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)

brown	text from the template, to be gradually replaced
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
dk yellow	Jamsay forms in sample index, to be replaced by fofrom the language in question

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1 Introduction

1.1 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 thought to belong to Niger-Congo, but no close relationships to specific NC families have been demonstrated.

1.2 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 bólɛ̀*.

Fulbe calle 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 down below on the plains, hugging the cliffs. 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).

(xx1)	village	native name	coordinates
	Beri (Biri)	*bìlì*	N 14 47, W 03 37
	Boui	*bùrù*	N 14 48, W 03 44
	Damagari	*dáŋálí*	N 14 48, W 03 43
	Degui (Digui)	*déjí*	N 14 49.064, W 03 36.078
	Djigui	*jígí*	N 14 46.357, W 03 39.607
	Dougo	*dò:*	N 14 48.441, W 03 41.884

	Embali (Emmbari)	*èmbàlì*	N 14 42, W 03 44
	Gourari	*gúlálí*	N 14 49.382, W 03 41.113
	Guimari	*gímálí* ~ *jímálí*	N 14 48.337, W 03 40.921
	Keti	*kérí*	N 14 49.079, W 03 41.055
	Korendiou	*délí*	N 14 51, W 03 42
	Nefari	*nèwàlí*	N 14 43, W 03 44
	Neou	*nè:*	N 14 49.079, W 03 41.055
	Ningo	*ìŋì*	N 14 50, W 03 38
xxx	Pandali (abandoned)	*pandali* (?)	—
	Semo	*sémá*	N 14 44, W 03 46
	Some	*sɔ̀mèyà*	N 14 44, W 03 38
xxx	Sora (abandoned)	*so:ra* (?)	—
	Tanga	*táŋgá*	N 14 48.742, W 03 38.691
	Toumba	*tùmbà*	N 14 48, W 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 said to be 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.

Many Tiranou are rather isolated from other Dogon. This is because the bulk of the 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 (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 eastern extremity of the main line of villages (e.g. Degui), Tiranige abuts Najamba-Kindige (aka Bondu), which begins at Tapou and extends eastward to the Borko area (and from there irregularly to Douentza). At the western extremity of the main line (e.g. Damagari), there is contact with the language isolate Bangime, spoken in Bounou and a few other villages, and with the Bozo language Jenaama (locally called Marka) in several villages in the plains.

In our visits to Boui and Tange, we found no widespread bilingualism with any other Dogon language or with Bangime or Jenaama. Of course, some individuals 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. Fulbe herders commute on foot to Dogon villages to sell fresh and curdled milk and butter. Many Dogon who own livestock entrust the animals to Fulbe herders. Some of the most southerly Tiranige-speaking villages in the plateau may have contact with a cluster of Fulbe-speaking villages just to their south (Gasi, Madina, and Anga). Fulfulde is also important in Douentza and Mopti-Sevare. Overall Fulfulde is the dominant second language in much of the Tiranige zone.

Because some Tiranou travel south to Segou and Bamako for either seasonal or multi-year work, some younger Dogon can speak some Bambara. This language is also gradually spreading into Mopti-Sevare, Konna, and Douentza, at the expense mainly of Fulfulde. However, we found few Bambara-speaking Dogon in our visits to Boui and Tanga. There are undoubtedly some clusters of Tiranou ex-pats who have moved permanently to southern Mali and now speak Bambara.

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), *éláw-gé* (Bangime), *sámíyá-gé* (Jenaama).

1.3 Environment

Most Tiranige speakers live on the plateau, which is separated from the 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 east to the Tiranige speaking villages becomes progressively rockier as one approaches Tanga, and going farther east to Dougo, Guimari, and Gourari 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 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.

The villages at the base of the cliffs exploit fields in the plains. Here the soil is rather sandy, but precious water including direct rainfall and runoff from the plateau accumulates at the base. There is some gardening (papaya, mango, lettuce, tomato) just south of Boui.

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

The rocky plateau lends itself to small scale livestock herding, especially sheep and goats. Herding is also practiced on the plains, but often by Fulbe rather than Dogon.

1.4 Previous study of and current fieldwork on Tiranige

1.4.1 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.

1.4.2 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 informant 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 informant.

In 2013 I worked for about one week with an an older informant who was a shopkeeper in Ningo. He was a member of the "cordonnier" caste (*jâŋ*, dialectally *yâw^{n}*), which is dominant in the settled area immediately around the Ningo market. There are considerable differences between this speaker and the other informant. 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.

1.4.3 Acknowledgements

Primary funding for the Dogon linguistics project during the period of fieldwork on Tiranige was National Science Foundation grant BCS 0853364 (2009-13), Documenting Endangered Languages (DEL) program. During school 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.

1.4.4 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 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.

2 Sketch

2.1 Phonology

2.1.1 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.

r^{n} is absent as *n* is not lenited. However, y^{n} and w^{n} are common word-finally (§3.2.7).

2.1.2 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 N^{L} Adj (^{L}Adj). 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.

2.1.3 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.

2.2 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.

2.3 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).

2.4 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.

2.5 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] ^{L}bump.Perf-3SgS
'The vehicle bumped ^{L}Amadou.'

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-Impf-3SgS
'Amadou will slaughter a sheep tomorrow.'
[or: *á:gá à:màdù ámbá sɛ́:m-bò-∅*]

b. *à:màdú [bɔ̀mɔ̀kɔ́ ŋà] wàlè kám-bò-∅*
A [B in] work(n) do-Impf-3SgS
'Amadou will work in Bamako.'

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

A house.Loc sugar [L]put.Perf-3SgS
'Amadou put (the) sugar in the house.'

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

(xx3) *à:màdú á:gá [ámbá nè-wé] [mì gí] túlɔ́-wò-∅*
A tomorrow [sheep 3Sg-Poss] [1Sg Acc] sell-Impf-3SgS
'Amadou will sell me his sheep-Sg tomorrow.'

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

(xx4) a. *[námà rì] [tànà yà] tɛ̀lɛ̀-∅*
[meat Def] [knife Inst] cut.Perf-3SgS
'He/She cut the meat with a knife.' (*námá*)

b. *[tànà yà] tɛ̀là [námà rì]*
[knife Inst] cut.Imprt [meat Def]
'Cut-2Sg the meat with a knife!'

c. *[tànà yà] [námà rì] tɛ̀là*
[knife Inst] [meat Def] cut.Imprt
[=(b_]

2.6 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.

2.7 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 -w^{n} '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).

3 Phonology

3.1 Internal phonological structure of stems and words

3.1.1 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'
bɛ̀l	'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.

3.1.2 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*.

3.2 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*	w^n		
alveolar	*t*	*d*	*n*	*s*	*(z)*	*l*	*r*	r^n		
alveopalatal	*c*	*j*	*ɲ*				*y*	y^n		
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

3.2.1 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’.

3.2.2 Back nasals (*ŋ*, *ɲ*)

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

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

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

3.2.4 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.

3.2.5 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:ráw*^{n} ‘a minor Muslim holy day’.

3.2.6 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].

3.2.7 Nasalized sonorants (*r*^{n} absent, *w*^{n} and *y*^{n} word-finally)

There is no *r*^{n} (nasalized tap).

w^{n} occurs word-finally, in some cases as an independent morpheme (suffix or clitic). Examples are *cêw*^{n} 'a little', *néw*^{n} 'salt', *yá: tèw*^{n} 'around there', *éw*^{n} 'wet; fresh', *mìlyôw*^{n} 'million' (< Fr), *dèw*^{n} 'day'. The progressive aspect is expressed by suffixing *-w*^{n}, 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. *=ẁ*^{n} 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 *w*^{n} is easily heard prepausally, as when words are pronounced in isolation. Before a consonant, w^{n} behaves like an assimilating nasal. For example, *néw*^{n} 'salt' has a possessed form *néw*^{n} *mè:* 'my salt' pronounced [ném:è:]. Word-final *w*^{n} also combines irregularly with interrogative particle *le* as [n:i] (§13.2.1). In my ordinary transcription I usually write *w*^{n} word-finally since it clarifies the morphemic composition.

-y^{n} is common as the regular 1Sg pronominal-subject suffix on verbs (§10.3.1). Like *w*^{n}, word-final *y*^{n} combines with interrogative particle *le* as [n:i] (§13.2.1). I can cite one intervocalic case: *gáy*^{n}*á* '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.

3.2.8 Consonant clusters

3.2.8.1 Word- and morpheme-initial *CC* clusters

There are some initial nasal-stop clusters: *ndó-* 'give' (only known verb of this type), *ndà:* 'person', *ŋgàlà-ŋgàlà* 'gallbladder', *mbásá*^{n} '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 *dwé:* '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 (*dwè:-* 'insulted' or 'pounded', *gwè:-* 'went out', see 10.2.1.1). The "w" is articulated as -ATR before *ɛ*, i.e. as a desyllabified *o̯* (more open than the usual *w*), and one could analyse it phonologically in this fashion.

3.2.8.2 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*	*ɪ́bbà*	'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		
	$w^n w^n$		
	yy	*ìjò yéyyá*	'home town'
	$y^n y^n$		

3.2.8.3 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-kúlêy*^{n}	‘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 y^n and especially w^n are common stem-finally and may be followed by another consonant, especially in compounds. However, in

examples like *bów^{n}-bè* ‘key’ (lit. "door-child") my transcription is somewhat abstract, and the *w^{n}* (or *y^{n}*) normally behaves like an assimilating nasal consonant, hence [bómbè].

3.2.8.4 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)’.

3.2.8.5 Final *CC* clusters

Final *CC* clusters have not been observed.

3.3 Vowels

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

(xx1)

oral		nasalized	
short	long	short	long
u	*u:*	(*u^{n}*)	*u:^{n}*
o	*o:*	(*o^{n}*)	*o:^{n}*
ɔ	*ɔ:*	*ɔ^{n}*	(*ɔ:^{n}*)
a	*a:*	*a^{n}*	*a:^{n}*
ɛ	*ɛ:*	*ɛ^{n}*	(*ɛ:^{n}*)
e	*e:*	(*e^{n}*)	(*e:^{n}*)
i	*i:*	*i^{n}*	(*i:^{n}*)

3.3.1 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:ré* '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).

3.3.2 Nasalized vowels

Nasalized vowels are quite 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	*kŭ: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	—	

3.3.3 Initial vowels

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

3.3.4 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.

3.3.5 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*}.

3.3.6 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 informant 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 informant, 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; *-w^{n}* ‘while’ subordinator (§15.2.1.2)
E/I-stem	perfective; recent perfect; experiential perfect; hortative
I/U-stem	third-person hortative (§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.

3.4 Segmental phonological rules

3.4.1 Trans-syllabic consonantal processes

3.4.1.1 Nasalization-Spreading

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

3.4.2 Nonharmonic vocalic processes

3.4.2.1 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)'
	tú:n-dó-	'put (clothes) on (sb)'

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', *né:ndè* 'tongue', *só:ndí* 'saliva', *nó:ndí* 'marrow', *sɛ́:ndè* '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 *ɲj* include *ní:ɲjí* 'sweet', *mà:ɲjó* 'papaya', and *í:ɲjɛ́* '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. Lengthening before *NC* is also found in some other Dogon languages, notably in Nanga.

3.4.2.2 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 CvC_2i/uC_3v usually syncopates when C_2 is an unclustered {*y w l n ŋ r*}, i.e. a sonorant other than {*m ɲ*}. If C_2C_3 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 *CvC$_2$v-* stems and *-C$_3$v-* suffixes where *C$_2$* and *C$_3$* are homorganic, either both labial or both alveolar. The relevant data are presented in depth in §10.1.2.5-6.

3.4.2.3 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 informant corrected my pronunciation to bisyllabic *yèwù*, cf. definite *yèwú rì* 'the dance', so even word-final homorganic semivowel-vowel sequences do not allow apocope.

3.4.3 Local consonant sequence rules

3.4.3.1 Semivowel assimilation

w^{n} is fairly common stem- and word-finally. When followed by another consonant it behaves like an assimilating nasal consonant (xx1a). *y*^{n} 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.	*w*^{n} *m*	→	*mm*	*néw*^{n} *mɛ̌:* 'my salt' [ném:ɛ̀:]
		w^{n} *n*	→	*nn*	*néw*^{n} *nɛ̀-wɛ́* 'his/her salt' [nén:ɛ̀wɛ́]
		w^{n} *l*	→	*ll*	*nél = là* 'it isn't salt' (< *néw*^{n}*)*
		w^{n} *b*	→	*mb*	*ɲà:-w*^{n} *bǒ-y*^{n} '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.	*y*^{n} *m*	→	*mm*	*dèy*^{n} *mɛ̌:* 'my day' (but *-y*^{n} *mɛ̀* §16.1)
		y^{n} *n*	→	*nn*	*dèy*^{n} *nɛ̀-wɛ́* 'his/her day'
		y^{n} *l*	→	*nn*	1Sg *-ỳ*^{n} plus interrogative *lè* → *n nì*

3.4.3.2 *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 (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.

3.4.3.3 *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)
	ménjí-wè	'thin'	*méɲí-ndó-*	'become thin' (§9.6)
	mínjí	'shea tree'	*míɲí-nù-*	'shea butter'
	ánjó-	'be left over'	*àɲì-né*	'remainder, the rest'

3.4.3.4 *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. We can add *d* to the list based on the negative predicative form *búrád-dâ-* 'not be smooth', cf. *búrádá* 'smooth' (§11.4.2).

3.4.3.5 *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-*

3.4.4 Vowel-vowel and vowel-semivowel sequences

Monosyllabic verbs whose citation form is *Có:-* and *Cɔ́:-* have perfectives that I transcribe *Cwè:-* 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 *Cọ̀è:-* and *Cọè:-*. I know of no cases of #*Cạè:-*, since Ca:- verbs in other Dogon languages appear in Tiranige as bisyllabic *Cayo-* with perfective *Caye-* (*nàyè-* 'spent the night', *kàyè-* 'shaved').

3.4.4.1 *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 *Cwè:-* 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-Impf-3PlS
	'The children went (away).'		

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).

3.4.4.2 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*.

3.5 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 (*-ỳ^{n}*), 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 *=ẁ*^{n}, 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.

3.6 Tones

3.6.1 Lexical tone patterns

3.6.1.1 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.

3.6.1.2 Lexical tones of verbs

Verbs have no lexical tones, 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.

3.6.1.3 Lexical tone patterns for unsegmentable noun stems

Some nouns are lexically **/H/-toned**, and appear as such when unpossessed and unmodified (i.e. without a following adjective). This tone contour is seen in isolation, before plural -*gé* (H-toned), and before postposed possessors (xx1).

(xx1) a.

ná:	'cow'
ná:-gé	'cows'
ná:-gé tá:ndí	'three cows'
ná: mɛ̌:	'my cow'
ná:-gé mè:-gè tá:ndí	'my three cows'

[Ningo also: *ná:-gé tá:ndí-gé mè:-ŋgé*]

b.

ámbá	'sheep'
ámbá-gé	'sheep-Pl'
ámbá-gé tá:ndí	'three sheep'
ámbá mɛ̌:	'my sheep'
ámbá-gé mè:-gè tá:ndí	'my three sheep'

c.

sóŋóní	'horse'
sóŋóní-gé	'horses'
sóŋóní-gé tá:ndí	'three horses'
sóŋóní mè:	'my horse'
sóŋóní-gé mè:-gè tá:ndí	'my three horses'

Some other nouns are **lexically /HL/**, and consistently show this contour when unpossessed and unmodified (xx2).

(xx2) a.

níyè	'bird'
níyè-gè	'birds'
níyè-gè tá:ndí	'three birds'
níyè mɛ̌:	'my bird'
níyè-gè mè:-gè tá:ndí	'my three birds'

b.

nɛ́:ndɛ̀	'tongue'
nɛ́:ndɛ̀-gè	'tongues'
nɛ́:ndɛ̀-gè tá:ndí	'three tongues'
nɛ́:ndɛ̀ mɛ̌:	'my tongue'
nɛ́:ndɛ̀-gè mè:-gè tá:ndí	'my three tongues'

c.

táŋgílè	'side'
táŋgílè-gè	'sides'
táŋgílè-gè tá:ndí	'three sides'

táŋgílè mɛ̌:	‘my side’
táŋgílè-gè mɛ̀:-gè tá:ndí	‘my three sides’

There are nouns that appear with alternating {L} or {LH} contour when unpossessed and unmodified, depending on the surrounding words (xx3). The {L} contour appears before the plural suffix, whose own tone is high, except low when followed by a numeral. In other words, in the absence of a numeral, the final syllable of the noun plus (if present) plural morpheme is H-toned. We could represent such nouns as lexically **/LH/-toned**, with the understanding the the H-tone can float onto a suffix.

(xx3)

a.	*gùlùmbá*	‘pigeon’
	gùlùmbà-gé	‘pigeons’
	gùlùmbà-gè tá:ndí	‘three pigeons’
	gùlùmbá mɛ̌:	‘my pigeon’
	gùlùmbà-gé mɛ̀:-gè tá:ndí	‘my three pigeons’
b.	*gǎw*	‘onion’
	gàw-gé	‘onions’
	gàw-gè tá:ndí	‘three onions’
	gǎw mɛ̌:	‘my onion’
	gàw-gé mɛ̀:-gè tá:ndí	‘my three onions’

There are many nouns that are **consistently {L}-toned** when unpossessed. The plural morpheme is also L-toned after these nouns.

(xx4)

a.	*ìjò*	‘village’
	ìjò-gè	‘villages’
	ìjò-gè tá:ndí	‘three villages’
	ìjò mɛ̌:	‘my village’
	ìjò-gè mɛ̀:-gè tá:ndí	‘my three houses’
b.	*ndà:*	‘person’
	ndà:-gè	‘people’
	ndà:-gè tá:ndí	‘three people’
	ndà: mɛ̌:	‘my person’
	ìjò-gè mɛ̀:-gè tá:ndí	‘my three people’

When directly followed by definite *rì*, lexical {L} merges with {LH}: *ìjó rì* ‘the village’, *ndǎ: rì* ‘the person’.

Very few uncompounded noun stems are tritonal. A handful, like that in (xx3), are **/LHL/-toned**. In this stem the final L-toned syllable is lopped off phrase-finally and is weakly articulated elsewhere. It may be a hybrid loanword

of some sort, cf. Arabic al- 'the'. Other /LHL/ nouns include *gùyɛ́ŋgɛ̀* 'aquatic tortoise' and *sànásà* 'paper wasp'.

(xx5)	*àlpús*	'lung(s)'
	àlpús(ù)-gè	'lungs'
	àlpús(ù)-gè tá:ndí	'three lungs'
	àlpús(ù) mɛ̌:	'my lung'
	àlpús(ù)-gè mè:-gè tá:ndí	'my three lungs'

There are a few **/HLH/-toned** nouns. One is 'mango' (xx6). Others include *dólèlé* 'circle' and *pɔ́ŋgùdɔ́* 'neem tree'.

(xx6)	*máŋgòró*	'mango(s)'
	máŋgòrò-gé	'mangos'
	máŋgòrò-gè tá:ndí	'three mangos'
	máŋgòró mɛ̌:	'my mango'
	máŋgòrò-gè mè:-gè tá:ndí	'my three mangos'

Quadrisyllabic nouns are likely to be analysed morphologically by native speakers as compounds, so their tone melodies may not be linguistically meaningful. However, I can mentioned the LHLH melody of *kɔ̀rɔ́bɔ̀rɔ́* 'Songhay (ethnicity)', a regional form that is ultimately from a Songhay compound koyra-boro 'village-person'.

Monosyllabic nouns can have the following contours: /H/ as in *mɔ́:* 'neck' and *kóy* 'tree bark, shell', /LH/ as in *kwɛ̌:* 'calabash (gourd) plant' with plural *kwè:-gé*, and /L/ as in *è:* 'jaw'.

In sum, the basic lexical tone classes for nouns are /H/, /HL/, /LH/, and /L/, while /LHL/ and /HLH/ are very rare. The lexical melody is audible where there is no following adjective or determiner, and there is no preceding possessor. The basic possessor-controlled tone contour is {LH}, see §6.2.1-2

3.6.1.4 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', *kùlèy*^{n} '6', and *pìyɔ̀lù* '10' are lexically /L/-toned, versus /H/-toned *tá:ndí* '3', *nú:* '5'5, *sɔ́:y* '7', *sɛ́:lé* '8', and *tó:wá* '9'.

3.6.1.5 Tone-Component location for bitonal noun stems

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

3.6.1.6 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), *gùyéŋgè* 'aquatic tortoise', and *sànásà* 'paper wasp'. *máŋgòró* 'mango' and *dólèlé* 'circle' are among the few HLH cases.

3.6.2 Grammatical tone patterns

3.6.2.1 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.

3.6.2.2 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.

3.6.2.3 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).

3.6.3 Low-level tone rules

3.6.3.1 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*

3.6.3.2 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-y^{n}* 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-y^{n}* and 1Pl *nì bǒ:*. A reasonable underlying form for this variant is /bǒ-/. No lengthening is needed in 1Sg *bǒ-y^{n}* 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-y^{n}* 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.

3.6.3.3 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 ^{LH}father] go.out.Perf-3SgS
'Seydou / My father has gone out.'

b. *sàydù / [mì* ^{LH}*bàwà]* *gó:-wò-∅*
Seydou / [1Sg ^{LH}father] go.out-Impf-3SgS
'Seydou / My father will go out.'

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

3.6.3.4 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 mĕ:* 'my stone', the pitch of the stem-final *e* is variably raised, so it can be heard as [tʃé:mbèmĕ:], [tʃé:mbēmĕ:] (with mid-level pitch), or [tʃé:mbémĕ:] (with higher pitch).

Postpositions like locative *ŋà* can also be affected: *bɔ̀mɔ̀kɔ́ ŋà* 'in Bamako', but sometimes *[bɔ̀mɔ̀kɔ́ ŋá] bŏ:-∅* '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.

3.7 Grammaticalized intonation

3.7.1 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).

4 Nominal, pronominal, and adjectival morphology

4.1 Nouns

4.1.1 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', *kóy* '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.

4.1.1.1 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'
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 *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 informant, leaving the stem {L}-toned; see Rightward L-Spreading §3.6.3.2. This did not happen with the Ningo informant.

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

4.1.1.2 Frozen classifying suffixes (*-ŋge, *-ge, *-ŋgɔ)

There are many nouns that appear to end in a **frozen classifying suffix** *-ŋge*, *-ge*, or *-ŋgɔ*, which match segmentable inanimate singular classifying suffixes in Najamba. For each of the items in (xx6) there are cognates in other Dogon languages without 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 there level {H}- or {L}-toned. However, *pàlèŋgé* ‘sesame’ (cf. Tebul Ure pɔ̀lɛ́:, Najamba pă:lè) is {LH}.

(xx6) a. frozen *-ŋge (alphabetical)

bélŋgé	‘grass’	
cɛ̀:lɛ̀ŋgè	‘horn’	
dé:ŋgé	‘hip’	
è:lɛ̀ŋgè	‘peanut’	
èmɛ̀ŋgè	‘milk’	*émɔ́-* ‘milk (a cow)’
ínínŋgé	‘tooth’	
jé:ŋgé	‘blood’	
kùlɛ̀ŋgè	‘hair’	
kàjìŋgè	‘tendon’	
nù:ŋgè	‘cow-pea’	
ɲà:ŋgè	‘meal’	*ɲɔ́:-* ‘eat (meal)’
pàlèŋgé	‘sesame’	
pégíŋgé	‘button’	*pégé-* ‘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’
ánjígé ‘roselle (bissap)’
èrègè ‘rice’
í:gé ‘honey’
ɔ́rɔ́gé ‘millet cakes’
sɔ̀:gè ‘dried wild grape seeds or cow-peas’
ùnjìgè ‘breast’
yò:gè ‘millet’

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’, *èrègè mɔ́:* ‘good rice’.

4.1.2 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.

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

4.1.3 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).

(xx1) a.

gógójɛ́	'tree gecko'
bɔ̀bɔ̀rí	'colubrid snake sp. (*Psammophis*)'
gógóró	'padlock'
gúgúlú	'kneading stick'

b.

kà:-dú:dù	'grasshopper sp. (*Kraussaria*)'

4.1.4 Final reduplication in nouns

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

4.1.5 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.

(xx1) a. LL-LH

kù:-kŭ:	'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

sɛ́^{n}-sɛ̂w^{n}	'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-kálàw^{n}	'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
tè^{n}-tà^{n}-têw^{n}	'tree sp. (*Cassia*)'

c. H-H-H

dín-dán-díw^{n}	(sound of footsteps)

4.1.6 Frozen initial *a-* or *aN-* in nouns

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

4.2 Derived nominals

4.2.1 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’
yɔ́ré-ŋgá	‘stingy person’	*yɔ́ré*	‘avarice’

b. {L}-toned

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

-ŋgá recurs in *tó:má-ŋgá = ẁ^{n}* ‘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’
góloɲjí-gá	‘lazy person’	*gólónjó*	‘laziness’

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

4.2.2 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.

(xx1)

nominal	gloss	verb	gloss
a. {HL-H}-toned			
túmù-ŋgé	‘measurement’	*túmɔ́-*	‘measure (tr)’
nónì-ŋgé	‘writing’	*nɔ́nɔ́-*	‘write’
úlè-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’

4.2.3 Verbal nouns (*-wà* ~ *-bà*)

An abstractive verbal noun is freely formed by suffixing *-wà* 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* hardens to *b* after syncope, /nb/ assimilates to *mb*, and some stems lengthen *Cv́m-bà* to *Cv́:m-bà*.

(xx1)

O-stem	verbal noun	gloss
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.

4.2.4 Instrument nominals with *-yé*

I can cite the uncompounded examples in (xx1).

(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'	*wélí-yɔ́-*	'scrape out (interior of calabash or mortar)'
pégí-yé	'hobbles (rope)'	*pégɛ́-*	'hobble (animal)' (by tying its front legs together)
cɛ́njí-yé	'chisel, wedge'	*cɛ́njɛ́-*	'apply chisel or wedge to'
yémbí-yé	'fan(n)'	*yémbɛ́*	'fan (something)'

-yé here is +ATR even with a lexically -ATR verb (xx1b). It is therefore distinct from *-yé* ~ *-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.

4.2.5 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).

4.3 Pronouns

4.3.1 Basic personal pronouns

The forms of personal pronouns, excluding postposed possessor forms, are in (xx1). In main clauses, subject pronominal category is indicated by a mix of suffixes (1Sg, 2Sg, 3Pl) and proclitics (1Pl, 2Pl). The "free" forms are used in most other combinations, including the accusative (shown), and to mark pronominal subjects of nonsubject relatives (also shown). In the independent" form and some other combinations the pronouns are H-toned.

(xx1) Personal Pronouns

				subject	
	indep.	accus.	free	main cl.	relative cl.
1Sg	*mí-w^{n}*	*mì-gí*	*mì*	VERB-*ỳ^{n}*	*mì VERB*
1Pl	*ní-w^{n}*	*nì-gí*	*nì*	*ní/nì* VERB	*nì* VERB

2Sg	*ó:*	*ò-gí*	*ò*	VERB-*ẁ*	*ò* VERB
2Pl	*é-w^{n}*	*è-gí*	*è*	*é/è* VERB	*è* VERB
3Sg	*ná-w^{n}*	*nà-gí*	*nà*	VERB	*nà* VERB
3Pl	*cé-w^{n}*	*cè-gí*	*cè*	[variable]	*kè* VERB

There are no special inanimate pronouns or anaphoric pronouns, except that possessed 'my head', 'your head', etc. is used for reflexive objects.

4.3.2 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.

4.4 Definite and deictic words

4.4.1 Determiners

4.4.1.1 Definite morpheme (*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.

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*)

b. *kɔ́njɛ̀* *rì*
beer Def

'the beer' (*kɔ́njɛ́*)

c. *bé:* *rì*
child Def
'the child' (*bé:*)

d. *ìjó* *rì*
village Def
'the village' (*ìjò*)

e. *ná:-gé* *mè:-gé* *rì*
cow-Pl 1SgP-Pl Def
'my cows (definite)'

f. *[[bùní* *rì]* *gì]* ^{L}*ìwè-∅*
[[red Def] Acc] ^{L}catch.Perf-3SgS
'He/She caught the white ("red") person.' (*bùnì*)

e. *[nà:-gè* ^{L} *tá:ndí-ŋgè* *rì* *címà]* *ùn-íyè*
[cow-Pl^{L} three-Pl Def all] go.Perf-3PlS
'All three (of the) cows went away.'
[Ningo: *nà:-ŋgè*^{L} *tá:ndí-ŋgè rì*]

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 mě:* 'my millet', *séŋgé mě: rì* 'all my millet'.

4.4.1.2 ‘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=w*^{n} ‘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 village		
mbó	—	‘this’
mbó-gè	—	‘these’
Ningo village		
ɛ́nì	—	‘this’
ɛ́nì-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.

4.4.2 Demonstrative adverbs

4.4.2.1 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'
	mó-ŋà	'here' (Boui dialect)
	énì-gì	'here' (Ningo dialect)
	é-ŋà	'over there (nearby)'
	érì-ŋà	'over there (nearby)' (Boui)
	é-bó-r-gì	'over there (nearby)' (Ningo)
	yá:	'over there (farther away or discourse-definite)

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

4.4.2.2 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: tèw^{n}*	'this way'

yá: tèw^{n} ‘around (over) there’

4.4.2.3 ‘Like this/that’ (*mbɔ́rɔ̀*)

Manner adverbial ‘like this/that, thus, so’ is *mbɔ́-rɔ̀* in Boui It is obscurely related to *mbɔ́* ‘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 older informant from Ningo, *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 *ɛ́rì* ‘that (definite)’ in Ningo dialect.

4.4.3 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)’

4.5 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 [N^{L} Adj]. A second adjective is itself tone-dropped: [N^{L} Adj ^{L}Adj]. See §6.3 for the syntax.

4.5.1 Morphologically simple adjectives

Morphologically simple adjectives are illustrated in (xx1).

(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’
ɛ́w^{n}	‘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

máy^{n}	‘dry’
ɛ́w^{n}	‘wet’

Of semantic interest are the syncretisms of ‘sweet (taste)’ and ‘sharp (blade)’, which is also found in some Dogon and some non-Dogon (e.g. Songhay) languages, and of ‘hot’ and ‘fast’.

4.5.2 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 informant 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’

4.5.3 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.	*kòy-kóló*	‘green’	‘fresh grass’

4.5.4 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 informant 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).

(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').

4.5.5 Diminutive adjectives (*-wè*)

A few adjectives end in a kind of diminutive suffix *-wè*, probably related historically to *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

wéní-wè	‘small (house); narrow (passage)’
ménjí-wè	‘thin, slender (person, tree); thin (wall)’
déŋí-wè	‘short (rope, person)’

There is no nondiminutive counterpart. However, *-wè* is optionally omitted before plural *-ge*, hence *wéní-wè-gé* or *wéní-gé*. *-gé* is H-toned in both variants.

4.6 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).

(xx1) Derived adjectives

a. with *-sá*

sómbé-sá	‘wet, moistened (clothing)’
kúné-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’
tɔ̀pé-tɔ̀pé kàndì-yé	‘spotted’
ɔ̀lú-ɔ̀lú kàndì-yé	‘easily broken (infected sore etc.)’

4.6.1 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.

(xx1)

a.	*né:ŋgó:*	‘heavy’
	né:ŋgó-rá	‘lightweight’
b.	*gálágá*	‘bitter’
	gálágó-rá	‘bland-tasting’

4.7 Numerals

4.7.1 Cardinal numerals

Counting sequence (‘1’ to ‘10’): *tò:mà*, *nì:ŋgà*, *tá:ndí*, *cɛ̀:jɔ̀*, *nú*, *kùlèy^{n}*, *sɔ́:y*, *sé:lé*, *tó:wá*, *pìyòl(ù)*.

4.7.1.1 ‘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 of the noun.

As predicate, in the sense ‘be the same’, we get *tómá-ŋgá* before the ‘it is’ clitic (xx1). See also plural *tómá-ŋgá-gé=ẁ^{n}* in §12.2.2.

(xx1) *[mbó yà] [mbó yà] tómá-ŋgá=ẁ^{n}*
[Dem and] [Dem and] one=it.is
'This and that are one (=the same).'

tó: 'other' is a regular adjective syntactically. It therefore controls tone-dropping on the noun: *ì:ɲjɛ̀ tó:* 'another dog'.

4.7.1.2 '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' and '4' are lexically /L/-toned. The sequence from '2' to '7' with alternating {L} ('2', '4', '6') and {H} ('3', '5', '7') tones may reflect a rhythmical alternation in reciting numerals which I have observed in some other Dogon languages

Numerals have no effect on the tones or plural marking of the preceding string. Numerals '2' and up are added to plural forms of nouns with *-gɛ̀*.

(xx1)	gloss	after N(-Adj)	independent
	'2'	*nì:ŋgà*	*nì:ŋgà*
	'3'	*tà:ndì*	*tá:ndí*
	'4'	*cɛ̀:jɔ̀*	*cɛ̀:jɔ̀*
	'5'	*nù:* (~ *nú:*)	*nú:*
	'6'	*kùlèy^{n}*	*kùlèy^{n}*
	'7'	*sɔ̀:y*	*sɔ́:y*
	'8'	*sɛ̀:lɛ̀*	*sɛ́:lɛ́*
	'9'	*tò:wà*	*tó:wá*
	'10'	*pìyɔ̀lù*	*pìyɔ̀lù*

When followed by a demonstrative, definite marker, and/or a pronominal possessor, plural allomorph *-ŋgé* is added and the numeral is {H}-toned: *ní:ŋgá-ŋgé mbò-gɛ̀* 'these/those two', *ní:ŋgá-ŋgé mɛ̀:-gé* 'my two'. The plural suffix is not added to nonsingular numerals that occur at the right edge of the NP.

A numeral may follow a pronoun. In this case, the numeral gets a {LH} overlay, like a possessed noun: *nì* $^{\text{LH}}$*nì:ŋgá* 'us two', *cɛ̀* $^{\text{LH}}$*cɛ̀:jɔ́* 'the four of them'. As usual the final H-tone is dropped if the following word begins with a H-tone.

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

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

(xx1)	gloss	form
	‘10’	*pìyɔ̀lù*
	‘20’	*pé-néŋgà*
	‘30’	*pé-rá:ndí*
	‘40’	*dɛ́:*
	‘50’	*dɛ́: pìyɔ̀lù*
	‘60’	*pɛ́l-kúlêy^{n}*
	‘70’	*síŋgí-gí pìyɔ̀lù ɔ̀rá*
	‘80’	*síŋgí*
	‘90’	*síŋgí yá pìyɔ̀lù*

pé-néŋgà ‘20’, *pé-rá:ndí* ‘30’, and *pɛ́l-kúlêy^{n}* ‘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.

(xx2) a.

dɛ́:	*sɔ́:y*
40	seven
‘47’	

b.

pé-néŋgá	*sùgɔ́*	*nú:*
10-two	plus	five
‘25’		

c.

síŋgí	*yà*	*tá:ndí*
80-plus	and	three
‘83’		

The 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-kúlêy^{n}*	*pɛ́l-kúlêy^{n} 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*

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*.

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

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

(xx1)	gloss	independent form	modifying a plural noun *[X ge]*
a.	‘hundred’	*tɛ̀:mdɛ̀rɛ́* (<Fulfulde)	*[X ge] tɛ̀:mdɛ̀rɛ̀*
b.	‘thousand’	*mújú-sìlà:mú*	*[X ge] mújú-sìlà:mú*
		or:	*mújú-sìlà:mú [X ge]*
c.	‘million’	*mìlyôw^{n}* (<French)	*mìlyôw^{n}* [X ge]

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

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

4.7.1.5 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-Dimin
'5 FCFA'

b. *m̀bù:dù-gé* *nì:ŋgà*
currency.unit-Pl two
'10 FCFA'

4.7.1.6 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} melody on the initial and {LH} on the final), the other having H-L tones (i.e. {H} melody on the initial and {L} on the final. the initial {H} melody in the latter case may just be the lexical tone, with lexical /HL/ surfaces as {H} after the H-tone runs extends rightward to the boundary. '100' clearly shows the lexical {LH}.

(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'	*cè:jɔ̀*	*cè:jɔ̀-cè:jɔ́*	L-LH
	'5'	*nú:*	*nú:-nŭ:*	H-LH
	'6'	*kùlèy^{n}*	*kùlèy^{n}-kùlěy^{n}*	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'	*pé-néŋgà*	*[pé-néŋgá]-[pè-nèŋgà]*	H-L
	'40'	*dé:*	*dé:-dè:*	H-L
	'80'	*síŋgí*	*síŋgí-sìŋgì*	H-L
	'100'	*tè:mdèrέ*	*tè:mdèrέ-tè:mdèrè*	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'.

4.7.2 Ordinal adjectives

For interrogative *áŋgá-n* ‘how many-eth?’ see §13.2.7.

4.7.2.1 ‘First’ (*gó:*) and ‘last’ (*kùgùrìyàŋgé*)

Adjective ‘first’ is *gó:*, as in *bè: gó: mě:* ‘my first child’.

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

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

4.7.2.2 Other ordinals (suffix *-n*)

Other ordinal adjectives are formed by adding suffix *-n* 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’).

(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
té:mdéré-n ‘hundredth’

e. hundred plus ‘1-99’ numeral (two levels)
[*tè:mdèré yà] pénáŋgá-n* ‘hundred and twentieth’

4.7.3 Fractions and portions

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

5 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, x̂ = 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.

5.1 Nominal compounds

5.1.1 Compounds of type [n̄ n̄]

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

5.1.2 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.

(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'

5.1.3 Compounds with final verbal noun, type [ǹ ý-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)'

5.1.4 Possessive-type compounds [n̄ n̆]

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', *pùnàŋgɛ̀* 'flour'
kà:gɛ̀ ^{LH}*mĭ:*	'swill'	*kà:gɛ̀* '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 indication of internal bracketing (nested possession) of the type [[Poss N] N] or [N [N Poss]], and a pronominal possessor follows the entire compound: one says 'my hand-necklace' rather than '[my hand's] necklace'.

5.1.5 Agentive compounds of type [ǹ ý]

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).

(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’	*ɔ́rɔ́gɛ́* ‘millet cake’, *ɲɔ́:-*
	kògò-múndí	‘braiding lady’	*kógó* ‘head’, *múndó-*
	jɛ̀jì-tí:	‘weaver’	*jɛ́jí* ‘cotton thread’, *tíyɔ́-*
	nàmà-témí	‘meat-eater’	*námá* ‘meat’, *témú-*

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

5.1.6 Compounds with *bé:* or *-bè* ‘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 ^{LH}child
‘tree’s child (i.e. fruit)’
[plural *tílŋgɔ́ bè-gé*]

There are also some compounds where the ‘child’ term is reduced to *-wè* ~ *-bè*. The three adjectival diminutives in *-wè* are identical in form to this compound construction (§4.5.5).

(xx2)	compound	plural	gloss	initial	gloss
a.	*bówⁿ-bè*	*bówⁿ bè-gé*	‘key’	*bówⁿ*	‘door’

	númáŋgé-bè	*númáŋgé bè-gé*	‘twin’	*númáŋgé*	‘pair of twins’
b.	*dégé-wè*	*dégé-gé bè-gé*	‘kidney’	—	—
c.	*bè-báná-wè*	*bè-báná-gé bè-gé*	‘boy’	*bànà*	‘man’
	bé-yé-wè	*bé-yé-gé 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)’.

5.1.7 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 the preceding section.

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

5.1.8 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, while the variable initial X has its regular tones: *jíwá* ^{LH}*tìŋgá* or *jíwá* ^{LH}*gùnàrí* ‘homeowner, head of household’. The lexical tones are low: *tìŋgà, gùnàrì*. They can also be used in the sense ‘master (of a slave)’, where they pattern as inalienables. ‘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)’.

5.1.9 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 examples in (xx1). 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-w^{n} bŏ:-* 'be sticky (adherent)'. Terms for *Pupalia* are also of this iterative pattern, but with a different iterated stem, in a number of other Dogon languages.

5.1.10 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'

b. *mí:* *dú-yɔ́-wà*
water bathe-MP-VblN
'water for bathing'

Another construction is seen 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 *tèw-ìyɛ̀* 'they hit' with the lexical -ATR vocalism). We have seen this morphological formation in uncompounded form in §4.2.4.

(xx2) *[kɔ́lɔ́ŋɔ* *téw(í)-yé]* ^{LH}*tùmá*
[donkey hit-Inst] ^{LH}stick
'stick for beating donkeys' (verb *téwɔ́-* 'hit')

(xx3) has a similar syntactic structure, but the verb 'pick' appears to occur in an otherwise unattested nominal form, with {LH} melody 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 ^{LH}picking] ^{LH}wood
'twig used as toothpick' (verb *tóŋgójó* 'pick [teeth]')

5.1.11 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 in *-yɛ́* ~ *-yé* is treated as a modifying adjective syntactically.

(xx2) a. *è:lèŋgè*^{L} / *nàmà*^{L} *áŋání-yé*
peanut^{L} / meat^{L} dry.roast-Prod
'roasted peanuts/meat' (*è:lèŋgè*, *nàmá*)

b. *è:lèŋgè*^{L} / *sèŋgè*^{L} *dú:-yɛ́*
peanut^{L} / millet^{L} pound-Prod
'pounded peanuts/millet' (*è:lèŋgè*, *séŋgé*)

c. *sèŋgè*^{L} *námí-yé*
millet^{L} stone.grind-Prod
'(stone-)ground millet' (*séŋgé*)

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

5.2 Adjectival compounds

5.2.1 Bahuvrihi ("Blackbeard") compounds

5.2.1.1 With adjectival compound final [n̆ ă]

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*
belly^{L} fat
'(a) big belly' (*pìndì*)

b. *yé:* *pìndì*^{L}-^{LH}*bìní*
woman belly^{L}-^{LH}fat
'pot-bellied (big-bellied) woman'

c. *kògò*^{L} *jɛ́mɛ́*
head^{L} black
'(a) black head' (*kògò*)

d. *déŋí-wè* *kògò*^{L}-^{LH}*jɛ̀mɛ́*
snake-Dimin head^{L}-^{LH}black
'black-headed snake'

5.2.1.2 With numeral compound final

I was not able to elicit a similar bahuvrihi compound for numerals from the Boui informant. 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.Perf.Rel
'a man with (lit. "who made") one eye'

For the Ningo informant, 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'

b. *ná:* *[kògò-gè* *nì:ŋgà]*
cow [head-Pl two]
'a two-headed cow'

6 Noun Phrase structure

6.1 Organization of NP constituents

6.1.1 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* house^{L} small '(a) small house'	[n-a]
b.	*jìwà*^{L} *wéní(-wè)-gé* *nì:ŋgà* house^{L} small(-Dim)-Pl two 'two small houses'	[n-a-num]
c.	*jíwá-gé* *tà:ndì-ŋgé* ^{L}*mbò-gè* house-Pl three-Pl ^{L}Dem-Pl 'these/those three houses'	[n-num-dem]

d. *jíwá-gé* ^{L}*mbò-gè* ^{L}*cìmà* [n-dem-'all']
house-Pl ^{L}Dem-Pl.L ^{L}all
'all of these/those houses'

e. *à:màdú* ^{LH}*jìwá* [poss-n]
A ^{LH}house
'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 mè:-gé* [n-num-poss]
house-Pl three-Pl 1SgP-Pl
'my three houses'

i. *jìwà*^{L} *wéní-gé tà:ndì-ŋgé mè:-gé* [n-a-num-poss]
house^{L} small-Pl three-Pl 1SgP-Pl
'my three small houses'

l. *jíwá mè: mbó* [n-poss-dem]
house 1Sg Dem
'this/that house of mine'

m. *jíwá-gé mè:-gè mbó-gè* [n-poss-dem]
house-Pl 1SgP-Pl Dem-Pl
'these/those houses of mine'

6.1.2 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.

6.1.3 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.

6.1.4 Internal bracketing and tone-dropping in unpossessed 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.

6.2 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.

6.2.1 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.

6.2.1.1 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*nă:*	*à:màdú* LH*nà:-gé*
	jíwá	'house'	*à:màdú* LH*jìwá*	*à:màdú* LH*jìwà-gé*
b. X is lexically {L}				
	è:	'jaw'	*à:màdú* LH*ĕ:*	*à:màdú* LH*è:-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*

6.2.1.2 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	*è-wɛ́*	*è-wɛ̀*
c.	3Sg	*nɛ̀-wɛ́*	*nɛ̀-wɛ̀*
	3Pl	*cɛ̀-wɛ́*	*cɛ̀-wɛ̀*

For one informant, 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 1SgP

'my pigeon'

b. *gùlùmbà-gé* *mɛ̀:-gé*
pigeon-Pl 1SgP-Pl
'my pigeons'

c. *ìjò* *mɛ̌:*
village 1SgP
'my village'

d. *ìjò-gɛ̀* *mɛ̀:-gé*
village-Pl 1SgP-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 informant 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]=ẁ^{n}*
Dem [1SgP ^{LH}pigeon]=it.is
'That's my pigeon.'

b. *mbó* *[gùlùmbá* *mɛ̌]=ẁ^{n}*
Dem [pigeon 1SgP]=it.is
'That's my pigeon.'

6.2.1.3 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)*

cow^{L} black(-Pl)
'black cow(s)'

b. *à:màdú* ^{LH}*[nà: jèmɛ́]*
A ^{LH}[cow black]
'Amadou's black cow'

c. *à:màdú* ^{LH}*[nà: jèmɛ̀-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 informant 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} *jɛ́mé-gé]* *tà:ndì*
[cow^{L} black-Pl] three
'three black cows.'

d. *à:màdú* ^{LH}*[nà: jèmɛ̀ tà:ndì-ŋ̀gé]*
A ^{LH}[cow black three-Pl]
'Amadou's three black cows.'

e. *à:màdú* ^{LH}*[nà:(-gè) tà:ndì(-ŋ̀gè) jèmɛ̀-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 informant 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} *jémé]* *mě:*
[cow^{L} black] 1SgP
'my black cow'

b. *ná:-gé* *tá:ndí-ŋgé* *mè:-gé*
cow-Pl three-Pl 1SgP-Pl
'my three cows'

tone c. *[nà:*^{L} *jémé-gé]* *mè:-gé* *tá:ndí*
[cow^{L} black-Pl] 1SgP-Pl three
'my three black cows'

d. *[nà:*^{L} *jémé-gé* *tá:ndí-ŋgé* *mè:-gé*
[cow^{L} black-Pl three-Pl 1SgP-Pl
[=(c)]

e. #*[na:(-ge)* *ta:ndi(-ŋge)* *jémé-gé]* *mè:-gé*
[cow(-Pl) three(-Pl) black-Pl] 2SgP-Pl
[ungrammatical regardless of tones on 'cow' and 'three']

6.2.2 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 mɛ̌ː*), *ò* LH*tùmá* 'your-Sg stick' (alternative to *túmá ɔ́-wɛ́*).

6.2.2.1 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 composite, combining 'father' or 'mother' with 'small' (*wéní-wè*) or *páy*, cf. *báy* 'big'.

(xx1)	unpossessed	'my X'	gloss
a.	*sìjɔ̀*	*mì* LH*sìjɔ́*	'father's younger brother'
	èlà	*mì* LH*èlá*	'co-wife'
	nèjì	*mì* LH*nèjí*	'mother's brother'
	nɛ̀njɛ̀	*mì* LH*nɛ̀njɛ́*	'father's sister; mother's co-wife'
	nɛ̀ːwɛ̀	*mì* LH*nɛ̀ːwɛ́*	'younger sibling'
	tìyɛ̀	*mì* LH*tìyɛ́*	'cross-cousin'
	bɔ̀ː	*mì* LH*bɔ̌ː*	'agemate'
	mbɔ̀ː	*mì* LH*mbɔ̌ː*	'grandfather'
	wàyà	*mì* LH*wàyé*	'friend'
	àmàlì	*mì* LH*àmàlí*	'parent-in-law'
	nòmòlì	*mì* LH*nòmòlí*	'person with the same name'
b.	*bàː*	*mì* LH*bàwá*	'father'
	dɛ̀ː	*mì* LH*dèdé*	'elder sibling'
c.	*nɛ̀nɛ̀*	*mì* LH*nɛ̀nɛ́*	'mother'
	màmà	*mì* LH*màmá*	'grandmother'
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’

Certain close kin terms may be used as vocatives, in the possessed-noun tonal form but without an overt 1Sg possessor: *bàwá* ‘(hey) Dad!’, *nɛ̀nɛ́* ‘(hey) Mom’, *mbɔ̌:* ‘(hey) Grandpa’, *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. A pronominal possessor may be preposed (inalienable pattern) or postposed (alienable pattern), e.g. *mì bě:* or *bé: mě:* ‘my child’.

6.2.2.2 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* *kùlèy^{n}-ŋgé]*
Seydou LH[house-Pl six-Pl]
‘Seydou’s six houses’

b. *[sàydú* LH*sìjɔ̀-gé]* *kùlèy^{n}*
[Seydou LH uncle-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 kùlèy^{n}* ‘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 [LH]house-Pl Dem-Pl
'these houses of Seydou's'

b. *sàydú* [LH]*sìjɔ̀-gè* *mbó-gè*
Seydou [LH]uncle-Pl Dem-Pl
'these uncles of Seydou's'

6.2.3 Recursive possession

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

(xx1) a. *ɪ́:njɛ́* [LH]*dìlɔ́*
dog [LH]tail
'(the) dog's tail'

b. *à:màdú* [LH]*ì:njɛ́*
Amadou [LH]dog
'Amadou's dog'

c. *[à:màdú* *ì:njɛ́* *rì]* [LH]*dìlɔ́* *rì*
[Amadou dog.LH Def [LH]tail Def
'Amadou's dog's tail'

d. *[sàydú* [LH]*sìjɔ́]* [LH]*bàwá*
[Seydou [LH]uncle] [LH]father
'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:njè* *dìlɔ́]*
Amadou ^{LH}[dog tail]
'Amadou's dog's tail'

6.3 Noun-adjective

6.3.1 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 [N^{L} Adj(-Pl)].

(xx1) a. *í:njɛ́* 'dog'
ì:njè^{L} *jɛ́mɛ́* 'black dog'
ì:njè^{L} *bíní-bíní* 'big dog'

b. *í:njɛ́-gé* 'dogs'
ì:njè^{L} *jɛ́mɛ́-gé* 'black dogs'
ì:njè^{L} *bíní-bíní-gé* 'big dogs'

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

6.3.2 Numeral-like *àmbìlè* '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* is arguably a numeral rather than an adjective syntactically. Usually the NP is plural, and if so both the noun and *àmbìlè* 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).

àmbìlè is commonly used in parallel paired clauses. The two NPs with *àmbìlè* 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.

xxx

(xx1) *[yé:-gé àmbìlè-gè]* *ùn-íyè,* *àmbìlè-gè* *ànj-íyè*
[woman-Pl certain-Pl] go.Perf-3PlS, certain-Pl remain.Perf-3PlS
'Some women went away, some (i.e. the others) stayed.'

6.3.3 Expansions of adjective

6.3.3.1 Adjective sequences

§6.3.1 illustrated the noun-adjective construction, i.e. [N^{L} 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 [N^{L} Adj (Pl) ^{L}Adj (Pl)].

(xx1) a. *ì:njè*^{L} *bíní(-bíní)* ^{L}*jèmè*
dog^{L} big-big ^{L}black
'big black dog'

b. *ì:njè*^{L} *bíní-bíní-gé* ^{L}*jèmè-gè*
dog^{L} big-big-Pl ^{L}black-Pl
'big black dogs'

c. *jìwà*^{L} *báy* ^{L}*pùlè*
house^{L} big ^{L}white
'a big white house'

6.3.3.2 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.

6.3.3.3 '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:-w^{n} bó-∅* rather than the usual *mɔ̀:-∅* 'it is good' (§11.4.1.3).

(xx1) a. *[tílŋgɔ́* ^{LH}*pùnì-gé]* *ɲɔ́:-wà* *mɔ̀:-w^{n}* *bó-∅*
[tree ^{LH}flower-Pl] eat-VblN good be-3PlS
'The flowers of (the) tree are good to eat.'

b. *ɲɔ́:-wà* *mɔ̀:-nà-∅*
eat-VblN good-StatNeg-3SgS
'It isn't good to eat.'

6.4 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.

6.4.1 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:ŋgè-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:ŋgè-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*
dog^{L} 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*
dog^{L} big-Pl two
'two big dogs'

d. *ì:njɛ̀*^{L} *bíní-gé* *nì:ŋgà-ŋgé* *mbò-gè*
dog^{L} big-Pl two-Pl Dem-Pl
'these two big dogs'

e. *ì:njɛ̀*^{L} *bíní-gé* *ní:ŋgá-ŋgè* *rì*
dog^{L} 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*
[dog^{L} big-Pl two] 1Sg-Acc bite.Perf.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*.

6.4.2 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 informant 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*
[house^{L} small(-Dim)-Pl two] ^{LH}fall-Reslt-Pl Def
'the two small houses that fell'

b. #*[jìwà*^{L} *ní:ŋgá-ŋgé* ^{L}*wènì(-wè)-gè]* ^{LH}*dùmbɛ̀-sà-gé* *rì*
[house^{L} two-Pl ^{L}small(-Dim)-Pl] ^{LH}fall-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*
house^{L} small-(Dim-)Pl two-Pl Dem-Pl
'these two small houses'

b. #*jìwà*^{L} *ní:ŋgá-ŋgé* *wéní-(wè-)gé* *mbò-gè*
house^{L} 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 informant.

The Ningo informant 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-Pl^{L} small-Pl ^{L}two-Pl Dem-Pl
'these two small houses' (Ningo)

b. *gìbà-gè*^{L} *ní:ŋgá* ^{L}*wènì-ŋgè* *ɛ́nì-gè*
house-Pl^{L} two ^{L}small-Pl Dem-Pl
[= (a)] (Ningo)

6.5 NP including a determiner

6.5.1 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.

6.5.2 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. *[íːnjɛ́-gɛ́ tàːndì-ŋgɛ́] 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 *-ŋgɛ́*) after the numeral, compare *íːnjɛ́-gɛ́ tàːndì* ‘three dogs’.

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

(xx2) a. *àːmàdú* ^{LH}*ìːnjɛ̀* *mbó*
A ^{LH}dog Dem
‘this/that dog of Amadou’s’

b. *àːmàdú* ^{LH}*sìjɔ̀-gè* *mbó-gè*
A ^{LH}uncle-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 *àːmàdú* ^{LH}*[ìːnjɛ̀ 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. *àːmàdú* ^{LH}*[ìːnjɛ̀ jɛ̀mɛ̀-gé]*
Amadou ^{LH}[dog black-Pl]
‘Amadou’s black dogs’

b. *àːmàdú* ^{LH}*[ìːnjɛ̀ 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. *ìːnjɛ̀*^{L} *jɛ́mɛ́-gɛ́* *é-wò-gé* *rì*
dog^{L} 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)'

6.5.3 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:ŋgɛ̀*)

b. *ì:njɛ̀*L *wéní-wɛ̀* L*jɛ̀mɛ́* *rì*
dogL small-Dim Lblack Def
'the small black dog' (*ì:njɛ̀ wéní-wɛ̀ 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-wɛ̀* *rì*
dogL small-Dim Def
'the small dog'

f. *sàydú* LH*jìwá* *rì*
Seydou LHhouse Def
'Seydou's house (definite)'

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*
dog^{L} black-Pl four-Pl^{H} Def
'the four black dogs' (*ì:njɛ̀ jɛ́mɛ́-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).

6.6 Universal and distributive quantifiers

6.6.1 'All' (*cìmà*, *pôy*)

The universal quantifier *cìmà* (Boui) or *pôy* (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 in] go.Perf-3PlS
'All the young people have gone away (to work).'

b. *[nà:-gè*^{L} *tá:ndí-ŋgé* *mɛ̀:-gé* *rì* *címà]*
[cow-Pl^{L} three-Pl 1SgP-Pl Def **all**]
túlɛ́-y^{n}
sell.Perf-1SgS
'I sold all three of my cows.'
[confirmed by Ningo *nà:-ŋgè tá:ndí-ŋgé mɛ̀:-ŋgé rì*]

c. *[[séŋgé* *mɛ̌:* *rì]* *cìmà]* *túlɛ́-ỳ*^{n}
[[millet 1SgP Def] all] sell.Perf-1SgS
'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.Perf-3SgS
'Seydou ate everything.'

6.7 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*
[child^{L} fat-fat ^{L}black Acc] 1SgS ^{LH}hit.Perf.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.

7 Coordination

7.1 NP coordination

7.1.1 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] [3SgP 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-3PlS
'They are in Bamako and Segou (cities).'

7.1.1.1 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 informant 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'

7.1.1.2 '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 / 3SgP 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-ỳ*^{n}
[[woman-Pl and] [man-Pl and] Acc] see-MP.Perf-1SgS
'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.

7.1.2 "Conjunction" of verbs or VP's

Verbs, VPs, and clauses are not conjoined by *yà*. The rough equivalent of conjunction for such elements is chaining, see chapter 15.

7.2 Disjunction

7.2.1 'Or' particles

'Or' disjunctive particles are unrelated in Tiranige to the polar interrogative clitic *lè* and itsvariants (§xxx).

7.2.1.1 *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) *[dèw^{n} címà] [ámbá nì sɛ́:m-bò] [mà→ ùnà]*
[day all] [sheep 1PlS slaughter-Impf] [or goat]
'Every day we slaughter a sheep or a goat.'

7.2.1.2 *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}sè:m-bǒ-w*
[sheep **or**] [goat **or**] ^{LH}slaughter-Impf-2Sg
'Will you-Sg slaughter <u>a sheep or a goat</u> [focus]?'

7.2.2 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] ^{LH}go-Impf-2Sg or,
[sègù ŋá] ^{LH}ùm-bǒ-w
[Segou Loc] ^{LH}go-Impf-2Sg
'Is it <u>to Bamako</u> [focus] that you-Sg will go, or is it <u>to Segou</u> [focus] that you-Sg will go?'

8 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.

8.1 Dative and instrumental

8.1.1 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] célέŋgé* ^{L}*ndè-w*
[who? Acc] money ^{L}give.Perf-2SgS
'To who(m) did you-Sg give the money?'

b. *[mì gí] wé:-wè gúná-nú-ẁ*
[1Sg Acc] anything say-PerfNeg-2SgS
'You didn't say anything to me.'

c. *[hàl wé:-wè] [mì gì] ká:n-dá-nù-w*
[even anything] [1Sg Acc] do-for-PerfNeg-2SgS
'You-Sg didn't do anything for me.'

An informant 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).

8.1.2 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.Perf-3SgS
'He/She swept with a broom.'

b. *[tànà yà] tèlà [námá rì]*
[knife Inst] cut.Imprt [meat Def]
'Cut-2Sg the meat with a knife!'

c. *[[dúwá mɛ̌:] yá] [L]kùb-bò-∅*
[[daba 1SgP] Inst] [L]do.farming-Impf-3SgS
'He/She will farm with my daba.'

'By force' is *sɛ̀mbɛ̀ yà*.

yà after a NP can also function as an 'and' conjunction.

8.2 Locational postpositions

8.2.1 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.

8.2.2 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 mĕ:] ŋà* 'in/on my head'.

8.2.3 Locative 'in, at, on'

8.2.3.1 Locative by vowel-lengthening

Noun *jíwá* 'house' occurs as a locative 'in (the) house' in the form *jíwâ:* with lengthened and falling-toned final vowel. Perhaps this arose as a contraction of *jíwá Cà with an overt postposition whose consonant has been elided.

This pattern is at least partially reminiscent of tonal locatives in Jamsay and Togo Kan expressed by final falling tone.

8.2.3.2 Locative postposition (*ŋà*, *yà*, *gì*)

For the Boui informant, 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'
	né:ndè	*né:ndè 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 mè:	*[yálá mĕ:] 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-y^{n}*
night work(n) do-ImpfNeg-1SgS
'I do not work at night.'

b. *yéná:gú* *[ìjò* *ŋá]* *^{LH}ùm-bŏ-y*
rainy.season [village in] ^{LH}go.Impf-1SgS
'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 Severe', *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 informant used gì as the common locative postposition, along with yà as in Boui. '(at/to) home' is *gíbà*: in Ningo.

8.2.4 '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]* *bŏ-∅*
[tea Def] [house ^{LH}interior] in] be-3SgS
'The tea is in(side) the house.'

b. *[kúnέ* *rì]* *[[[té:nì* *rì]* *^{LH}kùlyé]* *ŋá]*
[calabash Def] [[[well Def] ^{LH}interior] in]
dùmbè *^{LH}sìgé-∅*

fall [LH]go.down.Perf-3SgS
'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]*
[key Def] [[[mat Def] [LH]interior] in]
[LH]*tùná-∅*
[LH]be.laid.Stat-3SgS
'The key is under the mat.'

The Ningo informant 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).

8.2.5 '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] in] be-3SgS
'The village is at the base of the mountain.'

Adverb *sígí-yá* means 'at the base'.

8.2.6 '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] [LH]head] in]
[LH]*sàgá-∅*
[LH]be.on.Stat-3SgS

'The blanket is on the mat.' (*yòmbù*, *bì:*)

b. *[[tèmbè* LH*dàná]* *ŋá]* *bò-y*
[[roof LHhead] on] be-1SgS
'I am on the roof.'

c. *[mì* LH*dàná]* *ŋá]* LH*dùmbé-∅*
[1Sg LHhead] in] LHfall.Perf-3SgS
'It fell on me (=on my head).'

d. *[níyè gé rì]* *[nì* LH*dàná]* *ŋá]* *pìlìyò* *mb-á:*
[bird Pl Def] [1Pl LHhead] in] fly Prog-3PlS
'The birds are flying above us (=over our heads)'

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-3SgS
'The agama lizard is on the wall.'

b. *[bì:* *ŋá]* LH*bì-y-â:*
[mat in] LHlie.down-MP.Stat-3PlS
'They are lying down on a mat.'

Without a possessor, the simple PP *dànà ŋá* means 'on top, above, overhead'.

8.2.7 'Next to, beside X' (*[X* LH*è:lé] ŋà*, *[X* LH*jèlé] ŋà*)

When a person is the reference point, 'next to/beside X' is expressed by a composite postposition based on *é:lé* 'flank, side (of body, at ribs)', viz., *[X* LH*è:lé] ŋà* (xx1a).

From noun *jèlè* '(sb's) zone, territory', a composite postposition *[X* LH*jèlé] ŋà* is formed. It 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*è:lé]* *ŋà]* *bò-∅*
[[1SgP LHside] in] be-3SgS
'He/She is beside (=next to) me.'

b. *[[[mínjílì rì]* LH*jèlé]* *ŋà]*

[[[mosque Def] [LH]side] 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!'

è:ŋgó 'proximity, vicinity', locative *è:ŋgó ŋà* 'nearby, in the vicinity', can also form a composite postposition when distance as such is relevant: *[[X* [LH]*è:ŋgó ŋà]* 'in the vicinity of X'.

8.2.8 '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 [LH]noun] *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-3SgS
'He/She is in front of us.'

b. *[[tílŋgó rì] jíró] ŋá] [L]bì-y-ìyè*
[[tree Def] front] in] [L]lie.down-MP.Perf-3PlS
'They lay down in front of the tree.'

c. *àmìrí [[[[jàmá rì] címà] jíró] ŋá]*
chief [[[[community Def] all] front] in]
[LH]*dàmí-∅*
[LH]speak.Perf-3SgS
'The chief spoke in front of the (whole) community.' (*jàmá*)

8.2.9 'Behind/after X' (*[X* [LH]*tŭ:ⁿ] ŋà* or *[X* [LH]*tùnú] gì*)

'Behind X' is *[X tŭ: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 tŭ:ⁿ] ŋà*, the nasalization of *tŭ:ⁿ* is difficult (perhaps impossible) to hear separately because of the following *ŋ*.

(xx1) a. *[[mì* [LH]*tŭ:ⁿ] ŋá] bŏ-∅*
[[1Sg [LH]behind] in] be-3SgS
'He/She is behind me.'

b. *[sà:ní* LH*tŭ:ⁿ]* *ŋá]* LH*yògò-wŏ-y*
[[holy.day LHbehind] in] LHcome-Impf-1SgS
'I will come (back) after the holy day.'

c. *[[jíwá rì]* *[[nì* LH*tŭ:ⁿ]* *ŋá]* LH*ìmbò-w-â:*
[[house Def] [[1Pl LHbehind] in] LHclose-Impf-3PlS
'They will close up the house after us (=after we leave).'

Impersonal *[é* LH*tùnú] gì* means 'thereafter, afterwards, after that', with reference to a contextually understood event.

8.2.10 '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 mĕ:] ŋà* 'under me'.

(xx1) *[[tílŋgɔ́* LH*dùŋó]* *ŋà]* *nì* LH*òw-yò-wó*
[[tree LHunder] Loc] 1PlS LHsit-MP-Impf
'We will sit under (the) tree [focus].'

8.2.11 '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]] middle] in]
bŏ:-∅
be-3SgS
'Boui (village) is located between Sevare and Douentza.'

b. *[nì* LH*bèná]* *ŋà*
[1Pl LHmiddle] in
'between us'

8.2.12 '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-w^{n}* *[hàl* *[mótí* *yà]* ^{LH}*ùnì-ý^{n}]*
run-MP-while [until [Mopti Loc] ^{LH}go.Perf-1SgS]
'I ran all the way to Mopti.' (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-w^{n}]* *[hàl* *yá:* ^{LH}*ùnì-ý^{n}]*
[here go.out-Reslt-while] [until there ^{LH}go.Perf-1SgS]
'I walked all the way from here to there.'
(lit. "After going from here, I went all the way to there.")

8.3 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 ^{LH}for] ^{LH}come-Reslt-3PlS
'They have come for honey.'

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}*nwè:-sá*
[rain(n) ^{LH}**for**] house.in 1PlS ^{LH}go.in-Reslt
'We went into the house because of the rain (outside).'

b. *[mì* ^{LH}*dàgá]* ^{LH}*yògè-s-â:*
[1Sg ^{LH}**for**] ^{LH}come-Reslt-3PlS
'They have come for (i.e. to visit) me.'

c. *[á:* ^{LH}*dàgá]* *[ò* *gí]* ^{LH}*bàrò-wò-ý^{n}*
[God ^{LH}**for**] [2Sg Acc] ^{LH}help-Impf-1SgS

'I will help you-Sg on account of God (i.e. as a charitable act).'

8.4 Other adverbs (or equivalents)

8.4.1 Similarity (*tɔ̀rɔ́* 'like')

'Like (similar to) X' is *[X tɔ̀rɔ́]*.

(xx1) a. *[mì* LH*tɔ̀rɔ́]* *bǒː-∅*
[1Sg LHlike] be-3SgS
'He/She is like me.'

b. *[bé:* LH*tɔ̀rɔ́]* LH*kɔ̀ːm-bǒ-w*
[child LHlike] LHweep-Impf-2SgS
'You-Sg weep like a child.'

Note also *mbɔ́rɔ̀* 'like this/that' (cf. *mbó* 'this/that').

8.4.2 Extent (*kùnú→* 'a lot', *cêw^{n}* '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.Perf-3SgS
'He/She gave me a lot.'

b. *[jɛ̀lɛ̀* *ŋá]* *kùnú→* LH*ùm-bǒ-y*
[travel(n) Loc] a.lot LHgo-1SgS
'I travel a lot.'

The antonym is *cêw^{n}* 'a little'.

(xx2) a. *mì-gì* *cêw^{n}* *ndɛ̀-∅*
1Sg-Acc a.little give.Perf-3SgS
'He/She gave me a little.'

b. *cêw^{n}* *[jɛ̀lɛ̀* *ŋá]* LH*ùm-bǒ-y*
a.little [travel(n) Loc] LHgo-1SgS
'I travel a little (i.e. occasionally).'

8.4.3 Specificity

8.4.3.1 'Approximately' (*bélɛ́wò*)

To indicate that a number is approximate, *bélɛ́wò* can be added. This looks vaguely like an imperfective verb but it is unanalysable.

(xx1) *ámbá* *dɛ́:* *bélɛ́wò*
sheep 40 roughly
'approximately forty sheep'

8.4.3.2 'Exactly' (*kák*)

With numbers, *kák* can be used (xx1).

(xx1) *ámbá* *dɛ́:* *kák*
sheep 40 exactly
'exactly forty sheep'

8.4.4 Spatiotemporal adverbials

8.4.4.1 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’.

8.4.4.2 ‘First’ (*tápòw^{n}*)

tápòw^{n} ‘at first, firstly, to begin with’ is illustrated in (xx1).

(xx1) *tápòw^{n} [sègù ŋá]* ^{LH}*ùm-bǒ-y,*
firstly [Segou Loc] ^{LH}go-Impf-1SgS
mɛ̀: [tú: ŋà] [[jèlɛ̀^{L} *tó:] ŋà]* ^{LH}*ùm-bǒ-y*
but [behind Loc] [[place^{L} other] Loc] ^{LH}go-Impf-1SgS
‘First I’ll go to Segou (city), but later on I’ll go somewhere else.’

8.4.4.3 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’.

8.4.5 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.	*téy^{n}-téy^{n}*	‘(looking) straight at’
		tè:-tè:	‘silent’
		díŋàw^{n}-díŋàw^{n}	‘(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’	*jèmè-[kàrì-kàrì]*
	púlɛ́	‘white’	*pùlè-[tàw-tàw]*
	búní	‘red’	*bùnì-[déy^{n}-déy^{n}]*

8.4.5.1 ‘Apart, separate’ (*tŏw^{n}*)

This element is frequently used in parallelistic constructions, with NPs denoting the two separate sets.

(xx1)	*[ámbá-gè*	*rì]*	*tŏw^{n}↑,*	*[ùnà-gé*	*rì]*	*tŏw^{n}*
	[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).’

When not spelled out in this parallelistic fashion, the sense can be expressed by the iteration *tŏw^{n}-tŏw^{n}* ‘separately, apart (in distinct locations)’

8.4.5.2 ‘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.

8.4.6 ‘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) 1PlS LHdo-Impf.Rel
‘We will all work together.’

8.4.6.1 ‘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] [3SgP all] be.ruined.Perf-3SgS
‘The vehicle was completely ruined.’

9 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.

9.1 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’	*pégú-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*}

tíyɔ́-	'lock'	*tíy-lɔ-*	'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.

9.2 Deverbal causative verbs

9.2.1 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)-* ~ *gó:-gó-m(ú)-*	'take out, remove'
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			
yégɔ́-	‘fall’	*yégá-m(ú)-*	‘cause to fall’
sémɔ́-	‘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.

9.2.2 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’
púj́ó-	‘expode’	*púj́ó-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'	*tɛ́wá-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.

9.3 Passive

For mediopassives with *-yó-* ~ *-yɔ́-*, see the following section. For a passive stative construction with *-yɛ́=ẁⁿ* ~ *-yé=ẁⁿ*, see §xxx.

9.4 Mediopassive and transitive

9.4.1 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’.

9.4.2 *kán(ú)-* ‘do (sth)’ and *ká:n-dó-* ‘do (sth) for (sb)’

The common verb *kán(ú)-* ‘do’ is replaced by *ká:n-dó-* when a beneficiary is expressed. *ká:n-dó-* has the form of a transitive suffixal derivative with *-ró-* ~ *-dó-* (§9.4.1), but the semantics are somewhat different. 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).

9.5 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*
1PlS hit-Recip.Perf
'we hit-Past each other'

b. *á:gá* *nì* *tɛ́wí-yɔ́-wò*
tomorrow 1PlS 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.

9.6 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 *mɛ́ní-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

ménjí-wè	*méɲí-ndó-*	‘become thin’

syncopated

bíní	*bín-ɗó-*	‘become fat’

diminutive -wè dropped

wéní-wè	*wén-dó-*	‘become small’
déɲí-wè	*déɲí-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’
máy^{n}	*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 *-ǹ^{n}*, 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)	*ɛ́w^{n}*	*ɛ́-ǹ^{n} bíló-*	'wet'
	íjígɔ́	*íjígɔ́-ǹ^{n} bíló-*	'become empty'
	kándá	*kándá-ǹ^{n} bíló-*	'become new'
	kóló	*kóló-ǹ^{n} bíló-*	'fresh (milk); unripe; raw (meat)'
	málá-ní	*málá-ní-ǹ^{n} bíló-*	'soft'

9.7 *-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)'

10 Verbal inflection

10.1 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.

10.1.1 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*.

10.1.2 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.

10.1.2.1 *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’).

10.1.2.2 *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-/.

10.1.2.3 *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- ~ *ndɔ-*	*nda:-*	*ndɛ:-*	‘give’

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-y^{n}	hortative

e. I/U-stem

ǹdí:	Third-Person hortative

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.

10.1.2.4 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’
gúújó	‘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 imperative is identical in form to the third-person hortative, which is used in quoted imperatives. 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!'.

10.1.2.5 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*}. I know of no *Cvbv-* of *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.

(xx1)

Perf	Imprt	ImpfNeg	Impf	Capac	gloss
a. *Cvwv-*					
kùwè-	*kùwà*	*kúwɔ́-râ-*	*kúb-bò-*	*kúm-mâ-*	'do farming'
tìwè-	*tìwà*	*tíwɔ́-râ-*	*tíb-bò-*	*tám-mâ-*	'die'
gùwè-	*gùwà*	*gúwɔ́-râ-*	*gúb-bò-*	*gúm-mâ-*	'hang'
yèwè-	*yèwà*	*yɛ́wɔ́-râ-*	*yɛ́b-bò-*	*yɛ́m-mâ-*	'dance'
tèwè-	*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-*

èmè-	*èmà*	*émɔ́-râ-*	*é:m-bò-*	*ém-mâ-*	‘milk (cow)’
tèmè-	*tèmà*	*tɛ́mɔ́-râ-*	*té:m-bò-*	*tɛ́m-mâ-*	‘eat (meat)’
sèmè-	*sèmà*	*sémɔ́-râ-*	*sé:m-bò-*	*sém-mâ-*	‘milk (cow)’

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 *é: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 *é:m-bà* ‘milking cows’.

10.1.2.6 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)	Perf	Imprt	ImpfNeg	Impf	Capac	gloss
a. *Cvnv-*						
	mìnɛ̀	*mìnà*	*mín-dâ-*	*mínɔ́-wò-*	*mínɔ́-mâ-*	‘taste’
	dɔ̀nɛ̀	*dɔ̀nà*	*dɔ́n-dâ-*	*dɔ́nɔ́-wò-*	*dɔ́nɔ́-mâ-*	‘buy’
	tɔ̀nɛ̀	*tɔ̀nà*	*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’
	nàlɛ̀-	*nàlà*	*nál-dâ-*	*náló-wò-*	*náló-mâ-*	‘give birth’
	yɔ̀lɛ̀-	*yòlà*	*yɔ́l-dâ-*	*yɔ́lɔ́-wò-*	*yɔ́lɔ́-mâ-*	‘look for’
	tɛ̀lɛ̀-	*tɛ̀là*	*tɛ́l-dâ-*	*tɛ́lɔ́-wò-*	*tɛ́lɔ́-mâ-*	‘cut’
c. *Cvrv-*						
	bàrɛ̀-	*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.

10.1.2.7 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)	Perf	Imprt	ImpfNeg	Impf	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					
gùnè-	*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.

10.1.2.8 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.

10.2 Positive indicative AN categories

10.2.1 Perfective positive system (including perfect)

Perfective positive categories are associated with the E/I-stem.

10.2.1.1 (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). (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}*-ỳ^{n}*	*yégé-ỳ^{n}*	*yógé-ỳ^{n}*	*kámí-ỳ^{n}*	*nwé-ỳ^{n}*
1Pl		*nì* {L}	*nì yègè*	*nì yògè*	*nì kàmì*	*nì nwè:*
2Sg		{H}*-ẁ*	*yégé-ẁ*	*yógé-ẁ*	*kámí-ẁ*	*nwé-ẁ*
2Pl		*è* {L}	*è yègè*	*è yògè*	*è kàmì*	*è nwè:*
3Sg		{L}*-∅*	*yègè-∅*	*yògè-∅*	*kàmì-∅*	*nwè:-∅*
3Pl	a.	{L}*-ìyè/-ìyè*	*yèg-ìyè*	*yòg-ìyè*	*kàm-ìyè*	*nùy-è:*
	b.	{LHL}*-íyè/-íyè*	*yèg-íyè*	*yòg-íyè*	*kàm-íyè*	*nŭy-yè:*

The variant tone patterns for the 3Pl were those of the younger Boui informant (a) and the older Ningo informant (b).

For **monosyllabic** stems, the stem vowel is long in the zero-suffix form, and short before nonzero suffixes (1Sg *-y^{n}*, 2Sg *-w*). For example, the perfective of *gó:-* 'go out' is *gwè:-∅* or suffixed *gwê-y^{n}* (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:-	*dwè:-*	'pound' or 'insult'
tɔ́:-	*twè:-*	'pour'
nɔ́:-	*nwè:-*	'sing' or 'go in'
sɔ́:-	*swè:-*	'douse (fire)'
-ATR stems, initial C palatoalveolar		
ɲɔ́:-	*ɲè:-*	'eat, drink'
yɔ́:-	*yè:-*	'pick up'
+ATR stems		
gó:-	*gwè:-*	'go out'
só:-	*swè:-*	'dip'
yó:-	*ywè:-*	'(sth) fill up'

wó:-	*wè:-*	‘sip’

b. *NCv(:)-*

-ATR stems

ǹdó-	*ǹdɛ̀:-*	‘give’

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’
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.Perf.L-3SgS
‘She pounded.’

b. *[dwɛ̀:-∅ mɛ̀] kándíyó-wò-∅*
[pound.Perf.L-3SgS if] cook-Impf-3SgS
‘When she has pounded (the grain), she will cook.’

c. *ndà-yé dwɛ̀:-∅*
woman pound.Perf.L-3SgS
‘a woman pounded.’

d. *dwɛ̀:-∅ lé*
pound.Perf.L-3SgS Q
‘did he/she pound?’

e. *yò: dwɛ̀:-∅*
today pound.Perf.L-3SgS
‘he/she pounded today.’

f. *yò: dwɛ̀:-∅ lé*
today pound.Perf.L-3SgS Q
‘Did he/she pound today?’

10.2.1.2 Perfective-1a and -1b absent

Suffixally marked perfectives (as opposed to perfects) have not been observed.

10.2.1.3 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-y*^{n}	*bàlì-yè-té-y*^{n}	*ùnì-té-y*^{n}
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-yé-∅* (§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.

10.2.1.4 Recent perfect (*-sé-*)

This category has suffix *-sé-* ~ *-sĕ-*, added to a {L}-toned form of the E/I-stem of the verb. *-sé-* can be analysed morphologically as the **past-time form of resultative** *-sà-* (see the following section). Another way to phrase this is that *-sé-* could be connected with *sê:-* '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 *-sé-* ~ *-sĕ-* 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}-sĕ-y*^{n}	*ùnì-sĕ-y*^{n}

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:-	*gwɛ̀:-sɛ́*	‘go out’
ɲɔ́:-	*ɲɛ̀:-sɛ́*	‘eat’
b. *NCv(:)*		
ndó-	*ndɛ̀:-sɛ́*	‘give’
c. *CvCv*		
gújó-	*gùjɛ̀-sɛ́*	‘dig’
cíjɔ́-	*cìjɛ̀-sɛ́*	‘reply’
dú-yɔ́-	*dù-yɛ̀-sɛ́*	‘carry on head’
táwó-	*tàwɛ̀-sɛ́*	‘touch’
tɛ́mɔ́-	*tɛ̀mɛ̀-sɛ́*	‘eat (meat)’
tɔ́nɔ́-	*tɔ̀nɔ̀-sɛ́*	‘butcher’
túlɔ́-	*tùlɛ̀-sɛ́*	‘sell’
d. *CvCCv*		
ɛ́mbɔ́-	*ɛ́mbɔ́-wò*	‘winnow in wind’
tómbó-	*tòmbɛ̀-sɛ́*	‘jump’
e. *Cv:Cv*		
sé:gó-	*sɛ̀:gɛ̀-sɛ́*	‘come down’
f. trisyllabic		

yígíjó-	*yìgìjè-sɛ́*	‘shake’
ígí-yɔ́-	*ìgì-yè-sɛ́*	‘stand, stop’

g. irregular

gún(u)-	*gùnè-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 *ɲè:-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’).

10.2.1.5 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-yé-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-y*^{n}	*yégé-sà-y*^{n}
1Pl		*nì {H}-sà*	*nì gwé:-sà*	*nì yégé-sà*
2Sg		{H}*-sà-w*	*gwé:-sà-w*	*yégé-sà-w*
2Pl		*è {H}-sà*	*è gwé:-sà*	*è yégé-sà*
3Sg		{H}*-sà-∅*	*gwé:-sà-∅*	*yégé-sà-∅*
3Pl	a.	{H}*-s-â:*	*gwé:-s-â:*	*yégé-s-â:*
	b.	{H}*-s-à:*	*gwé:-s-à:*	*yégé-s-à:*

The (a) pattern for 3Pl was from the younger Boui informant, the (b) pattern was from the older Ningo informant

. 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:-	*nwé:-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 informant 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.

10.2.1.6 Reduplicated perfective absent

Reduplicated perfectives have not been observed.

10.2.2 Imperfective positive system

10.2.2.1 Imperfective (*-wò-* ~ *-bò-*)

The basic imperfective (positive) verb form has suffix *-wò-* or *-bò-* added to a {H}-toned version of the **O-stem**. For my younger informant from Boui, the 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 this speaker, the imperfective paradigm is (xx1).

(xx1) Imperfective paradigm

category	form	'go in'	'dance'	'go out'
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:-wà:*	*yɛ́b-bà:*	*gó:-wà:*

For my older informant from Boui, the form is *-bò-* after vowels as well as after consonants.

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/ as *mb*. The older speaker from Ningo has *b* rather than *w* in the relevant verbs (*tábó-*, *tíbé-*, 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, 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.

10.2.2.2 Reduplicated imperfective absent

Reduplicated imperfectives have not been observed.

10.2.2.3 Progressive (*-w^n 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 *-w^n*. Except in careful speech, the combination of *-w^n* with *b* is heard as lengthening of the preceding vowel plus [mb]. For example, *kànà-w^n bǒ:-* ‘be doing’ is often heard as [kànà:mbǒ:-].

The paradigm is (xx1).

(xx1) Progressive paradigm

	category	form	‘eat’	‘do’
	1Sg	{L} *bǒ-y^n*	*ɲà:-w^n bǒ-y^n*	*kànà-w^n bǒ-y^n*
	1Pl	{L} *nì bǒ:*	*ɲà:-w^n nì bǒ:*	*kànà-w^n nì bǒ:*
	2Sg	{L} *bǒ-w*	*ɲà:-w^n bǒ-w*	*kànà-w^n bǒ-w*
xxx	2Pl	{L} *è bǒ:*	*ɲà:-w^n è bǒ:*	*kànà-w^n è bǒ:*
	3Sg	{L} *bǒ:-∅*	*ɲà:-w^n bǒ:-∅*	*kànà-w^n bǒ:-∅*
	3Pl	{L} *bà-â:*	*ɲà:-w^n bà-â:*	*kànà-w^n 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:^{n}èbǒ:].

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:-w^n bǒ:-∅*	‘go in’
with o:		
gó:-	*gò:-w^n bǒ:-∅*	‘go out’
with a:		
ɲɔ́:-	*ɲà:-w^n bǒ:-∅*	‘eat, drink’
b. *NCv:*		
with a:		
ndó-	*ndà-w^n bǒ:-∅*	‘give’
c. *CvCv*		
with o		
gújó-	*gùjò-w^n bǒ:-∅*	‘dig’
with a from CaCv-		
náló-	*nàlà-w^n bǒ:-∅*	‘give birth’
with a from -ATR stem		
dú-yɔ́-	*dù-yà-w^n bǒ:-∅*	‘carry on head’
tíwɔ́-	*tìwà-w^n bǒ:-∅*	‘die’
yɛ́wɔ́-	*yèwà-w^n bǒ:-∅*	‘dance’
kúwɔ́-	*kùwà-w^n bǒ:-∅*	‘do farming’
tɛ́mɔ́-	*tèmà-w^n bǒ:-∅*	‘eat (meat)’
dɔ́nɔ́-	*dònà-w^n bǒ:-∅*	‘buy’
c. *CvCCv*		
with o		
tómbó-	*tòmbò-w^n bǒ:-∅*	‘jump’
with a from CaCCv-		
dámbó-	*dàmbà-w^n bǒ:-∅*	‘winnow in wind’
with a from -ATR stem		
ɛ́mbɔ́-	*èmbà-w^n bǒ:-∅*	‘winnow in wind’
d. *Cv:Cv*		
with o		
sé:gó-	*sè:gò-w^n bǒ:-∅*	‘come down’
with a from Ca:Cv-		

já:ló-	*jà:là-w^{n} bǒ:-∅*	‘build’ or ‘look’

e. trisyllabic
with o

yígíjó-	*yìgìjò-w^{n} bǒ:-∅*	‘shake’

with a from -ATR stem

ígí-yɔ́-	*ìgì-yà-w^{n} bǒ:-∅*	‘stand, stop’

f. irregular

gún(u)-	*gùnà-w^{n} 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-w^{n} bǒ:-∅*	‘speak’
kámú-	*kàmà-w^{n} bǒ:-∅*	‘steal’
b. *CíC(ú)-*, *CúC(ú)-*		
ún(u)-	*ùnà-w^{n} bǒ:-∅*	‘go’
kán(u)-	*kànà-w^{n} bǒ:-∅*	‘do’
c. causatives		
ɲá:-mú-	*ɲà:-mà-w^{n} bǒ:-∅*	‘let/make (sb) drink’
yógó-mú-	*yògò-mò-w^{n} bǒ:-∅*	‘send here’
málámú-	*màlàmà-w^{n} bǒ:-∅*	‘squeeze’

Examples are in (xx4).

(xx4) a.

ɲà:ŋgè	*ɲà:-w^{n}*	*bǒ-y^{n}*
meal	eat-Impf	Prog-1SgS

‘I am eating.’

b.

wàlè	*kànà-w^{n}*	*nì*	*bǒ:*
work(n)	do-Impf	1PlS	Prog

‘We are working.’

c.

sà:ní	*kànà-w^{n}*	*bǒ:-∅*
prayer	do-Impf	Prog-3SgS

‘He/She is praying.’

For the past progressive with *bɛ̌ː-*, see §10.6.1.4.

10.2.2.4 Construction with *là* and perfective

A construction that occurs repeatedly in the Ningo texts (especially Text 2) consists of a preposed subject pronoun, particle là (elsewhere 'also, too'), and a {L}-toned unconjugated perfective verb. Since the subject pronoun and the verb are {L}-toned, the particle là often appears as H-toned lá, unless another constituent intervenes between là and the verb. For example, out of seven clauses in (xx4) in Text 2, four are conditional protasis clauses with mɛ̀-nɛ̀ 'if' (in this context 'when' or 'after'), and the other three are clauses with lá.

The association with 'when' clauses is not accidental. Text 2 is a generic description of the sequence of events in farming over the course of the rainy season and harvest. Often an activity is mentioned first with a lá clause, then repeated with a 'when' clause that serves as background for the next event. The lá clause therefore foregrounds a new activity, subsequent to the backgrounded preceding one. A free translation like 'when/after we have VP_1-ed), we then proceed to VP_2' might capture the flavor.

The Ningo informant also adds a clause-final ó to the lá construction. He glosses this construction with 'first' (i.e. before beginning the next activity).

(xx1) a. nì / mì lá ŋɛ̀ː ó
1PlS / 1SgS also eat.Perf first
'We/I will eat first'

b. sɛ̌ydù nà lá ŋɛ̀ː ó
Seydou 3SgS also eat.Perf first
'Seydou will eat first.'

10.2.2.5 Future tense absent

There is no distinct future inflectional category, apart from the broad imperfective.

10.2.3 Negation of indicative verbs

10.2.3.1 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	PerfNeg form	'go in'	'dance''	'go out'
1Sg	{H}*-ní-ỳ*^{n}	*nɔ́:-ní-ỳ*^{n}	*yéwá-ní-ỳ*^{n}	*gó:-ní-ỳ*^{n}
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	PerfNeg 3Sg	gloss
a. *Cv:*		
with ɔ:		
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	PerfNeg 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’

10.2.3.2 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-y*^{n}	*bàlì-yè-té:-nî-y*^{n}	*ùnì-té:-nî-y*^{n}
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-3SgS
‘He/She has never seen an elephant.’

b. *[bɔ̀mɔ̀kɔ́* *ŋà]* *ùnì-té:-nî-y*^{n}

[B in] go-ExpPf-PfNeg-1SgS
'I have never gone to Bamako.'

10.2.3.3 Recent perfect negative or past perfect negative (*-nì-yɛ́-*)

Morphologically, this is the past-time version of the perfective negative (*-nì-*). For the Boui informant, 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-PerfNeg-Past-3SgS
'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-y^{n}*	*gó:-nì-yɛ̀-y^{n}*
1Pl	*nì* {L} *-nì-yɛ́*	*nì gò:-nì-yɛ́*
2Sg	{H} *-nì-yɛ̀-y^{n}*	*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-ý^{n}*
eat.meal-PerfNeg-Past-1SgS
'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 *síŋɔ́* 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:* *síŋɔ́-ní-ỳ^{n}*

eat.meal have.yet-PerfNeg-1SgS
'I haven't eaten yet.' (Ningo)

b. *ɲɛ̀:* *gímɛ́-ỳ^{n}*
eat.meal have.just.Perf-1SgS
'I have (already/just now) eaten.' (Ningo)

10.2.3.4 Imperfective negative (*-râ-* ~ *-dâ-*)

The imperfective negative has a suffix *-ra* (3Sg *-râ-∅*) 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		ImpfNeg	'go in'	'lie down'	'shake'
1Sg		{H}*-rà-y^{n}*	*nɔ́:-rà-y^{n}*	*bí-yó-rà-y^{n}*	*yígíjó-rà-y^{n}*
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 an d 3Pl is from the younger Boui speaker, the (b) pattern is from the older Ningo speaker

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).

(xx2) Imperfective negative (final-nonhigh-vowel class)

stem	ImpfNeg	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	ImpfNeg	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’

10.2.3.5 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 *-w^n*, as in the positive. The paradigm is (xx1).

(xx1) Paradigm of progressive negative

category	ProgNeg	‘do work’
1Sg	{L} *órâ-y^n*	*wàlè kànà-w^n órâ-y^n*
1Pl	{L} *nì òrá*	*wàlè kànà-w^n nì òrá*
2Sg	{L} *órâ-w*	*wàlè kànà-w^n órâ-w*
2PL	{L} *è òrá*	*wàlè kànà-w^n è òrá*

3Sg	{L}	*órâ-∅*	*wàlè kànà-w^{n} órâ-∅*
3Pl	{L}	*ór-â:*	*wàlè kànà-w^{n} ór-â:*

An example is (xx2).

(xx2) *íjílí* *ìjìlò:* *órâ-y^{n}*
sweeping(n) sweep.L not.be-ImpfNeg-1SgS
'I am not (engaged in) sweeping.'

10.3 Pronominal paradigms for non-imperative verbs

10.3.1 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 *-y^{n}*. The nasalization is not distinctively audible in the sequence *Ni-y^{n}* (*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-*ỳ^{n}*
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 *-ỳ*^{n} and 2Sg *-ẁ* are subject to phonological modification before yes/no interrogative particle *lɛ̀*, resulting in *n nì* and *l lɛ̀*, respectively.

3Pl is expressed by a variable ending (xx2), generally with falling tone.

(xx2)

3Pl	category
-ìyɛ̀ ~ *-iyɛ̀*	perfective
-w-à:	imperfective
-n-î:	perfective negative
-r-â:	imperfective negative
-â:	stative
-mà-â:	capacitative

10.3.2 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}				
Perf	{H}*-ż*	*ỳ* {L}	{L}	{L}*-ż*
'know'/'want' (*yey-/cey-*)		{H}*-ż*	*ỳ* {L}	{L} {L}*-ẑ*
StatNeg (*-na-*)	{H}*-x́-ż*	*ỳ* {L}*-x̀*	{L}*-x̀*	{L}*-x́ż*
PerfNeg (*-ni-*)	{H}*-x̀-ż*	*ỳ* {L}*-x̀*	{L}*-x̀*	{L}*-x́ż*
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				
ImpfNeg (*-ra-*)	{H}*-x̀-ż*	*ỳ* {L}*-x́*	{H}*-x̂*	{HL}*-x́ż*
d. all 1st/2nd falling, 3rd person {L}				
Result (*-sa-*)	{H}*-x̀-ż*	*ỳ* {H}*-x̀*	{L}*-x̀*	{L}*-x́ż*
e. all rising				
RecPf (*-sɛ-*)	{L}*-x̀-ź*	*ỳ* {L}*-x́*	{L}*-x́*	{L}*-x́ż*
'resemble' (*mola-*)	{LH}*-ź*	*ỳ* {LH}	{LH}	{L(H)}*-x́ż*

f. all falling

stative (final *a*)	{HL}*-ź*	*ỳ* {HL}	{HL}	{HL}*-ẑ*
imperfective (*-wò-*)	{H}*-x̀-ź*	*ỳ* {H}*-x̀*	{H}*-x̀*	{HL}*-x̀ź*

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).

10.4 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.

10.4.1 Stative positive

10.4.1.1 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).

(xx1) Stative

category	form	'stand'
1Sg	{HL}*-y*^{n}	*ígà-y*^{n}
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-*
'sleep'	*nóyó-*	*nóyà-* (cf. *nóyú-ró-* 'make sleep')
b. from bisyllabic mediopassive (*-yv-* omitted in stative)		
'sit'	*ów-yó-*	*ówà-*
'stand'	*ígí-yé-*	*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'	*jéŋgí-yó-*	*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*
1PlS	Exist	hear.Stat

'We hear (i.e. are not deaf)'

b.

[yé:	*rì]*	*yà*	*ówà-∅*
[woman	Def]	Exist.Dist	sit.Stat-3SgS

'The woman is sitting (some distance away).'

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.

10.4.1.2 Passive stative with *-yɛ́ = ẁ^{n}* ~ *-yé = ẁ^{n}*

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 *= ẁ^{n}*, the familiar 'it is' clitic. This implies that the form in *-yɛ́* is syntactically nominal. I gloss *-yɛ́* as "Pass[ive]" in interlinears.

(xx1) a. *[bów^{n} rì] ímbí-yɛ́ = ẁ^{n}*
[door Def] shut-Pass=it.is
'The door is shut.'

b. *[bów^{n} rì] ìmb-ìyɛ̀*
[door Def] shut.Perf-3PlS
'They shut-Past the door.'

Consistent with the analysis of *-yɛ́* as a nominal, the plural of (xx1a) is (xx2). Plural suffix *-gè* intervenes between *-yɛ́* and *= ẁ^{n}*.

(xx2) *[bów^{n}-gè rì] ímbí-yɛ́-gɛ́ = ẁ^{n}*
[door-Pl Def] shut-Pass-Pl=it.is
'The doors are shut.'

The reversive of *ímbɛ́-* 'shut (door)' is *ímbí-lɛ́-* 'open (door)'. Its passive stative form is *ímbí-lí-yɛ́ = ẁ^{n}* 'it is open'.

From *págó-* 'tie (up)', we get passive stative *págí-yé = ẁ^{n}* 'it (e.g. cow) is tied up'.

For *-yɛ́* ~ *-yé* in product-of-action compounds with a preceding noun, see §5.1.12.

10.4.2 Stative negative

10.4.2.1 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.

(xx1) Stative negative

category	form	'not be standing'
1Sg	{H}*-ná-ỳ^{n}*	*ígá-ná-ỳ^{n}*
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 *-né-*, 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.

10.4.2.2 Passive stative negative

The passive stative in *-yé=ẁ^{n}* ~ *-yé=ẁ^{n}* 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 *-yé* 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. *[bów^{n} rì] ímb-à:-ní*
[door Def] shut-Pass-PerfNeg
'The door is shut.'

b. *[ná:-gè rì] pág-à:-ní*
[cow-Pl Def] tie-Pass-PerfNeg
'The cow is tied up.'

10.5 Capacitative ('can, be able')

10.5.1 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-y^{n}*	*ígíló-má-ná-y^{n}*
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.

10.5.2 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).

10.6 Nonpast versus past time

10.6.1 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’).

10.6.1.1 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-y^{n}*	*ɛ́ wɛ̀-y^{n}*
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-y^{n}*
last.year [B in] be.Past-1SgS
'Last year I was in Bamako (city).'

b. *mó-ŋà* *bɛ̀:-∅* *lé*
here be.Past-3SgS Q
'Was he/she here?

c. *mó-ŋà* *bɛ̀-ɛ̂:*
here be.Past-3PlS
'They were here.'

10.6.1.2 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-y^{n}*
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. *ɔ́rè-l* *lè*
not.be.Past-2SgS Q
'Weren't you-Sg present?' (< /ɔ́rè-w lè/)

b. *gólí* *té:* *ɔ́rè-∅*
last.year tea not.be.Past-3SgS
'Last year there was no tea.'

c. *[bɔ̀mɔ̀kɔ́* *ŋà]* *ɔ́rè-y^{n}*
[Bamako Loc] not.be.Past-1SgS
'I was not in Bamako.'

10.6.1.3 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 informants

(xx1)

	'had'		'had not'	
	Boui	Ningo	Boui	Ningo
1Sg	*è sɛ́-ỳ^{n}*	*ɛ́ sɛ̀-ỳ^{n}*	*sɛ́:-nɛ̀-y^{n}*	*sɛ́:-nɛ́-ỳ^{n}*
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 sìy^{n}-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-ỳ^{n}*
house Exist / Exist.Dist have-1SgS
'I have a house (here/there).' (Ningo)

b. *gíbá* *ɛ́ / yá* *sɛ̀-y^{n}*
house Exist / Exist.Dist have.Past-1SgS

‘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), *-yé-* is suffixed to the regular positive form, where the *e*-vowel of the stem is shifted (Ningo informant) or remains *e* (Boui informant). 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-y^{n}*	*yéy-yé-ỳ^{n}*	*yé-nɛ̀-y^{n}*	*yé-ní-ỳ^{n}*
1Pl	*ní yèy-yé*	*ní yèy-yè:*	*nì yè-né*	*nì yè-nì*
2Sg	*yéy-yɛ̀-w*	*yéy-yé-ẁ*	*yé-nɛ̀-w*	*yé-nú-ẁ*
2Pl	*é yèy-yé*	*é yèy-yè:*	*è yè-né*	*è yè-nì*
3Sg	*yèy-yé-∅*	*yèy-yè:-∅*	*yè-né-∅*	*yè-nì-∅*
3Pl	*yèy-y-ê:*	*yĕy-y-è:*	*yè-n-ê:*	*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 informant. The morphophonology is similar to that for ‘knew’ and ‘did not know’.

(xx4)

category	‘wanted’	‘did not want’
1Sg	*céy-yɛ̀-y^{n}*	*cé-lɛ̀-y^{n}*
1Pl	*nì cèy-yé*	*nì cè-là-∅*
2Sg	*céy-yɛ̀-w*	*cé-lɛ̀-w*
2Pl	*e cèy-yé*	*è cè-là-∅*
3Sg	*cèy-yé-∅*	*cè-lé-∅*
3Pl	*cèy-yê:*	*cè-l-ê:*
	‘resembled’	‘did not resemble’
1Sg	*mòlé-y^{n}*	*mólé-né-ỳ^{n}*
1Pl	*nì mòlé*	*nì mòlè-nè*
2Sg	*mòlè-ẃ*	*mólé-né-w*
2Pl	*è mòlé*	*è mòlè-nè*

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-y^{n}*	*bàmbɛ́-nɛ̀-y^{n}*
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:*

10.6.1.4 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-y^{n}*	*nɔ́:-rɛ̀-y^{n}*
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-ý*^{n}
here work(n) [LH]do-Impf-1SgS
'I work here.' (< *kán(ú)*)

b. *mbé:* *wàlè* [LH]*kàm-bè-ý*^{n}
here work(n) [LH]do-**Impf.Past**-1SgS
'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 *-w*^{n} *bŏ:-* likewise has final rising tone (§10.2.2.3). The corresponding negation is with *ɔ́rè-* 'was not (somewhere)'.

(xx3) Past progressive paradigm

category	'was doing'	'was not doing'
1Sg	*kànà-w*^{n} *bĕ-y*^{n}	*kànà-w*^{n} *ɔ́rè-y*^{n}
1Pl	*kànà-w*^{n} *nì-bĕ:*	*kànà-w*^{n} *nì-ɔ́ré*
2Sg	*kànà-w*^{n} *bĕ-w*	*kànà-w*^{n} *ɔ́rè-w*
2Pl	*kànà-w*^{n} *bĕ:*	*kànà-w*^{n} *è-ɔ́ré*
3Sg	*kànà-w*^{n} *bĕ:-∅*	*kànà-w*^{n} *ɔ́rè-∅*
3Pl	*kànà-w*^{n} *bè-ê:*	*kànà-w*^{n} *ɔ́r-è:*

10.6.1.5 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-yè-*. The corresponding negation is *-tè:-nɛ́- ~ -té:-nè-*, with unshifted *e* in the penult.

(xx1)

category	'had (once) seen'	'had never seen'
1Sg	*bàlì-yè-téy-yè-y*^{n}	*bàlì-yè-té:-nè-y*^{n}
1Pl	*nì-bàlì-yè-tèy-yɛ́*	*nì-bàlì-yè-tè:-nɛ́*
2Sg	*bàlì-yè-téy-yè-w*	*bàlì-yè-té:-nè-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-ê:*	*bàlì-yè-tè:-n-ê:*

10.6.1.6 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-y^{n}*	*ígílé-mɛ̀-nɛ̀-y^{n}*
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.

10.7 Imperatives and hortatives

10.7.1 Imperatives and prohibitives

10.7.1.1 Imperative (unsuffixed singular, plural *-y^{n}*)

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 *-ý^{n}*, 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-y^{n}*
	'pull' or 'shut'	*ímbɔ́-*	*ìmbà*	*ìmbá-y^{n}*
	'go'	*ún(ú)-*	*ùnù*	*ùnú-y^{n}*
	'build'	*já:ló-*	*jà:là*	*jà:lá-y^{n}*
	'bring'	*sógó-*	*sògò*	*sògó-y^{n}*
	'sleep'	*nóyó-*	*nòyò*	*nòyó-y^{n}*

	‘go down’	*sígó-*	*sìgò*	*sìgó-y^{n}*
	‘shave’ [tr]	*káy-rá-*	*kày-rà*	*kày-rá-y^{n}*
	‘sit’	*ów-yó-*	*òw-yò*	*òw-yó-y^{n}*
	‘jump’	*tómbó-*	*tòmbò*	*tòmbó-y^{n}*
	‘stand, stop’	*ígí-yɔ́-*	*ìgì-yà*	*ìgì-yá-y^{n}*
	‘send here’	*yógó-mú-*	*yògò-m*	*yògò-mú-y^{n}*
b.	‘come down’	*sé:gó-*	*sé:gó*	*sé:gò-y^{n}*

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:*	‘pound’ or ‘insult’
tɔ́:-	*tɔ̀:*	‘pour’
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* *kògó]* *jà:là*

[2SgP head.LH] 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.Perf-3SgS
'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-y^{n}*]

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-y^{n}*]

b. *yògò* *bì-yò*
come.Imprt lie.down-MP.Imprt
'Come-Sg (here) and go to bed!'

10.7.1.2 Prohibitive (*-lâ* ~ *-là*, plural *-lâ-y*)

For the younger informant 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 form for plural addressee is *-lâ-y*. The older Ningo informant had the same plural *-lâ-y* but pronounced the singular form as *-là* with L-tone.

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 Prohib	Pl Prohib
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-	*dáyá-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’
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.Prohib
‘Don’t look-2Sg at me!’

b. *[ò* *kògó]* *já:l-lâ*
[2SgP head.LH] look.at.Prohib
‘Don’t look at yourself!’

10.7.2 Hortatives

10.7.2.1 Hortative (*-y*^{n}, plural *-yày*^{n})

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** of the verb. The {HL} contour is realized as <HL> (monosyllabic), HL, HHL, etc. The suffixes are *-y*^{n} for singular addressee (monophthongizes with preceding *i* to [i:], transcribed *ì-y*) and *-yày*^{n} (Boui) or *-y*^{n}*y*^{n}*à* (Ningo) for plural addressee. The high-frequency hortative of ‘go’, *ní únì-y* (plural *ní únì-yày*^{n}), is often contracted to *ní:-nì-y* (*ní:-nì-yày*^{n}). 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-yày*^{n} ‘let’s-Pl harvest!’

(xx1)	gloss	stem	Sg Hort	Pl Hort
	‘eat, drink’	*ɲɔ́:-*	*nì ɲɛ̂-y^{n}*	*nì ɲɛ́-yày^{n}*
	‘pull’ or ‘shut’	*ímbɔ́-*	*nì ímbɛ̀-y^{n}*	*nì ímbɛ̀-yày^{n}*
	‘go’	*ún(ú)-*	*nì únì-y*	*nì únì-yày^{n}*
			~ *ní:-nì-y*	~ *ní:-nì-yày^{n}*
	‘bring’	*sógó-*	*nì sógè-y^{n}*	*nì sógè-yày^{n}*
	‘sleep’	*nóyó-*	*nì nóyè-y^{n}*	*nì nóyè-yày^{n}*
	‘go down’	*sígó-*	*nì sígè-y^{n}*	*nì sígè-yày^{n}*
	‘come down’	*sé:gó-*	*nì sé:gè-y*	*nì sé:gè-yày^{n}*
	‘shave’ [tr]	*káy-rá-*	*nì káy-rè-y^{n}*	*nì káy-rè-yày^{n}*
	‘jump’	*tómbó-*	*nì tómbè-y^{n}*	*nì tómbè-yày^{n}*
	‘stand, stop’	*ígí-yɔ́-*	*nì ígí-yè-y^{n}*	*nì ígí-yè-yày^{n}*
	‘send here’	*yógó-mú-*	*nì yógó-mì-y*	*yógó-mì-yày^{n}*

More examples of singular-addressee hortatives with verbs ending in a nonhigh vowel are in (xx2).

(xx2)	gloss	stem	Hort
	a. monosyllabic		
	+ATR		
	‘go out’	*gó:-*	*nì gwê-y^{n}*
	-ATR		
	‘pound’	*dɔ́:-*	*nì dwɛ̂-y^{n}*
	‘eat, drink’	*ɲɔ́:-*	*nì ɲɛ̂-y^{n}*
	b. *nCv(:)*		
	‘give’	*ndó-*	*ndɛ̂-y^{n}*
	c. *CvCv*		
	+ATR		
	‘lay out’	*dáyó-*	*nì dáyè-y^{n}*
	‘come’	*yógó-*	*nì yógè-y^{n}*
	‘lie down’	*bí-yó-*	*nì bí-yè-y^{n}*
	-ATR		
	‘fall’	*yɛ́gɔ́-*	*nì yɛ́gɛ̀-y^{n}*
	‘gather (wood)’	*tɔ́gɔ́-*	*nì tɔ́gɛ̀-y^{n}*
	‘abandon’	*dìyɔ́-*	*nì díyɛ̀-y^{n}*
	c. *CvCCv*		
	+ATR		
	‘sit’	*ów-yó-*	*nì ów-yè-y^{n}*
	-ATR		

‘winnow in wind’	*ɛ́mbɔ́-*	*nì ɛ́mbɛ̀-y^{n}*
d. *Cv:Cv*		
‘build’ or ‘look’	*já:ló-*	*nì já:lè-y^{n}*
irregular tones		
‘come down’	*sé:gó-*	*nì sé:gè-y^{n}*
e. trisyllabic and longer		
‘open (door)’	*ímbí-lɔ́-*	*nì ímbí-l-ɛ̀-y^{n}*
‘break’	*jínáŋgó-*	*nì jínáŋgè-y^{n}*
‘do well’	*kándíyó-*	*nì kándíyè-y^{n}*

More examples of singular-addressee hortatives from stems with final high vowel are in (xx3).

(xx3)	gloss	stem	Hort
a. *CaC(ú)-*			
	‘speak’	*dámú-*	*nì dámì-y*
	‘steal’	*kámú-*	*nì kámì-y*
Cán(ú)-			
	‘do’	*kán(ú)-*	*nì kánì-y*
	‘put’	*gán(ú)-*	*nì gánì-y*
b. *CiC(ú)-, CuC(ú)-*			
Cún(ú)-, *Cín(ú)-*			
	‘go’	*ún(ú)-*	*nì únì-y*
			~ ní:-nì-y
	‘take (convey)’	*sín(ú)-*	*nì sínì-y*
c. *causatives*			
	‘make (sb) run’	*dú:rú-yó-mú-*	*nì dú:rú-yó-mì-y*
	‘send here’	*yógó-mú-*	*nì yógó-mì-y*
	‘make eat (meat)’	*témá-mú-*	*nì témá-mì-y*
	‘make eat, feed’	*ɲá:-mú-*	*nì ɲá:-mì-y*

As indicated and illustrated above, there is an overt 1Pl subject. 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-y^{n}*
[3Sg Acc] 1PlS cut-HortSg
‘Let’s-Dual cut him/her!’

b. *[nì* *kògó]* *ní* *tɛ́lɛ̂-y^{n}*
[1PlP head.LH] 1Pl.H cut-HortSg
'Let's-Dual cut ourselves!'

10.7.2.2 Hortative negative (*-lây^{n}*, plural *-láy^{n}y^{n}à*)

The hortative negative is based on the {L}-toned **O-stem** of the verb. The suffix is *-lây^{n}* for singular addressee, *-láy^{n}y^{n}à* for plural addressee. *-lây^{n}* 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:-lây^{n}*	*nì ɲɔ̀:-láy^{n}y^{n}à*
'go'	*ún(ú)-*	*nì ùn-nây^{n}*	*nì ùn-náy^{n}y^{n}à*

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:-lây^{n}*	'go out'
	ɲɔ́:-	*nì ɲɔ̀:-lây^{n}*	'eat, drink'
b. *NCv(:)*			
	ndó-	*nì ndò-lây^{n}*	'give'
c. *CvCv*			
CaCv-			
	dáyó-	*nì dàyà-lây^{n}*	'lay out'
other +ATR stem			
	bí-yó-	*nì bì-yò-lây^{n}*	'lie down'
-ATR stem			

díyɔ́-	*nì dìyɔ̀-lây^{n}*	‘abandon’
medial n		
tɔ́nɔ́-	*nì tɔ̀n-nây^{n}*	‘butcher’
medial l		
túlɔ́-	*nì tùl-lây^{n}*	‘sell’
medial r		
pɔ́rɔ́-	*nì pɔ̀l-lây^{n}*	‘throw’
c. *CvCCv*		
ów-yó-	*nì òw-yò-lây^{n}*	‘sit’
ɛ́mbɔ́-	*nì ɛ̀mbɔ̀-lây^{n}*	‘winnow in wind’
d. *Cv:Cv*		
já:ló-	*nì jà:l-lây*	‘build’ or ‘look’
sé:gó-	*nì sè:gò-lây^{n}*	‘come down’
e. trisyllabic and longer		
ímbí-lɔ́-	*nì ìmbì-l-lây^{n}*	‘open (door)’
jínáŋgó-	*nì jìnàŋgò-lây^{n}*	‘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-lây^{n}*	‘speak’
Cán(ú)-		
kán(ú)-	*nì kàn-nây^{n}*	‘do’
b. *CiC(ú)-, CuC(ú)-*		
Cún(ú)-, *Cín(ú)-*		
ún(ú-)	*nì ùn-nây^{n}*	‘go’
sín(ú)-	*nì sìn-nây^{n}*	‘take (convey)’
c. causatives		
dú:rú-yó-mú-	*nì dù:rù-yò-m-lây^{n}*	‘make (sb) run’

This hortative negative form is also used in third-person hortative negatives (§10.6.3.2).

10.7.3 Non-1st person hortatives

10.7.3.1 Third person hortative (I/U-stem)

This form is used in reported imperatives, including 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 wishes amd imprecations involving third-party agents ('may God help you!'). For my Boui informant, the form (abbreviation **3Hort**) is not further suffixed. Instead, pronominal (as well as other) subjects are preposed. In reported imperatives, the subject is separated from the remainder of the clause, both portions being followed by quotative particle *wà*.

(xx1) a. *[ò bàwá] [ò wà] [yògù wà]*
[2SgP father.LH] [2Sg Quot] [come.3Hort say]
'Your-Sg father says (for you-Sg) to come.'

b. *(mì) yògì ní*
(1Sg) come.3Hort Q
'(Did you say/signal) (for me) to come?

c. *[à:màdú wà] [yògù wà]*
[A QuotS] [come.3Hort Quot]
'He told Amadou to come.'
(= 'He said to Amadou, come!' or 'He said: hey Amadou, come!)

d. *á: yògó: nà tà:rì*
God future 3Sg show.3Hort
'May God show you the future (=give you long life)!'
(said e.g. on holy days)
[*yògó:* contracted from *yógó-bó 'what is coming']

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(:)*} is 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* (*Cwɛ:-*, *Cwɛ:-*, *wɛ:-*) 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) Third-Person hortative (final-nonhigh-vowel class, Boui)

stem	Hort.3rd	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) Third-Person hortative (final-high-vowel class, Boui)

stem	Hort.3rd	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		
ŋá:-mú-	*ŋà:-mù||ŋà:-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 *-y^{n}* (§xxx). A reasonable hypothesis is that the third person hortative originally had a suffix *-y (or *-y^{n}), which monophthongized with a preceding high vowel.

After developing this hypothesis based on the Boui data, I was pleased to find third person hortatives with -y^{n} 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]*
[2SgP ^{LH}father] [2Sg Quot] [come.3Hort say]
'Your-Sg father says (for you-Sg) to come.' (Ningo)

Rather, the *-y^{n}* forms are found only in wishes and imprecations, generally with 'God' as subject. Some examples are in (xx5). (xx5a) is the Ningo counterpart of (xx1d) above.

(xx5) a. *á:* *yógó-bó* *nà* *tà:rì-y^{n}*
God come-Impf.Rel 3SgS show-3Hort
'May God show you what is coming (=give you long life)!' (Ningo)

b. *á:* *[írò* *gì]* *nà* *bàrì-y^{n}*
God [better Loc] 3SgS help-3Hort
'May God help (you) get better!' (to a sick person, Ningo)

c. *á:* *nà* *bì:-rì-y^{n}*
1SgS 3SgS lie.down-Tr-3Hort
'May God have (him) lie down (=rest in peace)!'
(said after a death, Ningo)

10.7.3.2 Third person hortative negative (*-lây^{n}*)

Third-person hortative negatives have the same verb form as the regulat 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 *-lây^{n}* is heard in wishes and imprecations involving third-party agents such as 'God', as in the (improbable) (xx1b).

(xx1) a. *[ò* *bàwá]* *[ó* *wá]* *yògò-lá* *wà*
[2SgP father.LH] [2Sg QuotS] come-3HortNeg say
'Your-Sg father says (for you) not to come'

b. *á:* *yògó:* *nà* *tà:l-lây^{n}*
God future 3Sg show-3HortNeg
'May God not show you the future!' (from /*tà:rì-*/)

c. *(mì)* *yògò-lá* *nì*
(1Sg) come-3HortNeg Q
'(Did you say/signal) (for me) not to come?'

11 Clause, VP, and predicate structure

11.1 Clausal constituents

Linear order is SOV, where S and V are nonpronominal VPs. Setting adverbs like 'yesterday' often precede the subject NP.

11.1.1 Subjects

11.1.1.1 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').

11.1.1.2 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.

11.1.1.3 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.

11.1.1.4 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

(xx1)	a.	*yé dénɔ́-*	'night fall'	*yà:gù* 'night', *dénɔ́-* 'spend mid-day'
		yé yɔ́:-	'day break'	cf. *yɔ́:-* 'pick up'
	b.	*á:mì tɛ́gɔ́-*	'rain fall'`	(*tɛ́gɔ́-* not attested elsewhere)

11.1.2 Simple transitives

11.1.2.1 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.

11.1.2.2 *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 are given 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. *pɛ̀ɲí* 'comb(n)' (Fr. *peigne*)
pɛ̀ɲí 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 *pɛ̀ɲí* 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. *pɛ̀ɲí* (xx2a) versus *pɛ̀ɲì* (xx2b).

(xx2) a. *pɛ̀ɲí* *kànì-∅*
comb do.Perf-3SgS
'He/She combed.'

b. *pèŋì* *kání-ỳ^{n}*
comb do.Perf-1SgS
'I combed.'

11.1.2.3 *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. *bí^{n}→* *gùnè-∅*
vibrate say.Perf-3SgS
'It (e.g. motor) vibrated.'

b. *dín-dán-díw^{n}* *gùnà-mì-∅*
pitter-patter say-Caus.Perf-3SgS
'He/She went pitter-patter (sound of footsteps).'

gúná-m(ú) can also be used as a true causative of the collocation with *gún(ú)-*, as in *bí^{n}→ gúná-m(ú)-* 'cause (something) to vibrate'.

11.1.2.4 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)'.

(xx1)	*mí: dú-yɔ́-*	'bathe'	*mí:* 'water', *dú-yɔ́-* 'carry'
	pélé 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'
	bé:w gún(ú)-	'belch'	*gún(ú)-* 'say'
	ènjè élógó-	'chew one's cud'	

Cognate nominals may also be low in referentiality, see below.

11.1.2.5 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.

(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 ségɔ́- ‘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’

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).

11.1.2.6 Grammatical 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) *[kùwɔ́ gó:] kúwɔ́-*
[farming.L first] do.farming-
‘do the first round of weeding’

11.1.3 Clauses with additional arguments and adjuncts

11.1.3.1 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 *bílǒ-* 'become'.

(xx1) a. *[ìjó* *rì]* *tɛ́^{n}-tɛ́w^{n}* *nì* *ùnì*
[village Def] straight 1PlS go.Perf
'We went straight to the village.'

b. *tɛ́^{n}-tɛ́w^{n}* *bǒ:-∅*
straight be-3SgS
'It (path, stick) is straight.'

c. *tɛ́^{n}-tɛ́w^{n}* *órâ-∅*
straight not.be-3SgS
'It is not straight.'

d. *tɛ́^{n}-tɛ́w^{n}* *bìlè-∅*
straight become.Perf-3SgS
'It became straight.'

11.1.3.2 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]* *ùní-∅*
[Mopti Loc] go.Perf-3SgS.LH
'He/She went to Mopti [focus].'

b. *[mótí* *yá]* *gwè:-∅*
[Mopti Loc] go.out.Perf-3SgS
'He/She left (or: came from) Mopti.'

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 kùlyé] ŋà] bǒ:-∅*
[water Def] [[waterjar inside.LH] Loc] be-3Sg.LH
'The water is in the waterjar.'

b. *[bó:lò rì] [[jíwá bàŋgá] ŋà] dàŋgà-∅*
[agama Def] [[house wall.LH]Loc] be.on.wall.Stat-3SgS
'The agama lizard is on the wall.' (*bó:ló*)

c. *[bàràdá rì] [púrnɛ́ ŋà] sàŋgà-∅*
[tea.kettle Def] [burner Loc] be.up.on.Stat-3SgS
'The tea kettle is (set) up on the burner.

'Put' verbs take an object and a locational expression.

(xx3) *[máŋgòró rì] [[órí dùŋó] ŋà] dìyɛ̌-ý^{n}*
[mango Def] [[waterjar under.LH] Loc] put.Perf-1SgS.LH
'I put the mangoes under the waterjar [focus].'

11.1.3.3 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*.

11.1.3.4 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] célɛ́ŋgé ndá:-mí-ỳ^{n}*
[Seydou Acc] [Amadou Acc] money give-Caus-1SgS

‘I had Seydou give (some/the) money to Amadou.’

11.1.4 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.

11.2 ‘Be’, ‘become’, ‘have’, and other statives and inchoatives

11.2.1 ‘It is’ clitics

11.2.1.1 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 *=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.

(xx1) a. interrogative

à:=wó	‘who is it?’
áŋgá=ẁⁿˀ	‘it is how many?’
ndégé=ẁⁿˀ	‘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 = wˀⁿ	'it's a cow' (from *ná:*)
ámbá = wˀⁿ	'it's a sheep'
ùnà = wˀⁿ	'it's a goat'
ndà:-yé = wˀⁿ	'it's a woman'
mì bàwá = wˀⁿ	'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.

(xx2)	*mì sójó = wˀⁿ*	'I am a Dogon.'
	nì sójó-gé = wˀⁿ	'we are Dogon.'
	ò sójó = wˀⁿ	'you-Sg are a Dogon.'

11.2.1.2 '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.

(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 a {L}-toned word, we get H-toned *= lá*, 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.

11.2.2 Existential and locative quasi-verbs and particles

11.2.2.1 Existential particles *è* ~ *é* and (distant) *yà* ~ *yá*

These particles, which occur in immediate preverbal position, following even 1Pl and 2Pl subject pronouns (xx1b), are used 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-y^{n}*
house **Exist** have-1SgS
'I have a house.'

b. *jíwá* *nì* *è* *sá*
house 1PlS **Exist** have
'We have a house.'

c. *jíwá* *sá:-nâ-y^{n}*
house have-StatNeg-1SgS
'I do not have a house.'

d. *à:-wó* *jíwá* *sà*
who? house have

'Who has a house?'

e. *jíwá* *jɛ́lɛ́* *mì* *sǎ:*
house place 1SgS have.LH
'the place where I have a house'

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.3SgS
'There is some tea.'

b. *[[nì* *ìjó]* *ŋá]* *bò-∅*
[[1PlP village.LH] in] be-3SgS
'He/She is in our village.'

c. *tê:* *órâ-∅*
tea not.be-PerfNeg.3SgS
'There is no tea.'

d. *àná* *bò-∅*
where? be.3SgS
'Where is he/she?'

e. *à:-wò* *bó-∅*
who? be.3SgS
'Who is there?'

(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-y^{n}*
house **Exist.Dist** have-1SgS
'I have a house (e.g. in another region).'

b. *tê:* *yá* *wò*
tea **Exist.Dist** be.3SgS
'There is some tea (in another location).'

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-3SgS
'He/She is sitting.'

b. *yá* *w-à:*.
Exist.Dist be-3PlS
'They are present (here/there).'

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.

11.2.2.2 '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).

(xx1) Nonpast 'be (in a place)' or 'exist'

category	after locational	with existential
1Sg	*bò-y*^{n}	*é wô-y*^{n}
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-3PlS
'They are in Bamako (city).'

b. *é wô-m mɛ̀*
Exist be-2SgS if
'if you-Sg are present' (from /wô-w/)

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 informant 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').

For **past time** 'was/were', *bò-* is replaced by *bɛ̀:-* ~ *wɛ̀:-*, see §10.6.1.1.

There is no clear synchronic connection between (stative) *bò-* and (inchoative) *bíló-* 'become'.

11.2.2.3 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-y^{n}*
1Pl	*nì órâ-∅*
2Sg	*órâ-w*
2Pl	*è órâ-∅*
3Sg	*órâ-∅*
3Pl	*ór-â:*

Examples are in (xx2).

(xx2) a. *(móŋà) órâ-y^{n}*

(here) not.be-1SgS
'I am not present (here).'

b. *té:* *órá-∅* *lè*
tea not.be-3SgS Q
'Is there is no tea?' (from /órâ le/)

Past *bɛ̌(:)-* 'was (somewhere)' is similarly negated by *órɛ̀-* 'was not (present), was absent' or 'did not exist', see §10.6.1.2.

11.2.3 Other stative locational and positional quasi-verbs

11.2.3.1 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.

11.2.4 '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.

11.2.4.1 'Remain' (*ánjó-*)

This verb is illustrated in (xx1).

(xx1) *jíwâ:* *ànjò-wǒ-y*
house.Loc remain-Impf-1SgS.LH
'I will stay <u>at home</u> [focus].'

Unlike 'remain' verbs in some other Dogon languages, *ánjó-* is not also used in the sense 'become' with adverbials. For this function see *bílɔ́-* just below.

11.2.4.2 ‘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.

11.2.4.3 ‘Become’ related to ‘be (somewhere)’ quasi-verbs (*wɔ́ː*)

A stative verb *wɔ́ː-* (negative *wɔ̀ː-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.

11.2.5 Mental and emotional statives

11.2.5.1 ‘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).

(xx1)	category	‘know’	‘not know’
	1Sg	*yé-ỳ^{n}* (< /yéy-ỳ^{n}/)	*yé-ní-ỳ^{n}*
	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:*	*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.

11.2.5.2 '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*).

(xx1)	category	'want'	'not want'
	1Sg	*cé-ỳ^{n}* (< /céy-ỳ^{n}/)	*cé-lá-ỳ^{n}*
	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-ỳ^{n}* 'I wanted', past *ké:-yé-ỳ^{n}* 'I had wanted').

11.2.5.3 '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.

(xx1)	category	'resemble'	'not resemble'
	1Sg	*mòlá-y^{n}*	*mólá-ná-ỳ^{n}*
	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:*

11.3 Quotative verb

11.3.1 'Say' (perfective *gùnè-*)

A partial paradigm of this verb is (xx1). For indicative categories, tones shown here are based on the zero 3Sg subject form.

(xx1) a. E/I-stem

gùnè-	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*	*gùné*
what?	2Sg-Acc	3SgS	say.Perf.LH

'What did he/she say to you-Sg?'

For quotative clause complements, see §17.1.

11.4 Adjectival predicates

Adjectival predicates described here denote states, rather than processes. For the latter, see the inchoative verbs in §9.6.

11.4.1 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 *=ǹ*^{n} 'it is' clitic to form predicates, and still others have bare predicative forms without *bǒ:-* or *=ǹ*^{n}.

For 'dry' and 'old' I was not able to elicit a static predicate; an informant produced only perfective inchoative verbs *kùnjɛ̀-* 'has gotten old' and *mànì-yɛ̀-* 'has dried'.

11.4.1.1 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 *-wɛ̀* in the predicative construction. *Cvní-ndé* syncopates to *Cvn-dé* ('be fat', 'be small') (xx1bc). *ménjí-wɛ̀* 'thin' simplifies *nj* to *ɲ* in predicative *méɲí-ndé bǒ:-* (xx1c).

(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-wɛ̀*	*déŋí-ndé bǒ:-*	'be short'
	ménjí-wɛ̀	*méɲí-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 *-w^{n} bǒ:-* (§10.2.2.3).

(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:-* ~ *núm bǒ:-*	‘be hot’

The form of the adjective before *bǒ:-* is invariant. In particular, it does not allow plural suffix *-gè*.

(xx3)

né:ŋgé	*ni*	*bǒ:*
heavy	1PlS	be

‘We are heavy.’

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’

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’

b.

à:	*né:ŋgó:* / *bíní* / *déŋí* / *yágá*
who?	heavy / fat / short / pretty

‘Who is heavy/fat/short/pretty?’

11.4.1.2 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.

(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* (plural *ɛ́ŋ-gɛ́=ẁⁿ* from *ɛ́wⁿ-gɛ́=ẁⁿ*)	'wet'

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-gɛ́=ẁⁿ*
[sheep-Pl Def] lean-Pl=it.is
'The sheep are lean.'

b. *mì yáŋgá=ẁⁿ*
1Sg lean=it.is
'I am lean (emaciated).'

11.4.1.3 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).

(xx1) Bare adjectival predicates

	modifying	predicative	gloss
a.	*málání*	*màlànì-∅*	‘be soft’
b.	*mɔ́:*	*mɔ̀:-∅*	‘be good’

[for *mɔ̀:-w^{n} 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-ỳ^{n}*	*málání-ỳ^{n}*
1Pl	*ní mɔ̂:*	*ní málánì*
2Sg	*mɔ́-ẁ*	*málánú-ẁ*
2Pl	*é mɔ̂:*	*é málánì*
3Sg	*mɔ̀:-∅*	*màlànì-∅*
3Pl	*mɔ̀y-â:*	*málàn-î:*

11.4.2 Negative adjectival predicates

For adjectives whose positive predicates end in *bɔ̌:-*, one option for negation is to just replace *bɔ̌:-* ‘be’ by *órâ-* ‘not be (present)’, keeping any quirky features of the adjectival form (xx1).

(xx1)
a. *bíní* ‘fat’
b. *bín-dé bɔ̌:-* ‘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-*.

(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).

(xx3)

category	ImpfNeg	‘not be heavy’	‘not be cold’	‘not be smooth’
1Sg	{H}*-rà-y*^{n}	*né:ŋgó-rà-y*^{n}	—	—
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 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.

(xx5) category

category	‘not be big’ {H}-toned	‘not be good’ {L}-toned
1Sg	*báy-ná-ỳ*^{n}	*mɔ́:-ná-ỳ*^{n}
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)..

(xx6)

a.	*búní*	*bùnì=lá*	‘not be red’
	jémé	*jèmè=lá*	‘not be black’
	púlɛ́	*pùlɛ̀=lá*	‘not be white’
b.	*déɲí-wè*	*déɲí-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-ỳ*^{n} 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.

11.5 Possessive predicates

11.5.1 ‘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).

(xx1)

	‘have’	‘have not’
1Sg	*è sâ-y*^{n}	*sà:-nâ-y*^{n}
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.

The transitivity level of ‘have’ predicates is low. I did not observe accusative marking on the object, and an informant rejected versions I proposed that included accusative marking.

11.5.2 ‘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 / ɪ́:njɛ́ mbò] mɛ̌=ẁⁿ*
[house / dog Dem] 1SgP=it.is
‘That house/dog belongs to me (is mine).’

b. *[óri-gè rì] [sàydú wɛ̀:-gé]=ẁⁿ*
[waterjar-Pl Def] [Seydou thing-Pl]=it.is
‘The waterjars belong to Seydou.’

12 Comparatives

12.1 Asymmetrical comparatives

bà→ 'than' shows up in several asymmetrical comparative constructions. It follows an object NP with accusative marking.

12.1.1 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-y^{n}*
heavy be-1SgS
'I am heavy.'

b. *[ò-gí* *bà→]* *né:ŋgó-wò-y^{n}*
[2Sg-Acc than] become.heavy-Impf-1SgS
'I'm heavier than you-Sg (are).'

c. *[ò-gí* *bà→]* *né:ŋgó-râ-∅*
[2Sg-Acc than] become.heavy-ImpfNeg-3SgS
'He/She isn't heavier than you-Sg (are).'

d. *sàydú* *déŋí-ndé* *bǒ:-∅*
Seydou short be-3SgS
'Seydou is short.'

e. *[à:màdú* *gì* *bà→]* *déŋìy-â:* / *déŋí-ỳ^{n}*
[Amadou Acc than] become.short-3PlS / -1SgS
'They are / I am shorter than Amadou.'

f. *[à:màdú gì bà→] déŋí-ná-ỳ^{n}*
[Amadou Acc than] become.short-StatNeg-1SgS
'I am not shorter than Amadou.'

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-3SgS
'Seydou was shorter than Amadou.'

b. *[à:màdú gì bà→] déŋì-nɛ̀-∅*
[Amadou Acc than] become.short-PerfNeg-3SgS
'He was not shorter than Amadou.'

12.1.2 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→] kúŋjɛ́-ỳ^{n}*
[2Sg-Acc than] get.old.Perf-1SgS
'I'm older than you-Sg (are).' (lit. "I have aged…"

b. *[ò-gí bà→] kúb-bò-y^{n}*
[2Sg-Acc than] do.farming-Impf-1SgS
'I do more farming than you-Sg (do)' (*kúwɔ́-*)

c. *[mì-gí bà→] írɛ́-ẁ*
[1Sg-Acc than] get.Perf-2SgS
'You got more than I (did).'

12.1.3 '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-2SgS
mɛ̀: ájá ò-gì táŋgé-ỳ^{n}

but now 2Sg-Acc pass.Perf-1SgS
'You-Sg used to be taller than I (was), but now I have passed you-Sg.'

12.1.4 '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-3SgS
'The mango is better than lemons.'

'X be bigger/more than Y' is expressed with *báy* 'big', reduced from the full adjectival predicate *báy-ndé bɔ̌:-* '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-3SgS / big-Past-3SgS
'Mopti is /was bigger than Konna (town).'

b. *sàydú [à:màdú gì] bày yàlà-∅ / yàlɛ́-∅*
Seydou [Amadou Acc] big long-3SgS / long.Past-3SgS
'Seydou is / was taller than Amadou'

c. *[té:nì nì-wɛ́] [è-wɛ́ gì bà→] nímí-∅ / nímì-yɛ̀-∅*
[well(n) 1PlP] [2PlP Acc than] deep-3SgS / deep-Past-3SgS
'Our well is deeper than yours.'

For the Ningo speaker, a conjugatable stative predicate specifically meaning 'be better' is író, negative író-ná- 'not be better'. The comparandum is the direct object.

(xx3) *nà-gí író-ỳ^{n} / író-ná-ỳ^{n}*
3SgS-Acc be.better-1SgS / be.better-StatNeg-1SgS
'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.

12.1.5 ‘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* *nwè:-nwí-gé* *jìrò* *wɔ́:*
3Sg=it.is song.L-sing.Agent-Pl front.LH be
‘He [focus] is the best of the singers.’

b. *nà* *nwè:-nwí-gé* *jìró* *wɔ̀:-nà-∅*
3Sg song.L-sing.Agent-Pl front.LH be-StatNeg
‘He is not the best of the singers.’

12.2 Symmetrical comparatives

12.2.1 ‘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 1PlS be.equal
‘We are the same height.’

12.2.2 ‘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).’

12.3 ‘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.

13 Focalization and interrogation

13.1 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 -y^{n}, 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.

13.1.1 Basic syntax of focalization

13.1.1.1 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* *tèlɛ́*
[1SgP head] 1SgS cut.Perf.LH
'I cut-Past myself.'

An adverbial phrase such as a locative PP can be focalized (xx2).

(xx2) *[bɔ̀mɔ̀kɔ́ ŋà]* *wàlè* *kám-bà* *cě-y^{n}*
[Bamako Loc] work(n) do-VblN want-1SgS.LH
'It's in Bamako (city) [focus] that I want to work.'

I know of no way to syntactically focalize a verb or VP, other than using a corresponding noun (cognate nominal, verbal noun).

13.1.1.2 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* *dɔ̀nɛ́*
what? 2SgS buy.Perf.LH
'What did you-Sg buy?'

b. *ámbá* *mì* *dɔ̀nɛ́*
sheep 1SgS buy.Perf.LH
'It's a sheep [focus] that I bought.'

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* *ìgă-w*
here stand.Stat-2SgS.LH
'It's here [focus] that you-Sg are standing'

b. *mì-gí* *tɛ̀wɛ̌-w*

1Sg-Acc hit.Perf-2SgS.LH
'It's me [focus] that you-Sg hit.'

13.1.1.3 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] bèndɛ́*
[vehicle Def] [who? Acc] bump.Perf.LH
'Who(m) did the vehicle bump?'
(or: 'The vehicle, who(m) did it bump?')

b. *[mó:wélí rì] à:=wò túlɛ́*
[vehicle Def] who?=Foc sell.Perf.H
'The vehicle, who sold it?'

c. *à:màdú=yò [mó:wélí rì] túlɛ́*
Amadou=Foc [vehicle Def] sell.Perf.H
'It was Amadou [focus] who sold the vehicle.'

d. *à:=wó è-gì tɛ́wɛ́*
who?=Foc 2Pl-Acc hit.Perf.H
'Who hit you-Pl?'

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 tɛ̀wɛ́*
[A Foc] 1SgP hit.Perf.LH
'It was Amadou [focus] that I hit.'

b. *[à:màdú gì] nì tɛ̀wɛ̀*
[A Acc] 1PlS hit.Perf
'We hit-Past Amadou.'

13.1.1.4 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*

13.1.1.5 {LH} (or {H}) contour 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 dɔ̀nɛ́*
what? 2SgS buy.Perf.LH
'What did you-Sg buy?'

b. *ǹdégé(-sì) ò dònà-ní*

what? 2SgS buy-PerfNeg.LH
'What didn't you-Sg buy?'

c. *ǹdégé* *ò* *sǎ:*
what? 2SgS have.LH
'What do you-Sg have?'

d. *mó-ŋà* *ìgǎ-w*
here stand.Stat-2SgS.LH
'It's here [focus] that you-Sg are standing'

e. *mì-gí* *tɛ̀wɛ̌-w*
1Sg-Acc hit.Perf-2SgS.LH
'It's me [focus] that you-Sg hit.'

f. *mó-ŋà* *nòyò-wǒ-y^{n}*
here sleep-Impf-1SgS.LH
'It's here [focus] that I will sleep.'

g. *mó-ŋà* *nàyò-w-â:*
here sleep-Impf-3PlS.LH
'It's here [focus] that they will sleep.' (*nóyó-* ~ *náyó-*)

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, a {H} rather than {LH} overlay appears on the verb.

(xx2) *mì=yó* *nà-gì* *tɛ́wɛ́*
1SgS=Foc 3Sg-Acc hit.Perf.H
'It was *I* [focus] who hit him.'

13.1.1.6 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-2SgS Q
'Do you-Sg have a house?' (< *è sá-ẁ*)

b. *ndégé* *ò* *sǎ:*
what? 2SgS have.LH
'What do you-Sg have?'

c. *à:=wò* *ná:* *sá:*
who?=Foc cow have.H
'Who has a cow?'

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-3SgS
'There is (some) meat.'

b. *ndégé=ẁ^{n}* *bó:*
what?=Foc be.H
'What is present (here/there)?'

13.1.2 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* *úm-bó*
1Sg=Foc go-Impf.LH
'It's I [focus] who will go.'

b. *ò:=wó* *wàlè* *kání*
2Sg=Foc] work(n) do.Perf.H
'It's you-Sg [focus] who did the work.'

c. *è:=wó* *wàlè* *káná-ní*
2Pl=Foc work(n) do-PerfNeg.H
'It's you-Pl [focus] who didn't work.'

d. *à:màdú = yò* *té:* *sógé*
Amadou=Foc tea bring.Perf.H
'It was Amadou [focus] who brought the tea.'

e. *à:màdú = yò* *ígíl-dá*
Amadou=Foc sweep-ImpfNeg
'It's Amadou [focus] who doesn't sweep.'

13.1.3 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* *bàlì-yé* *rì*
[1Sg Foc] [market in] 2SgS see-MP.Perf.LH Def
'It's me [focus] whom you saw at the market.'

b. *té:* *mì* *yɔ̀lɔ̀-wó*
tea 1SgS look.for-Impf.LH
'It's tea [focus] that I am looking for.'

c. *[ná:* *mɛ̀:]* *ò* *jèyé*
[cow 1SgP] 2SgS kill.Perf.LH
'It was my cow [focus] that you-Sg killed.'

13.1.4 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]* *dìyɛ̀-ý^{n}*
[cart Def] [field Loc] leave.Perf-1SgS
'It's in the field(s) [focus] that I left the cart.'

13.2 Interrogatives

13.2.1 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.	*-ỳ^{n} lè*	→	*-n nì*	1Sg suffix *-ỳ^{n}*
	d.	*=ẁ^{n} lè*	→	*=∅ n*	'it is' clitic *=ẁ^{n}* plus yes/no *ámbá=∅ nì* 'is it a sheep?'

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.L in] go-RecPf-2SgS Q
'Did you-Sg go to the village?' (< *-sɛ̌-w*)

b. *nígé* *bàlì-yè-tèl-∅* *lé*
elephant see-MP-ExpPf-3SgS Q
'Has he/she ever seen an elephant?' (< *-tèy-∅*)

c. *è-nɔ̀ː-rà* *lé*
2PlS-go.in-ImpfNeg Q
'Did you-Pl not go in?' (< *è-nɔ̀ː-rá*)

d. *yògè-∅* *lé*
come.Perf-3SgS Q
'Did he/she come?' (< *yògè-∅*)

e. *yógó-wò-l* *lɛ̀*
come-Impf-2SgS Q
'Will you-Sg come?'

13.2.2 '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?'

b. *à:=wò* *yógé-∅*
who?=Foc come.Perf-3SgS.H
'Who came?'

c. *à:=wò* *úm-bó-∅*
who=Foc go-Impf-3SgS.H
'Who will go?'

d. *[à:* *gí]* *tɛ̀wɛ́-∅*
[who? Acc] hit.Perf-3SgS.LH
'Who(m) did he/she hit?'

e. *à:=wó* *ɛ̀* *tɛ̀wɛ́*
who?=Foc 2PlS hit.Perf.LH
'Who(m) did you-Pl hit?'

f. *[à:* *jìwá]=w^{n}*
[who? house.LH]=it.is
'Whose house is it?'

g. *[í:njɛ́* *rì* *gì]* *à:=wò* *tɛ́wɛ́*
[dog Def Acc] who?=Foc hit.Perf.H
'Who hit the dog?'

h. *à:=wò* *yógó-ní*
who?=Foc come-PerfNeg

‘Who didn’t come?’

If the number of referents asked about is unclear, the singular forms illustrated above are used. A marked plural *à:-yá=w↑* is required in predicates with plural subject: *è à:-yá=w↑* ‘who are you-Pl?’ It can also be used in nonpredicative function to make plurality explicit.

13.2.3 ‘What?’ (*ndégé*), ‘with what?’, ‘why?’

‘What?’ is *ndégé*.

(xx1) a. *ndégé* *ò* *cěy*
what? 2SgS want.+H
‘What do you-Sg want?’

b. *ndégé* *nà* *ìrè-sá*
what? 3SgS get-Reslt.LH
‘What did he/she get?’

c. *ndégé* *[ò* *gì]* *kání-sá*
what? [2Sg Acc] do-Reslt.H
‘What (e.g. which body part) has hurt you-Sg?’

d. *mbó* *ndégé=ẁ$^{n↑}$*
Dem what?=it.is
‘What is this/that?’

A kind of plural can be formed by conjoining *ndégé* to itself: *[ndégé yà] [ndégé yà]* ‘what and what?’. An informant rejected a direct plural #*ndégé-gé*.

‘With what?’ is *ndégé sìyà:*.

‘Why?’ (‘for what?’) is *ndégé dàgà* or contracted *ndé dàgà*.

13.2.4 ‘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* *bǒ-w*
where? be-2SgS.LH
‘Where are you-Sg?’

b. *ànáˊ* *ùm-bó-wˊ*
where? go-Impf-2SgS.LH
'Where are you-Sg going?'

c. *ànáˊ* *èˊ* *gwě:ˊ*
where? 2PlS go.out.Perf.LH
'Where are you-Pl from?'

d. *ànáˊ = wˊ*
where?=it.is
'It's where?'

13.2.5 'When?' (*áná-ŋgà*)

'When?' is *áná-ŋgà*, which apparently includes *ànáˊ* 'where?'. the function of *-ŋgà* here is obscure; for H-toned *--ŋgáˊ* see §4.2.1.

(xx1) a. *áná-ŋgà* *yògò-wó*
when? come-Impf.LH
'When are you-Sg coming?'

b. *áná-ŋgà = wˊ*
when?=it.is
'When is it?'

13.2.6 'How?' (*árá*)

Manner adverbial interrogative 'how?' is *árá*.

(xx1) a. *árá* *ìlɔ̀-wɔ̀-wˊ*
how? go.up-Impf-2SgS
'How will you-Sg go up?'

b. *árá* *bò-∅*
how? be-3SgS
'How is it?'

13.2.7 '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 (xx1d), cf. §4.7.2.

(xx1) a. *[[ámbá gé] áŋgá] tùlɛ̀-wˈ*
[[sheep Pl] how.many?] sell.Perf-2SgS
'How many sheep did you-Sg sell?'

b. *[bé-gé áŋgá] ò bàlì-yèˈ*
[child-Pl how.many?] 2SgS see-MP.Perf
'How many children did you-Sg see?'

c. *áŋgá-áŋgá tùlɔ̀-wɔ̀-wˈ*
Iter-how.many? sell-Impf-2SgS
'For how much each do you-Sg sell (them)?'

d. *[síkɔ́rɔ́ gé áŋgá]=wˈ*
[sugar Pl how.many?]=it.is
'It's how much (= how many units of) sugar?'

e. *jìwà áŋgá-n*
house.L how.many?-Ord
'how-many-eth house?' (reply: first, second, third, etc.)

13.2.8 '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-wòˈ*
[sheep which?] 2SgS buy-Impf
'Which sheep-Sg will you-Sg buy?'

b. *[ámbá-gé árí-gé] ò dɔ̀nɔ̀-wòˈ*
[sheep-Pl which?-Pl] 2SgS buy-Impf
'Which sheep-Pl will you-Sg buy?'

c. *[[jíwá árí] ŋá] è bì-yò-wòˈ*

[[house which?] Loc] 2PlS lie.down-Impf
'In which house will you-Pl sleep?'

d. *[[ná:-gè rì] ŋà] árí ò tùlɔ̀-wò˦*
[[cow-Pl Def] Loc] which? 2SgS sell-Impf
'Which of the cows will you-Sg sell?'

For *árí* in relative-clause internal head NPs, see §14.2.2.

14 Relativization

14.1 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 w^n 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.

14.2 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.

14.2.1 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* *ùwè-sá* *rì*
house collapse-Reslt.LH Def
'the house that collapsed'

b. *jìwà* *báy-gé* *nì:ŋgà* *ùwè-sà-gé* *rì*
house **big-Pl** **two** collapse-Reslt-Pl.LH Def
'the two big houses that collapsed'

c. *sàydú* *jìwà* *bày-gè* *nì:ŋgà-ŋ̀gé* *ùwè-sà-gé* *rì*
Seydou **house** **big-Pl** **two-Pl** collapse-Reslt-Pl.LH 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.

14.2.2 *árí* 'which' and/or *=w^n* 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 *=w^n*. *árí* occurs elsewhere as the 'which?' interrogative (§13.2.9), while *=w^n* resembles a variant of the 'it is' clitic or focus clitic *=ẁ^n* (§11.2.1, §13.1.1.4).

árí without *=w^n* 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]* *yògè-sá]*
[[child-Pl Def] [honey which Purp] come-Reslt.LH]
áná *bŏ:*
where? be.LH
'Where is the honey that the children came for?'

The combination *árí=wⁿ* occurs in (xx2).

(xx2) a. *[ndà: árí=wⁿ] yěy rì*
[person which=Foc] know.LH Def
'the person who knows'

b. *[bé-gé árí-gé=wⁿ] tìwè-sà-gé rì*
[child-Pl which-Pl=Foc] die.Perf-Reslt-Pl.LH Def
'the child who has died'

Another example of *árí*, this time without *=wⁿ*, is (xx2).

(xx3) *[dèwⁿ árí] nà dùmbè sìgé*
[day which] 3SgS fall.Perf go.down.Perf.LH
'the day when he fell down'

14.2.3 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 bò:-gé rì*
1PlS here be-Pl.LH Def
'we who are here'

b. *ò / nà / mì mó-ŋà bǒ: rì*
2SgS / 3SgS / 1SgS here be.LH Def
'you-Sg who are here / he or she who is here / I who am here'

c. *sàydú mó-ŋà bǒ: rì*
Seydou here be.LH 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.

14.2.4 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-3PlS
'women and men squabbled (with each other)'

b. *[yé:-gé yà] [bànà-gé yà] yàŋì-yè-gé rì*
[woman-Pl and] [man-Pl and] fight-MP.Perf-Pl.LH Def
'the women and men who squabbled'

14.2.5 Headless relative clause

For headless relatives as adverbial clauses, see §15.5.3.

14.2.6 Head noun not doubled after relative clause

Doubling (echoing) of the internal head noun following the verb has not been observed.

14.3 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* *tùlɛ́* *rì*
cow 2SgS / 1SgS / 2PlS / 1PlS / 3SgS / 3PlS sell.Perf.LH 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* *déw^{n}* *dùmbɛ̀* *sìgé* *rì*

Seydou day fall.Perf go.down.Perf.LH Def
'the day when Seydou fell down'

14.4 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 informant 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.

14.4.1 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-gɛ́* *mì-gí* *cèr-ìyè*
dog-Pl 1Sg-Acc bite-Perf.3PlS
'(The) dogs bit me.'

b. *í:njɛ́(-gɛ́)* *mì-gí* *cèrè-gɛ́* *rì*
dog(-Pl) 1Sg-Acc bite.Perf-Pl.LH Def
'the dogs that bit me'

c. *í:njɛ́* *mì-gí* *cèrɛ́* *rì*
dog 1Sg-Acc bite.Perf.LH Def
'the dog that bit me'

d. *[íːnjɛ́ rì]* *déwⁿ* *mì-gí* *cèrɛ́* *rì*
[dog Def] day 1Sg-Acc bite.Perf.LH 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) *ǹdàː* *nígé* *bàlì-yè-tɛ̌y* *rì*
person elephant see-MP-ExpPf.LH 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) *bíːmá* *yògè-sá* *rì*
visitor come.Perf-Reslt.LH Def
'the visitor who has come'

14.4.2 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. *yéː* *kɔ̀njɛ̀-ɲéː-gè* *rì*
woman beer.L-drink.Agent-Pl Def
'the women who drink beer' (agentive compound form)

b. *tìlŋgɔ́-tél-gè* *rì*
tree.L-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-Impf Def
'the person who will sleep'

b. *mó-ŋà* *yé:-gé* *yógó-wò-gé* *rì*
here woman-Pl come-Impf-Pl.LH 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 "Impf.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]* *jélé* *ùm-bá* *rì]* *[wàgà→* *bó-∅]*
[[woman-Pl Def] place go-Impf.Rel.LH Def] [far be-3SgS]
'The place where the women go is far away.'

b. *kɔ́njé* *ò* *ɲɔ̀:-wá* *rì*
beer 2SgS drink-Impf.Rel.LH Def
'the beer that you-Sg drink'

c. *[yé:-gè* *rì]* *kɔ́njé* *ɲɔ̀:-wá* *rì*
[woman-Pl Def] beer drink-Impf.Rel.LH 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-w*^{n} *bò:-gé* *rì*
person-Pl work(n) do Prog-Pl.LH Def
'the people who are working'

b. *ǹdà:* *wàlè* *kànà-w^{n}* *bǒ:* *rì*
person work(n) do Prog.LH Def
'the person who is working'

Derived **statives** are illustrated in (xx5). We see the {LH} overlay on the stative.

(xx5) a. *yé:* *yá* *òwá* *rì*
woman Exist.Dist sit.Stat.LH Def
'the woman who is sitting (distant)'

b. *yé:* *yá:* *bì-yá* *rì*
woman there lie.down-MP.Stat.LH 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* *bǒ:* *rì*
woman there.Near.Dist be.LH Def
'the woman who is there (not far away)'

b. *ndà:* *jíwá* *sǎ:* *rì*
person house have.LH Def
'the person who has a house'

c. *[ndà:* *árí=w^{n}]* *yěy* *rì*
[person which=Foc] know.LH Def
'the person who knows'

d. *ndà:* *cěy* *rì*
person want.LH Def
'the person who wants'

14.4.3 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:* *yègà-ní* *rì*

cow fall-PerfNeg.LH Def
'the cow that didn't fall'

b. *déwⁿ* *ò* *yògò-ní* *rì*
day 2SgS come-PerfNeg.LH 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* *bàlì-yè-tèy-ní* *rì*
person elephant see-MP-ExpPf-PerfNeg.LH Def
'the person who has never seen an elephant'

14.4.4 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* *ɲɔ̀:-rá-gè* *rì*
woman beer drink-ImpfNeg-Pl.LH Def
'the women who do not drink beer'

b. *kɔ́njɛ́* *ò* *ɲɔ̀:-rá* *rì*
beer 2SgS drink-ImpfNeg.LH Def
'the beer that you-Sg don't drink'

The progressive negative is illustrated in (xx2).

(xx2) *yé:* *wàlè* *kànà-wⁿ* *òrá* *rì*
woman work(n) do not.be.LH Def
'the woman who is not working'

(xx4) shows derived (xx3a) and underived statives (xx3b).

(xx4) a. *yé:* *òwà-ná* *rì*
woman sit.Stat-StatNeg.LH Def
'the woman who is not sitting'

b. *ndà-yé:* *òrá* *rì*
woman not.be.LH Def
'the woman who is absent (e.g. not here).'

c. *ndà:* *jíwá* *sà:-ná* *rì*
person house have-StatNeg.LH Def
'the person who doesn't have a house'

d. *ndà:* *yè-ní* *rì*
person know-PerfNeg.LH Def
'the person who doesn't know'

e. *ndà:* *cè-lá* *rì*
person want-StatNeg.LH Def
'the person who doesn't want'

14.4.5 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* *bɛ̌:* *rì*
woman there.Near.Dist be.Past.LH Def
'the woman who was there (not far away)'

b. *ndà:* *jíwá* *sɛ̌:* *rì*
person house have.Past.LH Def
'the person who had a house'

14.5 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-ỳ^{n}*
fall.Perf go.down.Perf-1SgS
'I fell down.'

b. *déw^{n}* *nà* / *mì* *dùmbɛ̀* *sìgé* *rì*
day 3SgS / 1Sg S fall.Perf go.down.Perf.LH 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-y^{n}*
cow buy.Perf bring-Impf-1SgS
'I will buy and bring a cow.'

b. *ná:* *déw^{n}* *mì* *dɔ̀nɛ̀* *sògò-wá* *rì*
cow day 1SgS buy.Perf bring-Impf.Rel Def
'they day when I will buy and bring a cow'

14.6 Late-NP elements that follow the verb (or verbal participle)

14.6.1 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* *bàlá* *rì*
man 2SgS see.Stat.LH 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* *bàlà* *mbó*
man 2SgS see.Stat.LH Def
'that man who(m) you-Sg see' (< *bàlá*)

b. *yé:* *ɲà:ŋgè* *ɲà-w^{n}* *bò:* *yá-wò* *rì*
woman meal eat.meal Prog.LH FarDist Def
'that woman over there who is eating (a meal)' (< *bŏ:*)

c. *yé:* *ìgà* *yá-wò* *rì*
woman stand.Stat.LH FarDist Def
'that woman who is standing' (< *ìgá*)

14.6.2 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.

14.6.3 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* *dɔ̀nɛ̀-gé* *rì* *címà]* *mì-gí* *tà:rà*
[cow-Pl 2SgS buy.Perf-Pl.LH Def **all**] 1Sg-Acc show.Imprt
'Show me all the cows that you-Sg bought.'

b. *yé:* *mó-ŋà* *yógó-wò-gé* *rì* *címà* *gì*
[woman here come-Impf-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.'

14.7 Grammatical relation of relativized-on NP

14.7.1 Subject relative clause

Further examples of subject relatives are in (xx1).

(xx1) a. *bé:* *ò-gí* *cèrɛ́* *rì*
child 2Sg-Acc bite.Perf.LH Def
'the child who bit you-Sg'

b. *bé:* *dú:rú-yó-wò* *rì*
child run-MP-Ppl.Impf Def
'the child who will run'

c. *[bé-gé* *árí-gé = w^{n}]* *tìwɛ̀-sà-gé* *rì*
[child-Pl which-Pl=Foc] die.Perf-Reslt-Pl.LH Def
'the child who has died'

d. *á:gá* *bé:* *yógó-wò* *rì*
tomorrow child run-Ppl.Impf Def
'the child who will run tomorrow'

14.7.2 Object relative clause

Further examples of object relatives are in (xx1).

(xx1) a. *à:màdù* *ná:* *tùlɛ́* *rì*
Amadou cow sell.Perf.LH Def
'the cow that Amadou sold' (< *à:màdú*)

b. *ná:-gé* *ò* *tùlɛ̀-gé* *rì*
cow-Pl 2SgS sell.Perf-Pl.LH Def
'the cows that you-Sg sold'

c. *ná:* *ò-gí* *nì* *tùlɛ́* *rì*
cow 2Sg-Acc 1PlS sell.Perf.LH Def
'the cow that we sold you-Sg

d. *à:màdù* *bé:* *sògé* *rì*
Amadou child bring.Perf.LH Def
'the child whom Amadou brought'

e. *ámbá* *túlɔ́-wà* *mì* *yɔ̀lɔ̀-wá* *rì*
sheep sell-VblN 1SgS look.for-Impf.Rel.LH Def
'the sheep that I seek to sell'

f. *á:gá* *ámbá* *mì* *tùlɔ̀-wá* *rì*
tomorrow sheep 1SgS sell-Impf.Rel Def
'the sheep-Sg that I will sell tomorrow'

14.7.3 Possessor relative clause

Attempts to elicit possessor relatives from the Boui informant 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'

14.7.4 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-3PlS.LH
'They have come for honey.'

b. *[[bé-gè rì] [í:gé árí dàgá] yògè-sá]*
[[child-Pl Def] [honey which Purp] come-Reslt.LH]
àná bǒ:
where? be.LH
'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] tèlɛ̌-y^{n}*
[[knife Dem] Inst] [meat Def] cut.Perf-1SgS.LH
'I cut the meat with that knife [focus].' (*námá*)

b. *[námá mì tèlɛ́] tàná rì*
[meat 1SgS cut.Perf.LH] knife.LH Def
'the knife with which I cut-Past (the) meat.' (*tànà*)

c. *tànà námá mì tèlɛ́ rì*
knife meat 1SgS cut.Perf.LH 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] dùmbɛ̌-y^{n}*
[hole Loc] fall.Perf-1SgS.LH
'I fell in(to) a pit.'

b. *bóndó [ndǎ: rì] jɛ́lɛ́ dùmbɛ̀ sìgɛ́ rì*
hole [person Def] place fall.Perf go.down.Perf.LH Def
'the hole where the person fell down'

c. *bóndó [ndǎ: rì] dùmbɛ̀ sìgɛ́ rì*
hole [person Def] fall.Perf go.down.Perf.LH Def
'the hole (that) the person fell down (in)'

14.8 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.

15 Verb (VP) chaining and adverbial clauses

15.1 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.

Direct chains of this type do not occur in Tiranige. However, the construction where nonfinal verbs are in perfective positive form, i.e. in the E/I-stem (§15.2.2.1), correspond functionally to some types of direct chains in the other languages.

15.2 Temporal adverbial clauses

15.2.1 Adverbial clauses expressing temporal overlap

15.2.1.1 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* / *dèw*^{n} *mì* *dùmbɛ́* *rì*
time / day 1SgS fall.Perf.LH Def
'(at) the time / (on) the day (when) I fell'

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).

15.2.1.2 Imperfective subordinate clause with *-w*^{n} ~ *-ŋ* 'while'

In (xx1), the clause with *-w*^{n} ~ *-ŋ* denotes a continuous activity that overlapped with the main-clause eventuality. *-w*^{n} 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-w^{n}]* *nàyě-y^{n}*
[dance(n) dance-while] spend.night.Perf-1SgS.LH
'I spent the night dancing.' ('I danced all night.')

b. *[té: sàŋgà-w^{n}]* *dènè-wó-∅*
[tea put.up.on-while] spend.midday-Impf-3SgS.LH
'He will spend the mid-day making tea (on a burner).'

c. *dù:rù-yò-w^{n}* *nùy-ê:*
run-MP-while go.in.Perf-3PlS.LH
'They ran in.' (lit. "They went in running.")

In these examples, 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 before *-ẁ^{n}*.

(xx2) *níŋá* *[nà* *nòyá-ẁ^{n}]* *[wàlè* *nì* ^{LH}*kànî]*
yesterday [3SgS sleep-while] [work(n) 1PlS ^{LH}do.Perf.Rel]
'Yesterday we worked while he/she was sleeping.'

A textual example similar to (xx2) is (xx3) in Text 6.
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.

15.2.1.3 '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 informant 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 *hăl jè: 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 *hăl* '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 1SgS/1PlS/3PlS defeat-MP-until] Loc]
nà-gì *díyɔ̀-rà-w*
3Sg-Acc leave-ImpfNeg-2SgS
'From the beginning until the time when I/we/they have defeated him, I/we/they will not leave him alone (=stop fighting him).'

15.2.1.4 '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 1SgS LHcome.Perf.Rel] since]
[nà:ŋgè ŋá:-ní-ỳⁿ]
[meal eat.meal-PerfNeg-1SgS]
'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] [[3PlS LHfather] LHgo.Perf.Rel] since]
[[kɔ̀mɔ̀ ŋá] *bà-â:]*
[[weeping(n) Loc] be-3PlS]
'The children, since (the time) their father left, they have been weeping.'

15.2.2 Adverbial clauses expressing chronological sequences

15.2.2.1 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-ỳ^{n}*
[1Sg-Acc key ^{LH}give.Perf-3SgS] go.Perf-1SgS
'He gave me the key and I left.'

b. *[ɲà:ŋgɛ̀* ^{LH}*sòg-ìyé]* *[nì ɲɛ̀:]*
[meal ^{LH}bring.Perf-3PlS] [1PlS eat.meal.Perf]
'They brought a meal and we ate.'

c. *[ɲà:ŋgɛ̀ nì* ^{LH}*sògé]* *[nì ɲɛ̀:]*
[meal 1PlS ^{LH}bring.Perf.Rel] [1PlS eat.meal.Perf]
'We brought a meal and we ate.'

15.2.2.2 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-ỳ^{n}*
fall.Perf go.down.Perf-1SgS
'I fell down.'

b. *dùmbɛ̀ nì-sígó-wò*
fall.Perf 1PlS-go.down-Impf
'We will fall down.'

c. *[sàtàlé rì] yá: tɛ̀ŋɛ̀ dìyɛ̌-y^{n}*

[kettle Def] there set.down.Perf leave.Perf-1SgS
'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-y^{n}*
fall.Perf go.down-ImpfNeg-1SgS
'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.Perf 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.

15.2.2.3 Nonfinal verb with *-sà-w^{n}* (past, same-subject, anterior)

In this construction, *-sà-w^{n}* 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 *-w^{n}* '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-w^{n}* *nì-yògé*
yesterday go-Reslt-while.SS 1PlS-come.Perf.LH
'Yesterday I went and came (back).'

b. *[ɲà:ŋgɛ̀ ɲɛ̀:-sà-w^{n}]* *[[bɔ̀mɔ̀kɔ́ ŋà]* *ún-íyè*
[meal eat-Reslt-while.SS] [[Bamako Loc] go.Perf-3PlS
'They ate (a meal) and then went to Bamako.'

c. *[cè címà] màŋgè-sà-w^{n} ún-íyè*
[3Pl all] assemble-Reslt-while.SS] go.Perf-3PlS
'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.

15.2.2.4 Nonfinal verb with *ŋá* (nonpast, same-subject, anterior)

This construction replaces that with *-sà-w^{n}* 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] yògò-wǒ-y^{n}*
[go and.Nonpast.SS] come-Impf-1SgS.LH
'I will go and come (back).'

b. *[ŋà:ŋgè ɲè: ŋá]*
[meal eat.meal and.Nonpast.SS]
[[bɔ̀mɔ̀kɔ́ ŋà] ùm-b-â:]
[[Bamako Loc] go-Impf-3PlS.LH]
'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*)

15.2.2.5 'Worked until got tired' = 'worked for a very long time'

In the version of this construction elicited from the Boui informant, 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 kàní] [hàlí mì à:rì-yé]*
[work(n) 1SgS do.Perf.LH] [until 1SgS get.tired-MP.Perf.LH]
'I worked until I got tired.' (= 'I worked to the point of exhaustion.')

The older Ningo informant 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-yè-∅*
sleep.Perf-Dur get.tired-MP.Perf-3SgS
'He/She slept a very long time.'

b. *[wàlè* *kàn-í→]* *á:rí-yé-ỳ^{n}*
[work(n) do.Perf-Dur] get.tired-MP.Perf-1SgS
'I worked to the point of exhaustion.'

15.2.3 'Before …' clauses (*jìmbá*, *-ó: gi*)

'Before …' clauses elicited from the Boui informant 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* *jìmbá]*
[arrive 1SgS / 1PlS **before.LH**]
[[mì / nì *nàlí]* *ùnì-∅]*
[[1SgP / 1PlP friend.LH] go.Perf-3SgS]
'Before I/we arrived, my/our friend (had) left.'

b. *[ŋà:ŋgè* *ŋé:* *nì* *jìmbá]*
[meal eat.meal.Perf 1PlS **before.LH**]
[wàlè *nì* *kánì-yày^{n}]*
[work(n) 1PlS do-Hort.Pl
'Let's-Pl do the work before we eat.'

c. *ŋà:ŋgè* *ŋé:* *ò / nà / cè* *jìmbá*
meal eat.meal.Perf 2SgS / 3SgS / 3PlS **before.LH**
'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 jìmbá] [nì nwé-yàyⁿ]*
[rain(n) come.Perf-xxx before] [1PlS go.in-Hort.Pl]
'Let's go in before the rain comes (down).'

b. *[bé-gè rì] yógé-ỳⁿ jìmbá*
[child-Pl Def] come.Perf-xxx before
'before the children come'

For the older Ningo informant, 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**] [1PlS go-Impf]
'We'll go before the rain comes.'

b. *[á:mì yɔ̀g-ɔ́: gì] úm-bò-y*
[rain(n) come-**before** **Loc**] go-Impf-1SgS
'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] [1PlS cultivate-Impf]
'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-Impf-1SgS
'I'll eat (first) then I'll cultivate.'

15.3 Spatial and manner adverbials

15.3.1 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:ŋgɛ̀ nì ɲɔ̀:-wá rì] ŋà*
[place meal 1PlS eat.meal-Impf.Rel.LH 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.

15.3.2 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 sɛ̀:m-bá*
[pig Acc] **manner** 2SgS slaughter-Impf.Rel.LH
‘the way you-Sg slaughter a pig’ (*sémɔ́-*)

b. *[yá: bànì ílɔ́-wà] yé-ní-ỳ^{n}*
[there manner.L go.up-VblN] know-StatNeg-1SgS
‘I don’t know how to go up there.’

16 Conditional constructions

16.1 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 informant 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.Perf-2SgS if, injury do-Impf-2SgS
'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-Impf-3PlS if,
mì *úm-bò-y*^{n}
1Sg go-Impf-1SgS
'If the children come here, I'll go.'

c. *té:* *ɲɔ́:-wò-m* *mɛ̀,* *úrúgú-yó-wò-w*
tea drink-Impf-2SgS if, be.sick-MP-Impf-2SgS
'If you-Sg drink (the) tea, you'll get sick.'

d. *á:gá* *á:mí* *tɛ̀gɛ̀-∅* *mɛ̀,*
tomorrow rain(n) rain.fall.Perf-3SgS if,
[yálá *ŋà]* *nì* *gó:-wò*
[field Loc] 1PlS go.out-Impf
'If it rains tomorrow, we'll go to the field(s).'

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	*yégé-ỳ^{n}*	*yégé-y^{n} mè*
1Pl	*nì yègè*	*nì yègè mè*
2Sg	*yégé-ẁ*	*yégé-m mè*
2Pl	*è yègè*	*è yègè mè*
3Sg	*yègè-∅*	*yègè-∅ mè*
3Pl	*yèg-ìyè*	*yèg-ìyè mè*

For 2Sg *-w* assimilating to *-m* before *mè*, 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-ỳ^{n}*	*yégá-ní-y^{n} mè*
1Pl	*nì yègà-nì*	*nì yègà-nì mè*
2Sg	*yégá-ní-ẁ*	*yégá-ní-m mè*
2Pl	*è yègà-nì*	*è yègà-nì mè*
3Sg	*yègà-nì-∅*	*yègà-nì-∅ mè*
3Pl	*yégà-nî:*	*yégà-ní: mè*

The imperfective (positive) has no forms with final-syllable falling tone so there are no tonal changes before *mè*. In the imperfective negative, the 3Sg and 3Pl forms are affected (xx4).

(xx4) Imperfective negative of 'fall'

1Sg	*yégɔ́-rà-y^{n}*	*yégɔ́-rà-y^{n} mè*
1Pl	*nì yègɔ̀-rá*	*nì yègɔ̀-rá mè*
2Sg	*yégɔ́-rà-ẁ*	*yégɔ́-rà-m mè*
2Pl	*è yègɔ̀-rá*	*è yègɔ̀-rá mè*
3Sg	*yégɔ́-râ-∅*	*yégɔ́-rá-∅ mè*
3Pl	*yégɔ̀-r-â:*	*yégɔ̀-r-á: mè*

16.2 Alternative 'if' particles

16.2.1 '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.Perf (if)]
ún-dà-y^{n}
go-ImpfNeg-1SgS
'Even if you-Sg give me 200 (currency units), I won't go.'

16.3 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 bɛ̌: / ùnì-sé mɛ̀,*
yesterday [Bamako Loc] 1PlS be.Past.LH / go-Reslt.Past.LH if,
nì tíb-bɛ̀
1PlS die-Impf.Past
'If we had been in / had gone to Bamako [focus] yesterday, we would have died (been killed).'

17 Complement and purposive clauses

17.1 Quotative complements

17.1.1 Quoted indicative clauses

Quoted indicative clauses are marked as such by several features:

- The inflectable **'say' verb** (perfective *gùnè-*) 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* *yògò-mà-ná* *wà]* *gùné-∅*
[3SgS come-can-StatNeg.LH Quot] say.Perf-3SgS.LH
'He$_x$ said that he$_x$ 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* *sɛ̀mɛ̌-y^{ǹ}]* *gùnɛ̌-y^{n}*
[sheep slaughter.Perf-1SgS.LH] say.Perf-2SgS.LH
'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-ImpfNeg-2SgS say.Perf-2SgS
'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.

17.1.1.1 '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] gùnɛ́-∅*
[3SgS Dogon Quot] say.Perf-3SgS.LH
'He said he's a Dogon.'

b. *[cɛ̀ yògò-má wà] gùn-íyɛ̀*
[3PlS come-can.LH Quot] say.Perf-3PlS.LH
'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.

17.1.1.2 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] gùnɛ́-∅
[3SgS come.Perf / come-PerfNeg Quot] say.Perf-3SgS.LH
'He said that he/she came / didn't come.'

b. H-toned *wá* after imperfective
[nà yógó-wò / yògò-rá wá] gùnɛ́-∅
[3SgS come-Impf / come-ImpfNeg.LH Quot] say.Perf-3SgS.LH
'He said that he/she will/won't come.'

c. L-toned *wà* after stative
[nà ígà / ìgà-nà] wà gùnɛ́-∅
[3SgS stand.Stat / stand-StatNeg] **Quot** say.Perf-3SgS.LH
'He said that he/she is standing.'

d. L-toned *wà* after capacitative
[nà yògò-má / yògò-mà-ná wà]
[3SgS come-can.LH / come-can-StatNeg.LH Quot]
gùnɛ́-∅
say.Perf-3SgS.LH
'He said he can/cannot come.'

e. L-toned *wà* after 'it is (not)' clitics
[nà sójó / sójó=lá wà] gùnɛ́-∅
[3SgS Dogon / Dogon=it.is.not Quot] say.Perf-3SgS.LH
'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	*yògɛ̀-*	*yògɛ̀ 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'.

17.1.1.3 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] gùnɛ̌-w*
[sheep **2SgS** slaughter.Perf Quot] say.Perf-2SgS.LH
'You-Sg said that you slaughtered a sheep.'

b. *sàydú [ò wà] [ámbá sɛ̀mɛ̀ wà] gùné-∅*
Seydou [**2Sg** **Quot**] [sheep slaughter.Perf Quot] say.Perf-3SgS.LH

'Seydou said that you-Sg slaughtered a sheep.'

Third-person examples are in (xx3).

(xx3) a. *[ámbá nà sɛ̀mɛ̀ wà] gùné-∅*
[sheep **3SgS** slaughter.Perf Quot] say.Perf-3SgS.LH
'He$_x$ said that he$_x$ slaughtered a sheep.'

b. *[nà wà] [ámbá sɛ̀mɛ̀ wà] gùné-∅*
[**3SgS Quot**] [sheep slaughter.Perf Quot] say.Perf-3SgS.LH
'He$_x$ said that he$_y$/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] gùné-∅*
[**Seydou** come.Perf Quot] say.Perf-3SgS.LH
'He said that Seydou has come.'

b. *sàydú [nà yògè wà] gùné-∅*
Seydou [**3SgS** come.Perf Quot] say.Perf-3SgS.LH
'Seydou$_x$ said that he$_x$ has come.'

17.1.2 Jussive complement (reported imperative or hortative)

17.1.2.1 Quoted imperative

A quoted imperative clause converts the original imperative into a special verb form used only in such quotations, viz., the third-person hortative (§10.7.3.1), which is based on a special 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). Another *wà* follows the verb, which allows no pronominal-subject agreement. The final high vowel of the third-person hortative is always heard as *u* rather than *i* before the *w* in *wà*.

(xx1) a. *[mì bàwá] [ò wà] [yògù wá]*
[1SgP father.LH] [2SgS **Quot**] [come.**3Hor**t **Quot**]

'My father says for you-Sg to come.'

b. *[bé-gè rì] [mì wà] [yògù wà]*
[child-Pl Def] [1SgS **Quot**] [come.**3Hort** **Quot**]
gùn-íyè
say.Perf-3PlS.LH
'The children said for me to come.' (*bé-gé*)

c. *[sàydú wà] [ùnù wà] gùn-íyè*
[Seydou Quot] [go.3Hort Quot] say.Perf-3PlS.LH
'They said for Seydou to come.'

In self-quotations, and sometimes in second-person quotations, the verb is still in third-person hortative form, but the original addressee is treated as the object of 'say' and therefore appears in accusative form.

(xx2) *[sàydú gì] yògù gùnɛ̌-y^{n}*
[Seydou Acc] come.3Hort say.Perf-1SgS.LH
'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-Prohib Quot]
'He says for Seydou not to come.' (*yógó-lâ*)

17.1.2.2 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-y^{n}* 'let's buy!'. Before quotative *wà*, the H-tone spreads to the end of the word (xx1).

(xx1) *sàydú [sìjá nì dɔ́nɛ́-y^{n} wà] gùnɛ́-∅*
Seydou [cicken 1PlS buy-Hort Quot] say.Perf-3SgS.LH
'Seydou said, let's buy a chicken!'

17.2 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).

17.2.1 ‘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 yògò-rá] nì yèy*
[2SgS come-ImpfNeg.LH] 1PlS know
‘We know that you are not coming.’

b. *[[bé-gè rì] yògò-ní] nì yèy*
[[child-Pl Def] come-PerfNeg.LH] 1PlS know
‘We know that the children didn’t come.’

c. *[ámbá mì sèmé \ sèmè-sá] yèy-â:*
[1Sg 1SgS slaughter.Perf.LH \ -Reslt.LH] know-3PlS
‘They know that I (have) slaughtered a sheep.’

d. *[ò yògò-wà] yê-y^{n}*
[2SgS come-Impf.Rel.LH] know-1SgS
‘I know that you-Sg are coming.’

17.2.2 ‘See (find, hear) that …‘

17.2.2.1 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 *-ẁ^{n}*. This is the regular disjoint-subject ‘while’ subordinate clause (§15.2.1.1). The *-ẁ^{n}* 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-wˀⁿ]* *nì* *bàlì-yè*
[Seydou come-while] 1PlS see-MP.Perf
'We saw Seydou come.'

b. *[yèwù ò yèwá-wˀⁿ]* *bálí-yé-yˀⁿ*
[dance(n) 2SgS dance-while] see-MP-1SgS
'I saw you-Sg dancing.'

c. *[nà yègá-wˀⁿ]* *bálí-yé-yˀⁿ*
[3SgS fall-while] see-MP-1SgS
'I saw him/her fall.'

17.2.2.2 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 ìrè-sá]* *bàlì-yè-∅ / nù:ndè-∅*
[2SgS get-Reslt.LH] see-MP.Perf-3SgS / hear.Perf-3SgS
'He/She saw/heard that you have gotten (rich).'

This type of complement is identical to the factive complement of 'know' (§17.2.1).

17.3 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.

17.3.1 '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.Perf-3SgS
'Amadou helped me (with) farming/singing.'

b. *à:màdú=yó mì-gì [[jíwà rì] jà:lɛ̀ bàrè-∅*
Amadou=foc 1Sg-Acc [[house Def] build.Perf help.Perf-3SgS
'Amadou helped me build the house.'

c. *[bé-gè rì] mì-gí ìlà-mì bàrè-∅*
[child-Pl Def] 1Sg-Acc go.up-Caus.Perf help.Perf-3SgS
'The children helped me go up.'

17.3.2 'Finish' (*póró-*) with bare perfective complement

póró- 'finish (an activity)' takes a bare perfective complement.

(xx1) *[ɲà:ŋgè ɲɛ̀:] póré-ỳ^{n} / póró-wò-y^{n}*
[meal eat.Perf] finish.Perf-1SgS / -Impf-1SgS
'I (have) finished / will finish eating.'

17.4 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.

17.4.1 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-Impf-1SgS
'I am afraid to eat this meat.'

b. *[mì-gì tɛ́b-bà] yò:nì-yè-∅*
[1Sg-Acc hit-VblN] fear-MP.Perf-3SgS
'He was afraid to hit me.'

17.4.2 '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.

(xx1) a. *[mó-ŋà yógó-wà rì] á:mí mì-gí tɛ̀lɛ̀-∅*
[here come-VblN Def] rain(n) 1Sg-Acc prevent.Perf-3SgS
'The rain prevented me from coming here.'

b. *túlé mì-gì nóyó-wà tɛ̀lɛ̀-∅*
noise 1Sg-Acc sleep-VblN prevent.Perf-3SgS
'(The) noise prevented me from sleeping.'

c. *[mì bàwá]=ẁ mì-gí tɛ̀lɛ̀-∅*
[1SgP father.LH]=Foc 1Sg-Acc prevent.Perf-3SgS
[[bɔ̀mɔ̀kɔ́ ŋà] úm-bà rì]
[[Bamako Loc] go-VblN Def]
'My father prevented me from going to Bamako.'

17.4.3 '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 lɛ̀*
[here come-VblN] daring do-Impf-2SgS Q
'You-Sg dare (= have the effrontery) to come here?' (< *kám-bò-w*)

17.4.4 '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.Perf-3SgS
'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] 1SgS go-Impf.Rel] accept.Perf-3SgS
'He/She agreed that I go to Bamako.'

17.4.5 '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-3SgS
'He/She wants to go.'

If the subjects are distinct, an imperfective nonsubject relative clause is used.

(xx2) *[mì bàwá] [[bɔ̀mɔ̀kɔ́ ŋà] mì ùm-bá] cèy-∅*
[1SgP father.LH] [[Bamako Loc] 1SgS go-Impf.Rel] want-3SgS
'My father wants me to go to Bamako.'

17.4.6 '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.Perf-3SgS
'He/She forgot to come.'

17.4.7 '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-Impf-1SgS
'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-lây^{n}]* *yò:nì-yè-sǎ-y^{n}*
[1Sg-Acc 3SgS hit-Prohib] fear-MP-Reslt-1SgS.LH
'I am afraid lest he/she hit me.'

17.4.8 'Begin' (*dɛ́wɔ́-*) with verbal-noun complement

dɛ́wɔ́- 'begin' and its verbal-noun complement are illustrated in (xx1).

(xx1) *dú:rú-yó-wà* *dɛ́wɛ́-ỳ^{n}*
run-MP-VblN begin.Perf-1SgS
'I began to run.'

17.4.9 '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-ỳ^{n}*
[beer drink-VblN] leave.Perf-1SgS
'I have stopped (= have given up) drinking beer.'

17.5 Purposive, causal, and locative clauses

17.5.1 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]* *yògè-sǎ-y*

[[meal eat-VblN] Purp] come-Reslt-1SgS.LH
'I came in order to eat [focus].'

b. *[[jé: nímúgó-wà] dàgá]* *ùní-∅*
[[fire extinguish-VblN] Purp] go.Perf-3SgS.LH
'He/She went to put out the fire [focus].'

17.5.2 Purposive clauses with verb in {H}-toned *a*-final form

In this construction, the verb of the purposive clause is {H}-toned and ends in *a*. 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 *a* here. We could therefore speak of an A-stem in this case.

The attested examples involve purposive clauses preceding main-clause motion verbs

(xx1) a. *[kògò múndó-má]* *ùm-bò-y^{n}*
[hair.L braid-Caus.Purp] go-Impf-1SgS.L
'I am going (there) to have myself braided.'

b. *[ɲà:ŋgè ɲá:]* *yògè-sǎ-y^{n}*
[meal eat.Purp] come-Reslt-1SgS.LH
'I came to eat (a meal).'

c. *nóyá* *yògè-sǎ-y^{n}*
sleep.Purp come-Reslt-1SgS.LH
'I came to sleep.'

17.5.3 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* *ùm-mà-ná,*
[village Loc] 1PlS go-can-StatNeg.LH,
pàskə́ *[òjí rì]* *mɔ̀:-nà-∅*
because [road Def] good-StatNeg-3SgS
'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.

17.5.4 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-y^{n}]* *kán-dà-y^{n}* / *kán-dâ-∅*
[[Bamako Loc] go-PerfNeg-1SgS] do-ImpfNeg-1SgS / -3SgS
‘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-y^{n}* / *yógó-wò-∅]* *kám-bò-∅*
[here come-Impf-1SgS / -3SgS] be.done-Impf-3Sg
‘I/He-or-she must come here.’

18 Anaphora

18.1 Reflexive

18.1.1 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* *kògó]* *tɛ̀lɛ̀-∅*
[3SgP head.LH] cut.Perf-3SgS
‘He cut himself.’ or ‘She cut herself.’

b. *[mì* *kògò]* *tɛ́lɛ́-ỳ^{n}*
[1SgP head.LH] cut.Perf-1SgS
‘I cut myself.’ (from /*mì kògó*/)

c. *[nì* *kògó]* *nì-tɛ̀lɛ̀*
[1PlP head.L_H] 1PlS-cut.Perf
‘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 1SgP] hurt-Impf-3SgS
‘My head hurts.’

b. *[kògò-gè* *nì-wɛ̀-gé]* *yàw-yàw* *bà-â:*
[head-Pl 1Pl-Poss-Pl] lightweight be-3PlS
‘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’.

18.1.2 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:ɲjɛ́ nɛ̀-wɛ́]* *jɛ̀yɛ̀-∅*
[dog 3Sg-Poss] kill.Perf-3SgS
'He$_x$ killed his$_x$ (own) dog.'
'He$_x$ killed his$_y$/her$_y$ dog.'

b. *[í:ɲjɛ́ nɛ̀-wɛ̀]* *jɛ́yɛ́-ỳ^n*
[dog 3Sg-Poss] kill.Perf-aSgS
'I killed his dog.'

c. *sàydú* *[nà* *bàwá* *gì]* *bàlì-yɛ̀-∅*
Seydou [3SgP father.LH Acc] see-MP.Perf-3SgS
'Seydou$_x$ saw his$_x$/his$_y$/her$_y$ father.'

18.2 Emphatic pronouns

'My head' etc. can also be used adverbially as emphatic pronouns.

(xx1) *[mì* *kògó]* *mì* *jà:lé*
[1SgP head.LH] 1SgS build.Perf.LH
'I built (did the building) myself.'

18.3 Logophoric pronouns

There are no logophoric pronouns.

18.4 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.

19 Grammatical pragmatics

19.1 Topic

19.1.1 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-y^{n}*
[1Sg Topic] go-ImpfNeg-1SgS
'As for me, I'm not going.'

After a {L}-toned word (definite *rì* does not count here), *kày* shifts to H-toned *káy*, unless it is followed by a H-tone in the next word as in (xx1). Pronouns take L-tone 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'.

19.1.2 'Also' (*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. 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-y^{n}*
[Bamako Loc also] work(n) do-Impf-1SgS
'I work in Bamako too.'

b. *[nwɛ́* *là]* *nɔ́:-wò-∅*
[song also] sing-Impf-3SgS
'He/She sings too.'

c. *[bé:* *gì* *là]* *tɛ́wɛ́-ỳ^{n}*
[child Acc also] hit.Perf-1SgS

'I hit-Past the child also.'

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.Perf-3SgS
'He/She came again.'

b. kòndè là yógé-ỳ^{n}
again too come.Perf-1SgS
'I came again.'

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.

19.1.3 '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 a H-tone. Pronouns have L-toned form after *hàlí*.

(xx1) a. *[hàlí mì] íló-má-ỳ^{n}*
[even 1Sg] go.up-can-1SgS
'Even I can go up (=climb).'

b. *[hàlì bé-gé gì] téb-bò-∅*
[even child-Pl Acc] hit-Impf-3SgS
'He/She even hits children.'

19.2 Preclausal discourse markers

19.2.1 'Well, …' (*hàyà*)

Preclausal *hàyà* 'well, …' occurs in Tiranige as in most languages of the area.

19.2.2 'But …' (*mè:*)

Clause-initial *mè:* 'but' is probably the widespread borrowing from French *mais*.

19.3 'Only' particles

19.3.1 'Only' (*tòmá→*)

tòmá→ 'only' is obscurely related to *tò:mà* 'one'.

(xx1) *[mbó* *tòmá→]* *mì-gí* *nà* *ndě:-∅*
[Dem only] 1Sg-Acc 3SgS give.Perf-3SgS.LH
'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*
2SgS come-Impf only be
'You-Sg only come.'

b. *yógé-w* *tòmá* *wò*
come.Perf-2SgS only be
'You-Sg only came.'

19.4 Phrase-final emphatics

19.4.1 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-yè-∅* *kóy*
be.hot-MP.Perf-3SgS Emph
'It sure is hot!'

19.4.2 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-yé-sà-w^{n}* *dé*
hot-MP-Reslt-xxx Emph
'(Watch out,) it (e.g. pot) is hot!'

19.5 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-ý^{n}* ‘(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:-w^{n} dɛ̀nɛ̌-l lé* ‘Yes, have (you-Sg) had a good day!’
mɔ̀: è dɛ̀nɛ̀ lé ‘Yes, have you-Sg had a good day!’

A: *mɔ̀:-w^{n} dɛ̀nɛ̌-y^{n}* ‘Yes, I’ve had a good day.’

If a stranger (B) arrives in the village, the sequence (xx3) might occur (from the Ningo informant).

(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-ý^{n}* ‘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-ỳ^{n}]
[3SgS bring-3Hort]
‘May God take you (there) in health and bring (you back)’ (Ningo)

L
L
LH
LH
H
HL
+H
+L

20 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-∅,*
[3SgP father] die.Perf-3SgS
sìnì *kè* *bèjé,*
convey 3PlS bury.Perf,
[sìnì *kè* *bèjé]* *wàkàtí,*
[convey 3PlS bury] time
tèbù-dúbà *yà* *bɛ̀:,*
vulture Exist.Dist be.Past-3SgS,
'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.Impf-3SgS,
jágá *tùmbùlè* *yògè-sà-w^{n},*
lo! hyena come-Reslt-while,
[tíbɔ́ *rì]* *dùŋgù-lè-∅,*
[corpse Def] bury-Rev.Perf-3SgS,
'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.Perf-3PlS,
hàyà *ùjàrí-yè,* *á:lé* *[tíbɔ́* *rì]* *dùŋgù-lè,*
well ask.Perf-3PlS, who? [corpse Def] bury-Rev,

[ndà: *pós]* *nà* *dùŋgù-lò-nì* *wà,*
[person all] 3SgS bury-Rev-PerfNeg 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-3SgS
ké-gì *bàlì-yè-∅,*
3Pl-Acc see-MP.Perf-3SgS,
kè-gí *ùjàrí-yè,*
3Pl-Acc ask.Perf-3PlS,
[ndà: *pós]* *nà* *dùŋgù-lò-nì* *wà,*
[person all] 3SgS bury-Rev-PerfNeg Quot,
tèbù-dúbà *àbè* *nà* *sàyé,*
vulture receive 3SgS reply.Perf,
'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 3PlS bury-Impf.Rel Def]
yá: *[dànà* *gí]* *yá:* *nà* *bɛ́:* *wà,*
there.Def [above Loc] there.Def 3SgS be.Past Quot,
[wàkàtì *kè* *dùŋgù-lò-bá* *lá]*
[time 3PlS bury-Rev-Impf.Rel too]
[dànà *gí]* *nà* *bɛ́:* *wà,*
[above Loc] 3SgS 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 3SgS reply.Perf.Rel
[nà *bàbá]* *wà,*
[3SgS father] Quot,
[tèbù-dúbà *gì]* *újàrà:-n-í:* *wà,*
[vulture Acc] ask-PerfNeg-3PlS Quot,
[tèbù-dúbà *wà]* *[dám-là* *wà]* *yà* *díy* *wà,*
[vulture Quot] [speak-Prohib 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* *témé-sà-∅*
in the end hyena bury-Rev eat.meat-Reslt-3SgS
'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.Perf-Instr,
[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,* *séŋù,*
[Def behind] Loc, curved.shaft.short.ax,
[é *tùnú]* *gì,* *dùbìyɛ̀* *báná,*
[Def behind] Loc, hoe male (pick-hoe),
[é *tùnú]* *gì,* *dùbìyɛ̀* *yɛ̂:,*
[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] 1PlS ^{LH}go-Impf.Rel,

yálá=ò *nì* *kèrò-bá,*
field=Foc 1PlS clear-Impf.Rel,
yálá *nì* *kèrɔ̀* *mɛ̀-nɛ̀,*
field 1PlS clear if,
nì *lá* *sùbè,*
1PlS also burn-Impf,
'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,*
1PlS burn.Perf if,
nì *lá* *tò:lè,*
1PlS also hoe(v),
nì *tò:lè* *mɛ̀-nɛ̀,*
1PlS cultivate.Perf if,
nì *lá* *tɔ̀mɛ̀,*
1PlS also slash.to.sow,
nì *tɔ̀mɛ̀* *mɛ̀-nɛ̀,*
1PlS slash.to.sow if,
sɔ̀bɛ̀-∅ *mɛ̀-nɛ̀,*
sprout.Perf-3SgS if,
nì *lá* *sàmbè,*
1PlS 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,*
[1PlS do.weeding.Perf when], behind Loc,
nì *là* *níyè-gè* *pìyàgè,*
1PlS also bird-Pl chase.away,
[nì *là* *síŋgá-gé* *jà:lè]*
[1PlS also blister.beetle-Pl watch.for]
[nì *lá* *gèyè],*
[1PlS also kill],
nì *là* *gɛ́ní* *tùnì,*
1PlS also fire put,
nì *lá* *ùgè,*
1PlS 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) *ìlìyè-∅* *mè-nè,*
ripen.Perf-3SgS if,
nì *lá* *[gìyò* *tànà-bé]* *jɔ̀lɛ̀,*
1PlS also [harvest(n) knife-child] look.for.Perf,
nì *là* *kɔ́:ndɔ́* *jɔ̀lɛ̀,*
1PlS also square.basket look.for.Perf,
nì *lá* *tàjí* *jɔ̀lɛ̀,*
1PlS also straw.basket look.for.Perf,
nì *lá* *gìyè,*
1PlS 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,*
1PlS also [enclosure Loc] gather-Mult-Caus.Perf,
nì *lá* *nùgùlè,*
1PlS also sort(v),
nì *lá* *bànà-kɔ̀lì-gè* *pàgè,*
1PlS also bundle-Pl tie,
nì *lá* *dùyè* *gíbá:* *jè:* *nwè:,*
1PlS also carry.on.head house.Loc pick.up go.in
nì *là* *[páŋgá* *gì]* *gànì,*
1PlS 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* *dènè* *ndè,*
[morning every] 1PlS also granary take.out.grain give.Perf,
hà: *érì=yò* *[nì* *ŋgùrɛ́],*
well that=it.is [1PlP sustenance],
égá:gú *kè* *lá* *ɔ̀mɔ̀-kánú* *kànì,*
morning 3PlS also breakfast make.Perf,
dènì-gí *kè* *là* *páníŋgé* *kànì,*
spend.day-Nom 3PlS also lunch make.Perf,
yà:gù *kè* *là* *ɲá:-nígé* *kànì,*
night 3PlS also supper make.Perf,

nì *lá* *ɲè:*
1PlS 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] 2SgS also get.ready-MP.Perf,
ndégé=ẁ^{n} *[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,
sɔ̀ŋjònì *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=wˇⁿ,*
war 3SgS what?=it.is,
ndà: *ò-gí* *tó:ɲà* *kànì-∅* *mɛ̀,*
person 2Sg-Acc trouble do.Perf-3SgS if,
kɔ́mbɔ́ *táy-bò-w,*
war wage-Impf-2SgS,
[ndà: *gí]* *[nà* *wɛ̌:]* *élɔ̀-bà* *ké:-yé-wˇ* *mɛ̀,*
[person Acc] [3Sg Poss] take.away-Impf.Rel want-MP-2SgS if,
kɔ́mbɔ́ *táy-bò-w,*
war wage-Impf-2SgS,

‘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-wˇ* *mɛ̀,*
authority want-MP-2SgS if,
kɔ́mbɔ́ *táy-bò-w,*
war wage-Impf-2SgS,
[ɲàmà *tàgú]* *élɔ̀-bà* *ké-wˇ* *mɛ̀,*
[others land] take.away-Impf.Rel want-2SgS if,
kɔ́mbɔ́ *táy-bò-w,*
war wage-Impf-2SgS,
ndà: *[ò* *wɛ̌:]* *ò-gí* *élɔ̀-bà* *jɔ̀lɛ̂* *mɛ̀,*
person [2Sg Poss] 2Sg-Acc take.away-Impf.Rel look.for.Perf if,
kɔ́mbɔ́ *táy-bò-w,*
war wage-Impf-2SgS,

‘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 [2SgP animal-Pl] take if,
kɔ́mbɔ́ *táy-bò-w,*
war wage-Impf-2SgS,
ndà: *ò-gí* *tó:ɲà* *kànì* *mɛ̀,*
person 2Sg-Acc trouble do if,
kɔ́mbɔ́ *táy-bò-w,*

war wage-Impf-2SgS,

'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-Impf-2SgS
[hǎl *jè:* *ŋá]*
[until take-and.Nonpast and.Nonpast]
[[nà-gí *ó* *ìmì-y-ɔ́:]* *gì],*
[[3Sg-Acc 2SgS defeat-MP-until] Loc]
nà-gì *díyɔ̀-rà-w,*
3Sg-Acc leave-ImpfNeg-2SgS,

'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.Perf-3SgS if even] be.energetic-MP-Impf-2Sg,
[nà-gì *ímí-yɛ́-ẁ* *mɛ̀]* *dúrú-yó-bò-∅,*
[3Sg-Acc be.able-MP-2SgS if] run-MP-Impf-3SgS
dùrù-yɛ̀-∅ *mɛ̀-nɛ̀,* *nà-gì* *tágí-yó-bò-w,*
run-MP.PPerf-3SgS if, 3Sg-Acc follow-MP-Impf-2SgS,

'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.Perf-3SgS if, leave-ImpfNeg-2SgS,
[[mí: *gì]* *nwɛ̀: -∅* *mɛ̀]* *díyɔ̀-ràw,*
[[water Loc] go.in.Perf-3SgS if] leave-ImpfNeg-2SgS,
[hǎl *jè:* *ŋá]*
[until pick.up and.Nonpast]
[nà-gí *ó* *ìbɛ̀-[gìr-ɔ́:]]* *gì],*
[3Sg-Acc 2SgS 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* *ìbɛ̀* *gírɛ́-ẁ* *mɛ̀,*
3Sg-Acc catch get.Perf-2SgS if,
pàgè *sógó-bò-w,*
tie.and bring-Impf-2SgS,
pàgè *sógé-ẁ* *mɛ̀,*
tie.and bring.Perf-2SgS if,

[ɛ́rì *jùgú]* *nà-gí* *ímí-yɛ́-ẁ*
[Dist time] 3Sg-Acc defeat-MP-2SgS
'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.Perf.Rel-Pl
mì *là* *tí:lè,*
1SgS also explain.Perf-1SgS
mbé: *[màlì* *gí]* *mì* *gwě:,*
here [Mali Loc] 1SgS go.out.Perf.Rel,
búrcíná *[móbɛ́lí* *gì]* *mì* *sìgé,*
Burkina [vehicle Loc] 1SgS go.down.Perf.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 1SgS take.Perf.Rel,
pérégésèy *mì* *ùní,*
Peregese 1SgS go.Perf.Rel,
tɛ̀rɛ́ *mì* *jɛ̌:,*
train 1SgS take.Perf.Rel,
bɔ́kɛ́ *yá:* *mì* *ùní,*
Boke there.Def 1SgS go.Perf.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] 1SgS go.out.Perf.Rel,
ábíjá:ⁿ *mì* *ùní,*
Abidjan 1SgS go.Perf.Rel,
ábíjá:ⁿ *mì* *gwě:,*
Abidjan 1SgS go.out.Perf.Rel,
[[gáná *kènú]* *gì]* *mì* *ùní,*
[[Ghana border] Loc] 1SgS go.Perf.Rel,

'I left Boke and went to Abidjan. I left Abidjan and went to the Ghana border.'

(xx4) *[gáná kènú gì] mì gwɛ̌:,*
[Gana border Loc] 1SgS go.out.Perf.Rel,
[gáná gì] nì ùní yá:,
[Ghana Loc] 1PlS go.Perf.Rel there,
mí: tɛ̀lɛ̀ nì tàŋgé,
water cut(cross) 1PlS cross.Perf.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 1PlS take.Perf.Rel,
[tákùrà dí gì] nì ùní,
[Takura Di Loc] 1PlS go.Perf.Rel,
[tákùrà dí gì] móbɛ́lí nì jɛ̌:,
[Takura Di Loc] vehicle 1PlS take.Perf.Rel,
kúmá:^{n}sí yá: nì ùní,
Kumasi there.Def 1PlS go.Perf.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:^{n}sí móbɛ́lí nì jɛ̌:,*
Kumasi vehicle 1PlS take.Perf.Rel,
ákárá nì ùní,
Accra 1PlS go.Perf.Rel,
ákárá móbɛ́lí nì jɛ̌:,
Accra vehicle 1PlS take.Perf.Rel,
[lómé gì] nì ùní, ápláwô:,
[Lome Loc] 1PlS go.Perf.Rel, Aplawo *[border Togo-Ghana]*,
[lómé gì] nì gwɛ̌:,
[Lome Loc] 1PlS go.out.Perf.Rel,
[sɛ́mɛ́ gì] nì ùní,
[Seme Loc] 1PlS go.Perf.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] [mòbèlì tó:] nì jɛ̌:,*
[Seme Loc] [vehicle other] 1PlS take.Perf.Rel,
[lágósí gì] nì ùní,

[Lagos Loc] 1PlS go.Perf.Rel,
[lágósí gì] nì gwě:,
[Lagos Loc] 1PlS go.out.Perf.Rel,
íbá:dá nì ùní,
Ibadan 1PlS go.Perf.Rel,
kàdú:nà nì ùní,
Kaduna 1PlS go.Perf.Rel,
[kánù gì] nì ùní,
[Kano Loc] 1PlS go.Perf.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[1PlS go.out.Perf.Rel,
móbɛ́lí nì jě:,
vehicle 1PlS take.Perf.Rel,
bɔ́rnɔ́ éstát, yárúwá,
Borno Estat, Yaruwa,
[màydúkùrì gì] nì ùní,
[Maydukuri Loc] 1PlS go.Perf.Rel,
'We left Kano. We took a vehicle to Borno Estat and Yaruwa. We went to Maydukuri.'

(xx9) *màydúkùrì móbɛ́lí nì jě:,*
Maydukuri vehicle 1PlS take.Perf.Rel,
[gàmbòrí gì] nì ùní,
[Gambori Loc] 1PlS go.Perf.Rel,
[gàmbòrí gì] nì gwě:,
[Gambori Loc] 1PlS go.out.Perf.Rel,
kámérû:n, [kúsírí gì] nì ùní,
Cameroon, [Kusiri Loc] 1PlS go.Perf.Rel,
[kúsírí gì] nì gwě:,
[Kusiri Loc] 1PlS go.out.Perf.Rel,
cád, [pɔ́ŋgèlí gì] nì ùní,
Tchad, [Pongeli Loc] 1PlS go.Perf.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) *[pɔ́ŋgèlí gì] nì gwě:,*
[Pongeli Loc] 1PlS go.out.Perf.Rel,
njàmínà nì ùní,

Ndjamena 1PlS go.Perf.Rel,
njàmínà yá: èbà nì LH*sànjè-bé,*
Ndjamena there.Def market 1PlS LHdo.business-Impf.RelPast,
'We left Pongeli and went to Ndjamena. There in Ndjamena we were doing business in the market.'
[LH*sànjè-bé*, past-time form of imperfective participle LH*sànjò-bá* 'do business']

(xx11) *[sɔ́y-gé nì lá dɔ̀nɛ́] [nì lá tùlɛ̀],*
[cloth-Pl 1PlS also buy.Perf] [1PlS also sell.Perf]
[èbà tó:-gè] [bù:dù púlɛ́-gé] nì lá tùlɛ̀,
[market other-Pl] [money white-Pl] 1PlS also sell.Perf,
péntír nì lá tùlɛ́,
paint 1PlS also sell.Perf,
[kìndò-kìndò já:lì-yè-gé] nì lá tùlɛ́,
[image-image look-MP-Pl] 1PlS also sell.Perf,
'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 1PlS also sell.Perf,
[[é LH*tùnú] gì] pùgáⁿ-gè nì lá tùlɛ̀,*
[[that.Def LHbehind] Loc] aluminum-Pl 1PlS also sell.Perf,
[[é LH*tùnú] gì] brɔ́ⁿs zíŋgíl nì lá tùlɛ̀,*
[[that.Def LHbehind] Loc] bronze steel 1PlS also sell.Perf,
'After (=aside from) that, we sold beds, we sold aluminum, and we sold bronze and steel.'

(xx13) *[[é* LH*tùnú] gì] [cád gì] nì gwɛ̌:,*
[[that.Def LHbehind] Loc] [Tchad Loc] 1PlS go.out.Perf.Rel,
kámérû:n, [kúsírì gì] nì gwɛ̌:,
Cameroon, [Kusiri Loc] 1PlS go.out.Perf.Rel,
[márwá gì] nì yògé,
[Maruwa Loc] 1PlS come.Perf.Rel,
[márwá gì] nì gwɛ̌:,
[Maruwa Loc] 1PlS go.out.Perf.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 1PlS take.Perf.Rel,
gárwá nì ùní,
Garuwa 1PlS go.Perf.Rel,
gárwá móbɛ́lí nì jɛ̌:,
Garuwa vehicle 1PlS take.Perf.Rel,
ŋgáwndérè nì ùní,
Ngawndere 1PlS go.Perf.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 1PlS take.Perf.Rel,
yògòdúmá nì ùní,
Yogoduma 1PlS go.Perf.Rel,
yògòdúmá móbɛ́lí nì jɛ̌:,
Yogoduma vehicle 1PlS take.Perf.Rel,
bɛ́rtwá: nì ùní,
Bertuwa 1PlS go.Perf.Rel,
bɛ́rtwá: móbɛ́lí nì jɛ̌:,
Bertuwa vehicle 1PlS take.Perf.Rel,
mùsàká nì ùní,
Musaka 1PlS go.Perf.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 kŭ:^{n} nì ^{LH}jɛ̌:,*
Ajakay skiff 1PlS ^{LH}take.Perf.Rel,
[érì yà] bàtó nì ^{LH}jɛ̌:, mùsàká,
[that.Def time] boat 1PlS ^{LH}take.Perf.Rel, Musaka,
bícì bràzàvíl
Bichi[fort] Brazzaville,
[bràzàvíl gì] nì ^{LH}nwɛ̌:,
[Brazzaville Loc] 1PlS ^{LH}go.in.Perf.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 1PlS do.business.Perf.Past,
sɔ́y-gé [nì lá dɔ̀nɛ́] [nì lá tùlɛ̀]
cloth-Pl [1PlS also buy.Perf] [1PlS also sell.Perf]
[móbɛ́lí nŏ:] [nì lá dɔ̀nɛ́] [nì lá tùlɛ̀],

[vehicle oil] [1PlS also buy.Perf] [1PlS also sell.Perf],
[móbélí tònjè-gé] [nì lá dɔ̀né] [nì lá tùlè],
[vehicle foot-Pl] [1PlS also buy.Perf] [1PlS also sell.Perf],
[móbélí [kìndò-kìndò já:lì-yè-gé]]
[vehicle [image-image look-MP-Pl]]
[nì lá dɔ̀né] [nì lá tùlè],
[1PlS also buy.Perf] [1PlS also sell.Perf],

'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] èndìgó nì kàní,*
[Kano Loc] indigo 1PlS do.Perf,
[gàmbàrú gì] nì gwě:,
[Gambarou Loc] 1PlS go.out.Perf.Rel,
[[sígál èbá] gì] nì ùní,
[[Sigal market] Loc] 1PlS go.Perf.Rel,
[sígál èbá] nì sìgò-mí,
[Sigal market] 1PlS go.down-Caus.Perf.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 1PlS lie.down-MP.Perf.Rel,
[sɔ́y dɔ̀:ndè-gé] nì dùŋí,
[cloth baggage-Pl] 1PlS lay.Perf.Rel,
[nì bì:-yé] [nì nòyé],
[1PlS lie.down.Perf.Rel] [1PlS sleep(v).Perf.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 *téŋɔ́* 'put down, set' for vertically oriented objects such as calabashes and tables]

(xx3) *yà:gù kàŋ-gè kè yògé,*

night thief-Pl 3PlS come.Perf.Rel,
[á:mì tègâ:-ŋ] nì nòyé,
[rain(n) rain.fall-while] 1PlS sleep(v).Perf.Rel,
[kàmpálá dɔ̀:ndè-gé nì:ŋgà]
[Kampala baggage-Pl two]
èndìgó kè kàmì sìní,
indigo 3PlS steal take.away.Perf.Rel,
kàmì jĭy-yè:,
steal take.Perf-3PlS,

'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).'

[*jĭy-yè:*, 3Pl subject perfective of *jɔ́:* 'take, pick up']

(xx4) *[nì ùnjìgé] [ní jà:lé],*
[1PlS get.up.Perf] [1PlS look.Perf.Rel],
[góní-gè rì] kàmí-yè,
[gear-Pl Def] steal.Perf-3PlS,
dɔ̀:ndɛ̀-gè nì:ŋgà,
baggage-Pl two,
[ìjò gí] nì nwɛ̌:,
[village Loc] 1PlS go.in.Perf.Rel,
[[ìjò gùnàrí] gì] nì tù:rɛ́,
[[village owner] Loc] 1PlS inform.Perf.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 jɔ̀lé] [nì bàlì-yà-nì],*
[1PlS look.for.Perf.Rel] [1PlS see-MP-PerfNeg],
ɛ́rɔ̀ màrí-yè ég-gè kây,
thus be.lost.Perf-3PlS that.Def-Pl Top,
[hàlí yò:] nì bàlì-yà-nì
[until today] 1PlS see-MP-PerfNeg

'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 gélɛ́ mì bàlì-yé,
difficulty place 1SgS see-MP.Perf.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] 1SgS go.in.Perf.Rel,
[kɛ́lɛ́-ŋgé mɛ̀:-ŋgé] [[mì jì:bá] gì] yà sé-y^{n},
[money-Pl 1SgP-Pl] [[1PlP money] Loc] Exist have.Past-1SgS,
[èbà gí] mì nwɛ̌:,
[market Loc] 1SgS go.in.Perf,
'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] 1SgS 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 3PlS bump-MP.Perf,
'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 1SgP] Loc] hand 3PlS put.in.Perf,
[kɛ́lɛ́-ŋgé mɛ̀:-ŋgé] kè kàmí,
[money-Pl 1SgP-Pl] 3PlS steal.Perf,
'With two fingers, they put their hand(s) in my pocket. They stole my money.'

(xx5) *[jì:bá mɛ̌:] mì tábé-ỳ^{n},*
[pocket 1SgP] 1SgS touch.Perf-1SgS,
kɛ́lɛ́-ŋgé ór-à:,
money-Pl not.be-3PlS
kàmì sìní-yè,
steal take.away.Perf-3PlS,

‘I felt (in) my pocket. There was no money. They stole it and took it away.’

(xx6) *kè-gí* *mì* *tàgì-yé,*
3Pl-Acc 1SgS follow-MP.Perf,
jɔ̀l-ɛ́: *á:rí-yé-ỳⁿ,*
look.for-Dur get.tired-MP.Perf-1SgS,
bálí-yá-ní-ỳⁿ
see-MP-PerfNeg-1SgS
‘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’

Index

[to be added]

Ningo
gìrìyè-ɲòmbú ‘blinders (for horse)’
‘eye’ plus ‘cover’

ímá-ỳ^{n} ‘I can, I have the strength for it’
ímá-ná-ỳ^{n} ‘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-ỳ^{n} ‘I cut my hand’
[nùmìyɛ́-gé nì-wɛ̀:-ŋgé] nì sɛ́m-bò ‘we cut our hands’

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