and positional quasi-verbs

#### Other stative locational quasi-verbs (‘be in/on’)

There is no stative verb in the general sense ‘be [in X]’. There are stative verbs for ‘be [on X], viz., *dàŋgà-* ‘be on (wall, vertical planar surface)’ and *sàŋga-* ‘be (set) up on (object or horizontal surface). See (xx2bc) in §11.1.3.2 for examples.

### ‘Become’, ‘happen’, and ‘remain’ predicates

For deadjectival inchoatives (‘become red/long’), which are expressed by derivational suffixes, see §9.6. Here the focus is on bipartite ‘become X’ and ‘remain X’ predicates with distinct verbs or quasi-verbs.

#### ‘Remain’ (*ánjó-*)

This verb is illustrated in (xx1).

(xx1) *jíwâ:* LH*ànjò-wǒ-y*

house.Loc LHremain-Ipfv-1SgSbj

‘I will stay at home [focus].’ (Boui)

Unlike ‘remain’ verbs in some other Dogon languages, *ánjó-* is not also used in the sense ‘become’ with adverbials. For this function see *bíló-* just below.

#### ‘Become, be transformed into’ (*bíló-*)

‘Become’ with NP complement, as in ‘become president’, ‘become (=be transformed into) a tree’, etc., is *bíló-*. This verb can also be used flexibly to make adjectives and expressive adverbials (§11.1.3.1) into inchoative predicates.

#### ‘Become’ related to ‘be (somewhere)’ quasi-verbs (*wɔ́:*)

A stative verb *wɔ́:-* (negative *wɔ̀:-nà-*) is attested in the superlative predicate construction. It may be related to the etymological set including *bò-* ‘be (somewhere)’ and imperfective suffix *-wò-* ~ *-bò-*. See §12.1.5 for the (sparse) data.

### Mental and emotional statives

#### ‘Know’ (*yèy*)

This is a stative verb with no nonstative paradigms. It means ‘know (a fact)’ or ‘know, be acquainted with (a person)’. The object NP takes accusative marking: *[mì gí] yèy-∅* ‘he/she knows me’. The paradigms, positive and negative, are in (xx1). Data are from Boui.

(xx1) category ‘know’ ‘not know’

1Sg *yé-ỳⁿ* (< /yéy-ỳⁿ/) *yé-ní-ỳⁿ*

1Pl *nì yèy nì yè-nì*

2Sg *yé-ẁ* (< /yéy-ẁ/) *yé-nú-ẁ*

2Pl *è yèy è yè-nì*

3Sg *yèy-∅ yè-nì-∅*

3Pl *yèy-â:* (Boui), *yèyy-â:* (Ningo) *yè-n-â:*

The L-tone of the 3Sg is confirmed by the polar interrogative form *yèy-∅ lé* ‘does he/she know?’ (negative *yè-nì-∅ lé* ).

For past-time *yèy-yɛ́-* ‘knew’ and *yɛ̀-nɛ́-* ‘did not know’, see §10.6.1.3.

#### ‘Want, like’ (*cèy-*)

This defective stative quasi-verb takes stative negative allomorph *-là*. It is not used with Existential *e* (§11.2.2.1). A likely cognate is Najamba *kíyò* (negative *kélà*). Data in (xx1) are from Boui.

(xx1) category ‘want’ ‘not want’

1Sg *cé-ỳⁿ* (< /céy-ỳⁿ/) *cé-lá-ỳⁿ*

1Pl *nì cèy nì cè-là*

2Sg *cé-w* (< /céy-ẁ/) *cé-lá-ẁ*

2Pl *è cèy è cè-là*

3Sg *cèy-∅ cè-là-∅*

3Pl *cèy-â: cè-l-â:*

The polar interrogative form of the 3Sg is *cèy-∅ lé*. For past-time forms see (xx3) in §10.6.1.3.

Dialectally, Ningo kèy ‘want’ has the same paradigm structure as Boui cèy. However, Ningo also has an alternative active (nonstative) form *ké:-yó* (1Sg perfective *ké:-yé-ỳⁿ* ‘I wanted’, past *kɛ́:-yɛ́-ỳⁿ* ‘I had wanted’).

#### ‘Resemble’ (*mòlá-*)

‘(X) resembles Y’ is expressed as *[Y yà] mòlá-*, with instrumental postposition *yà* taking scope over the comparandum. In the positive, *mòlá-* keeps its rising tone melody throughout the paradigm. Negative is *mòlà-nà-* ‘does not resemble’, with the usual tone alternations for stative negatives. Data are from Boui.

(xx1) category ‘resemble’ ‘not resemble’

1Sg *mòlá-yⁿ mólá-ná-ỳⁿ*

1Pl *nì mòlá nì mòlà-nà*

2Sg *mòlá-w mólá-ná-ẁ*

2Pl *è mòlá è mòlà-nà*

3Sg *mòlá-∅ mòlà-nà-∅*

3Pl *mòl-â: mòlà-n-â:*

## Quotative verb

### ‘Say’ (perfective *gùnɛ̀-*)

A partial paradigm of this verb is (xx1). For indicative categories, tones shown here are based on the zero 3Sg subject form. Data are from Boui.

(xx1) a. E/I-stem

*gùnɛ̀-* perfective

b. A/O-stem

*gúná-nì-* perfective negative

*gùnà* imperative

c. O-stem

*gúm-bò-* imperfective

*gún-dâ-* imperfective negative

*gúm-mâ-* capacitative

d. I/U-stem

*gùnù ~ gùnì* 3rd person hortative

The E/I-stem points to the final-nonhigh-vowel class of verbs, but the implied /gúnú-/ and the syncope of its second syllable in the O-stem points to the final-high-vowel class.

The listener (recipient) is expressed as a direct object, with accusative *gì*.

‘Say’ can be a simple transitive, with a summarizing NP like ‘that’ or interrogative ‘what?’

(xx1) *ndégé ò-gí nà* LH*gùnɛ́*

what? 2Sg-Acc 3SgSbj LHsay.Pfv

‘What did he/she say to you-Sg?’ (Boui)

For quotative clause complements, see §17.1.

## Adjectival predicates

Adjectival predicates described here denote states, rather than processes. For the latter, see the inchoative verbs in §9.6.

### Positive adjectival predicates

Adjectives (§4.5) can be organized into groups based on their form as predicates. The majority of adjectival predicates involve *bǒ:-* ‘be’ following a form of the adjective differing from that used in as a modifier within a NP. Some other adjectives take the *=ẁⁿ* ‘it is’ clitic to form predicates, and still others have bare predicative forms without *bǒ:-* or *=ẁⁿ*.

For ‘dry’ and ‘old’ I was not able to elicit a static predicate; an assistant produced only perfective inchoative verbs *kùnjɛ̀-* ‘has gotten old’ and *mànì-yɛ̀-* ‘has dried’.

#### Adjectival predicates with *bǒ:-* ‘be’

Adjectives that take *bǒ:-* can be divided into two main groups, one where the adjective itself ends in *e* and one where it ends in *m(ú)*. bǒ:- is inflected with the usual pronominal-subject marks (1Sg *bǒ-y*, 1Pl *nì bǒ:*, etc.).

The adjectives in (xx1) all end in *e* before *bǒ:-*. In (xx1a), the final vowel of the modifying adjective mutates to *e*. In (xx1b), the adjective is extended by an augment *‑ndé* including the final *e*. This is also the case with the diminutive adjectives in (xx1c), which drop diminutive suffix *-wè* in the predicative construction. *Cv́ní-ndé* syncopates to *Cv́n-dé* (‘be fat’, ‘be small’) (xx1bc). *mɛ́njí-wè* ‘thin’ simplifies *nj* to *ɲ* in predicative *mɛ́ɲí-ndé bǒ:-* (xx1c). Data are from Boui.

(xx1) Adjective ends in *e* before *bǒ:-*

modifying predicative gloss

a. *né:ŋgó: né:ŋgé bǒ:-* ‘be heavy’

*ní:njí ní:njé bǒ:-* ‘be sweet’

*má:gá má:gé bǒ:-* ‘be difficult’

*búrádá búrádé bǒ:-* ‘be smooth’

*yágárá yágáré bǒ:-* ‘be coarse’

*gálágá gálágé bǒ:-* ‘be bitter’

*kújájá kújájé bǒ:-* ‘be rotten’

b. *yálá yálá-ndé bǒ:-* ‘be long’

*báy báy-ndé bǒ:-* ‘be big (e.g. house)’

*bíní bín-dé bǒ:-* ‘be fat’

*nímí nímí-ndé bǒ:-* ‘be deep’

c. *déŋí-wè déŋí-ndé bǒ:-* ‘be short’

*mɛ́njí-wè mɛ́ɲí-ndé bǒ:-* ‘be thin, slender’

*wéní-wè wén-dé bǒ:-* ‘be small’

In (xx2), the adjective ends in m(u) before *bǒ:-*. In (xx2a), the modifying form of the adjective already ends in *m* or *mú*. In (xx2b), *-m(u)* is added to the modifying form of the adjective before *bǒ:-*. The combination of *-m(u)* plus *bǒ:-* is reminiscent of the progressive verb form with *-wⁿ bǒ:-* (§10.2.2.3). Data are from Boui.

(xx2) Adjective ends in *m(u)* before *bǒ:-*

modifying predicative gloss

a. *témúm témúm(ú) bǒ:-* ‘be cold’

*ámámú ámám(ú) bǒ:-* ‘be sour’

b. *yágá yàgà-m bǒ:-* ‘be pretty’

*númá númá-m(ú) bǒ:-* ‘be hot’

~ *núm bǒ:-*

The form of the adjective before *bǒ:-* is invariant. In particular, it does not allow plural suffix *-gè*.

(xx3) *né:ŋgé ni bǒ:*

heavy 1PlSbj be

‘We are heavy.’ (Boui)

For ‘be far away’, the adjective (*wágá*) seemingly drops tones and has its final vowel prolonged intonationally (xx4). The ‘be’ quasi-verb takes the form *bó-*. This is really an adverbial rather than adjectival predicate, since *wàgà→* can be used as a nonpredicative adverb (e.g. in ‘they ran far away’)

(xx4) *wàgà→ bó-* ‘be far away’ (Boui)

The predicative forms with *bǒ:-* appear not to be used in focalized clauses. Focalization forces the adjective back into its simple modifying form (xx4b). How rigorous this is requires checking.

(xx5) a. *né:ŋgé* / *bín-dé* / *déŋí-ndé* / *yàgà-m bǒ:-*

heavy / fat / short / pretty be

‘be heavy/fat/short/pretty’ (Boui)

b. *à: né:ŋgó:* / *bíní* / *déŋí* / *yágá*

who? heavy / fat / short / pretty

‘Who is heavy/fat/short/pretty?’ (Boui)

#### Adjectival predicates with *=ẁⁿ* ‘it is’

For the adjectives in (xx1), the only attested predicates add the ‘it is’ clitic *=ẁⁿ* to the otherwise unaltered modifying adjective. Elsewhere *=ẁⁿ* is added mainly to NPs, suggesting that these adjectives may be more noun-like than others. Data are from Boui.

(xx1) Adjective followed by *=ẁⁿ*

modifying predicative gloss

*yáŋgá yáŋgá=ẁⁿ* ‘be lean (emaciated)’

*yɔ́gɔ́rɔ́ yɔ́gɔ́rɔ́=ẁⁿ* ‘be kaput’

*dúmbú dúmbú=ẁⁿ* ‘be blunt (blade)’

*búní búní=ẁⁿ* ‘be red’

*jɛ́mɛ́ jɛ́mɛ́=ẁⁿ* ‘be black’

*púlɛ́ púlɛ́=ẁⁿ* ‘be white’

*ɛ́wⁿ* *ɛ́(wⁿ)=ẁⁿ* ‘wet’

(plural *ɛ́ŋ-gé=ẁⁿ* from *ɛ́wⁿ-gé=ẁⁿ*)

These predicates, unlike those with adjectives ending in e, allow plural suffix *‑gè*. As with other ‘it is’ predicates, a pronominal subject can be expressed by an independent pronoun.

(xx1) a. *[ámbá-gè rì] yáŋgá-gé=ẁⁿ*

[sheep-Pl Def] lean-Pl=it.is

‘The sheep are lean.’ (Boui)

b. *mì yáŋgá=ẁⁿ*

1Sg lean=it.is

‘I am lean (emaciated).’ (Boui)

#### Adjectival predicates like stative verbs

A few adjectives are used as predicates with no segmental changes from the modifying forms. However, while modifying adjectives are {H}-toned (except for diminutive suffix *-wè*), predicative forms are {L}-toned (xx1). Data are from Boui.

(xx1) Bare adjectival predicates

modifying predicative gloss

a. *málání màlànì-∅* ‘be soft’

b. *mɔ́: mɔ̀:-∅* ‘be good’

[for *mɔ̀:-wⁿ bó-* in ‘it’s good to eat’ see §6.3.3.3]

These are really verbs similar to statives, and take pronominal-subject inflection. The data in (xx1) are therefore 3Sg subject forms with zero suffix. The tones of the stem and of 1Pl and 2Pl proclitics differ from those of regularly derived stative verbs (§10.4.1). Paradigms are in (xx2). For the negation of *mɔ̀:-* with stative negative *‑nà‑* (§10.4.2), see §11.4.2 below.

(xx1) Stative-like verbs

category ‘be good’ ‘be soft’

1Sg *mɔ́-ỳⁿ málání-ỳⁿ*

1Pl *ní mɔ̂:* *ní málánì*

2Sg *mɔ́-ẁ* *málánú-ẁ*

2Pl *é mɔ̂:* *é málánì*

3Sg *mɔ̀:-∅ màlànì-∅*

3Pl *mɔ̀y-â:* *málàn-î:*

### Negative adjectival predicates

For adjectives whose positive predicates end in *bǒ:-*, one option for negation is to just replace *bǒ:-* ‘be’ by *órâ-* ‘not be (present)’, preserving any quirky features of the adjectival form. Data in (xx1) are from Boui.

(xx1) a. *bíní* ‘fat’

b. *bín-dé bǒ:-* ‘be fat’

c. *bín-dé órâ-* ‘not be fat’

However, in addition to this auxiliary-like construction, adjectives also have morphologically simpler negative predicative forms involving a negative morpheme of the shape *‑Ca‑*. One is initially tempted to treat them all as variants of a single morphologicla pattern, but it turns out that there are structural differences beyond suffix allomorphy.

In (xx2) the form shown (3Sg subject) has {H}-toned stem plus *‑râ‑* ~ *‑dâ‑*. Data are from Boui.

(xx2) Negative *‑râ‑* ~ *‑dâ‑*

modifying negative predicate gloss

a. *-râ-* after {H}-toned stem, cf. imperfective negative

*stem-final o*

*né:ŋgó: né:ŋgó-râ-* ‘not be heavy’

*gálágá gálágó-râ-* ‘not be bitter’

*kújájá kújájó-râ-* ‘not be rotten’

*númá númó-râ-* ‘not be hot’

*stem-final u*

*témúm témúmú-râ-* ‘not be cold’

*ámámú ámámú-râ-* ‘not be sour’

b. *-dâ-* variant

*yágárá yágár-dâ-* ~ *yágád-dâ-* ‘not be coarse’

*búrádá búrád-dâ-* ‘not be smooth’

This looks like the imperfect negative suffix *‑râ‑* ~ *‑dâ‑*, and the identity is confirmed by tone patterns of the pronominal-subject paradigm. Note especially the {HL}-toned stem in the 3Pl (xx3), from Boui.

(xx3) category IpfvNeg ‘not be heavy’ ‘not be cold’ ‘not be smooth’

1Sg {H}*-rà-yⁿ né:ŋgó-rà-yⁿ* ——

1Pl *nì* {L}*-rá nì nè:ŋgò-rá* ——

2Sg {H}*-rà-w né:ŋgó-rà-w* ——

2PL *è* {L}*-rá è nè:ŋgò-rá* ——

3Sg {H}*-râ-∅ né:ŋgó-râ- témúmú-râ- búrád-dâ-*

3Pl {HL}*-r-â: né:ŋgò-r-â:* *témúmù-r-â: búrâd-d-â:*

Another set of adjectives have negative predicates with *-nâ-* ~ *-nà-*. There are two tonal types, respectively *Cv́Cv́-nâ-* and *Cv̀Cv̀-nà-* in the 3Sg. The latter looks like the negative of derived stative verbs (§10.4.2).

(xx4) Negative *‑nâ‑* ~ *‑nà‑*

modifying negative predicate gloss

a. *-nâ-* after {H}-toned stem in 3Sg

*báy báy-nâ-* ‘not be big’

*bíní bíní-nâ-* ‘not be fat’

*nímí nímí-nâ-* ‘not be deep’

*ní:njí ní:ɲí-nâ-* ‘not be sweet’

b. *-nà-* after {L}-toned stem in 3Sg

*yálá yàlà-nà-* ‘not be long’

*yágá yàgà-nà-* ‘not be pretty’

*má:gá mà:gà-nà-* ‘not be difficult, be easy’

*mɔ́: mɔ̀:-nà-* ‘not be good, be bad’

*wágá wàgà-nà-* ‘not be far away’

For the *nj* ~ *ɲ* alternation in ‘not be sweet’, see §3.4.3.3. Paradigms from Boui are in (xx5). The {L}‑toned type indeed does have the same paradigm as negative forms of derived statives, e.g. ‘not be standing’ (§10.4.2). The {H}-toned type has no exact counterpart elsewhere. Data in (xx5) are from Boui.

(xx5) category ‘not be big’ ‘not be good’

{H}-toned {L}-toned

1Sg *báy-ná-ỳⁿ mɔ́:-ná-ỳⁿ*

1Pl *nì bày-ná* *ní mɔ̀:-nà*

2Sg *báy-ná-ẁ* *mɔ́:-ná-ẁ*

2Pl *è bày-ná* *é mɔ̀:-nà*

3Sg *báy-nâ-∅ mɔ̀:-nà-∅*

3Pl *bây-n-â:* *mɔ̀:-n-â:*

The last negative adjectival predicate type is with *=là*. This superficially resembles the other endings (*-râ-* ~ *-dâ-*, *-nâ-* ~ *-nà-*), but it is structurally different. It is in fact the ‘it is not’ clitic that is used in negative predicates of NPs (‘it is not a X’), see §11.2.1.2. This construction is regular for the three basic color terms (xx6a), for diminutive adjectives with suffix *-wè* (xx6b), and a few other adjectives (xx6c). Data are from Boui.

(xx6) a. *búní bùnì=lá* ‘not be red’

*jɛ́mɛ́ jɛ̀mɛ̀=lá* ‘not be black’

*púlɛ́ pùlɛ̀=lá* ‘not be white’

b. *déŋí-wè déŋí-wè=là* ‘not be short’

*mɛ́njí-wè mɛ́njí-wè=là* ‘not be thin’

*wéní-wè wéní-wè=là* ‘not be small’

c. *yáŋgá yáŋgá=là* ‘not be lean’

*yɔ́gɔ́rɔ́ yɔ́gɔ́rɔ́=là* ‘not be kaput’

*dúmbú dúmbú=là* ‘not be blunt (blade)’

d. *bíní bín(í)=là* ‘not be fat’

*That this =là* is the ‘it is not’ clitic rather than a verb-like negative suffix is shown by the fact that it cannot take pronominal-subject suffixes. For example, ‘I am not red’ is not #*bùnì-lá-ỳⁿ* but rather *mì bùnì=lá*. For plural subjects, plural suffix *-gè* is required: *bùnì-gè=lá* ‘they are not red’, *nì bùnì-gè=lá* ‘we are not red’.

*bíní* ‘fat, big’ is attested in this construction (xx6d) as well as with *-nà* and with *órâ-*. Further study might show that other adjectives also shift among different negative predicate constructions.

## Possessive predicates

### ‘X have Y’ (*sâ-*)

Existential *è* is required in the positive in unfocalized main clauses. It is not allowed under negation. The paradigms of ‘have’ and ‘have not’ are in (xx1). For the positive paradigm, a basic representation /sâ-/ is possible, with the vowel lengthened when word-final and with a contour tone (§3.6.4.1). Data are from Boui.

(xx1) ‘have’ ‘have not’

1Sg *è sâ-yⁿ sà:-nâ-yⁿ*

1Pl *nì è sâ: nì sà:-nà*

2Sg *è sâ-w sà:-nà-w*

2Pl *è è sâ: è sà:-nà*

3Sg *è sâ:-∅ sà:-nà*

3Pl *è sà-â: sà:-n-â:*

For past-time counterparts with *ɛ* replacing *a*, see §10.6.1.3. For durative background clauses with *sí:-nì* ‘keep having’, see §15.2.1.5.

The transitivity level of ‘have’ predicates is low. I did not observe accusative marking on the object, and an assistant rejected versions I proposed that included accusative marking.

### ‘Y belong to X’ predicates

‘Y belongs to X’ or ‘Y is X’s’ is expressed as ‘Y is X’s thing’, with *wɛ̀:* ‘thing’ (or variant) and the ‘it is’ clitic *=ẁⁿ*. There is no animacy distinction (‘thing’ versus ‘critter’). For 1st/2nd person possessor forms based on contractions of *wɛ̀:*, see §6.2.1.2.

(xx1) a. *[jíwá* / *í:njɛ́ mbò] mɛ̌=ẁⁿ*

[house / dog Dem] 1SgPoss=it.is

‘That house/dog belongs to me (is mine).’ (Boui)

b. *[óri-gè rì] [sàydú wɛ̀:-gé]=ẁⁿ*

[waterjar-Pl Def] [Seydou thing-Pl]=it.is

‘The waterjars belong to Seydou.’ (Boui)

# Comparatives

## Asymmetrical comparatives

*bà→* ‘than’ shows up in several asymmetrical comparative constructions. It follows an object NP with accusative marking.

### Predicative adjective with *bà→* ‘than’ and comparandum

In this construction, a reduced adjectival predicate (‘be heavy’, ‘be short’) is understood to be comparative because the ‘than’ comparandum precedes it.

In (xx1) we have an adjectival predicate with e-final adjective and a conjugated form of *bǒ:-* ‘be’ (§11.4.1.1). In the comparative (xx1b) this is replaced by an imperfective verb, literally ‘be (becoming) heavy’. Negative counterparts are based on imperfective negative *‑râ‑* (xx1c). Likewise, (xx1d) ‘short’ has a special augment *-ndé*, again ending in *e*, before *bǒ:-* (§11.4.1.1). This augment and *bǒ:-* itself are dropped in the comparative, which is based on a stative verb of the same word-family (xx1e-f).

(xx1) a. *né:ŋgé bǒ-yⁿ*

heavy be-1SgSbj

‘I am heavy.’ (Boui)

b. *[ò-gí bà→] né:ŋgó-wò-yⁿ*

[2Sg-Acc than] become.heavy-Ipfv-1SgSbj

‘I’m heavier than you-Sg (are).’ (Boui)

c. *[ò-gí bà→] né:ŋgó-râ-∅*

[2Sg-Acc than] become.heavy-IpfvNeg-3SgSbj

‘He/She isn’t heavier than you-Sg (are).’ (Boui)

d. *sàydú déŋí-ndé bǒ:-∅*

Seydou short be-3SgSbj

‘Seydou is short.’ (Boui)

e. *[à:màdú gì bà→] déŋìy-â:* / *déŋí-ỳⁿ*

[Amadou Acc than] become.short-3PlSbj / -1SgSbj

‘They are / I am shorter than Amadou.’ (Boui)

f. *[à:màdú gì bà→] déŋí-ná-ỳⁿ*

[Amadou Acc than] become.short-StatNeg-1SgSbj

‘I am not shorter than Amadou.’ (Boui)

Past-time examples with telltale final *ɛ* on the verbs are in (xx2).

(xx2) a. *sàydú [à:màdú gì bà→] déŋìyɛ̀-∅*

Seydou [Amadou Acc than] become.short.Past-3SgSbj

‘Seydou was shorter than Amadou.’ (Boui)

b. *[à:màdú gì bà→] déŋì-nɛ̀-∅*

[Amadou Acc than] become.short-PfvNeg-3SgSbj

‘He was not shorter than Amadou.’ (Boui)

### Verbal predicate plus *bà→* ‘than’

The same comparandum with *bà→* after accusative object NP can occur when a verb is the predicate, whether the verb denotes an adjective-like quality (‘become old’) or an activity.

(xx1) a. *[ò-gí bà→] kúnjɛ́-ỳⁿ*

[2Sg-Acc than] get.old.Pfv-1SgSbj

‘I’m older than you-Sg (are).’ (lit. “I have aged than you” (Boui)

b. *[ò-gí bà→] kúb-bò-yⁿ*

[2Sg-Acc than] do.farming-Ipfv-1SgSbj

‘I do more farming than you-Sg (do)’ (*kúwɔ́-*) (Boui)

c. *[mì-gí bà→] írɛ́-ẁ*

[1Sg-Acc than] get.Pfv-2SgSbj

‘You got more than I (did).’ (Boui)

### ‘Surpass’ (*táŋgó-*)

*táŋgó-* ‘pass by, go past’ (or ‘cross’) can be used as an inchoative asymmetrical comparative (xx1).

(xx1) *gó: [mì-gí bà→] yálɛ́-ẁ,*

formerly [1Sg-Acc than] be.long.Past-2SgSbj

*mɛ̀: ájá ò-gì táŋgé-ỳⁿ*

but now 2Sg-Acc pass.Pfv-1SgSbj

‘You-Sg used to be taller than I (was), but now I have passed you-Sg.’ (Boui)

### ‘Be better’ (*mɔ̀:*, *írò*), be more’ (*báy*)

‘X be better than Y’ is expressed with adjectival predicate *mɔ̀:* ‘be good’ (§11.4.1.3) and the comparandum in accusative form, without *bà→* ‘than’.

(xx1) *[máŋgòró rì] [lémbúrú gì] mɔ̀:-∅*

[mango Def] [lemon Acc] be.good-3SgSbj

‘The mango is better than lemons.’ (Boui)

‘X be bigger/more than Y’ is expressed with *báy* ‘big’, reduced from the full adjectival predicate *báy-ndé bǒ:-* ‘be big’ (§11.4.1.1), plus an accusative comparandum without *bà→* (xx2a). In (xx2b), *bày* is reduced to the abstract sense ‘more’ and combines with *yàlà* ‘long, tall’, i.e. ‘greater in tallness’ = ‘taller’. (xx2c) with ‘deep’ is similar in structure to (xx2a). Past-time forms are also shown.

(xx2) a. *mótí [kárí gì] báy-∅* / *báy-yɛ̀-∅*

Mopti [Konna Acc] big-3SgSbj / big-Past-3SgSbj

‘Mopti is / was bigger than Konna (town).’ (Boui)

b. *sàydú [à:màdú gì] bày yàlà-∅* / *yàlɛ́-∅*

Seydou [Amadou Acc] big long-3SgSbj / long.Past-3SgSbj

‘Seydou is / was taller than Amadou.’ (Boui)

c. *[té:nì nì-wɛ́] [ɛ̀-wɛ́ gì bà→] nímí-∅* / *nímì-yɛ̀-∅*

[well(n) 1PlPoss] [2PlPoss Acc than] deep-3SgSbj / deep-Past-3SgSbj

‘Our well is deeper than yours.’ (Boui)

For the Ningo speaker, a conjugatable stative predicate specifically meaning ‘be better’ is írò, negative író-ná- ‘not be better’. The comparandum is the direct object.

(xx3) *nà-gí író-ỳⁿ* / *író-ná-ỳⁿ*

3SgSbj-Acc be.better-1SgSbj / be.better-StatNeg-1SgSbj

‘I am / am not better than him/her.’ (Ningo)

*írò* can also be used, presumably participialized, in locative *írò gì* ‘in better (health),’ see (xx5b) in §10.7.3.1.

### ‘Best’ (*[X jìró] wɔ́:*)

A construction expressing the superlative is exemplified in (xx1a). It ends in a stative verb *wɔ́:* that seems to be another variant of *bò-* ‘be’, though I have not recorded it elsewhere. *jìrò* in (xx1a) is from *jìró*, with {LH} contour as a possessed noun; this tone appears overtly in the negative (and unfocalized) counterpart (xx1b). The phrasing in (xx1a) is therefore literally “he [focus] is the front (=foremost) of singers.”

(xx1) a. *nà:=wó nwɛ̀:* L*-nwí-gé* LH*jìrò wɔ́:*

3Sg=it.is songL-sing.Agent-Pl LHfront be

‘He [focus] is the best of the singers.’ (Boui)

b. *nà nwɛ̀:* L *-nwí-gé* LH*jìró wɔ̀:-nà-∅*

3Sg songL-sing.Agent-Pl LHfront be-StatNeg

‘He is not the best of the singers.’ (Boui)

## Symmetrical comparatives

### ‘Equal; be as good as’ (*dágó-*)

The verb *dágó-* occurs elsewhere in the sense ‘attach (blade of daba [a type of hoe] or pick-hoe)’. The action in that case involves inserting a pin at the back of the blade into a hole at the end of a long shaft.

The abstract sense is ‘X,Y be equal, reach the same level’.

(xx1) *yálá-ndé nì dàgè*

long-Inch 1PlSbj be.equal

‘We are the same height.’ (Boui)

### ‘Same (equal)’ (*tó:má-ŋgá=ẁⁿ*)

‘X is the same (i.e. equal)’ is *tó:má-ŋgá=ẁⁿ*, literally ‘is one’ (§4.7.1.1). To express equality of two entities, the plural form is used, literally “(they are) ones” (xx1). For *-ŋgá-* see §4.2.1.

(xx1) *[mbó yà mbó yà] tó:má-ŋgá-gé=ẁⁿ*

[Dem and Dem and] one-Char-Pl=it.is

‘This one and that one are equal (or: the same).’ (Boui)

## ‘A fortiori’ (*sáŋkò*)

The common regional form for ‘a fortiori’ (as in ‘I don’t have a dollar, much less a million dollars’, local French *à plus forte raison* or *ne parlons pas de*) is pronounced *sáŋkò*. It is placed directly in front of the second, more unattainable comparandum.

# Focalization and interrogation

## Focalization

Focalization of a non-predicative constituent is expressed by three mechanisms of varying reliability (xx1).

(xx1) a. A focalized human NP or pronoun is followed by the focus clitic, which is identical to the ‘it is’ clitic (*=yó*, *=wó*, or variant).

b. If a nonsubject constituent is focalized, the usual pronominal-subject suffixes (1Sg *-yⁿ*, 2Sg *-w*, various 3Pl suffixes) are replaced under some conditions (especially in interrogative clauses) by preverbal subject pronouns (1Sg *mì*, 2Sg *ò*).

c. The verb get a {LH} tone overlay for nonsubject focus and {H} for subject focus.

d. Existential proclitic *è* ~ *é* is omitted.

Features (xx1b,d) and the {LH} part of (xx1c) are shared by focalization and relativization, suggesting a fairly close association between them. However, the shift from pronominal-subject suffixes to proclitics is less rigorous in focalization than in relativization, and the {H} contour for subject focus does not occur in relatives.

There is no systematic linear repositioning of focalized constituents. However, another constituent may be topicalized (and fronted), the effect being that a focalized constituent occurs nearer to the verb than otherwise.

### Basic syntax of focalization

#### Which constituents can and cannot be focalized?

NPs, including noun-like adverbs (‘yesterday’, ‘here’) and pronouns can be focalized. Numerous examples are given in this chapter.

In a reflexive object construction, of the type ‘I cut [my head]’ meaning ‘I cut myself’, the object can be focalized.

(xx1) *[mì kògó] mì* LH*tɛ̀lɛ́*

[1SgPoss head] 1SgSbj LHcut.Pfv

‘I cut-Past myself.’ (Boui)

An adverbial phrase such as a locative PP can be focalized (xx2).

(xx2) *[bɔ̀mɔ̀kɔ́ ŋà] wàlè kám-bà* LH*cě-yⁿ*

[Bamako Loc] work(n) do-VblN LHwant-1SgSbj

‘It’s in Bamako (city) [focus] that I want to work.’ (Boui)

I know of no way to syntactically focalize a verb or VP, other than using a corresponding noun (cognate nominal, verbal noun).

#### Preverbal subject pronouns in nonsubject focalizations

Under some conditions that need further study, the pronominal subjects that are expressed in ordinary main clauses by suffixes on verbs (1Sg, 2Sg, 3Pl) or by zero affix (3Sg) are expressed in nonsubject focalized clauses by preverbal proclitics. The same proclitic forms are used in nonsubject relatives (§14.3). 1Pl and 2Pl subjects are expressed by proclitics in all clauses, including main clauses.

The use of 1Sg/2Sg/3Pl and 3Sg subject proclitics is not required in all nonsubject focalizations. In my data it appears to be associated with WH-interrogatives and with responses to them (xx1ab).

(xx1) a. *ǹdégé(-sì) ò* LH*dɔ̀nɛ́*

what? 2SgSbj LHbuy.Pfv

‘What did you-Sg buy?’ (Boui)

b. *ámbá mì* LH*dɔ̀nɛ́*

sheep 1SgSbj LHbuy.Pfv

‘It’s a sheep [focus] that I bought.’ (Boui)

Nonsubject focalizations in noninterrogative contexts sometimes have the regular suffixes. That they are focalized clauses is shown by the {LH} overlay on the verb.

(xx2) a. *mó-ŋà* LH*ìgǎ-w*

here LHstand.Stat-2SgSbj

‘It’s here [focus] that you-Sg are standing’ (Boui)

b. *mì-gí* LH*tɛ̀wɛ̌-w*

1Sg-Acc LHhit.Pfv-2SgSbj

‘It’s me [focus] that you-Sg hit.’ (Boui)

#### No systematic movement of focalized constituent

There is no systematic linear repositioning of focalized constituents. In particular, focalized objects follow a nonpronominal subject NP as in unfocalized clauses (xx1a). However, WH-interrogative clauses tend to topicalize nonfocal constituents, the effect being that the WH-interrogative itself is often directly before the verb. This is most noticeable in subject focalization of transitive clauses (‘who sold the vehicle?’). However, the regular SOV order is also possible (xx1cd).

(xx1) a. *[mó:wélí rì] [à: gí]* LH*bɛ̀ndɛ́*

[vehicle Def] [who? Acc] LHbump.Pfv

‘Who(m) did the vehicle bump?’ (Boui)

(or: ‘The vehicle, who(m) did it bump?’)

b. *[mó:wélí rì] à:=wò* H*túlɛ́*

[vehicle Def] who?=Foc Hsell.Pfv

‘The vehicle, who sold it?’ (Boui)

c. *à:màdú=yò [mó:wélí rì]* H*túlɛ́*

Amadou=Foc [vehicle Def] Hsell.Pfv

‘It was Amadou [focus] who sold the vehicle.’(Boui)

d. *à:=wó è-gì* H*tɛ́wɛ́*

who?=Foc 2Pl-Acc Hhit.Pfv

‘Who hit you-Pl?’ (Boui)

Similarly, with a nonsubject focalized constituent, the fact that all pronominal subjects (not just 1Pl and 2Pl) are expressed by preverbal pronouns can make it look as though the focalized constituent is fronted (xx1a). In fact, this is the same linear order for 1Pl and 2Pl subject clauses without focalization (xx1b), so there is no evidence for movement of the focalized constituent in (xx1a).

(xx1) a. *[à:màdú yó] mì* LH*tɛ̀wɛ́*

[A Foc] 1SgPoss LHhit.Pfv

‘It was Amadou [focus] that I hit.’ (Boui)

b. *[à:màdú gì] nì tɛ̀wɛ̀*

[A Acc] 1PlSbj hit.Pfv

‘We hit-Past Amadou.’ (Boui)

#### Focus morpheme identical to ‘it is’ clitic (*=ẁⁿ* ~ *=wò* ~ *=yò*)

If a non-verb focalized constituent is human, it is followed by the focus clitic, which is the same as the ‘it is’ clitic used in identificational predicates (§11.2.1.1). Accusative *gì* is not present on focalized object NPs. There is usually no overt morphological marking of focal status for nonhuman constituents, although in identificational predicates the ‘it is’ clitic is routinely added to inanimate as well as animate nouns. Representative forms of focused human constituents are in (xx1). Pronominal-subject suffixes (1Sg, 2Sg, 3Pl) are replaced by these focalized pronouns.

(xx1) gloss focalized regular

a. [name] *à:màdú=yò à:màdú*

[name] *à:dàmá=wò à:dàmá*

b. ‘my child’ *mì bě=ẁⁿ mì bě:*

c. 1Sg *mì=yó mì*

1Pl *nì=yó nì*

2Sg *ò:=wó ò*

2Pl *è:=wó è*

3Sg *nà:=wó nà*

3Pl *cè:=wó cè*

#### {LH} or {H} overlay on defocalized verb

In the presence of a focalized nonpredicative, **nonsubject** constituent (object, adverbial, etc.), a positive (perfective, imperfective, stative) predicate is subject to a {LH} overlay. Compare the {LH} overlay in relative-clause verbs. The {LH} overlay occurs on the verb whether a pronominal 1Sg/2Sg/3Pl subject is expressed by a preverbal clitic (xx1a-c) or by the usual suffix (xx1d). In interrogative examples like (xx1a-c), the {LH} overlay may be redundant since interrogative clauses commonly end in an intonational pitch rise.

(xx1) a. *ǹdégé(-sì) ò* LH*dɔ̀nɛ́*

what? 2SgSbj LHbuy.Pfv

‘What did you-Sg buy?’ (Boui)

b. *ǹdégé(-sì) ò* LH*dònà-ní*

what? 2SgSbj LHbuy-PfvNeg

‘What didn’t you-Sg buy?’ (Boui)

c. *ǹdégé ò* LH*sǎ:*

what? 2SgSbj LHhave

‘What do you-Sg have?’ (Boui)

d. *mó-ŋà* LH*ìgǎ-w*

here LHstand.Stat-2SgSbj

‘It’s here [focus] that you-Sg are standing’ (Boui)

e. *mì-gí* LH*tɛ̀wɛ̌-w*

1Sg-Acc LHhit.Pfv-2SgSbj

‘It’s me [focus] that you-Sg hit.’ (Boui)

f. *mó-ŋà* LH*nòyò-wǒ-yⁿ*

here LHsleep-Ipfv-1SgSbj

‘It’s here [focus] that I will sleep.’ (Boui)

g. *mó-ŋà* LH*nàyò-w-â:*

here LHsleep-Ipfv-3PlSbj

‘It’s here [focus] that they will sleep.’ (*nóyó-* ~ *náyó-*) (Boui)

When a verb with 3Pl subject suffix is defocalized, the {LH} overlay extends to the **onset** of the 3Pl suffix, but its final falling tone is preserved. This accounts for the final falling tone in *nàyò-w-â:* in (xx1g).

The {LH} overlay is sometimes applied to perfective negative verbs, but I have not observed it with imperfective negatives. Examples are in §13.1.2 (subject focalization). This may be because focalization is awkward in negative contexts (‘it’s X [focus] that I didn’t/don’t see’).

If the **subject** is focalized, an **{H}** rather than {LH} overlay appears on the verb.

(xx2) *mì=yó nà-gì* H*tɛ́wɛ́*

1SgSbj=Foc 3Sg-Acc Hhit.Pfv

‘It was *I* [focus] who hit him.’ (Boui)

Further examples of nonsubject {LH} and subject {H} overlays occur throughout this chapter, for example in connection with content interrogatives (§13.2.2‑8 below).

#### Existential *è ~ é* absent

Existential particle *è ~ é* and its distant counterpart *yà* ~ *yá* are not allowed in clauses with a non-verb focalized constituent. This is most noticeable with ‘have’ clauses, where the particle is obligatory in positive unfocalized clauses (xx1a) but is not allowed in focalized counterparts (xx1bc).

(xx1) a. *jíwá è sá-l lè*

house Exist have-2SgSbj Q

‘Do you-Sg have a house?’ (< *è sá-ẁ*) (Boui)

b. *ndégé ò* LH*sǎ:*

what? 2SgSbj LHhave

‘What do you-Sg have?’ (Boui)

c. *à:=wò ná:* H*sá:*

who?=Foc cow Hhave

‘Who has a cow?’ (Boui)

We can also see this in positive ‘be (present/absent)’ clauses with no explicit locational, as when predicating existence. *é* is required in (xx2) since there is no other overt locational, but it is absent in (xx2b).

(xx2) a. *námá é wò-∅*

meat Exist be-3SgSbj

‘There is (some) meat.’ (Boui)

b. *ndégé=ẁⁿ* H*bó:*

what?=Foc Hbe

‘What is present (here/there)?’ (Boui)

### Subject focalization

Some further examples of subject focalization are given here. They illustrate points made above, except that the expression of pronominal subjects is not relevant. Recall that the verb has {H} rather than {LH} overlay.

(xx1) a. *mì=yò* H*úm-bó*

1Sg=Foc Hgo-Ipfv

‘It’s I [focus] who will go.’ (Boui)

b. *ò:=wó wàlè* H*kání*

2Sg=Foc] work(n) Hdo.Pfv

‘It’s you-Sg [focus] who did the work.’ (Boui)

c. *è:=wó wàlè* H*káná-ní*

2Pl=Foc work(n) Hdo-PfvNeg

‘It’s you-Pl [focus] who didn’t work.’ (Boui)

d. *à:màdú=yò té:* H*sógé*

Amadou=Foc tea Hbring.Pfv

‘It was Amadou [focus] who brought the tea.’ (Boui)

e. *à:màdú=yò* H*ígíl-dá*

Amadou=Foc Hsweep-IpfvNeg

‘It’s Amadou [focus] who doesn’t sweep.’ (Boui)

### Object focalization

Further examples of object focalization are in (xx1). In addition to the features shared with subject focalization, we now see 1Sg/2Sg/3Pl and 3Sg pronominal-subject proclitics, like 2Sg *ò* in (xx1a). Accusative marking (*gì*) is often absent from the focalized object NP, even with pronouns, and it cannot be combined with an overt focus clitic.

(xx1) a. *[mì yó] [èwà ŋá] ò* LH*bàlì-yé rì*

[1Sg Foc] [market in] 2SgSbj LHsee-MP.Pfv Def

‘It’s me [focus] whom you saw at the market.’ (Boui)

b. *té: mì* LH*yɔ̀lɔ̀-wó*

tea 1SgSbj LHlook.for-Ipfv

‘It’s tea [focus] that I am looking for.’ (Boui)

c. *[ná: mɛ̀:] ò* LH*jɛ̀yɛ́*

[cow 1SgPoss] 2SgSbj LHkill.Pfv

‘It was my cow [focus] that you-Sg killed.’ (Boui)

### Focalization of PP or other adverb

A PP like ‘in the fields’ (xx1) can be focalized. However, the focus particle is not used with PPs (or with other nonhuman NPs), so if there is another overt constituent it may not be clear which is focalized.

(xx1) *[wótóró rì] [yálá ŋà]* LH*dìyɛ̀-ýⁿ*

[cart Def] [field Loc] LHleave.Pfv-1SgSbj

‘It’s in the field(s) [focus] that I left the cart.’ (Boui)

## Interrogatives

### Polar (yes/no) interrogatives (*lè*, *nì*)

The clause-final polar interrogative particle is usually *lè*, but undergoes phonological processes when immediately preceded by a semivowel, as in 1Sg and 2Sg subject verb forms. The outputs are in (xx1).

(xx1) input output example

a. *-ẁ lè* → *-l lè* 2Sg suffix *-ẁ*

b. *-ỳ lè* → *-l lè* experiential perfect *-tèy*

c. *-ỳⁿ lè* → *-n nì* 1Sg suffix *-ỳⁿ*

d. *=ẁⁿ lè* → *=∅ n* ‘it is’ clitic *=ẁⁿ* plus yes/no

*ámbá=∅ nì* ‘is it a sheep?’ (Boui)

The interrogative particle has variable tone, but it can be analysed as basically L-toned. If the preceding syllable has contour (rising or falling) tone, the final tone component is realized on the particle (xx2ab). Likewise, a floating H-tone otherwise realized on the preceding syllable shifts to the particle (xx2c). If the preceding word is {L}-toned, the interrogative particle polarizes to it, becoming H-toned (xx2d). So the tone of the particle is highly context-sensitive. In (xx2), the form of the preceding syllable in other contexts is given in parentheses after the free translation.

(xx2) a. *[ìjò ŋá] ùnì-sɛ̀-l lé*

[village in] go-RecPf-2SgSbj Q

‘Did you-Sg go to the village?’ (< *-sɛ̌-w*) (Boui)

b. *nígé bàlì-yè-tèl-∅ lé*

elephant see-MP-ExpPf-3SgSbj Q

‘Has he/she ever seen an elephant?’ (< *-tèy-∅*) (Boui)

c. *è nɔ̀:-rà lé*

2PlSbj enter-IpfvNeg Q

‘Did you-Pl not go in?’ (< *è-nɔ̀:-rá* ) (Boui)

d. *yògè-∅ lé*

come.Pfv-3SgSbj Q

‘Did he/she come?’ (< *yògè-∅*) (Boui)

e. *yógó-wò-l lè*

come-Ipfv-2SgSbj Q

‘Will you-Sg come?’ (Boui)

### ‘Who?’ (*à:*)

*à:* ‘who?’ is distinct from *á:* ‘God’. Examples of ‘who?’ are in (xx1). Like other WH-interrogatives, it is often marked by the ‘it is’ (here, focus) clitic, in the form *à:=wó*. The clitic is heard with H-tone when final (i.e. predicative) or when followed by a L-tone. When nonfinal (i.e. nonpredicative), the *=wó* is often reduced phonetically to *=w*. The object form is *à: gí* with accusative (not focus) marking.

(xx1) a. *à:=wó*

who?=Foc

‘Who is it?’ (Boui)

b. *à:=wò* H*yógé-∅*

who?=Foc Hcome.Pfv-3SgSbj

‘Who came?’ (Boui)

c. *à:=wò* H*úm-bó-∅*

who=Foc Hgo-Ipfv-3SgSbj

‘Who will go?’ (Boui)

d. *[à: gí]* LH*tɛ̀wɛ́-∅*

[who? Acc] LHhit.Pfv-3SgSbj

‘Who(m) did he/she hit?’ (Boui)

e. *à:=wó è* LH*tɛ̀wɛ́*

who?=Foc 2PlSbj LHhit.Pfv

‘Who(m) did you-Pl hit?’ (Boui)

f. *[à:* LH*jìwá]=wⁿ*

[who? LHhouse]=it.is

‘Whose house is it?’ (Boui)

g. *[í:njɛ́ rì gì] à:=wò* H*tɛ́wɛ́*

[dog Def Acc] who?=Foc Hhit.Pfv

‘Who hit the dog?’ (Boui)

h. *à:=wò* H*yógó-ní*

who?=Foc Hcome-PfvNeg

‘Who didn’t come?’ (Boui)

If the number of referents asked about is unclear, the singular forms illustrated above are used. A marked plural *à:-yá=wꜛ* is required in predicates with plural subject: *è à:-yá=wꜛ* ‘who are you-Pl?’ It can also be used in nonpredicative function to make plurality explicit.

### ‘What?’ (*ndégé*), ‘with what?’, ‘why?’

‘What?’ is *ndégé*.

(xx1) a. *ndégé ò* LH*cěy*

what? 2SgSbj LHwant

‘What do you-Sg want?’ (Boui)

b. *ndégé nà* LH*ìrɛ̀-sá*

what? 3SgSbj LHget-Reslt

‘What did he/she get?’ (Boui)

c. *ndégé [ò gì]* LH*kání-sá*

what? [2Sg Acc] LHdo-Reslt

‘What (e.g. which body part) has hurt you-Sg?’ (Boui)

d. *mbó ndégé=ẁⁿꜛ*

Dem what?=it.is

‘What is this/that?’ (Boui)

A kind of plural can be formed by conjoining *ndégé* to itself: *[ndégé yà] [ndégé yà]* ‘what and what?’. An assistant rejected a direct plural #*ndégé-gé*.

‘With what?’ is *ndégé sìyà:*.

‘Why?’ (‘for what?’) is *ndégé dàgà* or contracted *ndé dàgà*.

### ‘Where?’ (*àná*)

‘Where?’ is *àná*. Like all locational expressions, it can occur without change in static locative, allative, and ablative contexts, with direction (if any) specified by verbs.

(xx1) a. *àná* LH*bǒ-w*

where? LHbe-2SgSbj

‘Where are you-Sg?’ (Boui)

b. *àná* LH*ùm-bó-wꜛ*

where? LHgo-Ipfv-2SgSbj

‘Where are you-Sg going?’ (Boui)

c. *àná è* LH*gwě:ꜛ*

where? 2PlSbj LHgo.out.Pfv

‘Where are you-Pl from?’ (Boui)

d. *àná=wꜛ*

where?=it.is

‘It’s where?’ (Boui)

### ‘When?’ (*áná-ŋgà*)

‘When?’ is *áná-ŋgà*, which apparently includes *àná* ‘where?’. the function of *‑ŋgà* here is obscure; for H-toned *-‑ŋgá* see §4.2.1.

(xx1) a. *áná-ŋgà* LH*yògò-wó*

when? LHcome-Ipfv

‘When are you-Sg coming?’ (Boui)

b. *áná-ŋgà=wꜛ*

when?=it.is

‘When is it?’ (Boui)

### ‘How?’ (*árá*)

Manner adverbial interrogative ‘how?’ is *árá*.

(xx1) a. *árá ìlɔ̀-wɔ̀-wꜛ*

how? go.up-Ipfv-2SgSbj

‘How will you-Sg go up?’ (Boui)

b. *árá bò-∅*

how? be-3SgSbj

‘How is it?’ (Boui)

### ‘How much/many?’ (*áŋgá*)

The usual sense is ‘how many?’, since even masses (like ‘money’) can be conceptualized in terms of units. *áŋgá* comes at the end of the NP, after plural *ge*. It has no effect on the tones of the preceding words, except in its ordinal adjective form (xx1e), cf. §4.7.2.

(xx1) a. *[[ámbá gé] áŋgá] tùlɛ̀-wꜛ*

[[sheep Pl] how.many?] sell.Pfv-2SgSbj

‘How many sheep did you-Sg sell?’ (Boui)

b. *[bé-gé áŋgá] ò bàlì-yèꜛ*

[child-Pl how.many?] 2SgSbj see-MP.Pfv

‘How many children did you-Sg see?’ (Boui)

c. *áŋgá-áŋgá tùlɔ̀-wɔ̀-wꜛ*

Iter-how.many? sell-Ipfv-2SgSbj

‘For how much each do you-Sg sell (them)?’ (Boui)

d. *[síkɔ́rɔ́ gé áŋgá]=wꜛ*

[sugar Pl how.many?]=it.is

‘It’s how much (= how many units of) sugar?’ (Boui)

e. *jìwà*L *áŋgá-n*

house L how.many?-Ord

‘how-many-eth house?’ (reply: first, second, third, etc.) (Boui)

### ‘Which?’ (*árí* )

*árí* ‘which?’ functions like an adjective, but does not control tone-dropping on a preceding noun. Where the referent is nonsingular, plural *‑gè* may follow both the preceding noun and *árí* itself (xx1b). The set from which the referent is to be selected may also be expressed separately as a locative PP (xx1d).

(xx1) a. *[ámbá árí] ò dɔ̀nɔ̀-wò↗*

[sheep which?] 2SgSbj buy-Ipfv

‘Which sheep-Sg will you-Sg buy?’ (Boui)

b. *[ámbá-gé árí-gé] ò dɔ̀nɔ̀-wòꜛ*

[sheep-Pl which?-Pl] 2SgSbj buy-Ipfv

‘Which sheep-Pl will you-Sg buy?’ (Boui)

c. *[[jíwá árí] ŋá] è bì-yò-wòꜛ*

[[house which?] Loc] 2PlSbj lie.down-Ipfv

‘In which house will you-Pl sleep?’ (Boui)

d. *[[ná:-gè rì] ŋà] árí ò tùlɔ̀-wòꜛ*

[[cow-Pl Def] Loc] which? 2SgSbj sell-Ipfv

‘Which of the cows will you-Sg sell?’ (Boui)

For *árí* in relative-clause internal head NPs, see §14.2.2.

# Relativization

## Basics of relative clauses

The following is a brief summary of the major features of relative clauses.

* The core of the head NP is internal to the relative clause;
* This internal head NP is maximally Poss-N-Adj-Num and may include plural *ge* ;
* The internal head NP does not undergo tonosyntactic modification, i.e. tone-dropping due to the relative clause;
* Determiners and ‘all’ quantifiers associated with the head NP follow the verb;
* If the head NP is subject of the relative clause, it may be followed by a morpheme *wⁿ* or by *árí* ‘which’;
* Subject relatives have no overt pronominal-subject inflection on the verb;
* Nonsubject relatives have preverbal pronominal-subject markers rather than suffixes, even for 1Sg and 2Sg subjects;
* The verb is marked for an indicative category (aspect, negation, past time) as in main clauses;
* In most types of relatives, a {LH} tone pattern is overlaid on the verb, distinguishing the verb from counterparts in non-relative clauses;
* The verb has no overt nominal or adjectival morphology, but it is arguably nominal syntactically since it can be followed by plural and definite morphemes.

## Head NP

The head NP is (apparently) bifurcated into a core that remains internal to the relative clause, and a coda that follows the verb. In effect, the entire relative construction is a NP. The core is maximally Poss-N-Adj-Num. The coda contains determiners, ‘all’ quantifiers, and any discourse-functional particles.

### Internal head NP (Poss-N-Adj-Num)

The internal head NP is maximally Poss-N-Adj-Num. Plural suffix *-gè* may be added in the same manner as in non-head NPs. There are no tonosyntactic changes other than those that take place anyway among these NP components. The internal head components are bolded in interlinears in (xx1).

(xx1) a. *jíwá* LH*ùwɛ̀-sá rì*

**house** LHcollapse-ResltRel Def

‘the house that collapsed’

b. *jìwà báy-gé nì:ŋgà* LH*ùwɛ̀-sà-gé rì*

**house big-Pl two** LHcollapse-ResltRel-Pl Def

‘the two big houses that collapsed’

c. *sàydú jìwà bày-gè nì:ŋgà-ŋ̀gé* LH*ùwɛ̀-sà-gé rì*

**Seydou house big-Pl two-Pl** LHcollapse-ResltRel-Pl Def

‘Seydou’s two big houses that collapsed’

In (xx1c), the possessor has its usual tonal effects on the following possessed NP. Since the relative clause does not control further tonal changes on the head NP, there is no conflict with the possessor-controlled overlay.

### *árí* ‘which’ and/or *=wⁿ* after internal head NP

In many examples there is no special morphological marking of the (internal) head status of the NP in question. However, there are also examples where the head is followed by *árí* and/or by *=wⁿ*. *árí* occurs elsewhere as the ‘which?’ interrogative (§13.2.9), while *=wⁿ* resembles a variant of the ‘it is’ clitic or focus clitic *=ẁⁿ* (§11.2.1, §13.1.1.4).

*árí* without *=wⁿ* is seen in (xx1). Since it is followed by a postposition (purposive ‘for’), this construction looks like the English type t*he X for which* …, with *which* coindexed to the head. However, efforts to elicit parallel examples with *árí* followed by other postpositions (locative, instrumental) were unsuccessful; see §14.7.4 for discussion of postpositional relatives.

(xx1) *[[bé-gè rì] [í:gé árí dàgá]* LH*yògè-sá]*

[[child-Pl Def] [honey which Purp] LHcome-ResltRel]

*áná* LH*bǒ:*

where? LHbe

‘Where is the honey that the children came for?’

The combination *árí=wⁿ* occurs in (xx2).

(xx2) a. *[ndà: árí=wⁿ]* LH*yěy rì*

[person which=Foc] LHknow.Rel Def

‘the person who knows’

b. *[bé-gé árí-gé=wⁿ]* LH*tìwɛ̀-sà-gé rì*

[child-Pl which-Pl=Foc] LHdie.Pfv-ResltRel-Pl Def

‘the child who has died’

Another example of *árí*, this time without *=wⁿ*, is (xx2).

(xx3) *[dèwⁿ árí] nà dùmbɛ̀* LH*sìgé*

[day which] 3SgSbj fall.Pfv LHgo.down.Pfv

‘the day when he fell down’

### Restrictions on the head of a relative clause

A pronoun can function as head of a relative. The pronoun takes L-toned form (xx1ab). A personal name can also be head (xx1c). In such cases the head is grouped prosodically with the rest of the relative clause, so there is no prosodic indication of parenthesis.

(xx1) a. *nì mó-ŋà* LH*bò:-gé rì*

1PlSbj here LHbe-Pl Def

‘we who are here’

b. *ò* / *nà* / *mì mó-ŋà* LH*bǒ: rì*

2SgSbj / 3SgSbj / 1SgSbj here LHbe Def

‘you-Sg who are here / he or she who is here / I who am here’

c. *sàydú mó-ŋà* LH*bǒ: rì*

Seydou here LHbe Def

‘Seydou who is here’

To my knowledge a demonstrative or an expressive adverbial cannot be relative-clause heads.

The head NP may function as subject, object, postpositional complement, or possessor of another NP within the relative clause.

### Conjoined NP as head

There is no structural problem with a conjoined NP as the head of a relative (xx1b).

(xx1) a. *[yé:-gé yà] [bànà-gé yà] yáŋí-y-íyè*

[woman-Pl and] [man-Pl and] fight-MP-3PlSbj

‘women and men squabbled (with each other)’

b. *[yé:-gé yà] [bànà-gé yà]* LH*yàŋì-yè-gé rì*

[woman-Pl and] [man-Pl and] LHfight-MP.PfvRel-Pl Def

‘the women and men who squabbled’

### Headless relative clause

For headless relatives as adverbial clauses, see §15.5.3.

### Head noun not doubled after relative clause

Doubling (echoing) of the internal head noun following the verb has not been observed.

## Preverbal subject pronoun in nonsubject relative

If a nonsubject relative, such as an object relative, has a pronominal subject, it is expressed as a L-toned prefix (or proclitic) on the verb.

(xx1) *ná: ò* / *mì* / *è* / *nì* / *nà* / *kè* LH*tùlɛ́ rì*

cow 2SgSbj / 1SgSbj / 2PlSbj / 1PlSbj / 3SgSbj / 3PlSbj LHsell.PfvRel Def

‘the cow that you-Sg/I/you-Pl/we/he-or-she/they sold’

The prefix precedes a nonfinal chained verb; see §14.5. Because the pronoun precedes both verbs, its location cannot be used as a syntactic test to distinguish verb-verb chains, including verb plus specialized auxiliary verb, from verb-suffix combinations (e.g. experiential perfect).

There is no resumptive subject pronoun when the subject of a nonsubject relative is expressed by an overt subject NP.

(xx2) *sàydù déwⁿ dùmbɛ̀* LH*sìgé rì*

Seydou day fall.Pfv LHgo.down.PfvRel Def

‘the day when Seydou fell down’

## Verb (or: verbal participle) in relative clause

The verb in a (subject or nonsubject) relative clause has an {LH} overlay, except in the agentive-type imperfective positive relatives. The {LH} overlay is shared in part by verbs in focalized clauses. However, under focalization the overlay is {LH} only for nonsubject focus, versus {H} for subject focus. For possible vestiges of {H} overlay with original subject relatives specialized as adjectives, see the discussion of *-sá* adjectives in §4.6.

In elicitation, an assistant sometimes failed to apply the {LH} overlay to (perfective and imperfective) negative verbs.

Other than the {LH} overlay, there is usually no other overt mark of participialization (i.e. nominal or adjectival features). However, perfective positive relatives often replace the regular (unsuffixed) perfective with the resultative (*-sá-*), and nonsubject imperfective positive relatives have a special suffix *-wá-* instead of *-wó-*, so in these cases there is morphological marking.

### Participles of positive perfective-system verbs

The perfective consisting of the E/I-stem of the verb has {LH} melody in relative clauses. Most examples in my data end in definite *rì*, and it may be that the {LH} melody was generalized from definite relative clauses, since the definite marker forces a final H-tone on a preceding {L}-toned word. In the plural, the final H-tone element is realized on plural *‑gè*.

The main clause (xx1a) becomes the **subject relative** (xx1b). The main clause (xx1c) becomes the **nonsubject relative** (xx1d).

(xx1) a. *í:njɛ́-gé mì-gí cɛ̀r-ìyɛ̀*

dog-Pl 1Sg-Acc bite-Pfv.3PlSbj

‘(The) dogs bit me.’

b. *í:njɛ́(-gé) mì-gí* LH*cɛ̀rɛ̀-gé rì*

dog(-Pl) 1Sg-Acc LHbite.PfvRel-Pl Def

‘the dogs that bit me’

c. *í:njɛ́ mì-gí* LH*cɛ̀rɛ́ rì*

dog 1Sg-Acc LHbite.Pfv Def

‘the dog that bit me’

d. *[í:njɛ́ rì] déwⁿ mì-gí* LH*cɛ̀rɛ́ rì*

[dog Def] day 1Sg-Acc LHbite.Pfv Def

‘the day the dog bit me’

It was not possible to elicit an explicit **recent perfect** relative clause; an assistant merged these into the simple perfective. However an **experiential perfect** relative clause is (xx2). The {LH} melody is realized on the experiential perfect suffix.

(xx2) *ǹdà: nígé* LH*bàlì-yè-těy rì*

person elephant LHsee-MP-ExpPfRel Def

‘the person who has (once) seen an elephant’

The **resultative** with *-sà-* ‘have’ can also form relative clauses (xx3). In fact, the resultative form occurs frequently in my data in relative clauses where one would expect a simple perfective.

(xx1) *bí:má* LH*yògè-sá rì*

visitor LHcome.Pfv-ResltRel Def

‘the visitor who has come’

### Participles of positive imperfective-system and stative verbs

In the imperfective positive, **subject relatives** frequently take the form of **agentive compounds** if the verb is transitive and the object is nonspecific. The object then appears as a {L}-toned compound initial (xx1ab). For example, (xx1a) is similar in structure to ‘beer-drinking women’.

(xx1) a. *yé: kɔ̀njɛ̀-ɲé:-gè rì*

woman beer-drink.Agent-Pl Def

‘the women who drink beer’ (agentive compound form)

b. *tìlŋgɔ̀-tél-gè rì*

tree-cut.Agent-Pl Def

‘people who chop down trees’ (agentive compound form)

Other imperfective subject relatives (xx2a) are based on the **regular imperfective** form with *‑wò* or variant after {H}-toned stem. If the head NP is singular, there is no trace of the usual {LH} overlay on the verb (xx2a). However, if the head NP is plural, we do get H-toned plural *-gé* on the verb after the L-toned imperfective suffix *-wò-* (xx2b), so there is a kind of {LH} melody at the end of the verb. (Etymologically, *-wò* is related to *bò-* ‘be’ and so was originally an auxiliary verb.)

(xx2) a. *ndà: nóyó-wò rì*

person sleep-IpfvRel Def

‘the person who will sleep’

b. *mó-ŋà yé:-gé yógó-wò-gé rì*

here woman-Pl come-IpfvRel-Pl Def

‘the women who come here’

**Nonsubject** imperfective relatives are based on a different suffix *-wa* (dialectally *‑ba*), which under the influence of the {LH} overlay appears as *‑wá* after the {L}-toned stem (xx3a-c). This is an explicitly relative suffix that I gloss “Ipfv.Rel” in interlinears. In both *‑wò-* and *‑wá*, for speakers with *w* rather than *b*, the *w* hardens to *b* after a stop or nasal (xx3a). Since the H-tone of *‑wá* may be due to the definite marker, we are free to speculate whether this *‑wá* is connected in any way with verbal noun suffix *‑wà* (§4.2.2). If we decide in favor of this connection, we could say that nonsubject relative clauses resemble **possessed verbal nouns**. However, if the subject is nonpronominal, as in (xx3a), it need not be adjacent to the “possessed” verbal noun as we would expect in a true possessive construction.

(xx3) a. *[[yé:-gè rì] jɛ́lɛ́* LH*ùm-bá rì] [wàgà→ bó-∅]*

[[woman-Pl Def] place LHgo-Ipfv.Rel Def] [far be-3SgSbj]

‘The place where the women go is far away.’

b. *kɔ́njɛ́ ò* LH*ɲɔ̀:-wá rì*

beer 2SgSbj LHdrink-Ipfv.Rel Def

‘the beer that you-Sg drink’

c. *[yé:-gè rì] kɔ́njɛ́* LH*ɲɔ̀:-wá rì*

[woman-Pl Def] beer LHdrink-Ipfv.Rel Def

‘the beer that the women drink’

The suffix *‑wá* ~ *‑bá* also has a past-time counterpart *‑wɛ́* ~ *‑bɛ́*, illustrated by LH*sànjè-bɛ́* ‘was doing business’ in (xx10) in Text 4, compare nonpast imperfective LH*sànjò-bá* ‘is doing business’.

**Progressive** relative clauses are (xx4ab) with *bǒ:*, plural *bò:-gé*.

(xx4) a. *ǹdà:-gè wàlè kànà-wⁿ* LH*bò:-gé rì*

person-Pl work(n) do LHProgRel-Pl Def

‘the people who are working’

b. *ǹdà: wàlè kànà-wⁿ* LH*bǒ: rì*

person work(n) do LHProgRel Def

‘the person who is working’

Derived **statives** are illustrated in (xx5). We see the {LH} overlay on the stative.

(xx5) a. *yé: yá* LH*òwá rì*

woman Exist.Dist LHsit.StatRel Def

‘the woman who is sitting (distant)’

b. *yé: yá:* LH*bì-yá rì*

woman there LHlie.down-MP.StatRel Def

‘the woman who is lying down over there’

Defective stative **quasi-ver**bs are in (xx6). The {LH} melody is observed in all cases.

(xx6) a. *yé: é-ŋà* LH*bǒ: rì*

woman there.Near.Dist LHbe.Rel Def

‘the woman who is there (not far away)’

b. *ndà: jíwá* LH*sǎ: rì*

person house LHhave.Rel Def

‘the person who has a house’

c. *[ndà: árí=wⁿ]* LH*yěy rì*

[person which=Foc] LHknow.Rel Def

‘the person who knows’

d. *ndà:* LH*cěy rì*

person LHwant.Rel Def

‘the person who wants’

### Participles of negative perfective-system verbs

The perfective negative with suffix *-nì* can take the {LH} pattern before the definite marker, with the suffix H-toned. However, alternative pronunciations with the usual non-relative tone pattern, {H}-toned stem and L-toned *-nì*, are also attested.

(xx1) a. *ná:* LH*yègà-ní rì*

cow LHfall-PfvNegRel Def

‘the cow that didn’t fall’

b. *déwⁿ ò* LH*yògò-ní rì*

day 2SgSbj LHcome-PfvNegRel Def

‘the day you-Sg didn’t come’

Since the **experiential perfect negative** contains the same perfective negative suffix, its relative clauses are similar (xx2).

(xx2) *ǹdà: nígé* LH*bàlì-yè-tèy-ní rì*

person elephant LHsee-MP-ExpPf-PfvNegRel Def

‘the person who has never seen an elephant’

### Participles of negative imperfective-system and stative verbs

In the imperfective negative, all relative clauses are based on the regular imperfective negative form with suffix *-râ*, rather than on agentive compounds. With the {LH} overlay, the verb stem is {L}-toned and the suffix is H-toned *‑rá*. However, alternative pronunciations with the regular (non-relative) tones are also attested.

(xx1) a. *yé: kɔ́njɛ́* LH*ɲɔ̀:-rá-gè rì*

woman beer LHdrink-IpfvNegRel-Pl Def

‘the women who do not drink beer’

b. *kɔ́njɛ́ ò* LH*ɲɔ̀:-rá rì*

beer 2SgSbj LHdrink-IpfvNegRel Def

‘the beer that you-Sg don’t drink’

The progressive negative is illustrated in (xx2).

(xx2) *yé: wàlè kànà-wⁿ* LH*òrá rì*

woman work(n) do LHnot.be.Rel Def

‘the woman who is not working’

(xx4) shows derived (xx3a) and underived statives (xx3b).

(xx4) a. *yé:* LH*òwà-ná rì*

woman LHsit.Stat-StatNegRel Def

‘the woman who is not sitting’

b. *ndà-yé:* LH*òrá rì*

woman LHnot.be.Rel Def

‘the woman who is absent (e.g. not here).’

c. *ndà: jíwá* LH*sà:-ná rì*

person house LHhave-StatNegRel Def

‘the person who doesn’t have a house’

d. *ndà:* LH*yè-ní rì*

person LHknow-PfvNegRel Def

‘the person who doesn’t know’

e. *ndà:* LH*cè-lá rì*

person LHwant-StatNegRel Def

‘the person who doesn’t want’

### Participle of past-time forms

The various past-time forms, with characteristic vowel *ɛ*, can occur in relative clauses with the same morphophonology as nonpast forms, i.e. in most cases with {LH} melody.

(xx1) a. *yé: é-ŋà* LH*bɛ̌: rì*

woman there.Near.Dist LHbe.Past Def

‘the woman who was there (not far away)’

b. *ndà: jíwá* LH*sɛ̌: rì*

person house LHhave.Past Def

‘the person who had a house’

## Relative clause involving verb- or VP-chain

When the clause that is relativized contains a verb chain, the final verb is affected by the {LH} overlay. In the case of a nonsubject relative with a pronominal subject, as in (xxa), the proclitic pronominal subject (3Sg *nà*, 1Sg *mì*) is attached to the nonfinal, not the final verb.

In (xx1a), a chain with a nonfinal verb in the {L}-toned E/I-stem (like the 3Sg subject perfective) is followed by the fully inflected verb (‘go down’). When this is converted into a relative clause, the nonfinal verb is unchanged, but the final verb has relative-clause form with {LH} overlay.

(xx1) a. *dùmbɛ̀ sígé-ỳⁿ*

fall.Pfv go.down.Pfv-1SgSbj

‘I fell down.’

b. *déwⁿ nà* / *mì dùmbɛ̀* LH*sìgé rì*

day 3SgSbj / 1SgSbj fall.Pfv LHgo.down.PfvRel Def

‘the day when he/I fell down’

In (xx2a), the nonfinal verb has the same perfective form as before, but the final vowel is imperfective. The relative-clause version is (xx2b).

(xx2) a. *ná: dɔ̀nɛ̀ sógó-wò-yⁿ*

cow buy.Pfv bring-Ipfv-1SgSbj

‘I will buy and bring a cow.’

b. *ná: déwⁿ mì dɔ̀nɛ̀* LH*sògò-wá rì*

cow day 1SgSbj buy.Pfv LHbring-IpfvRel Def

‘the day when I will buy and bring a cow’

## Late-NP elements that follow the verb (or verbal participle)

### Determiners (demonstrative and definite)

Undetermined (indefinite) relative clauses are fine, either introducing a specific referent into the discourse or describing a nonspecific type (‘I’m looking for a person who has a cart’).

Probably most relative clauses in natural speech are definite. Definite *rì* occurs in probably the majority of examples of relative clauses in this chapter. It follows the verb (and plural -*gè* if present) and does not affect the morphology or tones of the verb. Another example of a definite relative clause is (xx1).

(xx1) *ndà-báná ò* LH*bàlá rì*

man 2SgSbj LHsee.StatRel Def

‘the man who(m) you-sg see’

In (xx2a), the all-purpose demonstrative *mbó* replaces definite *rì*. The structure is the same, but since *mbó* is H-toned the final H-tone on the verb ‘see’ is lost by phonological rule. Marked demonstratives like *yá-wò rì* (far distant), which include the definite morpheme, can also be used in this construction (xx2bc). The forms of the relative-clause verbs without the demonstrative are given in parentheses after the free translation.

(xx2) a. *ndà-báná ò* LH*bàlà mbó*

man 2SgSbj LHsee.Stat Def

‘that man who(m) you-Sg see’ (< *bàlá*)

b. *yé: ɲà:ŋgè ɲà-wⁿ* LH*bò: yá-wò rì*

woman meal eat.meal LHProgRel FarDist Def

‘that woman over there who is eating (a meal)’ (< *bǒ:*)

c. *yé:* LH*ìgà yá-wò rì*

woman LHstand.StatRel FarDist Def

‘that woman who is standing’ (< *ìgá*)

### Plural (*-gè*)

When the head NP is plural, plural *-gè* is suffixed to the verb. *-gè* is also optionally present in the final word of the internal head NP, and may also occur in nonfinal words; see examples in §14.2.1 above.

### Non-numeral quantifiers (‘all’)

*címà* ‘all’ occurs in its usual final position within the NP, following the definite morpheme and itself being followed only by accusative *gì* (or by postpositions).

(xx1) a. *[ná:-gé ò* LH*dɔ̀nɛ̀-gé rì címà] mì-gí tà:rà*

[cow-Pl 2SgSbj LHbuy.PfvRel-Pl Def **all**] 1Sg-Acc show.Imprt

‘Show me all the cows that you-Sg bought.’

b. *yé: mó-ŋà* LH*yógó-wò-gé rì címà gì]*

[woman here LHcome-IpfvRel-Pl Def **all** Acc]

*[tɛ̀:mɛ̌n nì:ŋgà-nì:ŋgá] ndà:*

[hundred two-two] give.Imprt

‘Give-2Sg two hundred (currency units) to each woman who comes here.’

## Grammatical relation of relativized-on NP

### Subject relative clause

Further examples of subject relatives are in (xx1).

(xx1) a. *bé: ò-gí* LH*cɛ̀rɛ́ rì*

child 2Sg-Acc LHbite.PfvRel Def

‘the child who bit you-Sg’

b. *bé: dú:rú-yó-wò rì*

child run-MP-IpfvRel Def

‘the child who will run’

c. *[bé-gé árí-gé=wⁿ]* LH*tìwɛ̀-sà-gé rì*

[child-Pl which-Pl=Foc] LHdie.Pfv-ResltRel-Pl Def

‘the child who has died’

d. *á:gá bé: yógó-wò rì*

tomorrow child run-IpfvRel Def

‘the child who will run tomorrow’

### Object relative clause

Further examples of object relatives are in (xx1).

(xx1) a. *à:màdù ná:* LH*tùlɛ́ rì*

Amadou cow LHsell.PfvRel Def

‘the cow that Amadou sold’ (< *à:màdú*)

b. *ná:-gé ò* LH*tùlɛ̀-gé rì*

cow-Pl 2SgSbj LHsell.PfvRel-Pl Def

‘the cows that you-Sg sold’

c. *ná: ò-gí nì* LH*tùlɛ́ rì*

cow 2Sg-Acc 1PlSbj LHsell.PfvRel Def

‘the cow that we sold you-Sg

d. *à:màdù bé:* LH*sògé rì*

Amadou child LHbring.PfvRel Def

‘the child whom Amadou brought’

e. *ámbá túlɔ́-wà mì* LH*yɔ̀lɔ̀-wá rì*

sheep sell-VblN 1SgSbj LHlook.for-IpfvRel Def

‘the sheep that I seek to sell’

f. *á:gá ámbá mì* LH*tùlɔ̀-wá rì*

tomorrow sheep 1SgSbj LHsell-IpfvRel Def

‘the sheep-Sg that I will sell tomorrow’

### Possessor relative clause

Attempts to elicit possessor relatives from the Boui assistant resulted in a construction with *tìŋgà* ‘(the) fellow’ or ‘(the) owner (of sth)’, whose {LH} melody is that of a possessed noun. *tìŋgà* typically denotes a contextually established but nonspecific individual (cf. *the guy* or French *l’intéressé*). (xx1a) literally means ‘(where is) the owner of [(the) place (where) the house fell]’. Likewise, (xx1b) is literally ‘the owner of [(the) child who died]’.

(xx1) a. *[[jíwá jɛ́lɛ́* LH*dùmbɛ̀-sá]* LH*tìŋgá rì]*

[[house place LHfall-Reslt.Rel] LHowner Def]

*áná* LH*bǒ:*

where? LHbe

‘Where is the person whose house fell?’

b. *[bé:* LH*tìwɛ̀-sá]* LH*tìŋgá (rì)*

[child LHdie-Reslt] LHowner (Def)

‘a/the the person whose child died’

The older Ningo speaker produced a purer possessor relative. The possessor in (xx2a-b) is ‘person’. It does not control the usual {LH} overlay on the possessed noun, showing that the possessor and the possessed noun are tonosyntactically separated in this construction.

(xx2) a. *ndà: bé: tìbɛ̀-sá rì*

person child die-Reslt.Rel Def

‘the person whose child died’

b. *ndà: ùnà ùnì-sá rì*

person goat go-Reslt.Rel Def

‘the person whose goat went away’

### Relativization on the complement of a postposition

(xx1a) contains a purposive PP. In the relative version (xx1b), the purposive postposition is added to the head noun ‘honey’ plus *árí* ‘which’.

(xx1) a. *[í:gé dàgá] yògè-s-â:*

[honey for] come-Reslt-3PlSbj

‘They have come for honey.’

b. *[[bé-gè rì] [í:gé árí dàgá]* LH*yògè-sá]*

[[child-Pl Def] [honey which Purp] LHcome-Reslt]

*àná* LH*bǒ:*

where? LHbe.Rel

‘Where is the honey that the children came for?’

Attempts to elicit other postpositional-complement relatives resulted in alternative constructions without a postposition. (xx2a) contains an instrumental PP (‘with that knife’). One relative-clause version that was elicited, (xx2b), is literally either ‘the knife of (the way) I cut-Past the meat’ (possessor of a headless relative), or more awkwardly ‘the knife of [(the) meat that I cut]’. A second relative-clause version (xx2c) omits the postposition, and is literally ‘the knife (that) I cut the meat’.

(xx2) a. *[[tànà mbó] yà] [námà rì]* LH*tɛ̀lɛ̌-yⁿ*

[[knife Dem] Inst] [meat Def] LHcut.Pfv-1SgSbj

‘I cut the meat with that knife [focus].’ (*námá*)

b. *[námá mì* LH*tɛ̀lɛ́]* LH*tàná rì*

[meat 1SgSbj LHcut.PfvRel] LHknife Def

‘the knife with which I cut-Past (the) meat.’ (*tànà*)

c. *tànà námá mì* LH*tɛ̀lɛ́ rì*

knife meat 1SgSbj LHcut.Pfv Def

‘the knife with which I cut-Past (the) meat’

(xx3a) contains a simple locative PP. The first relative version (xx3b) drops the postposition, but adds the noun ‘place’. This noun is vaguely appositional to ‘hole’ though the two are not adjacent, and since ‘place’ is a common relative head we could take it to be the head in this example. The postposition is also dropped in the second relative version (xx3c)

(xx3) a. *[bóndó ŋà]* LH*dùmbɛ̌-yⁿ*

[hole Loc] LHfall.Pfv-1SgSbj

‘I fell in(to) a pit.’

b. *bóndó [ndǎ: rì] jɛ́lɛ́ dùmbɛ̀* LH*sìgé rì*

hole [person Def] place fall.Pfv LHgo.down.PfvRel Def

‘the hole where the person fell down’

c. *bóndó [ndǎ: rì] dùmbɛ̀* LH*sìgé rì*

hole [person Def] fall.Pfv LHgo.down.PfvRel Def

‘the hole (that) the person fell down (in)’

## Relative clauses as quasi-main clauses

In narratives and other extended discourses, clauses in the form of headless relative clauses are quite common where we might expect main clauses. The diagnostics for this are {LH} tones on the verb, preverbal rather than suffixed subject pronominals (for 1Sg, 2Sg, 3Sg, and 3Pl), and for imperfectives *‑wá* ~ *‑bá* replacing. *‑wò* ~ *‑bò*. In natural discourse, which is only roughly approximated by my dictated texts, it is likely that these headless relatives are regularly followed by a final main clause in regular form.

# Verb (VP) chaining and adverbial clauses

## Direct chains

In direct chains in Dogon languages, nonfinal verbs occur either in a bare-stem form or in a chaining stem with final high vowel, but no overt subordinating or aspect-negation marking. Only the final verb is inflected.

In the initial fieldwork with the Boui assistant, I did not find clear evidence of direct chains of this type. This assistant favored the construction with double conjugated perfectives (§15.2.2.1). However, further study might have turned up examples of direct chains like those I found later with the Ningo assistant, where verbs of motion or transfer (‘go’, ‘bring’, etc.) may follow another verb. The important point in (xx1a‑c) from Ningo is that only the final verb is inflected for AN category and conjugated for pronominal subject. nì:ndɛ̀ ‘accompany (visitor) back’ has the same form in these examples, while the final verb ‘convey’ changes shape depending on AN and subject categories.

(xx1) a. *bí:má nì:ndɛ̀ nì sìnì*

visitor accompany 1PlSbj convey.Pfv

‘We accompanied the visitor back (home)’ (Ningo)

b. *bí:má nì:ndɛ̀ sìnì-yè*

visitor accompany convey.Pfv-3PlSbj

‘They accompanied the visitor back (home)’ (Ningo)

c. *ágá bí:má nì:ndɛ̀ nì sím-bò*

tomorrow visitor accompany 1PlSbj convey-Ipfv

‘Tomorrow we will accompany the visitor back (home).’ (Ningo)

Another direct chain is ‘fall’ plus ‘descend’ → ‘fall (all the way) down’ in (xx2a‑c).

(xx2) a. *yɛ̀gɛ̀ nì sìgè*

fall 1PlSbj descend.Pfv

‘We fell (all the way) down.’ (Ningo)

b. *yɛ̀gɛ̀ sìgì-yè*

fall descend.Pfv-3PlSbj

‘They fell (all the way) down.’ (Ningo)

c. *ágá yɛ̀gɛ̀ nì sígó-bò*

tomorrow fall 1PlSbj descend-Ipfv

‘Tomorrow we will fall (all the way) down.’ (Ningo)

A third example is the combination of dɛ́nɔ́ ‘take out (daily ration of grain, from granary)’ and ndɔ́ ‘give.’

(xx3) a. *páŋgá dɛ̀nɛ̀ nì ndɛ̀:*

granary take.out.ration 1PlSbj give.Pfv

‘We took a daily ration (of grain) from the granary and gave it.’ (Ningo)

b. *páŋgá dɛ̀nɛ̀ ndì:-yɛ̀*

granary take.out.ration give.Pfv-3PlSbj

‘They took a daily ration from the granary and gave it.’ (Ningo)

c. *ágá páŋgá dɛ̀nɛ̀ nì ndɔ́-bò*

tomorrow granary take.out.ration 1PlSbj give-Ipfv

‘Tomorrow we will take a daily ration from the granary and give it.’ (Ningo)

The invariant form of the nonfinal verb is in the E‑stem (*nì:ŋgɛ̀*, *yɛ̀gɛ̀*, dɛ̀nɛ̀), identical in form to the (zero-suffix) 3Sg perfective.

## Temporal adverbial clauses.

### Adverbial clauses expressing temporal overlap

#### Noun-headed temporal relative clause (‘[at] the time when …’)

Temporal relative clauses are nonsubject relatives headed by a noun like ‘day’ or ‘time’.

(xx1) *wákátí* / *dèwⁿ mì* LH*dùmbɛ́ rì*

time / day 1SgSbj LHfall.Pfv Def

‘(at) the time / (on) the day (when) I fell’

Except for ‘day’ (see below) there is no postposition for the relative construction as a whole, since temporal adverbs are not marked as locative. Other than this, the temporal adverbial relative construction is very similar to the corresponding spatial construction (§15.3.1).

When ‘day’ (or the name of some part of a day, e.g. ‘night’) is the head, it may be expressed by either or both of *dén* as regular internal head and postposed suppletive “echo” LH*nàŋgá*. The latter appears to have {LH} overlay as a “possessum,” like similar postverbal “echoes” of head nouns in other Dogon languages. However, it functions like a postposition.

(xx2) a. *dén nà* LH*yògé* LH*nàŋgá*

b. *dén nà* LH*yògé*

c. *nà* LH*yògé* LH*nàŋgá*

day 3SgSbj come.Pfv LHon.day

‘(on) the day when he/she came, …’ (Ningo)

LH*nàŋgá* can also be added to an NP with ‘day’ and a modifier other than a relative clause, specifying a particular day. In this case, *dèn* ‘day’ is optionally repeated before LH*nàŋgá*, in H‑toned form *dén*, likely reduced from {LH}, cf. *mì* LH*dèní* ‘my day’.

(xx3) a. *dèn díló (* H*dén)* LH*nàŋgá*

day first ( Hday) LHon.day

‘(on) the first day’

b. *yà:gò díló (* H*dén)* LH*nàŋgá*

night first ( Hday) LHon.day

‘(on) the first night’

#### Imperfective subordinate clause with *-wⁿ* ~ *-ŋ* ‘while’

In (xx1), the clause with *-wⁿ* ~ *-ŋ* denotes a continuous activity that overlapped with the main-clause eventuality. *-wⁿ* is glossed ‘while’ in interlinears. It is added to a {L}-toned form of the A/O-stem. If the following clause is brief and phrased tightly with the subordinate clause it is usually in defocalized {LH}-toned form.

(xx1) a. *[yèwù yèwà-wⁿ]* LH*nàyě-yⁿ*

[dance(n) dance-while] LHspend.night.Pfv-1SgSbj

‘I spent the night dancing.’ (‘I danced all night.’)

b. *[té: sàŋgà-wⁿ]* LH*dɛ̀nɛ̀-wó-∅*

[tea put.up.on-while] LHspend.midday-Ipfv-3SgSbj

‘He will spend the mid-day making tea (on a burner).’

c. *dù:rù-yò-wⁿ* LH*nùy-ɛ̂:*

run-MP-while LHgo.in.Pfv-3PlSbj

‘They ran in.’ (lit. “They went in running.”)

In the examples above, the subjects of the two clauses are the same. The ‘while’ clause has no overt subject of its own, while the following main clause has normal pronominal-subject marking. If the subjects are disjoint, the ‘while’ clause must have an overt subject. If this subject is pronominal, it takes the form of a preverbal proclitic subject pronoun, like *nà* in (xx2). Also, in this disjoint-subject construction, the verb has {LH} tones and ends in long á: or ó: before *-ẁⁿ*.

(xx2) *níŋá [nà nòyá:-ẁⁿ] [wàlè nì* LH*kàní]*

yesterday [3SgSbj sleep-while] [work(n) 1PlSbj LHdo.PfvRel]

‘Yesterday we worked while he/she was sleeping.’

See also (xx3) in T6, and two examples in T7 @ 16:50.

The disjoint-subject form of the ‘while’ construction is also used in complements of direct perception verbs, as in ‘we saw Seydou come’. See §17.2.2.1 for discussion and examples.

#### ‘Until’ (or ‘before’) clause with *‑ɔ́: gì*

A clause-type with *‑ɔ́:* on the verb followed by locative gì occurred in texts from the Ningo assistant in ‘before’ clauses (§15.2.3) but also in the final verb in a construction of the type ‘from the beginning (all the way) until …’. The construction as a whole is emphatically durative, and serves as background for DDanother event that will not occur until the duration is completed. The construction regularly begins with *hǎl jɛ̀: ŋá*, literally ‘until [taking and]’, where ‘taking and’ denotes the onset of the duration period and ‘until’, in spite of its linear position, has scope over the following clause (unless *hǎl* ‘until’ has been reinterpreted as having a different sense here). The locative postposition *gì* suggests an adverbial relative clause (‘until the time when …’) with the head (‘time’) omitted, but the construction is somewhat frozen and the *‑ɔ́:* is obscure. For lack of a better category I will gloss *‑ɔ́:* as ‘until’.

Examples are in (xx6) and (xx8) in Text 3, which are both of the general type ‘you won’t leave (=stop pursuing/fighting) him, from the beginning until you have caught/defeated him’. One of the examples is modified by changing the subject pronouns in (xx1), showing that the verb is invariant.

(xx1) *[hǎl jɛ̀: ŋá]*

[until take-and.Nonpast and.Nonpast]

*[[nà-gí mì / nì / kè ìmì-y-ɔ́:] gì],*

[[3Sg-Acc 1SgSbj/1PlSbj/3PlSbj defeat-MP-until] Loc]

*nà-gì díyɔ̀-rà-w*

3Sg-Acc leave-IpfvNeg-2SgSbj

‘From the beginning until the time when I/we/they have defeated him, I/we/they will not leave him alone (=stop fighting him).’

#### ‘Since …‘ clauses (*tɔ̀rɔ̀*)

*tɔ̀rɔ̀* ‘since’ is added to a usually headless perfective relative (supply ‘time’ as the covert head).

(xx1) a. *[[mó-ŋà mì* LH*yògé] tɔ̀rɔ̀]*

[[here 1SgSbj LHcome.Pfv.Rel] since]

*[ɲà:ŋgè ɲá:-ní-ỳⁿ]*

[meal eat.meal-PfvNeg-1SgSbj]

‘I haven’t eaten a meal since (the time when) I got here.’

b. *[bé-gè rì] [[cè* LH*bàwá]* LH*ùní] tɔ̀rɔ̀]*

[child-Pl Def] [[3PlSbj LHfather] LHgo.Pfv.Rel] since]

*[[kɔ̀mɔ̀ ŋá] bà-â:]*

[[weeping(n) Loc] be-3PlSbj]

‘The children, since (the time) their father left, they have been weeping.’

#### Durative background clauses (*-í-nì* ‘keep being’, etc.

Quasi-verbs *bò-* ~ *wò* ‘be (somewhere)’ (§11.2.2.2) and *sâ-* ‘have’ (§11.5.1), and regular (aspect-marking) mediopassive óbí-yó ‘sit down’, have unconjugated forms *bí:-nì* ‘(keep) being’, *sí:-nì* ‘(keep) having’, and òbí:-nì ‘(keep) sitting’ that function as durative (“-Dur”) background clauses. Subject are expressed as preverbal proclitics. These forms are attested for the Ningo dialect.

Examples from T7 are bò: ò bí:-nì ‘you-Sg keep being like that’ 2 00:26, [dàŋì-yè ŋá] kè sí:-nì ‘they keep holding (them)’ @ 07:30, and ɛ́rɔ̀ nì òbí:-nì ‘we remain sitting (=living) like that’ @ 11:36. As these examples suggest, the final verb in -nì is accompanied by a preceding VP or adverb (‘thus’) plus a proclitic subject pronoun. sí:‑nì combines with transitive verbs, bí:‑nì with intransitives, and òbí:‑nì with either.

My Ningo assistant also produced yògí-nì ‘keep coming’ from yógé ‘come’, and dùrù‑yí‑nì ‘keep running’ from dúrú‑yó ‘run’. These data show that motion verbs are eligible for this construction. However, this assistant rejected -nì with various other verb stems when I proposed them to him. Instead, he combined a subordinated form of the other verb with one of the three -nì forms, in auxiliary-like function, as in (xx1a). Textual examples (xx1b‑c) likewise show miscellaneous main verbs combined with one of the core ‑nì forms.

(xx1) a. kùb-à: nà bǐ:-nì

cultivate-xx 3SgSbj be-Dur

‘He continued to cultivate (=work in the fields).’ (Ningo)

b. [tùbɛ̀ ŋá] ò bǐ:-nì,

[keep.visiting and.Nonpast.SS] 2SgSbj be-Dur,

‘You-Sg continue to visit (them).’ (T7 @ 00:30)

c. sì-yò-ẁⁿ kè bǐ:-nì

have-MP-while 3PlSbj be-Dur

‘They keep (doing that).’ (T7 @ 07:57)

Since bí-yɔ́- ‘be’ and sí-yó- ‘have’ occur as aspect-marking forms of ‘be’ and ‘have’, respectively, it is possible that bí:-nì and sí:-nì should be analysed as syncopated from /bì‑yí‑nì/ and /sì‑yí‑nì/, parallel to òbǐ:‑ni < /òbì-yí-nì/ for ‘sit’. Forms like yògí-nì and dùrù‑yí‑nì show that the tone overlay on the stem before -nì is {L\*H} with only the final syllable H‑toned. This suggests that the tones in e.g. bí:-nì have been flattened from <LH> to H.

#### Nonfinal verb with -à:

see with durative -nì

#### Nonfinal verb with -ŋgà

A form consisting of the {H}‑toned A/O‑stem plus suffix -ŋgà functions as an alternative same-subject imperfective subordinator in the textual excerpt (xx1).

(xx1) [ná là:] gó:-ŋgà, [nà LHɛ̀mɛ̀ŋgé] nǎ: ɛ̀mɛ̀

[3Sg too] exit(v)-while, [3SgPoss LHmilk] 3SgSbj.Fut milk(v).Pfv

‘Likewise as he goes out, he will draw his milk.’ (Ningo, T7 @ 13:08)

Follow-up elicitation include nwá:-ŋgà ‘entering’, únó-ŋgà ‘going’, kúbá-ŋgà ‘cultivating’, ɲá:‑ŋgà ‘eating’, and bíní-yó-ŋgà ‘going back’.

### Adverbial clauses expressing chronological sequences

#### Perfective sequences (same or different subject, anterior)

In this construction, two independently conjugated perfective clauses are juxtaposed. The subjects may be the same (xx1c) or different (xx1ab). The final verb in the first clause has {LH} tones.

(xx1) a. *[mì-gì kílé* LH*ndɛ̌:-∅] úní-ỳⁿ*

[1Sg-Acc key LHgive.Pfv-3SgSbj] go.Pfv-1SgSbj

‘He gave me the key and I left.’ (Boui)

b. *[ɲà:ŋgè* LH*sòg-ìyé] [nì ɲɛ̀:]*

[meal LHbring.Pfv-3PlSbj] [1PlSbj eat.meal.Pfv]

‘They brought a meal and we ate.’ (Boui)

c. *[ɲà:ŋgè nì* LH*sògé] [nì ɲɛ̀:]*

[meal 1PlSbj LHbring.Pfv.Rel] [1PlSbj eat.meal.Pfv]

‘We brought a meal and we ate.’ (Boui)

#### Chains with nonfinal perfective verb (same-subject co-events)

In this construction, the nonfinal verb is in the E/I-stem with {L} melody. This is exactly the same as the perfective for (zero) 3Sg subject, so I gloss it as perfective. The two verbs denote co-events of a complex event, rather than clearly separated, chronologically sequenced events. The final verb may be perfective or imperfective, and the complex event may have occurred in the past or may be anticipated for the future. The second verb does not take the {LH} overlay (for defocalization) that is found in some other chain-like constructions. The two verbs are adjacent (except for an intervening 1Pl or 2Pl subject marker) in the examples in my data. Overall this construction is close to the compound-like direct chain pattern of other Dogon languages.

(xx1) a. *dùmbɛ̀ sígé-ỳⁿ*

fall.Pfv go.down.Pfv-1SgSbj

‘I fell down.’

b. *dùmbɛ̀ nì-sígó-wò*

fall.Pfv 1PlSbj-go.down-Ipfv

‘We will fall down.’

c. *[sàtàlé rì] yá: tɛ̀ŋɛ̀ dìyɛ̌-yⁿ*

[kettle Def] there set.down.Pfv leave.Pfv-1SgSbj

‘I put the water kettle down there and left it.’ (*sàtàlè*)

The second verb can be negated. The first clause is included in the scope of negation (xx2).

(xx2) *dùmbɛ̀ sígó-rà-yⁿ*

fall.Pfv go.down-IpfvNeg-1SgSbj

‘I didn’t fall down.’

The second verb can be put into verbal noun form, again including the first clause in its scope.

(xx3) *dùmbɛ̀ sígó-wà*

fall.Pfv go.down.VblN

‘(the fact of) falling down’

For chains of this type involving reversives followed by intransitive *gó:-* ‘go out’ or transitive *gó-m(ú)-*, see the end of §9.1.

#### Nonfinal verb with *-sà-wⁿ* (past, same-subject, anterior)

In this construction, *-sà-wⁿ* is added to the nonfinal verb, which is {L}-toned and in the E/I-stem and has no pronominal-subject morphology. I parse the suffix complex as resultative *‑sà‑* (§10.2.1.5) plus *‑wⁿ* ‘while’ (§15.2.1.2). The final verb is perfective, has regular pronominal-subject inflection. It has{LH} contour (as with defocalized verbs) when it is prosodically phrased with the nonfinal verb.

The two clauses denote same-subject events that occurred in the past and were chronologically sequenced. The two verbs need not be adjacent; that is, the final verb may be immediately preceded by constituents belonging uniquely to its clause, like ‘to Bamako’ in (xx1b).

(xx1) a. *níŋá ùnì-sà-wⁿ nì* LH*yògé*

yesterday go-Reslt-while.SS 1PlSbj LHcome.Pfv

‘Yesterday we went and came (back).’

b. *[ɲà:ŋgè ɲɛ̀:-sà-wⁿ] [[bɔ̀mɔ̀kɔ́ ŋà] ún-íyè*

[meal eat-Reslt-while.SS] [[Bamako Loc] go.Pfv-3PlSbj

‘They ate (a meal) and then went to Bamako.’

c. *[cè címà] màŋgè-sà-wⁿ ún-íyè*

[3Pl all] assemble-Reslt-while.SS] go.Pfv-3PlSbj

‘They all assembled and went (together)’

A textual example is *yògè-sà-ŋ* ‘come and’ in (xx3) in Text 6 (‘thieves came and jostled me’).

For similar constructions involving future time, see the following section.

#### Nonfinal verb with *ŋá* (nonpast, same-subject, anterior)

This construction replaces that with *-sà-wⁿ* when the sequenced events have not yet occurred. The nonfinal verb is in the E/I-stem, has {L} tones, and has no pronominal-subject inflection. The final clause contains an imperfective or deontic modal (e.g. imperative) verb. If indicative, the verb has the {LH} (defocalized) overlay.

(xx1) a. *[ùnì ŋá]* LH*yògò-wǒ-yⁿ*

[go and.Nonpast.SS] LHcome-Ipfv-1SgSbj

‘I will go and come (back).’

b. *[ɲà:ŋgè ɲɛ̀: ŋá]*

[meal eat.meal and.Nonpast.SS]

*[[bɔ̀mɔ̀kɔ́ ŋà]* LH*ùm-b-â:]*

[[Bamako Loc] LHgo-Ipfv-3PlSbj]

‘They will eat (a meal) and then go to Bamako.’

c. *[[námà rì] tɛ̀mɛ̀ ŋá] ùnù*

[[meat Def] eat.meat and.Nonpast.SS] go.Imprt

‘Eat some meat and then go!’ (*námá*)

#### ‘Worked until got tired’ = ‘worked for a very long time’

In the version of this construction elicited from the Boui assistant, both clauses have the {LH} contour on a perfective verb, and both clauses have preverbal proclitic pronouns instead of suffixes (for 1Sg, 2Sg, and 3Pl subjects). *hàlí* ‘until, to the point that’ occurs at the beginning of the second clause.

(xx1) *[wàlè mì* LH*kàní] [hàlí mì* LH*à:rì-yé]*

[work(n) 1SgSbj LHdo.Pfv.] [until 1SgSbj LHget.tired-MP.Pfv]

‘I worked until I got tired.’ (= ‘I worked to the point of exhaustion.’)

The older Ningo assistant has a construction with prolonged final vowel on the nonfinal perfective verb (I will label this the Dur[ative] morpheme) and regular inflected second verb. The subjects are coindexed and only the final clause is marked for subject

(xx2) a. *nòy-é→ à:rì-yɛ̀-∅*

sleep.Pfv-Dur get.tired-MP.Pfv-3SgSbj

‘He/She slept a very long time.’

b. *[wàlè kàn-í→] á:rí-yé-ỳⁿ*

[work(n) do.Pfv-Dur] get.tired-MP.Pfv-1SgSbj

‘I worked to the point of exhaustion.’

### ‘Before …’ clauses (*jìmbá*, *-ɔ́: gì*)

‘Before …‘ clauses elicited from the Boui assistant end in *jìmbá*. If the subject of the clause is pronominal, it is expressed as a proclitic subject pronoun immediately before *jìmbá*. This suggests that *jìmbá* behaves like an imperfective nonsubject relative-clause verb (suffix *-wá*). A reading along the lines of ‘(at the time when) X was about to VP’ would be consistent with the form and the general sense. The most likely etymological source is the verb gún(ú) ‘say’

The substantive verb appears in the E/I-stem (i.e. in perfective form) with {H}-tones (xx1).

(xx1) a. *[áyé mì* / *nì* LH*jìmbá]*

[arrive 1SgSbj / 1PlSbj LH**before**]

*[[mì* / *nì* LH*nàlí] ùnì-∅]*

[[1SgPoss / 1PlPoss LHfriend] go.Pfv-3SgSbj]

‘Before I/we arrived, my/our friend (had) left.’

b. *[ɲà:ŋgè ɲɛ́: nì* LH*jìmbá]*

[meal eat.meal.Pfv 1PlSbj LH**before**]

*[wàlè nì kánì-yàyⁿ]*

[work(n) 1PlSbj do-Hort.Pl

‘Let’s-Pl do the work before we eat.’

c. *ɲà:ŋgè ɲɛ́: ò* / *nà* / *cè* LH*jìmbá*

meal eat.meal.Pfv 2SgSbj / 3SgSbj / 3PlSbj LH**before**

‘before you-Sg/he-or-she/they eat’

If the subject of the ‘before …‘ clause is nonpronominal, the substantive verb takes what appears to be 1Sg subject form with *-ỳⁿ*.

(xx2) a. *[á:mì yógé-ỳⁿ* LH*jìmbá] [nì nwɛ́-yàyⁿ]*

[rain(n) come.Pfv-xxx LHbefore] [1PlSbj go.in-Hort.Pl]

‘Let’s go in before the rain comes (down).’

b. *[bé-gè rì] yógé-ỳⁿ jìmbá*

[child-Pl Def] come.Pfv-xxx before

‘before the children come’

For the older Ningo assistant, a ‘before’ clause has final *-ɔ́:* on the verb followed by locative postposition *gì* (xx3). The ‘before’ clause is juxtaposed to an ordinary main clause. This construction is also used in ‘until’ clauses in narrative of the type ‘this went on (and on) until …’ (§xxx).

(xx3) a. *[á:mì yɔ̀g-ɔ́: gì] [nì úm-bò]*

[rain(n) come-**before Loc**] [1PlSbj go-Ipfv]

‘We’ll go before the rain comes.’

b. *[á:mì yɔ̀g-ɔ́: gì] úm-bò-y*

[rain(n) come-**before Loc**] go-Ipfv-1SgSbj

‘I’ll go before the rain comes.’

The combination of a main clause and a ‘before’ clause ([before Y] X) competes with anterior constructions (X and then Y), for example the one with *ŋá* (§15.2.2.xxx).

(xx4) a. *[ɲɛ̀: ŋá] [nì kùb-bó]*

[eat Loc] [1PlSbj cultivate-Ipfv]

‘We’ll eat (first) then we’ll cultivate (=do hoeing).’

= ‘We’ll eat before we cultivate.’ (Ningo)

b. *[ɲɛ̀: ŋá] kùb-bó-ỳⁿ*

[eat Loc] cultivate-Ipfv-1SgSbj

‘I’ll eat (first) then I’ll cultivate.’

## Spatial and manner adverbials

### Spatial adverbial relative clause (‘where …’)

A transparent spatial adverbial relative clause ‘at [the place where …]’ has *jɛ́lɛ́* ‘place’ as head NP. The clause is normally followed by locative postposition *ŋà*.

(xx1) *[jɛ́lɛ́ ɲà:ŋgè nì* LH*ɲɔ̀:-wá rì] ŋà*

[place meal 1PlSbj LHeat.meal-Ipfv.Rel Def] Loc

‘at the place where we eat’

This construction is similar to temporal adverbial relative clauses (§15.2.1.2), but the temporal clauses normally do not take a locative (or other) postposition.

### Manner adverbial clause (‘how …’) (*bání*)

The noun *bání* ‘way, manner’ is the head of a simple nonsubject relative in (xx1a). In (xx1b), where the subject of the manner clause is unspecified, *bání* appears in tone-dropped form and is followed by a verbal noun. The tones suggest that the verbal noun here functions as a modifying adjective or as a compound final.

(xx1) a. *[àlìyá gì] bání ò* LH*sɛ̀:m-bá*

[pig Acc] **manner** 2SgSbj LHslaughter-IpfvRel

‘the way you-Sg slaughter a pig’ (*sɛ́mɔ́-*)

b. *[yá: bànì*L *ílɔ́-wà] yé-ní-ỳⁿ*

[there manner L go.up-VblN] know-StatNeg-1SgSbj

‘I don’t know how to go up there.’

# Conditional constructions

## Hypothetical conditional with *mɛ̀* or *mɛ̀-nɛ̀* ‘if’

This is the standard if/then conditional. The antecedent denotes an uncertain eventuality. If, as usual, this eventuality is an uncertain time-bounded event in the future, it may be expressed by a perfective or imperfective verb, followed by *mɛ̀* ‘if’. My Ningo assistant used both *mɛ̀* and an extended variant *mɛ̀-nɛ̀*. If the consequent denotes a resulting eventuality, it is expressed by an ordinary main clause with an imperfective verb. The consequent may also be a deontic modal such as an imperative or hortative. The subjects of the two clauses may be the same or different but there is no morphological marking of sameness.

(xx1) a. *yɛ́gɛ́-m̀ mɛ̀, bàrmì kám-bò-w*

fall.Pfv-2SgSbj if, injury do-Ipfv-2SgSbj

‘If you-Sg fall, you’ll hurt yourself.’ (< *yɛ́gɛ́-ẁ*)

b. *[bé-gè rì] mó-ŋà yógó-w-à: mɛ̀,*

[child-Pl Def] here come-Ipfv-3PlSbj if,

*mì úm-bò-yⁿ*

1Sg go-Ipfv-1SgSbj

‘If the children come here, I’ll go.’

c. *té: ɲɔ́:-wò-m mɛ̀, úrúgú-yó-wò-w*

tea drink-Ipfv-2SgSbj if, be.sick-MP-Ipfv-2SgSbj

‘If you-Sg drink (the) tea, you’ll get sick.’

d. *á:gá á:mí tɛ̀gɛ̀-∅ mɛ̀,*

tomorrow rain(n) rain.fall.Pfv-3SgSbj if,

*[yálá ŋà] nì gó:-wò*

[field Loc] 1PlSbj go.out-Ipfv

‘If it rains tomorrow, we’ll go to the field(s).’

e. *érì kànì-yè-∅ mɛ̀, …*

Dem.Def do-MP.Pfv-3SgSbj if, …

‘if/when that (definite) has happened, …’ (i.e. ‘after that, …’)

Inflected verb forms with falling tone on the final syllable shift this tone to high before *mɛ̀*. In the perfective (positive), this affects only 1Sg and 2Sg forms (xx2).

(xx2) Perfective of ‘fall’

1Sg *yɛ́gɛ́-ỳⁿ yɛ́gɛ́-yⁿ mɛ̀*

1Pl *nì yɛ̀gɛ̀ nì yɛ̀gɛ̀ mɛ̀*

2Sg *yɛ́gɛ́-ẁ yɛ́gɛ́-m mɛ̀*

2Pl *è yɛ̀gɛ̀ è yɛ̀gɛ̀ mɛ̀*

3Sg *yɛ̀gɛ̀-∅ yɛ̀gɛ̀-∅ mɛ̀*

3Pl *yɛ̀g-ìyɛ̀ yɛ̀g-ìyɛ̀ mɛ̀*

For 2Sg *-w* assimilating to *-m* before *mɛ̀*, see §3.4.3.1.

In the perfective negative, 1Sg, 2Sg, and 3Pl raise the final tone from falling to high (xx3).

(xx3) Perfective negative of ‘fall’

1Sg *yégá-ní-ỳⁿ yégá-ní-yⁿ mɛ̀*

1Pl *nì yègà-nì nì yègà-nì mɛ̀*

2Sg *yégá-ní-ẁ yégá-ní-m mɛ̀*

2Pl *è yègà-nì è yègà-nì mɛ̀*

3Sg *yègà-nì-∅ yègà-nì-∅ mɛ̀*

3Pl *yégà-nî: yégà-ní: mɛ̀*

The imperfective (positive) has no forms with final-syllable falling tone so there are no tonal changes before *mɛ̀*. In the imperfective negative, the 3Sg and 3Pl forms are affected (xx4).

(xx4) Imperfective negative of ‘fall’

1Sg *yɛ́gɔ́-rà-yⁿ yɛ́gɔ́-rà-yⁿ mɛ̀*

1Pl *nì yɛ̀gɔ̀-rá nì yɛ̀gɔ̀-rá mɛ̀*

2Sg *yɛ́gɔ́-rà-ẁ yɛ́gɔ́-rà-m mɛ̀*

2Pl *è yɛ̀gɔ̀-rá è yɛ̀gɔ̀-rá mɛ̀*

3Sg *yɛ́gɔ́-râ-∅ yɛ́gɔ́-rá-∅ mɛ̀*

3Pl *yɛ́gɔ̀-r-â: yɛ́gɔ̀-r-á: mɛ̀*

## Alternative ‘if’ particles

### ‘Even if …’ (*hàlí … là*)

To indicate forcefully that the antecedent eventuality will have no effect on the realization of the consequent, *là* ‘also’ (§xxx) occurs with or without clause-initial *hàlí* ‘even, until, all the way to’. *là* must attach to a NP or similar nonverb constituent, though pragmatically it has scope over the clause. *mɛ̀* ‘if’ is optional.

(xx1) *[hàlí mì-gí [ò lá] [tɛ̀:mɛ̌: nì:ŋgà] ndɛ̀: (mɛ̀)]*

[even 1Sg-Acc [2Sg also] [hundred two] give.Pfv (if)]

*ún-dà-yⁿ*

go-IpfvNeg-1SgSbj

‘Even if you-Sg give me 200 (currency units), I won’t go.’

## Counterfactual conditional

In counterfactual conditionals, the antecedent ends in the usual *mɛ̀* ‘if’, and both the antecedent and the consquent are marked for past time. The consequent is normally in the past imperfective in a sense like ‘was going to VP’. The antecedent, if positive, has past resultative *-sɛ-* where a perfective would be expected in a normal main clause. The presupposition is that the antecedent eventually was not realized.

(xx1) *níŋá [bɔ̀mɔ̀kɔ́ ŋà] nì* LH*bɛ̌:* / LH*ùnì-sɛ́ mɛ̀,*

yesterday [Bamako Loc] 1PlSbj LHbe.Past / LHgo-Reslt.Past if,

*nì tíb-bɛ̀*

1PlSbj die-Ipfv.Past

‘If we had been in / had gone to Bamako [focus] yesterday, we would have died (been killed).’

# Complement and purposive clauses

## Quotative complements

### Quoted indicative clauses

Quoted indicative clauses are marked as such by several features:

* The inflectable **‘say’ verb** (perfective *gùnɛ̀-*) follows the quotation, §17.1.1.1;
* Invariable **quotative particle** *wà* (§17.1.1.2) follows a quotation (other than a self-quotation), preceding the ‘say’ verb if both are present; there are some tonal interactions between verb and particle;
* A subject pronoun is clause-initial and is followed by its own *wà* particle if it is not coindexed with the subject of ‘say’, and is a preverbal proclitic if it is coindexed (§17.1.1.3);

Several of these features are illustrated in (xx1).

(xx1) *[nà* LH*yògò-mà-ná wà]* LH*gùnɛ́-∅*

[3SgSbj LHcome-can-StatNeg Quot] LHsay.Pfv-3SgSbj

‘Hex said that hex can’t come.’

Self-quotation (‘I said that …’) is not treated syntactically like other quoted clauses since it not hearsay that the speaker is not responsible for. The ‘say’ verb is used, but quotative particle *wà* is absent, and the form of the verb and pronominal-subject inflection are as in main clauses (with suffixes for 1Sg, 2Sg, or 3Pl and zero for 3Sg). In (xx2), the bracketed quotation has the same form as a nonquotative indicative clause. In fact, the ‘I said’ at the end often functions as a kind of emphatic, as when a statement is repeated forcefully.

(xx2) *[ámbá* LH*sɛ̀mɛ̌-yⁿ̀]* LH*gùnɛ̌-yⁿ*

[sheep LHslaughter.Pfv-1SgSbj] LHsay.Pfv-2SgSbj

‘I said that I slaughtered a sheep [focus].’

This type of quotative complement, with no distinctive quotative (i.e. hearsay) marking, is also sometimes used with second person quoted speaker in contexts where hearsay evidentiality is not relevant.

(xx3) *[ndégé dàgà] yógó-rà-w gùnɛ̌-w*

[what? Purp] come-IpfvNeg-2SgSbj say.Pfv-2SgSbj

‘Why did you-Sg (just) say that you won’t come?

There are no logophoric pronouns. However, there is a kind of switch-reference system in the quotative construction expressed by the form and position of pronominal subject pronouns.

TAMN inflections are not reset when a clause is quoted.

Additional features occur in jussives (quoted imperatives and hortatives), see §17.1.2.1.

#### ‘Say’ verb (*gún(ú)-*)

The overt ‘say’ verb is perfective *gùnɛ̀-*. The overall paradigm is irregular, involving a mix of final-nonhigh-vowel and final-high-vowel forms (§11.3.1). The verb appears at the end of the quotation, following quotative particle *wà* if both are present. Perfective *gùnɛ̀-* usually occurs with a {LH} overlay when accompanying a quotation, suggesting that the quotation itself is focalized.

(xx1) a. *[nà sójó wà]* LH*gùnɛ́-∅*

[3SgSbj Dogon Quot] LHsay.Pfv-3SgSbj

‘He said he’s a Dogon.’

b. *[cè* LH*yògò-má wà]* LH*gùn-íyɛ̀*

[3PlSbj LHcome-can Quot] LHsay.Pfv-3PlSbj

‘They said they can come.’

The ‘say’ verb is often omitted from quotations, since the quotative particle and other details identify a clause as quoted.

For *gún(ú)-* and its causative as auxiliary verbs with onomatopoeias, see §11.1.2.3.

#### Clause-final quotative particle *wà* and tonal changes in verb

This particle follows the quoted clause, preceding the ‘say’ verb if the latter is present. The particle is usually L-toned but appears as H-toned after imperfective verbs.

(xx1) a. L-toned *wà* after perfective

*[nà yògè* / *yògò-nì wà]* LH*gùnɛ́-∅*

[3SgSbj come.Pfv / come-PfvNeg Quot] LHsay.Pfv-3SgSbj

‘He said that he/she came / didn’t come.’

b. H-toned *wá* after imperfective

*[nà yógó-wò* / LH*yògò-rá wá]* LH*gùnɛ́-∅*

[3SgSbj come-Ipfv / LHcome-IpfvNeg Quot] LHsay.Pfv-3SgSbj

‘He said that he/she will/won’t come.’

c. L-toned *wà* after stative

*[nà ígà* / *ìgà-nà] wà* LH*gùnɛ́-∅*

[3SgSbj stand.Stat / stand-StatNeg] **Quot** LHsay.Pfv-3SgSbj

‘He said that he/she is standing.’

d. L-toned *wà* after capacitative

*[nà* LH*yògò-má* / LH*yògò-mà-ná wà]*

[3SgSbj LHcome-can / LHcome-can-StatNeg Quot]

LH*gùnɛ́-∅*

LHsay.Pfv-3SgSbj

‘He said he can/cannot come.’

e. L-toned *wà* after ‘it is (not)’ clitics

*[nà sójó* / *sójó=lá wà]* LH*gùnɛ́-∅*

[3SgSbj Dogon / Dogon=it.is.not Quot] LHsay.Pfv-3SgSbj

‘He said he/she is / is not a Dogon.’

For some inflectional categories, the form of the verb before *wà* is the same as in nonquotative main clauses. For some others, there are tonal changes, and the positive ‘it is’ clitic *=ẁ* is omitted.

(xx2) Changes in verb before *wà*

category nonquotative 3Sg with *wà*

a. no change

perfective *yògè- yògè wà*

perfective negative *yògò-nì- yògò-nì wà*

imperfective *yógó-wò- yógó-wò wá*

stative negative *ìgà-nà- ìgà-nà wà*

stative *ígà- ígà wà*

b. tonal change (hyphen marks stem-suffix boundary)

*{H-HL} to {L-H}*

imperfective negative *yógó-râ- yògò-rá wá*

capacitative *yógó-mâ- yògò-má wà*

capacitative negative *yógó-má-nà- yògò-mà-ná wà*

The tonal change in (xx2b) is from a falling to a rising contour. This is indeed a change if we take the 3Sg inflected form in the regular paradigm as point of comparison. However, the rising contours in quotations are shared by the 1Pl and 2Pl forms in the regular paradigms: *nì yògò‑rá* ‘we will not come’, *nì yògò‑má* ‘we can come’, *nì yògò‑mà‑ná* ‘we cannot come’.

#### Pronominal subjects (clause-initial versus preverbal proclitic)

The form and linear position of pronominal subjects is determined by the relationship between subject of ‘say’ (i.e. the author of the quotation) and the subject of the quoted clause.

(xx1) a. If the subject of ‘say’ is 1Sg, the quoted clause has the form of a main clause, so that 1Sg, 2Sg, and 3Pl subjects are expressed by suffixes on the predicate, see (xx2) in §17.1.1 above; otherwise…

b. If the subjects of ‘say’ and of the quoted clause are coindexed, the quoted clause has a **preverbal proclitic** subject pronoun;

c. If the subjects are not coindexed, a pronominal subject in the quoted clause is expressed by a **clause-initial pronoun plus quotative** *wà*.

In (xx2a), the 2Sg subject of ‘say’ matches the 2Sg subject of the quoted clause. The latter therefore takes the form of a proclitic (*ò*) directly before the verb, following the object (‘sheep’). In (xx2b), on the other hand, the subject of ‘say’ is third person (Seydou), so the 2Sg subject of the quoted clause is expressed as clause-initial *ò* followed by a second occurrence of quotative *wà*, preceding ‘sheep’.

(xx2) a. *[ámbá ò sɛ̀mɛ̀ wà]* LH*gùnɛ̌-w*

[sheep **2SgSbj** slaughter.Pfv Quot] LHsay.Pfv-2SgSbj

‘You-Sg said that you slaughtered a sheep.’

b. *sàydú [ò wà] [ámbá sɛ̀mɛ̀ wà]*

Seydou [**2Sg Quot**] [sheep slaughter.Pfv Quot]

LH*gùnɛ́-∅*

LHsay.Pfv-3SgSbj

‘Seydou said that you-Sg slaughtered a sheep.’

Third-person examples are in (xx3).

(xx3) a. *[ámbá nà sɛ̀mɛ̀ wà]* LH*gùnɛ́-∅*

[sheep **3SgSbj** slaughter.Pfv Quot] LHsay.Pfv-3SgSbj

‘Hex said that hex slaughtered a sheep.’

b. *[nà wà] [ámbá sɛ̀mɛ̀ wà]* LH*gùnɛ́-∅*

[**3SgSbj Quot**] [sheep slaughter.Pfv Quot] LHsay.Pfv-3SgSbj

‘Hex said that hey/she slaughtered a sheep.’

If the subject of the quoted clause is nonpronominal, there is no resumptive third person pronoun or other agreement (xx4a). We can tell that ‘Seydou’ is internal to the quoted clause in (xx4a) since there is no other subject in the quoted clause. This is true even though quotative *wà* is not doubled in this construction. If Seydou is the subject of ‘say’, as in (xx4b), there is at least a pronominal subject in the quoted clause.

(xx4) a. *[sàydú yògè wà]* LH*gùnɛ́-∅*

[**Seydou** come.Pfv Quot] LHsay.Pfv-3SgSbj

‘He said that Seydou has come.’

b. *sàydú [nà yògè wà]* LH*gùnɛ́-∅*

**Seydou** [**3SgSbj** come.Pfv Quot] LHsay.Pfv-3SgSbj

‘Seydoux said that hex has come.’

### Jussive complement (reported imperative or hortative)

#### Quoted imperative

A quoted imperative clause converts the original imperative into a special quoted imperative verb form used only in such quotations (§10.7.3.1). This form is based on a distinctive I/U-stem (§3.3.6). The original addressee of the imperative appears in the quotation as a clause-initial NP or pronoun followed by quotative *wà*, which is obligatory for any subject (nonpronominal or pronominal), but here may really be a quoted vocative. Another *wà* follows the verb, which allows no pronominal-subject agreement. The final high vowel of the quoted imperative is always heard as *u* rather than *i* before the *w* in *wà*.

(xx1) a. *[mì* LH*bàwá] [ò wà] [yògù wá]*

[1SgPoss LHfather] [2SgSbj **Quot**] [come.**3Hor**t **Quot**]

‘My father says for you-Sg to come.’

b. *[bé-gè rì] [mì wà] [yògù wà]*

[child-Pl Def] [1SgSbj **Quot**] [come.**3Hort Quot**]

LH*gùn-íyɛ̀*

LHsay.Pfv-3PlSbj

‘The children said for me to come.’ (*bé-gé*)

c. *[sàydú wà] [ùnù wà]* LH*gùn-íyɛ̀*

[Seydou Quot] [go.3Hort Quot] LHsay.Pfv-3PlSbj

‘They said for Seydou to come.’

In self-quotations, and sometimes in second-person quotations, the verb is still in quoted imperative form, but the original addressee is treated as the object of ‘say’ and therefore appears in accusative form.

(xx2) *[sàydú gì] yògù* LH*gùnɛ̌-yⁿ*

[Seydou Acc] come.3Hort LHsay.Pfv-1SgSbj

‘I told Seydou to come.’

An original prohibitive (negative imperative) retains its prohibitive morphology (§10.7.1.2) and tones in a quotation. Suffix *-lâ* combines with *wà* as *-lá wà* by phonological rule.

(xx2) *[sàydú wà] [yógó-lá wà]*

[Seydou Quot] [come-Proh Quot]

‘He says for Seydou not to come.’ (*yógó-lâ*)

#### Quoted hortative

A hortative (‘let’s VP’) may also be quoted. In a regular hortative, the final syllable (or mora) is L-toned: *nì dɔ́nɛ̀-yⁿ* ‘let’s buy!’. Before quotative *wà*, the H-tone spreads to the end of the word (xx1).

(xx1) *sàydú [sìjá nì dɔ́nɛ́-yⁿ wà]* LH*gùnɛ́-∅*

Seydou [chicken 1PlSbj buy-Hort Quot] LHsay.Pfv-3SgSbj

‘Seydou said, let’s buy a chicken!’

## Factive complements

This type of complement denotes a fully articulated propositions or “fact.” True factive complements are used with ‘know’ (§17.2.1), and in one type of complement of perception verbs (§17.2.2.2). There is another type of complement of perception verbs expressed by a ‘while’ adverbial subordinator (§17.2.2.1).

### ‘Know that …’ complement (headless relative)

Factive complements of ‘know (that)’ take the form of headless nonsubject relatives, cf. English *(the fact) that …* where the fact is often omitted. A pronominal subject is expressed as a preverbal proclitic, and the verb has the {LH} overlay typical of verbs in relative clauses.

(xx1) a. *[ò* LH*yògò-rá] nì yèy*

[2SgSbj LHcome-IpfvNeg] 1PlSbj know

‘We know that you are not coming.’

b. *[[bé-gè rì]* LH*yògò-ní] nì yèy*

[[child-Pl Def] LHcome-PfvNeg] 1PlSbj know

‘We know that the children didn’t come.’

c. *[ámbá mì* LH*sɛ̀mɛ́ \* LH*sɛ̀mɛ̀-sá] yèy-â:*

[1Sg 1SgSbj LHslaughter.Pfv \ -Reslt] know-3PlSbj

‘They know that I (have) slaughtered a sheep.’

d. *[ò* LH*yògò-wà] yê-yⁿ*

[2SgSbj LHcome-Ipfv.Rel] know-1SgSbj

‘I know that you-Sg are coming.’

### ‘See (find, hear) that …’

#### Direct-perception construction (‘while …’)

In this construction, the complement has a verb form based on the A/O-stem with {LH} stem melody, and a suffix *-ẁⁿ*. This is the regular disjoint-subject ‘while’ subordinate clause (§15.2.1.1). The *-ẁⁿ* is subject to assimilation, for example appearing as *[*m*]* before *b* as in (xx1b). A pronominal subject is expressed as a proclitic pronoun (xx1c).

(xx1) a. *[sàydú yògó-ẁⁿ] nì bàlì-yè*

[Seydou come-while] 1PlSbj see-MP.Pfv

‘We saw Seydou come.’

b. *[yèwù ò yèwá-ẁⁿ] bálí-yé-ỳⁿ*

[dance(n) 2SgSbj dance-while] see-MP-1SgSbj

‘I saw you-Sg dancing.’

c. *[nà yègá-ẁⁿ*] *bálí-yé-ỳⁿ*

[3SgSbj fall-while] see-MP-1SgSbj

‘I saw him/her fall.’

#### Recognition construction (headless relative)

‘Hear that’ (hearsay) and ‘see that’ (involving an inference made with use of visual data) are expressed as headless nonsubject relatives.

(xx1) *[ò* LH*ìrɛ̀-sá] bàlì-yè-∅* / *nù:ndè-∅*

[2SgSbj LHget-Reslt] see-MP.Pfv-3SgSbj / hear.Pfv-3SgSbj

‘He/She saw/heard that you have gotten (rich).’

This type of complement is identical to the factive complement of ‘know’ (§17.2.1).

## Bare perfective (chain-like) complements

The bare perfective, i.e. {L}-toned E/I-stem, is the closest thing to a direct chaining form of verbs; see §15.2.2.1-2.

Certain verbs occur commonly in final position in such chains, following a bare perfective clause that functions much like a complement.

### ‘Help’ (*báró-*) with nominal or bare perfective complement

*báró-* ‘help’, also ‘add’, is a transitive verb that takes a (usually human) object and a second object-like NP denoting the domain of helping.

In (xx1a), the domain is expressed by a noun denoting the action, in these cases by cognate nominals (‘farming’, ‘song’). In (xx1bc) it is expressed by an unconjugated E/I-stem, identical to the 3Sg perfective verb. If the helper participated in the activity domain, a non-causative verb is used (xx1b). If the helper merely facilitated an achievement by the agent, a causative verb is used (xx1c).

(xx1) a. *à:màdú mì-gí kùwɔ̀* / *yèw bàrè-∅*

Amadou 1Sg-Acc farming / song help.Pfv-3SgSbj

‘Amadou helped me (with) farming/singing.’

b. *à:màdú=yó mì-gì [[jíwà rì] jà:lɛ̀ bàrè-∅*

Amadou=foc 1Sg-Acc [[house Def] build.Pfv help.Pfv-3SgSbj

‘Amadou helped me build the house.’

c. *[bé-gè rì] mì-gí ìlà-mì bàrè-∅*

[child-Pl Def] 1Sg-Acc go.up-Caus.Pfv help.Pfv-3SgSbj

‘The children helped me go up.’

### ‘Finish’ (*póró-*) with bare perfective complement

*póró-* ‘finish (an activity)’ takes a bare perfective complement.

(xx1) *[ɲà:ŋgè ɲɛ̀:] póré-ỳⁿ* / *póró-wò-yⁿ*

[meal eat.Pfv] finish.Pfv-1SgSbj / -Ipfv-1SgSbj

‘I (have) finished / will finish eating.’

### ‘Be accustomed’ (*wɛ́lɛ́-*) with bare perfective complement

*wɛ́lɛ́-* ‘be accustomed’ follows a perfective VP. *wɛ́lɛ́-* itself occurs in a same-subject construction with ‘be’ as auxiliary.

(xx1) a. *dúríyé* / *ílɛ́ wɛ̀lɛ̀-sà-wⁿ bó-yⁿ*

run.Pfv / go.up.Pfv be.accustomed-Reslt-while.SS be-1SgSbj

‘I have become (=am) accustomed to running/going up.’ (Ningo)

b. *[námá tɛ̀mɛ̀] wɛ̀lɛ̀-sà-wⁿ bó-yⁿ*

[meat eat.meat.Pfv] be.accustomed-Reslt-while.SS be-1SgSbj

‘I have become (=am) used to eating meat.’ (Ningo)

c. bé-gé *wɛ̀lɛ̀-sà-wⁿ bó-yⁿ*

child-Pl be.accustomed-Reslt-while.SS be-1SgSbj

‘I am accustomed to children.’ (Ningo)

## Verbal noun (and other nominal) complements

For the verbal noun with suffix *-wà* (hardened to *-bà* after stop or nasal), see §4.2.2. Complements in the form of VPs ending in the verbal noun suffix are required by several matrix-clause verbs in the fashion of English control verbs with infinitival (*to VP*) complements. The logical subject of the complement VP is coindexed with the matrix subject, but is not overtly expressed.

### Argument structure of verbal-noun complement

VP constituents such as direct objects can be included in the verbal noun complement. Human direct objects take accusative *gì* as in main clauses.

(xx1) a. *[[námá mbò] tɛ́:m-bà] yó:ní-yó-wò-y*

[meat Dem[ eat.meat-VblN] fear-MP-Ipfv-1SgSbj

‘I am afraid to eat this meat.’

b. *[mì-gì tɛ́b-bà] yò:nì-yè-∅*

[1Sg-Acc hit-VblN] fear-MP.Pfv-3SgSbj

‘He was afraid to hit me.’

### ‘Prevent’ (*tɛ́lɔ́-*) with verbal-noun complement

This matrix-clause verb takes a verbal noun complement. The logical agent of the verbal noun appears as object of *tɛ́lɔ́-* in the matrix clause. The complement may occur in various linear positions. As simple transitive, *tɛ́lɔ́-* can mean ‘block off (e.g. a road)’, ‘chop (firewood)’, ‘chop or slice (e.g. meat)’, ‘saw (gourd, to make calabashes)’, and ‘go out and welcome (an important arriving visitor)’. The last sense may have evolved from ‘intercept’, since the welcoming precedes the final arrival.

(xx1) a. *[mó-ŋà yógó-wà rì] á:mí mì-gí tɛ̀lɛ̀-∅*

[here come-VblN Def] rain(n) 1Sg-Acc prevent.Pfv-3SgSbj

‘The rain prevented me from coming here.’

b. *túlɛ́ mì-gì nóyó-wà tɛ̀lɛ̀-∅*

noise 1Sg-Acc sleep-VblN prevent.Pfv-3SgSbj

‘(The) noise prevented me from sleeping.’

c. *[mì* LH*bàwá]=ẁ mì-gí tɛ̀lɛ̀-∅*

[1SgPoss LHfather]=Foc 1Sg-Acc prevent.Pfv-3SgSbj

*[[bɔ̀mɔ̀kɔ́ ŋà] úm-bà rì]*

[[Bamako Loc] go-VblN Def]

‘My father prevented me from going to Bamako.’

There is a synonyn tòrí kán ‘prevent’, with kán ‘do’ as auxiliary for invariant tòrí.

### ‘Dare’ (*yàrí kán(ú)-*) with verbal-noun complement

*yàrì* plus the ‘do’ verb means ‘dare to VP, have the nerve/effrontery to VP’.

(xx1) *[mó-ŋà yógó-wà] yàrì kám-bò-l lè*

[here come-VblN] daring do-Ipfv-2SgSbj Q

‘You-Sg dare (= have the effrontery) to come here?’ (< *kám-bò-w*)

### ‘Consent’ (*áwó-*) with verbal-noun or imperfective relative complement

If the complement has the same logical subject as the matrix verb, we get the usual verbal noun complement (xx1).

(xx1) *yógó-wà àwè-∅*

come-VblN accept.Pfv-3SgSbj

‘He/She agreed to come.’

If the subjects are different, a headless imperfective nonsubject relative clause with suffix *‑wá* on the verb is used. See discussion of (xx3) in §14.4.2 concerning the possible relationship of imperfective nonsubject relative suffix *‑wá* with verbal noun suffix *‑wà*.

(xx2) *[[bɔ̀mɔ̀kɔ́ ŋà] mì ùm-bá] àwè-∅*

[[Bamako Loc] 1SgSbj go-Ipfv.Rel] accept.Pfv-3SgSbj

‘He/She agreed that I go to Bamako.’

### ‘Want’ (*cèy-*) with verbal-noun or imperfective relative complement

For defective stative *cèy-* ‘want’ and its negation see §11.2.5.2. The verb can take a NP object (‘I want some sugar’) or a clausal complement. If the logical subject of the complement is the same as the matrix subject, we get an ordinary verbal noun complement (xx1).

(xx1) *úm-bà cèy-∅*

go-VblN want-3SgSbj

‘He/She wants to go.’

If the subjects are distinct, an imperfective nonsubject relative clause is used.

(xx2) *[mì* LH*bàwá] [[bɔ̀mɔ̀kɔ́ ŋà] mì ùm-bá] cèy-∅*

[1SgPoss LHfather] [[Bamako Loc] 1SgSbj go-Ipfv.Rel] want-3SgSbj

‘My father wants me to go to Bamako.’

### ‘Forget’ (*ídí-yɔ́-*) with verbal-noun complement

*ídí-yɔ́-* ‘forget’ can take a NP complement (‘I forgot his name’). A clausal complement takes verbal-noun form.

(xx1) *yógó-wà ìdì-yɛ̀-∅*

come-VblN forget-MP.Pfv-3SgSbj

‘He/She forgot to come.’

### ‘Be afraid to’ (*yó:ní-yó-*) with verbal-noun complement

An example is (xx1). Here the subjects of the two clauses are the same.

(xx1) *[mó-ŋà yógó-wà] yó:ní-yó-wò-y*

[here come-VblN] fear-MP-Ipfv-1SgSbj

‘I am afraid to come here.’

When the subjects of the two clauses are different, we get a construction with a prohibitive verb (cf. *lest*).

(xx2) *[mì-gí nà tɛ̀wà-lâyⁿ]* LH*yò:nì-yè-sǎ-yⁿ*

[1Sg-Acc 3SgSbj hit-Proh] LHfear-MP-Reslt-1SgSbj

‘I am afraid lest he/she hit me.’

### ‘Begin’ (*dɛ́wɔ́-*) with verbal-noun complement

*dɛ́wɔ́-* ‘begin’ and its verbal-noun complement are illustrated in (xx1).

(xx1) *dú:rú-yó-wà dɛ́wɛ́-ỳⁿ*

run-MP-VblN begin.Pfv-1SgSbj

‘I began to run.’

### ‘Cease’ (*díyɔ́-*) with verbal-noun complement

*díyɔ́-* ‘leave, abandon’ is usually a simple transitive verb. In the sense ‘cease VPing’, often implying permanent behavior change, it takes a verbal noun complement.

(xx1) *[kɔ̀njɛ́ ɲɔ́:-wà] díyɛ́-ỳⁿ*

[beer drink-VblN] leave.Pfv-1SgSbj

‘I have stopped (= have given up) drinking beer.’

## Purposive, causal, and locative clauses

### Clauses with purposive postposition *dàgá* ‘for’ and verbal noun

A verbal noun complement, which may include non-verb constituents, combines with purposive postposition *dàgá* to produce a simple purposive clause (‘in order to’).

(xx1) a. *[[ɲà:ŋgè ɲɔ́:-wà] dàgá]* LH*yògè-sǎ-y*

[[meal eat-VblN] Purp] LHcome-Reslt-1SgSbj

‘I came in order to eat [focus].’

b. *[[jé: nímúgó-wà] dàgá]* LH*ùní-∅*

[[fire extinguish-VblN] Purp] LHgo.Pfv-3SgSbj

‘He/She went to put out the fire [focus].’

### Purposive clauses with verb in H-toned final -á or -á:

In this construction, the verb of the purposive clause is {H}-toned and ends in ‑*á* (Boui) or ‑á: (Ningo). This looks like the A/O-stem for some verbs, but even those that end in *o* in the A/O-stem have a final ‑*á* or ‑á: . We could therefore speak of a suffix ‑á(:) or of an “A-stem” with lengthening.

The attested examples involve purposive clauses preceding main-clause motion verbs

(xx1) a. *[kògò*L *múndó-má]* L*ùm-bò-yⁿ*

[hairL braid-Caus.Purp] Lgo-Ipfv-1SgSbj

‘I am going (there) to have myself braided.’

b. *[ɲà:ŋgè ɲá:]* LH*yògè-sǎ-yⁿ*

[meal eat.Purp] LHcome-Reslt-1SgSbj

‘I came to eat (a meal).’

c. *nóyá* LH*yògè-sǎ-yⁿ*

sleep.Purp LHcome-Reslt-1SgSbj

‘I came to sleep.’

### Causal (‘because …’) clause (*pàskə́* )

French *parce que* ‘because’ is used regularly at least by younger speakers, as in other Malian languages. It occurs clause-initially.

(xx1) *[ìjò ŋá] nì* LH*ùm-mà-ná,*

[village Loc] 1PlSbj LHgo-can-StatNeg,

*pàskə́ [òjí rì] mɔ̀:-nà-∅*

because [road Def] good-StatNeg-3SgSbj

‘We can’t go to the village because the road isn’t good.’

For ‘because of X’ with some NP X, see postposition *dàgá* in §8.3.

### Obligational ‘must’ construction with *kán(ú)-* ‘do’

In one version, this construction ends with a conjugated imperfective negative form of *kán(ú)‑* ‘do’, preceded by a complement whose verb appears to be a {L}-toned version of the 1Sg perfective negative, regardless of the pronominal person of the matrix subject. The construction is therefore literally something like “X won’t do [I won’t VP].”

(xx1) *[[bɔ̀mɔ̀kɔ́ ŋà] ùnù-nì-yⁿ] kán-dà-yⁿ* / *kán-dâ-∅*

[[Bamako Loc] go-PfvNeg-1SgSbj] do-IpfvNeg-1SgSbj / -3SgSbj

‘I/He-or-she must go to Bamako’.

In another version, the matrix verb is invariant (i.e. impersonal) *kám-bò-∅*, probably in the sense ‘it is not/will be done’, and the complement is a conjugated positive imperfective verb.

(xx1) *[mó-ŋà yógó-wò-yⁿ* / *yógó-wò-∅] kám-bò-∅*

[here come-Ipfv-1SgSbj / -3SgSbj] be.done-Ipfv-3Sg

‘I/He-or-she must come here.’

# Anaphora

## Reflexive

### Reflexive object (‘my head’ etc.)

To specify that the object is coindexed with the clausemate subject, a possessed form of *kògò* ‘head’ can be used. The possessor is the relevant pronominal category. In this construction it is treated as inalienable, so the pronoun precedes the noun ‘head’ and controls {LH} overlay on it, though the H may disappear (before a H-toned word). For plural categories, ‘head’ is not overtly pluralized in this construction.

(xx1) a. *[nà* LH*kògó] tɛ̀lɛ̀-∅*

[3SgPoss LHhead] cut.Pfv-3SgSbj

‘He cut himself.’ or ‘She cut herself.’

b. *[mì* LH*kògò] tɛ́lɛ́-ỳⁿ*

[1SgPoss LHhead] cut.Pfv-1SgSbj

‘I cut myself.’ (from /*mì kògó*/)

c. *[nì* LH*kògó] nì-tɛ̀lɛ̀*

[1PlPoss LHhead] 1PlSbj-cut.Pfv

‘We cut outselves.’

These specialized reflexive combinations differ from regular possessed forms of ‘head(s)’ in the literal sense, where pronominal possessors normally follow the possessed NP and where plural suffixation is common.

(xx2) a. *[kògò mɛ̌:] bàm-bó-∅*

[head 1SgPoss] hurt-Ipfv-3SgSbj

‘My head hurts.’

b. *[kògò-gè nì-wɛ̀-gé] yàw-yàw bà-â:*

[head-Pl 1Pl-Poss-Pl] lightweight be-3PlSbj

‘Our heads are light.’

However, the distinction between e.g. ‘my head’ and ‘myself’ is not absolute, and the “reflexive” pattern *mì kògó* is also attested in the sense ‘my head’.

### Reflexive possessor

There is no overt marking of reflexivity in possessors. A 3Sg or 3Pl possessor may or may not be coindexed with a third-person clausemate subject. (xx1a) is therefore ambiguous, and ‘his dog’ has the same form there as in (xx1) with first person subject.

(xx1) a. *[í:njɛ́ nɛ̀-wɛ́] jɛ̀yɛ̀-∅*

[dog 3Sg-Poss] kill.Pfv-3SgSbj

‘Hex killed hisx (own) dog.’

‘Hex killed hisy/hery dog.’

b. *[í:njɛ́ nɛ̀-wɛ̀] jɛ́yɛ́-ỳⁿ*

[dog 3Sg-Poss] kill.Pfv-aSgSbj

‘I killed his dog.’

c. *sàydú [nà* LH*bàwá gì] bàlì-yè-∅*

Seydou [3SgPoss LHfather Acc] see-MP.Pfv-3SgSbj

‘Seydoux saw hisx/hisy/hery father.’

## Emphatic pronouns

‘My head’ etc. can also be used adverbially as emphatic pronouns.

(xx1) [*mì* LH*kògó] mì* LH*jà:lé*

[1SgPoss LHhead] 1SgSbj LHbuild.Pfv

‘I built (did the building) myself.’

## Logophoric pronouns (absent)

There are no logophoric pronouns.

## Reciprocal

The reciprocal (‘they hit/saw each other’) is expressed by an intransitivizing suffixal derivation with *‑yó‑* ~ *-yɔ́-* added to a transitive verb. See §9.5 for examples. The same (or a homophonous) suffix is used as a mediopassive, see §9.4.

## *tìŋgà* ‘owner’ as anaphor for nonspecific discourse referent

*tìŋgà* ‘owner’ often occurs in compounds (‘owner of X’), see §5.1.8. In uncompounded form it can function as an anaphor for a nonspecific discourse referent that has been introduced. Compare English *the guy* or *the fellow* as anaphor for a nonspecific discourse referent like *anyone*.

# Grammatical pragmatics

## Topic

### Topic (*kày*)

The regionally widespread topic particle *kày* is present. It implies a contrast between the topicalized NP and other possible topics from the discourse or communicative context.

(xx1) *[mì kày] ún-dà-yⁿ*

[1Sg Topic] go-IpfvNeg-1SgSbj

‘As for me, I’m not going.’ (Boui)

After an {L}-toned word (definite *rì* does not count here), *kày* shifts to H-toned *káy* (Boui) or *kây* (Ningo), unless it is followed by an H-tone in the next word as in (xx1). Pronouns take L‑toned form before *kày* and therefore trigger this tone-raising: *mì káy* ‘as for me’, *nà káy* ‘as for him’. Compare L‑toned *kày* in e.g. *sàydú kày* ‘as for Seydou’, *yé: rì kày* ‘as for the woman’.

### ‘Also’ (*là* ~ *là:*)

This particle is regularly added to NPs including pronouns, and to adverbial phrases such as locative PPs (xx1a), but not to verbs or clauses. I heard it as là for the Boui assistant, and as là: for the Ningo assistant. In (xx1b) it is added to a cognate nominal object rather than to the verb. It may follow accusative *gì* (xx1c).

(xx1) a. *[bɔ̀mɔ̀kɔ́ ŋà là] wàlè kám-bò-yⁿ*

[Bamako Loc also] work(n) do-Ipfv-1SgSbj

‘I work in Bamako too.’ (Boui)

b. *[nwɛ́ là] nɔ́:-wò-∅*

[song also] sing-Ipfv-3SgSbj

‘He/She sings too.’ (Boui)

c. *[bé: gì là] tɛ́wɛ́-ỳⁿ*

[child Acc also] hit.Pfv-1SgSbj

‘I hit-Past the child also.’ (Boui)

Pronouns take H-toned form: *mí là* ‘me too’, *ó là* ‘you-Sg too’, *ní là* ‘we too’. Between {L}‑toned words, *là* is raised to *lá*.

*là* may be added to *kòndè* ‘again’.

(xx2) a. *kòndè lá yògè-∅*

again too come.Pfv-3SgSbj

‘He/She came again.’ (Boui)

b. *kòndè là yógé-ỳⁿ*

again too come.Pfv-1SgSbj

‘I came again.’ (Boui)

For a construction with *là* (usually tone-raised to *lá*) after a pronominal subject marker and before a perfective verb, see §10.2.2.4.

Homophony is possible between *là* ‘also’ and *=là* ‘it is not’, since the two have the same tonal behavior. Compare *mí=là* ‘it isn’t me’ with *mí là* ‘me too’. However, *là* ‘also’ typically occurs in nonfinal phrases in clauses while *=là* is clause-final.

### ‘Even’ (*hàlí* ~ *hǎl*)

*hàlí* ~ *hǎl* preceding a NP X can be glossed ‘even X’ or ‘as far/much as X’, ‘all the way to X’, and the like. In the sense ‘even X’ it is optionally accompanied by *là* ‘also, too’, the sequence being *hàlí X là*.

*hàlí* appears as *hàlì* if the following word begins with an H-tone. Pronouns have L-toned form after *hàlí*.

(xx1) a. *[hàlí mì] íló-má-ỳⁿ*

[even 1Sg] go.up-can-1SgSbj

‘Even I can go up (=climb).’

b. *[hàlì bé-gé gì] tɛ́b-bò-∅*

[even child-Pl Acc] hit-Ipfv-3SgSbj

‘He/She even hits children.’

## Preclausal discourse markers

### ‘Well, …‘ (*hàyà*)

Preclausal *hàyà* ‘well, …‘ occurs in Tiranige as in most languages of the area.

### ‘But …‘ (*mɛ̀:*)

Clause-initial *mɛ̀:* ‘but’ is probably the widespread borrowing from French *mais*.

## ‘Only’ particles

### ‘Only’ (*tòmá→*)

*tòmá→* ‘only’ is obscurely related to *tò:mà* ‘one’.

(xx1) *[mbó tòmá→] mì-gí nà* LH*ndɛ̌:-∅*

[Dem only] 1Sg-Acc 3SgSbj LHgive.Pfv-3SgSbj

‘He/She gave me this only [focus].’

*tòmá→* is preferentially attached to a NP or similar nonpredicative constituent. However, there is another, invariant form that is specialized for predicative use: *tòmá wò*. This presumably contains the variant *wò* of *bò-* ‘be (somewhere)’. The variant *wò-* is otherwise found in *é wò-* ‘be present, be here/there’. In (xx2a), the subject is a preverbal proclitic, while in (xx2b) it is a pronominal-subject suffix on the verb.

(xx2) a. *ò yógó-wò tòmá wò*

2SgSbj come-Ipfv only be

‘You-Sg only come.’

b. *yógé-w tòmá wò*

come.Pfv-2SgSbj only be

‘You-Sg only came.’

## Phrase-final emphatics

### Clause-final *kòy* ‘sure’ (firm agreement or answer)

The regionally widespread clause-final confirmational emphatic, in the form *kóy*, is in common use in Tiranige. It is used somewhat like English *sure* as in *It sure it hot today*, or abbreviated *It sure is* as an emphatic confirmational response to *It’s hot today* or to the question *Is it hot today?*

(xx1) *nùmì-yɛ̀-∅ kóy*

be.hot-MP.Pfv-3SgSbj Emph

‘It sure is hot!’

### Clause-final *dé* (admonitive)

Another regionally widespread clause-final emphatic takes the form *dé* in Tiranige. It has an admonitive or contradicting function. Cf. English low-pitched pragmatic *now* as in *Be careful now!*

(xx2) *númí-yɛ́-sà-wⁿ dé*

hot-MP-Reslt-xxx Emph

‘(Watch out,) it (e.g. pot) is hot!’

## Greetings

The metalinguistic terms are *tíyá-mú* ‘greeting(n)’ and verb *tíyá-m(ú)-* ‘greet (sb)’. A typical four-part (ABAB) greeting cycle for the morning is (xx1). The grammar is somewhat abbreviated (2Sg and 1Sg pronouns are omitted though their plurals are overt: 2Pl *è*, 1Pl *nì*). *lè* is a polar interrogative marker. *ná:* may be an archaic variant of *náyó-* ‘spend the night’. *mɔ̀:* is ‘good’, but in greetings a better gloss is ‘in peace, in safety’.

(xx1) A: *ná: lé* ‘Did (you-Sg) spend the night?’

*è nà: lé* ‘Did you-Pl spend the night?’

B: *àwó→* Yes

B: *mɔ̀: nàyě-l lé* ‘Did (you-Sg) spend the night well?’

*mɔ̀: è nàyé lé* ‘Did you-Pl spend the night well?’

A: *mɔ̀: nàyè-ýⁿ* ‘(Yes) (I) spent the night well.’

*mɔ̀: nì nàyé* ‘(Yes) we spent the night well.’

By mid-day the greeting changes (xx2). This sequence can be used all afternoon and evening.

(xx2) A: *tíyâ:* ‘Greeting!’ (Sg)

*tìyà-yâ:* ‘Greeting!’ (Pl)

B: *àwó→* Yes

B: *mɔ̀:-wⁿ dɛ̀nɛ̀-l lé* ‘Yes, have (you-Sg) had a good day!’

*mɔ̀: è dɛ̀nɛ̀ lé* ‘Yes, have you-Sg had a good day!’

A: *mɔ̀:-wⁿ dɛ̀nɛ̌-yⁿ* ‘Yes, I’ve had a good day.’

If a stranger (B) arrives in the village, the sequence (xx3) might occur (from the Ningo assistant).

(xx3) A: *à:só-gè* welcome (to sb arriving)

B: *à:wô→* (reply)

A: *mɔ̀: yògé-l lé* ‘Did you come in safety (in good health)?’

B: *mɔ̀: yògè-ýⁿ* ‘I came in safety.

*mɔ̀: è bó lé* Are you-Pl in good health here?’

A: *mɔ̀: nì bó* ‘We are in good health’

A greeting to someone who is engaged in work (i.e. any purposeful activity such as farming, drawing water, or blacksmithing) is (xx4). *wàlè* is the noun ‘work’. There are two alternative replies, which can be combined.

(xx4) A: *èyà wàlè yà* ‘hello (at work)’

B: *àbâ:* (reply)

*èyà kà:jí yà* (reply)

A blessing bestowed on one who is about to travel is (xx5).

(xx5) *[á: [kè:lé-gé yà] sìnì ŋá]*

[God [health-Pl Loc] convey and.Nonpast]

*[nà sògì-ỳⁿ]*

[3SgSbj bring-3Hort]

‘May God take you (there) in health and bring (you back)’ (Ningo)

L

L

LH

LH

H

HL

+H

+L

# Texts

## Text 1 Hyena, Vulture, and the Dead Body (tale)

narrator: older speaker from Ningo

mode: dictation

(xx1) A: *dàbìlé pìyô→*

tale

audience: *sáŋgálá wàyá→*

(standard narrator-audience sequence at the beginning of a tale, not transparently parsable)

(xx2) *[nà bàbá] màrì-∅,*

[3SgPoss father] die.Pfv-3SgSbj

*sìnì kè bèjé,*

convey 3PlSbj bury.Pfv,

*[sìnì kè bèjé] wàkàtí,*

[convey 3PlSbj bury] time

*tèbù-dúbà yà bɛ̀:,*

vulture Exist.Dist be.Past-3SgSbj,

‘His (hyena’s) father died. They (all the wild animals) took (the body) and buried (it). At the time when they took (it) and buried (it), vulture was there (up in the sky).’

(xx3) *[tèbù-dúbà rì] kè-gí è bálà-∅,*

[vulture Def] 3Pl-Acc Exist see.Ipfv-3SgSbj,

*jágá tùmbùlè yògè-sà-wⁿ,*

lo! hyena come-Reslt-while,

*[tíbɔ́ rì] dùŋgù-lè-∅,*

[corpse Def] bury-Rev.Pfv-3SgSbj,

‘Vulture saw them. Then lo, hyena came and dug up (disinterred) the body (and devoured it).’

(xx4) *[é tùnú gì] yògí-yè,*

[that after Loc] come.Pfv-3PlSbj,

*hàyà ùjàrí-yè, á:lé [tíbɔ́ rì] dùŋgù-lè,*

well ask.Pfv-3PlSbj, who? [corpse Def] bury-Rev,

*[ndà: pɔ́s] nà dùŋgù-lò-nì wà,*

[person all] 3SgSbj bury-Rev-PfvNeg Quot,

‘After that they (the other animals) came back. Well, they asked, who dug up the body? Everyone said that it wasn’t him.’

(xx5) *hàyà [tèbù-dúbà rì]*

well [vulture Def]

*yá: [dànà gí] yà ságà,*

there.Def [above Loc] Exist.Dist be.up.on.Stat-3SgSbj

*ké-gì bàlì-yè-∅,*

3Pl-Acc see-MP.Pfv-3SgSbj,

*kè-gí ùjàrí-yè,*

3Pl-Acc ask.Pfv-3PlSbj,

*[ndà: pɔ́s] nà dùŋgù-lò-nì wà,*

[person all] 3SgSbj bury-Rev-PfvNeg Quot,

*tèbù-dúbà àbè nà sàyé,*

vulture receive 3SgSbj reply.Pfv,

‘Well, vulture was up above. He saw them (when) they asked (each other), (but) everyone said it wasn’t him. Vulture then spoke up.’

(xx6) *[wàkàtì kè dùŋgò-bá rì]*

[time 3PlSbj bury-Ipfv.Rel Def]

*yá: [dànà gí] yá: nà bɛ́: wà,*

there.Def [above Loc] there.Def 3SgSbj be.Past Quot,

*[wàkàtì kè dùŋgù-lò-bá lá]*

[time 3PlSbj bury-Rev-Ipfv.Rel too]

*[dànà gí] nà bɛ́: wà,*

[above Loc] 3SgSbj be.Past Quot,

‘(Vulture said): “I was up there when they were burying (him), and I was also up there when they dug (him) up.”

*[imperfective nonsubject relative clause]*

(xx7) *tùmbùlè àbè nà sàyé*

hyena receive 3SgSbj reply.Pfv.Rel

*[nà bàbá] wà,*

[3SgSbj father] Quot,

*[tèbù-dúbà gì] újàrà:-n-í: wà,*

[vulture Acc] ask-PfvNeg-3PlSbj Quot,

*[tèbù-dúbà wà] [dám-là wà] yà díy wà,*

[vulture Quot] [speak-Proh Quot] Exist.Dist leave Quot,

‘Hyena spoke up. It was my father. They (=animals) didn’t ask vulture. Vulture should not be allowed to speak.’

(xx8) *kúgúríyáŋgè tùmbùlè dùmbù-lè tɛ́mɛ́-sà-∅*

in the end hyena bury-Rev eat.meat-Reslt-3SgSbj

‘So in the end hyena had dug up and devoured (the body).’ (Ningo)

## Text 2 Farming

narrator: older speaker from Ningo

mode: dictation

(xx1) *gɔ́rɔ́, kɛ́rí kɛ́rí-yè,*

trimming ax, chopping chop.Pfv-Inst,

*[jéná wàlé] tùmbùlà-ŋgé,*

[rainy.season work(n)] begin-Nom,

‘Trimming axes. They clear (brush, in fields), (at) the beginning of the rainy season.’

(xx2) *[é tùnú] gì, gúlá,*

[Def behind] Loc, chopping.ax,

*[é tùnú] gì, áná-wàlà,*

[Def behind] Loc, short.shaft.pick.hoe

*[é tùnú] gì, sɛ́ŋù,*

[Def behind] Loc, curved.shaft.short.ax,

*[é tùnú] gì, dùbìyɛ̀ báná,*

[Def behind] Loc, hoe male (pick-hoe),

*[é tùnú] gì, dùbìyɛ̀ yê:,*

[Def behind] Loc, hoe female (daba),

*[é tùnú] gì, ɔ́njɔ́,*

[Def behind] Loc, sleeved.daba

*[é tùnú] gì, kɔ́:mɔ̀,*

[Def behind] Loc, sickle,

‘In addition to that, (heavy) chopping axes, short-handled pick-hoes (with hooked shaft), axes with short curved shafts, male hoes (long pick-hoes for planting), female hoes (dabas for turning over earth), sleeved hoes, and sickles.’

[list of tools used in farming]

(xx3) *[kɛ́rí kèr-á:] nì* LH*ùm-bó*

[chopping clear(tr)-Purp] 1PlSbj LHgo-Ipfv.Rel,

*yálá=ò nì kèrò-bá,*

field=Foc 1PlSbj clear-Ipfv.Rel,

*yálá nì kɛ̀rɔ̀ mɛ̀-nɛ̀,*

field 1PlSbj clear if,

*nì lá sùbè,*

1PlSbj also burn-Ipfv,

‘We go to chop (=clear). It’s a field that we will clear. When we have cleared the field (with a hatchet), we burn it too.’

*[cf. úm-bò-y ‘I will go’, nì úm-bò ‘we will go’]*

(xx4) *nì sùbè mɛ̀-nɛ̀,*

1PlSbj burn.Pfv if,

*nì lá tò:lè,*

1PlSbj also hoe(v),

*nì tò:lè mɛ̀-nɛ̀,*

1PlSbj cultivate.Pfv if,

*nì lá tɔ̀mɛ̀,*

1PlSbj also slash.to.sow,

*nì tɔ̀mɛ̀ mɛ̀-nɛ̀,*

1PlSbj slash.to.sow if,

*sɔ̀bɛ̀-∅ mɛ̀-nɛ̀,*

sprout.Pfv-3SgSbj if,

*nì lá sàmbè,*

1PlSbj also do.weeding,

‘When we have burned it, we hoe (to shape the earth into mounds). When we have hoed, we slash (with a pick-hoe, to plant seeds in the slash). When we have slashed (and planted), when it (=millet) has sprouted, we weed (with a hoe).’

(xx5) *[nì sàmbè mɛ̀-nɛ̀], túnú gì,*

[1PlSbj do.weeding.Pfv when], behind Loc,

*nì là níyè-gè pìyàgè,*

1PlSbj also bird-Pl chase.away,

*[nì là síŋgá-gé jà:lè]*

[1PlSbj also blister.beetle-Pl watch.for]

*[nì lá gɛ̀yɛ̀],*

[1PlSbj also kill],

*nì là gɛ́ní tùnì,*

1PlSbj also fire put,

*nì lá ùgè,*

1PlSbj also put.manure,

‘When we have weeded, afterwards, we drive (grain-eating) birds away. We watch out for blister beetles (Meloidae) and we kill them. We set fire and we lay manure.’

(xx6) *ìlìyɛ̀-∅ mɛ̀-nɛ̀,*

ripen.Pfv-3SgSbj if,

*nì lá [gìyò tànà-bé] jɔ̀lɛ̀,*

1PlSbj also [harvest(n) knife-child] look.for.Pfv,

*nì là kɔ́:ndɔ́ jɔ̀lɛ̀,*

1PlSbj also square.basket look.for.Pfv,

*nì lá tàjí jɔ̀lɛ̀,*

1PlSbj also straw.basket look.for.Pfv,

*nì lá gìyè,*

1PlSbj also harvest(v),

‘When it has ripened, we look for (=go get) a harvesting knife (tied by a strap to one hand), we look for a square basket and we look for a straw basket. We harvest (the millet).’

(xx7) *nì lá [gɔ̀ŋɔ̀ gí] màŋgà-là-mì,*

1PlSbj also [enclosure Loc] gather-Mult-Caus.Pfv,

*nì lá nùgùlè,*

1PlSbj also sort(v),

*nì lá bànà-kɔ̀lì-gè pàgè,*

1PlSbj also bundle-Pl tie,

*nì lá dùyɛ̀ gíbá: jɛ̀: nwɛ̀:,*

1PlSbj also carry.on.head house.Loc pick.up go.in

*nì là [páŋgá gì] gànì,*

1PlSbj also [granary Loc] put.in,

‘We gather it (the harvested millet grain spikes) all up in an enclosure. We sort (organize) it. We tie it into bundles. We carry it (in baskets, on the head). We go to the house and put it in granaries.’

(xx8) *[égá:gú pɔ́s] nì là páŋgá dɛ̀nɛ̀ ndɛ̀,*

[morning every] 1PlSbj also granary take.out.grain give.Pfv,

*hà: ɛ́rì=yò [nì ŋgùrɛ́],*

well that=it.is [1PlPoss sustenance],

*égá:gú kè lá ɔ̀mɔ̀-kánú kànì,*

morning 3PlSbj also breakfast make.Pfv,

*dènì-gí kè là páníŋgé kànì,*

spend.day-Nom 3PlSbj also lunch make.Pfv,

*yà:gù kè là ɲá:-nígé kànì,*

night 3PlSbj also supper make.Pfv,

*nì lá ɲɛ̀:*

1PlSbj also eat.meal

‘Every morning we take some (millet) out of the granary and give it (to women to cook for the day). Well, that is our sustenance (staple food). In the morning they make breakfast, in the middle of the day they make lunch, in the evening they make supper. We eat (meals).’

## Text 3 War

narrator: older speaker from Ningo

mode: dictation

(xx1) *kɔ́mbɔ́, kɔ́mbɔ́ táy-wà,*

war, war wage-VblN,

*[kɔ́mbɔ́ gònì-gé] ò lá kàlì-yè,*

[war gear-Pl] 2SgSbj also get.ready-MP.Pfv,

*ndégé=ẁⁿ [kɔ́mbɔ́ gònì-gé]*

be.what?=it.is [war gear-Pl]

‘War, waging war. You-Sg get the instruments of war ready. What are the instruments of war?’

(xx2) *tànà [kɔ́mbɔ́ gòní]=yò,*

knife [war gear]=it.is,

*túmá [kɔ́mbɔ́ gòní=yò,*

stick [war gear]=it.is,

*sábú [kɔ́mbɔ́ gòní]=yò,*

spear [war gear]=it.is,

*mánùbà [kɔ́mbɔ́ gòní]=yò,*

rifle [war gear]=it.is,

*sɔ̀ɲjònì báná, [kɔ́mbɔ́ gòní]=yò,*

horse male, [war gear]=it.is,

*dòŋgò báná-ŋgà [kɔ́mbɔ́ gòní]=yò,*

heart fearless [war gear]=it.is,

*dàbàrì pí:jà, [kɔ́mbɔ́ gòní]=yò,*

plan pretty, [war gear]=it.is,

*á:sùnò [kɔ́mbɔ́ gòní]=yò,*

blessing [war gear]=it.is,

*dùwà(w) pí:jà, [kɔ́mbɔ́ gòní]=yò,*

blessing pretty [war gear]=it.is,

‘Knives, sticks (staffs), spears, rifles, stallions, fearless hearts, good strategies, and blessings (from God and from holy men) are instruments of war.’

[*á:sùnò* ‘blessing from God’ versus *dùwá* ~ *dùwâw* ‘blessing from an imam or other holy man]

(xx3) *kɔ́mbɔ́ nà ndégé=ẁⁿ,*

war 3SgSbj what?=it.is,

*ndà: ò-gí tó:ɲà kànì-∅ mɛ̀,*

person 2Sg-Acc trouble do.Pfv-3SgSbj if,

*kɔ́mbɔ́ táy-bò-w,*

war wage-Ipfv-2SgSbj,

*[ndà: gí] [nà wɛ̌:] ɛ́lɔ̀-bà ké:-yé-ẁ mɛ̀,*

[person Acc] [3Sg Poss] take.away-Ipfv.Rel want-MP-2SgSbj if,

*kɔ́mbɔ́ táy-bò-w,*

war wage-Ipfv-2SgSbj,

‘What is war? If someone makes trouble for you-Sg, you wage war. If you-Sg want to seize someone’s possession, you wage war.’

(xx4) *là:mù ké:-yé-ẁ mɛ̀,*

authority want-MP-2SgSbj if,

*kɔ́mbɔ́ táy-bò-w,*

war wage-Ipfv-2SgSbj,

[*ɲàmà tàgú] ɛ́lɔ̀-bà ké-ẁ mɛ̀,*

[others land] take.away-Ipfv.Rel want-2SgSbj if,

*kɔ́mbɔ́ táy-bò-w,*

war wage-Ipfv-2SgSbj,

*ndà: [ò wɛ̌:] ò-gí ɛ́lɔ̀-bà jɔ̀lɛ̀ mɛ̀,*

person [2Sg Poss] 2Sg-Acc take.away-Ipfv.Rel look.for.Pfv if,

*kɔ́mbɔ́ táy-bò-w,*

war wage-Ipfv-2SgSbj,

‘If you-Sg want political authority (over an area), you wage war. If you want to seize somebody else’s land, you wage war. If someone tries to seize something of yours, you wage war.’

(xx5) *ndà: [ò bèlì-gé] jɛ̀: mɛ̀,*

person [2SgPoss animal-Pl] take if,

*kɔ́mbɔ́ táy-bò-w,*

war wage-Ipfv-2SgSbj,

*ndà: ò-gí tó:ɲà kànì mɛ̀,*

person 2Sg-Acc trouble do if,

*kɔ́mbɔ́ táy-bò-w,*

war wage-Ipfv-2SgSbj,

‘If someone takes your livestock, you wage war. If someone makes trouble for you, you wage war.’

(xx6) *nà-gì tágí-yó-bò-w*

3Sg-Acc follow-MP-Ipfv-2SgSbj

*[hǎl jɛ̀: ŋá]*

[until take-and.Nonpast and.Nonpast]

*[[nà-gí ó ìmì-y-ɔ́:] gì],*

[[3Sg-Acc 2SgSbj defeat-MP-until] Loc]

*nà-gì díyɔ̀-rà-w,*

3Sg-Acc leave-IpfvNeg-2SgSbj,

‘You will pursue him. From the beginning until the time when you have defeated him, you will not leave him alone.’

(xx7) *[ò-gí ìmì-yɛ̀-∅ mɛ̀ lá] má:gí-yó-bò-w,*

[2Sg-Acc defeat.Pfv-3SgSbj if even] be.energetic-MP-Ipfv-2Sg,

*[nà-gì ímí-yɛ́-ẁ mɛ̀] dúrú-yó-bò-∅,*

[3Sg-Acc be.able-MP-2SgSbj if] run-MP-Ipfv-3SgSbj

*dùrù-yɛ̀-∅ mɛ̀-nɛ̀, nà-gì tágí-yó-bò-w,*

run-MP.PPerf-3SgSbj if, 3Sg-Acc follow-MP-Ipfv-2SgSbj,

‘Even if he defeats you-Sg, have courage! If you have defeated him, he will run away. When he runs away, you will pursure him.’

(xx8) *[kíní gì] ìlɛ̀-∅ mɛ̀, díyɔ̀-rà-w,*

[mountain Loc] go.up.Pfv-3SgSbj if, leave-IpfvNeg-2SgSbj,

*[[mí: gì] nwɛ̀: -∅ mɛ̀] díyɔ̀-ràw,*

[[water Loc] go.in.Pfv-3SgSbj if] leave-IpfvNeg-2SgSbj,

*[hǎl jɛ̀: ŋá]*

[until pick.up and.Nonpast]

*[nà-gí ó ìbè-[gìr-ɔ́:]] gì],*

[3Sg-Acc 2SgSbj catch-[get-until]] Loc],

‘If he climbs up a mountain, you won’t leave him alone. If he goes into the water, you won’t leave him, from the beginning until you have caught him.’

(xx9) *nà-gí ìbè gírɛ́-ẁ mɛ̀,*

3Sg-Acc catch get.Pfv-2SgSbj if,

*pàgè sógó-bò-w,*

tie.and bring-Ipfv-2SgSbj,

*pàgè sógé-ẁ mɛ̀,*

tie.and bring.Pfv-2SgSbj if,

*[ɛ́rì jùgú] nà-gí ímí-yɛ́-ẁ*

[Dist time] 3Sg-Acc defeat-MP-2SgSbj

‘If you have caught him, tie him up and bring him (to your village). When you have tied and brought him, at that time you have defeated him.’

## Text 4 Travels

narrator: older speaker from Ningo

mode: dictation

(xx1) *òjì gɛ́lɛ́ mì ùnì-gé,*

road place 1Sg go.Pfv.Rel-Pl

*mì là tí:lè,*

1SgSbj also explain.Pfv-1SgSbj

*mbé: [màlì gí] mì gwě:,*

here [Mali Loc] 1SgSbj go.out.Pfv.Rel,

*búrcíná [móbɛ́lí gì] mì sìgé,*

Burkina [vehicle Loc] 1SgSbj go.down.Pfv.Rel

‘I will describe the places where I have gone on routes (journeys). I left here in Mali, I got off the vehicle (bus or truck) in Burkina (Faso).’

*[relative clause with plural -ge on the verb]*

(xx2) *kòndè tɛ̀rɛ́ mì jɛ̌:,*

again train 1SgSbj take.Pfv.Rel,

*pérégéséy mì ùní,*

Peregese 1SgSbj go.Pfv.Rel,

*tɛ̀rɛ́ mì jɛ̌:,*

train 1SgSbj take.Pfv.Rel,

*bɔ́kɛ́ yá: mì ùní,*

Boke there.Def 1SgSbj go.Pfv.Rel,

‘I took the train, and got off at Peregese. I took the train (again), I went to Boke there.’

(xx3) *[bɔ́kɛ́ gì] mì gwě:*,

[Boke Loc] 1SgSbj go.out.Pfv.Rel,

*ábíjá:ⁿ mì ùní,*

Abidjan 1SgSbj go.Pfv.Rel,

*ábíjá:ⁿ mì gwě:,*

Abidjan 1SgSbj go.out.Pfv.Rel,

*[[gáná kènú] gì] mì ùní,*

[[Ghana border] Loc] 1SgSbj go.Pfv.Rel,

‘I left Boke and went to Abidjan. I left Abidjan and went to the Ghana border.’

(xx4) *[gáná kènú gì] mì gwě:,*

[Gana border Loc] 1SgSbj go.out.Pfv.Rel,

*[gáná gì] nì ùní yá:,*

[Ghana Loc] 1PlSbj go.Pfv.Rel there,

*mí: tɛ̀lɛ̀ nì tàŋgé,*

water cut(cross) 1PlSbj cross.Pfv.Rel,

‘I left Gana Kenou. When we went to Ghana, we crossed the water (=river).’

*[shift from 1Sg to 1Pl subject beginning here.]*

(xx5) *móbɛ́lí nì jɛ̌:,*

vehicle 1PlSbj take.Pfv.Rel,

*[tákùrà dí gì] nì ùní,*

[Takura Di Loc] 1PlSbj go.Pfv.Rel,

*[tákùrà dí gì] móbɛ́lí nì jɛ̌:,*

[Takura Di Loc] vehicle 1PlSbj take.Pfv.Rel,

*kúmá:ⁿsí yá: nì ùní,*

Kumasi there.Def 1PlSbj go.Pfv.Rel,

‘We got on a vehicle and went to Takura-Di. We got (another) vehicle at Takura-Di and we went to Kumasi there.’

(xx6) *kúmá:ⁿsí móbɛ́lí nì jɛ̌:,*

Kumasi vehicle 1PlSbj take.Pfv.Rel,

*ákárá nì ùní,*

Accra 1PlSbj go.Pfv.Rel,

*ákárá móbɛ́lí nì jɛ̌:,*

Accra vehicle 1PlSbj take.Pfv.Rel,

*[lómé gì] nì ùní, ápláwô:,*

[Lome Loc] 1PlSbj go.Pfv.Rel, Aplawo *[border Togo-Ghana]*,

*[lómé gì] nì gwě:,*

[Lome Loc] 1PlSbj go.out.Pfv.Rel,

*[sɛ́mɛ́ gì] nì ùní,*

[Seme Loc] 1PlSbj go.Pfv.Rel,

‘We got on a vehicle in Kumasi and went to Accra. At Accra we took a vehicle and went to Lome. We left Lome and went to Seme.’

(xx7) *[sɛ́mɛ́ gì] [mòbɛ̀lì tó:] nì jɛ̌:,*

[Seme Loc] [vehicle other] 1PlSbj take.Pfv.Rel,

*[lágósí gì] nì ùní,*

[Lagos Loc] 1PlSbj go.Pfv.Rel,

*[lágósí gì] nì gwě:,*

[Lagos Loc] 1PlSbj go.out.Pfv.Rel,

*íbá:dá nì ùní,*

Ibadan 1PlSbj go.Pfv.Rel,

*kàdú:nà nì ùní,*

Kaduna 1PlSbj go.Pfv.Rel,

*[kánù gì] nì ùní,*

[Kano Loc] 1PlSbj go.Pfv.Rel,

‘We took another vehicle in Seme and went to Lagos. We left Lagos and went to Ibadan. We went to Kaduna and to Kano.’

(xx8) *[kánù gì] nì gwě:,*

[Kano Loc[ 1PlSbj go.out.Pfv.Rel,

*móbɛ́lí nì jɛ̌:,*

vehicle 1PlSbj take.Pfv.Rel,

*bɔ́rnɔ́ ɛ́stát, yárúwá,*

Borno Estat, Yaruwa,

*[màydúkùrì gì] nì ùní,*

[Maydukuri Loc] 1PlSbj go.Pfv.Rel,

‘We left Kano. We took a vehicle to Borno Estat and Yaruwa. We went to Maydukuri.’

(xx9) *màydúkùrì móbɛ́lí nì jɛ̌:,*

Maydukuri vehicle 1PlSbj take.Pfv.Rel,

*[gàmbòrí gì] nì ùní,*

[Gambori Loc] 1PlSbj go.Pfv.Rel,

*[gàmbòrí gì] nì gwě:,*

[Gambori Loc] 1PlSbj go.out.Pfv.Rel,

*kámérû:n, [kúsírí gì] nì ùní,*

Cameroon, [Kusiri Loc] 1PlSbj go.Pfv.Rel,

*[kúsírí gì] nì gwě:,*

[Kusiri Loc] 1PlSbj go.out.Pfv.Rel,

*cád, [pɔ́ŋgɛ̀lí gì] nì ùní,*

Tchad, [Pongeli Loc] 1PlSbj go.Pfv.Rel,

‘We took a vehicle at Mayudukuri and we went to Gambori. We left Gambori (and went to) Cameroon. We went to Kusiri. We left Kusiri (and went to) Tchad. We went to Pongeli.’

(xx10) *[pɔ́ŋgɛ̀lí gì] nì gwě:,*

[Pongeli Loc] 1PlSbj go.out.Pfv.Rel,

*njàmínà nì ùní,*

Ndjamena 1PlSbj go.Pfv.Rel,

*njàmínà yá: èbà nì* LH*sànjè-bɛ́,*

Ndjamena there.Def market 1PlSbj LHdo.business-Ipfv.RelPast,

‘We left Pongeli and went to Ndjamena. There in Ndjamena we were doing business in the market.’

[LH*sànjè-bɛ́*, past-time form of imperfective participle LH*sànjò-bá* ‘do business’]

(xx11) *[sɔ́y-gé nì lá dɔ̀nɛ́] [nì lá tùlɛ̀],*

[cloth-Pl 1PlSbj also buy.Pfv] [1PlSbj also sell.Pfv]

*[èbà tó:-gè] [bù:dù púlɛ́-gé] nì lá tùlɛ̀,*

[market other-Pl] [money white-Pl] 1PlSbj also sell.Pfv,

*pɛ́ntír nì lá tùlɛ́,*

paint 1PlSbj also sell.Pfv,

*[kìndò-kìndò já:lì-yè-gé] nì lá tùlɛ́,*

[image-image look-MP-Pl] 1PlSbj also sell.Pfv,

‘We bought and sold cloth. (As for) other merchandise, we sold silver coins, we sold paint, we sold mirrors.’

*[‘Silver’ is also called sárdí ; ‘mirror’ literally approximately ‘image-looker’]*

(xx12) *[[é* LH*tùnú] gì] lí:-gé nì lá tùlɛ̀,*

[[that.Def LHbehind] Loc] bed-Pl 1PlSbj also sell.Pfv,

*[[é* LH*tùnú] gì] pùgáⁿ-gè nì lá tùlɛ̀,*

[[that.Def LHbehind] Loc] aluminum-Pl 1PlSbj also sell.Pfv,

*[[é* LH*tùnú] gì] brɔ́ⁿs zíŋgíl nì lá tùlɛ̀,*

[[that.Def LHbehind] Loc] bronze steel 1PlSbj also sell.Pfv,

‘After (=aside from) that, we sold beds, we sold aluminum, and we sold bronze and steel.’

(xx13) *[[é* LH*tùnú] gì] [cád gì] nì gwě:,*

[[that.Def LHbehind] Loc] [Tchad Loc] 1PlSbj go.out.Pfv.Rel,

*kámérû:n, [kúsírì gì] nì gwě:,*

Cameroon, [Kusiri Loc] 1PlSbj go.out.Pfv.Rel,

*[márwá gì] nì yògé,*

[Maruwa Loc] 1PlSbj come.Pfv.Rel,

*[márwá gì] nì gwě:,*

[Maruwa Loc] 1PlSbj go.out.Pfv.Rel,

‘After that, we left Tchad (and went to) Cameroon. We left Kusiri and came to Maruwa. We left Maruwa.’

(xx14) *móbɛ́lí nì jɛ̌:,*

vehicle 1PlSbj take.Pfv.Rel,

*gárwá nì ùní,*

Garuwa 1PlSbj go.Pfv.Rel,

*gárwá móbɛ́lí nì jɛ̌:,*

Garuwa vehicle 1PlSbj take.Pfv.Rel,

*ŋgáwndérè nì ùní,*

Ngawndere 1PlSbj go.Pfv.Rel,

‘We took a vehicle and went to Garuwa. At Garuwa we took a vehicle and went to Ngawndere.’

(xx15) *[ŋgáwndérè gì] móbɛ́lí nì jɛ̌:,*

[Ngawndere Loc] vehicle 1PlSbj take.Pfv.Rel,

*yògòdúmá nì ùní,*

Yogoduma 1PlSbj go.Pfv.Rel,

*yògòdúmá móbɛ́lí nì jɛ̌:,*

Yogoduma vehicle 1PlSbj take.Pfv.Rel,

*bɛ́rtwá: nì ùní,*

Bertuwa 1PlSbj go.Pfv.Rel,

*bɛ́rtwá: móbɛ́lí nì jɛ̌:,*

Bertuwa vehicle 1PlSbj take.Pfv.Rel,

*mùsàká nì ùní,*

Musaka 1PlSbj go.Pfv.Rel,

‘We took a vehicle in Ngawndere and went to Yogoduma. We took a vehicle in Yogoduma and went to Bertuwa. We took a vehicle in Bertuwa and went to Musaka.’

(xx16) *àjákày kǔ:ⁿ nì* LH*jɛ̌:,*

Ajakay skiff 1PlSbj LHtake.Pfv.Rel,

*[ɛ́rì yà] bàtó nì* LH*jɛ̌:, mùsàká,*

[that.Def time] boat 1PlSbj LHtake.Pfv.Rel, Musaka,

*bícì bràzàvíl*

Bichi[fort] Brazzaville,

*[bràzàvíl gì] nì* LH*nwɛ̌:,*

[Brazzaville Loc] 1PlSbj LHgo.in.Pfv.Rel,

‘We took a boat at Ajakay. At that time we took a boat (and went to) Musaka. We entered Bichi (Fort) at Brazzaville.’

(xx17) *[bràzàvíl gì] èbà nì sànjèbɛ́,*

[Brazzaville Loc] market 1PlSbj do.business.Pfv.Past,

*sɔ́y-gé [nì lá dɔ̀nɛ́] [nì lá tùlɛ̀]*

cloth-Pl [1PlSbj also buy.Pfv] [1PlSbj also sell.Pfv]

*[móbɛ́lí nǒ:] [nì lá dɔ̀nɛ́] [nì lá tùlɛ̀],*

[vehicle oil] [1PlSbj also buy.Pfv] [1PlSbj also sell.Pfv],

*[móbɛ́lí tònjè-gé] [nì lá dɔ̀nɛ́] [nì lá tùlɛ̀],*

[vehicle foot-Pl] [1PlSbj also buy.Pfv] [1PlSbj also sell.Pfv],

*[móbɛ́lí [kìndò-kìndò já:lì-yè-gé]]*

[vehicle [image-image look-MP-Pl]]

*[nì lá dɔ̀nɛ́] [nì lá tùlɛ̀],*

[1PlSbj also buy.Pfv] [1PlSbj also sell.Pfv],

‘We did business in the market at Brazzaville. We bought and sold cloth. We bought and sol motor oil, we bought and sold tires, we bought and sold vehicle mirrors.’

## Text 5 Thieves in Sigal

narrator: older speaker from Ningo

mode: dictation

(xx1) *[kánó gì] ɛ̀ndìgó nì kàní,*

[Kano Loc] indigo 1PlSbj do.Pfv,

*[gàmbàrú gì] nì gwě:,*

[Gambarou Loc] 1PlSbj go.out.Pfv.Rel,

*[[sígál èbá] gì] nì ùní,*

[[Sigal market] Loc] 1PlSbj go.Pfv.Rel,

*[sígál èbá] nì sìgò-mí,*

[Sigal market] 1PlSbj go.down-Caus.Pfv.Rel,

‘We did (business in) indigo (cloth) in Kano. We left Gambarou (Nigeria-Cameroon border) and went to the Sigal market. At the Sigal market we unloaded (our merchandise).’

(xx2) *[[èbà kùlìyé] gì] yà:gù nì bì:-yé*

[[market inside] Loc] night 1PlSbj lie.down-MP.Pfv.Rel,

*[sɔ́y dɔ̀:ndɛ̀-gé] nì dùŋí,*

[cloth baggage-Pl] 1PlSbj lay.Pfv.Rel,

*[nì bì:-yé] [nì nòyé],*

[1PlSbj lie.down.Pfv.Rel] [1PlSbj sleep(v).Pfv.Rel],

‘We lay down (to sleep) at night in the market. We put down our cloth bundles. We lay down and went to sleep.’

[*dúŋ(ú)* ‘put down’ is used for non-oriented objects such as bundles, compare *tɛ́ŋɔ́* ‘put down, set’ for vertically oriented objects such as calabashes and tables]

(xx3) *yà:gù kàŋ-gè kè yògé,*

night thief-Pl 3PlSbj come.Pfv.Rel,

*[á:mì tègâ:-ŋ] nì nòyé,*

[rain(n) rain.fall-while] 1PlSbj sleep(v).Pfv.Rel,

*[kàmpálá dɔ̀:ndè-gé nì:ŋgà]*

[Kampala baggage-Pl two]

*ɛ̀ndìgó kè kàmì sìní,*

indigo 3PlSbj steal take.away.Pfv.Rel,

*kàmì jǐy-yɛ̀:,*

steal take.Pfv-3PlSbj,

‘Thieves came at night. While it rained, we slept. They stole and took away two bundles of indigo (cloth) from Kampala. They stole and took (them).’

[*jǐy-yɛ̀:*, 3Pl subject perfective of *jɔ́:* ‘take, pick up’]

(xx4) *[nì ùnjìgé] [ní jà:lé],*

[1PlSbj get.up.Pfv] [1PlSbj look.Pfv.Rel],

*[góní-gè rì] kàmí-yè,*

[gear-Pl Def] steal.Pfv-3PlSbj,

*dɔ̀:ndɛ̀-gè nì:ŋgà,*

baggage-Pl two,

*[ìjò gí] nì nwɛ̌:,*

[village Loc] 1PlSbj go.in.Pfv.Rel,

*[[ìjò gùnàrí] gì] nì tù:rɛ́,*

[[village owner] Loc] 1PlSbj inform.Pfv.Rel,

[We got up (in the morning) and looked. They had stolen the merchandise, two bundles. We went into the town and informed (them) at (the house of) the village chief.’

(xx5) *[nì jɔ̀lɛ́] [nì bàlì-yà-nì],*

[1PlSbj look.for.Pfv.Rel] [1PlSbj see-MP-PfvNeg],

*ɛ́rɔ̀ màrí-yè ég-gè kây,*

thus be.lost.Pfv-3PlSbj that.Def-Pl Top,

*[hàlí yò:] nì bàlì-yà-nì*

[until today] 1PlSbj see-MP-PfvNeg

‘We searched (but) we didn’t find (them). They were lost in that way. (Even) up until today we haven’t found (them).’

[*ég-gè* for *érì-gè* ‘those (definite)’, §4.4.1.2; Topic particle *kày* §19.1.1]

## Text 6 Thieves in Ndjamena

narrator: older speaker from Ningo

mode: dictation

(xx1) *[cádì gì] là, njàmínà,*

[Tchad Loc] too, Ndjamena

*má:gé gɛ́lɛ́ mì bàlì-yé,*

difficulty place 1SgSbj see-MP.Pfv.Rel,

‘In Tchad too, in Ndjamena, a place where I saw (experienced) trouble.’

(xx2) *égá:gú [dèn tò:mà] [èbà gí] mì nwɛ̌:,*

morning [day one] [market Loc] 1SgSbj go.in.Pfv.Rel,

*[kɛ́lɛ́-ŋgé mɛ̀:-ŋgé] [[mì jì:bá] gì] yà sɛ́-yⁿ,*

[money-Pl 1SgPoss-Pl] [[1PlPoss money] Loc] Exist have.Past-1SgSbj,

*[èbà gí] mì nwɛ̌:,*

[market Loc] 1SgSbj go.in.Pfv,

‘One day I went into the market in the morning. I had my money in my pocket. I went into the market.’

(xx3) *[[[èbá rí] kùlìyé] gì] mì ùnó:-ŋ̀,*

[[[market Def] inside] Loc] 1SgSbj go-while,

*kàŋ-gè [túnú gì yá] [gírò gì yà] yògè-sà-ŋ̀,*

thief-Pl [behind Loc and] [front Loc and] come-Reslt-while,

*mì-gí kè kɛ̀mì-yɛ́,*

1Sg-Acc 3PlSbj bump-MP.Pfv,

‘As I was going (walking) inside the market, thieves came, both behind and in front (of me) and they jostled me.’

[*ùnó-ŋ̀* §15.2.1.2; *yògè-sà-ŋ* §15.2.2.3]

(xx4) *[[númíyɛ́ sè:-ŋgé nì:ŋgà] yà]*

[[hand digit-Pl two] with]

*[[jì:bá mɛ̌:] gì] númíyɛ́ kè tùní,*

[[pocket 1SgPoss] Loc] hand 3PlSbj put.in.Pfv,

*[kɛ́lɛ́-ŋgé mɛ̀:-ŋgé] kè kàmí,*

[money-Pl 1SgPoss-Pl] 3PlSbj steal.Pfv,

‘With two fingers, they put their hand(s) in my pocket. They stole my money.’

(xx5) *[jì:bá mɛ̌:] mì tábé-ỳⁿ,*

[pocket 1SgPoss] 1SgSbj touch.Pfv-1SgSbj,

*kɛ́lɛ́-ŋgé ór-à:,*

money-Pl not.be-3PlSbj

*kàmì sìní-yè,*

steal take.away.Pfv-3PlSbj,

‘I felt (in) my pocket. There was no money. They stole it and took it away.’

(xx6) *kè-gí mì tàgì-yé,*

3Pl-Acc 1SgSbj follow-MP.Pfv,

*jɔ̀l-ɛ́: á:rí-yé-ỳⁿ,*

look.for-Dur get.tired-MP.Pfv-1SgSbj,

*bálí-yá-ní-ỳⁿ*

see-MP-PfvNeg-1SgSbj

‘I pursued them. I looked and looked (for them) to the point of exhaustion. (But) I didn’t find (it/them).’

jɛ̀:-sà-wⁿ [mì / ò sìgé] ‘until I/you came down’

# Abbreviations

Acc accusative

Adj adjective

Addr addressee

AN aspect-negation suffix or category

ATR advanced tongue root (vowel feature)

Ben benefactive

C consonant (in formulae like *CvCv* )

Caus causative

Char characteristic nominal derivational suffix, §4.2.1

Def definite

Dem demonstrative

Det determiner (demonstrative or definite)

Dim diminutive

Dist distant (demonstrative or existential)

Dur durative

EA expressive adverbial (§8.4.5)

Emph emphatic (clause-final particle)

Exist existential (proclitic)

ExpPf experiential perfect

Foc focus

Fr French

Fut future

H high (tone)

Hort hortative

Imprt imperative

Inch inchoative (‘become’ with adjective)

Inst instrumental

L a) low (tone)

b) any sonorant (in e.g. *CvL* )

MP mediopassive

N a) noun (in e.g. “N-Adj”)

b) any nasal consonant (in e.g. *CvN* )

(n) noun, in interlinear glosses like ‘work (n)’

Neg negative

Nom nominalization

NP noun phrase

Num numeral

O object (in e.g. “SOV”)

Pass passive

Pfv perfective

Pl plural

Poss possessor

PP postpositional phrase

Presntv presentative (‘here’s X!’)

Prod product-of-action (§5.1.11)

Prog progressive

Proh prohibitive (negative imperative)

Pron pronoun

Prox proximal (demonstrative)

Psm possessum (possessed entity)

Purp purposive

Q question

Quot quotative particle

QuotSbj quotative subject

Recip reciprocal

Rel relative clause; relative-clause form of verb

Reslt resultative

Rev reversive

S subject (in e.g. “SOV”)

Sbj subject

Sg singular

SS same-subject (subordinator)

Stat stative

Tr transitive derivational suffix

V verb (in e.g. “SOV”)

v a) vowel (in e.g. *CvCv*)

b) verb in glosses like ‘work(v)’

Vb verb

VblN verbal noun

VP verb phrase

# Symbols

\* reconstructed

# ungrammatical, unacceptable, unattested

*á, à, â, ǎ, a᷈* tones on vowels (or syllables), §3.7

*x̄, x̀, x́, x̂* tone changes on stem in compounds, chapter 5

/…/ a) lexical tone melody, e.g. /LH/, /H/

b) underlying or lexical representation

{…} a) tone overlay, e.g. {HL}, {H}, {L}

b) enclosing any set, e.g. {*u a i*}

[…] a) phonetic (IPA) representation, e.g. [bǔ:]

b) syntactic or tonosyntactic phrase

[…]L {L} tone overlay controlled by an element to the right

L[…] {L} tone overlay controlled by an element (possessor) to the left

⊂…⊃ tonosyntactic island (§14.2.4)

*→*  (prolongation of final vowel or sonorant), §3.8, §8.4.8.1

*↘* terminal pitch drop (intonation), §3.8

*↗*  terminal pitch rise or sustained high terminal pitch, §3.8

= clitic boundary

# Index

[to be added]

Ningo

gìrìyè-ɲòmbú ‘blinders (for horse)’

‘eye’ plus ‘cover’

*ímá-ỳⁿ* ‘I can, I have the strength for it’

*ímá-ná-ỳⁿ* ‘I cannot, I do not have the strength/capability’

Ningo

ìŋì-bɔ̀lɛ̀ ‘inhabitant of Ningo’

ìŋì-nò-gè plural

unexplained H-tone on proclitic pronoun

(Boui)

[nà kògó ná jà:lè] ‘he looked at himself’

[nà kògó ná tɛ̀lɛ̀] ‘he cut himself’

[nì kògó ní tɛ̀lɛ̀] ‘we cut ourselves’

Ningo

[nà nùmìyɛ́] sɛ̀mɛ̀ ‘he cut his hand’

[nà nùmìyɛ́] nà sɛ̀mɛ̀ (accepted)

[mì nùmìyɛ́] sɛ́mɛ́-ỳⁿ ‘I cut my hand’

[nùmìyɛ́-gé nì-wɛ̀:-ŋgé] nì sɛ́m-bò ‘we cut our hands’

yyyy