A Grammar of Yorno So

Dogon language family, Toro So subgroup
Mali

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not finished or definitive, use caution in citing

color codes (excluding headings)

- dark red: copied from the grammar template to be replaced, disregard
- black: new material for this grammar
- blue: transcription of Yorno So forms
- green: other languages, reconstructions, phonetic, underlying forms
- red: comments to myself (e.g. data to collect or reanalyse)
- pink: some raw data not yet incorporated into text prose
- orange: cross-refs to examples in other sections

yellow highlight: needs checking or commentary

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1 Introduction

1.1 Dogon languages

We are still working out the internal classification of Dogon languages, as well as the position of Dogon in larger groupings. At present we can think of Dogon as a family of perhaps 50-80 distinct named lects that can be grouped into about twenty language-like clusters.

1.2 Yorno So language

Yorno So appears to belong to the large cluster of lects that has traditionally been called Toro-So (literally, "mountain language"), including the varieties spoken in Sangha (Sangha-So), Youga mountain, and several villages on the cliffs near Sangha. It is not yet clear whether these are dialects or separate languages in the senses that these categories are used in linguistics.

Yorno So (*yɔrⁿɔ̀:-sɔ́*) is spoken in the town of Yendouma (also spelled Yendouma on old maps), native name *yɔrⁿɔ̂:*, which is really a cluster of several small villages (1).

(1) native name

yɔrⁿɔ̀: sógôl (with a school, a health center, and a hotel)
yɔrⁿɔ̀: dá
yɔrⁿɔ̀: dámá
yɔrⁿɔ̀: átɔ́
yɔrⁿɔ̀: bàrⁿǎwⁿ
jáŋàrà
bárkàlà (Muslims, split off from Dama)
yǎ:ndò: (split off from Dama)

The original villages were part-way up the cliffs that separate the plains (where the fields are) from the Dogon plateau (which extends to Ningari and other Tommo-So speaking villages and towns).

The most common second languages for natives of Yendouma are Fulfulde (Atlantic family), Jamsay (Dogon), and Tommo-So (Dogon).

Yendouma has its own market, every fifth day (one day before market day in Sangha). Other markets that are frequented by people of Yendouma are Bamba, Madougou, Ningari, and Ibi.

Following the cliff in the direction of Bamba (northwest), one encounters the Tommo-So speaking villages Ouere (*wɛ́rɛ́*), Tebele (*tɛ́bɛ́lɛ̀*), and Dawa (*dàwⁿá* or *dàwⁿà-sɔ́ŋɔ̀*), then Yanda (which has its own language, Yanda-Dom) and finally Bamba itself (primarily Jamsay-speaking).

check Tuégou native name

To get to Sangha, which has an important market and a road to Bandiagara (and beyond), there are two routes. Going on foot, the direct route is to follow the cliff via the village of Tuégou (called *tɛ̂ːgˇ* in Yorno So and *týjɔ̀w* in the village itself). The other route is to head into the sandy plains to Koundou village (*kûn*) near Youga mountain, then along the base of another cliff passing the villages of Ibi, Nini, and Banani, then climbing over the cliff to Sangha. All of the villages on either route to Sangha speak varieties that have to date been classified as Toro-So.

1.3 Environment

The local environment consists of the plateau starting at the top of the cliffs, the slopes of the cliffs where the original villages were located, and the sandy plains that begin at the base of the cliffs. There is a small rainy-season creek that one crosses while going to Koundou. It is dry on the surface by the end of September, but small ponds (marigots) are excavated in it for off-season farming. There is a small natural pond in the village itself, which in good years holds water year-round; there is an annual fish-catch in the pond around April or May (similar to one in Bamba).

The local economy is based on farming millet in the fields on the plains. Other crops are sorghum, roselle, sesame, cow-peas, and peanuts. Sorghum and peanuts are mostly grown near the creek. In the off-season, some chili pepper, onion, and tomato are grown in the marigots. There is some herding of sheep and goats as well as cattle. The cattle owned by Dogon are generally tended by Fulbe in the area.

1.4 Previous and contemporary study of Yorno So

1.4.1 Fieldwork

These notes are based on fieldwork with Malian linguist Josue Teme, who is a native of Yendouma and who has worked extensively with SIL colleagues on Toro-So Bible translation.

1.4.2 Acknowledgements

The fieldwork on Yorno So is being carried out under grant BCS 0853364 from the National Science Foundation (NSF), Documenting Endangered Languages (DEL) program, 2009-12.

The larger work on Dogon languages began with grant PA-50643-04 from the National Endowment for the Humanities (NEH) for solo fieldwork on Jamsay. This led to the idea of a comparative Dogon linguistic project. The first phase thereof was funded by NSF, grant BCS 0537435, for the period 2006-08. The current grant referenced above is for the second phase. Completion of the overall project, i.e. detailed documentation of some 20 Dogon languages, will require a third funding phase.

The University of Michigan has also provided financial and other support for the project.

My collaborators in the collective project have been Abbie Hantgan, Laura McPherson, Kirill Prokhorov, Steve Moran, and the late Stefan Elders. Our primary Malian assistant (and my Jamsay informant) is Minkailou Djiguiba.

2 Sketch

2.1 Phonology

2.1.1 Segmental phonology

The segments are typical for Dogon languages. YS has the usual seven vowel qualities including an ATR opposition in mid-height vowels, +ATR {*e o*} versus -ATR {*ɛ ɔ*}. Nasalized sonorants {r^n w^n y^n} are present. *z* is absent.

2.1.2 Tonology

Lexical tones are {H} and {LH} for verbs, with {H} required by an initial voiceless obstruent and {LH} required by an initial voiced obstruent. Nouns and other non-verb stems have a wider range of lexical tones including {H}, {LH}, {HL}, and {LHL}. All of these lexical tones are subject to suppression by tonosyntactic overlays.

2.1.3 Key phonological rules

There are few disfiguring phonological rules. There is no productive nasalization-spreading. Apocope deletes word-final short high vowels after most unclustered sonorants. Word-internal Syncope occurs under limited conditions.

+ATR vowels {*e o*} are generally converted to -ATR {*ɛ ɔ*}, respectively, after nasals within a word.

2.2 Inflectable verbs

Suffixal derivations ("v" = variable vowel) for verbs are reversive *-lv́*, causative *-mɔ́* (and a few minor causative suffixes), mediopassive *-ɛ́ː* ~ *-íː*, and transitive *-rv́*, all of which are covered in Chapter 9. Derived and underived verbs are subject to the same outer suffixal inflections (Chapter 10), as follows.

Most verbs are "active" in the sense that they are marked for aspect, basically perfective/imperfective. "Stative" verbs are not marked for aspect.

There are a few defective statives that do not have active counterparts, but active verbs like ‘sit’ and ‘hold’ also have derived stative counterparts (‘be sitting’, ‘be holding’).

Aside from aspect, verbs are inflected for polarity and for pronominal-subject category. Aspect and polarity are morphologically fused for active verbs, so we have portmanteaus like imperfective negative *-lɛ̀-*. Statives add an inflectable stative negative suffix or clitic to the (positive) stative stem. Pronominal-subject categories for all predicates are 1Sg, 2Sg, 3Sg (usually zero), 2Pl, and a fused 1Pl/3Pl category.

An example of an indicative verb form is (xx1). *pínɛ́-lɛ́* ‘open’ is a reversive derivative from *pínɛ́* ‘shut’. This is followed by an AN (aspect-negation) suffix, perfective negative *-lɨ́-* (with underspecified high vowel), then by the pronominal-subject suffix 1Sg *-m*, combining as *-lú-m*.

(xx1) *pínɛ́-lɛ́-lú-m*
shut-Rev-PerfNeg-1SgS
‘I opened (door).’

Active verb *pínɛ́* ‘shut’ also has a stative form *pì-pínɛ̀* ‘(door) be shut’, denoting a state rather than a change of state. The stative negative form *pìnɛ̀* ^{L} *= lá-∅*, literally ‘it is not shut’, is the only way to say ‘it is open’.

Morphophonologically, verbs have two forms that I call **bare stem** and chaining **stem**. The bare stem is used before most overt suffixes, while the chaining stem is used in some perfective positive inflections and also in nonfinal position in verb chains.

In addition to indicative (active and stative) inflections, there are imperative and hortative inflections (§10.6). The imperative is the bare stem without pronominal-subject suffixes, while the hortative has a suffix *-mɔ̀*, not to be confused with causative *-mɔ́*. The imperative and hortative are closely aligned morphologically, and sharply distinguished from indicatives Imperatives and hortatives both add a further suffix *-nɔ̀ŋ* for negation, and both add a final suffix *-ỳ* ~ *-î:* to mark addressee plurality. This suggests that hortatives are (for purposes of verb morphology) a subtype of imperative.

2.3 Noun phrase (NP)

The noun is preceded by most possessors (including all nonpronominal possessors, and pronominal possessors with inalienables), but is followed by other modifiers. Pronominal possessors of alienables (‘my house’) are included in the postnominal modifier sequence. The regular order is (xx1).

(xx1) Poss - N - Adj - Num - Poss - Rel - Determiner - 'all' - DF

The modifier sequence consists maximally of one or more adjectives, a numeral, a pronominal alienable possessor, a relative clause, a determiner (definite or demonstrative), an 'all' quantifier, and a DF (discourse-function) marker such as topic or 'also'. If a relative clause is present, the string to the left of the relative clause moves to the relativization site, resulting in an "internally-headed" relative.

Many human nouns have a suffixal distinction between singular (*-nɛ*) and plural (*-m*). Plural *-m* also appears on determiners (definite markers, demonstratives).

Preposed possessors, adjectives, relatives, and demonstratives are tonosyntactic controllers, imposing a tone overlay on the noun and on any intervening word(s). The tone overlay is {L}, i.e. tone-dropping, in all cases.

Numerals, postposed possessors, definites, 'all', and DF markers are tonosyntactically inert, except that the combination of a numeral and a postposed possessor acts somewhat like a controller.

a few exx. of NP
the three big women
all my sheep

2.4 Case-marking and PPs

Accusative *-ỳ* (§6.7) is a postposition-like NP-final morpheme, generally confined to human referents.

Primary postpositions are dative and instrumental *lé* ~ *lè*, locative *nɛ̀*, and purposive-causal *dɛ̀:* (chapter 8). Other spatiotemporal postpositions consist of (original) nouns plus the locative.

2.5 Main clauses and constituent order

The basic order of elements is S-O-V when the subject is overt (in addition to subject agreement on the verb). The verb is clause-final, except that it may be followed by a subordinating morpheme or an emphatic discourse marker. Adverbs and adverbial phrases occur in various positions adjacent to subject and object NPs.

'Yesterday Seydou bought some sheep in the market'

2.6 Nominalized clauses and constituent order

There is a productive verbal noun form, with suffix *-ú* or phonologically predictable allomorph added to the verb stem with overlaid {LH} tone. This is in addition to the many lexicalized cognate nominals of various shapes that are associated with verbs.

The verbal noun, and often the other nominals, can be used in the fashion of English infinitival complements in connection with various main-clause verbs. Since the complement is really a VP rather than just a verb, an object NP or other nonsubject complement of the subordinated verb may be included with it; see §17.3.1.

'They began to harvest the sorghum.'
'They began to put the millet in the granary.'
'They began to hit us.' (accusative ém-ì: ??)
(some can go into §17.3.1)

2.7 Relative clauses

If we consider the basic order of elements in a NP to be Poss-N-Adj-Num-Poss-Rel-Det-'all', we can account for the overt form of such NPs by assuming that the string to the left of the relative moves into the relativization site, producing an (apparently) internally-headed relative, with the (apparent) head NP consisting of Poss-N-Adj-Num-Poss and with an (apparent) NP coda consisting of determiners and 'all' following the verb of the relative.

Consistent with this, the internal head NP is subject to tone-dropping controlled by the relative, which can therefore be recognized as a tonosyntactic controller on the same order as other reference-restricting modifiers (adjectives, demonstratives, possessors).

The verb in a relative clause is a participle, marked for AN category (e.g. perfective negative or imperfective positive) but not for pronominal subject. If the head NP is also the subject of the relative clause, the participle often agrees in (human) number with the head. The perfective positive participle is {HL}-toned but is segmentally identical to the {LH}-toned verbal noun. In other AN categories the participle is more closely related to the corresponding main-clause stem.

The usual main-clause pronominal-subject suffixes are not used in relative-clause participles. Therefore if the head NP is other than the subject and if the subject is pronominal, a preverbal subject proclitic is used.

'the woman who saw you'

‘the day when you came’

2.8 Interclausal syntax

Relative clauses and verbal-noun (infinitival) VP complements have been mentioned above.

Other subordinated clauses that share many features with main clauses include conditional antecedents (‘if’), quotative clauses, and propositional complements of verbs like ‘know’.

examples/details

Verbs and VPs may be chained either directly (verbs more or less adjacent, no subordinator) or loosely (subordinator present, adjacency not required).

examples/details

Like some other Dogon languages (such as Jamsay), YS has tonal purposives that are followed by main-clause motion verbs, of the type *[beer* ^{L} *drink* ^{HL}*] come*, i.e. ‘come (in order) to drink beer’ (§17.6.xxx).

3 Phonology

3.1 Internal phonological structure of stems and words

3.1.1 Syllables

Syllable forms that occur regularly in monosyllic words and in word-final syllables are *Cv*, *Cv:*, and *CvC*. There are occasional examples of word-final *Cv:C*. Examples in stems (which can also occur as words) are *tíbú* 'stone' (*Cv*), *jă:ná* 'boil' and dǐ: 'water' (*Cv:*), *dúmɲɔ̀* 'stump' and *jîm* 'disease' (*CvC*), and *pɔ́lé:m* 'bush sp. (*Pergularia*)' and *bár^{n}è:m* 'bogolan (fabric)' (*Cv:C*). Except in scattered loanwords (*púgà:rù* 'poor behavior') and certain suffixal forms (mediopassive *-é:-*, perfective-1a *-à:-* ~ *-â:-*), long vowels occur chiefly in monosyllabics and in initial syllables of longer words.

There are a few cases where two unlike vowel qualities appear to fuse into a single syllabic nucleus. An example is *aɛ*, with no hiatus and with about the same duration as a short vowel, in the intensifier *kàɛ́^{n}-kàè^{n}* 'very green'

3.1.2 Metrical structure

Metrical structure, i.e. relationships between strong and weak positions in a linear syllable sequence, is the basis for Syncope and Apocope and for the raising of a nonhigh short vowel to a high short vowel (which can then disappear by Syncope or Apocope).

In YS, Apocope of a word-final short {*i u*} after most unclustered sonorants is common, though in some cases optional. There are many opportunities for verb stems to undergo Apocope since the verbal noun, and for many verbs the chaining stem, end in /u/.

Word-internal Syncope, on the other hand, occurs only sporadically. Trisyllabic verb stems like *wɔ̀gɔ́lɔ́* 'scoop' do raise the medial vowel to high position in the chaining stem (*wɔ̀gúl*) and in the verbal noun (*wɔ̀gŭl-∅*), but it is normally not deleted by Syncope.

3.2 Consonants

The consonant phonemes are in (xx1). Parentheses enclose marginal phonemes, double parentheses extremely marginal ones

(xx1) Consonants

	1	2	3	4	5	6	7	8	9	10
labial	*p*	*b*	*m*	*(f)*			*w*	w^n		
alveolar	*t*	*d*	*n*	*s*	*(z)*	*l*	*r*	r^n		
alveopalatal	*(c)*	*j*	*ɲ*	*(ʃ)*			*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, 4-5. respectively voiceless and voiced fricatives; 6. laterals; 7-8. respectively unnasalized and nasalized sonorants; 9-10. laryngeals

Comments on specific consonants are in the following sections.

3.2.1 Alveopalatals (*c*, *j*)

{*c j*} are affricate-like stops. *c* is very marginal, attested clearly only in the regional interjection *có→*, an exclamation of admiration or surprise associated with griots. *k* does not notably affricate or palatalize before high front vowels, so *ki* is a stable sequence.

j on the other hand is a common consonant: *kéjé* 'go out and welcome' (chaining form *kéjú*), *kàjá* 'dynamic'. It is distinct from *g* in all positions, including before high front vowels: *gì-gă:* 'size', *jì-jŏ:* 'abundant'.

3.2.2 Voiced velar stop *g* and *g*-Spirantization (*g* → *ɣ*)

There is no marked tendency to spirantize *g* to [ɣ] between {*a ɔ*} vowels.

3.2.3 Back nasals (*ŋ ɲ*)

Velar *ŋ* and palatoalveolar *ɲ* are distinct before all vowels, including *i*. Examples are *yàŋí-l* 'make (sth) bad' (chaining stem of *yàŋá-lá*) and *àɲì-ý*^{n} 'roselle variety'.

3.2.4 Voiceless labials (*p, f*)

p is a basic syllable-initial consonant and is well-attested before all vowel qualities: *pígí* 'stir'.

f does not occur in my data. It may occur for some speakers in Fulfulde borrowings.

3.2.5 Laryngeals (*h, ʔ*)

h occurs stem-initially in a few Fulfulde loans like *hákìlɛ̀* 'attentiveness'.

Glottal stop ʔ occurs phonetically as a juncture marker to separate two vowels in reduplications (§xxx), and in interjections like *ɔ́*^{n}*ʔɔ̀*^{n} 'uhn-uhn!' (i.e. 'no!').

3.2.6 Sibilants (*s, ʃ, z*)

s is a regular consonant, common in syllable-initial position. ʃ does not occur in my data, and I did not notice any strong tendency to phonetically palatalize *s* before *i* or other front vowels.

z occurs in a handful of loanwords like *sàndármá* 'gendarme' (< Fr).

3.2.7 Nasalized sonorants (*r*^{n}*, w*^{n}*, y*^{n})

These consonants are fairly common intervocalically within stems. *w*^{n} is often a reflex of intervocalic *m, but synchronic m ~ w^{n} alternations may require positing underling /w^{n}/ (§3.4.4.3). Similarly, *r*^{n} often reflects intervocalic **n*. All three of {*r*^{n} *w*^{n} *y*^{n}} can also arise from oral counterparts under the influence of a preceding nasal.

Autonomous {*r*^{n} *w*^{n} *y*^{n}} in the absence of another nasal are exemplified by *ɛ́r*^{n}*ɛ́* 'iron, metal', *gàw*^{n}*-ɛ́:* '(thunder) clap', and *dǎy*^{n} 'outer limit'.

In cases like *nǒy*^{n} 'hand' with syllable-final *y*^{n} following a nasal consonant, the nasalization is probably automatic rather than phonemic.

Stem-initial *y* and *w* are partially nasalized phonetically by a nasal following the first vowel. For example, in *yă:-r^{n}á* 'woman' and *wày^{n}é* 'tree sp. (*Pterocarpus*)', a narrow phonetic transcription would be close to [j̃ă:r̃á] and [w̃àj̃é], with the vowels also nasalized. However, the nasalization of the initial semivowel is not total, unlike the case in Toro Tegu where Backward Nasalization-Spreading occurs in some words.

3.2.8 Consonant clusters

3.2.8.1 Word- and morpheme-initial *CC* clusters

None, except for the shorter variant in *ìnjé* ~ *ǹjé* 'what?'.

3.2.8.2 Medial geminated *CC* clusters

Geminated clusters are effectively absent from medial position within stems. The few exceptions involve marginal vocabulary (borrowings, onomatopoeias, expressive adverbials). Geminate clusters may arise accidentally at a stem-suffix boundary or in compounds.

xx *kk* is attested once, in *émé wòy sákkéléw→*, which occurs in the fixed phrase that signals the end of a tale and may not be entirely YS. It seems to mean literally 'all of us', with *sákkéléw→* functioning as an intensifier, perhaps composite (*sák-kéléw→*). No other medial geminated stops are attested.

For nasals, I can cite nn in the Arabic borrowing *jà^{n}hánnàmà* 'hell'.

For liquids, there is *ll* in *ìllî:* 'blood' (cf. Tommo So *ìlìyé*), the Arabic borrowing *wàllâ:y* 'by God', the expressive adverbial *pɛ́llím* '(fly past) with a swoosh', and the particle *jállá* 'nearly'. Other than a couple of onomatopoeias like *gɔ̀rrr→* (with prolonged trill), I have not encountered a medial geminated *rr*.

yy is attested in the intensifier *péyyèy→* 'very unripe', in the Arabic loan *tèyyà:tù* 'greeting as part of a Muslim prayer', in *héyyènέ* 'index (finger)', and in the interjection *bóyyá?* 'shoo!' (to birds).

3.2.8.3 Medial nongeminate *CC* clusters

None of these clusters is very common medially within stems. Most of the examples are loanwords. Homorganic nasal plus voiced stop (e.g. *mb*) is the most common type. In (xx1) I show only stem-medial clusters; a few others arise at stem-suffix or compound-internal boundaries.

(xx1) *CC* clusters

cluster	example	gloss
a. nasal plus stop		
homorganic		
mb	*jɔ́mbɔ̀*	'tuft (of hair)'
mp	*yàmpɛ̌l*	'cock (of musket)'
nd	*ɛ̀ndɛ̀m→*	'hospitable area' (adverb)
nt	*wàntɛ̀rɛ́*	'clearance sale'
nj	*(ì)njɛ́*	'what?'
#*nc*	—	
ŋg	*àŋgǎ:^{n}*	'jaw'
ŋk	*táŋkà*	'a colonial coin'
nonomorganic		
nb	*kánbárá*	'calabash jewel holder' (< *kánúbárá)
ng	*kɔ̀ngó*	'conical granary roof' (<*kòndùgó)
b. *l* plus noncoronal		
lb	*málbá*	'rifle' (< Arabic)
lp	*sálpàr^{n}à:*	'early PM Muslim prayer'
lg	*dɔ̀lgɔ́*	'buy out (a slave), ransom (a captive)'
lk	*àlkámá*	'wheat' (< Arabic)
lm	*kùlmɔ́*	'cloud'
#*lŋ*	—	
c. two nonhomorganic nasals		
mn	*dùmnɔ́*	'end, limit'
mŋ	*dúmŋɔ̀*	'stump'
mŋ	*ámŋ-é:*	'carry (against one's ribs or abdomen)'
nŋ	*tɛ́nŋ-é:*	'balance on head' (< *tándí-gí-yɛ́)
d. others (mostly in borrowings or frozen compounds)		
bj	*kíbjí*	'a disease of goats'
md	*támdóy*	'tobacco pipe' (< *tàbà-??)
ms	*àmsɔ́gɔ́*	'pity(n)'
rk	*sárkùjù*	'military service'
rm	*lármè*	'army'
rs	*kúrsá-kúrsá*	'skin disease (rashes)'
wg	*dɛ́wgàl*	'religious marriage'
wl	*dâwlà*	'prestige, value'
wr	*kǎwrò*	'excuse(n)'
ws	*áwsá-nɛ́*	'Hausa person'
yg	*táygɛ́*	'be wary of'

yk	*bàykâl*	‘modern rifle type’ (< Russian brand)

3.2.8.4 Medial triple *CCC* clusters

I can cite *mpl* and *yŋg*, both in probable loanwords.

(xx1)	*sèmplês*	‘modern rifle type’
	wâyŋgè	‘butcher’

3.2.8.5 Final *CC* clusters

None.

3.3 Vowels

The vowels of YS are in (xx1). Nasalized vowels are much less common than oral vowels except in monosyllabic stems.

.

(xx1)	short oral	long oral	nasalized (long)
	u	*u:*	*u:^{n} (rare)*
	o	*o:*	—
	ɔ	*ɔ:*	*ɔ:^{n}*
	a	*a:*	*a:^{n}*
	ɛ	*ɛ:*	*ɛ:^{n}*
	e	*e:*	—
	i	*i:*	*i:^{n}* (fairly rare)

3.3.1 Short and (oral) long vowels

Monosyllabic stems have *Cv:* rather than monomoraic *Cv* shapes, with the exception of *gě* ‘say’ (which is realized as *gě:* when the rising tone is not overridden). In nonmonosyllabic stems, long vowels occasionally occur on final syllables, but many such cases are loanwords (*sírà:* ‘snuff or chewing tobacco’, from Arabic) or reflect contraction with suffixes. In loanwords long vowels may also occur medially, as in *sàkɔ́:sù* ‘traveling bag’ (Fr *sacoche*). In practice, the main position where long and short vowels contrast in native vocabulary is in the initial syllable of a nonmonosyllabic stem. Even here, long vowels occur

frequently in loanwords and in derivatives of Cv: stems, but there are some genuine *Cv:Cv* stems. Examples of initial syllable length oppositions are in (xx1).

(xx1) a. initial *Cv*

bùrúd-é:	'become muddied'
pòbùl-ê:	'whistling(n)'
kɔ́rɔ̀	'meaning'
làrá	'slippery ground'
tér^{n}é	'think (sth) over'
léré	'(plant) grow new branches'
gírù	'forward, ahead, in front (adv)'

b. initial *Cv:*

bú:dù	'money'
pó:-nɔ́	'greet'
kɔ́:rɔ́	'serve (sauce)'
là:rá	'edge of village'
té:r^{n}-é:	'(muddied water) become clear after settling'
sê:rè	'omen'
sí:ré	'point at'

Except for Rising-Tone Mora-Addition, which allows a rising tone to be realized over a long vowel (§3.6.4.1), there are no productive lengthening or shortening processes in the phonology or morphology.

3.3.2 Nasalized vowels

All nasalized vowels are long except as noted below. +ATR nasalized *e:^{n}* and *o:^{n}* are not attested. *u:^{n}* is rare (one semi-onomatopoeic *Cu:^{n}* verb 'murmur' and paired nominal), but there are a few cases of *i:^{n}* .

Nasalized vowels are common in monosyllabic stems. One example of each nasalized vowel in a noun is in (xx1a). I know of one apparently native bisyllabic noun with a final-syllable nasalized vowel (xx1b). This pattern is more common in French borrowings (xx1c). There are two stems with a nasalized vowel in the first syllable followed by *l* (xx1d), but these might be reinterpreted as having /nl/ clusters that are realized phonetically as vocalic nasalization plus *l*. There are also two stems, one an expressive adverbial and the other a suffixed mediopassive verb, that have a (surface) short nasalized vowel followed by *ɛ:* (xx1e).

(xx1) a. *gù-gû:^{n}* 'murmur(n)'

	ɔ́:ⁿ	‘cemetery (in cave)’
	tă:ⁿ	‘door shutter’
	gê:ⁿ	‘gizzard’
	jî:ⁿ	‘(a) fart’
b.	*àŋgă:ⁿ*	‘jaw’
c.	*pɔ̀sɔ̂:ⁿ*	‘poison’ (< Fr *poison*)
	bìdɔ̂:ⁿ	‘jug, canteen’ (< Fr *bidon*)
	jàmâ:ⁿ	‘diamond’ (< Fr *diamant*)
	sàrsâ:ⁿ	‘sergeant’ (< Fr *sergent*)
d.	*sì:ⁿlá*	‘disease’
	tá:ⁿlè:	‘riddle’
e.	*sɔ́ⁿɛ̀:ⁿ*	‘newborn (baby) (intensifier)’
	tɔ́ⁿ-é:	‘(vine) twist itself around sth’

The full set of known monosyllabic verbs with nasalized vowels is in (xx2). The common nasalized vowels are *ɔ:ⁿ*, *ɛ:ⁿ*, and *a:ⁿ*. *tɔ́ⁿ-é:* in (xx1e) is a mediopassive of *tɔ́:ⁿ* ‘fold or wrap up’ in (xx2).

(xx2)	*gŭ:ⁿ*	‘murmur’ (with noun *gù-gû:ⁿ*)
	dǔ:ⁿ	‘hold up (sth dangling); (container) catch (drips)’
	hɔ́:ⁿ	‘here, take this!’ (imperative only)
	jǔ:ⁿ	‘(bird) peck’
	kɔ́:ⁿ	‘pull in (stomach)’
	kɔ́:ⁿ	‘bray; (cock) crow’
	ɔ́:ⁿ	‘be alive’
	sɔ́:ⁿ	‘douse (fire)’
	sɔ́:ⁿ	‘lay (thorn branches)’
	sɔ́:ⁿ	‘rest, take a break’
	sɔ́:ⁿ	‘tremble, vibrate’
	tɔ́:ⁿ	‘measure’
	tɔ́:ⁿ	‘fold or wrap up’
	tɔ́:ⁿ	‘(e.g. breast milk, urine) fill up’
	tɔ́:ⁿ	‘turn on (flashlight)’
	dâ:ⁿ	‘be sitting’ (stative)
	gă:ⁿ	‘twist (arm)’
	ká:ⁿ	(*kín gŏ:ỳ ká:ⁿ* ‘be nearly dead’)
	pá:ⁿ	‘put (sth) across’
	pá:ⁿ	‘(pond) dry up; (sb) lose weight’
	sá:ⁿ	‘urinate’ (with noun *ìsán*)

tá:ⁿ	'(graft) take root; spread out (limbs)'
ɛ́:ⁿ	'role (fibers into a cord)'
é:ⁿ	'(woman) marry (man)'
ɛ́:ⁿ	'harden'
gɛ̌:ⁿ	'request, ask for'
kɛ́:ⁿ	'abrade; saw in half; cut the throat of'
pɛ́:ⁿ	'strike (sth) against (sth); break off (protrusion)'
tɛ́:ⁿ	'(under)take (action)'
tí:ⁿ	'block (road)'
dǐ:ⁿ	'lie down'
jǐ:ⁿ	'fart' (with noun *jî:ⁿ*)

3.3.3 Initial vowels

The initial syllabic onset of verb (and other) stems may be empty, the result being *v*-initial stems. The vowel may be long or short, with long vowels required in monosyllabics (*Cv:*). I cannot cite an example beginning with *e*, but this is probably an accidental omission (the shape *Ce:* is also rare).

Monosyllabic examples are *á:* 'catch, grab', *ɛ́:ⁿ* 'become tight', *ó:* '(millet spikes) grow reddish fuzz'. Bisyllabic examples are *álá* 'brew (beer)', *ɛ́rɛ́* 'braid (hair)', *óbó* 'give', *ɔ́rⁿɔ́* 'purge intestines with liquid enema', *ímɛ́* 'stutter' (in *ímù ímɛ́*), and *úrɔ́* 'skin and butcher'.

3.3.4 Stem-final vowels

Stem- and word-final vowels are common. In nonmonosyllabic stems, final *Cv* is much more common than *Cv:* . However, mediopassive verbs end in *-ɛ́:* (chaining stem *-í:*), and many final phonetic [i:] vowels are created by adding diminutive *-y* to a noun or adjective (*-y* monophthongizes with preceding /i/ to *i:*). All vowel qualities may occur finally, but final short high vowels {i u} are subject to Apocope after most unclustered sonorants (§3.4.3).

3.3.5 ATR harmony (vowels)

Most other Dogon languages strictly avoid combinations of [+ATR] {*e o*} with [-ATR] {*ɛ ɔ*} within stems. Depending on the language, the harmony may extend to some or all derivational and aspect-negation suffixes on verbs. Noun stems with a disharmonic mix are generally analysable as compounds, at least prosodically.

In Yorno So, there are some genuine counterexamples to ATR-harmony. The common pattern is the sequence +ATR vowel plus nasal consonant plus -ATR vowel. This is due to a constraint against [+ATR] vowels directly following a nasal consonant. In (xx1), "N" represents any nasal *C*. These stems generally reconstruct as *CeCe and *CoCo with stem-wide [+ATR] vocalism.

(xx1) Disharmonic vowel sequences in stems

a. *e* and *ɛ*

eNɛ

béné	'side'
démé	'heavy; thick (wall)'
dèmé	'jar for grain'
gèŋé	'pick up'
kéné	'having a single testicle'
ké:né	'stock up'
pémé	'dredge'
pèmĕy	'bobbin (in loom)'
sémé	'oval jar for millet beer'
téné	'well (water)'
té:né	'align (objects)'

ɛCNe

yèlmé-yèlmè	'disheveled (hair)'

ɛNe

bèŋèlĕy	'insect gall or similar bulge on tree'
dèŋélé	'chunk'

ɛCCe

(nòy-sày) héyyèné	'index finger'

b. *o* and *ɔ*

oNɔ

bòmɔ́	'stupidity'
bònɔ́	'hole'
bŏ:nɔ́	'call, summon'
gònɔ́	'courtyard'
gòmɔ́	'foothold cut in tree trunk'
gŏ:-nɔ́	'take out'
bɔ̀lɔ̀-kòmɔ́	'rump section (butchery)'
ónɔ́	'flatter'
ònɔ́	'back' (adverb)
óŋɔ́	'wind'
pónɔ́	'become crooked'
pómɔ́	'remove (blade); take off (shoes)'
sónɔ́	'lift up'
tómɔ́	'jump'

tòmɔ́	‘basket (from branch strips)’
tónɔ́	‘freeze, solidify’
tónɔ́	‘hold (stick) back, ready to strike’
tònɔ̀-ý^{n}	‘waterjar’
yònɔ́	‘pull up (pants)’
dògó-nɔ́	‘finish, use (sth) up’
oNNɔ	
tómɲɔ̀	‘cow-pea fritters’
ɔNCo	
kɔ̀ngó	‘conical thatched granary roof’
kɔ́ŋgól	‘mussel shell’
kɔ́ŋgòl	‘flat bronze wristband’

There are occasional mismatches involving stems of the same word-family such as a verb and its cognate nominal: *tél télé* ‘clear a field’, *tǒy tó:* ‘make slashes in earth (to plant)’. See §11.xxx for more on the relationships between verbs and cognate nominals. Similarly there is an idiosyncratic ATR alternation in intransitive *dògó* ‘be used up’ and transitive *dɔ̀ŋó-ró* ‘use up, deplete’.

High vowels {*i u*} are generally extraharmonic. They may co-occur with either +ATR or -ATR vowels within a stem. The vowel sequences *CiCe*, *CiCɛ*, *CuCo*, and *CuCɔ* are common in verb stems. However, a stem-final *u* favors preceding-syllable {*e o*} in cognate nominals paired with *CɛCɛ* and *CɔCɔ* verbs, respectively, as in *jébú jɛ̀bɛ́* ‘curse (a curse)’ and *jóbú jɔ̀bɔ́* ‘run; run a race’. For a list of such examples, see (xx1e) in §11.1.5.2. This is not, however, an automatic phonological rule; the same *CɛCɛ* and *CɔCɔ* verbs have regular verbal nouns *CɛC-ú* and *CɔC-ú* with no shift to +ATR in the first syllable.

Since verbs with *a*-vowel in the first syllable simply copy this vowel quality in following syllables, there is no evidence as to whether *a* patterns with +ATR or -ATR.

3.3.6 Vocalic sound symbolism

As in other Dogon languages, some bisyllabic action verbs and some expressive adverbials form lexical sets sharing the same consonantism and approximate meaning but with divergent vocalism. The general tendency is for {*e ɛ*} to suggest diminution of some sort, but the specific senses are idiosyncratic to the particular lexical set. Examples are in (xx1).

(xx1) a. general sense: ‘crumple, crush’

kúmɲ-é:	‘(paper, garment) be crumpled’ (reversible)
kómɲ-é:	‘(tin can) be crumpled’ (but still usable)
kɛ́mɲ-é:	‘(tin can) be crushed (flattened)’

b. general sense: ‘separate into two or more pieces’

kóbóló	‘crack open (shell of peanut or other legume)’
kábálá	‘break (sth soft) by hand; split (a nut) in half’
kɛ́bɛ́lɛ́	‘break off (a small piece); break into small pieces’

c. general sense: ‘separate a part of an extended object’

púló	‘pull off (e.g. seared chicken head); break (baguette, cassava, cigarette) in half by hand; snap (thread) by pulling or biting; break off (a social relation)’
póló	‘break (cigarette) in half; break up (bread) by hand; pick off (a mango)’
pálá	‘(well shaft) start to fall apart’
pélé	‘break or pull off (a leaf)’ [homonyms mean ‘clap (hands)’ and ‘(trap) be sprung]
pɛ́lɛ́	‘break or pick off a piece of (sth flat, e.g. leaf or paper); break up (fruit pits) by beating once with a stone; strike (match)’

cf. also *pɛ́:* ‘squash (an insect)’

d. general sense: ‘separate by applying force to a flat surface’

kájá	‘scrape (tough hairs) off a hide with a knife; sear and scrape (hairs) off (sheep head, small mammal)’
kɔ́jɔ́	‘scour (a pot) to clean off remnants of a cooked meal; scrape out (calabash, after sawing a gourd fruit open); peel (gingerroot) with a knife; scrape (hairs, bits of flesh) off a hide with a stone; break off (skin of kola nut) by scraping with thumb; scale (a fish) with a knife’
kɛ́jɛ́	‘cut (meat, fabric) by slicing; cut up (meat, mango); cut off (tip, branch); chop off (lightly); reap (grain) by severing with a hand-knife; set (a date or deadline)’

e. general sense: ‘separate into many pieces’

pájá	‘toss, scatter (a bunch of tiny cowries, by tossing on a flat surface, in fortune-telling)’
púјó	‘(plant) take root and grow from a bulb or a graft; (tree) grow new branches; (spring water) gush out’
pójó	‘explode, pop, burst; be punctured’
pɔ́jɔ́	‘(sth) crumble’
píjé	‘spray (sth)’
pɛ́jɛ́	‘pound (grain, in mortar) with a little water to separate grain from chaff’
pɛ́jɛ́	‘(calabash, waterjar) be shattered into small pieces’

cf. *púgɔ́-jɔ́* ‘break up (millet cakes) into chunks by hand’

See also the set of forms meaning ‘tilted’ in §8.4.7.6 below.

Because of these sound-symbolic variants, some apparent ATR shifts in suffixal derivation may really involve secondary associations between different members of the same lexical set. See, for example, the discussion of *mùŋɔ́* ‘stuff (a hole)’ and its apparent reversive *mùŋó-ló* ‘unstuff, reopen (hole)’, (xx1d) in §9.1. Another possible example is *yègé* ‘take measures (to prepare for a future eventuality’ versus transitive *yègé-ré* ‘prepare (sb, sth) to go’.

3.4 Segmental phonological rules

3.4.1 Trans-syllabic consonantal processes

In this section I treat phonological processes that make reference to nonadjacent segments in neighboring syllables within the word. Examples are interactions among consonants across an intervening vowel. There are few such processes in YS and they are lexically idiosyncratic.

3.4.1.1 /g/ → *ŋ* after nasal syllable

The productive nasalization process is instead limited to suffix-initial /g/ after a nasal syllable. This applies to characteristic suffix *-gú* and variants (§4.2.1), to a minor deverbal nominalizing suffix *-gú* (§4.2.2.2), and to an occasional *-g-* increment before mediopassive *-é:* in inchoatives, see (xx2d) in §9.4. Examples are characteristic *bìnè-ŋí-né* ‘gluttonous’, deverbal *nàm* ^{L}*-[númɔ́-ŋ]* ‘sunset’, and inchoative *mǎ:-ŋ-é:* ‘become dry’. In *-númɔ́-ŋ* ‘falling’ from /númɔ́-gú/, after nasalization of the suffixal consonant, the final short high vowel is apocopated as usual after an unclustered sonorant.

There is no systematic Jamsay-style forward spreading of nasalization from verb stem to derivational suffix beginning in {*w y r*}: *gèŋ-é:* ‘be tilted’, transitive *gèŋé-ré* ‘tilt (sth)’ rather than #*gèŋé-r^{n}é* with nasalized tap.

Within stems, a second-syllable {*w y r*} following an initial nasal is often nasalized: *néw^{n}é* ‘taste(v)’, *nùmór^{n}ɔ́* ‘five’, *nár^{n}á* ‘truth’ However, there is no fixed constraint against unnasalized {*w y r*} after a nasal syllable, especially in the third and later syllables, as we see in e.g. *tòy*^{L}*-dáŋúrú* ‘spot-sowing’, *gìnà:mórù* ‘magician’, *nà-nàyê:* ‘mint’ (< Arabic) and *tàmòrô:* ‘date’ (< Arabic). Since nasalized {*w^{n} y^{n} r^{n}*} can occur medially in the absence of another nasal, it is not necessary to derive them from {*w y r*} by nasalization-spreading.

3.4.1.2 /g/ → *ŋ* in stem before transitive suffix

The known /g/ → *ŋ* alternations in stems, triggered by addition of a derivational suffix rather than by a preceding nasal, are intransitive verb *dògó* 'end, be finished; be used up' versus transitive verb *dɔ̀ŋó-ró* 'deplete, use (sth) up', and *dàgá* 'be acceptable' versus transitive *dàŋá-rá* 'make (sth) okay; agree'.

3.4.1.3 /w^{n}/ → *ŋ* in stem before transitive suffix

For /w^{n}/ → *ŋ* in the same morphological context I can cite only *yàw^{n}á* 'malfunction' (cognate noun *yáw^{n}à* 'damage') versus *yàŋá-lá* 'ruin (st)', see (xx3) in §9.2.3. For *l* in the suffix in *yàŋá-lá* see §3.5.1.xxx below.

3.4.1.4 /l/ → *r^{n}* after nasalized monosyllabic stem

The basic reversive derivational suffix is *-lɨ́* (§9.1). It does not change when it follows a bisyllabic stem ending in a nasal syllable: *mùŋó-ló* 'unstuff, reopen (stuffed-up hole)', *námá-lá* 'remove foot from'. However, monosyllabic stems with either an initial nasal or with a long nasalized vowel have reversives with *-r^{n}ɨ́*, e.g. *nă:-r^{n}á* 'unbraid (rope)' and *tɔ́:^{n}-r^{n}ɔ́* 'unfold' (< *tɔ́:^{n}* 'fold'), see (xx1e) in §9.1.

3.4.1.5 /l/ → *n* after nasal syllable

As just noted, the basic reversive derivational suffix is *-lɨ́* (§9.1). From *màr^{n}á* 'seal up', however, we get reversive *màr^{n}á-ná* 'unseal', see (xx1e) in §9.1. Either directly or indirectly (i.e. via /màr^{n}á-r^{n}á/), /l/ must become *n* here.

Another case of /l/ → *n* is in the 3Sg form of the perfective negative, which is basically *-l-∅* as in *làgă-l-∅* 'he/she did not hit' but shows up as *-l-∅* after a nasal as in *nùmɔ̌-n-∅* 'did not fall' (§10.2.3.1).

By contrast, the *n* alternation in the 1Pl/3Pl form *-né* of the perfective negative does not fit any phonological pattern, and *-né* is best considered a portmanteau.

3.4.1.6 /r/ → *l* in transitive suffix

In the case of intransitive *yàw^{n}á* 'malfunction' and transitive *yàŋá-lá* 'ruin (st)', see §3.5.1.xxx above and (xx3b) in §9.3.1, the idiosyncratic shift from /w^{n}/ to *ŋ*

in the stem is associated with an equally idiosyncratic shift from /r/ to *l* in the suffix. The morphophonology is nontransparent. Elsewhere *-lv* is reversive (§9.1), but there is no suggestion of reversive semantics in *yàŋá-lá*.

3.4.2 Vocalism of suffixally derived verbs

3.4.2.1 Suffixal Vowel-Spreading

Except for causative *-mɔ́*, which behaves morphophonologically rather like a chained verb, derivational suffixes on verbs have underspecified vowel qualities. They get their surface vowel quality from preceding vowels. If the preceding vowel is nonhigh, the suffixal vowel is a copy of this vowel, except when ATR valures are affected by an intervening nasal. If the preceding vowel is {*i u*}, the suffixal vowel is a corresponding mid-height vowel, the choice between +ATR and -ATR depending on the harmonic class of the verb. In this case the allowed vowel sequences are *i…e*, *i…ɛ*, *u…o*, and *u…ɔ*. For examples see the various sections (reversives, mediopassives, transitives) in Chapter 9.

3.4.2.2 Epenthesis absent

No cases of epenthesis have been noted.

3.4.3 Syncope and Apocope

3.4.3.1 Syncope

Syncope is the deletion, often optional, of a short high vowel in a medial syllable, i.e. *CvCu/iCv* → *CvCCv*.

exx of Syncope

3.4.3.2 Apocope

Apocope is the deletion, often optional. of a word-final short high vowel after an unclustered sonorant.

The chaining stem ends in *-u* for some but not all nonmonosyllabic verb stems. This *-u* is subject to apocope when the stem is chained to a following verb. Stem-final *u* (arguably a segmentable suffix in some cases) is also

common in modifying adjectives. If we recognize underlying final /-u/ in rising-toned *(C)v̌C* adjectives, this would add further instances.

Apocope occurs in /(C)vC$_2$u/ and in theory in /(C)vC$_2$i/ when *C$_2$* is an unclustered sonorant other than palatoalveolar *ɲ*, i.e. in principle {*l m n ŋ r r^n w w^n y y^n*}. It can also occur in bisyllables when *C$_2$* is *b*, but not other obstruents. It does not occur after *CC* clusters or after a syllable with a long vowel. Apocope is most common in bisyllabic verb stems, but even here there is sometimes a faint phonetic echo of the rounding from /u/. Apocope is more variable in bisyllabic modifying adjectives. Even for verbs it appears to be variable at the end of trisyllabic stems.

Examples of apocope are chaining stems /nùm-ú/ → *nŭm-∅* 'fall' and /ób-ú/ → *ób-∅* 'give', and adjectives *dȟŋ* 'skinny' and *ȟl* 'wet' if derived from /CvCu/. Examples of non-apocope are chaining stems *lágú* 'hit', *píjú* 'spray', *yămŋnú* 'scrub', and *tá:r-ú* 'show', and adjectives *bȍŋnú* 'not entirely full' and *pȍ:rú* 'putrefying'.

See §10.1.3.3 for more examples involving chaining stems of verbs, and §4.5.1 for lists of adjectives.

verbal nouns

3.4.4 Local consonant and consonant cluster alternations

3.4.4.1 /y^{n}r/ → *n*

dă:-ná 'cause to sit; set' patterns grammatically as the transitive of *dày^n-é:* 'sit', so we could think of /y^{n}r/ → *n*. Perhaps this could be extended to *dŭ:-nɔ́* 'lay (sth) down' from *dĭ:^{n}* 'lie down', but the vocalic phonology is nontransparent. See §9.2.3 and (xx1a) in §9.2.2.

3.4.4.2 *y*-Deletion before {*l n*} in derivational suffix

In verb stems of the shape *Cvy-*, either lexically so or after syncope from /Cvyv-/, the *y* is deleted before an alveolar sonorant in a derivational suffix. We see this in reversives like *kú:-ló* 'remove hide from' < *kúy* 'cover (w. hide)' and *dŭ:-lɔ́* 'unload' < mediopassive *dùy-é:* 'carry on head'.

Nasalized *y^n* is also deleted under similar conditions: *dă:-ná* 'cause to sit; set' < mediopassive *dày^n-é:* 'sit'.

The deletion of *y* and *y^n* does not occur before inflectional suffixes: *túy-l* 'did not send'.

3.4.4.3 /wⁿ/ → *m* syllable-finally

Human plural *-m* appears to lenite to *-wⁿ* intervocalically (see below for analysis). What is elsewhere word-final /m/ is replaced by *wⁿ* before the 'it is' enclitic or the accusative suffix/enclitic. See *yǎ:-wⁿ=ɨ́*: 'it is (some) women' from *yǎ:-m* 'women' in (xx1c) in §11.2.1.1, and accusative *[àrⁿú-m ŋɛ̀-wⁿ]-ì:* 'the men' from definite plural *ŋɛ̀-m* in (xx1a) in §6.6.1.

more exx.
try 'it is' with *ɛ̂m* 'milk' etc

Other *m/wⁿ* alternations occur in the word-family *ɛ̂m* 'milk(n)' and verb *ɛ́wⁿɛ́* 'milk, extract milk from (a cow)', and in the word-family *jîm* 'pain(n)', verb *jìwⁿɛ́* '(body part) hurt, be painful'. Further examples are adjective â:m 'partially fermented (juice)' and its inchoative verb *á:wⁿ-ɛ́:* 'become partially fermented', and *yìwⁿɛ́* 'die' and its chaining stem yím.

Nonalternating intervocalic *m* occurs in many other stems including *wǎ:má* 'fry in a little oil', *símɛ́* 'grill, roast', and *sɔ́màyⁿ* 'spices'. This suggests that the m ~ wⁿ alternations involve underlying /wⁿ/ becoming *m* when syllable-final. Causative suffix *-mɔ́* likewise has stable *m*, but in this case it could be because of the chain-like quality of this particular derivation.
kǎwⁿ→ ??

An objection to the /wⁿ/ → *m* analysis is that word-final *wⁿ* is attested in some stems. These are chiefly adverbs and onomatopoeias: expressive adverbials with final prolongation *sɛ́wⁿ→* 'tiny (eye)', *kɛ́wⁿ→* 'tiny (grains)', and *bɔ́yⁿɛ̂wⁿ→* 'glowing', adverbial phrase *táwⁿ ŋɛ̀* 'late' (cf. verb *táwⁿá* 'be late'), verb complex *kǎwⁿ kúnɔ́* 'treat (child) strictly', and onomatopoeias like *bɛ̌wⁿ* 'sound of fart'. Few nonadverbial stems have final *wⁿ*, though I can cite *adjective áwⁿ* '(animal) in good condition', the phrase *wòlò tɛ̌wⁿ* 'small gift, tip', and the noun *kí-káwⁿ* 'upper shoulder'. An issue here is that word-final /wu/ and /wⁿu/ are subject to optional apocope, so the difference between final *wⁿu* and final *wⁿ* is not always clear.

3.4.4.4 /rⁿ/ → *n* syllable-finally

/rⁿ/ may become syllable-final due to Syncope or Apocope of a short high vowel. In this case, /rⁿ/ is realized as *n*. For example, the cognate nominal-verb collocation 'pray, perform a Muslim prayer' is *sɛ̂n sɛ́rⁿɛ́*, where the noun *sɛ̂n* already arguably shows this change (if derived from /sɛ́rⁿù/). The corresponding verbal noun is pronounced *sɛ̀n-[sɛ̌n-∅]*, where the final is from /sɛ̀rⁿ-ú/, see

(xx2) in §4.5.2. Other examples of the same type are *tɛ́w^{n}ùn tɛ́w^{n}ér^{n}ɛ́* 'give formal counsel', *mɛ̂n mèr^{n}ɛ́* 'gossip about, denigrate', *dɔ̂n dɔ̀r^{n}ɔ́* 'do some selling', and *tǐn tír^{n}ɛ́* '(go) chop (and collect) wood'.

Historically, *r^{n}* reflects intervocalic lenition of *n. However, synchronically there are numerous cases of stable intervocalic *n*, such as *gánà* 'country' and *bònî:* 'swimming(n)', so a synchronic rule /n/→ *r^{n}* intervocalically would not work. The situation is therefore the same as for *m* ~ *w^{n}* alternations.

3.4.4.5 /rt/ → *t*

This is not fully productive, cf. unreduced *múrtù* 'rebellion, revolt' (a borrowing). However, the distributive iteration of túrú '1', theoretically /túrú-túrú/, is usually pronounced *tú-túrú*, which suggests Syncope §3.4.3.1 followed by deletion of /r/ before *t*. Alternatively, we could take *tú-túrú* as having been reanalysed as a *Cv-* reduplication.

3.4.4.6 Vestiges of *mb → *m*

YS is one of the Dogon languages that have reduced original homorganic nasal plus voiced stop clusters to just the nasal, including *mb → *m*. This normally leaves no trace, but occasionally *m* from *mb fails to trigger the nasalization of /g/ to *ŋ* in a suffixal syllable. An example is *bòmɔ̀-gí-nɛ́* 'idiot', a characteristic derivative (§4.xxx), compare Nanga *bɔ̀:mbɔ̀-gí* with preserved *mb* cluster. Another is *tɛ̀:mɛ̂:* 'brick' in definite *tɛ̀:mɛ̂: gɔ̀* 'the brick'. Perhaps such cases are in the process of being leveled out by younger speakers. For 'idiot' I can cite a related inchoative verb *bòmɔ́-ŋ-ɛ́:* 'become stupid' that does show /g/ → *ŋ*.

3.4.5 Vowel-vowel and vowel-semivowel sequences

3.4.5.1 Hiatus between adjacent vowels in reduplications

A phonetic glottal stop may be audible in stems with initial *Cv-* reduplication when the stem lacks an initial consonant. For example, stative *í-íŋɛ̀* 'be standing' can be heard as [íʔíŋɛ̀], especially in careful pronunciation

3.4.5.2 *vv*-Contraction

vv-Contraction is most evident in suffixally derived mediopassive verbs with -ɛ: (bare stem) alternating with -i: (chaining stem). For verbs of two or more syllables, this suffix replaces the stem-final vowel. For example, *bìlé* 'flip (sth)' has a mediopassive *bìl-é:* '(sth) flip over', chaining stem *bìl-í:* . If the suffix is represented as *-ɛ:* ~ *-i:*, the stem-final vowel must be deleted before the suffixal vowel. (One could also posit underlying suffixal /-ɛ/ ~ /-i/, and contraction of two short vowels into a long vowel with the quality features of the second vowel.) Monosyllabic *Cv:* verbs combine with the mediopassive suffix as *Cv-ɛ:* ~ *Cv-i:*, with shortened stem vowel, as in *kó:* 'turn (sth) inside-out', mediopassive *kó-é:* 'be inside-out'. In other words, the second mora of Cv: is treated like the stem-final short vowel of nonmonosyllabic stems. For more mediopassive examples see §9.3.1.

One can argue for a *vv*-Contraction process in some 1Pl/3Pl inflected forms, but the phonology is nontransparent. The most promising example is in the perfective-1b paradigm, where the 3Sg is *-tì-∅* and the 1Pl/3Pl is *-t-è:*^{n} . However, inspection of other inflectional paradigms does not lead to a clear identification of a consistent 1Pl/3Pl underlying form, see (xx2) in §10.3.1.

3.4.6 Local vowel-consonant interactions

3.4.6.1 *i* ~ *u* alternations before suffixal consonants

In the perfective-1b and perfective negative, we find *u* before 1Sg *-m* and 2Sg *-w* versus *i* before 2Pl *-y*.

(xx1)		perfective-1b	perfective Neg
a.	1Sg	*-tù-m*	*-lú-m*
	2Sg	*-tù-w*	*-lú-w*
b.	2Pl	*-tì-y*	*-lí-y*
c.	3Sg	*-tì-∅*	*-l-∅*
	1Pl = 3Pl	*-t-è:*^{n}	*-né*

The underlying form of the perfective-1b suffix is clearly *-tì-*, as seen in the zero 3Sg form *-tì-∅*. In the perfective negative, the 3Sg form shows apocope to *-l-∅*, so we cannot tell whether the underlying vowel is /i/ or /u/. The 1Pl/3Pl forms are contracted or irregular.

The /i/ of the perfective-1b, and the underspecified high vowel of the perfective negative, are realized as *u* before a syllable-final labial {*w m*} and as *i* before a syllable-final palatal *y*.

The same *i* ~ *u* alternation occurs in the unsuffixed perfective *gì-* ~ *gù* of the irregularly light stem 'say' (§11.3).

3.4.6.2 Monophthongization (/iy/ → *i:*, /uw/ → *u:*)

Monophthongization as a synchronic process is observed in combinations of a short high vowel with pronominal-subject suffixes (1Pl *-y*, 2Sg *-w*), and in several combinations of a noun or adjective with diminutive suffix *-ý*, see (xx2) in §4.5.1 Monophthongization is fed by the assimilatory *i* ~ *u* alternations described in the preceding section.

3.5 Cliticization

In terms of phonological interaction, there is no sharp distinction between suffixes and enclitics. Enclitics are elements that are correctly linearized but that are pronounced as suffix-like add-ons to the previous word.

I use enclitic boundary = for the 'it is' clitic *=y* ~ *=i:* added to NPs (§11.2.1), the stative negative clitic *=lá-* added to stative verbs (§10.4.2), and to past clitic *=be-* added to verb stems or aspect-negation inflected verbs (§10.5.1). All three of these can be pronominally conjugated.

Another candidate for clitichood is accusative *-ỳ*, which is added to the final word in the NP (§6.7). I choose not to use the = boundary for this element, on the grounds that this orthographic choice avoids confusion with the 'it is' clitic.

There are no mobile second-position (Wackernagal's) clitics.

3.6 Tones

3.6.1 Lexical tone patterns

3.6.1.1 At least one H-tone in each stem

All noun, verb, adjective, and numeral stems have a H-tone element. Therefore melodies /H/, /HL/, /LH/, and /LHL/ are acceptable, but /L/ is not (as a lexical melody). The effect of this constraint is that tone-dropping controlled by another word or by a suffix is always audible.

The constraint does not apply to expressive adverbials, some of which have /L/ melody.

3.6.1.2 Lexical tone melodies of verbs

Verbs have lexical melodies /H/ and /LH/, observable in the chaining stem (nonfinal verbs in verb chains) and in the bare stem as used in perfective positive inflections and in the imperfective negative. Verb stems beginning with voiceless obstruents are /H/, those beginning with voiced obstruents (depressor consonants) are /LH/ with the exception of the irregular 'take, convey', and for those beginning with a sonorant the choice is lexical (with /LH/ most common). If there is no initial consonant, all known regular verbs are /H/, but there is one defective stative verb with /LH/. Verbs with /LH/ melody have the tone break as close as possible to the left edge, typically after the first vocalic mora.

(xx1)

stem	gloss
a. initial voiceless obstruent	
/H/ melody	
tá:	'shoot'
kígílí-mɔ́	'go back'
pógó	'bump'
sá:	'cut down (stems)'
b. initial voiced obstruent	
/LH/ melody	
bìnɛ́	'go back'
dŭ:-rɔ́	'load'
gɛ̌	'say'
gɔ̌:	'dance'
jă:ná	'boil'
irregularly with /H/ melody	
já:	'take, convey'
c. initial sonorant	
/H/ melody	
nɛ́w^{n}ɛ́	'taste; hit (target)'
lɛ́:	'fear(v)'
yáŋárá	'put (pot) up (on a stand)'
/LH/ melody	
màŋá	'roll into balls'
nă:	'braid (rope)'
wă:má	'fry lightly in oil'

yɔ̀rɔ́ ‘become soft, supple’

d. no initial consonant
/H/ melody
áŋálá ‘separate (fighters)’
ɛ́bɛ́ ‘buy’
ílɛ́ ‘ripen’
íg-ɔ́: ‘know’ (stative)
íŋ-ɛ́: ‘stand’
úló ‘go up’
/LH/ melody
ìré ‘be better’ (stative)

The lexical distinction between /H/ and /LH/ is neutralized in the perfective negative with /L/ overlay and in the imperfective positive with /HL/ overlay. For bimoraic stems it is also neutralized in the imperative, but preserved for longer stems. In other words, “depressor” consonants (voiced obstruents) affect the lexical tone melody but do not determine surface tones.

Depressor consonants play no role in constraining lexical tones of stems other than verbs.

3.6.1.3 Lexical tone melodies for unsegmentable noun stems

tèyyà:tù ‘greeting as part of a Muslim prayer’

Nouns must have a H-tone element lexically, though all H-toned are dropped to low in some syntactic environments. The lexical melodies for uncompounded stems are /H/, /HL/, /LH/, and /LHL/.

(xx1)

	stem	gloss
a. /H/		
	bíl	‘ladder’
	kíné	‘liver’
	kíjé	‘thing’
	péjú	‘sheep’
	áŋá	‘mouth’
	tómóló	‘shallow pit’
	kádágá	‘agemate’
b. /HL/		
	êm	‘milk’
	bôy	‘name’

gámà	‘cat’
sɔ̂:rɔ̀	‘upstairs’
kámùŋ	‘herb sp.’ (*Alysicarpus*)
dálìl	‘situation’
súgùrù	‘ear’
kú-kɔ̀:	‘roller (bird)’

some apparent H.H.L cases in lexicon

c. /LH/

dĭ:	‘water’
nă:	‘cow’ or ‘mother’
ìjú	‘dog’
dɔ̀gɔ́	‘grass’
àlmĕ:	‘tree sp.’ (*Vitex*)
bànŋá	‘tree sp.’ (*Combretum*)
jùmə̆y^{n}	‘edible sedge tubers’
gɛ̀r^{n}èŋé	‘rainy season’
bùŋɔ̀r^{n}ɔ́	‘tree sp.’ (*Commiphora*)
pàràgă̆m	‘sideburns’
kòŋgòlĭ:	‘scraper for baby’

d. /LHL/

dɔ̃:n	‘roselle leaves’
kã̆:m	‘liana sp. and fruit’ (*Saba*)
sămnɛ̀	‘soap’
òmɔ̂l	‘tamarind’
jòbûl	‘grass spp.’
pèlê:m	‘immature pod’
bă̆:là	‘tree sp.’ (*Acacia*)
ɲămbèy^{n}	‘firefly’
sìgírì	‘tree sp.’ (*Anogeissus*)
yògó nàŋúrù	‘last year’
gèlé:sì	‘doum-palm fruit’
gòròmtómɔ̀	‘praying mantis’
loanwords	
sàdíŋè	‘garden’ (< Fr *jardin*)
pàkê:	‘packet’ (< Fr *paquet*)
àlkámà	‘wheat’ (< Arabic, variant *àlkámá*)
kàŋkálibà	‘kinkéliba (leaves)’ (< Bambara)
reduplications	
kù-kûl	‘head hair’
gù-gûn	‘watermelon’
prefixed	
àmâ:n	‘so-and-so’ (from *à-mâ:n)

3.6.1.4 Lexical tone patterns for adjectives and numerals

For modifying adjectives, lexical melodies are /H/, /HL/, and /LH/, essentially as with nouns. /LHL/ is attested only with a reduplicative adjective (xx1d). For fuller lists of adjectives see §4.5.1

(xx1) Modifying adjectives

stem	gloss
a. /H/	
nɔ́:	'hot'
yóló	'lightweight'
démélé	'massive'
b. /HL/	
gû:m	'rancid (meat); flavorless (milk)'
dágà	'small'
gálàl	'bitter'
bóròdù	'viscous'
c. /LH/	
dǒŋ	'skinny, lean'
mɔ̀ŋú	'bad, nasty'
nà:rⁿá	'easy'
sɔ̀gɔ̀lɔ́	'multicolored'
d. /LHL/ *reduplicated*	
nì-nâ:	'respectable, trustworthy (person)'
pu-pɔ̂:	'papaya'

The lexical tones of modifying adjectives do not carry over to cognate inchoative verbs, which are subject to the usual constraints for verb stems.

For numerals the lexical tones are shown in (xx2). *nùmɔ́rⁿɔ́* '5' differs from the usual /LH/ melody for nouns in having the tone break near the left edge. Cognates in other languages are bisyllabic, e.g. Nanga *nìmǐ:*, so the history of *nùmɔ́rⁿɔ́* may be complex.

(xx2) Numerals

stem	gloss
a. /H/	
túrú	'1'

pɛ́l ‘10’

b. /HL/

sôy ‘7’

mùñú ‘thousand’

kúlòy ‘6’

gá-gàrà ‘8’

c. /LH/

nǎy^{n} ‘4’

tùwɔ́ ‘9’

nùmɔ́r^{n}ɔ́ ‘5’

d. /LHL/

(none)

3.6.1.5 Tone-Component location for bitonal noun and adjective stems

/HL/-melody nouns and adjectives generally have the tone break near the left edge, following the first vocalic mora. In trisyllabic stems, I usually hear H.L.L syllable sequences. However, the medial syllable may actually be intermediate in pitch. Some of my transcriptions are of H.H.L type, e.g. *sádágà* ‘alms’, but it isn’t yet clear if this represents a genuine contrast or just random transcriptional fluctuation.

By contrast, /LH/-melody nouns have the tone break at the right edge. For examples see §3.7.1.xxx-xxx above. Arabic loans like *àlkámá* ‘wheat’, *àlmúɲú-né* ‘imam’s respondent’, and *àlgálá* ‘sky’ are apparent exceptions, but Arabic definite *àl-* is L-toned and is generally treated as a separate tonal segment. Nouns beginning with semi-segmentable *a-* or *aN-* have similar tonal patterns (§4.1.8).

The general effect of the implementation of /HL/ and /LH/ on nouns is to limit the H-tone to one syllable. This does not of course apply to /H/ melodies which extend across the entire noun.

H.H.L/H.L.L

bú:bù ‘robber fly’

sádágà ‘alms’

máŋgó:rò ‘mango’

ɛ́:r^{m}ɛ̂ ‘tree sp.’ (*Spondias*)

pɔ́lɛ̂:m ‘bush sp.’ (*Pergularia*)

pá-páyɛ̂: ‘papaya’

kúmâ: ‘mountain fig tree’

sádêl ‘tree sp.’ (*Bauhinea*)

yá:mbálà ‘colubrid snake sp. (*Bamanophis*)

gáŋgájì ‘roselle’

téŋéɲé:mè ‘grasshopper sp.’ (*Diabolocatantops*)

3.6.1.6 Tone-Component location for tritonal noun stems

Uncompounded nouns with /LHL/ melody have tone breaks as close as possible to the right edge. This is moot for shorter stems but is apparent for quadrisyllabics.

(xx1) /LHL/ stems

stem	gloss
monosyllabic	
kă:m	‘zaban, liana sp. and fruit’ (*Saba*)
bisyllabic	
làsô:	‘paint(n)’
trisyllabic	
àr^{n}àwé	‘tree sp.’ (*Crataeva*)
sìgírì	‘tree sp.’ (*Anogeissus*)
tùgújù	‘mash (from oil pressing)’
quadrisyllabic	
àlgàmírì	‘a spice seed’ (*Ammodaucus*)

pòmâ:dù ‘lotion’ (Fr *pommade*)

3.6.2 Grammatical tone patterns

Lexical tone melodies are overridden by tone overlays in certain syntactic and (for verbs) morphological contexts.

3.6.2.1 Grammatical tones for verb stems

Verbs have lexical tone melodies /H/ or /LH/, which apply both to the chaining stem and the bare stem. However, these melodies may be overridden or modified by tone overlays controlled by inflectional categories (usually suffixal).

(xx1)

affix	category	stem tone excl. suffix
a. lexical tones		
unmodified lexical melody		
(zero)	nonfinal in verb chains	lexical
-à:y	perfective-1a	lexical
-tì-	perfective-1b	lexical
-tέrɔ̀:-	experiential perfect	lexical
-jὲ:-	recent perfect	lexical
=bé-	simple past	lexical
-lὲ-	imperfective negative	lexical
-nɔ̀ŋ	prohibitive	lexical
-mɔ̀	hortative	lexical
-jὲ	imperfective participle	lexical
with {LH} stretched to {L} before H-toned suffix		
-lv́-	perfective negative	lexical, {LH} → {L}
with L-tone after initial lexical H or LH		
-ẁ-wɔ̀-	present progressive	lexical onset then L
b. tone-dropped		
(zero)	unsuffixed perfective	{L}
-ú ~ *-ý*	verbal noun	{L}
=lá-	stative negative	{L}
c. {H} overlay		
-né	compound agentive	{H}
d. falling overlay		
-jὲ-	imperfective	{HL} realized as H(L…)L
(none)	tonal purposive	{HL}
(none)	perfective participle	{HL} except {L} after subject pronoun
(none)	stative participle	(like perfective ppl)
e. multiple		
(none)	imperative	light stems {H}, heavy stems lexical
f. with initial reduplication		
Rdp-… *=bé-*	past irrealis	L-{L} or lexical
Rdp-… *-jὲ-*	reduplicated future	H-{L}
Rdp-… *-né*	uncompounded agentive	L-{LH}

3.6.2.2 Grammatical tones for noun stems

Nouns are tone-dropped to {L} before a modifying adjective or a demonstrative, or as internal head NP of a relative clause. Tone-dropping does not occur before a numeral or before a definite, in the absence of these other tonosyntactic controllers. Superscript ^{L} at the right edge indicates tone-dropping controlled by an element to the right.

(xx1) a. N
b. N^{L} Adj
c. N Num
d. N^{L} Dem
e. N Def
f. [$_{Rel}$ … N^{L} … verb]

A preposed possessor also controls tones on a following noun. If the possessor is nonpronominal, i.e. a noun-headed NP like 'Seydou' or 'that man', the possessor always precedes the possessed NP with no intervening genitive morpheme. If the possessor is pronominal, it follows the possessed NP in most cases (alienable possession) but precedes inalienables (kin terms).

A preposed possessor, whether nonpronominal or (for kin terms) pronominal, controls tone-dropping on the possessed noun. This is indicated by superscript ^{L} at the left edge of the noun. A postposed possessor does not affect the tones on the possessed noun.

(xx2) a. Poss ^{L}N
b. N Poss

When multiple tonosyntactic controllers are present in the same NP, conflict and bracketing issues arise. There are also some tonosyntactic twists when [N Poss] is expanded as [N Num Poss]. See chapter 6 for fuller analysis and examples.

3.6.2.3 Grammatical tones for adjectives and numerals

Adjectives and numerals are subject to a subset of the same externally controlled tonosyntactic processes as nouns (Chapter 6). Specifically, an adjective or numeral may be part of a domain (beginning with a noun) that is targeted by a following demonstrative, or that functions as head of a relative, in both cases requiring tone-dropping: [[N Adj]^{L} Dem] or [[N Num]^{L} Dem]. An adjective or numeral may also be part of the domain targeted by a prenominal

possessor: [Poss ^{L}[N Adj]] or [Poss ^{L}[N Num]] (the latter in alienable possession only).

There is one **constructional** tonosyntactic pattern than cannot be simulated by mechanical application of the basic tonosyntactic powers of the constituent elements. This is the sequence N(-Adj)-Num-Poss, with a postposed pronominal alienable possessor, which appears as [[N(-Adj)]^{L} Num ^{L}Poss] instead of the expected [[N-Adj]^{L} Num Poss] or [N Num Poss] that would be produced mechanically (only the adjective here is normally a tone-dropping controller). See §6.2.1.2 for discussion.

3.6.3 Tonal morphophonology

3.6.3.1 Autosegmental tone association (verbs)

Lexical tone melodies, and grammatically controlled tone overlays such as {HL} and {LH}, can be abstracted as autosegmental melodies to the extent that actual syllable-by-syllable tone sequences like H.L.L and L.H.H (verbs) or L.L.H (nouns) are predictable from the autosegments for a given word-class.

The issue is less important in YS than in some other Dogon languages where {LH} is realized on verbs, simple and suffixally derived, as L.(L…).H with just the last syllable H-toned, so that a *CvCv́* stem has suffixal derivatives of the type *CvCv-Cv́*. In such languages it makes sense to associate the components of the lexical /LH/ melody to specific syllables only after derivational suffixation takes place. In languages like YS where the tone break in {LH} is near the left edge, a *CvCv́* stem has *CvCv́-Cv́* derivatives, so we could get away with an analysis where the tone components are pre-associated with specific stem syllables, and the stem-final tone is simply extended to the suffix.

3.6.3.2 Phonology of H(H…)L and H(L…)L tone overlays

There are no {HL} tone overlays (as opposed to lexical tones) in NPs in YS.

Verb stems have a {HL} overlay in the imperfective (suffix *-jɛ̀-*). The H-tone is heard on the initial syllable (or mora), following tones being L, i.e. H(L…)L.

bahuvrihi and other cpds

3.6.3.3 Atonal-Morpheme Tone-Spreading

A number of suffixes with shapes *-C* (1Sg *-m* and other pronominal-subject suffixes, nominal plural *-m*) and *-Cv* (human singular *-nɛ* ~ *-nɔ* on nouns), as well as the 'it is' clitic =y ~ =i: (§11.xxx), have no intrinsic tone. They acquire their tone by spreading from the preceding stem or other morpheme. For those human nouns like 'Dogon' that always end either in singular *-nɛ* ~ *-nɔ* or plural *-m*, the underlying stem tone melody must be inferred from the suffixed forms (xx1c).

(xx1) a. *tɔ́:rⁿɔ́* '(casual) friend'
tɔ́:rⁿɔ́-ḿ '(causal) friends'

b. /*írì*/ (underlying)
írì-nɛ̀ 'blacksmith'
írì-m 'blacksmiths'

c. /dɔ̀gɔ̌/ (underlying)
dɔ̀gɔ̀-nɔ́ 'a Dogon (person)'
dɔ̀gɔ̀-ḿ 'Dogon people'

3.6.4 Low-level tone rules

3.6.4.1 Rising-Tone Mora-Addition

There are few cases where an underlying final short *Cv̌* syllable surfaces with its rising tone. In this case the contour tone requires lengthening of the vowel. The best example is in forms of 'say', which is unique in having a basic monomoraic *Cv* shape, namely /gɛ̌/. When the tone is not changed, we get *gɛ̌:* with lengthened vowel, as in the verb chain *gɛ̌: bí-bɛ̀lɛ̀-jɛ̀-m* 'I can say', see (xx2a) in §11.3. The underlying short vowel is revealed in inflected forms like reduplicated *gí-gɛ̀-jɛ̀-m* 'I will say' and unsuffixed perfectives like 3Sg *gì-∅*.

To account for the long vowel in *gɛ̌:* we must add a mora to the vowel, which allows the full expression of the contour tone.

3.6.4.2 Contour-Tone Stretching

When an atonal sonorant of a clitic is added to a vowel-final <HL> or <LH> toned syllable, the contour tone is stretched so that the tone break occurs at the

final sonorant. Adding the 'it is' clitic in its postvocalic allomorph *=y* (§11.2.1.1) to the forms in (xx1a) results in the stretching seen in (xx1b).

(xx1) a. *gùrùmâ:* 'pigeon'
nă: 'cow'

b. *gùrùmá:^{n}=ỳ* 'It's a pigeon.'
nà:=ý^{n} 'It's a cow.

3.6.4.3 Final-Tone Resyllabification

When a word ending in a <LH>-toned syllable (xx1a) is followed by an atonal but syllabic clitic, the H-tone element jumps to the clitic syllable. This is seen in (xx1b) with the 'it is' clitic, whose postconsonantal allomorph is *=i:* (§11.2.1.1).

(xx1) a. *kì-kăl* 'lie, untruth'

b. *kì-kàl=ǐ:* 'It's a lie' (= 'It's untrue.')

reconcile with *yă:-w^{n}=í:* 'it is (some) women' in §11.2.1.1
'it is not a lie'

Similarly, if the word ends in a <HL>-toned syllable, the L-tone element may spread.

(xx2) a. *ê̌m* 'milk'

verif b. *ɛ́m=ì:* 'milk.' m or w^{n}?

3.6.4.4 Stranded-Tone Re-Linking

If the vowel to which a tone was attached has disappeared due to Apocope (§3.4.3), the stranded tone is shifted to the preceding syllable. For example, *Cv̀Cv́* apocopates as *Cv̌C*, as the chaining stem of 'dig' /gùl-ú/, which is realized as *gŭl-∅* (§10.1.3.3).

3.7 Intonation contours

3.7.1 Phrase and clause-final terminal contours (↑, ↓, →, →↑, →↘)

In close prosodic transcriptions in texts, phrase-final intonation effects can be indicated by these symbols.

↑ and ↓ indicate terminal pitch rise or fall without noticeable prolongation. Often these are paired with each other, the pitch rise indicating that a parallel phrase is to come, the pitch drop indicating finality: *[the sun goes up↑], [the sun goes down↓]*.

→ indicates prolongation of the final segment (vowel or sonorant). In phrase-final intonational function, → can be tweaked as →↑ (i.e. with a terminal pitch rise) or the less common →↘ (terminal falling pitch). This is especially common in parallelistic constructions (X →↑, Y →↘).

My transcriptions of simple examples in this grammar usually omit such intonational markings. However, clause-final polar interrogative *mà*→ (§13.2.1) and the arguably identical disjunction *mà*→ 'or' (§7.2.1) and their variants are very often conspicuously prolonged, to the point that it is difficult to identify phonological tones.

For lexically baked-in →, especially in expressive adverbials, see §3.7.2 just below. This prolongation is indistinguishable phonetically from true intonational →, but it is not dependent on a specific discourse context.

3.7.2 Adverbs and particles with lexically baked-in prolongation (→)

Many adverbs, including a large percentage of expressive adverbials (aka ideophones, §8.4.7), have a lexically built-in intonation-like prolongation of the final segment (vowel or sonorant). Examples are *dàyàw*→ 'broad (shoulders, antlers)', where the *w* is the prolonged segment, and *gèŋú*→ 'atilt'. The duration of the prolongation is flexible, unlike the case with ordinary long vowels. Prolongation of final sonorants is unmistakable since there are no final geminates. Prolongation may occur nonfinally in an intonational phrase, as in *jùm*→ *wɔ-∅* 'he/she is withdrawn and uncommunicative', see (xx2b) in §8.4.7.1.

3.7.3 Dying-quail intonational effect absent

I have not observed in YS any clear cases of the dying-quail intonation effect (symbol ∴), involving both flexible prolongation and slow pitch decline, of the

sort found in NP conjunctions in Jamsay and certain other Dogon languages, or in pronominal-subject inflections in Ben Tey and Nanga.

A possible isolated example is the particle *wê→y*, phonetic [wé(é…)j̀], which differs from the regular prolongation (→) pattern by prolonging the vowel rather than the final semivowel, compare Jamsay *yé˸˸* in this sense. However, *wê→y* is paired in the 'much less' construction ('I haven't got a dollar, never mind a million dollars') with another particle *sɔ̌→y*, which has rising pitch.

4 Nominal, pronominal, and adjectival morphology

4.1 Nouns

4.1.1 Simple nouns

Many human nouns, other than kin terms, have a suffixal distinction between singular and plural. The regular suffixes are singular *-nɛ* and plural *-m*. The tone contour is lexical but is the same for singular and plural (xx1.a). In cases like 'Mossi' (*mùñù-né*, *mùñù-ḿ*), the suffixes carry the only H-tone of the word. When the stem proper ends in *ɔ*, the singular suffix may assimilate to the stem-vowel; this is most common with 'Dogon' and 'Fulbe', but for 'Hogon' the form in *-né* seems more common. Agentives (§5.xxx) have regular morphology, but the stem-final vowel shifts to *u* in the plural (xx1.c).

(xx1)	Sg	Pl	gloss
a.	*írì-nɛ̀*	*írì-m*	'blacksmith' (caste)
	mùñù-né	*mùñù-ḿ*	'Mossi (person)'
	ségè-nɛ̀	*ségè-m*	'leatherworker' (caste)
	bɛ̀lɛ̀-né	*bɛ̀lɛ̀-ḿ*	'Bella' (person)
b. Sg *-nɔ* ~ *-nɛ* after *ɔ* (most common form shown)			
	dɔ̀gɔ̀-nɔ́	*dɔ̀gɔ̀-ḿ*	'Dogon (person)'
	púlɔ̀-nɔ̀	*púlɔ̀-m*	'Fulbe (person)'
	ɔ̀gɔ̀-né	*ɔ̀gɔ̀-ḿ*	'Hogon (chief)'
c. agentives			
	wòl-wálá-né	*wòl-wálú-m*	'farmer'

4.1.2 Irregular nouns ('child', 'man', 'woman', 'friend', 'person')

These high-frequency nouns have one or more irregularities.

(xx1)	Sg	Pl	gloss
a.	*î:*	*úr^{n}ù-m*	'child; boy'

b.	*áy-nɛ́*	*ár^{n}ú-m*	‘man’
c.	*yǎ:-r^{n}á*	*yà:-ḿ*	‘woman’
d.	*tɔ́:^{n}-r^{n}ɔ́*	*tɔ́:^{n}-m*	‘companion, (casual) friend’
e.	*ìnɛ́*	*ìnɛ́-m*	‘person’

‘Person’ is irregular syntactically, in that the “singular” form is used before cardinal numerals (and the syntactically similar ‘how many?’ interrogative), where other human nouns require a plural form. Thus *úr^{n}ù-m tǎ:n* ‘three children’, *yǎ:-m tǎ:n* ‘three women’, etc., with morphologically plural nouns, but *ìnɛ́ tǎ:n* ‘three people’.

‘Thing’ is the regular noun *kíjɛ́*.

4.1.3 ‘So-and-so’ (*à-mâ:n*)

à-mâ:n ‘So-and-so’ (Fr *un tel*) is a variable over personal names. The *à-* is arguably segmentable (§4.1.8).

There is an etymologically unrelated homonym *à-mâ:n* ‘promise’ (< Arabic ?amaan-at), but one cannot rule out a secondary synchronic association of the two.

4.1.4 Initial *Cv-* reduplication in nouns

4.1.4.1 Reduplicated deadjectival scalar abstractives

The nouns in (xx1) denote scales associated with adjectival qualities. The tone is rising. *Cù-* is the form of the reduplication before *w* or a syllable with a rounded vowel. The corresponding adjectives are shown under each abstractive.

(xx1)	a.	*dì-dèmɛ́*	‘heaviness, weight; thickness (of wall)’
		démɛ́	‘heavy; thick (wall)’
	b.	*pì-pàlá*	‘length’
		pàlá	‘long’
	c.	*wù-wànú*	‘width’
		wán	‘wide’, cf. *wànɛ́* ‘become wide’
	d.	*tù-tǒ:*	‘depth’

		tǒ:	‘deep’
	e.	*gì-gǎ:*	‘size, dimensions’
		gǎ:	‘bigger’
	f.	*wì-wɛ̌y*	‘thinness’
		wɛ́y	‘thin’
	g.	*sì-sǎw*	‘cleverness’
		sǎw	‘clever’
xx	h.	*ú-újí:*	‘smallness’
		ùjì-ý	‘small’ (diminutive)

For *gàbú* ‘tall’ the abstractive ‘tallness, height’ is *gòb-ê:* or suppletive *íŋí-rú* (cf. *íŋ-ɛ́:* ‘stand’).

4.1.4.2 Frozen reduplications

A large number of nouns, especially flora-fauna terms, have an initial high-voweled *Cv-* reduplication. The base usually does not occur in unreduplicated form.

When the base is monosyllabic (*-Cv:* or *-CvC*), we generally get *Cu-* before back rounded vowels, *Ci-* elsewhere. Two recurrent shape/tone types are found, (xx1a) and (xx1b). *Cv̀-Cv̌:* in (xx1a) applies to several important fauna terms, among others.

(xx1) a. monosyllabic base, L-<LH> tones

Cv̀-Cv̌:	
bì-bɛ̌:	‘beard’
dì-dǎ:	‘elder sister’
dì-dɛ̌:	‘father’
kì-kǎ:	‘grasshopper’
kì-kɛ̌:	‘beetle, bug’
lì-lɛ̌:	‘fear’ (verb *lɛ́:*)
pù-pɔ̌:	‘papaya’ (also *pá-páyɛ̀*)
sì-sǎ:	‘bird’
tì-tǎ:	‘hyena’
Cv̀-CvC	
gì-gǎw	‘(Christian) faith’
kì-kǎl	‘falsehood, lie’ (verb *kálá* ‘lie’)
pànà^{L} *kì-kǎy*	‘staple food, sustenance’ (*pànáá* ‘meal’, *ká:* ‘eat meal’)

sì-săw ‘trick, stratagem; cleverness’ (*săw* ‘clever’)
sù-sŏm ‘sand’

b. monosyllabic base, H-L tones
Cv́-Cv̀:^{n}
bú-bɔ̀y ‘getting ripe’ (adjective)
jí-jà:^{n} ‘spider’ (and similar arthropods)
gí-gà:^{n} ‘pied crow’
jú-jɔ̀:^{n} ‘mud-dauber wasp’ (*Delta*)
kú-kɔ̀: ‘Abyssinian roller (bird)’
sí-sày in phrase *kànáː sí-sày* ‘right now’
Cv́-CvC
kú-kòl ‘tree sp.’ (*Maerua angolensis*)
tèw-[kí-kè^{n}] ‘gabar goshawk’ (*kí-kè^{n}* onomatopoeic)

c. monosyllabic base, H-H tones
Cv́-Cv́:
dí-dé: ‘shield’
Cv́-Cv́C
kí-kéw ‘equally’
wí-wéy ‘breeze’

d. monosyllabic base, L-<HL> tones
Cv̀-Cv̂:
kù-kô: ‘mountain’
Cv̀-Cv̂C
mì-mîn ‘ants’

e. bisyllabic base (but see below)
reduplicant L-toned
bì-bèlé ‘tree sp.’ (*Pterocarpus lucens*)
bù-bɔ̂:-nɛ̀ ‘Bobo (person)’
[bù-bòlò]^{L}-sɔ̌: ‘nonsensical talk’
dì-dáːrú ‘craving, urge’
dù-dɔ̀rɔ́ ‘nape’
gì-gèmɛ́ ‘waterjar shard’
gì-gèr^{n}ɛ̌m ‘charcoal’
gù-gɔ̂:-nɛ̀ ‘griot (with war tomtoms)’
jì-jàbú ‘slope at base of mountain’
kɔ̀rɔ̀^{L}-[gù-gòló] ‘shriveled gourd fruit’
kù-kɔ̀lɔ́ ‘neck’
mì-máːnú ‘belief’ (verb *măːná* ‘think’)
nì-náŋà-nɛ̀ ‘Nanga (person)’
tì-téːrɛ̀ ‘chili pepper’ (also compound *tèm^{L}-téːrɛ̀*)
diminutives with obligatory word-level {LH}

gì-gà:là-ý	‘trivial thing’
gù-gònì-ý^{n}	‘spoon; fruit pole’ (diminutive) (variant *gònú* in sense ‘fruit pole’)
kì-kèlì-ý	‘small vertical cavity in stone’
pì-pènè-ý^{n}	‘koranic-school writing tablet’
sì-sèlì-ý	‘gravel’ (also unreduplicated *sèlì-ý*)
tì-tèmè-ý^{n}	‘high, dry spot; raised threshold’
tù-tɔ̀gì-ý	‘small hammer’
reduplicant H-toned	
gá-gàrà	‘8’
kí-kíné	‘anxiety’ (cf. *kíné* ‘liver and heart’)
kí-kírí	‘epilepsy, convulsions’
kú-kɔ́nɔ́	‘tiny calabash jewel/money holder’
kú-kɔ́rù	‘acacia sp.’ (*Acacia seyal*)
tí-tágá	‘joking’ (verb *tágá*)

There is a variant with the quality of the first vowel of the base repeated in the reduplicant (*Cv$_1$-*). Speakers who gave the *Ci-/Cu-* forms in (xx1) occasionally also gave the *Cv$_1$-* variant (*tà-tă:* ‘hyena’, *gá-gà:*^{n} ‘pied crow’), and commented that both patterns can be heard in the Yendouma area.

For bisyllabic stems, *Cv$_1$-* seems to predominate (xx2) even for the speakers who regularly use the *Ci-/Cu-* type for monosyllabics.

(xx2) a.

bɔ̀-bɔ̀jɔ́	‘colubrid snake sp.’ (*Psammophis praeornatus*)
gà-gàbá	‘Egyptian cobra’
gá-gárá	‘more’ (§12.xxx)
gá-gàrà	‘8’
kɔ̀-kɔ̀jú	‘viper’ (*Echis*)
mè-mèr^{n}*ĕm*	‘fishhook’

b. borrowings

nà-nàyê:	‘mint’ (< Arabic *naʕnaaʕ*)
pá-páyè	‘papaya’ (< Fr *papaye*) (synonym *pù-pô:*)

Of course when the base begins in *Ci* or *Cu*, we cannot distinguish between *Cv$_1$-* and *Ci-/Cu-* (xx3).

(xx3) a. *Ci-*

àr^{n}*à-[pì-pî:]*	‘light drizzle’ (*àr*^{n}*á* ‘rain’)
jì-jĭ:	‘thorn’
kì-kìjí	‘rock martin (bird)’
kì-kĭn	‘shadow, silhouette’
mì-mîn	‘ant’
pí-pírí	‘butterfly’

yàm^{L}*-[pì-pî:]*	‘spark’ (*yǎm* ‘fire’)

b. *Cu-*

bàgà^{L}*-[tù-tǔm]*	‘straight walking stick’ (*bágá* ‘stick, staff’)
dù-dǔm	‘sand dune’
gú-gùl	‘viper sp. said to “fly”’
gù-gûn	‘watermelon’
gù-gû:^{n}	‘murmur(n)’
kù-kûl	‘hair, feather’
sú-sû:	‘grub, larva’
[tònɔ̀-ỳ^{n}*]*^{L}*-[pú-púJú]*	‘worn-out waterjug (used for dry storage)’
[tú-túm] tàjù	‘large basket carried on head’
tù-tûy	‘errand, mission’

For all of these patterns, often the base is not attested except in the full reduplicated form. However, in a few cases the base is attested as a compound initial. For *kì-kǎ:* ‘grasshopper’, we can cite *kà:*^{L}*-pélêm* ‘grasshopper sp.’ (*Ornithacris*); for *kì-kɛ̌:* ‘beetle, bug’ we have *kɛ̀:*^{L}*-gǔm* ‘flat-bodied bug sp.’ The base of *sì-sǎ:* ‘bird’ is perhaps still vaguely recognizable in the form *sà-* in two terms for bird species, *sà-kô:* ‘Senegal parrot’ and *sà-gùmɔ́* ‘buffalo-weaver’.

Initial *Ci-/Cu-* reduplication is also found in some uncompounded agentive derivatives of verbs, e.g. *jù-jɔŋú-nɛ́* ‘healer’, see §4.2.4 below. These may have originated as true compounds with the cognate nominal as initial, but they now have reduplicative form.

4.1.5 *Cvw-* derivational reduplication (*CvwCvRvw*)

A pattern *CvwCvRvw* is shared by onomatopoeic names for two conspicuously noisy mid-sized birds (xx1).

(xx1)

kàw-kàrâw	‘white-bellied bustard’ (*Eupodotis*)
tɛ̀w-tɛ̀r^{n}*ɛ̂w*^{n}	‘spotted thick-knee’ (*Burhinus*)

4.1.6 Final reduplications in nouns

$C_1v_1C_1v_1$, see §4.1.6 below, is probably not interpreted by native speakers as final reduplication

pèlèm-pêy is one of two names for a grasshopper sp. (*Oedaleus*). This is a variant of a widespread term in neighboring languages (Yanda Dom, Jamsay), and is perhaps a borrowing. The pattern seems to be isolated in Yorno So.

A cognate noun-verb collocation *lóbó-ló lábá* 'do wood-carving' is another possible case. The alternation of *a* in the verb with *o* in the cognate nominal is fairly common; see (xx1f) in §11.1.5.2.

The rooster's call (cock-a-doodle-do) is rendered as *kè-kĕ:rè-kĕ→*, which arguably has both initial and final reduplication. Cf. French *cocorico* and similar European versions.

4.1.7 Nouns with full-stem iteration

The examples in (xx1) are probably interpreted by native speakers as iterations, though the simple stem does not occur elsewhere. Usually the initial is {L}-toned. In some cases the vowels differ from initial to final, cf. the English type *fiddle-faddle*.

(xx1) a. iterations idential segmentally and tonally

kúbú-kúbú	'machete blade' (Fr. *coupe-coupe*)
kúrsá-kúrsá	'itchy skin rash'
diminutive suffix not repeated	
wàjà-[wàjà-ý]	'hard leather baggage holder'

b. no segmental changes, tone change

LL-HL tones	
pè:-pê:	'African peppercorn'
kò:-kô:	'coconut'
wèlè-wélè	'swift (bird)' (*Apus*)
LL-LH tones	
yùgù-yùgú	'used clothing market' (regional word)
L-H tones	
gè:^{n}-[gé:^{n}-né]	'griot'

c. no segmental changes, final {L}-toned

dè:ré-dè:rè	'(sth) juicy'
jây^{n}-jày^{n}	'slash earth here and there (not in a row)'

d. vocalic change, nonlow vowel becoming *a*

bù:-bă:	'viper sp.'
bŭ:jù-bà:jù	'lungs'
jèlè-jálá	'earring'
kɔ̀r^{n}ì:-kàr^{n}í:	'long-tailed glossy starling'
pèlè-pálá	'bedding mat (from millet stems)'

súgúrú-[jèlè-jálà] ‘bushy liana sp.’ (*Gloriosa*)

e. other vocalic change
sámà-súmɔ̀ ‘wild dog’ (*Lycaon*)
sì:-sô: ‘scissors’ (adapted from French *ciseaux*)

There are also some $C_1v_1C_1v_1$ and $C_1v_1{:}C_1v_1$ stems, sometimes themselves compounded, that might be hyphenated. However, their segmentability is much less transparent than in the longer iterations above. For unknown reasons $C_1v_1C_1v_1$ is popular among the few fish species terms (xx2a). Regarding ‘lungfish’, Yendouma speakers know that *nè-né* means ‘dog’ in some neighboring languages, and interpret the compound as ‘dogfish’.

(xx2) a. fish terms
[gù-gù]^{L}-mŏy^{n} ‘carp’
ìjì^{L}-[nù-nú] ‘fish spp. with elongated snouts’
ìjì^{L}-[nè-né] ‘lungfish’ (*Protopterus*)

b. other C_1v_1-C_1v_1
tɛ̀^{n}-tɛ́^{n} ‘chestnut-bellied starling’ (onomatopoeic)
bú-bù ‘tick’

c. $C_1v_1{:}$-C_1v_1
bú:-bù ‘robber fly’

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

A dubiously segmentable initial formative *a-* or *aN-* occurs on a few nouns that would have normal-looking stem shapes without the formative. Several flora-fauna examples are included in (xx1a-b).

(xx1) a. with *à-*
à-bú: ‘grass sp.’ (*Pennisetum*)
à-gɔ́nɔ̀ ‘tree sp.’ (*Neocarya*)
à-jígílè ‘tree sp.’ (*Diospyros*)
à-jìrê: ‘wrestling’
à-mâ:n ‘so-and-so’ (§4.1.3)
à-mâ:n ‘promise(n)’ (< Arabic)
à-sàgàrăm ‘soft rock’
à-sár^{n}à ‘tree snake’ (*Psammophis elegans*)
à-têm ‘customs’
à-tómù ‘(a) jump’ (with verb *tómɔ́*)

b. with *àN-* or *à^{n}-*

àn-dógò	‘annual fishfest (Antogo) at Bamba village’
àn-dúmúl	‘evil dwarf’
àn-dúr^{n}ɔ́	‘world of the living’ (< Arabic)
àŋ-[gù-gùrú]	‘giant tortoise’ (*Geochelone*)
àŋ-gùŋɔ̀lɛ̂:	‘crawl (on all fours)’ (with verb *gùŋɔ́l-ɛ́:*)
à^{n}-tà:r^{n}î:	‘(a) step’ (with verb *tá:r^{n}-ɛ́:*)

c. initial likely related to ‘man/male’ (*àr^{n}á* etc.)

án-kègérè	‘male grasshopper’ (*Kraussaria*)
à-sàr^{n}á	‘(woman’s) brother’
á-káná	‘newlywed husband’

The forms in (xx1c) are of the same general form, but in these cases the initial element could plausibly be taken as a reduced variant of a stem meaning ‘man; male’, which appears as the adjective *àr^{n}á* ‘male (adjective)’ and as the noun *áy-né* ‘man’ (plural *ár^{n}ú-m*). See (xx2) in §5.1.7.

àbádá ‘never’ (< Arabic) may also belong here synchronically.

ɛ̀kɔ́rɔ̀ ‘well(n)’ corresponds to Jamsay *à-kɔ́rɔ̀*.

4.2 Derived nominals

4.2.1 Characteristic derivative (*-gú* ~ *-ŋú*, *-gí-né* ~ *-ŋí-né*)

This is a rather productive denominal derivation that denotes an entity that is characterized by another entity or by its abundance. It may be nominal or adjectival syntactically. The nonhuman form is *-gú*. The human singular form is *-gí-né* with plural *-gú-m* (occasionally *-gí-m*). The suffixal /g/ is usually nasalized to *ŋ* after a nasal syllable (xx1f-g,m). The preceding noun stem is tone-dropped; this is indicated in (xx1) by superscript ^{L} but is usually omitted in my transcriptions (like other word-internal tone changes). For other *-gú* morphemes, see the minor nominalizing suffix *-gú* after H-toned stem (§4.2.2.2 below) and adverbial *-gú* after lexical-toned adjective (§xxx).

(xx1) a.

sî:	‘(animal) fat(n)’
sì:^{L}-gú	‘plump (animal), fatty (meat)’

b.

gánàl	‘recklessness’
gànàl^{L}-gí-né	‘reckless (one)’

c.

néw^{n}ɛ̀	‘leprosy’
nèw^{n}ɛ̀^{L}-gí-né	‘leper, leprous’ g or ŋ ?

d. *yògò-sèlɛ́* ‘ingratitude’
[yògò-sèlɛ̀]^{L}*-gí-né* ‘ungrateful (one)’

e. *bòmɔ́* ‘stupidity’
bòmɔ̀^{L}*-gí-né* ‘stupid (one)’, see §3.4.4.5

f. *bìné* ‘stomach’
bìnɛ̀^{L}*-ŋí-né* ‘glutton(ous)’

g. *nǎm* ‘poverty, need’
nàm^{L}*-ŋí-né* ‘impoverished, needy (one)’

h. *lɔ́gɔ̀* ‘dirtiness, filth’
lɔ̀gɔ̀^{L}*-gú* ‘dirty (thing)’
lɔ̀gɔ̀^{L}*-gí-né* ‘dirty (one)’

i. *tójú* ‘oversized testicles’
tòjù^{L}*-gí-né* ‘one with oversized testicles’

j. *(nòy*^{n} ^{L}*) bàlàgá* ‘left (hand)’
bàlàgà^{L}*-gí-né* ‘lefty’

k. *bɛ̀ré* ‘belly’
bɛ̀rɛ̀^{L}*-gí-né* ‘pregnant (woman)’

l. *gɛ̌:* ‘hunger’
gɛ̀:^{L}*-gí-né* ‘hungry (one)’

m. *pàŋá* ‘power’
pàŋà^{L}*-ŋí-né* ‘powerful one, government official’

n. *wèjé* ‘insanity, craziness’
wèjɛ̀^{L}*-gí-né* ‘crazy person’

o. *wàlá* ‘laziness’
wàlà^{L}*-gí-né* ‘lazy person’

The characteristic derivation competes with the compound type *X bàŋà* ‘owner of X’, which has a somewhat similar range of senses, but which is more specialized in personality traits (§5.1.8).

In (xx2), the input nominal is adjectivally modified. These isolated examples represent a structural alternative to a bahuvrihi compound.

(xx2) a. *[[kù-kɔ̀lɔ̀]-mà:]*^{L}*-ŋí-né*

[[Rdp-neck]-hard]^{L}-Char-AnSg
'stubborn one' (lit. "hard-necked," < *kù-kɔ̀lɔ́*, *mǎ:*)

b. *[àŋà-ɛ̀lɛ̀l]*^{L}*-gí-né*
[mouth-sweet]^{L}-Char-AnSg
'one who speaks rudely' (lit. "sweet-mouthed," < *áŋá*, *ɛ́lɛ̀l*)

4.2.2 Verbal nouns

In addition to the cases covered here, see §11.1.5.1 for lists of verbs and their cognate nominals.

4.2.2.1 Regular verbal noun *-ú* ~ *-∅* ~ *-ý*

This productive verbal noun has a {L}-toned form of the verb stem plus final *-u* (often apocopated to zero) for nonmonosyllabic stems and *Cv̀-ý* with short vowel for *Cv:-* stems. Segmentally, this verbal noun is identical to the chaining stem for those verbs whose chaining stem ends in *u* or *y*, but in this case the two forms may still be distinct tonally. In addition to verbal-noun sense, this form is also often used as a modifying adjective with resultative sense (§4.5.2). There are also many ordinary nouns that have shapes consistent with verbal-noun origin, e.g. *tàgú* 'shoe' (cf. verb *tágá* 'shod, put shoes on').

(xx1) a. *tàr-ú* 'replastering (wall)'
tárá 'affix, pin or paste on'
tárú (chaining stem)

b. *à-ý* 'picking up, taking'
á: 'pick up, take'
á-y (chaining stem)

c. irregular
xx *bà:-[yò-ý]* 'spending the night'
bá: yá: 'spend the night' (with noun *bá:*)
chaining stem
[there is also a verb *yó:* 'enter; get involved in']

The verbal noun of mediopassive *-ɛ́:* ~ *-í:* is with *-ɨ̌:* (arguably segmentable as *-ì-ý*), as in *sín-ɛ́:* 'carry (on back)', chaining stem *sín-í:*, verbal noun *sìn-ɨ̌:* . The verbal noun of causative *-mɔ́* is *-m-ú* (optionally apocopated to -m̀-∅), as in *wìgìlì-mú* ~ *wìgìlɨ̌-m* 'act of waving' from causative *wìgílí-mɔ́* 'wave (sth)'.

Many verbs have, in addition to a regular verbal noun, a more lexicalized cognate nominal that is segmentally identical to the verbal noun but that has lexical /H/ or /HL/ melody. Many examples of such noun-verb pairings are given in (xx1c) in §11.1.5.2.

4.2.2.2 Nominalization with suffix *-gú* ~ *-ŋ́*

The suffix *-gú* occurs only in the following nominalizations. Unlike characteristic *-gú*, this deverbal derivation does not drop tones of the stem. Instead, it raises tones to {H}. The forms in (xx1a-c) function as compound finals denoting the edges of times of day or of seasons. There are some difficulties parsing (xx1c). The noun in (xx1d) is isolated. No other examples of this *-gú* are known.

(xx1)	a.	*gǒ:*	'go out'
		-[gó:-gú]	'coming, beginning (of a time period)',
		[dìgè-pànà]^{L}*-[gó:-gú]*	'dinner time (7-8 PM)'
		gèl^{L}*-[gó:-gú]*	'beginning of harvest period'
	b.	*dògó*	'end, be finished'
		-[dógó-gú]	'end (of a time period)'
		gèl^{L}*-[dógó-gú]*	'end of harvest period'
	c.	*gìrì-ý*	'eye'
		kúró	'become thick'
		kúrú-g-é:	'(foliage) become dense'
xx		*gìri*^{L}*-[kúrú-gú]*	'twilight'
	d.	*bě:* (chaining *bǐy*)	'remain'
		bí:-gú	'livelihood, sustenance (of sb)'

When preceded by a nasal syllable, the suffix nasalized from /-gú/ to /-ŋú/ and then apocopates to -ŋ́. The example of this is (xx2).

(xx2)	*nàm*^{L}*-[númɔ́-ŋ]*	'sunset; west'
	nǎm	'sun'
	nùmɔ́	'fall; (sun) set'

4.2.2.3 Nominalization with suffix *-rv̀*

A nominalizing suffix *-rv́* with vowel quality carried over from the preceding stem is found in the following examples.

(xx1)	a.	*bà:^{L}-[yâ:-rà]*	‘daybreak, first light’
xx		*bá:*	‘(edge of) time period’ (here: night)
		yá:	‘spend the night’
xx	b.	*bà:^{L}-[gó:-rò]*	‘harvest season (end of rainy season)’
		bá:	‘(edge of) time period’ (here: rainy season)
		gǒ:	‘go out’

From the subject-verb collocation *bá: dǒ:* ‘rainy season approach (begin)’, the noun is *bà:-dǒ:* ‘approach of rainy season’ without a suffix. The noun also occurs in *bà: píl* ‘white time period’, i.e. ‘drought’

4.2.2.4 Nominalization with suffix *-ê:* or *-ě:*

There are a few nouns with suffix *-ê:* that can be segmented by comparison with cognate verbs. The known clearcut cases are in (xx1).

(xx1)	noun	gloss	related form
	a. no vowel shift		
	àr^{n}à^{L}-[gàw-ê:]	‘thunder(n)’	*àr^{n}á gàw^{n}-é:* ‘rain (it) thunder(v)’
	bè:g-ê:	‘belch(n)’	*bě:g-é:* ‘belch(v)’
xx	*gàw^{n}-ê:*	‘reprimand(n)’	*gàw^{n}á* ‘reprimand(v)’
xx	*kìnɛ̀^{L}-[nàŋ-ê:]*	‘forgetting(n)’	*náŋá* ‘forget’
	kòjùg-ê:	‘cough(n)’	*kójúg-é:* ‘cough(v)’
	lùg-ê:	‘count(n), sum’	*lúgó* ‘count(v)’
xx	*nùm-ê:*	‘fall(n); loss’	*nùmó* ‘fall(v)’
	b. with a ~ o alternation, cf. (xx1f) in §11.1.5.2		
	gòb-ê:	‘tallness’	*gàbú* ‘tall’, *gàbá* ‘become tall’

One might perhaps add *wò:g-ê:* ‘(habit of) being unable to wait to start eating’ and *pòbùl-ê:* ‘whistling’, but in these cases we have *ɛ* rather than *e* vowel quality, as in the related mediopassive verbs *wǒ:g-é:* ‘crave’ and *póbúl-é:* ‘whistle’.

There are a few cases with suffix *-ě:*, note the rising tone. They denote bodily conditions.

(xx2)		noun	gloss	related form
	a.	*dɛ̀:rⁿ-ɛ̌:*	‘rest(n)’	*dɛ̌:rⁿɛ́* ‘rest(v), take a break’
	b.	*ɔ̀ɲ-ɛ̌:*	‘fatigue’	*ɔ́ɲɔ́* ‘become tired’
	c.	*gìrⁿ-ɛ̌:*	‘dislocation’	*gìrⁿ-ɛ́:* ‘(bone) slip’
	d.	*mùrⁿ-ɛ̌:*	‘sprain(n)’	*mùrⁿ-ɛ́:* ‘become sprained’
	e.	*sàl-ɛ̌:*	‘diarrhoea’	*sálá* ‘reject; coarsely grind’
	f.	*pì:r-ɛ̌:*	‘infected wound’	*pí:r-ɛ́:* ‘become infected’

4.2.2.5 Nominalization with suffix *-n*

yíwⁿí-n ‘afterworld, (the) Hereafter’ is related to *yíwⁿɛ́* ‘die’.

For durative clausal subordinator *-n* see §15.2.1.2.

jíwⁿɛ́-n ??, cf. jìwⁿɛ́ ‘hurt’

4.2.3 Instrument nominals

There is no fully productive deverbal derivation for instrument nominals, but there are a few examples. In (xx1a), *dì:jú* is an instrument nominal transparently related to the verb *dǐ:jé* (though the direction of derivation is debatable). *dì:jú* resembles a verbal noun in form (including tones), but not in function. In (xx1b) are several names of instruments that may also have originated as deverbal derivatives of this type, allowing for Apocope of *-ú after unclustered sonorants.

(xx1) a. *dì:jú* ‘file(n)’
dǐ:jé ‘file(v), scrape with a file’

b. possible frozen instrument nominals in *-ú
kè:jú ‘wedge’
kìbɛ̀gú ‘trimming ax’
ɛ̌w ‘tongs’
pǔ: (or *pǔw*) ‘scrubber (for bathing)’
verb? cf. yǎmɲɛ́ ‘scrub’

In (xx3), *ùjì-ý* is diminutive in form, and although 'bellows' most strongly suggests the verb 'blow' it could also be construed as a direct derivative of *újù* 'breath'.

(xx3)	*ùjì-ý*	'bellows (blower used in a blacksmith's forge)'
	újù	'breath'
	újù kúnɔ́	'blow (air)'

4.2.4 Uncompounded agentives

Most agentives include a compound initial denoting a typical object; see §5.xxx below. However, there are a few uncompounded agentives. Most of them have the initial *Ci-/Cu-* reduplication described for other nouns in §4.1.4 above. The productive pattern is (xx1.b), with L-toned reduplicant and {LH}-toned form of the verb ending in *u* (subject to Apocope) before singular *-né* or plural *-m*.

(xx1) a. *dànà-nɛ̀* 'hunter' (*dánà-m*)

b. *bù-bɔ̀gú-né* 'robber (in fields)' (Pl *bù-bɔ̀gú-m*)
dù-dùgú-né 'sorceror' (Pl *dù-dùgú-m*)
jù-jɔ̀ŋú-né 'healer' (Pl *jù-jɔ̀ŋú-m*)
gù-gŭy^{n}-né 'thief' (Pl *gù-gŭy^{n}-m*)

The associated verbs are *dàná* 'hunt', *jɔ̀ŋɔ́* 'treat medically', *bɔ̀gɔ́* 'rob (in the fields)', and *gŭy^{n}* 'rob'.

It is possible that the *Ci-/Cu-* reduplication is a mutation from an older compound initial consisting of the cognate nominal. For example, 'perform healing' can be expressed as *jóŋú jɔ̀ŋɔ́* with nominal *jóŋú* preceding the verb. The full agentive compound *jɔ̀ŋ(ù)^{L}-jɔ̀ŋú-nɛ́ might have mutated into the reduplicative form shown in (xx1b).

4.3 Pronouns

4.3.1 Basic personal pronouns

The main series of personal pronouns are shown in (xx1).

(xx1) Personal Pronouns

		subject		
	indep.	accusative	preverbal	suffixed
1Sg	*mú*	*mí-ỳ*	*mú*	*-m*
1Pl	*émɛ́*	*ém-ì:*	*émɛ́*	[= 3Pl, form variable]
2Sg	*ú*	*ú-ỳ*	*ú*	*-w*
2Pl	*é*	*é-ỳ*	*é*	*-y*
3HumSg	*wó*	*wó-ỳ*	*wó*	*-∅*
3HumPl	*bé*	*bé-ỳ*	*bé*	[= 1Pl, form variable]
NonhSg	∅	∅	∅	*-∅*
NonhPl	∅	∅	∅	[= 3Pl]
LogoSg	*únɔ́:*	*únɔ́:-ỳ*	*únɔ́:*	*-∅*
LogoPl	*únɔ́: bé*	*únɔ́: bé-ỳ*	*únɔ́: bé*	[= 3Pl]

The preverbal subject markers, used in nonsubject relative clauses, are identical (segmentally and tonally) to the independent pronouns. These same series of forms (except nonhuman ∅) are also used as inalienable possessors and as complements of postpositions, and they are the basis for the accusative forms shown. Postnominal possessors of alienable nouns are discussed in §xxx.

Of special interest are the following features.

- In the pronominal-subject suffix system on predicates, 1Pl and 3Pl are always merged. 3Pl in this context has a broad sense including nonhuman subjects.
- Nonhuman NPs have no pronominal counterparts; the morpheme *kó* has specific demonstrative functions ('that one') and is not a true pronoun (§4.3.2). Where we would expect a nonhuman pronoun ('I saw it'), we can get zero in the relevant position ("I saw ∅").
- Like its counterparts in many Dogon languages, the logophoric pronoun (here *únɔ́:*) is noun-like, and takes the separate plural particle *bé*.
- The 1Pl form *émɛ́* begins with *e*, contrast verb *émɛ́* 'pinch'.

reconcile with 1Pl *émɛ́* elsewhere

4.3.2 *kó* as inanimate discourse definite

Pronoun-like *kó* is generally used as a discourse-definite with any inanimate referent, including places, abstractions, and propositions.

Some common combinations are locative *kó nɛ̀* or its contraction *kó=ǹ* 'there', *kó bá:* 'over that way' (for *bá:* cf. *yà-bá:* 'where?'), *kó gún* 'thus', topic *kó kày* 'as for that' (hence 'that being the case' or simply 'therefore'), *[kó dà:rì-y] mí-ỳ sɛ̀* 'nostaglia of that has me' (= 'I miss that').

'I saw it' (the cow)

4.4 Demonstratives

4.4.1 Demonstrative pronouns and definite morphemes

4.4.1.1 Definite morphemes

There are two definite morphemes, *ŋɛ̀* (sometimes *ŋɔ̀* after a rounded vowel) and *gɔ̀*. The corresponding plurals are *ŋɛ̀-m* and *gɔ̀-m*, whose /m/ lenites to *w*^{n} before a suffixal or enclitic vowel (§3.4.4.3). These morphemes are always L-toned. They do not induce any tonal change on the preceding noun (or adjective).

The choice between *ŋɛ̀* and *gɔ̀* is phonologically conditioned, with *ŋɛ̀* following stems ending in a nasalized segment (a nasal consonant, a vowel following a nasal or nasalized consonant). An exception is *tɛ̀:mɛ̂:* 'brick', where the *m* reflects *mb.

With nouns, plural suffix *-m* is limited to human nouns, but plural definite *ŋɛ̀-m* and *gɔ̀-m* can be used regardless of animacy value. This allows for plural marking of nonhuman nouns at the NP level (xx1).

(xx1) a. *yǎ:-r*^{n}*á* *ŋɛ̀*
woman-Sg Def
'the woman'

b. *yǎ:-m* *ŋɛ̀-m*
woman-Pl Def-Pl
'the women'

c. *péjú* *gɔ̀*
sheep Def

‘the sheep-Sg’

d. *péjú* *gɔ̀-m*
sheep Def-Pl
‘the sheep-Pl’

Examples of *ŋɛ̀* and *gɔ̀* are in (xx2). Note the pairs of semantically close nouns that are divided between (xx2a) and (xx2b) (‘healer’/’doctor’, ‘goat’/’sheep’, ‘sorghum’/’millet’. ‘sand’/’earth’). As indicated above, the choice between *ŋɛ̀* and *gɔ̀* is based on whether the final syllable of the noun is nasal or not.

(xx2) Noun classes expressed by definite markers

a. nouns with final nasal syllable followed by definite *ŋɛ̀*

human	
yǎ:-r^{n}á	‘woman’
áy-né	‘man’
dɔ̀gɔ̀-nɔ́	‘Dogon (person)’
púlɔ̀-nɔ̀	‘Fulbe (person)’
mùñù-né	‘Mossi (person)’
írì-nɛ̀	‘blacksmith’
jù-jɔ̀ŋú-né	‘healer’
bá:-nɛ̀	‘father’
ìné (ì-né)	‘person’
nonhuman animate	
ɛ̀r^{n}é	‘goat’
sǒm	‘horse’
gámà	‘cat’
plants	
èmé	‘sorghum’
other inanimates	
tɛ́w^{n}ɛ́	‘tree’
gɛ̀r^{n}é	‘house’
sù-sóm	‘sand’
bònó	‘hole’

b. nouns with final oral syllable followed by definite *gɔ̀*

human	
î:	‘child’
ámìrù	‘chief’
dɔ̀gɔ̀tɔ́rɔ̀	‘doctor’
nonhuman animate	
péjú	‘sheep’
ìjú	‘dog’
kì-kǎ:	‘grasshopper’

sì-sá:	'bird'
plants	
yŭ:	'millet'
bĕl	'grass'
other inanimates	
làgú	'earth (dirt)'
bágá	'stick'
tíbú	'stone'
tè:mê:	'brick'

When an adjective is interposed between the noun and the demonstrative, the nasality (or orality) of the adjective determines the choice of definite morpheme. Thus *tíbú gɔ̀* 'the stone' but *tìbù*^{L} *bán ŋɛ̀* 'the red (brown) stone'.

In *gèr^{n}èŋɛ́* 'rainy season', an original definite morpheme has fused with the stem and is no longer segmentable. The final syllable is therefore kept in compounds like *gèr^{n}èŋè*^{L}*-bíré* 'rainy-season work (i.e. farming)'. This has also apparently happened in Tommo So *gìnàgá*. Compare Jamsay *jìr^{n}é* and several other bisyllabic cognates.

Definite morphemes do not co-occur with demonstrative pronouns (see the following section).

4.4.1.2 'This/that' (deictic demonstrative pronouns)

The demonstrative pronouns in (xx1) can be used absolutely, or as modifiers following a core NP (noun plus any adjectives). They do not co-occur with definite morphemes.

(xx1)

category	Sg	Pl
Proximate	*nɔ̆:*	*nɔ̆:-m̀*
Distant	*kó*	*kó-m̀*

try yá

The plural forms in *-m̀* may be used with nonhuman as well as human referents. For nonhuman referents, plural *bè* (without *-m̀*) is also possible: *nɔ̆: bè*, *kó bè*.

In modifying function, these demonstratives (unlike definite morphemes) control tone-dropping on the last word in the the preceding core NP (any nonfinal words in the core NP are already tone-dropped). See §6.xxx for examples and discussion.

Locative postposition *nɛ̀* (*-ǹ*) combines with *nɔ̌:* as *nú-nɛ̀* or more often *nú-ǹ*, as in *[gèrⁿɛ̀ᴸ nú]-ǹ* 'in this house'. The plural is regular: *[gèrⁿɛ̀ᴸ nɔ̌:-m]-nɛ̀* 'in these houses'.

4.4.1.3 Prenominal discourse-definite *kó* 'that (same)'

exx. with following noun

4.4.1.4 Obviative at topic switch point (*yá-mɔ̀ ŋɔ̀*)

When two protagonists (e.g. two brothers) occur throughout a narrative, topic switch points may use *yá-mɔ̀ ŋɔ̀* 'the counterparty, the other one'. This contains distant (or nonproximate) deictic yá, see §4.4.2.1 below, and definite *ŋɔ̀* (from /ŋɛ̀/ after a rounded vowel). The *-mɔ̀* segment is not otherwise attested in a relevant sense.

4.4.2 Demonstrative adverbs

4.4.2.1 Locative adverbs

The locative adverbs related to demonstrative categories are in (xx1). The short forms like *nú=ǹ* and *kó=ǹ* are the ones regularly heard, with locative postposition *nɛ̀* (§8.2.3) truncated and cliticized.

(xx1) Locative adverbs

form	gloss
nú nɛ̀ ~ *nú=ǹ*	'here'
yá nɛ̀ ~ *yá=ǹ*	'(over) there'
kó nɛ̀ ~ *kó=ǹ*	'there (discourse-definite)'

Demonstrative adverbs denoting a trajectory or a more general area are in (xx2)

(xx2) a. *m̀má:* 'here (generalized), in this area' (perhaps < *nú-bá:)

b. with *béné* 'side'

bènɛ̀^{L} *kó=ǹ*	‘that way; around there’
bènɛ̀^{L} *nú=ǹ*	‘this way’

4.4.2.2 Emphatic and approximinative modifiers of adverbs

‘right here’, ‘right there’
‘sw around here’

4.4.3 Presentatives (‘here’s …!’)

The basic presentative predicate construction (French *voici X*, *voilà X*) is illustrated in (xx1). Animacy is distinguished by the form of the existential-locational ‘be’ quasi-verb. The actual presentative morpheme *ŋ́* is not easily directly equated with any demonstrative pronoun or adverb.

(xx1) a.

ŋ́	*wɔ̀-∅*
Presentative	be-3SgS
‘Here he/she is!’	

b.

ŋ́	*kɔ̀*
Presentative	be.Inan
‘Here it is!’	

‘here’s the water’
‘here I am’
‘here’s Seydou’
‘here they come’
French le voilà qui arrive (with VP).

4.5 Adjectives

4.5.1 Basic adjectives

Adjectives generally have a modifying form (this section), positive and negative predicative forms (§11.4), and a cognate inchoative verb (§9.5). Modifying adjectives follow nouns, and control tone-dropping on them (§6.1.5). Notable semantic syncretisms include ‘hot’ = ‘fast’ and ‘sweet’ = ‘sharp (blade)’.

Modifying adjectives that are not transparently composite are presented in (xx1), which is organized by phonological form. The *Cv̀(:)Cú* adjectives in (xx1c) appear to constitute a morphological group; the form is identical to that of verbal nouns (§4.2.2). The rising-toned adjectives in (xx1b) are also compatible with a verbal-noun comparison, since final short high vowels are subject to apocope after some sonorants (§3.5.xxx). *pěy* 'old' in (xx1b) is also compatible with a verbal-noun comparison, since *Cv:* verbs have a verbal noun *Cv̀-ý*. Other *CvC* adjectives in (xx1b) do not match verbal nouns but likely result from apocope of final *{i u}. Final *u* also predominates in trisyllabics (xx1g), making it likely that the *CvCvC* stems in (xx1f) were syncopated from *CvCvC-u. The nonmonosyllabic adjectives that do not end in *u* generally have a final vowel that repeats or at least harmonizes with the preceding vowel, allowing for the effect of an intervening nasal on ATR values in the first two adjectives in (xx1d).

(xx1) Simple modifying adjectives

stem	gloss
a. *Cv:*	
dê:	'big'
ɛ̌:ⁿ	'hard; tight (rope)'
gă:	'fully grown; older'
jó:	'full (container)'
mă:	'dry'
nɔ́:	'hot'
ɔ́:ⁿ	'alive'
tŏ:	'deep'
prolonged	
sí→	'pointed'
b. sonorant-final monosyllabic	
CvC	
wɛ́y	'lightweight; thin (wall)'
gɛ́m	'black'
bán	'red'
wán	'wide, spacious'
áwⁿ	'(animal) in good condition'
wɛ́r	'green'
ɛ́n	'well-fed'
píl	'white'
nám	'difficult'
ɛ́ŋ (ɛ̀ŋú ?)	'dense, impenetrable (forest)'
CvC	

gûm ‘unmarried’

CǔC compatible with verbal noun *CvCú, *cf. (c) below*

dǔŋ ‘skinny, lean’

ǔl ‘wet, moist; fresh (vegetation)’

Cǔy possibly < verbal noun *Cv-ý

pěy ‘old’ (cf. verb *pɛ́:-* ‘get old’)

měy^{n} ‘fine, powdery’ (verb *mě:-* ‘become fine’)

Cv̂:C

kâ:l ‘cold’

gû:m ‘rancid (meat); flavorless (milk)’

â:m ‘sour; fizzy (fermenting)’

nê:m ‘salty’

Cv̂:C likely due to contraction

ê:l (~ *ɛ́lɛ̀l*) ‘sweet; sharp’, repeated in (f) below

c. bisyllabic {LH}-toned with final *ú*, like verbal noun

CùCú

dùgú ‘big; corpulent; thick’

kùŋú ‘rough’

other *CvCú*

bɔ̀ŋú ‘not entirely full’

ɛ̀jú ‘good’

ɛ̀mú (~ *ɛ̀mì-ý*) ‘narrow’

ɛ̀ŋú ‘crowded’

gàbú ‘tall’

ɔ̀mú ‘rotten; fragile (fabric)’

mɔ̀ŋú ‘bad, nasty’

yɔ̀rú ‘soft’

Cv̀:Cú

pɔ̀:rú ‘putrefying (mud-manure mix)’

d. other *CvCv*

{H}-toned with repeated vowel quality

démɛ́ ‘heavy; thick (skin)’

kómɔ́ ‘skinny, lean’

kúrú ‘dense, shady (foliage)’

sálá ‘bad’

yóló ‘lightweight’

{H}-toned with shift to final u

ɔ́gú ‘hot; fast’

{HL}-toned with repeated vowel quality

dágà ‘small’

{LH}-toned

ìlɛ́ ‘ripe; cooked’

kànɛ́ ‘new’

kòlό	‘unripe; raw; fresh (milk)’
pàlá	‘long’
sèlé	‘diluted (milk); soggy’

e. other *Cv:Cv*

{H}-toned

kó:ló	‘empty; ruined; useless’

{LH}-toned

nà:r^{n}á	‘easy’

f. *CvCvC*, likely < *CvCvCu

{HL}-toned

dár^{n}àn	‘pungent, spicy-hot’
ɔ́rɔ̀y	‘smooth, sleek’
gálàl	‘bitter’
pélèl	‘crispy (taste)’
ɛ́lèl (~ *ɛ̂:l*)	‘sweet; sharp’, repeated from (b) above

g. trisyllabic

{H}-toned, all vowels u

púrúgú	‘off-white’
démélé	‘massive’

{LH}-toned, vowel quality repeated in final

sɔ̀gɔ̀lɔ́	‘multicolored’

{HL}-toned, shift to final u

bóròdù	‘viscous’
ɛ́jɛ̀jù	‘bland, unspiced (food)’

{HL}-toned, vowel quality repeated in final

bánàlà	‘blotched’

g. reduplicated

nì-nâ:	‘respectable, trustworthy (person)’
tone *tí-tɛ̀:rɛ̀*	‘wild, bizarre (behavior, speech)’

There are also several adjectives, generally already denoting small scalar values, that regularly end in diminutive *-ý*, though the segmentation is not always transparent (xx2).

(xx2) Diminutive adjectives

a. attested only in diminutive form

bù:jì-ý	‘runty’
dùmì-ý^{n}	‘short; narrow’
dùmɲì-ý^{n}	‘blunt (blade)’
gà:là-ý	‘small’

kɛ̀mɛ̀-ý^{n} ‘slender’
ùjì-ý ‘small’

b. alternates between simple and diminutive forms
ɛ̀mú ~ *ɛ̀mì-ý* ‘narrow’

For ‘blue’, the noun-like adjective is *bùlɔ̀-búlɔ̀*, an iterative form that probably derives from a vanished brand of powdered detergent (cf. Fr *bleu*). No adjective for ‘slow’ could be elicited; the negation of ‘hot; fast’ was used (*ɔ̀gù* ^{L} *= lá* ‘it isn’t fast’).

Nominal compounds were elicited for two other adjectival senses: *yù:* ^{L}*-[bù-bǔl]* ‘ripe but poorly-developed’, *[yùlɔ̀-pɔ̀r*^{n}*ɔ̀]* ^{L}*-kɔ̌l* ‘yellow’ (based on the name for ‘yellow powder in fruit pod of néré tree’, the standard exemplar of bright yellow).

Expressive adverbials (§8.4.7) can also denote “adjectival” senses, generally the more exotic ones. ‘Strong’ is expressed as a relative clause *pàŋá sɛ̂:* ‘(one) who has strength/power’.

For verb-participles in relative clauses, see §14.1.7.

4.5.2 Verbal nouns as resultative adjectives

An original verbal noun, with {L}-toned stem and final *ú* (subject to Apocope) or for monosyllabic verb final *ý*, can function as a modifying adjective. The sense is that a subset of the class denoted by the noun has undergone the action in question, which has a continuing effect. The action may have been self-inflicted (‘fall’) or it may have been caused by an unspecified or generalized external agent (‘castrate’). Compare English *roast(ed) pork* or *pork*. In each subpart of (xx1), the first line shows the noun-adjective combination, and the other lines show the regular form of the noun and the form of the verb underlying the adjective.

(xx1) a. *ɛ̀r*^{n}*ɛ̀* ^{L} *pɔ̀r-ú* ‘castrated billy-goat’
ɛ̀r^{n}*é* ‘goat’
pɔ́rɔ́ ‘castrate (an animal)’

b. *ɛ̀r*^{n}*ɛ̀* ^{L} *kàm-ú* ‘billy-goat emasculated by crushing testicles’
ɛ̀r^{n}*é* ‘goat’
kámá ‘crush (testicles)’

c. *yù:* ^{L} *nùm-ú* ‘millet grain spikes fallen on ground’
yǔ: ‘millet’
nùmɔ́ ‘fall’

d.	*pɔ̀r^{n}ɔ̀* L	*săl-∅*	‘coarsely ground millet’ (for /sàlú/)
	pɔ̀rɔ́		‘cream of millet’
	sálá		‘coarsely grind (grain)’
e.	*gàw* L	*tŏl-∅*	‘pounded dried onion leaf (a spice)’
	gâw		‘onion’
	tóló		‘pound (in mortar)’
f.	*yù:* L	*pàg-ú*	‘tied bundle of millet grain spikes’
	yŭ:		‘millet’
	págá		‘tie’
g.	*kɔ̀rɔ̀* L	*tàr-ú*	‘decorated rattling calabash’
	kɔ̀rɔ́		‘calabash’
	tárá		‘affix, pin on’
h.	*ɛ̀r^{n}ɛ̀* L	*nɔ̀:-m-ú*	‘hardened iron’
	ɛ́r^{n}ɛ́		‘iron’
	nɔ̌:-mɔ́		‘have (animals) drink; paint; harden (iron)’
i.	*jà:* L	*wàj-ú*	‘leftovers from a meal’
	jâ:		‘meal’
	wàjá		‘remain, be left’
j.	*ɛ̀gɛ̀lɛ̀* L	*kàbŭl-∅*	‘split peanuts’
	ɛ́gɛ́lɛ́		‘peanut’
	kábálá		‘split (nut) in half’
k.	*ɛ̀:^{n}* L	*jă:n-∅*	‘boiled solid soda ash’
	ɛ̂:^{n}		‘soda ash’
	jă:ná		‘boil (sth)’

When the verbal noun is itself a compound, it usually has a different sense; see the purposive verbal-noun construction in §5.1.12.

4.6 Numerals

4.6.1 Cardinal numerals

Numerals follow core NPs (noun plus any adjectives). There is no tonosyntactic interation between numerals and preceding words in simple N(-Adj)-Num combinations.

4.6.1.1 ‘1’ (*túrú*, *tí→*), ‘same’ (*tɔ́ːⁿ*), and ‘other’ (*lɛ̌ː*, *làgá*)

As a modifier, ‘1’ is *túrú*. Like other numerals, it has no tonal interactions with the preceding noun (or core NP): *péjú túrú* ‘one sheep’, *yɛ̌ː-rⁿá túrú* ‘one woman’. (See, however, just below, this section.)

In counting (‘one, two, three, …’), the form used is *tí→*, which can be expressively prolonged intonationally. Compare ordinal *tí→* ‘first’ (§4.xxx, below).

‘The same’ (referring to identity) can be expressed by *tɔ́ːⁿ*, as in *tɔ́ːⁿ=ý* ‘it’s (i.e. they are) the same’ with the ‘it is’ clitic.

The sense ‘other’ can be expressed by *lɛ̌ː* (originally ‘2’) or *làgá* depending on context.

(xx1) a. *[gɛ̀rⁿɛ̀*[L] *nú]-ǹ* *gò-é→,*
[house[L] this]-in go.out-and.then.SS,
[gɛ̀rⁿɛ̀[L] *lɛ̌ː* *gɔ̀]-n* [L]*yà:-jɛ̀-m*
[house[L] other Def]-in [L]go-Impf-1SgS
‘I will go from this house to the other house.’

b. *[gɛ̀rⁿɛ̀*[L] *túrú* *gɔ̀]-ǹ* *gò-é→,*
[house[L] one Def]-in go.out-and.then.SS,
[(gɛ̀rⁿɛ̀[L]*)* *túrú* *gɔ̀]-n* [L]*yà:-jɛ̀-m*
[(house[L]) one Def]-in [L]go-Impf-1SgS
‘I will go from the one house to the one (= other) house.’

c. *[gɛ̀rⁿɛ́* *túrú]* *újɔ̀-j-ɛ̀ːⁿ,* *[gɛ̀rⁿɛ̀*[L] *wàjú-m̀* *ŋɛ̀-m]*
[house one] build-RecPf-3PlS, [house[L] remain-Ppl.Pl Def-Pl]
[yògó *nàŋúrù]* [L]*ùjɔ̀ː-y*
[tomorrow year] [L]build-Impf.3PlS
‘They have finished building one house, they will build the other houses next year.’

In (xx1a), *lɛ̌ː* ‘other’ expresses the referential distinction between the two houses. In (xx1b), *túrú* is used twice not as a simple numeral (‘one’) as above, but adjectivally (note the L-toned *gɛ̀rⁿɛ̀* [L] ‘house’) and with following definite morphemes, to oppose two contextually definite referents (‘the one, … the other’). In (xx1c), there is a set of several houses to be built. One is separated out from the others in the first clause, and the as-yet unbuilt members of the set are referred to in the second clause using the participle ‘remaining’.

4.6.1.2 ‘2’ to ‘10’

The numerals from ‘2’ to ‘10’ are shown in (xx1). They may be used absolutely, or may follow a core NP.

(xx1)	gloss	form
	‘2’	*léy*
	‘3’	*tă:n*
	‘4’	*năy*^{n}
	‘5’	*nùmɔ́r*^{n}*ɔ́*
	‘6’	*kúlòy*
	‘7’	*sɔ̂y*
	‘8’	*gá-gàrà*
	‘9’	*tùwɔ́*
	‘10’	*pɛ́l*

These numerals, and ‘one’ as a simple numeral (preceding section), do not interact tonally with core NPs. Both the numeral and the core NP (noun, or noun plus adjectives) retain their normal tones: *gèr*^{n}*é tă:n* ‘three houses’.

Numerals from ‘2’ to ‘10’ (and up) have the same form in counting sequences as when they follow a core NP in a sentence. Only ‘one’ has a special form in counting (preceding section).

4.6.1.3 Decimal multiples (‘10’, ‘20’, …) and combinations (‘11’, ‘59’, …)

The even multiples of ‘10’ up to ‘90’ are given in (xx1).

(xx1)	gloss	form
	‘10’	*pɛ́l*
	‘20’	*pé:-léy*
	‘30’	*pé-tă:n* (usually heard as *pé-tà:n*)
	‘40’	*pé-năy*^{n} (usually heard as *pé-này*^{n})
	‘50’	*pé-nùmɔ́r*^{n}*ɔ́* ~ *pél-nɔ̀*
	‘60’	*pél-kúlòy*
	‘70’	*pé-sɔ̂y*
	‘80’	*pé-[gá-gàrà]* (for *dɔ̀gɔ̀-sŭm*, see below)
	‘90’	*pé-tùwɔ́*

There is no tonal dissimilation (or polarization) between the initial stem '10' and the following single-digit numeral in '20' through '90'. This stem does contract from *pέl-* to either *pé:-* (in '20') or *pé-*, except in '60', but it retains its H-tone.

dɔ̀gɔ̀ ^{L}*-sŭm*, literally 'Dogon-hundred', is an archaic term for '80'. For speakers who still use this numeral, '90' is *[sŭm lé] pέl*, literally 'with 80, 10', and '100' is *[sŭm lé] pé:-léy*, literally 'with 80, 20'. For younger speakers, these compound numerals mean '110' and '120', respectively.

The decimal terms (e.g. '30') combine with single-digit numerals to form composite numerals like '12' and '53'. The decimal term precedes, and has its usual form, except that '10' is extended from *pέl* to *pέl-gú*. Then comes the single-digit number (*túrú* '1' to *tùwɔ́* '9') in its usual form, followed by *sìgè* 'more'.

(xx3) a. *pέl-gú* *[léy* *sìgè]*
ten [two more]
'twelve'

b. *[pé-nàyⁿ]* *[sɔ̂y* *sìgè]*
[ten-four] [seven more]
'forty-seven'

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

The stems in (xx1) denote quantities of higher magnitudes.

(xx1) gloss form

a. 'hundred' *sŭm* (archaic), *témtèrè* (now current, <Fulfulde)

b. 'thousand' *mùñú*

c. 'million' *mìlyɔ̂:ⁿ* (<French)

These are nouns, and can be followed by numerals in the same fashion as other nouns: *sŭm léy* 'two hundred', *mùñú nùmɔ́rⁿɔ́* 'five hundred', *mìlyɔ̂:ⁿ tă:n* 'three million'.

Numerals of distinct orders (millions, thousands, hundreds, and 1-99) can be combined, with the largest order expressed first. The relevant common nouns occurs initially (if at all), and is optionally repeated in each order. The nonfinal components have nonterminal intonation with a final pitch rise (↑).

(xx2) *péjú mùñú léy↑, (péjú) sŭm tă:n↑, (péjú) pé-nùmɔ́rⁿɔ́*
sheep thousand 2, (sheep) hundred 3, (sheep) ten-five
'two thousand, three hundred, and fifty sheep'

It is also possible to use the versatile postposition *lé* (dative, instrumental) when combining *sŭm* '(one) hundred' with a lesser numeral: *[sŭm lé] pé:-léy* 'one hundred and twenty', literally 'with (one) hundred, twenty'.

4.6.1.5 Currency

The official Malian currency unit is the CFA franc. In all of the native languages, but not in French, the currency unit is the equivalent of five CFA francs. This is called *bú:dù* in YS.

4.6.1.6 Distributive numerals

Numerals may be iterated to form distributive adverbs with senses like 'five at a time', 'five by five', or 'five each'.

tú-túrú 'one by one' reflects a phonological reduction /túrú-túrú/, as in *gèrⁿɛ́ tú-túrú* 'one house at a time'. Other numerals from '2' to '99' iterate the entire form: *nùmɔ́rⁿɔ́-nùmɔ́rⁿɔ́* 'five by five', *[pél-gù léy sìgè] [pél-gù léy sìgè]* 'twelve by twelve'.

4.6.2 Ordinal adjectives

4.6.2.1 'First' (*tí→*, *lá:*) and 'last' (*dɔ̌:ⁿ*)

tí→ 'first' behaves like an adjective in controlling tone-dropping on a preceding noun (or core NP), and it can be followed by the 'it is' clitic. However, when phrase-final it may show the considerable prolongation typical of expressive adverbials. It may be followed by a definite morpheme.

(xx1) *gèrⁿɛ̀*[L] *tí→* *gɔ̀*
house[L] first Def
'the first house'

tí→ itself is subject to tone-dropping induced by a following demonstrative, on in the head NP of a relative clause.

(xx2) a. *gèr^{n}è*^{L} *tì→*^{L} *nɔ̌:*
house^{L} first^{L} this
'this first house'

xx b. *[[gèr^{n}è*^{L} *tì→*^{L}*]* *émé* ^{L}*ùʃɔ̀* *gɔ)]*
[[house^{L} first^{L}] 1PlS ^{L}build.PerfPpl Def]
'the first house that we built'

Another ordinal for 'first' is *lá:* .

Adjective 'last' (i.e. 'final, in a sequence') is *dɔ̌:^{n}*, as in *ìnɛ̀* ^{L} *dɔ̌:^{n} ŋɛ̀* 'the last person'.

4.6.2.2 Other ordinals (suffix *-é:*)

Other ordinals are formed by adding *-é:* to the numeral, whose tones are dropped. In 'fifth', the *r* is not nasalized (contrast *nùmɔ́r^{n}ɔ́* 'five')

(xx1)

form	gloss
a. single-digit numeral	
lɛ̀-é:	'second'
tà:n-é:	'third'
này-é:	'fourth'
nùmɔ̀r-é:	'fifth'
kùlɛ̀-é:	'sixth'
sɔ̀y-é:	'seventh'
gàgàr-é:	'eighth'
tùwɔ̀-é:	'ninth'
pɛ̀l-é:	'tenth'
b. decimal	
pɛ̀:-lɛ̀-é:	'twentieth'
c. decimal plus single-digit numeral	
pɛ̀l-gù tùrù sìg-é:	'eleventh'
d. hundred	
sùm-yé:, tɛ̀mtɛ̀r-é:	'hundredth'
e. hundred plus '1-99' numeral (two levels)	

sùm lè pè:-lè-é ‘hundred and twentieth’

Note that ‘hundred and twentieth’ has dropped all tones, compare the cardinal *[sŭm lé] pé:-léy* ‘one hundred and twenty’.

Interrogative ‘how many-th’ (French *quantième*) is *àŋ-é:*, from *àŋá* ‘how many?’ (§13.2.7).

4.6.3 Fractions and portions

The Fulfulde loan *péjèrè* means ‘half, section, portion (of a whole)’. *gámúl* usually means ‘(sb’s) share’

5 Nominal and adjectival compounds

5.1 Nominal compounds

Types of compounds are indicated formulaically as pairs like (n n) for noun plus noun, using n = noun, a = adjective, num = numeral, v = verb, and x = variable stem-class. Compounds fall into tonal types, with x̄ indicating retention of lexical tone, x̀ for tone-dropping, x́ for raising all tones to {H}, x̂ for falling tone, and x̌ for rising tone.

Ordinarily the final is the semantic head of the compound. . That is, a N_1-N_2 compound of this type denotes a kind of N_2. The major exception is bahuvrihi compounds where neither the initial nor the final functions as (semantic) head.

5.1.1 Compounds of type (n̄ n̄)

In this uncommon type, neither the initial nor the final drops its lexical tones in the fashion of (ǹ n̄) and (n̄ ǹ) compounds.

(xx1) (ǹ n̄) compounds

	compound	gloss	components
a.	*kú:-bɔ́nɔ̀*	'brain (tissue)'	*kû: 'head'* *bɔ́nɔ̀* 'marrow'
b.	*[àɲì-ý^{n}]-gɔ̌:rɔ̀*	'a roselle cultivar'	*àɲì-ý^{n}* 'a roselle cultivar'
c.	*ságù-jɔ̌:rɔ̀*	'flour dumplings'	*ságù* 'grain for pounding'
d.	*pɔ̌:^{n}-bílè*	'fonio field lying fallow'	*pɔ̌:^{n}* 'fonio (cereal crop)'

nám 'people (of X)' as compound final is also of this type: *tɔ́rɔ̀ nám* 'mountaineers', *măn nám* 'lowland people'.

5.1.2 Compounds of type (ǹ n̄)

In this type, the initial is tone-dropped and the final has its regular lexical tones. This is the predominant noun-noun compound type. Although this could also be represented tonosyntactically as (N^{L} N), it is semantically inconsistent with the usual NP-internal tone-dropping pattern, whereby a following modifier controls tone-dropping on the head, as with [N^{L} Adj]. In the (ǹ n̄) compound type, by contrast, the final is normally the (semantic) head. This being said, there are a number of ambiguous cases, where an element of the general substantive class (noun/adjective) occurs only as the second element, so one can't be quite sure whether it is a modifying adjective (non-head) or a nominal compound final (and head). An example is *jàŋú*, which occurs in *nà:* ^{L} *jàŋú* 'uncastrated bull' (*nă:* 'cow, bovine') and *pèjù* ^{L} *jàŋú* 'uncastrated ram' (*péjú* 'sheep, ovine'). One could construe *jàŋú* as a modifying adjective 'uncastrated' or as a noun 'uncastrated male animal' with a compound initial specifying the species.

(ǹ n̄) compounds compete most directly with (n̄ ǹ) compounds which mimic possessor-possessed combinations, see the following section. The most fully lexicalized compounds are usually (ǹ n̄).

(xx1) (ǹ n̄) compounds

	compound	gloss	components
a.	*dɔ̀gɔ́* ^{L} *-péjú*	'Dogon sheep (breed)'	*dɔ̀gɔ́-nɔ́* '(a) Dogon' *péjú* 'sheep'
	pùlɔ́ ^{L} *-péjú*	'Fulbe sheep (breed)'	*púlɔ́-nɛ̀* '(a) Fulbe'
b.	*ɔ̀l* ^{L} *-nàw^{n}á*	'wild animal'	*ŏl* 'fields, outback' *nàw^{n}á* 'meat'
c.	*bɛ̀rɛ̀* ^{L} *-jîm*	'labor pains'	*bɛ̀rɛ́* 'belly' *jîm* 'pain'
d.	*gòjù* ^{L} *-nàw^{n}á*	'flesh, muscle tissue'	*gòjú* 'body' *nàw^{n}á* 'meat'
e.	*ìllì:* ^{L} *-ójú*	'blood vessel'	*ìllî:* 'blood' *ójú* 'road'
f.	*[tì-tà:]* ^{L} *-dúlɔ́*	'hyena tail'	*tì-tă:* 'hyena' *dúlɔ́* 'tail'
g.	*yìm* ^{L} *-pŏ:*	'condolences'	*yĭm* 'death; deceased' *pŏ:* 'greeting'

In most cases the initial consists just of a stem, but there are some examples where the initial is marked by **human plural** suffix *-m*. This would be expected in the possessive-type compounds, since there is no restriction on the form of possessors, but it is less usual in canonical noun-noun compounds.

(xx2) a. *[àrⁿù-m]*ᴸ*-gɛ̀rⁿɛ́* ‘men’s house’
(bedroom of a man with two or more wives)
(< *árⁿú-m* ‘men’)

b. *[yà-pɔ̀rⁿɔ̀-m]*ᴸ*-[gɛ̀rⁿɛ̀-ý]* ‘menstruation house’ (diminutive)
(< *yà-pɔ́rⁿɔ̀-m* ‘menstruating women’)

c. *[gùlɔ̀-m]*ᴸ*-dêm* ‘post-partum seclusion’
(cf. singular *yà*ᴸ*-[gùlɔ̀-ý]* ‘adolescent woman’, diminutive form)

5.1.3 Possessive-type compounds (n̄ ǹ)

This type is structured like a possessor-possessed combination. The initial preserves its lexical tones, while the final is tone-dropped. Compare the [Poss ᴸN] form of possessor-possessed combinations. However, as with English compounds like *men’s wear* and *Adam’s apple*, (n̄ ǹ) compounds are lexicalized, and may themselves take external possessors (*her [men’s wear]*, *my [Adam’s apple]*, note the bracketing).

(xx1) Possessive-type compounds

	compound	gloss	components
a.	*úrⁿù-m* ᴸ*ɔ̀:ⁿ*	‘child cemetery’	*úrⁿù-m* ‘children’ *ɔ́:ⁿ* ‘cemetery in cave’
c.	*àŋgǎ:ⁿ* ᴸ*ɛ̀n*	‘molar’	*àŋgǎ:ⁿ* ‘jaw’ *ɛ̌n* ‘tooth’
d.	*bɔ̀lɔ́* ᴸ*kùbɔ̀*	‘hind foot’	*bɔ̀lɔ́* ‘rear’ *kúbɔ́* ‘foot’
e.	*gírù* ᴸ*kùbɔ̀-[kòbìlì-y]*	‘front hoof’	*gírù* ‘front’ *kùbɔ̀*ᴸ*-[kòbìlì-ý]* ‘hoof’
f.	*yǎ:-m* ᴸ*tàgù*	‘women’s shoes’	*yǎ:-m* ‘women’ *tàgú* ‘shoes’

g. *tòl-gɛ̀jú* ^{L}*tɔ̀ŋɔ̀* ‘shea-butter grindstone’

tól ‘pounding(n)’
gɛ̀jɛ́ ‘press (oil)’
tɔ̀ŋɔ́ ‘flat grindstone’

Some compounds can vary between this possessive-like type and the regular (ǹ n̄) type. For example, (xx1g) could also be expressed as *[tòl-gɛ̀jù]*^{L}*-tɔ̀ŋɔ́*.

5.1.4 Compounds with final verbal noun, type (*ǹ* VblN)

A special case of the productive (*ǹ* n̄) compound type (§5.1.2) is when the final is a verbal noun. In this case the initial normally denotes a type of direct object.

(xx1) a. *gɛ̀r*^{n}*ɛ̀*^{L}*-[dɛ̀m-ú]* ‘roof-building, roofing a house’
gɛ̀r^{n}*ɛ́* ‘house’
dɛ̀mɛ́ ‘roof(v), build a roof for (a house)’

b. *yù:*^{L}*-[dɔ̀ŋ-ú]* ‘act of pounding millet grain spikes’
yǔ: ‘millet’
dɔ̀ŋɔ́ ‘pound (grain spikes)’

c. *àŋà*^{L}*-[pàg-ú]* ‘fasting (Ramadan, Lent)’
áŋá ‘mouth’
págá ‘tie’

More elaborate verbal-noun phrases with additional arguments or adjuncts are most common in verbal-noun complements (§17.3).

5.1.5 Agentive compounds of type (ǹ ý-*nɛ́*)

The great majority of agentive nominals are compounds, though there are a handful of uncompounded agentives (generally those that do not have a prototypical object), §4.2.4. One is not a ‘cook’, one is a ‘meal-cooker’ (even if one also cooks meat or bread). In an agentive compound, the final is agentive in form and the initial specifies a prototypical object. The initial is actually often a conventional (cognate or noncognate complement) of the verb.

In compound agentives, the productive pattern illustrated in (xx1) is for the initial to be {L}-toned, and the final is a {H}-toned form of the verb ending in an unshifted nonhigh vowel, followed by (human) singular *-nɛ́*. The corresponding plural has suffix *-m*, before which the final vowel shifts to *u*. The

stem of the final is bimoraic *Cv:-* or *CvCv-*. In each part of (xx1), the first and second lines show singular and plural agentive compounds, and the following line(s) show the input components

get plurals, comment on final vowel of verb stem

(xx1) a. *sèn*^{L}-^{H}*[sér^{n}é-né]* ‘(a) Muslim’
sèn^{L}-^{H}*[sér^{n}ú-m]* ‘Muslims’
sên sér^{n}é ‘pray, pray (say) a prayer’

b. *tò:rù*^{L}-^{H}*[púgó-né]* ‘idolaters, animists’
tò:rù^{L}-^{H}*[púgó-m]* ~ *tò:rù*^{L}-^{H}*[púgú-m]* ‘animists’
tô:rù púgó ‘practice idolatry (animism)’

c. *pòl*^{L}-^{H}*[géléné]* ‘knife-holder’ (an animist ritual role)
pl?
pǒl ‘knife’
gèlé ‘harvest (with knife)’

d. *wòl*^{L}-^{H}*[wálá-né]* ‘farmer, peasant’
pl?
wòlú ‘farm work’
wàlá ‘cultivate, do farm work’

e. *ìmù*^{L}-^{H}*[íméné]* ‘stutterer’
pl?
ímù íméné ‘stutter’

f. *[tì-tàgà]*$^{L\ H}$*-[tágá-né]* ‘jokester, funny person’
pl?
tí-tágá ‘joking’
tágá ‘make (jokes)’

g. *tɔ̀ŋ*^{L}-^{H}*[tɔ́ŋɔ́-né]* ‘merchant’
pl?
tɔ̀ŋú tɔ́ŋɔ́ ‘buy and sell, do commerce’

h. *[sàmàl-bìrè]*^{L}-^{H}*[bíréné]* ‘day laborer’
pl?
sàmàl-bíré ‘day-wage labor’
bìré ‘work(v)’

i. *[[wàlà=n]-dègù]*^{L}-^{H}*[dégéné]* ‘farmhand (paid by the day)’
pl?

		[wàlà=n]^{L}*-dègú dègɛ́*	‘work as a farmhand’
	j.	*ìnɛ̀*^{L}-^{H}*[dímɛ́-rɛ́-nɛ́]*	‘guide’
pl?			
		ìnɛ́	‘person’
		dìmɛ́-rɛ́	‘guide, act as host for’
	k.	*nɛ̀:*^{L}-^{H}*[nɛ́:-nɛ́]*	‘singer’
pl?			
		nɛ́:	‘song’
		nɛ̌:	‘sing’
	l.	*gɔ̀:*^{L}-^{H}*[gɔ́:-nɛ́]*	‘dancer’
pl?			
		gɔ́:	‘dance(n)’
		gɔ̌:	‘dance(v)’
	m.	*yùrùgù*^{L}-^{H}*[kúnɔ́-nɛ́]*	‘fortune-teller who reads fox tracks’
pl?			
		yùrùgú	‘pale fox’
		kúnɔ́	‘put’
	n.	*tɔ̀ŋ*^{L}-^{H}*[tɔ́ŋɔ́-nɛ́]*	‘merchant’
pl?			
		tɔ̀ŋú tɔ́ŋɔ́	‘buy and sell, do commerce’
	o.	*dàwà*^{L}-^{H}*[dáwá-nɛ́]*	‘attention-seeker’
pl?			
		dáwà dàwá	‘seek attention’
	p.	*sìɲɛ̀*^{L}-^{H}*[síɲɛ́-nɛ́]*	‘noisy person’
pl?			
		síɲɛ̀ síɲɛ́	‘make noise’
	q.	*kùbɔ̀*^{L}-^{H}*[tégɛ́-nɛ́]*	‘one who limps’
pl?			
		kúbɔ́	‘foot’
		kúbɔ́ tégɛ́	‘limp’
	r.	*gɛ̀r^{n}ɛ̀*^{L}-^{H}*[újɔ́-nɛ́]*	‘house-builder’
pl?			
		gɛ̀r^{n}ɛ́	‘house’
		újɔ́	‘build, construct’
	s.	*tòmɔ̀*^{L}-^{H}*[tɛ́:-nɛ́]*	‘basket-weaver’

pl?

tòmɔ́	‘large basket from tree-branch strips’
té:	‘weave’

In (xx2), the final vowel of the verb shifts to *u* (subject to Apocope), or adds a final *y* if monosyllabic, as in the chaining stem and the verbal noun form of the verb. This is also the vocalism seen in the uncompounded agentives in (xx1b) in §4.2.4. However, the verb is {H}-toned, as in the agentive compounds in (xx1) above, but unlike the uncompounded agentives.

(xx2) a. *pànà*^{L}-^{H}*[bírú-né]* ‘chef, cook(n)’
pl?

pànáa	‘meal, prepared food’
bìré	‘cook (a meal)’

b. *dì:*^{L}-^{H}*[kɔ́bú-né]* ‘water-carrier’
pl?

dǐ:	‘water’
kɔ́bɔ́	‘go fetch water’

c. *sèn*^{L}-^{H}*[bó:nú-né]* ‘muezzin’ (who calls Muslims to prayer)
pl?

sên	‘prayer’
bǒ:nɔ́	‘call’

d. *[kì-kàl]*^{L}-^{H}*[kál-né]* ‘liar’
[kì-kàl]^{L}*-[kálú-m]* ‘liars’
kì-kǎl kálá ‘tell a falsehood, lie’

e. *[kù:-ùlò]*^{L}-^{H}*[úl-né]* ‘vain, arrogant person’
[kù:-ùlò]^{L}*-[úlú-m]* ‘vain people’
kù:-ùló úló ‘be vain’

f. *kɔ̀rɔ̀*^{L}-^{H}*[kéy*^{n}*-né]* ‘calabash-cutter’
kɔ̀rɔ́ ‘calabash’
ké:^{n} ‘saw (gourd, into two calabashes)’

g. *tìn*^{L}-^{H}*[tín-né]* ‘wood-gatherer’
tǐn ‘wood’
tǐn tír^{n}*é* ‘gather firewood’

In the uncommon type (xx3), the shift to *u* does not occur, and singular *-né* is absent. However, the verb has rising tone as in the uncompounded agentives in §4.2.4.

(xx2) a. *gèr^{n}è*^{L}-^{LH}*sùgó* ‘host (who provides lodging for a visitor)’
pl?
gèr^{n}é ‘house’
súgó ‘go down’, hence ‘dwell (in a house)’

b. *gèr^{n}è*^{L}-^{LH}*tĕ:* ‘host’ [synonym of (a)]
pl?
gèr^{n}é ‘house’
té: xxx

millet-farmer
beer-drinker
hyena-hunter

In (xx4), the verb is intransitive (‘go’) and the initial (‘errand, mission’) could be construed as adverbial (‘one who goes on a mission’), cf. English *party-goer* or German *Doppelgänger*.

(xx4) *[tù-tùy]*^{L}-^{H}*[yáy-né]*
[Rdp-sending]^{L}-^{H}[go-Agent]
‘envoy, one who goes (i.e. is sent) on a mission’ (*tù-tûy*, *yă:*)

5.1.6 Diminutive *-ý* and compounds with *î:* ‘child’

A fairly productive nominal diminutive is formed by adding suffix-like *-ý* to the tone-dropped noun stem or to a noun-adjective sequence. The pattern is very common for implements in particular, and in many cases only the diminutive form is attested (xx1b). Especially with monosyllabic stems (xx1c) the segmentation is nontransparent In a few cases a *C*-final stem adds a short *i* before *-y*. Alternatively we could recognize a diminutive variant *-ĭ:* .

(xx1)	diminutive	gloss	related stem
a. simple and diminutive attested			
V-final stem			
	bàŋà-ý^{n}	‘small eating bowl’	*bàŋá* ‘eating bowl’
	bɔ̀gì-ý	‘navel’	*bɔ̀gú* ‘protruding navel’’
	bùnɔ̀-ý^{n}	‘beer jar’	*búnɔ́* ‘beer jar’
	dùgɔ̀-ý	‘necklace’	*dúgɔ́* ‘necklace’
	dùlɔ̀-ý	‘rear daba blade pin’	*dúlɔ̀* ‘tail’
	è:^{n}-kèlè-ý	‘small powder horn’	*è:^{n}-kélè* ‘gunpowder horn’

kɔ̀rɔ̀-ý	‘calabash ladle’	*kɔ̀rɔ́* ‘calabash’
kìnɛ̀-ý^{n}	‘heart of palm’	*kíné* ‘liver (and heart)’
kɔ̀ljà:-ý	‘small intestine’	*kɔ̀ljâ:* ‘intestines’
lèrɛ̀-ý	‘new branch’	*léré* ‘grow a new branch’
màlbà-ý	‘toy rifle’	*málbá* ‘rifle’
tàjì-ý	‘small straw basket’	*tájù* ‘straw basket’
tìbì-ý	‘pebble’	*tìbú* ‘stone’
tòmɔ̀-ý^{n}	‘small branch basket’	*tòmɔ́* ‘branch basket’
yù:-[ɔ̀lì-ý]	‘millet sprout’	*ɔ̌l* ‘wet; fresh’
C-final stem		
ùmùlì-ý	‘small waterskin’	*ùmûl* ‘waterskin’
wèlì-ý	‘vein’	*-wèl*, *-wél* ‘vein’ (cpd final)

b. only diminutive is attested

bɛ̀ŋɛ̀lɛ̀-ý	‘insect gall’
bɔ̀:rɔ̀-ý	‘sack, bag’
dàŋà-ý^{n}	‘small waterjar’
dù:rì-ý	‘thin-necked gourd’
gìrì-ý	‘eye(s)’
gònɔ̀-ý^{n}	‘depression in field’
gòrò-ý	‘filtering basket’
gù-gònì-ý^{n}	‘spoon’
kɛ̀jɛ̂-ý	‘trigger’
kòbìli-ý	‘pod shell’
kɔ̀rgò-ý	‘sickle’
kɔ̀rɔ̀-[pɛ̀gɛ̀lɛ̀-ý]	‘small round calabash’
kɔ̀r^{n}*ì-ý*^{n}	‘native guitar’
nàr^{n}*ì-ý*^{n}	‘kidney(s)’
pì-pènɛ̀-ý^{n}	‘writing tablet’
tònɔ̀-ý^{n}	‘waterjar’
tònòlò-ý	‘star’
wɛ̀:rɛ̀-ý	‘bowl-shaped basin’
wàjà-wàjà-ý	‘leather baggage holder’
yà-[tùmɔ̀-ý^{n}*]*	‘mound in field’

c. segmentation doubtful

nɔ̌y^{n}	‘hand’
mɔ̌y^{n}	‘gum arabic’

In *nɛ̀nɛ̌:* ‘tongue’, variant of /H/-toned *néné* ‘tongue’, the long final vowel and the rising tone melody point to an original diminutive *nɛ̀nɛ̀-ý^{n}. There are a few other nouns with the same tone melody and final *ɛ̌:* that might also have originated as diminutives.

For diminutives in *-ý* with adjectives see (xx2) in §4.5.

Diminutive *-ý* is undoubtedly related to *î:* ‘child’. There are also several compounds ending in *-î:* , which is much more transparently a compound final than the suffix-like *-ý*. Again the compound initial is tone-dropped. In a few cases both *-ý* and *-î:* are attested as variants. For the human cases (xx2a) the plural replaces *î:* by *úrⁿù-m* ‘children’.

(xx2)	compound	gloss	related form
	a. human children		
	bà:^{L}*-î:*	‘FaBr’s child’	*bá:* ‘father’
	nà:^{L}*-î:*	‘MoSi’s child’	*ná:* ‘mother’
	sìlɛ̀^{L}*-î:*	‘bastard child’	—
	gàrì:bù^{L}*-î:*	‘koranic pupil’	*gàrí:bù* ‘koranic pupil’
plurals?			
	b. animal offspring		
	nà:^{L}*-î:*	‘calf’	*nă:* ‘cow’
	ɛ̀rⁿɛ̀^{L}*-î:*	‘goat kid’	*ɛ̀rⁿɛ́* ‘goat’
plurals?			
	c. blades (without handles)		
	ɛ̀rⁿɛ̀^{L}*-î:*	‘daba blade’	*ɛ́rⁿɛ́* ‘daba (hoe)’
	gɛ̀lɛ̀^{L}*-î:*	‘pick-hoe blade’	*gɛ́lɛ̀* ‘pick-hoe’
xx	*sàrù*^{L}*-î:*	‘plow blade’	*sà:rî:* ‘plow’
	dùrù^{L}*-î:*	‘spear blade tip’	*dùrú* ‘wooden spear’
	d. body parts		
	kùbɔ̀^{L}*-î:* ~ *kùbɔ̀-ý*	‘toe’	*kúbɔ́* ‘foot’
	[gìrì-y]^{L}*-î:*	‘eyeball’	*gìrì-ý* ‘eye(s)’
	e. fruits and other vegetative parts		
	mɔ̀rⁿɔ̀^{L}*-ýⁿ*	‘wild-date pit’	*mɔ́rⁿɔ̀* ‘wild date’
	ɔ̀rⁿɔ̀ŋ^{L}*-î:*	‘jujube pit’	*ɔ̀rⁿɔ̀ŋú* ‘jujube’
	kùl^{L}*-î:*	‘water lily fruit’	*kúl* ‘water lily’
	f. other		
	sɛ̀bɛ̀^{L}*-î:*	‘sheet of paper’	*sɛ́bɛ̀* ‘paper’

The compound *ɔ̀gɔ̀-ý-nɛ̀* ‘wealthy person’, plural *ɔ̀gɔ̀-ý-m̀*, can be roughly parsed as ‘child of wealth (*ɔ̀gɔ́*)’, but it has diverged in form from *î:* ‘child’, irregular plural *úrⁿù-m* ‘children’.

5.1.7 ‘Man’ (*áy-né*, *àrⁿá*, ‘woman’ (*yǎ:-rⁿá*, *yǎ:*)

yǎ:-rⁿá ‘woman’ (plural *yǎ:-m*) is unreduced in new combinations with modifiers (xx1a). It is reduced to *yà:-*^{L} or *yà-*^{L} as initial element in some archaic compounds (xx1b-c).

(xx1)	a.	*yà:-rⁿà*^{L} *pòjó*	‘full-grown woman’
		yà:-rⁿà^{L} *ì:-[dɔ́:ⁿ-né]*	‘midwife’
		yà:-rⁿà dê:-nè	‘senior wife’
	b.	*yà:*^{L}*-gùlɔ̀-ý*	‘adolescent woman’
		yà:^{L}*-jǐ:*	‘marriage’
		yà:^{L} *gûm*	‘unmarried woman’
		yà:^{L} *bèrɛ̀*^{L}*-gí-né*	‘pregnant woman’
	c.	*yà*^{L} *pěy-né*	‘old woman’
		yà^{L} *păn-né*	‘widow’
		yà^{L}*-sǎ:*	‘(man’s) sister’
		yà^{L}*-kàná*	‘newlywed bride’

áy-né ‘man’ (plural *árⁿú-m*) is usually regular (xx2a), but does have a reduced form in a few combinations. *àrⁿà* ^{L} in (xx2b) is homophonous with the tone-dropped form of *àrⁿá* ‘rain(n)’.

(xx2)	a.	*ày-nɛ̀*^{L} *pěy-né*	‘old man’
	b	*àrⁿà*^{L} *păn-né*	‘widower’
	c.	*à*^{L}*-sàrⁿá*	‘(woman’s) brother’
		á-káná	‘newlywed husband (groom)’

As modifying adjectives, for example after animal terms to specify gender, the forms are *yǎ:* ‘female’ and *àrⁿá* ‘male’. These adjectives may also have more abstract senses, as in *yǔ:* ‘millet’, *yù:*^{L} *àrⁿá* ‘highest-quality millet (reserved for eating in the next pre-harvest period)’.

(xx3)	a.	*yù:*^{L} *àrⁿá*	‘high-quality millet (reserved for eating later)’
		yǔ:	‘millet’
	b.	*bàgà*^{L} *àrⁿá*	‘beam in roof of shelter’
		bágá	‘stick, staff’

5.1.8 Compounds with *bàŋâ:* ‘owner’

As an independent noun, ‘owner, master’ is *bàŋâ:*, plural *bàŋâ: bè*. It does not take the usual singular and plural suffixed for human nouns.

‘Owner’ is most common as a compound final ^{L}*bàŋà* with a range of senses, occasionally literal (xx1a), more often abstract (xx1b). The compound is possessive-type, with the initial in its regular lexical form and ‘owner’ tone-dropped to ^{L}*bàŋà*. This compound pattern competes with characteristic denominal derivatives (§4.2.1).

(xx1)	a.	*gɛ̀r^{n}ɛ́* ^{L}*bàŋà*	‘homeowner’	*gɛ̀r^{n}ɛ́* ‘house’
	b.	*múŋàl* ^{L}*bàŋà*	‘tolerant person’	*múŋàl* ‘tolerance, patience’
		yárdà ^{L}*bàŋà*	‘kind person’	*yárdà* ‘good nature, kindness’
		hɔ́là:l ^{L}*bàŋà*	‘respected one’	*hɔ́là:l* ‘respect and trust’
		kû: ^{L}*bàŋà*	‘youth leader’	*kû:* ‘head; leader’

5.1.9 Loose and tight compounds with *ná:* ‘authentic; entire’

ná: is a modifying adjective (or compound final) meaning ‘entire X’, especially in connection with trees and other plants whose basic term often refers to the fruit or some other part. Thus *máŋgò:rò* ‘mango’, *màŋgò:rò* ^{L} *ná:* ‘mango tree’.

ná: can also mean ‘primary’ or ‘authentic’, the phrase denoting a prototypical or full-sized individual or subtype. For example, from *àrùgǒy* ‘boubou’ (man’s robe-like outer garment), *àrùgòy* ^{L} *ná:* ‘primary boubou’ denotes various large-sized and elegant boubous. From *kǔy* ‘mortar (for pounding with a pestle)’, kùy ^{L} ná: denotes the largest type, in which entire millet grain spikes (like corn cobs) are pounded to dislodge the grains, often in a special area at the edge of the village. The famous Dogon *tògù* ^{L} *ná:* is the main men’s shelter (palaver house) in a village, distinct from several other simple men’s shelters (*tógù*).

ná: is homophonous to ‘mother’ and the connection is recognized by speakers.

5.1.10 Compounds with medial linking element (*X-nà:-X*)

In a handful of flora-fauna terms, a monosyllabic morpheme X is repeated on both sides of an intervening *-nà:-*. The first X is L-toned, the second has falling tone. Four examples have turned up. They denote small, pesty insects or plants.

(xx1)

èm^{L}*-nà:-êm*	‘tiny bee sp. (feeds on flies)’
dèy^{nL}*-nà:-dêy*^{n}	‘wood-eating beetle sp.’
ɔ̀r^{L}*-nà:-ɔ̂r*	‘stiletto-fly larva’
áy-[dɔ̀ŋ^{L}*-nà:-dɔ̂ŋ]*	‘herb with burrs’ (*Pupalia lappacea*)

The pattern *X*^{L}*-nà:-X* is not limited to flora-fauna terms. The example in (xx2a) is very similar tonally. However, the adjectival examples in (xx2b-e) preserve lexical tones in the final. With adjectives, the pattern *X*^{L}*-nà:-X* is emphatic (‘very X’). This pattern therefore competes with adjectival intensifiers, a subtype of expressive adverbial, see §5.1.10 and §8.4.7.2.

(xx2) a. *pùrù*^{L}*-nà:-púrù*
‘women’s collective chopping of green branches (April-May)’
(from verb *púró* used to denote this activity)

b. *sɔ̀:*^{L} *mà:*^{L}*-nà:-mă:*
‘serious talk’ (also just *sɔ̀:*^{L} *mă:*, cf. *mă:* ‘dry, hard’)

.

c. *dɔ̀:*^{n} *-nà:-dɔ̌:*^{n}
‘last (in a race)’ (expansion of *dɔ̌:*^{n}, same sense)

d. *èjù*^{L}*-nà:-èjú*
‘excellent, of high quality’ (*èjú* ‘good’)

e. *pàlà*^{L}*-nà:-pàlá*
‘very tall or long’ (*pàlá* ‘long’)

The relationship of *X-nà:-X* compounds to *ná:* ‘authentic; entire’ is unclear. Some other Dogon languages have *X-mà:-X* instead of *X-nà:-X*.

5.1.11 Instrumental verbal-noun compounds (‘iron-pot scraper’)

A verb in verbal-noun form with {L}-toned stem and final *ú* (or for monosyllabics *-y*) can occur as a compound final in a N-VblN form that can be used as a nominal or that can modify a noun that denotes a general class of objects. Even when used as a nominal, this compound construction differs from one with a noun followed by a verbal noun in adjectival function (§4.5.2). For example, in (xx1b), *bàrmà*^{L}*-kɔ̀jú* does not denote an iron pot that is used for scraping, rather an unspecified object that is used to scrape iron pots.

(xx1) a.

gùlɔ̀^{L} *[lòbò-lò]*^{L}*-[làb-ú]*	‘small trimming ax’ (*gùlɔ́*)
lóbó-ló lábá	‘do some wood-carving’

b. *bàrmà*^{L}*-[kɔ̀j-ú]* ‘scraper for iron pot’
bármà ‘iron pot’
kɔ́jɔ́ ‘scrape’

c. *èn*^{L}*-[bùb-ú]* ‘chewstick, toothpick’
ɛ̌n ‘tooth’
bùbɔ́ ‘pick one’s teeth with chewstick’

d. *lò:sòn*^{L}*-[kùn-ú]* ‘ramrod holder (under rifle barrel)’
ló:sòn ‘ramrod (for reloading)’
kúnɔ́ ‘put’

e. (diminutive)
kù:^{L}*-[sɔ̀n-ì-ý*^{n}*]* ‘pointed implement for undoing braids’
kû: ‘head’
sɔ́nɔ́ ‘undo (braids, with combing motion)’
sɔ̀n-ú ‘undoing (verbal noun)’

5.1.12 Purposive verb-final compounds (‘water for drinking’)

In (xx1), the verbal noun is again a compound, as in the preceding section, and cf §5.1.4. However, in this case the compound denotes the (at least formally) transitive action that the initial modified noun is used for. The compound initial is often a cognate nominal.

(xx1) a. *gùjù*^{L} *sɛ̀n*^{L}*-[sɛ̌n-∅]* ‘prayer skin (for Muslim prayer)’
gùjú ‘skin’
sɛ̂n sɛ́r^{n}*ɛ́* ‘pray, perform a Muslim prayer’
(for *r*^{n} ~ *n* see §3.4.1.7)

b. *kèrì-ỳ*^{L} *tɔ̀ŋù*^{L}*-[tɔ̀ŋ-ú]* ‘stick for writing (in koranic school)’
kèrú ‘stick’
kèrì-ý ‘stick-Diminutive’
tɔ̀ŋú tɔ́ŋɔ́ ‘write, do some writing’

‘water for drinking’, ‘water for bathing’
see also §4.5.2 (verbal noun as adjective)
‘oil for rubbing’, ‘oil for cooking’

kìjɛ̀ dɔ́r^{n}ɔ́ ‘wares, merchandise for sale’

‘things to buy’

5.1.13 Compounds with perfective negative final

Compounds with a verbal noun as final have been illustrated above (§5.1.4), see also §5.1.11 and §4.5.2. In all such cases the verbal noun is understood as positive.

There are a few cases where a perfective negative verb (suffix -l and variants) or a stative negative verb form serves as compound final.

In (xx1a), the compound type is (ǹ v̄), with tone-dropped initial and regular tones on the negative verb. The underlying main clause is illustrated in (xx1b). The verb is the regular negation of the 'have' stative quasi-verb.

(xx1) (ǹ v̄) type

xx a. *dìmɛ̀*^{L} *sɛ̀-lɛ́* 'arrogance'

b. *X* *dímɛ̀* *sɛ̀-lɛ́-∅*
X prudence have-StatNeg-3SgS
'X has no prudence (= is arrogant or headstrong).'

In (xx2), we have a possessive-type compound, so the initial has regular lexical tones and the final, a perfective negative verb, is tone-dropped. Both the sense and the tone pattern are suggestive of noun-adjective bahuvrihi compounds, see (xx1) in §5.2.1.1.

(xx2) (ń v̀) type (possessive-like)

a. *kínɛ́-* ^{L}*[à:-l]* 'disappointed, mildly sad'

b. *[X* ^{L}*kìnɛ̀]* *ǎ:-l-∅*
[X ^{L}liver/heart] catch-PerfNeg-3SgS
'X's liver/heart was not caught.' (= 'X was disappointed.')

check syntax, see §1.11.4

5.1.14 Compounds with negative initial

I can cite the example in (xx1), where *-là* functions as negative of the verb *tɔ́:rɔ́* 'instruct, authorize'. Compare stative negative *=lá*, but note that *tɔ́:rɔ́* is an active verb.

(xx1) *[tɔ̀:rɔ̀-là]*^{L}*-bírɛ́*

[instruct-Neg]^{L}-work(n)
'lack of discipline (doing un-asked-for things)'

A similar example is *[kɔ̀ː-là]*^{L}*-bírɛ́* 'effrontery (doing something outrageous)', from verb *kɔ́ː*, which has various senses including 'raise (a child)'.

5.1.15 Other phrasal compounds

A traditional wooden spear with backward-facing barbs, which is difficult to extricate after it penetrates into flesh, is called *[dàmà-ŋ́]-[bìŋɛ̀-ŋ́]*. This is interpreted by speakers as meaning "don't push, don't pull," cf. verbs *dàmá* 'push' and *bìŋɛ́* 'pull'. The synchronic prohibitive suffix is *-nɔ̀ŋ*, so *-ŋ́* may be an archaism or from another Dogon variety.

The omasum, a third stomach of ruminant animals that has many page-like folds (archaic English synonyms are *manyplies* and *psalterium*), is called *[yìgè-n]*^{L}*-[dɛ̌n-*∅] in verbal-noun form, literally "shaking all day." For the *-n* see §15.2.2.xxx.

5.2 Adjectival compounds

5.2.1 Bahuvrihi ("Blackbeard") compounds, type (n̄ à) and others

Bahuvrihi compounds correspond to English counterparts with *-ed*, like *big-bellied* and *two-headed*. Neither the initial nor the final refers to the class of entities that the compound denotes. Rather, the initial and the final jointly denote some characteristic of the referent.

5.2.1.1 With adjectival compound final, chiefly (n̄ à)

Here the initial is a noun denoting a part or feature of the referent, and the final is an adjective that describes this part or feature. In (xx1), which appears to represent the regular pattern, the formula is (n̄ à), i.e., the part/feature noun has lexical tones and the adjective is tone-dropped. (xx1a) is used by itself as a noun, while the examples in (xx1b) involve a bahuvrihi modifying a referential noun ('person').

(xx1)	a.	*gùjú-*^{L}*gɛ̀m*	'black-skinned one, African'
		skin-^{L}black	(cf. *gɛ́m* 'black')

b1.	*ìnɛ̀*^{L}	*kínɛ́-*^{L}*ɛ̀lɛ̀l*	'happy person' ("sweet-hearted")
	person^{L}	heart-^{L}sweet	(cf. *ɛ́lɛ̀l* 'sweet')
b2.	*ìnɛ̀*^{L}	*kínɛ́-*^{L}*pìl*	'honest person' ("white-hearted")
	person^{L}	heart-^{L}white	(cf. píl 'white')
c.	*dɔ̂n-*^{L}*yɔ̀rù*		'inexpensive' ("soft-priced")
	sale-^{L}soft		(cf. *yɔ̀rú* 'soft')
d.	*kû:-*^{L}*mà:*		'stubborn' ("hard-headed")
	head-^{L}hard		(cf. mă: 'dry; hard')
e.	*[gìrì-ý]-*^{L}*mà:*		'nosy, brazen' ("hard-eyed")
	[eye-Dimin]-^{L}hard		(cf. *mă:* 'dry; hard')
f.	*ìnɛ̀*^{L}	*[kúbɔ́]-*^{L}*gɔ̀nù*	'bowlegged one'
	person^{L}	[foot]-^{L}crooked	(cf. *gɔ̀nú* 'crooked, curved')
g.	*ìnɛ̀*^{L}	*[áŋá]-*^{L}*wèy*	'gossipy one ("light-mouthed")'
	person^{L}	[mouth]-^{L}light	(cf. *wɛ́y* 'lightweight')
	[synonym *[áŋá]-*^{L}*bèrù* , lit. "near-mouthed")		

In (xx2a), the bahuvrihi has a different tone pattern, with tone-dropped noun and {LH}-toned adjective (not its lexical tone, but the tone used in adjectival predicates). In (xx2b), also a bahuvrihi semantically (allowing for a slightly irregular form of 'eye'), but specialized as a fauna term, the noun is again tone-dropped but the adjective has {HL} overlay.

(xx2)	a.	*àŋà*^{L} *-*^{LH}*èlɛ̌l*	'fluent, smooth-talking'
		mouth^{L}-^{LH}sweet	(cf. *áŋá* 'mouth', *ɛ́lɛ̀l* 'sweet')

bahuvrihi or not?

	b.	*gìlɛ̀*^{L}*-*^{HL}*gɛ̂m*	'Abyssinian ground hornbill' (lit. "black-eye"?)
		eye(?)^{L}-^{HL}black	(cf. diminutive gìrì-ý 'eye', gɛ́m 'black')

more exx

5.2.1.2 With numeral compound final

Here the compound expressed the number of body parts/features of the referent, e.g. 'one-eyed', 'two-headed'. In (xx1a-b), the noun is tone-dropped and the numeral has {HL} overlay. In (xx1b), the bahuvrihi is used adverbially with the verb *kúnɔ́* 'put'. (xx1c), by contrast, follows the regular tonal pattern of noun-

adjective bahuvrihis, with tone-dropped final; see (xx1) in the preceding section.

(xx1) a. *[gìrì-ỳ]*$^{L-HL}$*túrù* ‘one-eyed’ (cf. *gìrì-ý* ‘eyes’, *túrú* ‘one’)

b. *kùy*$^{L-HL}$*lêy kúnɔ́* ‘(two women) pound in mortar with alternate strokes’ (cf. *kǔy* ‘mortar’, *lɛ̀y* ‘2’)

xx c. *sìbɛ́-*^{L}*này*^{n} ‘square, rectangle’ (cf. *sìbɛ́* ‘corner’, *nǎy*^{n} ‘4’)

6 Noun Phrase structure

6.1 Organization of NP constituents

The observable features relevant to NP structure are linear order, position of number-humanness suffixes, tonosyntax, and the break point in relative head NPs.

6.1.1 Linear order

The order of elements within a NP is (xx1). Plural is marked suffixally on human nouns and on demonstratives.

(xx1) Order of NP constituents

	symbol
possessor (preposed)	p
noun	n
adjective(s)	a
cardinal numeral	num
possessor (postposed, pronominal)	p
determiner (demonstrative or definite)	d
'all' quantifier	q

Plural bé (ă: bé 'who-Pl', yɔ̀gɔ̌: bé 'which-Pl?'), also demonstratives for nonhuman referents

Examples showing the ordering relationships are in (xx2).

(xx2)	*gèr^{n}é*	'house'	n
	séydì ^{L}*gèr^{n}è*	'Seydou's house'	p n
	gèr^{n}è^{L} *dê:*	'big house'	n a
	[gèr^{n}è dè:]^{L} *nɔ̌:*	'this big house'	n a d
	gèr^{n}è^{L} *dê: kúlòy*	'six big houses'	n a num
	[gèr^{n}è dè:]^{L} *kúlóy mɔ̀*	'my six big houses'	n a num p
	[gèr^{n}è kùlòy]^{L} *nɔ̌:-m̀*	'these six houses'	n num d
	gèr^{n}é mɔ̀ ŋè-m	'the houses of mine'	n p d

gɛ̀r^{n}ɛ̀^{L} *kúlóy gɔ̀-m*	'the six houses'	n num d
gɛ̀r^{n}ɛ̀^{L} *ŋɛ̀-m pú→*	'all the houses'	n d q

check tones
optional inversion of adjective-numeral with Dem, Poss, Rel ??

6.1.2 Headless NPs (absolute function of demonstratives, etc.)

Demonstratives like *nɔ̌:* 'this' can be used absolutely, i.e. without a noun. In this case it has no tonal effect on whatever the preceding word happens to be, since its tonosyntactic control power is limited to NPs.

Definite markers cannot be used absolutely.

adjectives
numerals
pú→'all'

6.1.3 Apparent bifurcation of NPs as relative heads

The head NP of a relative clause divides into a primary head NP that remains inside the clause, consisting maximally of a possessed numeral phrase (possessor, noun, adjective, numeral), and a NP coda that appears after the verb-participle of the relative clause, consisting of determiners and the 'all' quantifier. In (xx1.a), 'sheep', 'big', and 'six' remain clause-internal, while the definite determiner follows the verb. (xx1.b) shows a possessor remaining with the clause-internal head NP. (xx1.c) has a postverbal demonstrative. (xx1.d) has a postverbal 'all' quantifier.

(xx1) a. *[pèjù dɛ̀: kùlòy]*^{L} *ú* ^{L}*èbɛ̀* *gɔ̀-m*
[sheep big six]^{L} 2SgS ^{L}buy.Perf.Ppl Def-Pl
'the six big sheep that you-Sg bought'

b. *[sé:dù* ^{L}*[pèjù]*^{L}*]* ^{HL}*yîm* *ŋɛ̀*
[S sheep] ^{HL}die.Perf.Ppl Def
'the sheep-Sg of Seydou's that died'

c. *pèjù*^{L} *mú* ^{L}*èbɛ̀*^{L} *nɔ̌:*
sheep^{L} 1SgS ^{L}buy.Perf.Ppl^{L} Prox
'this sheep that I bought'

d. *àr^{n}ù-m*^{L} *ól* ^{HL}*yây-m* *ŋɛ̀-m* *pú→*
man-Pl^{L} field ^{HL}go.Perf.Ppl-Pl Def-Pl all]
'all the men who went to the fields'

6.1.4 Number-humannness suffixation and concord

For most human nouns, number (human singular, human plural) is marked by suffixes on the noun itself. There is no concord between a noun and a following modifying adjective or numeral.

(xx1) a. *yǎ:-r^{n}á*
woman-Sg
'(a) woman'

b. *yà:-r^{n}à*^{L} *gàbú*
woman-Sg^{L} tall
'(a) tall woman'

c. *yǎ:-m* *kúlòy*
woman-Pl six
'six women'

However, determiners (demonstratives, definite) agree with the noun, or rather the number of the referent of the noun. With typical human common nouns like 'woman', determiners in effect agree with the grammatical number of the noun (xx1.a-b). However, kin terms that do not readily accept number suffixation can co-occur with a plural determiner (xx1.c). Furthermore, plural marking in determiners is not limited to human referents (xx1.d).

(xx1) a. *yǎ:-r^{n}á* *ŋɛ̀*
woman-Sg Def
'the woman'

b. *yǎ:-m* *ŋɛ̀-m*
woman-Pl Def-Pl
'the women'

yà:-sǎ: gɔ̀ 'the sister'
yà:-sǎ: gɔ̀-m ~ yà:-sǎ:-m ŋɛ̀-m 'the sisters'

c. *the sisters*

gèrⁿè nɔ̌: ‘this house’
gèrⁿè nɔ̌:-m̀ ‘these houses’
gèrⁿé ŋè ‘the house’
gèrⁿé ŋè-m ‘the houses’
d. *these houses*

6.1.5 Internal bracketing and tone-dropping

Given a maximal NP of the type Poss-N-Adj-Num-Poss-Rel-Det-‘all’-DF, the string to the left of the relative clause (Poss-N-Adj-Num-Poss) apparently separates from the NP coda (Det-‘all’) in relative clauses. However, this is likely misleading, since the relative construction is really a NP containing a relative clause, with the Poss-N-Adj-Num-Poss substring then shifting into the relativization site (Chapter 14).

The tonosyntactic controllers within a NP are preposed (but not postposed) possessors, adjectives, relative clauses (which target the internal head NP, i.e. the Poss-N-Adj-Num-Poss substring), and demonstratives (but not definites). These controllers are reference restrictors, intersecting the set of entities that the substring they have scope over could otherwise denote. By contrast, numerals, ‘all’, and discourse-functional (DF) markers do not restrict reference. Postposed possessors (pronominal, alienable) are reference restrictors, but they normally fail to control tone overlays, probably because they are still treated as appositional (“house$_x$ [your thing$_x$]”), so that the possessor ostensibly has immediate scope only over the original ‘thing’ noun, which is loosely apposed to ‘house’.

Both preposed possessors (the only left-to-right controllers) and the several postnominal right-to-left controllers (adjectives, relatives, demonstratives) target the noun and any intervening words. The tone overlay controlled by all of these elements is {L}. Conflicts among two or more right-to-left controllers, e.g. in N-Adj-Dem (‘this black house’) are moot, since we will get the correct output with {L}-toned noun and adjective whether we first produce [N^{L} Adj] and then add the demonstrative to produce [[N$^{(L)}$ Adj]^{L} Dem], or whether we allow the demonstrative to control {L} on the N-Adj sequence in a single step: [[N Adj]^{L} Dem].

Conflicts between preposed possessors and any postnominal controller, as in Poss-N-Adj or Poss-N-Dem, need resolution only to the extent that the target domain of the tone overlay extends beyond the noun, since the noun itself will be {L}-toned regardless of which element has control of it. For example, in alienable possession Poss-N-Adj is realized as Poss-^{L}[N-Adj], with {L}-toned adjective as well as noun, showing that the possessor dominates. In other cases

where we cannot determine which element controls the noun or N-Adj combination, I put the superscript ^{L} on both sides of the affected domain, as in Poss-^{L}[N-Adj]^{L}-Dem, since either the alienable possessor or the demonstrative could by itself control {L} on N-Adj.

There is one specifically constructional tonosyntactic pattern that cannot be generated by applying the regular tone overlays associated with the controllers present in any order or with any pecking order. This is the construction N-Num-Poss, with both a postnominal possessor and a numeral. Neither numerals nor postnominal possessors elsewhere control {L}, but in combination they do, resulting in [N^{L} Num Poss]. For discussion see §6.2.1.2 below.

6.2 Possessives

6.2.1 Alienable possession (Poss ^{L}N, etc)

Alienable possession applies to all nouns except kin terms and a few similar relationship expressions, on which see §6.2.2, below.

6.2.1.1 Nonpronominal NP as prenominal possessor

When the possessor is a **nonpronominal NP**, it **precedes** the possessed NP regardless of alienability value. Therefore 'Seydou' precedes the possessed NP both in (alienable) 'Seydou's house' and in (inalienable) 'Seydou's father'. However, the tonosyntax is not identical in the two cases, as we will see when the possessed NP is extended by a numeral, for example. This section covers alienable possession only.

The possessor NP has the same form, morphologically and tonally, that it would have as an independent NP. The possessed numeral phrase (noun, adjective, numeral) is entirely tone-dropped. That is, an {L} possessed-noun contour controlled by the possessor is overlaid on the possessed numeral phrase. When the possessed NP includes one or more modifying adjectives, the words preceding the final adjective are already tone-dropped, it is moot whether these words would have been (redundantly) tone-dropped as part of the possessed-noun contour. In (xx1), the form taken by the possessed NP when it is not possessed is given in parentheses after the free translation, to show the audible tonal changes. <u>Underlining</u> indicates audible tone-dropping that is specifically attributable to the presence of a prenominal possessor.

(xx1) possessor possessed

a. *séydù* ^{L}*gèr^{n}è*
S ^{L}house
'Seydou's house' (*gèr^{n}é*)

b. *[ày-nè*^{L} *nǒ:]* ^{L}*[gèr^{n}è* *dè:* *gɔ̀]*
[man-Sg^{L} this] ^{L}[house big Def]
'this man's big house' (*gèr^{n}è dê: gɔ̀*)

c. *[ày-nè*^{L} *ná:* *(ŋè)]* ^{L}*[gèr^{n}è* *kùlòy* *gɔ̀-m]*
[man-Sg^{L} old (Def)] ^{L}[house six Def-Pl]
'The old man's six houses.' (*gèr^{n}é kúlòy gɔ̀-m*)

When both a prenominal possessor NP and a final demonstrative pronoun are present (*Seydou house this* = 'this house of Seydou's'), either the possessor or the demonstrative by itself would be sufficient to control tone-dropping on the intervening numeral phrase. So tone-dropping on these words is (at least) doubly conditioned, which I indicate by putting superscript ^{L} on both left and right edges of the target domain In a combination like (*Seydou* ^{L}*[house big]*^{L} *this* = 'this big house of Seydou's'), the noun 'house' is already tone-dropped by the following modifying adjective, so one can say that its tone-dropping in the larger phrase is triply conditioned. I do not usually add a superscript in such cases

(xx2) *séydù* ^{L}*[gèr^{n}è* *dè:]*^{L} *nǒ:*
Seydou ^{L}[house big]^{L} this
'this big house of Seydou's'

The clear feature of (xx2) and similar examples is that the possessed-noun tone contour controlled by the prenominal possessor does not extend to the demonstrative, and vice-versa. That is, tone-dropping due to a possessor or to a demonstrative applies maximally to a N-Adj-Num string.

In the following section we will see that something like the {L} possessed-noun contour is also found with postposed pronominal possessors—but with a catch!

6.2.1.2 Postnominal pronominal possessors

For alienable nouns, i.e. nouns other than kin terms, a pronominal possessor is expressed by an appositional combination of the type 'my/your/… possession' following the numeral phrase (noun, adjective, numeral) denoting the possessed entity.

The pronominal forms are in (xx1). 3Sg is used for nonhumans as well as humans: *nɔ̌y wò-mɔ̀* 'his/her hand/arm, its (= tree's) branch'. The forms are all heard as L-toned following an overt possessed noun (or a numeral phrase). In absolute form ('mine', 'yours'), the tone contour is {HL}. The 1Pl form begins with *ɛ*, not *e*.

(xx1) Pronominal possessors (alienable possession)

	category	after noun (N)	absolute
	1Sg	N *mɔ̀*	*mɔ̂:*
	2Sg	N *ɔ̀:*	*ɔ̂:*
	3Sg	N *wò-mɔ̀*	*wó-mɔ̀*
e?	1Pl	N *ɛ̀mɛ̀*	*ɛ́mɛ̀*
	2Pl	N *ɛ̀:*	*ɛ̂:*
	3Pl	N *bɛ̀-mɛ̀*	*bɛ́-mɛ̀*

The only situation in which a pronominal possessor combinations may precede an overt possessed noun is when the entire possessed NP functions as relative-clause head. In this context, preposing the pronominal possessor combination (with {HL} tone contour as in absolute function) is a stylistically marked option; see §14.1.2 for examples and discussion.

When a possessed NP follows a nonpronominal possessor NP ('Seydou's three big houses'), the {L} possessed-noun contour applies in one fell swoop to the entire numeral phrase (noun, adjective, numeral), see §6.xxx, above. When the possessor is a postnominal pronominal possessor from (xx1), above, the rules are different. Here the rule is that the last word in the numeral phrase preceding the possessor retains its lexical tone, and all preceding words are tone-dropped. In a N-Adj-Poss sequence (xx2b), we expect [N^{L} Adj Poss] anyway since the adjective elsewhere controls tone-dropping on the noun: [N^{L} Adj]. What is new is that the numeral in N(-Adj)-Num-Poss, or perhaps the Num-Poss combination, **acts like a tone-dropping controller**, producing [N(-Adj)^{L} Num Poss] (xx2c-d), in spite of the fact that in isolation numerals and postposed possessors have no tonal effect on nouns: [N Num], [N Poss].

(xx2) a. *gɛ̀r^{n}ɛ́* ^{L}*wò-mɔ̀* *(ŋɛ̀)*
house ^{L}3Sg-Poss (Def)
'his/her house'

b. *gɛ̀r^{n}ɛ̀*^{L} *dɛ̂:* ^{L}*wò-mɔ̀* *(ŋɛ̀)*
house^{L} big ^{L}3Sg-Poss (Def)

'his/her big house'

c. *gèr^{n}è*^{L} *kúlòy* ^{L}*wò-mɔ̀* *(ŋè-m)*
house^{L} six ^{L}3Sg-Poss (Def-Pl)
'his/her six houses'

d. *[gèr^{n}è* *dè:]*^{L} *kúlòy* ^{L}*wò-mɔ̀* *(ŋè-m)*
[house big]^{L} six ^{L}3Sg-Poss (Def-Pl)
'his/her six big houses'

A clue as to what is going on in (xx2) is the dropping of the tone contour of the pronominal possessor combination from {HL} as in its absolute form to {L} when following an overt possessed noun. In effect, the expected initial H-tone of the pronominal element is transferred to the preceding word. However, this transfer is not a garden-variety phonological process by which a tone is delinked from the edge of one word and attached to the adjacent edge of the other word, with the exact realization determined by phonological rules. Instead, it is the **lexical melody** of the final word of the possessed NP, whether /H/, /HL/, or /LH/, that is allowed to appear. That is, the delinked H-tone from the pronominal prevents tone-dropping from applying to the adjacent word. A further twist, to be discussed at the end of §6.2.2.2, below, is that a similar tonosyntax applies when the pronominal possessor is preposed, i.e. in the inalienable possession construction.

Further examples are in (xx3). The final word in the numeral phrase is variously /H/ ('long'), /HL/ ('seven'), or /LH ('three'), in all cases with the lexical tone preserved before the pronominal possessor, while nonfinal words in the numeral phrase are tone-dropped.

(xx3)	numeral phrase	gloss	'his/her …'
	gèr^{n}è^{L} *pálá*	'long house'	*gèr^{n}è*^{L} *pálá* ^{L}*wò-mɔ̀*
	gèr^{n}é sôy	'seven houses'	*gèr^{n}è*^{L} *sôy* ^{L}*wò-mɔ̀*
	gèr^{n}é tă:n	'three houses'	*gèr^{n}è*^{L} *tă:n* ^{L}*wò-mɔ̀*

We can now conclude that the same {L} tone contour applies to the possessed numeral phrase whether the possessor is prenominal ('Seydou's six big houses') or postnominal ('his/her six big houses'), but that in the latter case the **lexical tone of the final word in the numeral phrase is restored** due to the delinking of the initial H-tone of the postnominal pronominal possessor. This brings out the interaction between syntax (categorial structure), phonology (tone delinking), and lexical tone contours. All three must be accessible for the delinking process to apply correctly.

6.2.2 Inalienable possession

6.2.2.1 Inalienable nouns

Inalienable possession applies to kin terms and some other relationship terms. All other nouns are alienable.

In spite of the name "inalienable," kin and relationship terms can occur in unpossessed form, as in 'I have a father/a friend.' The lexical tone can be observed in such forms (xx1).

(xx1) Inalienably possessed nouns

a. kinship (examples)

bá:	'father'
dé:	'father'
ná:	'mother'
délé	'elder brother'
dì-dă:, dà-dă:	'elder sister'
súgɔ́-né	'younger sibling' (Pl *súgó-m*)
sá:	'(man's) sister'
ásár^{n}á	'(woman's) brother'
níñú	'maternal uncle'
nɛ̀r^{n}é	'paternal aunt'
ìgì-yă:	'co-wife'
áw^{n}á	'parent-in-law'

b. other relationships

ángé	'friend'
tɔ́:r^{n}ɔ́	'agemate'
tɔ́gɔ̀rɔ̀	'homonym' (one with the same name)

These inalienables (except *súgɔ́-né* 'younger sibling') differ from many other human nouns in not showing singular and plural suffixes, compare singular *dɔ̀gɔ̀-nɔ́* 'Dogon (person)' and plural *dɔ̀gɔ̀-ḿ*. However, these suffixes can be added to inalienables under limited conditions. This happens most systematically in contexts where the identity of the possessor is generic or otherwise backgrounded, as in definite *bá:-né ŋɛ̀* 'the father' and its plural *bá:-m ŋɛ̀-m* 'the fathers' in generic statements (or when the speaker wishes to avoid explicitly mentioning the possessor). Suffixation also occur occasionally with kin terms when adjectivally modified, as in *nà:(-nɛ̀)*^{L} *sálá* 'a bad mother', where the short form without suffix is preferred.

'X's wife' is expressed as 'X's woman', with alienable possession: *yǎ:-r^{n}á mɔ̀* 'my wife'. Likewise 'X's child': *î: mɔ̀* 'my child (son or daughter)'.

6.2.2.2 Inalienable possession

The possessor precedes the inalienably possessed noun. This applies even to pronominal possessors, which follow alienably possessed nouns. The forms used for pronominal possessors of inalienable nouns are in (xx2). They are identical to the independent pronouns, and differ in form from the postposed pronominal possessor forms used with alienables. 3Sg is used for nonhuman animals as well as for humans: *wó* ^{L}*nà:* 'his/her/its mother'.

(xx1) Pronominal possessors with inalienably possessed noun

category	form	'X's mother'
1Sg	*mú*	*mú* ^{L}*nà:*
1Pl	*émɛ́*	*émɛ́* ^{L}*nà:*
2Sg	*ú*	*ú* ^{L}*nà:*
2Pl	*é*	*é* ^{L}*nà:*
3Sg	*wó*	*wó* ^{L}*nà:*
3Pl	*bé*	*bé* ^{L}*nà:*

If the possessor of an inalienable is a nonpronominal NP, it takes the same form (morphologically and syntactically) that it would have as an independent NP, or as the possessor of an alienable noun like 'house' (xx2).

(xx2) a. *ày-nɛ̀*^{L} *ná:* *ŋɛ̀*
man-Sg^{L} old Def
'the old man'

b. *[ày-nɛ̀*^{L} *ná:* *ŋɛ̀]* ^{L}*nà:*
[man-Sg^{L} old Def] ^{L}mother
'the old man's mother'

c. *[ày-nɛ̀*^{L} *ná:* *ŋɛ̀]* ^{L}*gɛ̀r^{n}ɛ̀*
[man-Sg^{L} old Def] ^{L}house
'the old man's house'

In (xx1-2), the inalienable ‘mother’ and the alienable ‘house’ are both tone-dropped. So far it looks as though there is no difference between alienable and inalienable possession when the possessor is a nonpronominal NP. However, if we add adjectives and numerals to the possessed nouns, we find differences between alienable and inalienable constructions.

When an adjective is added to an inalienable noun, as in (xx3.a), a nonpronominal possessor like ‘Seydou’ controls tone-dropping on the noun-adjective sequence (xx3.b). This is the same pattern as with alienable nouns. However, when the possessor is pronominal, the possessor and the noun are jointly tone-dropped under the control of the adjective (xx3.c).

(xx3) a. *nà:(-nɛ̀)*^{L} *sálá*
mother(-Sg)^{L} bad
‘a bad mother’

b. *séydù* ^{L}*[nà:* *sàlà* *gɔ̀]*
S ^{L}[mother bad Def]
‘Seydou’s bad mother’

c. *[mù* *nà:]*^{L} *sálá* *gɔ̀*
[1SgP mother]^{L} bad Def
‘my bad mother’

So far there has been no difference between alienable and inalienable possession when the possessor is nonpronominal. In both constructions, the nonpronomnal possessor is prenominal and preserves its regular independent NP form (including tones), while controlling tone dropping on a following possessed noun or noun-adjective sequence.

However, the difference between alienable and inalienable possession is finally revealed when a numeral is added. Whereas the numeral is included in the possessed-noun {L} contour in the alienable case, this is not so in the inalienable case. The distinction can be brought out sharply by comparing the segmentally identical nouns *nă:* ‘cow’ (alienable) and *ná:* ‘mother’ (inalienable). Both are tone-dropped under the control of a possessor (xx4.a-b), and a following adjective is also tone-dropped in both cases (xx4.c-d). However, when a numeral is added, only the alienable construction extends the {L} contour all the way to the numeral, while the inalienable limits the {L} to the core NP consisting of the noun plus any adjectives. Therefore (xx4.e) and (xx4.f) are audibly distinct, as are (xx4.g) and (xx4-h), the only difference between the ‘cow’ and ‘mother’ readings being the tone of the numeral. The unpossessed forms of the relevant NPs are shown in parentheses.

(xx4) a. *sáydù* ^{L}*nà:*

S [L]cow
'Seydou's cow' (*nă:*)

b. *sáydù* [L]*nà:*
S [L]mother
'Seydou's mother' (*ná:*)
[homophonous to (a)]

c. *sáydù* [L]*[nà:* *sàlà]*
S [L][cow bad]
'Seydou's bad cow' (*nà:*[L] *sálá*)

d. *sáydù* [L]*[nà:* *sàlà]*
S [L][mother bad]
'Seydou's bad mother' (*nà:*[L] *sálá*)
[homophonous to (c)]

e. *sáydù* [L]*[nà:* *kùlòy* *gɔ̀-m]*
S [L][cow six Def-Pl]
'Seydou's six cows' (*nă: kúlòy*)

f. *sáydù* [L]*nà:* *kúlòy* *gɔ̀-m*
S [L]mother six Def-Pl
'Seydou's six mothers' (*ná: kúlòy*)

g. *sáydù* [L]*[nà:* *sàlà* *kùlòy* *gɔ̀-m]*
S [L][cow bad six Def-Pl]
'Seydou's six bad cows' (*nà: sálá kúlòy*)

h. *séydù* [L]*[nà:* *sàlà]* *kúlòy* *gɔ̀-m*
S [L][mother bad] six Def-Pl
'Seydou's six bad mothers' (*nà:*[L] *sálá kúlòy*)

It remains to consider what happens when a numeral is added to an inalienably possessed noun (or core NP) with a pronominal possessor. In this combination, the pronominal possessor and the possessed noun (or core NP) both drop tones before the numeral. In this combination, **the numeral behaves like a modifying adjective**. Therefore (xx5.b), with a numeral, has the same tonosynax as (xx5.c), with an adjective. The generalization is that the final word in the sequence [pronominal possessor - noun - adjective - numeral], with at least one adjective or numeral, retains its tones while the preceding words drop theirs. This is the same pattern seen with postnominal pronominal possessors in the alienable construction (§6.2.1.2, above). In both, an expected H-toned

pronoun in possessor function shows up L-toned form, while the last postnominal adjective or numeral manages to preserve its tones.

(xx5) a. *mú* ^{L}*nà:*
1SgP ^{L}mother
'my mother'

b. *[mù* *nà:]*^{L} *kúlòy* *gɔ̀-m*
[1SgP mother]^{L} six Def-Pl
'my six mothers'

c. *[mù* *nà:]*^{L} *sálá* *gɔ̀*
[1SgP mother]^{L} bad Def
'my bad mother'

6.2.3 Recursive possession

Recursive possession is easily expressed. One possessed NP, after its own form has taken shape, can function as (prenominal) possesor of a following possessed NP. Alienable and inalienable possession are readily mixed.

(xx1) a. *[mú* ^{L}*bà:]* ^{L}*gèr^{n}è*
[1SgP ^{L}father] ^{L}house
'my father's house'

b. *[péjú* *mɔ̀]* ^{L}*nà:*
[sheep 1SgP] ^{L}mother
'my sheep-Sg's mother'

c. *[mú* ^{L}*àngè]* ^{L}*bà:*
[1SgP ^{L}friend] ^{L}father
'my friend's father'

6.3 Noun plus adjective

6.3.1 Noun plus regular adjective (core NP)

A noun drops tones before a modifying adjective, which keeps its lexical tones (in the absence of tone-dropping from an external controller).

(xx1) gloss noun X 'a good X' 'a red (brown) X'

‘house’	*gèrⁿé*	*gèrⁿè*^{L} *èjú*	*gèrⁿè*^{L} *bán*
‘stone’	*tībú*	*tìbù*^{L} *èjú*	*tìbù*^{L} *bán*
‘child’	*î:*	*ì:*^{L} *èjú*	*ì:*^{L} *bán*

A human noun that takes singular/plural suffixation retains the suffix before an adjective. The adjective does not agree with the noun morphologically, although the plural particle *bè* is optionally added when the reference is plural (for humans or nonhumans).

(xx1) a. *dɔ̀gɔ̀-nɔ̀*^{L} *èjú*
Dogon-Sg^{L} good
‘a good Dogon (person)’ (*dɔ̀gɔ̀-nɔ́*)

b. *dɔ̀gɔ̀-m*^{L} *èjú* *(bè)*
Dogon-Pl^{L} good (Pl)
‘good Dogon (people)’ (*dɔ̀gɔ̀-mɔ́*)

The slightly irregular noun *ìné* ‘person’ has a suffixed plural *ìné-m* ‘people’, but this plural form is generally not used before an adjective (or as head of a relative clause, §14.xxx). With this noun, the adjective normally takes the suffix.

(xx1) a. *ìnɛ̀*^{L} *èjú* *gɔ̀*
person^{L} good Def
‘the good person’

b. *ìnɛ̀*^{L} *èjú-m* *ŋɛ̀-m*
person^{L} good-Pl Def-Pl
‘the good people’

For phrases containing more than one adjective, see §6.3.3.1, below.

6.3.2 Adjective *gǎm* ‘certain (ones)’

certain people
a certain woman
some sand
sometimes

6.3.3 Expansions of adjective

6.3.3.1 Adjective sequences

There is no systematic ordering principle for multiple adjectives within a NP. (xx1.a) and (xx1.b) are interchangeable, except for possible nuances that are difficult to pin down.

(xx1) a. *[gèr^{n}ɛ̀ dɛ̀:]^{L} bán*
[house big]^{L} red
'a big red house'

b. *[gèr^{n}ɛ̀ bàn]^{L} dɛ̌:*
[house red]^{L} big
[= (a)]

In such combinations, the final adjectives retains its lexical tones (unless tond-dropped by some external controller), while all nonfinal words in the sequence are tone-dropped. There is no way to determine whether such tone-dropping within core NPs of three or more words is cyclical or occurs in one shot. One possibility (cyclical) is that 'house' is first tone-dropped under the control of the inner adjective, then the latter is tone-dropped under the control of the final adjective. The other possibility (noncyclical) is that the final adjective controls simultaneous tone-dropping on the noun and the inner adjective.

6.3.3.2 Adjectival intensifiers

Intensifiers that are added to specific adjectives (cf. *snow white*, *dead drunk*, *stark naked*) belong to the general class of expressive adverbials (EAs). Unlike the English parallels, they generally have no other lexical sense. Most are unrelated phonologically to the adjective they are associated with, but some are derived from those adjectives by special reduplicative processes. Others are frozen iterations like *CvCv-CvCv*. See §8.4.7.1 for examples and fuller analysis of the forms

Adjectival intensifiers often follow the regular adjective or an associated verb (inchoative).

any tone-dropping of adjective before intensifier?
'the house is snow white' (pàrá-pàrá)
'the house became snow white'
'they painted the house snow white'

'I saw a snow white house'
EA as predicate

No clear boundary between these intensifiers and (other) expressive adverbials (chapter 8).

list of intensifiers, with semantically associated adjective (or verb)

6.3.3.3 'Good to eat'

distinguish e.g. 'hedgehogs are good to eat' from e.g. 'it's good to eat hedgehogs'.

6.4 Core NP plus cardinal numeral (NumP)

The core NP (noun plus any adjectives) may be followed by a numeral, constituting what is sometimes called a numeral phrase (NumP). This unit plays a role in the syntax (including tonosyntax) of possession and relativization. For example, a NumP constitutes the target domain for tone-dropping under the control of a preceding nonpronominal NP possessor (in the alienable possession construction). The NumP also remains intact when it functions as head of a relative clause, while more peripheral elements (determiners, 'all', the plural particle) shift to a position following the verbal participle. However, this last feature may really reflect the linear position of relative clauses, prior to movement of the material to their left into the relativization site.

Here we consider NumPs on their own. There is no tonal interaction between the numeral and the preceding core NP. Both the numeral and the final word of the core NP preserve their lexical tones, including at least one H-tone element.

(xx1) a. *ìjú* *tǎ:n*
dog three
'three dogs'

b. *[ìjù*^{L} *dùgú]* *tǎ:n*
[dog^{L} big] three
'three big dogs'

Although numerals do not control tone-dropping in simple numeral phrases like these, in constructions involving pronominal possessors, numerals do appear to control tone-dropping in the fashion of modifying adjectives. See the inalienable type 'my six mothers' in §6.2.2.2, above, and the alienable type 'his/her six (big) houses' in §6.2.1.2, above.

6.5 Numeral phrase (N-Adj-Num) plus determiner

Demonstrative pronouns and definite morphemes follow the numeral phrase. Demonstratives, but not definite morphemes, control tone-dropping on preceding words in the NP.

6.5.1 Prenominal *kó*

Prenominal *kó* in discourse-definite function ('that [same] X') is also attested in YS. It can be used by itself as a discourse-definite inanimate pronoun.

(xx1) [kó lé] kírⁿ-à:y-∅
[Inan.Def Dat] be.fed.up-Perf1a-3SgS
'He/She is fed up with it.'

examples of prenominal kó

6.5.2 Postnominal demonstrative pronouns

A numeral phrase (noun plus any adjectives and/or numerals) may be followed by a demonstrative pronoun in modifying function. Tone-dropping controlled by the demonstrative applies both to the final word in the core NP and to the numeral.

For the forms of demonstrative pronouns, see §4.4.1.1, above. Phrasal examples are in (xx1). The corresponding numeral phrases without the demonstrative are given in parentheses.

(xx1) a. *ìjù*^{L} *nɔ̌:*
dog^{L} this
'this dog' (*ìjú*)

b. *[ìjù dùgù]*^{L} *nɔ̌:-m̀*
[dog big]^{L} this-Pl

'these big dogs' (*ìjù dùgú*)

c. *[ìjù* *dùgù* *tà:n]*^{L} *kó-m̀*
[dog big three]^{L} that-Pl
'those three big dogs' (*ìjù*^{L} *dùgú tă:n*)

While adjectives, numerals, and possessors remain with an NP that functions as head of a relative, demonstratives and other determiners occur in a position following the verbal participle (§14.xxx, below). That is, the break point for a relative-head NP is after the numeral phrase.

A demonstrative is not affected by the possessed-noun tone contour {L} that is overlaid on possessed NPs under the control of a prenomnal possessor (§6.xxx, aboe).

6.5.3 Definite morpheme (*gɔ̀*, *ŋɛ̀* and their plurals) plus noun

Definite morphemes do not co-occur with demonstratives. Both occur in the same position immediately following the numeral phrase (noun plus any adjectives and/or numerals), and both are shifted to post-participial position when the NP functions as relative-clause head.

The forms of definite morphemes are given in §4.4.1, above. Definite morphemes are L-toned. Unlike demonstratives, they have no tonal effect on preceding words within the NP. An example is (xx1).

(xx1) *ìjù*^{L} *dùgú* *kúlòy* *gɔ̀-m*
dog^{L} big six Def-Pl
'the six big dogs'

human example: six big people (pl suffix?)

A definite morpheme may follow a possessed noun, but it is not required. In this combination it has a discourse-definite function, referring back to preceding discourse. An example is *gèr^{n}ɛ́ mɔ̀ ŋɛ̀* ('the house of mine [that I was talking about]').

6.6 Universal and distributive quantifiers

6.6.1 'All' *(pú→)*

pú→ 'all' has the prosody of expressive adverbial. However, it can function as the final element in a NP, as shown by the fact that the accusative morpheme apears, if at all, following rather than preceding *pú→* in (xx1.b).

(xx1) a. *[àrⁿú-m ŋɛ̀-wⁿ]-ì: dǎy-t-ɛ̀:ⁿ*
[man-Pl Def-Pl]-Acc kill-Perf1b-3PlS
'They killed the men.'

b. *[àrⁿú-m ŋɛ̀ pú→](-ỳ) dǎy-t-ɛ̀:ⁿ*
[man-Pl Def all](-Acc) kill-Perf1b-3PlS
'They killed all the men.'

c. *ɛ́mɛ́ pú→*
1Pl all
'all of us; we all'

6.6.2 'Each' or '(not) any' (*kâ:ⁿ*)

The distributive quantifier *kâ:ⁿ* in the sense 'each' could be elicited in positive utterances only in combination with the noun *ìnɛ́* 'person', which is tone-dropped: *ìnɛ̀*^{L} *kâ:ⁿ* 'each person'.

For other NPs, an iterated distributive numeral *tú-túrú* with senses like 'one by one, individually' is used when distributivity is centrally important. More often, the universal quantifier *pú→* 'all' is used in contexts where the sense 'each' might be appropriate. That is, the distinction between 'all' and 'each' is usually not made.

In the sense '(not) any', in combination with a negative predicate, *kâ:ⁿ* also occurs in *kìjɛ̀*^{L} *kâ:ⁿ* '(not) anything' or 'nothing', based on *kíjɛ́* 'thing'.

each of us
each one of those sheep
he gave me nothing

6.7 Accusative (*-ỳ*)

Accusative *-ỳ* is used with a human direct (and some other) objects. It is added to the end of a NP or pronoun. It does not co-occur with (other) postpositions, and could be considered to be a postposition itself.

Care must be taken to distinguish the accusative morpheme, which is always L-toned, from the 'it is' clitic *=y*, which gets its tone from the preceding word and is therefore often H-toned. The two are audibly distinct after a noun ending in a H-tone, such as *yǎ:-rⁿá* 'woman'. Compare accusative *yǎ:-rⁿá-ỳⁿ* in sentences like 'I saw a woman', but *yǎ:-rⁿá=ýⁿ* 'it's a woman' (or focalized 'a woman'). It is important to distinguish the two because the 'it is' clitic is also the focus morpheme used for constituent (including direct object) focalization. There is no audible distinction, however, after a NP ending in a L-tone, such as an NP ending with a definite morpheme.

For a nonhuman noun like 'stone', a direct object may be marked by focus *=y* for object-focalization (xx2b,d,f), but there is no accusative suffix in other contexts (xx2a,c,e).

(xx1) a. *tíbú* *jèñé=bé-m*
stone pick.up=Past-1SgS
'I picked up a stone.'

b. *tíbú=ý* ^{L}*jèñè-m*
stone=Foc ^{L}pick.up.Perf-1SgS
'It's a stone [focus] that I picked up.'

c. *[tíbú gɔ̀]* *jèñé=bé-m*
[stone Def] pick.up=Past-1SgS
'I picked up the stone.'

d. *[tíbú gɔ̀]=ỳ* ^{L}*jèñè-m*
[stone Def]=Foc ^{L}pick.up.Perf-1SgS
'It's the stone [focus] that I picked up.'

e. *[tíbú gɔ̀]* *jí-jèñè-jɛ̀-m*
[stone Def] Rdp-pick.up-Fut-1SgS
'I will pick up the stone.'

f. *[tíbú gɔ̀]=ỳ* *jèñè-jɛ̀-m*
[stone Def]=Foc pick.up-Fut-1SgS
'It's the stone [focus] that I will pick up.'

With a human object NP, focus *=y* occurs in object-focalized clauses (xx3c,e), while accusative *-ỳ* is found in non-object-focalized contexts (xx3a-b,d).

(xx3) a. *yǎ:-r^{n}á-ỳ* *jèñé=bé-m*
woman-Sg-Acc pick.up=Past-1SgS
'I picked up a woman.'

b. *yǎ:-r^{n}á=ý* ^{L}*jèñè-m*
woman-Sg=Foc ^{L}pick.up.Perf-1SgS
'It's a woman [focus] that I picked up.'

c. *[yǎ:-r^{n}á ŋɛ̀]-ỳ* *jèñé=bé-m*
[woman-Sg Def]-Acc pick.up=Past-1SgS
'I picked up the woman.'

d. *[yǎ:-r^{n}á ŋɛ̀]=ỳ* ^{L}*jèñè-m*
[woman-Sg Def]=Foc ^{L}pick.up.Perf-1SgS
'It's the woman[focus] that I picked up.'

e. *[yǎ:-r^{n}á ŋɛ̀]-ỳ* *jí-jèñè-jɛ̀-m*
[woman-Sg Def]-Acc Rdp-pick.up-Fut-1SgS
'I will pick up the woman.'

f. *[yǎ:-r^{n}á ŋɛ̀]=y* *jèñè-jɛ̀-m*
[woman-Sg Def]=Foc pick.up-Fut-1SgS
'It's the woman [focus] that I will pick up.'

The accusative is common with pronouns: 1Sg *mí-ỳ*, 2Sg *ú-ỳ*, etc. (see §4.xxx for the forms). In object function, 3Sg *wó-ỳ* is used for human reference following the rules for human NPs given above, but the 3Sg pronoun is simply omitted for nonhumans. The point is illustrated by the presence of *wó-ỳ* in the final clause of (xx4.a) and by its absence in that of (xx4.b).

(xx4) a. *[[yǎ:-r^{n}á ŋɛ̀] yé: gɛ́] [wó-ỳ jèñé=bé-m]*
[[woman-Sg Def] see xxx] [3Sg-Obl pick.up=Past-1SgS]
'I saw the woman, and I picked her up.'

b. *[[tíbú gɔ̀] yé: gɛ́] [∅ jèñé=bé-m]*
[[stone Def] see xxx] [(3Sg) pick.up=Past-1SgS]
'I saw the stone, and I picked it up.'

Accusative *-ỳ* also marks the indirect object (Z) of a doubly-transitive verb like 'X give Y [to Z]' and 'X show Y [to Z]', as in (xx4).

(xx2) a. *[péjú gɔ̀] [mú* ^{L}*bà:]-y* *óbó = bé-m*
[sheep Def] [1SgP ^{L}father]-Acc give=Past-1SgS
'I gave the sheep-Sg to my father.'

b. *[péjú gɔ̀] ú-y* *tâ:rà-jɛ̀-m*
[sheep Def] 2Sg-Acc show-Fut-1SgS
'I will show you-Sg the sheep-Sg.'

For the use of accusative *-ỳ* in causative clauses, see §11.1.2, below.

7 Coordination

7.1 NP coordination

7.1.1 NP conjunction (*[X lè] [Y lè]*)

The 'and' morpheme is *lè*, following both conjuncts. The occurrence of *lè* after the left conjunct (in a two-part conjunction) is usually prolonged intonationally, and usually has an audibly higher pitch than the occurrence after the right (or final) conjunct. A variable degree of prolongation may also occur on the second *lè*.

(xx1) a. *[ú lè→] [mú lè]*
[2Sg and] [1Sg and]
'you-Sg and me'

b. *[[ár^{n}ú-m ŋè-m] lè→] [[yǎ:-m ŋè-m] lè→]*
[[man-Pl Def-Pl] and] [[woman-Pl Def-Pl and]
'the men and the women'

[ámà sàgù lè] [ú sàgù] '(entrust sb) to God and to you'

always low-toned, unlike dative lé ~ lè ?

7.1.1.1 Ordering of coordinands

'you and I' versus 'I and you', etc.

7.1.1.2 Conjunction with final quantifier

'all' quantifier may occur at the end of the entire conjoined NP.

7.1.2 "Conjunction" of verbs or VP's

conjunction particles described above are not used with verbs or VPs; for chaining mechanisms see §xxx.

7.2 Disjunction

any distinction (segmental form, intonation, or preferred verbal inflectional category) between 'or' in (indicative) 'every day we slaughter a sheep or a goat' and the polar (yes/no) interrogative morpheme?

7.2.1 'Or' (*mà→*)

The 'or' particle is *mà→* after each coordinand. It is subject to intonational prolongation in both initial and final occurrences. The second occurrence may be omitted.

(xx1) *[sɛ̂n* *pú→]* *[péjí* *mà→]* *[ɛ̀r^{n}ɛ́* *mà→]*
[Feast.of.Ram all] [sheep or] [goat or]
dà:-y
kill-Impf.1PlS
'Every Feast of the Ram we slaughter a sheep or a goat.'

The coordinands may be NPs, perhaps pronouns (xx2.a-b). A pronoun as disjunctive coordinand must occur in the 'it is' form, which is also the focus form in focalized constructions.

(xx2) a. *[ú=ý* *mà→]* *[mú=ý* *mà→]*
[2Sg=it.is or] [1Sg=it.is or]
bàmàkó *yɔ̂:-y* *já:^{n}* *kɔ̀*
B go-xxx normal be.Inan
'Either you-Sg or I should go to Bamako.'

b. *[ɛ́mí=ý* *mà→]* *[bé=ý* *mà→]* *í-à:-y*
[1Pl=it.is or] [2Pl=it.is or] Rdp-catch-Impf.3PlS
'They will catch (arrest) us or you-Pl.'

The disjuncts can also be adverbs or adverbial phrases. In (xx3.a), 'today' and 'tomorrow' are both in the 'it is' (or focalized) form. The same adverbs occur in

a more compact disjunction in (xx3.b), without the 'it is' clitics and with the second 'or' optionally omitted.

(xx3) a. *[yé:=ý* *mà→]* *[yògó=ý* *mà→]*
[today=it.is or] [tomorrow=it.is or]
ú-ỳ *yí-yè:-jɛ̀-m*
2Sg-Acc Rdp-see-Impf-1SgS
'I will see you-Sg today or tomorrow.'

b. *[yé* *mà→]* *[yògó* *(mà→)]*
[today or] [tomorrow (or)]
'today or tomorrow'

c. *[[[dèm*^{L}*-kólò]* *nɛ̀]* *mà→]* *[[[tɛ̀w*^{n}*ɛ́* *dû:]* *nɛ̀]* *mà→]*
[[[room^{L}-inside] in] or] [[[tree bottom] in] or]
bírɛ́ *bírɛ̀-y*
work(n) do-Impf.1PlS
'We will work either in the house, or under a tree.'

explain HL-tone

'X or Y' as in (indicative) 'every day we slaughter a sheep or a goat', 'you or I must go there tomorrow', 'every market day we sell three or four sheep'

'or' particle may be repeated: [X or] [Y or] 'X or Y', or it occurs just once, between the coordinands: [X or Y]. For whichever patterns are observed, describe intonation contours, and in the case of [X or Y] indicate whether 'or' is prosodically grouped (and thus bracketable) with X or with Y.

7.2.2 Clause-level disjunction

it may be difficult to distinguish 'S or T' with two indicative clauses from polar interrogative 'S? or T?'.

'Either you will go to Bamako or you will stay here (but you won't go to Mopti)'
'Either it will rain soon, or the millet will be ruined'
'Every day, either we get millet from the granary or we buy some millet'

can an imperative be combined disjunctively with another imperative, or with any other clause? ('eat the meal, or get up!'). If not, how is such an idea expressed?

8 Postpositions and adverbials

For atonal postpositions that lack an intrinsic tone, instead getting a tone by spreading from the left, omit tones in the citation form. Any general comments about phonological (segmental or tonal) interactions between postpositions and preceding nouns/pronouns can go here.

In some languages (e.g. Jamsay), dative, instrumental, and basic locative are the same postposition, so some merging of sections is needed. In this event, give plenty of examples to show the range.

ójú 'road', ójù nɛ̀ 'on the road'

If there are any "tonal locatives" (as in Jamsay and marginally elsewhere), expressed solely by a tone change, they should have their own section.

'about X' as in 'let's talk about (= on the subject of) X' is expressed variously. Include this in whatever subsection is relevant.

8.1 Dative and instrumental

The postposition *le* is used in both dative and instrumental functions. The tone is carried over from the end of the preceding word.

8.1.1 Dative (*lé* ~ *lè*)

In dative function, postposition *lé* is common with verbs of saying, expressing the recipient (addressee).

(xx1) a. *[mú lé] [ún-ɔ́: wí-wèlɛ̀-jɛ̀-∅] L gì-∅*
[1Sg Dat] [LogoSg-QuotS Rdp-come-Fut-3SgS] L say.Perf-3SgS
'He$_x$ told me that he$_x$ would come.'

b. *[[mú L bà:] lè] [kìjɛ̀ L kâ:^{n}] gɛ̀-lú-m*
[[1SgP L father] Dat] [thing L any] say-PerfNeg-1SgS

‘I didn’t say anything to my father.’

kây ‘need(n)’, [káy lé] wɔ-∅ ‘he/she is needy, in need’
[tìmɛ́ lé] [tìmɛ́ lé] ‘piled up’ (adverb)
[kùlɔ́ lé] [kùlɔ́ lé], [gòjó lé] [gòjó lé] ‘in subgroups’
dúm lé] wɔ-∅ ‘be without clothing’
[[gɛ̌: lé] bà:] yá: ‘spend the night on an empty stomach’
pàŋá lé ‘by force’
[jì-jǐ: lé] kóró, [jì-jǐ: lé] sɔ́:^{n} ‘put a thorn-branch fence around’
[dínù lé] [dínù lé] ‘by turns’
[ú lé] [bírɛ́ lé] greeeting to one at work
[béné lé] dǐ:^{n} ‘lie down on one’s side’

low-toned
[kìnɛ̀-yáw^{n}à lè] wɔ ‘he/she is disappointed’
[pɔ̀sɔ̂:^{n} lè] dă: ‘poison (sb) chemically’

clarify below

(xx2) a. *[wó* *mɔ̀]=ǹ* *ɛ̀jú-wɔ̀*
[3Sg Poss]=Loc good-3SgS
‘It’s good for him/her.’

description of the semantic range of ‘dative’ (beneficiary as in ‘I cooked some cream of millet for you’, addressee in ‘he said to me that …’, recipient in ‘she gave/showed me the basket’. Note that ‘give’ and ‘show’ sometimes have another construction with the recipient treated as direct object; cross-ref to “valency” discussion §11.1.1.

morphology: are any pronominal datives irregular? If so, repeat from §4.3.2.

examples

8.1.2 Instrumental (*lé* ~ *lè*)

Inanimate instruments are expressed with postposition *lè* (xx1).

(xx1) a. *[ìjú* *gɔ̀]-ỳ* *[bágá* *lé]* *lágá = bé-m*
[dog Def]-Obl [stick Inst] hit=Past-1SgS
'I hit the dog with a stick.'

b. *[gèrⁿɛ̀-gònó* *ŋɛ̀]* *[jòbûl* *lè]* *sɛ́mɛ́ = bé-m*
[courtyard Def] [broom Inst] sweep=Past-1SgS1
'I swept the courtyard with a broom.'

Further examples of the range of usage of this postposition are in (xx2). In (xx2.a), the complement is a season of the year. In (xx2.b), it is a means of conveyance. In (xx2.c) it is comitative.

(xx2) a. *[gèrⁿɛ̀ŋɛ́* *lé]* *bírɛ́* *gǎ:gù* *bìrɛ̀-ỳ*
[rainy.season with] work(n) a.lot work-Impf.1PlS
'We work a lot (=hard) in the rainy season.'

b. *[kâ:r* *lè]* *bàmàkó* *ᴸyà:-jɛ̀-m*
[bus with] B ᴸgo-Impf-1SgS
'I go to Bamako on the bus.'

c. *[sé:dù* *lè]* *bàmàkó* *ᴸyà-à:y-m*
[S with] B ᴸgo-Perf1a-1SgS
'I went to Bamako with Seydou (man's name).'

8.2 Locational postpositions

8.2.1 Locative, allative, and ablative functions

As in other Dogon languages, a locational expression ('here', 'in Bandiagara', 'behind the tree') can express a static location (e.g. where someone is sitting) or either a starting or ending point for a trajectory. The distinction between (static) locative, allative, and ablative is expressed chiefly by verbs ('sit', 'go out', 'go', 'go in').

8.2.2 Simple and complex locational PPs

A few postpositions are morphologically simple: locative *nɛ̀*, dative and instrumental *lé*, purposive-causal *dɛ̀:* . Many locational postpositions, however, are expressed by a construction similar to English *in (the) back of X*, phrased as a simple postposition whose complement is a possessed NP: *[[X('s) back] in]*. The possessor X can be a nonpronominal NP preceding the possessed noun, or a pronominal possessor following the possessed noun. The noun behaves like a possessed noun for purposes of tone-contour assignment; it drops to {L} after a preposed (but not postposed) possessor.

In addition to the fully productive *nɛ̀*, another locative morpheme bá: shows up in a few fixed combinations including *yà-bá:* 'where?' and *kó bá:* 'over that way', perhaps also (in disguise) in *ḿmá:* 'here (generalized)'.

8.2.3 'In, on' (basic locative) (*nɛ̀*)

Examples of *nɛ̀* 'in, on, at' are in (xx1).

(xx1) a. *íjí* *[dǐ:* *nɛ̀]* *tò*
fish [water in] be
'Fish are in (the) water.'

b. *ɔ̀gɔ̀-nɛ́* *[àná* *ŋɛ̀]* *nɛ̀]* *wèlɛ́-gù* *wɔ̀*
Hogon-Sg [[village Def] in] come-PresProg be.AnSg
'The Hogon (chief) if coming to the village.'

c. *[dă:* *nɛ̀]* *wɔ̀*
[roof on] be.AnSg
'He/She is on the roof.'

d. *[íbɛ̀* *nɛ̀]* *wó-ỳ* *yɛ́:=ˡbɛ́-m*
[market at] 3Sg-Acc see=Past-1SgS
'I saw him/her at the market.'

ójù nɛ̀ 'on the road' from ójú (tones?)

For 'in the rainy season' with *lɛ̀* see §8.1.2, above. 'At night' has no postposition, just *dìgɛ́* 'night'.

Postposition *nɛ̀* is optional with place names in a locative context: *yɔ̀rⁿɔ̂: nɛ̀* 'in Yendouma (village)' or just

(xx2) *mú* *yɔ̀rⁿɔ̂:* *(nɛ̀)* *wɔ̀-m*

1SgS Y (in) be.An-1SgS
'I am in Yendouma (village).'

nɛ̀ is part of several compound postpositions described in the sections below. It is also part of basic locative adverbs like *nú nɛ̀* 'here', where it is usually truncated and cliticized, as in *nú=ǹ* (§4.4.2.1)

8.2.4 'Inside X' (*[[X kɔ̀lɔ̀] nɛ̀]*)

kɔ́lɔ̀ 'stomach' (compare bèrɛ 'belly') is the basis for a compound postposition meaning 'inside X', expressed as *[X kɔ̀lɔ̀] nɛ̀*, or for pronominal possessor (and therefore usually in a more literal sense 'in the stomach of X') *[kɔ́lɔ̀ X] nɛ̀*. The adverb 'inside' without a landmark is *kɔ́lɔ̀ nɛ̀*.

(xx1) a. *wó [[[gɛ̀rⁿɛ́ ŋɛ̀] [L]kɔ̀lɔ̀] nɛ̀] tò-∅*
3SgS [[[house Def] [L]belly] in] be.in-3SgS
'He/She is inside the house.'

b. *[[kɔ́lɔ̀ wò-mɔ̀] nɛ̀]*
[[stomach 3Sg-Poss] in]
xx *[kìjɛ̀[L] tó=bè pú→] gùlɔ́ gɔ̌:-nù-tì-∅*
[thing[L] be.in=Past.Ppl all] vomit go.out-Caus-Perf1b-3SgS
'He vomited out everything that had been in his stomach.'

8.2.5 'Over, on top of X' (*[[X kù:] nɛ̀]*)

The noun *kû:* 'head' is the basis for a compound postposition that can mean 'over X, above X' (with a spatial separation), or 'on (the head of)' in a rather literal sense. The form is *[X kù:] nɛ̀* with a preposed possessor, and *[kû: X] nɛ̀* with a postposed pronominal possessor.

(xx1) a. *sìsă: [[kû: mɔ̀] nɛ̀] kíl-í: gàlá yè-∅*
bird [[head 1SgP] on] fly-MP go.past go.Perf-3SgS
'A bird flew over me (over my head).'

b. *tíbú [sé:dù [L]kù:] nɛ̀] súg-à:y-∅*
stone [S [L]head] on] go.down-Perf1a
'A stone fell (=landed) on Seydou's head.'

To translate 'at the top (summit, highest point) of X', e.g. of a tree or mountain, one can used an extended form *[X kù:-dàrⁿà] nɛ̀*, based on noun *kù:-dárⁿá*

'highest part' (compounded from *kû:* 'head' and its near-synonym *dárⁿá* 'head').

kû: nè without a possessor means 'up above'.

xx *kû: nàm* 'people of below' denotes the people who live on the summit of the cliffs or on the high plateau that begins at the top of the cliffs.

8.2.6 'Next to, beside X' (*[X gènè] nè*)

Corresponding to {H}-toned noun *géné* (distinct from *béné* 'side of body, flank') is the compound postposition *[X ᴸgènè] nè* 'beside X, at X's side, next to X', where a nonpronominal NP X is syntactically the possessor and therefore controls tone-dropping on 'side'. If the possessor is pronominal (and therefore postposed to 'side'), we get *[génè X] nè*.

(xx1) a. *[[tèwⁿé ᴸgènè] nè] ᴸìŋè-m*
[[tree ᴸside] at] ᴸstand.Stat-1SgS
'I am standing next to the tree.'

xx b. *[[ù ᴸdè:] [[génè mɔ̀] nè] ᴸìŋè-∅*
[[2SgP ᴸfather] [[side 1SgP] at] ᴸstand.Stat-3SgS
'Your-Sg father is standing next to me.'

Adverbial 'to the side' is *géné nè* or definite *géné ŋè=ǹ*.

8.2.7 'In front of' (*[X ᴸgìr] nè*)

'In front of X', with X a nonpronominal NP, is *[X ᴸgìr] nè*, with X functioning as possessor. For pronominal possessor, the form is *[gírù X] nè]*.

(xx1) a. *[ìné-m ᴸgìr] nè*
[person-Pl ᴸfront] in
'in front of the people'

b. *[gírù ɔ̀:] nè*
[front 2SgP] in
'in front of you-Sg'

Adverbial 'in front, (up) ahead' is *gírù* or its locative *gírù nè*.

[X ᴸgìr] nè can also be used in the temporal sense 'before X', if X is a person or similar entity (xx2.a). When X denotes a time, or an event that is

associated with a fixed time, a different construction is used (xx2.b), see §15.4.1.

(xx2) *[[gírù ɔ:] nɛ̀]* *^{L}wɛ̀lɛ̀-∅*
[[front 2SgP] in] ^{L}come.Perf-3SgS
'He/She came before you-Sg (=before you did).'

8.2.8 'Behind/after X' (*[X ^{L}ònɔ̀] nɛ̀*)

The noun *ónɔ́* 'rear (area)' corresponds to the complex postposition *[X ^{L}ònɔ̀] nɛ̀* 'behind X' for preposed possessor, and *[ónɔ́ X] nɛ̀* for postposed pronominal possessor.
dict ònɔ́

(xx1) a. *[mú ^{L}àngè] [[ónɔ́ mɔ̀] nɛ̀] wɔ̀-∅*
[1SgP ^{L}friend] [[behind 1SgP] in] be.An-3SgS
'My friend is behind me.'

b. *[bármà ŋà] [[[tònɔ̀-ý^{n} ŋɛ̀] ^{L}ònɔ̀] nɛ̀] dă:ná*
[pot Def] [[[waterjar Def] ^{L}behind] in] set.Imprt
'Set-2Sg the (cooking) pot behind the waterjar!'

It can be used in temporal contexts if the NP denotes a person or similar entity, rather than a time or an event with a fixed time.

(xx2) *sé:dù [[ónɔ́ mɔ̀] nɛ̀] ^{L}wɛ̀lɛ̀-jɛ̀-∅*
S [[behind 1SgP] in] ^{L}come-Impf-3SgS
'Seydou will come after me (=after I do).'

8.2.9 'Under X' (*[X ^{L}dù:] nɛ̀*)

Noun *dû:* 'lower part, underside, base' (e.g. of a mountain or tree) occurs in the compound postposition *[X ^{L}dù:] nɛ̀]*, or with postposed pronominal possessor *[dû: X] nɛ̀*.

(xx1) a. *[dû: mɔ̀] nɛ̀*
[under 1SgP] in
'under me'

b. *[[gɛ̀r^{n}ɛ́ ŋɛ̀] ^{L}dù:] nɛ̀*
[[house Def] ^{L}under] in

‘under the house’

The unpossessed adverb is *dû: nɛ̀* ‘down below, underneath’.
xx *dû:* L*nàm* ‘people of below’ denotes the people who live at the base of the cliffs or in the plains.

8.2.10 ‘Between’ (*[XY* L*bèmnà:] nɛ̀*)

With ‘between’, pronominal conjunctions (‘between you and me’) are dispreferred, replaced by summative pronouns (‘between us two’) in all attested examples. However, conjoined NPs are tolerated, since in many contexts there is no way around using a conjunction.

(xx1) a. *[[émɛ́ léy] Lbèmnà:] nɛ̀*
[[1Pl two] Lbetween] in
‘between the two of us’

b. *[áy-nɛ́ lè→] [yǎ:-rⁿá lè→] Lbèmnà:] nɛ̀*
[man-Sg and] [woman-Sg and] Lbetween] in
‘between a man and a woman’

bèmná: occurs without a possessor but with a definite marker in the adverbial phrase *[bèmná: ŋɛ̀] nɛ̀* ‘in the middle’. It does not appear to be in use elsewhere as a simple noun.

It is very possible that *bèmná:* was originally composite (*bèm* L *ná:* with adjective *ná:*, §5.1.9), but I can’t parse it as such.

8.2.11 ‘(All the way) from/since X to/until Y’ (*bà→*, *hálú*)

dict has bǎ→

In the absence of emphasis, ‘from X to Y’ in the spatial sense is expressed by combining *gǒ:* ‘go out, leave’ with some other motion verb like ‘arrive’ or ‘come’, or some other telic motion phrase, see §15.5.4. When the scale of the distance is emphasized, the adverbial *bà→* ‘all the way’ is added, singling out either the starting point (xx1b) or the endpoint (xx1d), but not both, as being unusually distant. *bà→* can also be used in similar senses (‘since’, ‘until’) with temporal “locations” (xx1c,e).

(xx1) a. *[mó:tì gǒ: gɛ̀] jɔ́bɔ̀*HL-L*jɔ̀bɔ̀ séwá:rà* L*dɔ̀-ɛ̀:ⁿ*

[M go.out xxx] run^{HL} -^{L}run S ^{L}arrive.Perf-3PlS
'They ran from Mopti to Sevare.'

b. *[[mó:tì bà→] gǒ: gè]*
[[M since] go.out xxx]
ójî→ yâ:^{HL} -^{L}*yà: *^{L}*wèlè-m*
walking go^{HL} -^{L}go ^{L}come.Perf-1Sg
'I have walked all the way here from Mopti.'

c. *[àgá bà→] [jɔ̀bɔ́ gù] nímè *^{L}*dɔ̀:-m*
[morning since] [run xxx] now ^{L}arrive.Perf-1SgS
'I have been running since this morning.'

d. *dábè*^{HL}-^{L}*dàbè [[gèr*^{n}*é ŋè] nè bà→] *^{L}*yà:-y*
crawl^{HL}-^{L}crawl [house Def] in all.the.way] ^{L}go-Impf.1PlS
'We will crawl all the way to the house.'

e. *bíré bìré-n [yògó bà→] dɔ̀:-y*
work(n) work-xxx [tomorrow until] arrive-Impf.1PlS
'We will work (=keep working) until tomorrow.'

hálú 'until, all the way to' can also be used, e.g. *hálú [X nè]* 'all the way to X (place)'.
dict hálù

For temporal 'since' clauses see §15.3.1.

8.3 Purposive-causal 'for' (*dè:*)

variant dèy

This postposition is illustrated in (xx1). A pronominal complement is preposed (xx1.c). The specific senses can be beneficiary (xx1.a-c), goal (xx1.d), or cause (xx1.e). Note that goal is future-oriented (prospective), while cause is generally past-oriented (retrospective), with regard to the eventuality denoted by the main clause. 'For God' (xx1.f) is a common phrase in connection with gifts or good deeds done for charity rather than for profit or recompense.

(xx1) a. *[ámìrù dè:] péjú kí-kè:*^{n}*-jè-m*
[chief **for**] sheep Rdp-slaughter-Fut-1SgS
'I will slaughter a sheep for (= in honor of) the chief.'

b. *[[jàw*^{n}*â: ŋè] dè:] bú:dù ségé = bé-m*
[[ceremony Def] **for**] money contribute=Past-1SgS

'I contributed money for the ceremony.'

c. *[ú dɛ̀:] péjú kí-kɛ̀:ⁿ-jɛ̀-m*
[2Sg **for**] sheep Rdp-slaughter-Fut-1SgS
'I will slaughter a sheep for (= in honor of) you-Sg.'

d. *[[yěyⁿ ŋɛ̀] dɛ̀:] ᴸwɛ̀l-ɛ̀:ⁿ*
[[honey Def] **for**] ᴸcome.Perf-3PlS
'They have come for the honey.'

e. *[[àrⁿá ŋɛ̀] dɛ̀:] [kɔ́lɔ̀ nɛ̀] ᴸyò-ɛ̀:ⁿ*
[[rain Def] **for**] [bottom in] ᴸgo.in-3PlS
'They went inside because of the rain.'

f. *[ámà dɛ̀:] mí-ỳ ᴸbàr-ɛ̀:ⁿ*
[God **for**] 1Sg-Acc ᴸhelp.Perf-3PlS
'They helped me for (=in the name of) God.'

For purposive ('in order to') and causal ('because') clauses, see §17.6 below. For *dɛ̀:* ~ *dɛ̀y* 'than' in comparatives, see §12.1 below.

8.4 Other adverbs (or equivalents)

nì-nà:rⁿá ŋɛ̀ 'easily'

[kɔ́yⁿ→ ŋɛ̀] wɔ̀ 'is slumped over'

sì-să:m ŋɛ̀ 'smelling like meat, fish, dairy'

táwⁿ ŋɛ̀ 'late, belatedly' (verb *táwⁿá* 'be late')

ù-ùjí: gɛ 'be very young' (???)

kìjɛ̀ [éjé gɛ̀] wɔ̂:, kìjɛ̀ éjé 'clean thing'

[kíné mɔ̀] élél-í:-gɛ̀ kɔ̀ 'I am happy'
kíné or kínè ?
kíné-[à:-l]
ìnɛ̀ kíné-pìl

8.4.1 Deadjectival adverbial *-gú*

This derivation is distinct from the denominal characteristic derivation (nonhuman form *-gú* after tone-dropped stem, §4.2.1) and from the minor deverbal nominalizer *-gú* after H-toned stem (§4.2.2.2). The *-gú* of interest here follows an adjective in its normal lexical tones.

(xx1) a. *èjú* 'good'
èjú-gú 'well'
dict sometimes èjú-gù

b. *ɔ́gú* 'hot; fast, rapid'
ɔ́gú-gú 'fast(adv), rapidly'

c. *wàgú* 'distant'
wàgú-gú 'far away(adv)'

8.4.2 Similarity (*gín* ~ *ŋín* 'like')

The H-toned particle *gín* ~ *ŋín* means 'like, similar to'. It follows its complement. The phonological variants are like those of the definite morpheme (§4.4.1), with *ŋín* following a nasal syllable.

(xx1) a. *[yă:-r^{n}á* *ŋín]* *bíré* *bìrɛ̀-jɛ̀-∅*
[woman-Sg like] work(n) work-Impf-3SgS
'He works like a woman.'

b. *[sé:dù* *gín]* *wɔ̀-m*
[S like] be.An-1SgS
'I am like Seydou.'

c. *èr^{n}ɛ́* *[péjú* *gín]* *wɔ̀-lɔ́-∅*
goat [sheep like] be.An-Neg-3SgS
'A goat is not like a sheep.'

'Like this' (with a gesture) is *nù ŋín*. 'Like that' (defiinite, as in resuming a discourse segment) is *kó gín*. Interrogative 'how?' is *yà-ŋín* (§13.2.6).

8.4.3 Extent (‘a lot’, ‘a little’)

gì-gă: gɔ̀ ‘a lot’ (amount, size, number)
jì-jŏ: gɔ̀ ‘a lot’ (number)
jó→y ‘a lot’

adverb ‘a lot, greatly, very’, perhaps an expressive adverbial used in a wide range of syntactic environments. May function (at least in translation) as a NP ‘a large amount’ as in ‘they gave me a lot’. Give several examples.

adverb ‘a little, slightly, somewhat’ likewise may have NP-like readings (‘a small amount’) as well as other readings

cross-refs to §4.4.2.2

8.4.4 Specificity

8.4.4.1 ‘Approximately’

‘I will buy approximately fifty sheep’ (Fr environ)

for ‘somewhere around here’ etc., see §4.4.2.2.

8.4.4.2 ‘Exactly’ (*kégù*, *já:tì*)

‘Exactly, precisely’ forms are *kégù* (possibly < *kɛ́w-gù) with measurable quantities, *té→* or iterated *té:-té:* in connection with identity, and *já:tì* (< Fulfulde) in confirming the truth of a proposition. As predicate, *kégù kɔ̀* can mean ‘it (e.g. herd) is complete (nothing is missing)’. An iterated adverbial form *kég-kég* is found in expressions like *kádágá kég-kég* ‘exact agemate’.

légé-légé is used with the numeral ‘1’ to indicate ‘exactly 1’, usually in deprecation (‘one lousy dollar’).

kí-kɛ́w means ‘exactly the same (e.g. height)’.

8.4.4.3 'Specifically' (*té→*, *té:-té:*)

Expressive adverbial *té→* and its iteration *té:-té:* are used, as in Jamsay etc., as adverbs meaning 'specifically/exactly X, X in particular' in connection with identity (rather than quantity).

8.4.5 Evaluation

8.4.5.1 'Well' and 'badly'

'Well' and 'badly' can be phrased as modifying adjectives attached to some noun, e.g. *bìrɛ̀* ^{L} *ɛ̀jú* 'good work'. The availability of cognate nominals makes this phrasing easy. For example, 'he works well' is expressed as 'he works (=does) good work'.

Alternatively, from *ɛ̀jú* 'good' one can construct a true adverb *ɛ̀jú-gú*.

(xx1)	*bírɛ́*	*ɛ̀jú-gú*	^{L}*bìrɛ̀-jɛ̀-∅*
	work(n)	good-Adv	work(v)-Impf-3SgS
	'He/She works well.'		

8.4.5.2 'Proper, right' (*jâ:^{n}*)

jâ:^{n} is an adverb meaning 'proper(ly), right, normal', emphasizing conformity with social norms. It is generally predicative: *já:^{n} kɔ̀* 'it is proper, right'.

tones
dict has sɔ̀: já:^{n} 'what one ought to do'

8.4.6 Spatiotemporal adverbials

8.4.6.1 Temporal adverbs

Some of the major temporal adverbs are in (xx1).

kàná→ ?
lě: ?

(xx1)	a.	*kàná:*	'now' (cf. *kàná* 'new')
		làgá, *lěy* ~ *lě:*	'again'
		né: (kày)	'(as for) now' (§19.1.2)

		nímɛ̀	‘up until now, so far’
		yá:	‘yesterday; formerly, in the old days’
		yé:	‘today; nowadays’
		yé: bày tă:n	‘day before yesterday’
	b.	*yògó*	‘tomorrow; in the future’
		yògò^{L} *dɛ́r*^{n}*ɛ̀*	‘day after tomorrow’
		yògò^{L} *dɛ́r*^{n}*ɛ̀ bà: yă:*	‘second day after tomorrow’ (third from today)
	c.	*gă:l*	‘last year’
		yògó nàŋúrù	‘next year’
		yɔ́:	‘this year’

8.4.6.2 ‘First’ (*tí→*, *lá:*)

As in Jamsay, both *tí→* and *lá:* can be used as adverbs ‘first(ly), previously’. *tí→* is a pure indicator of temporal precedence and may be related to perfective-1b -tì-. *lá:* generally means ‘previously, formerly, in the past’.

8.4.6.3 Spatial adverbs

The most important nondemonstrative spatial adverbs are in (xx1). Those that do not include a postposition are basically nouns that are specialized for adverbial use. The cardinal direction terms are mainly used in connection with solar motion and meteorology (wind direction), less often for direction of motion.

(xx1)	a.	*kû: nɛ̀*	‘above, at the top, on the summit’
		dû: nɛ̀	‘below, at the bottom, down’
xx		*ónɔ́ ònɔ́ nɛ̀?*	‘in the rear’
		gírù nɛ̀	‘forward; in front’
	b.	*dû:*	‘east’
		dì-dágà	‘west’ (dict only nàm-[númɔ́-ŋ])
		tèŋîl	‘south’
xx		*dònô:*	‘north’

The adjectives ‘right’ and ‘left’ are respectively *ɲɛ̌:* as in *kùbɔ̀*^{L} *ɲɛ̌:* ‘right foot’, and *nànáá* (synonym *bàlàgáá*) as in *kùbɔ̀*^{L} *nànáá* (*bàlagáá*) ‘left foot’. They can

function as possessors of *táŋá* 'side': *ɲɛ̌:* ^{L}*tàŋà* '(to the) right side' and *nànáˈ* ^{L}*tàŋà* '(to the) left side'. 'Left-hander' is *bàlàgà-gí-né* (characteristic derivative, §4.2.1).

8.4.7 Expressive adverbials

8.4.7.1 Nature and basic grammar of EAs

Expressive adverbials (EAs), some of which belong to the type often called ideophones by other linguists, are uninflectable words. They are often phonologically marked in comparison to the main stem-classes (nouns, verbs, adjectives, numerals), for example by final intonational prolongation or unusual tone melodies. They can function syntactically as adverbs (for example, of manner) loosely associated with a clause, and they can be made predicative by adding a following auxiliary (either *kárⁿá* 'do, make' or a locational-existential quasi-verb *wɔ̀-* or *kɔ̀-*). Except when such predicates are relativized on, EAs do not constitute integrated elements of NPs, and they do usually do not interact tonosyntactically with words within NPs.

The construction with *kárⁿá* 'do, make' is typical for the minority of EAs that can denote actions or processes. (xx1a-b) are prototypical EAs with intonational prolongation. The same construction is used for **onomatopoeias** and similar iconic signs (xx1c).

(xx1) a. *àrⁿá* *[ɲám→* *kárⁿá]*
rain(n) [brief.rain do]
'rain fall briefly and locally'

b. *kɛ̌y→* *kárⁿá*
eye.open.slightly do
'open one's eyes slightly'

c. *sú:ⁿ-sú:ⁿ* *kárⁿá*
(sniffing sound) do
'sniff noisily'

kárⁿá is also found as an inflectable auxiliary for various borrowed or otherwise marginal noun-like words that cannot themselves be directly inflected, see (xx1b) in §11.1.5.1.

The more usual predicate EA construction, denoting a **state**, is with a stative quasi-verb *wɔ̀-* (animate) or *kɔ̀* (inanimate), as in (xx2).

(xx2) a. *wɛ́ⁿ→* *kɔ̀*

ajar be.Inan
'rain fall briefly and locally'

b. *jùm→* *wɔ̀-∅*
uncommunicative be.An-3SgS
'He/She is withdrawn and uncommunicative'

The **inchoative** 'become X' of an EA is with the verb *bɛ̌:*, which elsewhere means '(someone) remain' or '(event) happen' (§11.2.4.1).

(xx3) *wá^{n}→* *bɛ̌:*
wide.open remain
(e.g. door) open wide'

EA's may however be used as **nonpredicative adverbs** with any semantically reasonable verb (xx4).

(xx4) a. *káy^{n}→* *yɛ̀nɛ́*
broadside look
'be facing (sth), be broadside or frontal (to sth)'

b. *wá^{n}→* *gɔ̀mɔ́*
wide.open open.eye
'open one's eyes wide'

8.4.7.2 Adjectival and verbal intensifiers as EAs

There is no sharp grammatical distinction between intensifiers and other EAs. The functions of adjectival intensifiers are discussed in §6.3.3.2. They are listed in (xx1) along with the most commonly associated adjective (shown in modifying form). In some cases the intensifier has a more specific or otherwise different sense than the adjective shown. Adjectives that syncretize two distinguishable (though related) senses, like mă: 'dry; hard, stiff' and *wɛ́y* 'lightweight; thin (wall)', can have distinct intensifiers for the two senses. Intensifiers tend to be variable across speakers so the examples here are representative.

(xx1) adjectival intensifers

adjective	intensifier	gloss of combination
a. iterated intensifier		

CvC-CvC

	bán	*bŭy^{n}-bŭy^{n}*	‘very red’
xx	*démélé*	*kúy-kúy*	‘very stocky (person)’
xx	*démélé*	*dúl-dúl*	‘very stocky (person)’
	ɛ̆:^{n}	*táy^{n}-táy^{n}*	‘very hard’
	ɛ̆:^{n}	*gáy^{n}-gáy^{n}*	‘very tightly stretched (drum)’
	ɛ̆:^{n}	*táy^{n}-táy^{n}*	‘very tight-fitting (garment)’
	ɛ́ŋ	*tím-tím*	‘very dense (forest)’
	ɛ́jɛ́	*séy-séy*	‘very clean, spotless’
xx	*èŋú*	*káy^{n}-káy^{n}*	‘very crowded, confined’

CvC-Cvc, *with shift of rounded vowel to a*

	yɔ̀rú	*yɔ̀l-yàl*	‘very supple (stretchable)’

Cvv-Cvv, *with nonhomorganic vowel clusters*

	wɛ́r	*kàɛ́^{n}-kàɛ́^{n}*	‘very green’

CvCv-CvCv

	dùmì-ý^{n}	*kúlú-kúlú*	‘very short’
xx	*ɛ́ŋ*	*sɔ́gú-sɔ́gú*	‘very dense (forest)’
	gɛ́m	*kújú-kújú*	‘jet black’
	gálàl	*kájú-kájú*	‘very bitter’
	kànáá	*wɛ́r^{n}ɛ́-wɛ́r^{n}ɛ́*	‘brand new’
	kànáá	*pélé-pélé*	‘brand new’
	mɛ̆y^{n}	*kɛ̀r^{n}ɛ́-kɛ̀r^{n}ɛ̀*	‘very fine (powder)’
	mă:	*táy^{n}-táy^{n}*	‘very stiff’
	mă:	*kálá-kálá*	‘very dry’
	píl	*pàrá-pàrá*	‘snow white’
	ɔ́gú (or *nɔ́:*)	*pálú-pálú*	‘steaming hot’
	ɔ́gú (or *nɔ́:*)	*jáŋá-jáŋá*	‘blazing hot (sun)’
	ɔ́rɔ̀y	*págú-págú*	‘very smooth, sleek’
	yóló (or *wɛ́y*)	*yánú-yánú*	‘very lightweight’
	yɔ̀rú	*búdɔ́-búdɔ́*	‘very soft’

CvCvC-CvCvC

	pélèl	*púŋúl-púŋúl*	‘very crispy (fried food)’

b. multiply finally-reduplicated intensifier

regular type

	élèl ~ ê:l	*èlélélé*	‘very sweet, delicious’
	gàbú	*sònólóló*	‘very tall’
	gàbú	*sùbúbúbú*	‘very tall’
	kâ:l	*tàmámámá*	‘ice-cold’
	ɔ̀mú	*gàmámámá*	‘foul, stinking’
	tèlé	*tèrélélé*	‘very fast, speedy’
	wàgú	*pùjújújú*	‘very distant, far away’

possible variant type

xx	*wɛ́y*	*sɛ́r^{n}ɛ́nêy^{n}→*	‘very thin (wall)’
xx	—	*sènèlêy→*	‘very tall and thin, lanky’

c. unsegmentable, with final prolongation

â:m	*tɔ̌yⁿ→*	‘very sour’
ɛ́jɛ̀jù	*dŭ→*	‘very bland’
kòló	*péyyèy→*	‘very unripe’
kùŋnú	*yàgàràm→*	‘very rough, coarse’

d. unsegmentable, without final prolongation

démɛ́	*gùndù*	‘very heavy’
ɛ̌:ⁿ	*kárám*	‘very tight (taut rope)’
ɔ̀mú	*yɔ̂m*	‘very rotten’
ɔ̌l	*bɔ́dù*	‘soaking wet, drenched’
pàlá	*bŭ:*	‘very long’

A distinct mechanism for intensifying an adjective is the *X-nà:-X* construction with two occurrences of the adjective separated by *-nà:-*, see §5.1.10.

There are also two EAs that have some phonological similarity to a basic adjective but that denote partial rather than extreme degrees (xx2a). There are also several other EAs of this semantic type that have no phonological relationship to any adjective, one example being (xx2b).

(xx2)	gloss	EA	related adjective
a.	‘slightly bitter’	*gáláy-gáláy*	*gálàl* ‘bitter’
	‘lightly sugared/salted’	*ɛ́lɛ́m-ɛ́lɛ́m*	*ɛ́lɛ̀l* ‘sweet’
b.	‘half-dry (e.g. clothing)’	*búrⁿɔ́yⁿ-búrⁿɔ́yⁿ*	—

The adjective-like sense ‘straight’ is expressed by the nonemphatic EA *dém→*, and it too has an intensifier *sɛ́l-sɛ́l* ‘very straight’. Similarly, *sí→* ‘pointed’ has an intensifier *wéré-wéré*.

Intensifiers are not usually paired with nouns, but *díŋ-díŋ* ‘side by side’ (§8.4.7.3) also has a sense ‘very close, intimate (kinship)’ associated with the noun *mèrɛ́* ‘kinship relation’. Similarly, *yúmí→* ‘very stupid, idiotic’ intensifies a word-class whose basic form is the noun *bòmɔ́* ‘stupidity’.

A few intensifiers denote actions or events and are therefore associated with verbs (xx3).

(xx3) action-verb intensifers

verb	intensifier	gloss of combination
a. iterated		

bă:	*káy^{n}-káy^{n}*	‘(meal) make (sb) very full (stuffed)’
dày^{n}-é:	*dɔ́m-dɔ́m*	‘sitting still’
[default]	*péy-péy*	‘(not) at all’

b. unsegmentable, with final prolongation

íŋ-é:	*dím→*	‘stop or stand still’

c. unsegmentable, without final prolongation

íŋ-é:	*gík*	‘stop or stand still’
yíw^{n}ɛ́	*dɛ̂l*	‘die, be/drop stone dead’
yíw^{n}ɛ́	*pɔ́gù*	‘die, be/drop stone dead’

8.4.7.3 Other (nonadjectival) EAs

A sample of EAs not including adjectival intensifiers is given in (xx1), which is organized around phonological forms but which also illustrates the range of senses in question.

(xx1)

	EA	gloss
	a. iterated	
	bɛ́ŋ-bɛ́ŋ	‘side by side’
	bìrì-bìrì	‘brisk, fast (work)’
	bɔ́l-bɔ́l	‘sobbing silently’
	bɔ̌:m-bɔ̌:m	‘overripe and soft (fruit)’
	bùdɔ̀-bùdɔ̀	‘foaming, frothy’ (also *pùdɔ̀-pùdɔ̀*)
	dè:ré-dè:rè	‘juicy (fruit)’
	dégé-dégé	‘slowly; gently’
	díŋ-díŋ	‘side by side’ (for related kinship sense see §8.4.7.2)
	gǎŋ-gàŋ	‘tilted to one side’ (adjective *gàŋú* ‘tilted’)
	gɛ̌ŋ-gɛ̀ŋ	‘(walking) with head tilted’
	gɔ̌n-gɔ̌n	‘(walking) with body lurching’
	gŭy^{n}-gŭy^{n}	‘furtively, stealthily’ (verb *gŭy^{n}* ‘steal’)
	jàgù-jàgù	‘rare (undercooked meat)’
	jélégé-jélégé	‘(sth lightweight) dangling’
	jólógóm-jólógóm	‘(sth heavy) dangling’
	kàjà-kàjà	‘running hard’
xx	*kɛ̀lú-kɛ̀lù*	‘brimming, full up to the rim (pail)’
	kɛ́rɛ́m-kɛ́rɛ́m	‘fully inflated’
	kóròw-kóròw	‘crunching (sound, e.g. dog crunching bones)’

	kɛ́y^{n}-kày^{n}	‘runty and weak’
	kòló-kòló	‘nosy, brash’
	kòlògó-kòlògó	‘loose-fitting (bracelet)’
	kùŋǔl-kùŋùl	‘rough, coarse’ (adj. *kùŋú* ‘coarse’)
	lăy-lăy	‘cleaned up completely’
	lég-lég	‘at the highest part’
	légé-légé	‘sole, only one’
	lòró-lòró	‘clean-shaven (head)’
	nɛ́w^{n}ɛ́y^{n}-nɛ́w^{n}ɛ́y^{n}	‘salty taste’
	ɔ́gú-ɔ́gú	‘fast(adv)’ (adj. *ɔ́gú* ‘fast; hot’)
	ɔ́rɔ̀y-ɔ́rɔ̀y	‘slippery’ (adj. *ɔ́rɔ̀y* ‘smooth, sleek’)
	pàràdàm-pàràdàm	‘galloping’
	pà:r^{n}á-pà:r^{n}à	‘shining, gleaming (e.g. blade)’
	píjí-píjí	‘out of sight; hopelessly lost (astray)’
	pùdɔ̀-pùdɔ̀	‘foaming, frothy’ (also *bùdɔ̀-bùdɔ̀*)
	să:làm-să:làm	‘(e.g. hands) licked clean’
	săy-sày	‘well-lit at night’
	sɛ́:^{n}-sá:^{n}	‘face-to-face’
	sɛ́rɛ́dɛ́-sɛ́rɛ́dɛ́	‘pouring out in a light stream (from roof gutter)’
	sɛ́l-sɛ́l	‘(tall person) walking stiffly’
	sèlé-sèlé	‘(absolutely) everything’
	sěy-sěy	‘cleaned up completely’
	sêw-sèw	‘limbering up’
	sìmɛ́-sìmɛ̀	‘(walking) with head bent forward’
	sùyàw→-sùyàw→	‘crunching (walking on dry leaves)’
	tàbu-tàbù	‘groping (in the dark)’
xx	*tăy-tày*	‘finished, over’
xx	*táy-táy*	‘used up’
	táy^{n}-táy^{n}	‘motionless, playing dead’
	tègé-tègè	‘(moon) shining brightly’
	téy^{n}-téy^{n}	‘ringing sound (of new pottery)’
	tɛ́m-tɛ́m	‘fully inflated’
	tŏl-tòl	‘(walking) clumsily’
	wá:lí:-wá:lí	‘(walk) fast’
	wáy^{n}áw^{n}-wáy^{n}áw^{n}	‘at full boil’
	wílɛ́-wílɛ́	‘flapping (in the wind)’
	wùjú-wùjú	‘pouring out a lot, gushing’
	yàgà-yàgá	‘flimsy, lightweight, cheap (metal)’
	yámù-yámù	‘insignificant’
	yêl-yèl	‘diced, cut up finely’
	yɛ́m-yɛ́m	‘(rain) drizzle, come down lightly’
	yêy-yèy	‘waving tail (to shoo insects)’
	yèlmɛ́-yèlmɛ́	‘disheveled (hair)’

with shift of high or mid-height vowel to a

bògò-bàgà	‘soaked, thoroughly wet’
dû:-dà:	‘suddenly encountering’
gúdù-gàdù	‘dense foliage’
jìgù-jàgù	‘fat and clumsy’
jùŋùrù-jàŋùrù	‘struggling under heavy load’
kí:-kà:	‘broad (shoulders, antlers)’
kóyòw→-káyàw→	‘sound of calabash being shattered’
ké:rⁿém-ká:rⁿám→	‘negligent, careless, nonchalant’
sé:ⁿ-sá:ⁿ	‘face to face (confronting)’
sù:-sà:	‘well-ramified (tree)’
yél-yél	‘fraying (rope)’
yòlò-yàlà	‘very loose-fitting (garment)’
with shift of high or mid-height vowel to a and i to u	
bìrìgì-bàrùgù	‘brisk, fast (work)’
with shift of initial C	
wǎyⁿ-yǎyⁿ→	‘in clusters’

b. double iterations (X-X’-X)

shift of vowels in medial X’ to a	
bòló-bàlà-bòló	‘feebly, (walking or working) weakly’
hó:-hà:-hó:	‘loud chatter’
ínú-ànù-ínú	‘chubby, puffy’
jì:-jà:-jì:	‘with limbs swaying (e.g. tree)’
jǐ:ⁿ-jà:ⁿ-jǐ:ⁿ	‘(walking) lumbering, swaying’
jìgú-jàgù-jìgú	‘(walking) with legs widely separated’
kê:ⁿ-kà:ⁿ-kê:ⁿ	‘creaking sound’
kòlóm-kàlàm-kòlóm	‘hubbub, sudden noisy activity’
mòló-màlà-mòló	‘(walking) with body lurching’
pìlé-pàlà-pìlé	‘moving light’
sǒ:y-sà:y-sǒ:y	‘small birds chirping’
tíb-tàb-tíb	‘staggering or stumbling along’
wìjé-wìjá-wìjé	‘swaying from side to side’
no vowel shift	
pây-pày-pày	‘almost alongside’

c. multiply finally-reduplicated

regular type	
àbàbàbà→	‘fat (woman, cow)’
dènélélé	‘disk-shaped’
dòjójójó	‘focused bright light (e.g. headlights)’
dòlólóló	‘small but bright light in distance (star, flashlight)’
gòlólóló	‘acrid-smelling’
kèmémémé	‘foul smell (dirty clothes, urine)’
kùjújújú	‘dragging (sth) forcefully’

xx	*már^{n}ánáná*	‘thick-bodied (torso, tree trunk)’
	mèr^{n}énénέ	‘solid, without holes or cracks’
	nàr^{n}ánáná	‘oily (hands)’
	sàmámámá	‘smelling like raw meat or fresh fish’
	sèrédédέ	‘striped’
	sɔ̀rɔ́dɔ́dɔ́	‘in rows’
	tènélélé	‘running at top speed’ (adj. *tèlé* ‘speedy’)
	wègègègè	‘small teeth without gaps’
	yέlélélé	‘brimming, full up to the rim (pail)’
	possible variant type	
	gìgírídí	‘overloaded’

d. unsegmentable, with final prolongation

	Cv→	
	bă→	‘up to (a point)’
	bɛ̀^{n}→	‘glaring’
	bɔ̀^{n}→	‘chocolate-colored; feeble light’
	bŭ→	‘very woolly’
	bŭ→	‘too big (shoes)’
	bŭ→	‘dead last’
	gă^{n}→	‘rotten-smelling’
	ké→	‘slightly open (mouth)’
	kí^{n}→	‘humming (of cicada)’
	kó→	‘wide open (vertically)’
	pé→	‘narrow gap at slightly open door’
	pó→	‘wide open (door)’
	pú→	‘very woolly’
	sê→	‘gliding’
	sέ^{n}→	‘staring at, looking straight at’
	sí→	‘pointed; bursting out, flying out’
	sí^{n}→	‘(doing) soon’
tone	*sŭ→*, *sú→*	‘hissing (compressed air, fizzy liquid)
	té→	‘identical’
	tí→	‘at first, to begin with’
tone	*wá^{n}→*	‘wide open (door); staring’
	wέ^{n}→	‘ajar, slightly open (door)’
	wέ^{n}→	‘humming, buzzing (of insect)’
	wɔ̆→	‘noisily’
	wù→	‘(get up) abruptly’
	yà^{n}→	‘brandishing (club, weapon)’
	Cvv→ with nonidentical vowels	
xx	*sɔ́^{n}ê.^{n}*	‘just-born (baby)’
	Cv→C	
	kê→m	‘odor of urine’
	CvC→ with final sonorant	

	bɛ̀m→	‘(beating) savagely’
	búm→	‘thick (e.g. tree)’
	bûm→	‘with a thud’
	dăm→	‘totally blind; blithely unaware’
	dɛ́y^{n}→	‘apart, separate, distinct’ (§8.4.7.5)
	dɛ̌y^{n}→	‘(sth linear) sticking out’
	dém→	‘straight’ (§8.4.7.4)
	dím→	‘standing, erect; stopping still’
	dɔ̌y^{n}→	‘bright point of light’
	gáw→	‘silent (for a moment); deaf’
	gǎy^{n}→	‘wide open (eyes)’
	gŭy^{n}→	‘bulging, oversized (eyes); sticking out’
	jùm→	‘withdrawn and uncommunicative’
	káy→	‘facing, broadside’
	káy^{n}→	‘unfertilized (field)’
	káy^{n}→	‘bright sunlight’
xx	*káy^{n}→* ~ *kày^{n}*	‘oversized (teeth)’
	kɛ́w^{n}→	‘undersized (grains)’
	kɛ̌y^{n}→	‘slightly open (eyes); (sth linear) sticking out’
	kɛ̂l→	‘(door) flush (with its frame)’
	kém→	‘silent, quiet’
	kɔ̌y^{n}→, *kɔ̌y^{n}→*	‘oversized, protruding (teeth)’
	kɔ́y^{n}→	‘emaciated’
	lém→	‘(waterjar) sitting on (table, rock)’
	mɔ̀y^{n}→	‘oily (hands)’
	ɲám→	‘(rain) fall briefly and locally’
	pám→	‘deaf’
	sɛ́w^{n}→	‘small (eyes)’
	tăy^{n}→	‘tasty, adequately sugared or salted’
	tɛ́y→	‘thin crescent (new moon)’
	tìm→	‘shady (tree)’
	tɔ́y^{n}→	‘salty’
	tɔ́y^{n}→	‘pouting’
	yăy^{n}→	‘upper teeth protruding’
	yày^{n}→	‘massive (boulder)’
	yɛ̀w→	‘slightly open (eyes)’
	CvC→ with final obstruent	
	gík	‘stopping still’
	CvCv→	
	bàr^{n}ù→	‘reddish’ (cf. *bán* ‘red’)
	bɔ̀rí→	‘(child's nose) leaking lots of snot’
	dɛ̀dí→	‘(e.g. head) sticking out’
	dágà→	‘slightly; in a little while’
	díy^{n}à →	‘towering, rising high’

dógé→	‘looking up’ (verb *dòg-é:* ‘look up’)
éré→	‘(rubbing on) liberally’
gɛ̀ŋú→ (etc.)	‘atilt’, see §8.4.7.6 for more variants
jɛ́rí→	‘in rags’
làrí→	‘jutting out’
pàlú→	‘rickety, poorly encased’
péjè→	‘(container) brim-full (of grain)’
sàrí→	‘jutting out’
símɛ́→	‘(calabash) tilted sharply (so grains fall out)’
sùbí→	‘woolly’ (sú or sù ?)
súwá→	‘slow fart (almost inaudible)’
tánà→	‘craning, stretching (one’s neck)’
yáwé→	‘looking up’
CvCvC→	
bùgɔ̀m→	‘lukewarm’
bɔ́yⁿɛ̂wⁿ→	‘glowing (embers)’
dàyàw→	‘broad (shoulders, antlers)’
dùwⁿàyⁿ→	‘chuckling silently (with mouth closed)’
ɛ̀wⁿɛ̀yⁿ→	‘smiling broadly’
gɛ́ŋɛ́yⁿ→	‘(walking) leaning to one side then the other’
kóròw→	‘slamming door noisily; rattling sound’
pájáy→	‘well-lit (space)’
pàjàw→	‘splashing from pouring out lots of liquid’
sàŋàm→	‘in poor physical shape’
símɛ́yⁿ→	‘sloped roof; pointing down’
tàrâw→	‘flat buttocks’
wùyàw→	‘splashing noisily (waterfall etc.)’
yɛ́gɛ́y→	‘(bird) glide swaying from side to side’
CvCCvC→	
bɛ̀ndɛ̀m→	‘covered with reddish fuzz (millet)’
ɛ̀ndɛ̀m→	‘hospitable area, nice place to live’
gìndàm→	‘massive (tree)’
gùndúm→	‘massive (boulder)’
púndúm→	‘flowers in full bloom; lots of dust’
tárjày→	‘(ground under tree) littered with debris’
CvCvCv→	
gèbègé→	‘(sitting/perched) on the edge’
gìbìlù→	‘dimwitted, mentally retarded’
jèlègé→	‘fragile (frayed rope); teetering precariously’
yùgùjí→	‘woolly, furry’ (cf. *yà-yùgújù* ‘velvet’)
CvCvCvC→	
bɔ̀gɔ̀lɔ̀m→	‘somewhat elongated’

	dúnúlúm→	‘spherical’
	sɛ̀nɛ̀lɛ̂y→	‘tall and thin’
	tɔ̀jɔ̀lɔ̀m→	‘short and wide (gourd)’

e. other (no prolongation or iteration/reduplication)

unsegmentable, with unprolonged final u

(EA?)	*búlɔ̀*	‘a lot remaining; sound of rope falling on ground’
	bɔ̀rù	‘oily (tool)’
	píbù	‘foaming, frothy’
	pírù	‘emptying by pouring out’
	pɔ́bù	‘plopping sound’
	púrù	‘(beating) savagely’
	sɔ̀gù	‘in clusters’

other

	pɛ́lúm	‘flashing by’

compound-like

	pélé-kéjé	‘suddenly encountering’

If the forms in (xx1e) like *píbù* and *pélé-kéjé* are accepted as EAs, it follows that there is no sharp distinction in form between EAs and other, not very “expressive” adverbs like *gírù* ‘forward, ahead’.

sòy→ nɛ́	‘light-colored, tan’
gírù nɛ̀	‘ahead, in front’

tone alternations

wɛ́^{n}→ kɔ̀ ‘it (door) is ajar (open a crack)’

wɛ̀^{n}→ píné-lɛ́ ‘(sb) open (a door) a crack’

(low tone suggests creaking of door as it is opened)

EA from adjective?

jó→ ‘many, numerous’, *jó→y* ‘a lot’, noun *jì-jǒ: gɔ̀* ‘a lot (adverb)’, *jó:* ‘full’, *jǒ:* ‘become full’.

8.4.7.4 'Straight' (*dém→*)

This EA features intonational prolongation of the final nasal, phonetic [démmm]. It is used in connection with trajectories ('we went straight to the village'), paths, and objects ('the stick is straight').

8.4.7.5 'Apart, separate' (*déy^{n}→*, *déy^{n}-déy^{n}*, *dɔ̀rɔ́*)

The basic form for 'apart, separate, distinct', whether spatial separation or identity difference, is the expressive adverbial *déy^{n}→* or its iterated form *déy^{n}-déy^{n}*. In the form *déy^{n}→* it is often repeated in parallel constructions: *X déy^{n}→, Y déy^{n}→* 'X and Y are separate/distinct'.

dɔ̀rɔ́ occurs in a few collocations with a following motion verb: *dɔ̀rɔ́ gǒ:* 'move away a short distance', *dɔ̀rɔ́ yǎ:* 'go a short distance (away)', and *dɔ̀rɔ́ dǒ:* 'approach a short distance closer'.

8.4.7.6 'Tilted' (*gɛ̀ŋú→* etc.)

(xx1) pulls together several forms that are scattered throughout §8.4.7.3 above, along with the related adjective and mediopassive verb. The *a* ~ *ɛ* alternation is partially motivated by vocalic sound symbolism (§3.3.6).

(xx1) a. adjective

gàŋú	'tilted'

b. verb

gɛ̀ŋ-é:	'become tilted; dodge, get out of the way'

c. EAs

final prolongation, no iteration

gɛ̀ŋú→	'atilt'
gɛ̀ŋí→	'atilt'
gɛ̀ŋé→	'atilt'
gàŋú→	'atilt'
géŋéy^{n}→	'(walking) tilting to one side then the other'

iterated, no final iteration

gǎŋ-gàŋ	'tilted to one side' (adjective *gàŋú* 'tilted')
gɛ̌ŋ-gɛ̀ŋ	'(walking) with head tilted'

review semantics and collect additional forms

8.4.7.7 ‘Always’ (*já→*, *bǎy pú→*), ‘for good’ (*àsú→*) ‘never’ (*àbádá*)

‘Always’ is *já→* (adverbial), or *bǎy pú→* (literally ‘every day’). *àsú→* is similar but tends to mean ‘for good, permanently’ rather than ‘invariably’.

‘Never’ as a separate expression is *àbádá*, a regional word ultimately from Arabic. In a sentence with past-time reference, e.g. ‘I have never gone to Bamako’, the experiential perfect negative verb form is used, see §10.xxx. However, in nonpast contexts (‘I will never speak to you again’) *àbádá* is again used.

9 Verbal derivation

The productive suffixal derivations (stem to stem) for verbs are the reversive ('un-…') and the causative. In addition, many verbs (cf. English *break*) occur with either of two endings, mediopassive and transitive. Adjectives have corresponding intransitive (inchoative) and transitive (factitive) verb forms, but these are in most cases independent members of the same word family, not directly formed from the adjective by adding a suffix.

9.1 Reversive verbs (*-lv́*)

Reversive verbs denote events that restore a prior condition, undoing an intervening event, cf. English *undo*, *untie*, etc. The reversive is formed by adding derivational suffix *-lv* (or variant, see below) directly to the stem, which may not have more than two syllables. The suffix has the regular vocalism of noninitial-syllable vowels in verb stems, i.e. it harmonizes with preceding vowels and must be non-high. The lexical tone melody is preserved. Examples from a search of the working lexicon (2013) are listed in (xx1). The most unproblematic examples are those in (xx1a). The two examples involving *Cvrv* stems in (xx1b) show regular reversives *Cvrv-lv*, in one case with a truncated variant *Cv-lv*. In (xx1c), *Cuy* becomes *Cu:-* before the suffix. An idiosyncratic ATR mismatch between input and reversive is seen in (xx1d), but this sort of variation is within the range of sound-symbolic vowel shifts. When the final syllable of the input stem is *Cv:^{n}* with nasalized vowel, we get *Cv:-r^{n}v* (xx1e). Likewise, from *Cvr^{n}v* we get *Cvr^{n}v-nv* (xx1f).

(xx1)	input	gloss	reversive	gloss
a. *-lv*				
Cv: input				
	bɔ̌:	'bury'	*bɔ̌:-lɔ́*	'disinter'
	kí:	'invert'	*kí:-lɛ́*	'return (sth) to upright position'
CvCv input				
	dàgá	'lock'	*dàgá-lá*	'unlock'
	dɛ̀bɛ́	'cover (opening)'	*dɛ̀bɛ́-lɛ́*	'uncover (opening)'

dèŋɛ́	‘fill up (well)’	*dèŋɛ́-lɛ́*	‘reexcavate (well)’
dìjɛ́	‘prop up’	*dìjɛ́-lɛ́*	‘remove a prop from’
kɔ́lɔ́	‘hang on hook’	*kɔ́lɔ́-rɔ́*	‘unhook’
mènɛ́	‘fold’	*mènɛ́-lɛ́*	‘unfold’
námá	‘step on’	*námá-lá*	‘remove foot from’
náŋá	‘forget’	*náŋá-lá*	‘remember’
págá	‘tie, bind’	*págá-lá*	‘untie’
pínɛ́	‘shut (door)’	*pínɛ́-lɛ́*	‘open (door)’
sɔ́gɔ́	‘loop, lock, button’	*sɔ́gɔ́-lɔ́*	‘unloop, unlock, unbutton’

b. *-lv* after *rv*

gòró	‘cover (sb)’	*gòró-ló*	‘uncover (sb)’
tárá	‘be affixed’	*tárá-lá ~ tá-lá*	‘(affixed item) be detached’

c. *-lv* with disappearing *y*

kúy	‘cover (w. hide)’	*kú:-ló*	‘remove hide from’
dùy-ɛ́:	‘carry on head’	*dŭ:-lɔ́*	‘unload’, cf. (g)

d. ATR mismatch

mùŋɔ́	‘stuff (a hole)’	*mùŋó-ló*	‘unstuff, reopen (hole)’

e. *-r^{n}v*

nă:	‘braid (rope)’	*nă:-r^{n}á*	‘untwist, unbraid (rope)’
tɔ́:^{n}	‘wrap by coiling’	*tɔ́:^{n}-r^{n}ɔ́*	‘unwrap, uncoil’
tɔ́:^{n}	‘fence in’	*tɔ́:^{n}-r^{n}ɔ́*	‘un-fence’

f. *-nv* after *r^{n}*

màr^{n}á	‘seal up’	*màr^{n}á-ná*	‘unseal’

g. mediopassive or transitive suffix dropped before reversive

mediopassive suffix dropped			
gɔ̀n-ɛ́:	‘be caught on thorn’	*gɔ̀nɔ́-lɔ́*	‘free (from thorn)’
jìb-ɛ́:	‘put on a wrap’	*jìbɛ́-lɛ́*	‘take off wrap’
níŋ-ɛ́:	‘be tangled’	*níŋɛ́-lɛ́*	‘untangle, untwist’
xx *tíj-ɛ́:*	‘push against’	*tíjɛ́-lɛ́*	‘take pressure off’

yɔ́ŋ-ɛ́:	'be caught in tree'	*yɔ́ŋɔ́-lɔ́*	'free (sth caught)'
y also deleted			
dùy-ɛ́:	'carry on head'	*dŭ:-lɔ́*	'take down from head'
transitive suffix dropped			
légɛ́-rɛ́	'insert'	*légɛ́-lɛ́*	'remove (inserted item)'
tímɛ́-rɛ́	'put lid on'	*tímɛ́-lɛ́*	'take lid off'

Mediopassive and transitive derivational suffixes are dropped in reversives, which can often be used in either intransitive (mediopassive) or transitive contexts. See especially (xx1g) above for examples. Rarely, mediopassive *-ɛ́:* follows the reversive suffix (xx2).

(xx2) Mediopassive follows reversive

nă:	'braid (rope, by twisting cords together)'
nă:-r^{n}á	'unbraid (rope)' (reversive)
nă:-r^{n}-ɛ́:	'(rope) be unbraided' (mediopassive of reversive)

A number of verbs with shapes *Cv:lv* and *CvCvlv* in the lexicon may have originated as reversives, but in the absence of an attested underived input the segmentation is not transparent. An example is *kó:-lɔ́* 'take off, doff (garment)', which is only obscurely related semantically to *kó:* 'roll up (pants); turn (pocket, socks) inside out'.

The lexical reversives par excellance are *gŏ:* 'go out, exit, leave' and its irregular causative *gŏ:-nɔ́* 'take out, remove'. These are often chained to a preceding verb, resulting in a semantically reversive serial verb. The preceding verb is usually reversive in form if morphologically possible (xx3a), otherwise it takes the regular (nonreversive) form and only the 'go/take out' chained verb expresses reversiveness (xx3b). In (xx3c), *gŏ:-nɔ́* replaces a verb cognate to the object noun. In (xx3c), *gŏ:-nɔ́* replaces its antonym *kúnɔ́* 'put in'.

(xx3)

a.	*kóró*	'surround (sb, sth)'
	kórú-l gŏ:-nɔ́	'un-surround'
b.	*kígíjí-m*	'screw in'
	kígíjí-m gŏ:-nɔ́	'unscrew'
c.	*tɔ́bɔ̀*	'turban'
	tɔ́bɔ̀ tɔ́b-ɛ́:	'roll on turban'
	tɔ́bɔ̀ gŏ:-nɔ́	'unroll (take off) turban'

d.	*gárù*	'hobbles (rope binding two legs of quadruped, to impede its movement)'
	kúnɔ́	'put (sth) in'
	gárù kúnɔ́	'hobble (quadruped, with rope)'
	gárù gǒ:-nɔ́	'unhobble (quadruped)'

Unsegmentable verb stems with apparent reversive-like sense are *sɔ́nɔ́* 'undo (braids, with a pointed instrument)' and *pá:rá* 'unload; take (kettle, pot) back down off of burner or oven; let down (pants, after rolling them up)'. For *sɔ́nɔ́* the core sense is 'comb' or 'fish out, pull out'. *pá:rá* likewise has a basic sense 'bring/take down'. Neither verb always presupposes a preceding action of the same type but opposite direction.

9.2 Deverbal causative verbs

9.2.1 Productive causative with suffix (*-mɔ́*)

The productive causative derivation is formed by adding suffix *-mɔ́* to the stem. The vocalism of the suffix is fixed and does not harmonize with stem vocalism, e.g. *pójó-mɔ́* 'detonate' with +ATR stem vocalism but suffixal *ɔ*. The stem's tone melody is preserved. There are no restrictions on the phonological (moraic) weight of the input stem. Transitive as well as intransitive verbs can be causativized The causative suffix readily follows other derivational suffixes, including mediopassive *-ɛ́:-*. Morphophonologically, the causative suffix behaves more like a chained verb rather than a typical derivational suffix. Examples are in (xx1)

(xx1) Causative *-mɔ́*

input	gloss	causative	gloss
a. monosyllabic input			
bɛ̌:	'stay'	*bɛ̌:-mɔ́*	'cause to remain'
nɔ̌:	'drink'	*nɔ̌:-mɔ́*	'give drink to'
pí:	'weep'	*pí:-mɔ́*	'cause to weep'
sɔ́:^{n}	'vibrate'	*sɔ́:^{n}-mɔ́*	'make (sth) vibrate'
(bá:) yá:	'spend night'	*(bá:) yá:*	'cause to spend night'
b. bisyllabic input			
bìnɛ́	'go back'	*bìnɛ́-mɔ́*	'make go back'
bɔ̀jɔ́	'defecate'	*bɔ̀jɔ́-mɔ́*	'make creak'

dɔ̀ŋɔ́	‘snore’	*dɔ̀ŋɔ́-mɔ́*	‘cause to snore’ (with noun *gɔ́rɔ́lɔ́*)
gɛ̀ŋɛ́	‘take’	*gɛ̀ŋɛ́-mɔ́*	‘cause to take’
jùgɔ́	‘know’	*jùgɔ́-mɔ́*	‘inform’
kárⁿá	‘do’	*kárⁿá-mɔ́*	‘make (sb) do’
ɔ́ŋɔ́	‘get tired’	*ɔ́ŋɔ́-mɔ́*	‘tire (sb)’
pójó	‘burst’	*pójó-mɔ́*	‘detonate, explode (sth)’
pá:má	‘understand’	*pá:má-mɔ́*	‘explain to’
pídé	‘swell’	*pídé-mɔ́*	‘cause to swell’
pí:r-é:	‘(wound) fester’	*pí:r-é:-mɔ́*	‘cause to fester’
tómɔ́	‘jump’	*tómɔ́-mɔ́*	‘cause to jump’
túјɔ́	‘pay’	*túјɔ́-mɔ́*	‘cause to pay’
wàjá	‘be left over’	*wàjá-mɔ́*	‘cause to be left over’

c. trisyllabic input including suffixal derivatives

bìnɛ́lɛ́	‘roll’	*bìnɛ́lɛ́-mɔ́*	‘switch (merchandise)’
íŋɛ́-lɛ́	‘get up’	*íŋɛ́-lɛ́-mɔ́*	‘get (sb) up’
mediopassive			
nɔ́m-ɲ-ɛ́:	‘sag’	*nɔ́m-ɲ-ɛ́:-mɔ́*	‘cause to sag’
kóm-ɲ-ɛ́:	‘curl’	*kóm-ɲ-ɛ́:-mɔ́*	‘cause to curl’

Deadjectival factitives are generally the regular causatives of the corresponding inchoative (‘become ADJ’) verb, see §9.4 below.

9.2.2 Minor causative suffixes (*-nv́*, *-gv́*)

A few stems have archaic causatives involving synchronically unproductive derivational suffixes. A subset of the cases of *-nv́*, specifically the two stance verbs whose inputs are already nasal (xx1a), may be offshoots of transitive *-rv́*.

(xx1) Minor causatives

input	gloss	causative	gloss
a. *-nv́*			
no contraction, input is nasal			
dày^{n}-é:	‘sit’	*dă:-ná*	‘cause to sit; set’
dǐ:^{n}	‘lie down’	*dŭ:-nɔ́*	‘lay (sth) down’
no contraction, input is nonnasal			
dɔ̌:	‘arrive’	*dɔ̌:-nɔ́*	‘cause to arrive’
gɔ̌:	‘go out’	*gɔ̌:-nɔ́*	‘take (sth) out’

input contracted

úr-ɛ́:	‘go up’	*ú-nɔ́*	‘take (sth) up’
mɔ̀rⁿ-ɛ́:	‘get together’	*mɔ̌:-nɔ́*	‘assemble [tr]; collect’
jɔ̀bɔ́	‘run’	*jɔ̌m-nɔ́*	‘drive (vehicle)’
dògó	‘be finished’	*dògó-nɔ́*	‘stop, put an end to (sth)’

denominal

pɔ̌:	‘greeting(n)’	*pó:-nɔ́*	‘greet (sb)’
[noun also *pô:-nù*]			

b. *-gɣ́*

pɔ́jɔ́	‘(sth) crumble’	*pɔ́jɔ́-gɔ́*	‘cause to crumble’
káw-ɛ́:	‘be separated’	*káw-gá*	‘separate (them)’

9.3 Passive and transitive

9.3.1 Mediopassive *-ɛ́:/-í:* and transitive *-rv*

A number of bisyllabic verb stems occur in two forms, a mediopassive (middle) in *-ɛ́:/-í:* (contracted from *-yɛ́) and a transitive in *-rv-* The mediopassive is usually intransitive but may be transitive in the case of verbs of holding and carrying. In any case the subject of the mediopassive is in a specific situation. The transitive counterpart adds an external agent.

The mediopassive ending has allomorphs *-ɛ́:* (bare stem) and *-í:* (chaining stem). The *-ɛ́:* variant does not harmonize with +ATR stem vowels.

Examples of mediopassive/transitive pairs are in (xx1).

(xx1)

	MP	gloss	transitive	gloss
a. stance				
	gɛ̀ŋ-ɛ́:	‘be tilted’	*gɛ̀ŋɛ́-rɛ́*	‘tilt (sth)’
	íŋ-ɛ́:	‘stand up, stop’	*íŋɛ́-rɛ́*	‘stop (sth)’
	túŋ-ɛ́:	‘kneel’	*túŋɔ́-rɔ́*	‘cause to kneel’
b. wearing clothes				
	jìb-ɛ́:	‘gird (a wrap)’	*jìbɛ́-rɛ́*	‘gird (wrap) on (sb)’
	tág-ɛ́:	‘put one’s shoes on’	*tágá-rá*	‘put shoes on (sb)’
c. carrying/holding				
	dòg-ɛ́:	‘be face up’	*dògó-ró*	‘hold (sth) face up’
	dùy-ɛ́:	‘carry on head’	*dǔ:-rɔ́*	‘put on (sb’s) head’
	sín-ɛ́:	‘carry on back’	*síné-rɛ́*	‘put on (sb’s) back’
d. other				

ą̀ŋ-é:	‘be diffident’	*ą̀ŋá-rá*	‘humiliate (sb)’
bàŋ-é:	‘hide (oneself)’	*bàŋá-rá*	‘hide (sb, sth)’
dìm-é:	‘follow’	*dìmé-ré*	‘take along; cause to follow’
(dĭ:) ín-é:	‘bathe’	*(dĭ:) íné-ré*	‘bathe (sb)’
jìm-é:	‘lower one’s head’	*jìmé-ré*	‘lower (head)’
pɔ́y-é:	‘(mud) ferment’	*pɔ́:-rɔ́*	‘have (mud) ferment’
úg-é:	‘self-apply incense’	*úgú-ró*	‘burn (incense)’
yèg-é:	‘(garment) fit’	*yègé-ré*	‘align, prepare (sth)’

See also ‘lie down’ and ‘sit’ in (xx1) in the preceding section, whose *-nv́* might be a secondarily nasalized offshoot of *-rv́*.

Infrequently we get a triad of unsuffixed, mediopassive, and transitive forms, but the semantic relationships may be stretched (xx2).

(xx2)

a. *légé*	‘attach (front and rear parts of loincloth)’	
lég-é:	‘insert oneself, slide oneself in’	
légé-ré	‘insert (sth), slide (sth) in’	
b. *dìgé*	‘join, link (two things, at the ends)’	
dìg-é:	‘(two things) be joined (at the ends); be consecutive’	
dìgé-ré	‘cause (two things) to be consecutive’	

In (xx3), the syntactically transitive counterpart to the mediopassive is unsuffixed. In the case of *gòró* the usual transitive *-rv́* suffix might have been phonologically problematic (two consecutive *rv* syllables).

(xx3)

MP	gloss	transitive	gloss
bìl-é:	‘(sth) flip over’	*bìlé*	‘flip, turn (sth) over’
dìl-é:	‘(sth) change’	*dìlé*	‘change, replace (sth)’
én-é:	‘(sth) be leached’	*éné*	‘leach (sth)’
gòr-é:	‘cover oneself’	*gòró*	‘cover (sb, with hat or blanket)’
gàm-é:	‘be reduced’	*gàmá*	‘reduce; lower (price)’
jèl-é:	‘be hanging’	*jèlé*	‘hang (sth) up’
kár^{n}-é:	‘happen, be done’	*kár^{n}á*	‘do (sth)’
kó-é:	‘be inside-out’	*kó:*	‘turn (e.g. pocket) inside-out’
tóg-é	‘be spilled’	*tógó*	‘spill (sth)’
tɔ́^{n}-é:	‘(snake) coil around’	*tɔ́:^{n}*	‘wrap (sth) by coiling’

Conversely, in (xx4) only the transitive form is suffixally marked. Both (xx4a) and (xx4b) show idiosyncratic shift to *ŋ* in the stem-medial consonant, see §3.5.1.xxx-xxx. (xx4b) also shows a shift from /r/ to *l* in the suffixal consonant, see §3.5.1.xxx, making even the relationship to other transitive derivatives with *-rí* nontransparent.

(xx4)	MP	gloss	transitive	gloss
	dě:	'learn'	*dě:-ré*	'instruct, teach'
xx	*dògó*	'be finished'	*dɔ̀ŋɔ́-ró*	'deplete, use up'
	gàwá	'rely on, trust (sb)'	*gàwá-rá*	'entrust (sth) to (sb)'
	táŋá	'(fire) be lit'	*táŋá-rá*	'light (fire)'
	[and other senses, §11.2.6.2]			
	yàwⁿá	'malfunction'	*yàŋá-lá*	'ruin (st)'

9.3.2 Passive suffix (*-mɔ́-*)

As in several other Dogon languages, a suffix homophonous to the causative is used as an impersonal passive in a sense approaching 'be VERB-able' with a handful of verbs. Usually the context is habitual. The attested examples are in (xx1).

(xx1)		input	gloss	passive	gloss
	a.	*tɛ́mɛ́*	'find, encounter'	*tɛ́mɛ́-mɔ́*	'(can) be encountered'
	b.	*yɛ́:*	'see'	*yɛ́:-mɔ́*	'(can) be seen'

'be drinkable'
'be gettable'

9.4 Deadjectival inchoative and factitive verbs

Inflectable inchoative verbs ('become ADJ', or 'become ADJ-er') generally belong to the same word-family as the corresponding modifying adjective, but there is no automatic derivational mechanism to connect them. The inchoatives do respect the usual phonological constraints on verb stems: initial voiced obstruents require /LH/ melody, final vowels are copied from or harmonized with preceding stem vowels.

In (xx1), the inchoative has no special derivational suffix.

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(xx1) Unsuffixed inchoatives

adjective	gloss	inchoative
a. monosyllabic inchoative		
ɛ̌:ⁿ	‘hard; tight (rope)’	*ɛ́:ⁿ*
jó:	‘full (container)’	*jǒ:*
ɔ:ⁿ	‘alive’	*ɔ:ⁿ*
pɛ̌y	‘old’	*pɛ́:*
b .bisyllabic inchoative		
bán	‘red’	*bàrⁿá* (~ *bǎn-n-ɛ́:*)
ɛ́ŋ (ɛ̀ŋú ?)	‘dense (forest)’	*ɛ́ŋɛ́*
dɔ̌ŋ	‘skinny, lean’	*dɔ̀ŋɔ́*
kɛ̀mɛ̀-ýⁿ	‘slender’	*kɛ́mɛ́*
wán	‘wide, spacious’	*wànà*
áwⁿ	‘in good condition’	*áwⁿá*
ɛ́n	‘well-fed’	*ɛ́rⁿɛ́*
píl	‘white’	*pílɛ́*
kʊ̀ŋú	‘rough’	*kúŋɔ́*
bɔ̀ŋú	‘not totally full’	*bɔ̀ŋɔ́*
ɛ̀ŋú	‘crowded’	*ɛ́ŋɛ́*
gàbú	‘tall’	*gàbá*
ɔ̀mú	‘rotten; fragile’	*ɔ́mɔ́*
yɔ̀rú	‘soft’	*yɔ̀rɔ́*
kómɔ́	‘skinny, lean’	*kómɔ́*
sèlé	‘diluted (milk); soggy’	*sélé*
kó:ló	‘empty; ruined; useless’	*kó:ló*
ìlɛ́	‘ripe; cooked’	*ílɛ́*

In (xx2), the inchoative is marked by the mediopassive suffix *-ɛ́:*, becoming *-í:* in some inflectional contexts. This suffix can be added directly to the stem (xx2a), or to various extended forms of the stem, the most common of which involves *-n-* (xx2c).

(xx2) Mediopassive inchoatives

adjective	gloss	inchoative
a. *-ɛ́:* added directly to stem		
â:m	‘sour; fizzy (fermenting)’	*á:m-ɛ́:*
ɛ̂:l (~ *ɛ́lɛ̀l*)	‘sharp; sweet’	*ɛ́lɛ́l-ɛ́:*

gû:m	‘rancid; flavorless’	*gŭ:m-é:*
ɔ́gú	‘hot; fast’	*ɔ́g-é:*
nà:r^{n}á	‘easy’	*ná:r^{n}-é:*
gálàl	‘bitter’	*gàlál-é:*
dár^{n}àn	‘pungent, spicy-hot’	*dàr^{n}án-é:*
púrúgú	‘off-white’	*púrúg-é:*
diminutive -ý not included in inchoative		
bù:jì-ý	‘runty’	*bŭ:j-é:*
dùmɲì-ý^{n}	‘blunt (blade)’	*dŭmɲ-é:*

b. *-é:* added to irregular form of stem

pɔ̀:rú	‘putrefying’	*pɔ́y-é:*

c. *-é:* added to stem plus *-n-*

nɔ́:	‘hot’	*nɔ́:-n-é:*
tŏ:	‘deep’	*tó:-n-é:*
sí→	‘pointed’	*sí:-n-é:*
wéy	‘lightweight; thin (wall)’	*wĕy-n-é:*
gɛ́m	‘black’	*gɛ̆m-n-é:*
nám	‘difficult’	*nám-n-é:*
dùgú	‘big; corpulent; thick’	*dùgú-n-é:*
ɛ̀jú	‘good’	*ɛ́jú-n-é:*
ɛ̀mú (~ *ɛ̀mì-ý*)	‘narrow’	*ɛ́m-n-é:*
mɔ̀ɲú	‘bad, nasty’	*mɔ̀ɲú-n-é:*
démɛ́	‘heavy; thick (skin)’	*dèmɛ́-n-é:*
pàlá	‘long’	*pálá-n-é:*
bán	‘red’	*băn-n-é:* (~*bàr^{n}á)*
/y/ deleted		
ɔ́rɔ̀y	‘smooth, sleek’	*ɔ́rɔ́-n-é:*
/l/ deleted		
kâ:l	‘cold’	*ká:-n-é:*
diminutive -ý not included in inchoative		
dùmì-ý^{n}	‘short; narrow’	*dùmú-n-é:*
ùjì-ý	‘small’	*újú-n-é:*

d. *-é:* added to stem plus *-l-*

săw	‘clever, tricky’	*sáw-l-é:*

e. *-é:* added to stem plus *-g-* (*-ŋ-* after nasal syllable, §3.4.1.1)

kúrú	‘dense, shady (foliage)’	*kúrú-g-é:*
mă:	‘dry’	*mă:-ŋ-é:*

No inchoative verb is attested for the adjectives in (xx3). This is likely due to some mix of the following: these adjectives have synonyms that do have an

inchoative; they are adverbial rather than adjectival; they have meanings ('new', 'unmarried') that do not lend themselves to inchoativity.

(xx3)	*dɛ̂:*	'big'	
	gă:	'fully grown'	
	wɛ́r	'green'	
	gûm	'unmarried'	
	ɔ̌l	'wet, moist; fresh'	
	nɛ̂:m	'salty'	
	sálá	'bad'	
	yóló	'lightweight'	
	dágà	'small'	
	pélèl	'crispy (taste)'	
	sɔ̀gɔ̀lɔ́	'multicolored'	
	bóròdù	'viscous'	
	ɛ́jɛ̀jù	'bland, unspiced (food)'	
	bánàlà	'blotched'	
	nì-nâ:	'respectable'	
	gà:là-ý	'small'	
	kànáá	'new'	xxx
	kòló	'unripe; raw; fresh (milk)'	xxx

Factitives ('X cause Y to become ADJ') are in most cases morphologically just the regular *-mɔ́* causatives of the inchoatives given above. Mediopassive inchoatives keep the mediopassive suffix in factitive *-ɛ́:-mɔ́*, as in *újú-n-ɛ́:-mɔ́* 'make (sth) small(er)'.

Irregular factitives are *jɔ̌:-nɔ́* 'fill' from *jɔ̌:* 'become full'

9.5 Ambi-valent verbs without suffixal derivation

give a few exx. from the lexicon where a verb is used, without suffixal modification, both transitively and intransitively.

antipassive (unergative) type, with understood or vague direct object omitted
cf. English 'hit' in 'I'm hitting second today' (baseball)
'they ate'

passive (unaccusative) type, with agent omitted (theme becomes subject):
cf. English 'it reads well'
'it broke'

9.6 Denominal verbs

In (xx1) are verbs that are clearly derived from nouns. For many other cases where a verb and cognate noun are clearly from the same word-family but where derivational direction is unclear, see §11.1.5.2. Incremented mediopassive *-g-ɛ́:* in (xx1a) also occurs in deadjectival inchoatives (§9.4). -nʼ́ in (xx1b) looks like a minor causative suffix (§9.2.2).

(xx1)	noun	gloss	verb	gloss
a.	*wèjé*	‘insanity’	*wèjé-g-ɛ́:*	‘become crazy’
	lɔ́gɔ̀	‘filth’	*lɔ́gɔ́-j-ɛ́:*	‘make dirty, soil (sth)’
b.	*pǒ:*	(greeting)	*pó:-nɔ́*	‘greet (sb)’

9.7 Obscure verb-verb relationships

I have no good examples for this section, other than the minor phonological irregularities in §3.4.1.2-5.

ná:má ‘greet (sb) in the morning, say good morning to’ is not related to the verb ‘spend the night’ (*bá: yá:*).

10 Verbal inflection

10.1 Inflection of regular indicative verbs

A typical indicative verb X in a main clause has the form X-AN-PronSubj, where AN is an aspect-negation marker and the final element is an obligatory pronominal-subject marker. In relative clauses, this pronominal-subject marker is absent, but the verb may agree in nominal features with the head NP. In addition to indicative mood, there are imperative and hortative verb forms that mark mood and if relevant addressee plurality. A few categories (imperative, one of the perfective categories) have zero AN suffix but have distinctive stem vocalism and/or tones.

As with other Dogon languages it is convenient to separate statives from active verbs, and then to group the various inflections expressed in active verbs (by affixes and tightly-combined auxiliaries) into four main categories by the intersection of [±perfective] (in a broad sense) and [±negative]. Stative verbs do not distinguish aspect, and their negation is by addition of a conjugated stative negative marker to the positive stative stem. Statives can be derived from certain active verbs ('sit down' → 'be sitting'), but there are also a few defective statives ('be', 'have', 'know', 'want', see Chapter 11) that have no active counterparts.

Indicative verbs (stative or active) of virtually any AN category can be shifted into the past by adding a conjugated past enclitic to the (usually unconjugated) stem for the relevant category.

The aspect-negation (AN) categories of active (non-stative) verbs found in YS are in (xx1).

(xx1) a. perfective positive system
- unsuffixed perfective
- perfective-1a (*-à:y-*)
- perfective-1b (*-tì-*)
- experiential perfect 'have ever VPed' (*-tέrɔ̀:-*)
- recent perfect 'have just finished VPing' (*-jὲ:-*)

b. imperfective positive system
- imperfective (*-jὲ-*)
- present progressive (*-ẁ-wɔ̀-*, *-gù-wɔ̀-*, *-ŋ̀-wɔ̀-*)

reduplicated future (*Cí-…-jɛ̀-*)

c. perfective negative system
perfective negative (*-l-*, *-n-*)
experiential perfect negative (*-tɛ́-rʏ́-*)
recent perfect negative (*-jɛ̌ː-l-*)

d. imperfective negative system
imperfective negative (*-lɛ̀-*)
present progressive negative (*-ʷ̀-wɔ̀-lɔ́-*)

10.1.1 Bare and chaining stems of verbs

There are two distinct stem-shapes for each verb, which are here called the **bare stem** and the **chaining stem**. For many bimoraic verbs, the two are homophonous. For other bimoraics, and for heavier stems, the chaining stem is marked by a final /-u/ (subject to Apocope to *-∅* after most unclustered sonorants), or by *-y* in the case of *Cv:* verbs, which become *Cvy*. In trisyllabics, the chaining stem also raises the medial-syllable vowel to *i*, or *u* in the presence of another undeleted rounded vowel.

The chaining stem is segmentally identical to the verbal noun. However, the chaining stem **respects the lexical tone melody** of the stem, which is either /H/ or /LH/, while the verbal noun has an invariant {LH} overlay that erases the lexical melody. In transcriptions, I hyphenate the verbal noun but not the chaining stem, so that even when they are homophonous one can distinguish their transcriptions.

The distribution of the bare and chaining stems across inflectional categories, not including verb chains, is as indicated in (xx1).

(xx1) a. bare stem
simple past *=bɛ́-* and the related forms
imperfective *-jɛ̀-* and related forms
present progressive *-ʷ̀-wɔ̀-*, *-gù-wɔ̀-*, *-ŋ̀-wɔ̀-* and related forms
perfective negative (*-l-*, *-n-*)
imperfective negative *-lɛ̀-*
(derived) stative (no suffix)
imperative (no suffix)
prohibitive *-nɔ̀ŋ*
hortative *-mɔ̀*

b. chaining stem
unsuffixed perfective (no suffix, {L}-toned)

perfective-1b *-tì-*
experiential perfect *-tɛ́rɔ̀:-*
recent perfect *-jɛ̀:-*

c. indeterminate due to *vv*-Contraction
perfective-1a *-â:(y)-* ~ *-à:(y)-*

A possible partial explanation for the distribution of the chaining stem is given in the following section.

chaining stem of 'say'

The set of verbs that have distinct bare and chaining stems is partially definable phonologically, based on syllabic/moraic shape and vowel qualities. All heavy stems, those of three or more (vocalic) moras, have two distinct stems. All suffixally derived verbs are heavy, so they too have distinct stems. The only monomoraic stem, *gɛ̌-* 'say', has an irregular unsuffixed perfective *gì-* that is distinct from the form *gɛ̌:* used in chains (§11.3). This leaves bimoraic *CvCv* and *Cv:* stems, which are divided between those that have two distinct stems and those that have a single invariant form. Within this category, +ATR vocalism favors distinct stems, while -ATR favors invariance, but here there are many exceptions

The associations in (xx2) have no known exceptions.

(xx2)

bare	chaining
a. verbs that distinguish bare from chaining stems	
final a	
Ca:	*Cay*
CaCa	*CaCu*
heavy stems (trimoraic or longer)	
Cv:Cv	*Cv:Cu* (heavy bisyllabics)
CvCvCv etc	*CvCuCu* etc. (all trisyllabics)
suffixally derived stems (all trimoraic or longer)	
STEM-*ɛ́:*	STEM-*í:* (mediopassive)
STEM-*mɔ́*	STEM-*mú* (causative)
b. verbs with invariant stem	
high-vowel monosyllabic	
Ci:	
Cu:	
Cuy	
other monosyllabic	
Cɔ:	

Examples of these predictable types are in (xx3).

(xx3) bare chaining

a. verbs that distinguish bare from chaining stems (selected exx.)

Ca:

dǎ: 'kill'	*dǎy*
sá: 'sneeze'	*sáy*

CaCa

álá 'brew (beer)'	*álú*
dànáˀ 'hunt'	*dànú*

dict támá-\\támá 'kick; (scorpion) sting'
dict yàná-\\yàná 'glide'

CvCCv (heavy bisyllabic)

dɔ́lgɔ́ 'bail (sb) out'	*dɔ̌lgú*

Cv:Cv (heavy bisyllabic)

dǎ:rⁿá 'make viscous'	*dǎ:n*
ó:ró 'let graze'	*ó:rú*

trisyllabic

kájúbá 'watch over'	*kájúbú*
yàŋálá 'ruin, spoil'	*yàŋíl*
pégéré 'winnow'	*pégúrú*
gògóró 'hang (calabash)'	*gògúrú*

with derivational suffix

nɔ̌:-mɔ́ 'let drink'	*nɔ̌:-mú* (causative)
nàrⁿ-é: 'be born'	*nàrⁿ-í:* (mediopassive)
yìbél-é: 'be comatose'	*yìbíl-í:* (mediopassive)
pó:-nó 'greet'	*pó:-nú*
íŋé-lé 'come to, recover'	*íŋí-l* (reversive)
sɔ́gɔ́-lɔ́ 'unbutton'	*sɔ́gú-l* (reversive)

b. verbs with invariant stem

high-vowel monosyllabic and Cuy (all known examples)

dǐ:ⁿ 'lie down'
jǐ:ⁿ 'fart'
kí: 'flip over'
pí: 'weep, cry out' (*pǐ: pí:*)
sí: 'emit cries of joy' (*sǐ: sí:*)
tí:ⁿ 'block (path)'
gŭ:ⁿ 'murmur' (*gù-gû:ⁿ gŭ:ⁿ*)
túy 'send'
kúy 're-pound' (*yu:-kûy kúy*)
gŭyⁿ 'steal'
mŭyⁿ 'draw liquid'
mŭyⁿ 'tie (knot)'

Cɔ: (all known examples)

dɔ̌:ⁿ 'catch (drip)' verify chaining
jɔ̌:ⁿ 'peck at' verify chaining
kɔ́: 'be worm-eaten'
kɔ̌: 'raise (child)'
kɔ́:ⁿ 'pull in (stomach)' (*bèrɛ́ kɔ́:ⁿ*)
kɔ̀:ⁿ 'bray'
pɔ́: 'slap on (mud)'
mɔ̌: 'laugh' (*mɔ̂yⁿ mɔ̌:*)
mɔ̌: 'pick (individual plant sprouts)'
nɔ̌: 'drink'
sɔ́: 'speak'
sɔ́:ⁿ 'tremble'
sɔ́:ⁿ 'douse (fire)'
sɔ́:ⁿ 'put a thorn-branch fence around'
pɔ́: 'take a handful'
tɔ́: 'take apart'
tɔ́: 'spit' (*yù:jă: tɔ́:*)
tɔ́:ⁿ 'wrap by coiling'

Most *Cɛ:* verbs behave like *Cɔ:* and are invariant in vocalism (xx4a), but two such verbs, semantically moe or less stative, have a chaining stem *Ci:* (xx4b), following the pattern of mediopassives.

(xx4) bare chaining

a. invariant *Cɛ:* stems (all known examples)

dɛ̌: 'burn'
ɛ́:ⁿ 'be tight'
ɛ́:ⁿ 'make (cord)'
gɛ̌:ⁿ 'request'
kɛ́:ⁿ 'slaughter'
mɛ̌: '(rain) fall'
mɛ̌: 'be ground into powder'
pɛ́: 'tap'
pɛ́: 'get old'
pɛ́:ⁿ 'strike'
tɛ́: 'weave'
tɛ́: 'sprout'
wɛ̌: 'winnow in wind'

b. *Cɛ:* stems with *Ci:* chaining stems (all known examples)

bɛ̌: 'stay'	*bǐ:*
lɛ́: 'fear'	*lí:*

There are only a few +ATR monosyllabic *Ce:* and *Co:* verb stems. They are divided among the two verb categories as shown in (xx5), which presents all known examples.

(xx5) bare chaining

a. invariant *Ce:* and *Co:* stems

Ce:

verif *dě:* 'learn' chaining de-y in dict
verif *ké:* '(grasshopper) bite off and eat' chaining?

Co:

bǒ: 'sip'
gǒ: 'go out, leave'
kó: 'turn inside out'
ó: '(millet grain spike) grow reddish fuzz'
só: 'dip'
wǒ: 'be defoliated'

c. *Ce:* and *Co:* stems distinguishing bare and chaining stems

xx *yé:* 'sleep' *yéy*
xx *yó:* 'go in' *yóy*

Among bimoraic bisyllabics (*CvCv*), most +ATR stems (including *CeNɛ* and *CoNɔ* where the nasal shifts the following +ATR to -ATR) and most stems with initial high vowel (including -ATR *CiCɛ* and *CuCɔ*) distinguish the bare and chaining stems (xx6a), but some others are invariant (xx6b).

(xx6) bare chaining

a. *+ATR CoCo*, *CoNɔ*, *CeCe*, *CeNɛ* distinguishing bare from chaining

CoCo

bòjó 'pull out; bury' *bòjú*
kóró 'build enclosure' *kórú*
pójó 'be punctured' *pójú*
póró 'grow a grain spike' *pórú*

CoNɔ

pómɔ́ 'grow a grain spike' *pómú*
pómɔ́ 'take off shoes' *pómú*
tómɔ́ 'jump' *tómú*

CeCe

kéjé 'encounter' *kéjú* (~ *kéjé*)
légé 'hiccup' *légú*
sébé 'tiptoe' *sébú*

CeNɛ

pémɛ́ ‘pull out’ *pémú*

b. *+ATR CoCo*, *CoNɔ*, *CeCe*, *CeNɛ* with invariant stem

CoCo

verif *bògó* ‘(dog) bark’ (*bógù bògó*)
verif *dògó* ‘be used up’
verif *gòró* ‘cover (sb); put a hat on (sb)’
verif *lójó* ‘separate skin from carcass’
verif *pógó* ‘tap, knock’
verif *tóló* ‘pound in mortar’
verif *tógó* ‘build shelter’ (*tógù tógó*)

CoNɔ

verif *ómɔ́* ‘hold up (from underneath)’

CeCe

verif *gèŋɛ́* ‘pick up, take’
verif *jèlé* ‘hang (sth) up’
verif *pélé* ‘put a hat on (sb)’
verif *pélé* ‘applaud’ (*pêl pélé*)
verif *tégé* ‘drip’
verif *tégé* ‘limp’ (*kúbɔ́ tégé*)

Likewise, most bisyllabics with a short high vowel in the first syllable and a final mid-height vowel in the bare stem have a distinct chaining stem. Those with -ATR final vowel, i.e. *CuCɔ* and *CiCɛ*, are divided between those making the distinction (xx7a) and those with invariant stem (xx7b). All known +ATR *CuCo* and *CiCe* stems do have distinct chaining stems (xx7a).

(xx7) bare chaining

a. *CuCv* and *CiCv* distinguishing bare and chaining stems

+ATR CuCo

bùló ‘be resuscitated’ *bŭl*
dùgó ‘cast (a spell)’ *dùgú*
jùbó ‘churn (milk)’ *jùbú*
lúgó ‘rinse (mouth)’ *lúgú*
púló ‘pull out’ *púlú*
súgó ‘go down’ *súgú*
úgó ‘cook by steam’ *úgú*

+ATR CiCe

bìlé ‘flip over’ *bĭl*
líbé ‘implant’ *líbú*
lígé ‘mix’ *lígú*
píjé ‘spray’ *píjú*
síbé ‘place 2nd layer’ *síbú*
tíbé ‘come to, recover’ *tíbú*

yìgé ‘shake’	*yìgú*

-ATR CuCɔ

bùbɔ́ ‘pick (teeth)’	*bùbú*
bùrɔ́ ‘spit after rinsing’	*bùrú*
gùjɔ́ ‘gin (cotton)’	*gùjú*
kújɔ́ ‘attach blade’	*kújú*
kúnɔ́ ‘put’	*kúnú*
mùnɔ́ ‘tie in garment’	*mùnú*
mùŋɔ́ ‘stuff (hole)’	*mùŋú*
súlɔ́ ‘make small pile’	*súlú*
újɔ́ ‘build (house)’	*újú*
únɔ́ ‘make go up’	*únú*

-ATR CiCɛ

gìré ‘let graze’	*gìrú*
ímé ‘stutter’	*ímú* (*ímù ímé*)
jìŋé ‘be paired’	*jìŋú*
jìw^{n}é ‘hurt’	*jìw^{n}ú* ~ *jĭm* (~ *jìw^{n}é*)
kíbé ‘clear (field)’	*kíbú*
níŋíɲé ‘rub (eyes)’	*níŋíɲú*
níné ‘breathe’	*nínú* (*nínù nínḗ*)
píné ‘shut’	*pínú*
síɲé ‘snort’	*síɲú*
síɲé ‘make noise’	*síɲú* (*síɲè síɲḗ*)
yíw^{n}é ‘die’	*yím*

b. *CuCv*, *CiCv* not distinguishing bare and chaining stems

-ATR CuCɔ

bùmɔ́ ‘crawl, slither’
bùnɔ́ ‘hit hard’
gùlɔ́ ‘vomit’ (*gúlɔ̀ gùlɔ́*)
jùgɔ́ ‘know’
túјɔ́ ‘pay’

-ATR CiCɛ

bìŋé ‘pull; draw (water)’
dùmɔ́ ‘make flat-topped earth mound’ (*dûm dùmɔ́*)
ílé ‘ripen’
gìmé ‘recur’
mìɲé ‘toss (water) from hand’
tímé ‘superimpose’
tílé ‘exchange’
úrɔ́ ‘skin and butcher’

+ATR CuCo, *CiCe*

[none]

A few -ATR *CɛCɛ* and *CɔCɔ* distinguish bare from chaining stems (xx8a). The majority of such verbs are invariant (xx8b). Most likely the stem distinction is optional or dialectal for many of these verbs.

(xx8)

a. verbs that distinguish bare from chaining stems

	bare	chaining
	CɔCɔ	
xx	*bɔ̀mɔ́* 'glare at'	*bɔ̀mú*
xx	*dɔ̀ŋɔ́* 'snore'	*dɔ̀ŋú*
xx	*dɔ̀r^{n}ɔ́* 'sell'	*dɔ̀n*
xx	*jɔ̀bɔ́* 'run''	*jɔ̀bú*
xx	*sɔ́gɔ́* 'peck'	*sɔ́gú* (~ *sɔ́gɔ́*)
xx	*sɔ́r^{n}ɔ́* 'melt'	*sɔ́r^{n}ú*
xx	*tɔ́ŋɔ́* 'hobble'	*tɔ́ŋú*
	CɛCɛ	
xx	*gɛ̀w^{n}ɛ́* 'commemorate'	*gɛ̀w^{n}ú*
xx	*pɛ́gɛ́* 'make first layer'	*pɛ́gú*
xx	*sɛ́r^{n}ɛ́* 'spit in a jet'	*sɛ́r^{n}ú*

b. verbs that do not distinguish bare from chaining stems

CɔCɔ

bɔ̀jɔ́ 'defecate' (*bɔ́jɔ̀ bɔ̀jɔ́*)
dɔ̀gɔ́ 'grow hair or leaves'
dɔ̀ŋɔ́ 'pound (grain spikes)'
dɔ̀ŋɔ́ 'become skinny'
gɔ̀bɔ́ 'set (cock of musket)'
gɔ̀mɔ́ 'open (eye, mouth)'
jɔ̀gɔ́ 'demolish'
kɔ́jɔ́ 'scrape'
kɔ́lɔ́ 'hook'
mɔ̀ŋɔ́ 'mix (grains) into cream'
nɔ̀ŋɔ́ 'be devastated'
ɔ́gɔ́ 'copulate'
ɔ́mɔ́ 'emit an odor'
pɔ́mɔ́ 'remove ax blade'
pɔ́dɔ́ 'squash, crush'
pɔ́dɔ́ '(God) bring about'
pɔ́rɔ́ 'castrate'
pɔ́r^{n}ɔ́ 'blow (nose)'
sɔ́bɔ́ '(peanut plant) begin to grow'
sɔ́gɔ́ 'loop' or 'shell (by pounding)'
sɔ́nɔ́ 'comb; undo braids'
tɔ́gɔ́ '(woodpecker) peck deeply'
wɔ̀gɔ́ 'collect (honey)'

CɛCɛ

bɛ̀lɛ́ ‘get’
bɛ̀nɛ́ ‘hit hard’
bɛ̀rɛ́ ‘become pregnant’ (*bɛ̀rɛ́ bɛ̀rɛ́*)
bɛ̀ⁿɛ́ ‘become giddy’
dɛ̀gɛ́ ‘lick’
dɛ̀ⁿɛ́ ‘spend mid-day’
dɛ̀nɛ́ ‘look for’
dɛ̀ŋɛ́ ‘fill up (well, ditch)’
dɛ̀ɲɛ́ ‘drop, throw down’
ɛ́bɛ́ ‘buy’
ɛ́gɛ́ ‘smell (sth)’
ɛ́rɛ́ ‘braid (hair)’
ɛ́rⁿɛ́ ‘let out (one’s stomach)’
ɛ́wⁿɛ́ ‘milk (a cow)’
gɛ̀lɛ́ ‘harvest (with knife)’
lɛ́gɛ́ ‘attach’
mɛ̀rⁿɛ́ ‘spin (cotton)’
mɛ̀rⁿɛ́ ‘swallow; submerge’
nɛ́wⁿɛ́ ‘taste’
pɛ́lɛ́ ‘strike’
pɛ́nɛ́ ‘squeeze’
sɛ́gɛ́ ‘pay (dues), contribute’
tɛ́lɛ́ ‘pile up (harvested grain)’
tɛ́ŋɛ́ ‘dam up; prevent’
wɛ̀gɛ́ ‘spend half-day’ (*àgà-wɛ̀gú wɛ̀gɛ́*)
yɛ̀mɛ́ ‘sort, select’

??
bɔ̀lɔ́ ‘mix water into flour’
dɪ̀jɛ́ ‘prop up, hold in place’
dʊ̀lɔ́ ‘turn (sth) around’
gɛ̀gɛ́jɛ́ ‘(mouse) nibble’
gɔ̀gɔ́ ‘gnaw’
jɔ̀lɔ́ ‘(tree branch) sag down’
kɛ́lɛ́ ‘dig (channel)’
kɛ́mɛ́ ‘become skinny’
kɔ́mɔ́ ‘become lean’
kɔ̃mɔ́ ‘tie’
kɔ́lmɔ́ ‘snap fingers’ (kɔ̀lmɔ́ kɔ́lmɔ́)
kɔ́ŋɔ́ ‘eat scrapings’
kʊ́lɔ́ ‘break up into subgroups’
lɔ́lɔ́ ‘be punctured’
nɛ̀ŋɛ́ nɛ̀ŋɛ́ ‘cook sauce’

ónɔ ‘praise’
ɔ́nɔ ‘be tired’
péjé ‘pound in mortar with a little water’
púјɔ ‘gush out’
sɔ́mnɔ ‘shout’
sónɔ ‘lift (heavy rock)’
súјɔ ‘wipe’
súјɔ ‘blow (horn, whistle)’
témɛ́ ‘tamp down (earth, on roof)’
téwⁿɛ́ ‘munch’
tónɔ ‘rebound’
tɔ́nɔ ‘harvest by breaking stalk’
úlɔ́ ‘go up’
wă: ‘pull back up (boubou)’
wɛ̀nɛ́ ‘cut (skin) lightly’
yɔ̀jɔ ‘strike (sth on ground)’
yɔ̀nɔ ‘pull up (pants)’

for checking:
níné ‘breathe’ nínú

10.1.2 Suffixes and chained verbs

In the preceding section it was pointed out that the verb form used in nonfinal position in verb-chains is also found in the unsuffixed perfective, the perfective-1b, the experiential perfect, and the recent perfect, while the verb form underlying the perfective-1a is indeterminate due to vv-Contraction. It is reasonable to conclude that the chaining stem is regular in the perfective positive system, excluding forms based on the past clitic *=bé-*.

One possible partial explanation for this distribution is that the perfective-1b (and -1a) and the two perfect categories are structured as verb chains, i.e. with a final auxiliary verb rather than a suffix as such. (This would not, however, account for the unsuffixed perfective.)

get relative-clause data with pronominal subject for
perfective-1a
perfective-1b
experiential perfect
recent perfect

10.1.3 Verb stem shapes

Underived verbs have from one to three syllables. Derivational suffixes usually add one syllable each (chapter 9), but are treated for inflectional purposes like underived verbs.

Verb stems end in vowels, except for a handful of stems, like *túy* 'send', which ends in *y*. The vowel is long for monosyllabic *Cv:* (one verb, 'see', reduces to short *Cv-* in the perfective negative). Nonmonosyllabic stems may have a long vowel in the initial syllable, but noninitial syllables including the final syllable have short vowels.

The immediately following sections go over phonological types of verb stem based on syllable count and tone contour.

10.1.3.1 *Cv* and *Cv:* verb stems (except *Ci:*)

Cv is not a basic lexical shape for regularly inflectable verb stems, but *gɛ̌* 'say' has this shape: *gɛ̌ = bé-* 'said' (

All known *Cv:* verb stems are listed in this section. There are two main types, depending on whether a *-y* suffix is present in the paradigm. This suffix corresponds to *-u* (sometimes zeroed) in nonmonosyllabic stems.

In (xx1) are verbs with *Cv:* shape in several paradigmatic forms including the imperative, but with *Cv-y* in the chaining stem. This includes all *Ca:* verbs, and a handful of *Cɔ:*, *Co:*, and *Ce:* verbs. The forms shown are the chaining stem, the past form with clitic *= bé*, the perfective negative, and the imperative.

(xx1) *Cv:* verbs with *-y* suffix

	chain	Past (*= bé*)	PerfNeg	Imprt	gloss
	a. initial voiceless obstruent, /H/-toned				
	káy	*ká: = bé*	*kǎ:-l*	*ká:*	'shave'
	káy	*ká: = bé*	*kǎ:-l*	*ká:*	'eat (meal)' (noun *jâ:*)
verif	*láy*	*lá: = bé*	*lǎ:-l*	*lá:*	'choose, reserve'
	páy	*pá: = bé*	*pǎ:-l*	*pá:*	'find a mate for, pair with'
	sáy	*sá: = bé*	*sǎ:-l*	*sá:*	'dredge out'
	sáy	*sá: = bé*	*sǎ:-l*	*sá:*	'shine'
	sáy	*sá: = bé*	*sǎ:-l*	*sá:*	'reply'
	sáy	*sá: = bé*	*sǎ:-l*	*sá:*	'sneeze' (with *éjígílɛ̀*)
	táy	*tá: = bé*	*tǎ:-l*	*tá:*	'shoot'
	táy	*tá: = bé*	*tǎ:-l*	*tá:*	'avoid (respect) a taboo'
	nasalized vowel				

	sáy^{n}	*sá:^{n}=bé*	*sǎ:^{n}-n*	*sá:^{n}*	‘urinate’ (with noun *ìsán*)

b. initial voiced obstruent, mostly /LH/-toned

regular, with {LH} tones except in Imprt

	bǎy	*bǎ:=bé*	*bǎ:-l*	*bá:*	‘beat (tomtom)’
	bǎy	*bǎ:=bé*	*bǎ:-l*	*bá:*	‘suffice’
	dǎy	*dǎ:=bé*	*dǎ:-l*	*dá:*	‘kill’
	dǎy	*dǎ:=bé*	*dǎ:-l*	*dá:*	‘tell (riddle)’
ch	*dǰy*	*dǰ:=bé*	*dǰ:-l*	*dǰ:*	‘arrive’
	gǎy	*gǎ:=bé*	*gǎ:-l*	*gá:*	‘do follow-up harvest’

as above, but irregularly H-toned

ch	*jáy*	*já:=bé*	*jǎ:-l*	*já:*	‘take, convey’

nasalized vowel

ch	*gǎy^{n}*	*gǎ:^{n}=ˡbé*	*gǎ:^{n}-n*	*gá:^{n}*	‘twist limb around’

c. /H/- or /LH/-toned, initial sonorant or no initial consonant

regular {H} type as in (a)

	áy	*á:=bé*	*ǎ:-l*	*á:*	‘catch, grab’
	yáy	*yá:=bé*	*yǎ:-l*	*yá:*	‘spend night’ (noun *bǎ:*)
ch	*yéy*	*yé:=bé*	*yé:-l*	*yé:*	‘sleep’ (with noun *gìrî:*)
ch	*yóy*	*yó:=bé*	*yǒ:-l*	*yó:*	‘go in; get involved in’

{LH} as in (b)

	wǎy	*wǎ:=bé*	*wǎ:-l*	*wá:*	‘pull back up (boubou)’

{LH}, irregularly remaining {LH} in Imprt

	yǎy	*yǎ:=bé*	*yǎ:-l*	*yǎ:*	‘go’

There are no segmental phonological problems in (xx1). Tonally, we see a general correlation of voicing of initial obstruents with basic tone contour, /H/ after voiceless and /LH/ after voiced. The tonal opposition is neutralized in the imperative, which shifts to {H} for both tonal types, and in the perfective negative, which has {LH}. Stems beginning in sonorants (necessarily voiced), as in (xx1.c), are lexically either /H/ or /LH/. Most are /H/. ‘Go’ is /LH/ toned and irregularly fails to shift to {H} in the imperative.

(xx2) presents the *Cv:* verbs that do not take the *-y* suffix in the chaining stem. The vowel quality is mid-height {*o ɔ e ɛ*}. ‘See’ (xx1.c) is short-voweled in the perfective negative (*yé-l* instead of expected #yé:-l). *lɛ́:* ‘fear’ is arguably *l-ɛ́:* with mediopassive suffix, which would account for the *i:* in the chaining stem. However, no other case of mediopassive *C-ɛ́:* is known, and the monosyllabicity of the verb makes segmentation difficult. The causative is *lí:-rɛ́-mɔ́* ‘scare, frighten’. Cognate nouns are *lì-lɛ̌:* and *lɛ̂:* ‘fear’. The evidence on balance points to unsegmented *lɛ̌:*, with irregular chaining stem lĭ: .

(xx2) *Cv:* verbs without *-y* suffix in the chaining stem

	chain	Past (= *bé*)	PerfNeg	Imprt	gloss
	a. initial voiceless obstruent, /H/-toned				
	kɔ́:	*kɔ́: = ˈbé*	*kɔ̌:-l*	*kɔ́:*	‘pick (fruit)’
	kɔ́:	*kɔ́: = ˈbé*	*kɔ̌:-l*	*kɔ́:*	‘raise (child, livestock)’
	kó:	*kó: = ˈbé*	*kǒ:-l*	*kó:*	‘turn inside-out (socks, pocket); roll up (pants)’
	pɛ́:	*pɛ́: = ˈbé*	*pɛ̌:-l*	*pɛ́:*	‘tap’
	pɛ́:	*pɛ́: = ˈbé*	*pɛ̌:-l*	*pɛ́:*	‘get old’
	pɔ́:	*pɔ́: = ˈbé*	*pɔ̌:-l*	*pɔ́:*	‘slap on (mud)’
	sɛ́:	*sɛ́: = ˈbé*	*sɛ̌:-l*	*sɛ́:*	‘trim’
	sɔ́:	*sɔ́: = ˈbé*	*sɔ̌:-l*	*sɔ́:*	‘speak’ (with noun *sɔ̌:*)
	sɔ́:	*sɔ́: = ˈbé*	*sɔ̌:-l*	*sɔ́:*	‘take a handful’
	tɔ́:	*tɔ́: = ˈbé*	*tɔ̌:-l*	*tɔ́:*	‘take apart (wall); take out (daily rations)’
	tɔ́:	*tɔ́: = ˈbé*	*tɔ̌:-l*	*tɔ́:*	‘spit’ (with noun *yù:jǎ:*)
	nasalized vowel				
	kɛ́:ⁿ	*kɛ́:ⁿ = ˈbé*	*kɛ̌:ⁿ-n*	*kɛ́:ⁿ*	‘slaughter (cut throat); saw’
verif	*kɔ́:ⁿ*	*kɔ́:ⁿ = ˈbé*	*kɔ̌:ⁿ-n*	*kɔ́:ⁿ*	‘pull in (stomach); bray’
verif	*pá:ⁿ*	*pá:ⁿ = ˈbé*	*pǎ:ⁿ-n*	*pá:ⁿ*	‘lay across’
verif	*pá:ⁿ*	*pá:ⁿ = ˈbé*	*pǎ:ⁿ-n*	*pá:ⁿ*	‘(pond) dry up’
verif	*pɛ́:ⁿ*	*pɛ́:ⁿ = ˈbé*	*pɛ̌:ⁿ-n*	*pɛ́:ⁿ*	‘strike (sth, against sth)’
verif	*sɔ́:ⁿ*	*sɔ́:ⁿ = ˈbé*	*sɔ̌:ⁿ-n*	*sɔ́:ⁿ*	‘tremble’
verif	*sɔ́:ⁿ*	*sɔ́:ⁿ = ˈbé*	*sɔ̌:ⁿ-n*	*sɔ́:ⁿ*	‘douse (fire)’
verif	*sɔ́:ⁿ*	*sɔ́:ⁿ = ˈbé*	*sɔ̌:ⁿ-n*	*sɔ́:ⁿ*	‘put a thorn-branch fence around’ (*[jì-jǐ: lé] sɔ́:ⁿ*)
verif	*tɔ́:ⁿ*	*tɔ́:ⁿ = ˈbé*	*tɔ̌:ⁿ-n*	*tɔ́:ⁿ*	‘wrap by coiling’
	b. initial voiced obstruent, /LH/-toned				
	bɔ̌:	*bɔ̌: = ˈbé*	*bɔ̌:-l*	*bɔ́:*	‘bury; unsheathe’
	dɛ̌:	*dɛ̌: = ˈbé*	*dɛ̌:-l*	*dɛ́:*	‘learn’
	dɛ̌:	*dɛ̌: = ˈbé*	*dɛ̌:-l*	*dɛ́:*	‘burn’
	gǒ:	*gǒ: = ˈbé*	*gǒ:-l*	*gó:*	‘go out’
	nasalized vowel				
	gŭ:ⁿ	*gŭ:ⁿ = ˈbé*	*gŭ:ⁿ-n*	*gú:ⁿ*	‘murmur’ (with noun *gù-gû:ⁿ*)
	c. initial sonorant or no initial *C* /H/-toned, nasalized				

verif	*ɛ́:ⁿ*	*ɛ́:ⁿ = ˈbé*	*ɛ̌:ⁿ-n*	*ɛ́:ⁿ*	‘be tight, hard; (woman) marry (man)’
	/H/-toned, vowel shortens to Cv- in PerfNeg				
verif	*yé:*	*yé: = ˈbé*	*yé-l*	*yé:*	‘see’
	/LH/-toned				
	mɛ̌:	*mɛ̌: = ˈbé*	*mɛ̌:-n*	*mɛ́:*	‘(rain) fall’ (subject is *àrⁿá* ‘rain’)
	mɛ̌:	*mɛ̌: = ˈbé*	*mɛ̌:-n*	*mɛ́:*	‘be ground into powder’
	mɔ̌:	*mɔ̌: = ˈbé*	*mɔ̌:-n*	*mɔ́:*	‘pick (individual plant sprouts)’
	mɔ̌:	*mɔ̌: = ˈbé*	*mɔ̌:-n*	*mɔ́:*	‘laugh’ (with noun *mɔ̂yⁿ*)
	nɛ̌:	*nɛ̌: = ˈbé*	*nɛ̌:-n*	*nɛ́:*	‘sing’ (with noun *nɛ́:*)
	nɛ̌:	*nɛ̌: = ˈbé*	*nɛ̌:-n*	*nɛ́:*	‘(part of fruit) ripen’
	nɔ̌:	*nɔ̌: = ˈbé*	*nɔ̌:-n*	*nɔ́:*	‘drink’
	wɛ̌:	*wɛ̌: = ˈbé*	*wɛ̌:-l*	*wɛ́:*	‘winnow (in wind)’
	wɔ̌:	*wɔ̌: = ˈbé*	*wɔ̌:-l*	*wɔ́:*	‘(tree) be defoliated’
	/LH/-toned, nasalized				
	gɛ̌:ⁿ	*gɛ̌:ⁿ = ˈbé*	*gɛ̌:ⁿ-n*	*gɛ́:ⁿ*	‘request’
d.	*mediopassive-looking i: in chaining stem*				
	bǐ:	*bɛ̌: = ˈbé*	*xxx-l*	*xxx*	‘stay’
	lí:	*lɛ́: = ˈbé*	*xxx-l*	*xxx*	‘fear’

10.1.3.2 *Ci:* and *Cuy* verbs

The difficulty with *Ci:* is that there is no audible difference between *Ci:* and *Ciy* (before word-boundary or *C*-initial perfective suffix). For a verb like ‘weep’ heard as *Ci:* (xx1.a), one could posit any of the following as the lexical representation: a) *Ci:* remaining as such in all forms; b) *Ci:* becoming *Ci-y* in the chaining stem; or c) *Ciy*. That option (c) is not out of the question is shown by the existence of *Cuy* verbs (xx1.b-c).

(xx1) *Ci:* and *Cuy* verbs

	chain	Past (*= bé*)	PerfNeg	Imprt	gloss
a.	*kí:*	*kí: = ˈbé*	*kí:-l*	*kí:*	‘flip over’
	pí:	*pí: = ˈbé*	*pí:-l*	*pí:*	‘weep loudly; (animal) call’ (with noun *pí:*)
	nasalized vowel				
	dǐ:ⁿ	*dǐ:ⁿ = ˈbé*	*dǐ:ⁿ-n*	*dí:ⁿ*	‘lie down’

	jǐ:ⁿ	*jǐ:ⁿ = ˈbé*	*jǐ:ⁿ-n*	*jí:ⁿ*	‘fart’ (with noun *jî:ⁿ*)
b.	*túy*	*túy = ˈbé*	*túy-l*	*túy*	‘send’
	kúy	*kúy = ˈbé*	*kúy-l*	*kúy*	‘re-pound’
	kúy	*kúy = ˈbé*	*kúy-l*	*kúy*	‘cover with animal hide’

dict also kí: ‘cover (e.g. chicken)’, same as kúy ??

c.	*gŭyⁿ*	*gŭyⁿ = ˈbé*	*xxx-l*	*xxx*	‘steal, rob’
	mŭyⁿ	*mŭyⁿ = ˈbé*	*xxx-l*	*xxx*	‘soak; draw (liquid)’

‘Weep’, ‘send’, and ‘re-pound’ begin with voiceless obstruents and so have {H}-toned paradigms. ‘Steal, rob’ begins with a voiced obstruent and so has an {LH}-toned paradigm. ‘Draw liquid’ begins with a nasal, which allows either {H} or {LH}, in this case {LH} as a lexical choice.

10.1.3.3 Regular bisyllabic stems

There are two main types of bisyllabic (and longer) stems. One type has final *u*, which is deleted by phonological rule in some positions, in the chaining stem. This corresponds to *y* in the monosyllabic verbs described above. The other type of bisyllabic and longer stems lacks this ending.

Stem shapes are *CvCv*, *Cv:Cv*, and *CvCCv*, with *CvCv* predominant. The initial *C* position may be vacant (*vCv*, etc.). Disregarding the *-u* suffix, the attested vowel-quality sequences are *a…a*, *ɛ…ɛ*, *e…e*, *ɔ…ɔ*, *o…o* (i.e. identical non-high vowels), and *i…e*, *i…ɛ*, *u…o*, and *u…ɔ* (i.e. high vowel followed by a mid-height vowel with the same backness and rounding features). This restriction applies to native Dogon verb stems, not necessarily to new loanwords.

A sample of bisyllabic verbs with *-u* suffix is (xx1). This type includes all known *CaCa-* stems, along with many bisyllabic stems beginning with a high vowel. The *-u* suffix is normally realized as zero after sonorants and *b*, though there is sometimes an audible trace of the rounding (not shown here).

(xx1) *CvCv* verbs with final *u* in chaining stem

	chain	Past (*= bé*)	PerfNeg	gloss
a. with *a…a* vocalism				
initial voiceless obstruent, {H}-toned				
	táb(ú)	*tábá = ˈbé*	*tábá-l*	‘touch’
initial voiced obstruent, {LH}-toned				

	jǎŋ	*jàŋá = ˡbé*	*jàŋǎ-n*	‘pound (grain with water)’
	bǎr	*bàrá = ˡbé*	*bàrǎ-l*	‘help’ or ‘add’
	initial sonorant or no C, {H}-toned except {LH} in PerfNeg			
	lágú	*lágá = ˡbé*	*làgǎ-l*	‘hit’
	initial sonorant or no C, {LH}-toned			
	wǎl	*wàlá = ˡbé*	*wàlǎ-l*	‘do farm work’

b. with high vowel followed by mid-height vowel

	initial voiceless obstruent, {H}-toned			
	píjú	*píjé = ˡbé*	*píjé-l*	‘spray’
	sím	*símɛ́ = ˡbé*	*símɛ́-n*	‘roast’
	initial voiced obstruent, {LH}-toned			
	gǔl	*gùló = ˡbé*	*gùlǒ-l*	‘dig’
	bǐl	*bìlé = ˡbé*	*bìlě-l*	‘flip’
	wìjí	*wìjé = ˡbé*	*wìjě-l*	‘wave (sth)’
	initial sonorant or no C, {H}-toned e			
xx	*yím*	*yíwⁿɛ́ = ˡbé*	*yìwⁿɛ̌-n-∅*	‘die’ (/wⁿ/ shifts to *m*)
xx	*úbú*	*úbó = ˡbé*	*úbó-l*	‘apply compress’
	initial sonorant or no C, {LH}-toned			
	nǔm	*nùmɔ́ = ˡbé*	*nùmɔ̌-n*	‘fall’

c. with identical mid-height vowels

	initial sonorant or no C, {H}-toned			
	ób(ú)	*óbó = ˡbé*	*óbó-l*	‘give’

All *CvvCv* (excluding causative *Cvv-Cv*) and all *CvCCv* verbs have this type of chaining form since they count as prosodically heavy stems (xx2).

(xx2) *CvvCv* and *CvCCv* verbs (all have final *u* in chaining stem)

	chain	Past (= *bé*)	PerfNeg	gloss
a. *CvvCv*				
	with medial a vowel			
	tá:rú	*tá:rá = ˡbé-*	*tá:rá-l*	‘show’
	wǎ:jú	*wǎ:já = ˡbé-*	*wà:jǎ-l*	‘advise’
	wǎ:n	*wǎ:rⁿá = ˡbé-*	*wà:rⁿǎ-n*	‘mix’
	mǎ:nú	*mǎ:ná = ˡbé-*	*mà:nǎ-n*	‘think’
	with medial nonlow vowel			
	mɔ̌:-n(ú)	*mɔ̌:-nɔ́ = ˡbé-*	*mɔ̀:-nɔ̌-n*	‘assemble’
	tɔ́:ɲú	*tɔ́:ɲɔ́ = ˡbé-*	*tɔ́:ɲɔ́-n*	‘provoke’
	ké:nú	*ké:nɛ́ = ˡbé-*	*ké:nɛ́-n*	‘keep’
	kú:-l	*kú:-ló = ˡbé-*	*kú:-ló-l*	‘shuck (corn cob)’

	sí:rú	*sí:ré = ˡbé-*	*sí:ré-l*	‘point at, aim at’
	b. *CvCCv*			
	dɔ̌lgú	*dɔ̌lgɔ́ = ˡbé-*	*dɔ̀lgɔ̌-l*	‘ransom, bail out’
	jɔ̌m-nɔ́	*jɔ̌m-nɔ́ = ˡbé-*	*jɔ̀m-nɔ̌-n*	‘drive (vehicle)’
	kɔ́lmú	*kɔ́lmɔ́ = ˡbé-*	*kɔ́lmɔ̌-n*	‘snap fingers’
verif	*sélmú*	*sélmé = ˡbé-*	*sélmé-n*	*‘ask’*
	yămŋú	*yămŋɛ́ = ˡbé-*	*yàmŋɛ̌-n*	‘rub, scrub’
	mediopassive			
	sáwl-í:	*sáwl-é: = ˡbé-*	*sáwl-é:-l*	‘get wise’
verif	*măyn-í:*	*măyn-é: = ˡbé-*	*màyn-ɛ̌:-l*	‘work up energy’
	other suffixal derivation			
	káw-gú	*káw-gá = ˡbé-*	*káw-gá-l*	‘separate’

The majority of prosodically light bisyllabic (*CvCv*) verbs with other than *a…a* vocalism, especially those with -ATR vowels, fail to take the *-u* suffix. The chaining stem of these verbs is therefore identical to the bare, subject to any tonal changes controlled by inflectional suffixes. A sample is given in (xx3).

(xx3) *CvCv* verbs without *-u* suffix

	chain	Past (*= bé*)	PerfNeg	gloss
	a. with identical vowels			
	initial voiceless obstruent, {H}-toned			
	tɛ́wⁿɛ́	*tɛ́wⁿɛ́ = ˡbé*	*tɛ́wⁿɛ́-n*	‘eat (meat)’
	kɔ́mɔ́	*kɔ́mɔ́ = ˡbé*	*kɔ́mɔ̌-n*	‘tie’
	initial voiced obstruent, {LH}-toned			
	jɔ̀bɔ́	*jɔ̀bɔ́ = ˡbé*	*jɔ̀bɔ̌-l*	‘run’
	wòró	*wòró = ˡbé*	*wòrǒ-l*	‘pull down hard’
	initial sonorant or no C, {LH}-toned			
	wɛ̀lɛ́	*wɛ̀lɛ́ = ˡbé*	*wɛ̌:-l*	‘come’ (PerfNeg contracted)
	mɛ̀nɛ́	*mɛ̀nɛ́ = ˡbé*	*mɛ̀nɛ̌-n*	‘roll up’
	b. with high vowel followed by mid-height vowel			
	initial voiceless obstruent, {H}-toned			
	púŋɔ́	*púŋɔ́ = ˡbé*	*púŋɔ̌-n*	‘roast in oven’
	púlú	*púló = ˡbé*	*púló-l*	‘(sth) snap’
	initial voiced obstruent, {LH}-toned			
	bùmɔ́	*bùmɔ́ = ˡbé*	*bùmɔ̌-l*	‘drag’
	bìnɛ́	*bìnɛ́ = ˡbé*	*bìnɛ̌-n*	‘bend’
	initial sonorant or no C, {H}-toned			
xx	*ílɛ́*	*ílɛ́ = ˡbé*	*ílɛ́-l*	‘ripen’

úrɔ́	*úrɔ́ = ˡbé*	*úrɔ-l*	‘skin and butcher’
initial sonorant or no C, {LH}-toned			
mìŋɛ́	*mìŋɛ́ = ˡbé*	*mìŋɛ̌-l*	‘sprinkle’

10.1.3.4 Trisyllabic stems

Regular underived trisyllabic stems have the *-u* suffix (often deleted after an unclustered sonorant) in the chaining stem. This chaining stem also requires a high vowel in the middle syllable, except in causative suffixal derivatives. There is some variation between *i* and *u* medially, and even finally, mainly assimilating in frontness to nearby vowels In {LH} stems, the tone break is after the first syllable in the bare and chaining stems, though the L-tone extends to the right edge in the perfective negative. Examples of the vocalic patterns are in (xx1).

(xx1) Trisyllabic verbs with *-u*

	chain	Past (= *bé*)	PerfNeg	gloss
	a. initial *Ca*…			
	medial a in bare stem			
	ą́ɲí-rí	*ą́ɲá-rá = bé*	*ą́ɲá-rá-n*	‘humiliate mildly’
	dàŋú-rú	*dàŋá-rá = bé*	*dàŋà-rǎ-n*	‘make (sth) good’
verif	*mànínŋ*	*mànáŋá = bé*	*mànàŋǎ-n*	‘worry’
	mar^{n}í-n	*màr^{n}á-ná = bé*	*màr^{n}à-nǎ-n*	‘unseal’
	medial high vowel in bare stem			
verif	*kájúbú*	*kájúbá = bé*	*kájúbá-n*	‘watch over’
	b. initial *Ce*…, *Cɛ*…, *Co*…, *Cɔ*…			
	dɛ̀bí-l	*dɛ̀bɛ́-lɛ́ = bé*	*dɛ̀bɛ̂-lɛ̌-l*	‘uncover (opening)’
	gòrúl	*gòróló = bé*	*gòròlǒ-l*	‘uncover, remove blanket from’
	kóbúl	*kóbóló = bé*	*kóbóló-l*	‘crack open’’
	pégúrú	*pégéré = bé*	*pégéré-l*	‘winnow (shaking)’
	pɔ́búl-í:	*pɔ́búl-é: = bé*	*pɔ́búl-é:-l*	‘whistle’
verif	*tɛ́w^{n}(ú)r^{n}ú*	*tɛ́w^{n}ér^{n}ɛ́ = bé*	*tɛ́w^{n}ér^{n}ɛ́-n*	‘counsel formally’
	wègíjí	*wègéjé = bé*	*wègèjɛ̌-l*	‘dig by scooping sand’
	wɔ̀gúl	*wɔ̀gɔ́lɔ́ = bé*	*wɔ̀gɔ̀lɔ̌-l*	‘scoop out (grain)’
	yègír	*yègéré = bé*	*yègèrɛ̌-l*	‘get ready’
	yègúrú	*yègéré = bé*	*yègèrɛ̌-l*	‘jiggle (baby on back)’

c. initial *Ci…*, *Cu…*

medial high vowel in all stems

	jìgíbú	*jìgíbú = bé*	*jìgìbě-l*	‘shake’
verif	*gìrím-í:*	*gìrím-é: = bé*	*gìrim-ě:-n*	‘shake’

medial nonhigh vowel in bare stem

	kúgúl	*kúgɔ́lɔ́ = bé*	*kúgɔ́lɔ́-l*	‘fish out’
verif	*túgújú*	*túgɔ́jɔ́ = bé*	*túgɔ́jɔ́-n*	‘mix (leaves and grains)’
	újúrú	*újóró = bé*	*újóró-l*	‘ask’
	tímí-rú	*tímɛ́-rɛ́ = bé*	*tímɛ́-rɛ́-l*	‘put a lid on’
	yìgírí	*yìgéré = bé*	*yìgèrě-l*	‘sprinkle in’

10.2 Positive indicative AN categories

10.2.1 Perfective positive system (including perfect)

To report events already completed by the moment of speaking, the options in (xx1) are available.

(xx1) Perfective positive system

a. forms based on the bare stem (always without *-u* ~ *-y*)

= bé	past
-â:y, *-à:y*	perfective-1a (motion verbs, statives)

b. forms based on chaining stem (for some verbs with *-u* ~ *-y*)

-tì	perfective-1b (action verbs, mostly transitive)
-jè:	recent perfect
-térɔ̀:	experiential perfect

The simple past form is unmarked functionally, and is regular in reporting events relatively remote in time (among other things). The perfective-1 has different forms for (transitive) action verbs and for motion and stative verbs. For the motion and stative verbs, perfective-1a (*-â:y* or *-à:y*) tends to have resultative connotations, denoting an event or transition that has continuing consequences (‘he went’ = ‘he is away, not here’). perfective-1b *-tì* also has such connotations. However, it is avoided with some verbs, though generally at least elicitable with verbs that do not take the perfective-1a.

10.2.1.1 Simple past (*=bé-*)

The **bare stem** (without suffix) plus past clitic *=bé* is a common simple past perfective form. The paradigm is exemplified by the verb 'hit', compare chaining form *lágú*. The H-toned suffix is downstepped, i.e. slightly lower than the final H-tone of the stem.

(xx1) Simple past of 'hit'

1Sg	*lágá=ˈbé-m*
2Sg	*lágá=ˈbé-w*
3Sg	*lágá=ˈbé-∅*
1Pl	*lágá=ˈbéːⁿ*
2Pl	*lágá=ˈbé-y*
3Pl	*lágá=ˈbéːⁿ*

{LH} verb dàgá 'leave', nɔ̌: 'drink'

The simple past is also used in past perfect contexts, as in 'I had seen the film (so I didn't go with the others to see it yesterday)'. This is likely to have been the original meaning, to judge by the morphology and by parallels in some other Dogon languages.

Under negation, the distinction between simple-past and past-perfect functions is made explicit. In simple-past function, the regular negation is by the perfective negative (§10.xxx, below). In past-perfect function, the past perfect negative can be used (§10.5.xxx, below).

10.2.1.2 Unsuffixed perfective

The **chaining stem**, with all L-tones but with no AN suffix, replaces the simple past and the perfective-1 in the presence of a preceding constituent that is either overtly focalized (focus clitic *=y*) or has some claim (however weak) to being focal. I call this the **unsuffixed perfective**. It requires the presence of some preceding nonpronominal constituent (subject, object, adverb, etc.) which can count as more or less focalized. Except when the subject itself is overtly focalized, pronominal-subject suffixes are added directly to the chaining stem (xx1.a-b). In subject-focalized clauses, there is no pronominal-subject suffixation (alternatively, one could argue for invariant 3Sg zero subject-marking) (xx1.c).

(xx1) a. *èrⁿé=ý* [L]*èbè-m*
goat=Foc [L]buy.Perf-1SgS
'It's a goat [focus] that I bought.' (i.e. not a sheep)

b. *[péjú gɔ̀]* *yá:* [L]*èb-è:ⁿ*
[sheep Def] yesterday [L]buy.Perf-1PlS
'It was yesterday [focus] that we bought the sheep.'

c. *[nă: ŋè]* *mú* [L]*èbè*
[cow Def] 1Sg [L]buy.Perf
'It's I [focus] who bought the sheep.'

Sample paradigms are in (xx2).

(xx2) Unsuffixed perfective paradigm

category	suffix	'buy'	'arrive'	'shave'
1Sg	*-m*	[L]*èbè-m*	[L]*dɔ̀y-m̀*	[L]*kày-m*
2Sg	*-w*	[L]*èbè-w*	[L]*dɔ̀y-ẁ*	[L]*kày-ẁ*
3Sg	*-∅*	[L]*èbè-∅*	[L]*dɔ̀y-∅*	[L]*kày-∅*
1Pl	*-è:ⁿ*	[L]*èb-è:ⁿ*	[L]*dɔ̀y-è:ⁿ*	[L]*kày-è:ⁿ*
2Pl	*-y*	[L]*èbè-y*	[L]*dɔ̀y-ỳ*	[L]*kày-ỳ*
3Pl	*-è:ⁿ*	[L]*èb-è:ⁿ*	[L]*dɔ̀y-è:ⁿ*	[L]*kày-è:ⁿ*

Some additional verbs are shown in (xx3) to demonstrate that the chaining stem (not the bare stem) is the basis for the unsuffixed perfective. This is obscure for the verbs in (xx3.a), but is clear for those in (xx3.b) since they have an overt suffix in the chaining stem.

3Sg/3Pl for 'go out'

(xx3) Unsuffixed perfective

	chain	bare stem	unsuff Perf (1Sg)	gloss
	a. verbs lacking *-y* or *-u* in the chaining stem			
	gǒ:	*gǒ:*	[L]*gò:-m*	'go out'
verif	*dɛ̀nɛ́*	*dɛ̀nɛ́*	[L]*dɛ̀nɛ̀-m*	'look for'
	b. verbs with *-y* or *-u* in the chaining stem			
	táb	*tábá*	[L]*tàbù-m*	'touch'

pégúrú	*pégéré*	^{L}*pègùrù-m*	‘winnow (shaking)’

10.2.1.3 Perfective-1a (*-à:y-*), Perfective-1b (*-tì-*)

There are two suffixally marked perfective forms that are used with different sets of verb stems.

Perfective-1a *-à:y-* is used with motion and stance verbs (‘go’, ‘sit down’), with deadjectival inchoatives and other non-active intransitives (e.g. ‘assemble [intr]’), and with a few low-impact transitives like ‘forget’. It is quite common with these verbs, especially when there is a connotation of a continuing state (resultative).

A sample paradigm is (xx1). The final *y* is deleted before a consonantal suffix (1Sg, 2Sg).

(xx1) Perfective-1a of ‘come’

1Sg	*wɛ̀l-â:-m*
2Sg	*wɛ̀l-â:-w*
3Sg	*wɛ̀l-â:y*
1Pl	*wɛ̀l-â:y^{n}*
2Pl	*wɛ̀l-â:y*
3Pl	*wɛ̀l-â:y^{n}*

The suffixal vowel absorbs the stem-final short vowel (i.e. for nonmonosyllabic stems). Monosyllabic *Cv:* stems shorten their vowel to *Cv-* before the suffix; if we think of these as really *Cvv* stems, we can argue that (again) the stem-final short vowel is absorbed by the suffixal vowel. After these contractions, if what is left of the stem still ends in a H-tone, the suffix is L-toned. However, contracted {LH}-toned monosyllabic and bisyllabic stems fuse their final H-tone element with the suffixal vowel, so the suffix appears with falling <HL> tone (*-â:y*). Longer {LH}-toned stems can express the H-tone element on the second syllable from the left, so the suffix is L-toned. We can therefore represent the suffix abstractly as /-à:y/, or even as /-ày/ if the surface vowel length is attributed to contraction of a suffixal vowel with the stem-final vowel. Indeed, *-ày* with short vowel is heard after mediopassive *-i:-*, the combination being *-í:y-ày* or *-ì:y-ày* (xx2.c).

(xx2) Tones of perfective-1a *-â:y*

chain	Perf1a	gloss

a. {H}-toned stem

yíw^{n}é	*yíw^{n}-à:y*	‘die’
yá:	*yá-à:y*	‘spend night’
yóy	*yó-à:y*	‘go in’
súgú	*súg-à:y*	‘go down’

b. {LH}-toned stem, monosyllabic or bisyllabic

yǎ:	*yà-â:y*	‘go’
dɔ̌:	*dɔ̀-â:y*	‘arrive’
dě:	*dè-â:y*	‘learn’
gǒ:	*gò-â:y*	‘go out’
dǐ:^{n}	*dǐ^{n}-â:y*	‘lie down’
jɔ̀bɔ́	*jɔb-â:y*	‘run’

c. Mediopassive

mɔ̀r^{n}-é:	*mɔ̀r^{n}-í:y-ày*	‘assemble [intr]’
dùnúl-é:	*dùnúl-í:y-ày*	‘roll [intr]’
kɔ́l-é:	*kɔ́l-ì:y-ày*	‘hang [intr]’

Perfective-1b *-tì* is in complementary distribution with the perfective-1a, so it does not occur with motion verbs, deadjectival inchoatives, and the like. It seems to be used under limited conditions where an event that has taken place has created a situation. It therefore competes with recent perfect *-jè:* .

-tì- is added to the **chaining stem**: *lágú-tì-* ‘hit’ (< *lágá*), *dàgú-tì-* ‘left, abandoned’ (< *dàgá*), *tóló-tì-* ‘pounded (in mortar)’. The suffixal vowel assimilates to *-tù-* before suffixal labials {*m w*}. A sample paradigm is (xx3).

(xx3) Perfective-1b of ‘hit’

1Sg	*lágú-tù-m*
2Sg	*lágú-tù-w*
3Sg	*lágú-tì-∅*
1Pl	*lágú-t-è:^{n}*
2Pl	*lágú-tì-y*
3Pl	*lágú-t-è:^{n}*

dɔ̀gɔ́ mí-ỳ á-à:y ‘I am ashamed’ (“shame has caught me”)
tìbú gɔ̀ áy jè-m ‘I caught the stone’

10.2.1.4 Experiential perfect ‘have ever’ (*-tɛ́rɔ̀ː-*)

This form is used in positive utterances of the type ‘have (ever, i.e. at any time in one’s life) VP-ed’. It is very common with verbs like ‘see’ and ‘hear’ that have strong experiential connotations (enduring memory). For its high-frequency negation *-tɛ́rú-*, see §10.xxx, below.

(xx1) *dùŋ-náː* *yéː-tɛ́rɔ̀ː-w* *mà→↑*
elephant see-ExpPf-2SgS Q
‘Have you-Sg ever seen an elephant’

The paradigm is (xx2).

(xx2) Experiential perfect of ‘see’

1Sg	*yéː-tɛ́rɔ̀ː-m*
2Sg	*yéː-tɛ́rɔ̀ː-w*
3Sg	*yéː-tɛ́rɔ̀ː-∅*
1Pl	*yéː-tɛ́rɔ̀ː-y^{n}*
2Pl	*yéː-tɛ́rɔ̀ː-y*
3Pl	*yéː-tɛ́rɔ̀ː-y^{n}*

chaining stem, try with ‘go out’ and ‘hit’
{LH} stem (‘come’, ‘drink’)

10.2.1.5 Recent perfect (*-jɛ̀ː-*)

This form emphasizes the recent completion of the event and may often be translated as ‘have finished VP-ing’. The verb occurs in the **chaining stem**, with no further tonal changes, as best seen with verbs that have stem-final *y* or *u* suffix in this form: *káy-jɛ̀ː-m* ‘I have finished eating’, *lágú-jɛ̀ː-m* ‘I have finished hitting’.

The paradigm is illustrated in (xx1).

(xx1) Recent perfect of ‘drink’

1Sg	*nɔ̌ː-jɛ̀ː-m*
2Sg	*nɔ̌ː-jɛ̀ː-w*
3Sg	*nɔ̌ː-jɛ̀ː-∅*

1Pl	*nə̌ː-jɛ̀ːⁿ*
2Pl	*nə̌ː-jɛ̂ː-y*
3Pl	*nə̌ː-jɛ̀ːⁿ*

Some of the verbs that are common with this suffix are those with meanings like ‘drink’, ‘eat’, ‘buy’, ‘snatch’.

10.2.1.6 Past irrealis (reduplicated *Cì-… =bé-*) ‘would have’

A form segmentally (but not tonally) identical to the simple past with *=bé-* can combine with an initial *Cì-* reduplication, always short-voweled. The vowel of the reduplicant is *i*, tending toward schwa-like articulation except when word-initial. It is (slightly) rounded to *u* before a back rounded vowel in the first syllable of the base, or before *w*. If the stem is vowel-initial, the reduplicant is just *ì-* (*ù-*), as in *ù-òbò=bé-* ‘would have given’, where a phonetic glottal stop separates the two vowels: [ù?òbòbé].

The combination of reduplicant and base is tonally flat, either {L} or {H}, while *=bé-* has its usual H-tone. {L} is found with verbs that are lexically /LH/, suggesting that the /LH/ is realized at word level (as in the perfective negative) with the tone break at the clitic boundary. However, {L} is also found with lexically /H/-toned monosyllabics and with some lexically /H/-toned bisyllabics that begin with a sonorant or with no consonant (xx1a). Therefore {H} is found only with nonmonosyllabic {H}-toned verbs, all of which begin with a voiceless obstruent (xx1b). Compare the tonal pattern in the perfective negative (§10.2.3.1).

(xx1)

	chain	Past	Past irrealis	gloss
a. L-toned reduplicated past stem				
{LH}-toned stem				
	nə̌ː	*nə̌ː=ˈbé-*	*nù-nɔ̀ː=bé-*	‘drink’
	dɛ̌ː	*dɛ̌ː=ˈbé-*	*dì-dɛ̀ː=bé-*	‘burn’
	jɔ̀bɔ́	*jɔ̀bɔ́=ˈbé-*	*jì-jɔ̀bɔ̀=bé-*	‘run’
	wɔ̀gúl	*wɔ̀gɔ́lɔ́=bé-*	*wɔ̀-wɔ̀gɔ̀lɔ̀=bé-*	‘scoop out (grain)’
{H}-toned monosyllabic				
	káy	*ká:=ˈbé-*	*kì-kà:=bé-*	‘eat’
	kɛ́ːⁿ	*kɛ́ːⁿ=ˈbé-*	*kì-kɛ̀ːⁿ=bé-*	‘slaughter’
{H}-toned nonmonosyllabic with initial sonorant or no C				
	lágú	*lágá=ˈbé-*	*lì-làgà=bé-*	‘hit’
	ób	*óbó=ˈbé-*	*ù-òbò=bé-*	‘give’
	ílɛ́	*ílɛ́=ˈbé-*	*ì-ìlɛ̀=bé-*	‘ripen’

b. H-toned reduplicated past stem

{H}-toned nonmonosyllabic with initial voiceless obstruent

kɔ́mɔ́	*kɔ́mɔ́ = ʰbé*	*kí-kɔ́mɔ́ = bé-*	'tie'
pégúrú	*pégéré = ʰbé*	*pí-pégéré = bé-*	'winnow (shaking)'

This reduplicated form is used in past irrealis contexts ('would have VP-ed'). For its negation (without reduplication), see §10.2.xxx, below.

10.2.2 Imperfective positive system

10.2.2.1 Imperfective (*-jɛ̀-*)

The imperfective form has suffix *-jɛ̀-* after the **bare stem**, which is unchanged segmentally. The suffix is omitted in the 1Pl/3Pl subject form. Suffix *-jɛ̀-* with short vowel is distinct from the long-voweled suffix *-jɛ̀:-* that marks the recent perfect (§10.xxx, above).

The imperfective suffix is added to the bare stem, not the chaining stem. The lexical tone contour is erased. The verb form is heard with {HL} tone overlay, with only the first mora H-toned: *pégèrè-jɛ̀-* 'winnow(s) (by shaking)', *dágà-jɛ̀-* 'leave(s), abandon(s)'. The initial H-tone is erased if there is a focalized constituent preceding the verb.

(xx1) Imperfective

chain	Imperfective	gloss
a. lexically {H} verbs		
káy	*kâ:-jɛ̀-*	'shave'
lágú	*lágà-jɛ̀-*	'hit'
tá:rú	*tâ:rà-jɛ̀-*	'show'
pégúrú	*pégèrè-jɛ̀-*	'winnow (shaking)'
b. lexically {LH} verbs		
nɔ̌:	*nɔ̂:-jɛ̀-*	'drink'
jɔ̀bɔ́	*jɔ́bɔ̀-jɛ̀-*	'run'
mɔ̌:-nú	*mɔ̂:-nɔ̀-jɛ̀-*	'assemble [tr]'
wɔ̀gúl	*wɔ́gɔ̀lɔ̀-jɛ̀-*	'scoop out (grain)'

The imperfective paradigm of 'fall' is illustrated in (xx2). The most striking feature is the omission of *-jɛ̀-* in the 1Pl/3Pl form.

(xx2) Imperfective of 'fall'

1Sg *númɔ̀-jɛ̀-m*
2Sg *númɔ̀-jɛ̀-w*
3Sg *númɔ̀-jɛ̀-∅*

try Inan, cf. *[kíné mɔ̀] élél-í:-gɛ̀ kɔ̀* 'my heart is sweet' (I am happy)

1Pl *númɔ̀-y*
2Pl *númɔ̀-jɛ̀-y*
3Pl *númɔ̀-y*

The imperfective is used in two functions: future ('I will run') , and generalized (habitual) present ('I run'). It is not used in progressive sense.

The reduplicated variant of this form, which is more explicitly future, is described in §10.2.xxx, below.

10.2.2.2 Present progressive (*-ẁ-wɔ̀-*, *-gù-wɔ̀-*, *-ŋ̀-wɔ̀-*)

The present progressive form has *-ẁ-wɔ̀-* (or *-gù-wɔ̀*, see below) after the **bare stem**, which is unchanged segmentally. If the bare stem ends in a nasal syllable (e.g. *na*, *r^{n}a*, *ka:^{n}*), the form is *-ŋ̀-wɔ̀-*, as in *nùmɔ́-ŋ̀-wɔ̀-* 'is/am/are falling', whose paradigm is (xx1).

(xx1) Present progressive of 'fall'

1Sg *nùmɔ́-ẁ-wɔ̀-m*
2Sg *nùmɔ́-ẁ-wɔ̀-w*
3Sg *nùmɔ́-ẁ-wɔ̀-∅*

1Pl *nùmɔ́-ẁ-wɔ̀-y^{n}*
2Pl *nùmɔ́-ẁ-wɔ̀-y*
3Pl *nùmɔ́-ẁ-wɔ̀-y^{n}*

The verb stem is allowed a single H-tone element, followed by L-tones to the end of the word. For {LH}-toned verbs, the initial L-tone is respected, so the H-tone occurs on the following mora, with any subsequent moras/syllables reverting to L-tone: *nɔ̌:-ŋ̀-wɔ̀-* 'is drinking', *wɔ̀gɔ́lɔ̀-ẁ-wɔ̀-* 'is scooping out'. For {H}-toned verbs, the first mora is H-toned and the remainder of the stem L-toned (as in the imperfective positive): *kâ:-ẁ-wɔ̀-* 'is shaving', *lágà-ẁ-wɔ̀-* 'is hitting', *pégèrè-ẁ-wɔ̀-* 'is winnowing (by shaking)'.

The suffix complex *-ẁ-wɔ̀-* resembles imperfective forms in other Dogon languages such as Jamsay, where the complex ends with (a variant of) 3Sg human/animate pronoun *wó* or *wɔ́*, contrasting with a similar complex ending in (a variant of) inanimate third person pronominal *wó* or *wɔ́*. However, in Yorno So this third-person animacy distinction is absent, and the 3Sg form *-ẁ-wɔ̀-∅* is used for inanimate as well as human/animate subject (§10.xxx). This makes the internal morphemic segmentation as *-ẁ-wɔ̀-* less than fully transparent for native speakers of Yorno So.

However, a likely trace of an older system may be seen in the past imperfective (§10.5.xxx), which has the same stem shapes and tones as the present progressive and a *-gù-* suffix (becoming *-ŋ-* after a nasal syllable) that is probably cognate to the *-ẁ-* in *-ẁ-wɔ̀-*. Indeed, *-gù-* was heard occasionally as a careful pronunciation of *-ẁ-* in *-ẁ-wɔ̀-*, i.e. in a variant *-gù-wɔ̀-*. Furthermore, in verbal participles of this AN category in nonsubject relatives, if a preverbal H-toned subject pronoun is present, it divides the present progressive into two parts, being inserted after the *-ẁ* (or *-ŋ̀*) and the *wɔ̀* morpheme (§14.1.7.2)

Though the morphology is not completely transparent, in interlinears I will gloss *-ẁ-wɔ̀-* as -Impf-Prog-.

The present progressive denotes actions that are in progress at the time of speaking or other reference time.

10.2.2.3 (Reduplicated) future (*Cí-…-jɛ̀-*)

The imperfective with *-jɛ̀-* can be reduplicated to produce a form that is explicitly future (rather than generalized present). The suffix *-jɛ̀-* is omitted in the 1Pl/3Pl form in both unreduplicated and reduplicated forms.

The reduplicant is segmentally similar to that of the reduplicated past (§10.xxx, above). However, it is H-toned (contrast the L-toned reduplicant in the reduplicated past). The stem and the suffix are L-toned. Therefore the reduplicated future and the closely related imperfective forms share the same overlaid {HL} contour and the same specification that only the first mora is H-toned. The imperfective also has an all L-toned form used after a focalized constituent; this is moot for the reduplicated future, which is normally replaced by the (unreduplicated) imperfective in focalized clauses.

The bare stem of the verb, not the chaining stem, is used in the reduplicated future. A sample paradigm is (xx1).

(xx1) Future of ‘fall’

1Sg	*nú-nùmɔ̀-jɛ̀-m*
2Sg	*nú-nùmɔ̀-jɛ̀-w*

3Sg	*nú-nùmɔ̀-jɛ̀-∅*
1Pl	*nú-nùmɔ̀-y^{n}*
2Pl	*nú-nùmɔ̀-jɛ̀-y*
3Pl	*nú-nùmɔ̀-y^{n}*

Examples from H-toned verbs: *kí-kà:-jɛ̀-* 'will shave', *lí-làgà-jɛ̀-* 'will hit'.

10.2.3 Negation of indicative verbs

The most common suffixed indicative negative verb forms are the perfective negative, the imperfective negative, and the present progressive negative. Other more specialized categories in the perfective system (experiential perfect, recent perfect) also have negative forms that include the perfective negative suffix.

A form with *=bɛ̀-lɛ́-*, the negation of past clitic *=bɛ́-*, functions as a past irrealis negative (§10.2.3.2).

10.2.3.1 Perfective negative (*-l-*, *-n-*)

The perfective negative has a primary suffixal allomorph that could be represented as underlying /-lV́-/ with some high vowel quality. The vowel appears as *u* before {*m w*}, as *i* before *y*, and as zero word-finally. The irregular 1Pl/3Pl form is *-nɛ́*. In the 3Sg, the usual form is *-l-∅*, but the lateral nasalizes to *-n-∅* following a nasal syllable (nasal or nasalized consonant plus vowel, or a syllable with a nasalized vowel): *nùmɔ̌-n-∅* 'he/she did not fall', *kɛ̌:^{n}-n-∅* 'he/she did not slaughter' (< *kɛ́:^{n}*).

Sample paradigms are in (xx1). Note 3Sg *-n-∅* after a nasal syllable versus *-l-∅* otherwise.

(xx1) Perfective negative

	'fall'	'hit'
1Sg	*nùmɔ̀-lú-m*	*làgà-lú-m*
2Sg	*nùmɔ̀-lú-w*	*làgà-lú-w*
3Sg	*nùmɔ̌-n-∅*	*làgǎ-l-∅*
1Pl	*nùmɔ̀-nɛ́*	*làgà-nɛ́*
2Pl	*nùmɔ̀-lí-y*	*làgà-lí-y*
3Pl	*nùmɔ̀-nɛ́*	*làgà-nɛ́*

The tones are similar to those of the (reduplicated) past irrealis (§10.2.1.6). The stem is {L}-toned before H-toned suffix if the verb is lexically /LH/-toned, suggesting that the /LH/ is applied at word-level with the tone break this time at the suffix rather than after the first mora. However, we also get {L}-toned stem before H-toned suffix for lexically /H/-toned monosyllabics and bisyllabics that begin with a sonorant or with no consonant (xx2a). In the 3Sg, the underlying H-tone of the suffix is heard as a final rise in the tone of the word-final syllable after the suffixal vowel is apocopated.

The stem and suffix are entirely {H}-toned if the verb is lexically /H/ and begins with a voiceless obstruent, and for some /H/-toned stems that begin with a sonorant or with no consonant (xx2b). The verb *yé:* 'see' shortens its vowel before the suffix: *yé-l-∅* 'he/she did not see', avoiding homophony with 'sleep' (xx2.b). In (xx2.a), note that 'go' and 'spend night' do have homophonous perfective negatives, though they differ tonally in some other contexts. Also in (xx2.a), 'come' contracts from expected #*wèlɛ̌-l-∅* to *wɛ̌:-l-∅*.

(xx2)	chain	PerfNeg (3Sg)	gloss
	a. {L}-toned in PerfNeg		
	/LH/-toned verb		
	yǎy	*yǎ:-l-∅*	'go'
	gǒ:	*gǒ:-l-∅*	'go out'
	bǐl	*bìlɛ̌-l-∅*	'flip'
	nùmɔ́	*nùmɔ̌-n-∅*	'fall'
	wèlɛ́	*wɛ̌:-l-∅*	'come'
	màníŋ	*mànìŋǎ-n-∅*	'think'
	/H/-toned verb with initial sonorant or no C		
	yáy	*yǎ:-l-∅*	'spend night' (*bá: yá:*)
	yóy	*yǒ:-l-∅*	'go in'
	lágá	*làgǎ-l-∅*	'hit'
	yím	*yìw^{n}ɛ̌-n-∅*	'die'
	b. {H}-toned in PerfNeg		
	/H/-toned verb with initial voiceless obstruent		
xx	*pí:*	*pí:-l-∅*	'weep' (with noun *pí:*)
	táb-∅	*tábá-l-∅*	'touch'
	pégúr-ú	*pégéré-l*	'winnow (shaking)'
	/H/-toned verb with initial sonorant or no C		
xx	*ób-∅*	*óbó-l-∅*	'give'
	ílɛ́	*ílɛ́-l-∅*	'ripen'
	yé:	*yé-l-∅*	'see'
	yé-y	*yé:-l-∅*	'sleep' (with noun *gìrî:*)

check tones for other Cv: and CvCv stems with initial sonorant/∅
same tones as in reduplicated past irrealis (§10.2.1.6)?

10.2.3.2 Past irrealis negative (*=bè-lé-*)

The simple past form with conjugated clitic *=bé-* corresponds morphologically to a negated form *=bè-lé-*. However, this functions as the negation of the reduplicated past ('would have', §10.2.xxx, above), and is translatable as a past negative irrealis 'would not have VP-ed'.

The *-lé-* element is presumably related to the perfective negative suffix (surface forms *-l-∅*, etc.), though the relationship is not transparent. Both *=bè-* and the stem are all L-toned.

(xx1) Past irrealis negative of 'hit'

1Sg	*làgà=bè-lé-m*
2Sg	*làgà=bè-lé-w*
3Sg	*làgà=bè-lé-∅*
1Pl	*làgà=bè-né*
2Pl	*làgà=bè-lé-y*
3Pl	*làgà=bè-né*

with clear /H/-toned verb: tóló 'pound'

10.2.3.3 Experiential perfect negative (*-tɛ́-rv́-*)

Experiential perfect *-tɛ́rɔ̀:-* (§10.2.xxx, above) has a negative counterpart with a suffix whose underlying form is probably *-tɛ́-rv́-* with underspecified final high vowel. The category is used in the sense 'have never VP-ed', as in *dùŋ* ^{L}*-ná: yé:-tɛ́-rú-m* 'I have never seen an elephant'.

The paradigm is illustrated in (xx1). The pronominal inflection has affinities to that of the perfective negative, notably the 1Pl/3Pl form, suggesting that *-tɛ́-rv́-* can be segmented into *-tɛ́-* allomorph of the experiential perfect and *-rv́-* allomorph of the perfective negative. However, the connection is not transparent, due to the different liquids (*r* versus *l*).

(xx1) Experiential perfect negative of 'see'

1Sg	*yé:-tɛ́-rú-m*

2Sg *yé:-té-rú-w*
3Sg *yé:-té-r-∅*

1Pl *yé:-té-né*
2Pl *yé:-té-rí-y*
3Pl *yé:-té-né*

10.2.3.4 Recent perfect negative (*-jě:-l-*)

The recent perfect ('have finished VP-ing') with suffix *-jè:-* (§10.2.xxx, above) can be negated to express the sense 'have not finished VP-ing'. Morphologically, the regular perfective negative endings are added to *-jè:-*. The verb has the same tones it has in the positive counterparts; in other words, the power of the perfective negative suffix to drop tones of the preceding morpheme extends only to the *-jè:-* suffix (which happens to already be L-toned), and does not extend farther to the left to affect the verb stem.

(xx1) Recent perfect negative of 'drink'

1Sg *nǒ:-jè:-lú-m*
2Sg *nǒ:-jè:-lú-w*
3Sg *nǒ:-jě:-l-∅*

1Pl *nǒ:-jè:-né*
2Pl *nǒ:-jè:-lí-y*
3Pl *nǒ:-jè:-né*

10.2.3.5 Imperfective negative (*-lè-*)

L-toned -lè (rewrite)
future negative?

This form negates the imperfective especially in present-habitual sense. That is, it denies that the event in question has occurred and will occur on both sides of the moment of speaking.

Sample paradigms are in (xx1). The suffix is *-lè-*. The irregular 1Pl/3Pl form *-ỳ-nè* is not fully transparent, but contains a *-nè* formative that is also found with the 1Pl/3Pl perfective negative and related forms.

(xx1) Imperfective negative

	‘does not go’	‘does not hit’

reconcile with lágá-lɛ̀ below

1Sg	*yǎ:-lɛ̀-m*	*lágà-lɛ̀-m*
2Sg	*yǎ:-lɛ̀-w*	*lágà-lɛ̀-w*
3Sg	*yǎ:-lɛ̀-∅*	*lágà-lɛ̀-∅*
1Pl	*yǎ:-ỳ-nɛ̀*	*lágà-ỳ-nɛ̀*
2Pl	*yǎ:-lɛ̀-y*	*lágà-lɛ̀-y*
3Pl	*yǎ:-ỳ-nɛ̀*	*lágà-ỳ-nɛ̀*

The stem has its bare form, with no tonal changes. Therefore {H}-toned stems are all-H toned, and {LH}-toned stems have a L-toned first mora followed by H-tones.

(xx2)	chain	Impf Neg	gloss
a. {LH}-toned			
	nɔ̌:	*nɔ̌:-lɛ̀-*	‘drink’
	jɔ̀bɔ́	*jɔ̀bɔ́-lɛ̀-*	‘run’
	wɔ̀gúl-∅	*wɔ̀gɔ́lɔ́-lɛ̀-*	‘scoop out (grain)’
b. {H}-toned			
	káy	*ká:-lɛ̀-*	‘eat’
	lágú	*lágá-lɛ̀-*	‘hit’
	pégúrú	*pégéré-lɛ̀-*	‘winnow (shaking)’

10.2.3.6 Present progressive negative (*-ẁ-wɔ̀-lɔ́-*)

Present progressive *-ẁ-wɔ̀-*, see §10.2.xxx, above, is negated as *-ẁ-wɔ̀-lɔ́-*. Glosses are of the form ‘is/are/am not working (now)’. A sample paradigm is (xx1), with verb *bìrɛ́* ‘work’.

(xx1) Present progressive negative of ‘work’

1Sg	*bìrɛ́-ẁ-wɔ̀-lɔ́-m*
2Sg	*bìrɛ́-ẁ-wɔ̀-lɔ́-w*
3Sg	*bìrɛ́-ẁ-wɔ̀-lɔ́-∅*

1Pl	*bìrɛ́-ẁ-wɔ̀-nɛ́*
2Pl	*bìrɛ́-ẁ-wɔ̀-lɔ́-y*
3Pl	*bìrɛ́-ẁ-wɔ̀-nɛ́*

10.3 Pronominal paradigms for non-imperative verbs

10.3.1 Subject pronominal suffixes

The suffixes for the singular categories and for 2Pl are consistent and readily segmentable. Each of these suffixes consists of a sonorant consonant, except for 3Sg zero. The suffixes have no intrinsic tone; the preceding tone is simply extended to include the suffix. 1Pl and 3Pl are syncretic, but the forms vary by AN category.

(xx1) Pronominal-subject suffixes on verbs

category	suffix
1Sg	*-m*
2Sg	*-w*
3Sg	*-∅*
2Pl	*-y*
1Pl = 3Pl	[see below]

For *i* ~ *u* alternations with *i* before suffixal *y* and *u* before {*m w*}, see §3.5.6.1.

The 1Pl/3Pl suffixes are listed in (xx2). In some cases it is not possible to segment the pronominal-subject suffix from the AN suffix. The 1Pl/3Pl form always ends in a nasalized vowel or semivowel. Where the vowel quality differs from that of the other forms, the 1Pl/3Pl form has *ɛ* quality. There are also a few categories where a semivowel *y* appears.

(xx2) Pronominal-subject suffixes on verbs

AN category	AN suffix (3Sg)	1Pl/3Pl form
a. nasalization after final {*e ɛ y*} in AN suffix		
past	*= ˈbé-∅*	*= ˈbé-ː^{n}*
perfective-1a	*-â:y-∅*	*-â:y-^{n}*
recent perfect	*-jɛ̀:-∅*	*-jɛ̀:-^{n}*

b. *i* vowel shifts to nasalized *ɛː*^{n}

perfective-1b	*-tì-∅*	*-t-ɛ̀ː*^{n}

c. nasalized *-y*^{n} added to AN suffix ending in back rounded vowel

experiential perfect	*-tɛ́rɔ̀ː-∅*	*-tɛ́rɔ̀ː-y*^{n}
present progressive	*-ẁ-wɔ̀-∅*	*-ẁ-wɔ̀-y*^{n}

d. nasalized *-y*^{n} replaces AN suffix

imperfective; future	*-jɛ̀-∅*	*-y*^{n}

e. negative categories, with portmanteau *-nɛ́* replacing negative suffix

perfective negative	*-l-∅*	*-nɛ́*
past irrealis negative	*-bɛ̀-lé-∅*	*-bɛ̀-nɛ́*
experiential perfect negative	*-tɛ́-r-∅*	*-tɛ́-nɛ́*
recent perfect negative	*-jɛ̌ː-l-∅*	*-jɛ̀ː-nɛ́*
present progressive negative	*-ẁ-wɔ̀-lɔ́-∅*	*-ẁ-wɔ̀-nɛ́*

f. with *-nɛ́* as in (e). but with additional preceding *-y-*

imperfective negative	*-lɛ̀-∅*	*-ỳ-nɛ̀*

10.3.2 Nonhuman versus 3Sg subject

There is no distinction in verbal morphology between nonhuman subject and 3Sg (human or animate) subject. This applies to imperfective as well as to other AN categories. Thus *nùmɔ́-ẁ-wɔ̀-∅* can mean ‘it (e.g. stone) is falling’ as well as ‘he/she is falling’ or ‘it (animate) is falling’.

10.3.3 Tones of subject pronominal suffixes

Subject-pronominal suffixes are atonal, i.e. they lack independent (intrinsic) tones. The final tone of the AN suffix, or stem (if there is no segmental AN suffix) is extended to suffixes consisting of a single sonorant consonant. Apparent exceptions like 1Pl/3Pl perfective negative *-nɛ́* are irregular fusions of an AN suffix with a pronominal-subject suffix, and the tone can still be attributed to the AN category.

10.4 Stative form of verbs (reduplicated and unreduplicated)

10.4.1 Stative positive

Some regular verbs (i.e. with regular aspect-negation morphology) also have a stative form. The stative is outside of the regular perfective/imperfective categorial system, and it has a special negation (see the following section). With stance verbs, for example, the stative denotes a static position, without reference to a preceding event of taking that position. This contrasts with the perfective-1a for the same verbs, which denotes both the event of taking the position and the resulting state. Most statives are based on intransitive verbs (e.g. 'sit'), but transitive verbs of holding/carrying also have this form, in senses like '(woman) be carrying/holding (child, on her back)'.

The stative has a form with initial *Ci-* reduplicant; compare the segmentally similar reduplicants in the past irrealis (§10.2.1.xxx, above) and in the future (§10.2.2.3, above). As in these other reduplications, the *i* of the reduplicant shifts to *u* before stems with back rounded vowel in the first syllable. If the stem is lexically {H}-toned, so is the reduplicant. If the stem is lexically {LH}-toned, the reduplicant is L-toned. In either case, the stem is {HL}-toned; in other words, the lexical distinction between {H} and {LH} tones is expressed only by the reduplicant's tone. The vocalism is that of the **bare stem**.

There is also an unreduplicated form used after locational expressions, and after the high-frequency Existential particle *yá* which probably originated as a locative ('there'). In the unreduplicated form, the stem drops tones to {L}. Compare the tones in reduplicated *dì-díjè-* with those in *yá* ^{L}*dìjè-* 'be leaning'.

Most of the verbs that have a morphological stative occur with mediopassive suffix *-i:-* in active (non-stative) forms. The mediopassive suffix is dropped in the stative. At first sight this looks like a categorial incompatibility, but it may simply be a device to prevent the stative stem (not including the reduplicant) from exceeding bimoraic shape. Other facts support the theory that a shape limit applies to stative stems. The shortening of 'stand' from *íŋé-l* to stative stem *-iŋɛ-* is consistent with this. Similarly, while *pín-ɛ́:* '(door) be shut' has a stative (xx1a), its trisyllabic reversive *píné-l-ɛ́:* '(door) be open(ed)' has no stative. The relevant sense is instead expressed by the negation of '(door) be shut' (see the following section). I am not aware of any stative stems with shapes other than *Cv:* and *CvCv*.

(xx1)		chain	Perf1a	Stative redup	Stative with *yá*
	a. lexically {H}-toned				
xx	'stand'	*íŋé-l*	*íŋè-l-à:y-*	*í-íŋè-*	*yá* ^{L}*ìŋè-*

‘hang [intr]’	*kɔ́l-í:*	*kɔ́l-ì:y-ày-*	*kú-kɔ́lɔ̀-*	*yá*	^{L}*kɔ̀lɔ̀-*
‘kneel’	*túŋ-í:*	*túŋ-ì:y-ày-*	*tú-túŋɔ̀-*	*yá*	^{L}*tùŋɔ̀-*
‘squat’	*tɔ́j-í:*	*tɔ́j-ì:y-ày-*	*tú-tɔ́jɔ̀-*	*yá*	^{L}*tɔ̀jɔ̀-*
‘carry on back’	*sín-í:*	*sín-ì:y-ày-*	*sí-sínɛ̀-*	*yá*	^{L}*sìnɛ̀-*
‘(door) be shut’	*pín-í:*	*pín-í:y-ày-*	*pí-pínɛ̀-*	*yá*	^{L}*pìnɛ̀-*

b. lexically {LH}-toned

‘sit’	*dà:-y^{n}í*	*dǎ:-y^{n}-ày-*	*dì-dâ:^{n}-*	*yá*	^{L}*dà:^{n}-*
‘lie down’	*dìy^{n}í*	*dìy^{n}-â:y-*	*dì-dî:^{n}-*	*yá*	^{L}*dì:^{n}-*
‘be on belly’	*dàb-í:*	*dàb-í:y-ày-*	*dì-dábà-*	*yá*	^{L}*dàbà-*
‘be leaning’	*dìj-í:*	*dìj-í:y-ày-*	*dì-díjɛ̀-*	*yá*	^{L}*dìjɛ̀-*
‘be hiding’	*bàŋ-í:*	*bàŋ-í:y-ày-*	*bì-báŋà-*	*yá*	^{L}*bàŋà-*

The stative stems are followed by the usual pronominal-subject suffixes. The 1Pl/3Pl form is *-ɛ̀^{n}*, which replaces the final vowel of nonmonosyllabic stems and is added to monosyllabics. A sample paradigm, with the unreduplicated stative stem, is in (xx2). Further 1Pl/3Pl forms are *yá* ^{L}*tɕ̀j-ɛ̀^{n}* ‘we/they are squatting’ and *yá* ^{L}*dìy^{n}-ɛ̀^{n}* ‘we are lying down’.

(xx2) Stative (positive) paradigm

category	‘be sitting’
1Sg	*yá* ^{L}*dà:^{n}-m*
2Sg	*yá* ^{L}*dà:^{n}-w^{n}*
3Sg	*yá* ^{L}*dà:^{n}-∅*
1Pl	*yá* ^{L}*dà:^{n}-ɛ̀^{n}*
2Pl	*yá* ^{L}*dà:^{n}-y^{n}*
3Pl	*yá* ^{L}*dà:^{n}-ɛ̀^{n}*

10.4.2 Stative negative (*=lá-*)

The stative is negated by adding a conjugated form of stative negative clitic *=lá-*. The stem is {L}-toned, as in the perfective negative of active verbs, and is unreduplicated, regardless of whether a locational expression precedes the verb. Particle *yá* is not used in negative contexts and is therefore always absent here. A sample paradigm is (xx2).

(xx2) Stative negative paradigm

category	‘be sitting’

1Sg	*dà:^{nL} = lá-m*
2Sg	*dà:^{nL} = lá-w*
3Sg	*dà:^{nL} = lá-∅*
1Pl	*dà:^{nL} = lá-ɛ́^{n}*
2Pl	*dà:^{nL} = lá-y*
3Pl	*dà:^{nL} = lá-ɛ́^{n}*

As noted in the preceding section, stems like *píné-l* '(door) be open(ed)' that are normally trisyllabic, cf. perfective negative *pìnè-lɛ̌-l* 'it did not open', cannot form stative positives because of prosodic limits. The normal way to express (stative) 'it is not open' is to negate the prosodically acceptable form 'be shut', as in *pìnɛ̀*^{L} *= lá-∅* 'it is not shut; it is open'.

10.5 Post-verbal temporal particles

Most of this section is devoted to verb forms including the past clitic *= bé-*, which has a rather complex morphology and tonology.

At the end is a short section on a preverbal adverb meaning 'still' and '(not) yet' (§10.5.2).

10.5.1 Past clitic (*= be-*)

A conjugated past clitic can be added to certain verb forms. The conjugation is (xx1). The tones vary depending on the morphological combination (i.e. on the AN category).

(xx1) Past clitic

1Sg	*= be-m*
2Sg	*= be-w*
3Sg	*= be-∅*
1Pl	*= bɛ:^{n}*
2Pl	*= be-y*
3Pl	*= bɛ:^{n}*

The past clitic is not added to the perfective-1a, perfective-1b, imperfective, or future verb forms. It is also not attested or elicitable with the positive

experiential perfect, though a negative counterpart was elicitable. A full list of the actual combinations is in (xx2). X indicates pronominal-subject conjugation. Note that there is double conjugation in some negative categories, where both the inner verb and the past clitic are conjugated.

(xx2)

form	category/reference
positive, based morphologically on the bare stem without AN suffix	
(bare stem) = *ˡbé-X*	simple past, §10.2.1.1)
Rdp-(bare stem) = *bé-X*	past irrealis, §10.2.1.xxx
positive, containing an audible AN suffix	
-yà: = bé-X	negative perfective-1a, §10.5.xxx
-tì = bé-X	negative perfective-1b, §10.5.xxx
-jě: = bé-X	past recent perfect, §10.5.xxx
-gù = bè-X	past imperfective, §10.5.xxx
negative	
-l-X = bè-X	past perfect Neg, §10.5.xxx
-tě-r = bè-	past experiential perfect Neg, §10.5.xxx
-jě:-l-X = bè-	past recent perfect Neg, §10.5.xxx
-gù = bè-lé-X	past imperfective negative, §10.5.xxx

The paradigmatic morphology of each combination, including tones is presented and analysed in the sections indicated.

10.5.1.1 Past perfect negative

The form that probably formerly served as a positive past perfect ('X had VP-ed') is now also used in simple past functions ('X VP-ed'); see §10.2.1.1, above).

In past-perfect function, the negative is expressed by negating and conjugating the inner verb (with regular perfective negative morphology) and adding a conjugated past clitic.

(xx1) Past perfect negative clitic ('had not drunk')

1Sg	*nɔ̀:-lú-m = bè-m*
2Sg	*nɔ̀:-lú-w = bè-w*
3Sg	*nɔ̌:-n-∅ = bè-∅* (with *-n-* from *-l-* due to the stem nasal)

1Pl	*nɔ̀ː-nɛ́ = bɛ̀ːⁿ*
2Pl	*nɔ̀ː-lí-y = bɛ̀-y*
3Pl	*nɔ̀ː-nɛ́ = bɛ̀ːⁿ*

10.5.1.2 Past perfective-1a (*-yàː = bɛ́-*)

Perfective-1a suffix *-âːy-* (or allomorph) normally contracts with the stem-final vowel (§10.2.xxx, above). When the past clitic is added, the stem is pronounced in its full form, followed by *-yăː* . The latter looks like, but should not be confused with, the verb 'go' (*yé* in chaining form, but *yăː-* before AN suffixes), with which it may combine. Thus *wɛ̀lɛ́-yăː = bɛ́-m* 'I had come', *yăː-yăː = bɛ́-m* 'I had gone', etc.

(xx1) Past perfective-1b ('had VP-ed')

1Sg	*wɛ̀lɛ́-yăː = bɛ́-m*
2Sg	*wɛ̀lɛ́-yăː = bɛ́-w*
3Sg	*wɛ̀lɛ́-yăː = bɛ́-∅*
1Pl	*wɛ̀lɛ́-yăː = bɛ́ːⁿ*
2Pl	*wɛ̀lɛ́-yăː = bɛ́-y*
3Pl	*wɛ̀lɛ́-yăː = bɛ́ːⁿ*

10.5.1.3 Past perfective-1b (*-tì = bɛ́-*)

This combination does not seem to be very common, but was elicitable in contexts involving the finality of the action (with respect to a past-time reference time). The conjugation is seen in (xx1).

(xx1) Past perfective-1b ('had VP-ed')

1Sg	*lágú-tì = bɛ́-m*
2Sg	*lágú-tì = bɛ́-w*
3Sg	*lágú-tì = bɛ́-∅*
1Pl	*lágú-tì = bɛ́ːⁿ*
2Pl	*lágú-tì = bɛ́-y*
3Pl	*lágú-tì = bɛ́ːⁿ*

10.5.1.4 Past experiential perfect negative

The (positive) experiential negative (*-tə́rɔ̀ː-*, §10.2.xxx, above) was not elicitable with the past clitic.

A negative was elicited. A sample paradigm is (xx1). Like other similar combinations, it is doubly conjugated. The verb stem and the *-tɛ̀-* morpheme are dropped to L-toned form.

(xx1) Past experiential perfect negative ('had not [ever] seen')

1Sg	*yɛ̀ː-tɛ̀-rú-m = bɛ̀-m*
2Sg	*yɛ̀ː-tɛ̀-rú-w = bɛ̀-w*
3Sg	*yɛ̀ː-tɛ̌-r-∅ = bɛ̀-∅*
1Pl	*yɛ̀ː-tɛ̀-nɛ́ = bɛ̀ː^{n}*
2Pl	*yɛ̀ː-tɛ̀-rí-y = bɛ̀-y*
3Pl	*yɛ̀ː-tɛ̀-nɛ́ = bɛ̀ː^{n}*

10.5.1.5 Past recent perfect, positive (*-jɛ̌ː = bɛ́-*) and negative

The recent perfect (*-jɛ̀ː-*) is typically translatable as 'have finished VP-ing', indicating both recency and completion (§10.2.xxx, above). Its past-time counterpart means 'had finished VP-ing' (at some displaced reference time).

The positive paradigm is (xx1). Here the AN suffix has rising tone, and the past clitic has H-tone.

(xx1) Past recent perfect ('had finished drinking')

1Sg	*nɔ̌ː-jɛ̌ː = bɛ́-*
2Sg	*nɔ̌ː-jɛ̌ː = bɛ́-w*
3Sg	*nɔ̌ː-jɛ̌ː = bɛ́-∅*
1Pl	*nɔ̌ː-jɛ̌ː = bɛ́ː^{n}*
2Pl	*nɔ̌ː-jɛ̌ː = bɛ́-y*
3Pl	*nɔ̌ː-jɛ̌ː = bɛ́ː^{n}*

The negative paradigm is (xx2). Like other combinations adding the past clitic to a form including the perfective negative suffix, this combination is doubly conjugated. The verb stem has its normal tones, but the AN morpheme is tone-dropped under the influence of the perfective negative suffix.

(xx1) Past recent perfect negative (‘had not finished drinking’)

1Sg	*nɔ̌ː-jɛ̀ː-lú-m = bɛ̀-m*
2Sg	*nɔ̌ː-jɛ̀ː-lú-w = bɛ̀-w*
3Sg	*nɔ̌ː-jɛ̌ː-l-∅ = bɛ̀-∅*
1Pl	*nɔ̌ː-jɛ̀ː-nɛ́ = bɛ̀ː^{n}*
2Pl	*nɔ̌ː-jɛ̀ː-lí-y = bɛ̀-y*
3Pl	*nɔ̌ː-jɛ̀ː-nɛ́ = bɛ̀ː^{n}*

10.5.1.6 Past imperfective (positive and negative)

The positive form of the past imperfective is formed by adding *=bɛ̀-* to an imperfective stem in *-gù* or (after a nasal syllable) *-ŋ̀* (presumably syncopated from /*-ŋ̀gù*/). The stem tones are the same as in the present progressive.

(xx1) Past imperfective of ‘fall’

	‘fall’	‘shave’
1Sg	*nùmɔ́-ŋ̀ = bɛ̀-m*	*kâː-gù = bɛ̀-m*
2Sg	*nùmɔ́-ŋ̀ = bɛ̀-w*	*kâː-gù = bɛ̀-w*
3Sg	*nùmɔ́-ŋ̀ = bɛ̀-∅*	*kâː-gù = bɛ̀-∅*
1Pl	*nùmɔ́-ŋ̀ = bɛ̀ː^{n}*	*kâː-gù = bɛ̀ː^{n}*
2Pl	*nùmɔ́-ŋ̀ = bɛ̀-y*	*kâː-gù = bɛ̀-y*
3Pl	*nùmɔ́-ŋ̀ = bɛ̀ː^{n}*	*kâː-gù = bɛ̀ː^{n}*

The stem tones (as well as segments) are consistent with those in the present progressive (§10.2.2.xxx), suggesting that *-gù* and *-ŋ̀* function as substitutes for *-ẁ-wɔ̀-* in that AN form. Therefore there is just one H-toned element in the stem, initial for {H}-toned verbs and in the second syllable for {LH}-toned verbs. Thus *pégèrè-gù = bɛ̀-∅* ‘he/she used to winnow (by shaking)’, *wɔ̀gɔ́lɔ̀-gù = bɛ̀-∅* ‘he/she used to scoop out’.

The past imperfective can function as a past progressive (‘he was dancing [when I entered]’) or as a past habitual (‘I used to hunt’).

The **past imperfective negative** is formed by conjugating *= bɛ̀-lɛ́-*. The interior verb form preceding the past clitic is not conjugated, and has the same form (tonally and segmentally) as in the positive. Thus 3Sg *nùmɔ́-ŋ̀ = bɛ̀-lɛ́-∅* ‘he/she did not use to fall’, 1Sg *nùmɔ́-ŋ̀ = bɛ̀-lɛ́-m*, 1Pl/3Pl *nùmɔ́-ŋ̀ = bɛ̀-nɛ́*.

10.5.1.7 Past stative, positive and negative

For the stative derived from a regular verb, see §10.4.1, above. The positive paradigm is straightforward, with conjugated *=bè-* being added to the unaltered form of the stative stem: *í-íŋɛ̀=bè-m* 'I was standing', *dì-dâ:ⁿ=b-è:ⁿ* 'we/they were sitting'.

The past stative negative, however, is not directly constructed from the stative negative with conjugated *=lá-* added to a {L}-toned form of the stative stem (§10.4.2, above). Instead, a conjugated negative form of the past clitic, *=bè-lé-*, is added to an all H-toned form of the stem. The system can be illustrated using 1Sg subject stative forms of the verb *dàb-í:* 'lie down on one's belly' (xx1). Because of its initial *d*, this verb is lexically {LH}-toned, so the {H}-tone contour in the past negative must be stipulated.

(xx1) Statives (1Sg forms)

	regular	Past
positive	*dì-dábà-m*	*dì-dábà=bè-m*
negative	*dàbà*^{L} *=lá-m*	*dábá=bè-lé-m*

10.5.1.8 Past forms of stative quasi-verbs ('be', 'have')

The conjugated past clitic may be added to stative quasi-verbs.

Existential-locational 'be' (as in 'I am in the village') is illustrated, in positive and negative form, in (xx1). Here the past clitic itself, in L-toned form, functions as the predicate ('was', 'wasn't'), and is added directly to a locational expression. It cannot be used without some such preceding element. In (xx1), *kó* 'here' is used as an example of a locational. *yá* can also be used, but in deictic ('over there') rather than abstract sense.

(xx1) Past of 'be' (existential-locational)

	'used to be/was here'	'didn't use to be/wasn't here'
1Sg	*kó=bè-m*	*kó=bè-lé-m*
2Sg	*kó=bè-w*	*kó=bè-lé-w*
3Sg	*kó=bè-∅*	*kó=bè-lé-∅*
1Pl	*kó=bè:ⁿ*	*kó=bè-nɛ́*

2Pl	*kó = bè-y*	*kó = bè-lé-y*
3Pl	*kó = bè:^{n}*	*kó = bè-né*

For ‘have’ the positive and negative forms are illustrated in (xx2). With ‘have’, *yá* particle is required in the positive, following the NP denoting the possessed entity (not shown here). *yá* is absent in the negative.

(xx2) Past of ‘have’

	‘used to have, had’	‘didn’t use to have, didn’t have’
1Sg	*(yá) sɛ̀ = bè-m*	*sɛ́ = bè-lé-m*
2Sg	*(yá) sɛ̀ = bè-w*	*sɛ́ = bè-lé-w*
3Sg	*(yá) sɛ̀ = bè-∅*	*sɛ́ = bè-lé-∅*
1Pl	*(yá) sɛ̀ = bè:^{n}*	*sɛ́ = bè-né*
2Pl	*(yá) sɛ̀ = bè-y*	*sɛ́ = bè-lé-y*
3Pl	*(yá) sɛ̀ = bè:^{n}*	*sɛ́ = bè-né*

For ‘have’ the positive and negative forms are illustrated in (xx2).

(xx2) Past of ‘have’

	‘used to have, had’	‘didn’t use to have, didn’t have’
1Sg	*(yá) sɛ̀ = bè-m*	*sɛ́ = bè-lé-m*
2Sg	*(yá) sɛ̀ = bè-w*	*sɛ́ = bè-lé-w*
3Sg	*(yá) sɛ̀ = bè-∅*	*sɛ́ = bè-lé-∅*
1Pl	*(yá) sɛ̀ = bè:^{n}*	*sɛ́ = bè-né*
2Pl	*(yá) sɛ̀ = bè-y*	*sɛ́ = bè-lé-y*
3Pl	*(yá) sɛ̀ = bè:^{n}*	*sɛ́ = bè-né*

10.5.2 ‘Still’, ‘up to now’, (not) yet’ (*nímɛ̀*)

The preverbal adverb *nímɛ̀* has a basic sense ‘up to (until) now’. In positive contexts it can often be translated as ‘still’ (xx1).

(xx1)	*nímɛ̀*	*bírɛ́*	*bìrɛ́-ẁ-wɔ̀-m*
	still	work(n)	work-Impf-Prog-1SgS
	‘I am still working.’		

In negative contexts it can often be translated as ‘(not) yet’.

(xx1) *nímɛ̀* *wɛ̌:-l-∅*
yet come-PerfNeg-3SgS
‘He/She has not come yet.’ (= ‘He/She has still not come.’)

10.6 Imperatives and hortatives

10.6.1 Imperatives and prohibitives

10.6.1.1 Positive imperatives (imperative stem, plural *-ỳ*)

The imperative stem is used without further suffixation as a 2Sg-addressee imperative. Addition of suffix *-ỳ* turns this into a 2Pl-addressee imperative.

The imperative stem is based on the **bare stem**, but for some verbs the two differ tonally. Specifically, bimoraic verbs (i.e. monosyllabic *Cv:-* and short-voweled bisyllabic *CvCv-*) that are elsewhere {LH}-toned become {H}-toned in the imperative, obliterating the lexical distinction between {H} and {LH} tone contours. This merger does not apply to longer {LH}-toned stems, e.g. *Cv:Cv-* and *CvCvCv-*, which retain the lexical distinction in tone contours (xx1).

‘Go’ is exceptional in not shifting to {H}: *yă:* ‘go!’, audibly distinct from another imperative, *yá:* ‘spend (night)!’ from a {H}-toned verb.

(xx1) Shift from {LH} to {H} tone

chain	Imperative	gloss
a. monosyllabic stems		
nɔ̌:	*nɔ́:*	‘drink’
wɛ̌:	*wɛ́:*	‘winnow (in wind)’
b. bimoraic bisyllabic stems (*CvCv-*)		
jɔ̀bɔ́	*jɔ́bɔ́*	‘run’
wɛ̀lɛ́	*wɛ́lɛ́*	‘come’
gŭl	*gúlɔ́*	‘dig’
c. exceptional stem		
yɛ́	*yă:*	‘go’ (cf. simple past *yă:=bɛ́*)
d. tone shift does not apply to longer {LH}-toned stems		
mɔ̌:-nú	*mɔ̌:-nɔ́*	‘assemble [tr]’

yègír	*yègéré*	‘get ready’

More examples showing that the imperative is based on the bare stem rather than on the chaining stem are in (xx2).

(xx2) Imperative stem for verbs that distinguish bare and chaining stems

chain	Imprt	gloss
a. monosyllabics		
{H}-toned		
sáy	*sá:*	‘sneeze’ (noun *éjígílè*)
{LH}-toned		
bǎy	*bá:*	‘beat (tomtom)’
b. nonmonosyllabic		
{H}-toned		
lágú	*lágá*	‘hit’
pégúrú	*pégéré*	‘winnow (shaking)’
{LH}-toned		
jǎŋ	*jáŋá*	‘pound (grain with water)’
wɔ̀gúl	*wɔ̀gɔ́lɔ́*	‘scoop out (grain)’
jìgíbú	*jìgíbé*	‘shake’

Imperative clauses have normal accusative direct objects with the same form as in main clauses.

(xx3) a. *[áynɛ́ ŋɛ̀-yⁿ] lágá = bé-m*
[man Def-Acc] hit=Past-1SgS
‘I hit-Past the man.’

b. *[áynɛ́ ŋɛ̀-yⁿ] lágá*
[man Def-Acc] hit.Imprt
‘Hit-2Sg the man!’

Examples of the singular/plural imperative distinction are in (xx4). The plural suffix is L-toned.

(xx4)

gloss	Imprt Sg	Imprt Pl
‘shave’	*ká:*	*ká:-ỳ*
‘dig’	*gúló*	*gúló-ỳ*

10.6.1.2 Prohibitives (*-nɔ̀ŋ*, plural *-nɔ̀ŋ-î:*)

The prohibitive (negative of the imperative) is formed by adding *-nɔ̀ŋ* to the **bare stem**, which preserves its lexical {H} or {LH} tone. The plural-addressee counterpart is *-nɔ̀ŋ-î:* .

wèlé 'come', and optionally *bèlé* 'get, obtain', delete the medial *l* and contract the two stems before this suffix (xx1.d). This does not apply to other *CvlV* verbs.

(xx1) Prohibitive (singular addressee)

	chain	Prohibitive	gloss
a. monosyllabic stems			
{H}-toned			
	ká:	*ká:-nɔ̀ŋ*	'shave'
{LH}-toned			
	nɔ̌:	*nɔ̌:-nɔ̀ŋ*	'drink'
	yé	*yǎ:-nɔ̀ŋ*	'go'
b. bimoraic bisyllabic stems			
{H}-toned			
	lágú	*lágá-nɔ̀ŋ*	'hit'
{LH}-toned			
	jɔ̀bɔ́	*jɔ̀bɔ́-nɔ̀ŋ*	'run'
	jǎŋ	*jàŋá-nɔ̀ŋ*	'pound (grain with water)'
c. longer stems			
{H}-toned			
	pégúrú	*pégéré-nɔ̀ŋ*	'winnow (shaking)'
{LH}-toned			
	mɔ̌:-nú	*mɔ̌:-nɔ́-nɔ̀ŋ*	'assemble [tr]'
	yègír	*yègéré-nɔ̀ŋ*	'get ready'
d. irregular contraction			
	wèlé	*wě:-nɔ̀ŋ*	'come'
	bèlé	*bě:-nɔ̀ŋ*	'get, obtain' (also *bèlé-nɔ̀ŋ*)

Singular/plural pairs are in (xx2).

(xx2) gloss chaining Sg Prohib Pl Prohib

‘go’	*lágú*	*lágá-nɔ̀ŋ*	*lágá-nɔ̀ŋ-î:*
‘run’	*jɔ̀bɔ́*	*jɔ̀bɔ́-nɔ̀ŋ*	*jɔ̀bɔ́-nɔ̀ŋ-î:*

10.6.2 Positive hortatives (*-mɔ̀*, plural *-mɔ̀-y^{n}*)

The hortative proposes that the addressee(s) join with the speaker in an action. Like most Dogon languages, Yorno So treats the hortative as a kind of imperative, and (excluding the speaker) distinguishes singular addressee from plural addressee as in ordinary imperatives.

The singular-addressee hortative form consists of *-mɔ̀* added to the **bare stem**, which here **preserves lexical tones**. The plural-addressee hortative is *-mɔ̀-y^{n}*, with the same final suffix as in plural-addressee imperatives.

I know of no irregular forms. ‘Let’s go!’ *yă:-mɔ̀* is regularly based on the bare stem as seen in simple past *yă: = bé-* and other inflected forms.

(xx1) Hortative (singular addressee)

chain	Hortative	gloss
a. monosyllabic stems		
{H}-toned		
ká:	*ká:-mɔ̀*	‘shave’
{LH}-toned		
nǎ:	*nǎ:-mɔ̀*	‘drink’
yé	*yă:-mɔ̀*	‘go’
b. bimoraic bisyllabic stems		
{H}-toned		
lágú	*lágá-mɔ̀*	‘hit’
{LH}-toned		
jɔ̀bɔ́	*jɔ̀bɔ́-mɔ̀*	‘run’
bɛ̀lɛ́	*bɛ̀lɛ́-mɔ̀*	‘get, obtain’
wɛ̀lɛ́	*wɛ̀lɛ́-mɔ̀*	‘come’
jăŋ	*jàŋá-mɔ̀*	‘pound (grain with water)’
c. longer stems		
{H}-toned		
pégúrú	*pégéré-mɔ̀*	‘winnow (shaking)’
{LH}-toned		
mɔ̌:-nú	*mɔ̌:-nɔ́-mɔ̀*	‘assemble [tr]’
yègír-∅	*yègéré-mɔ̀*	‘get ready’

Singular/plural pairs are in (xx2).

(xx1)	gloss	2Sg (plus 1Sg)	2Pl (plus 1Sg)
	‘drink’	*nɔ̌:-mɔ̀*	*nɔ̌:-mɔ̀-y*
	‘hit’	*lágá-mɔ̀*	*lágá-mɔ̀-y*

10.6.3 Hortative negative (plural *-mɔ̀-nɔ̀ŋ-î:*)

The hortative negative form is not very common, and there are alternative ways to express approximately similar concepts. A specifically “singular” form was not elicitable. The suffix complex *-mɔ̀-nɔ̀ŋ-î:* was elicited. It consists of the hortative (positive) form in *-mɔ̀* plus the plural-subject form of the prohibitive.

(xx1) *yă:-mɔ̀-nɔ̀ŋ-î:*
go-Hort-Prohib-2PlS
‘Let’s not go!’

10.6.4 Hortative with third person pseudo-subject

The regular imperative stem is used in expressing wishes (‘may God protect you’) and embedded imperatives.

(xx1) a. *ámà* *ú-ỳ* *bárá*
God 2Sg-Acc help.Imprt
‘May God help you-Sg!’ [said to someone at work]

b. *[ú* ^{L}*bà:]* *ɔ́:* *wɛ́lɛ́* ^{L}*gì-∅*
[2SgP ^{L}father] 2Sg.QuotS come.Imprt ^{L}say.Perf-3SgS
‘Your-Sg father says (for you-Sg) to come (to him).’

10.6.5 Imperative with implied first person singular subject

An imperative form may be used with a covert 1Sg (or 1Pl) subject, as when the speaker is querying whether the addressee, or some other person, is asking or commanding him/her to do something. For example, if someone gestures to the speaker, the latter may ask for clarification (xx1). In local French this is expressed by *de* plus infinitive (*de sortir?*).

(xx1) *gó:* *mă→↑*

go.out.Imprt Q
‘(Do you want me) to go out?

quoted hortative

11 VP and predicate structure

11.1 Regular verbs and VP structure

11.1.1 Verb types (valency)

Object NPs are easily distinguished from subject NPs by a) the ability of human NPs to take accusative suffix *-ỳ* (§6.7), and b) by their linear position following subjects when both are expressed by preverbal constituents.

(xx1) a. *[áynɛ́ ŋɛ̀] [yă:-r^{n}á ŋɛ̀]-ỳ yɛ́: = bɛ́-∅*
[man Def] [woman-Sg Def]-Acc see=Past-3SgS
'The man saw the woman.'

b. *wó wó-ỳ yɛ́: = bɛ́-∅*
3Sg 3Sg-Acc see=Past-3SgS
'He/She saw him/her.'

The class of transitive verbs that occur in sentences like (xx1) includes impact transitives ('hit', 'cut'), perception verbs ('see', 'hear'), and verbs of holding and carrying.

Transitivity in this syntactic sense cuts partially across the derivational category that I call mediopassive. In the specific case of verbs of holding and carrying, the mediopassive denotes the act whereby the carrier places and then holds the entity (theme) in carrying position (on the head, on the back, etc.), while the corresponding transitive denotes the act whereby another person places the entity in carrying position on the carrier. In (xx2.a), the mediopassive verb is a simple transitive with subject and object. In (xx2.b), with the corresponding transitive derivational suffix, the accusative object is the carrier, while the theme ('the child') precedes it with no accusative marking.

(xx2) a. *[yă:-r^{n}á ŋɛ̀] [î: gɔ̀-y] sín-ɛ́: = bɛ́-∅*
[woman-Sg Def] [child Def-Acc] carry.on.back-MP=Past-3SgS
'The woman carried the child (on her back).'

b. *[î: gɔ̀] wó-ỳ síné-ré = bé-m*
[child Def] 3Sg-Acc carry.on.back-Tr=Past-1SgS
'I put the child on her back.' (i.e. I helped her carry the child)

The syntactic arrangement in (xx2b) is also found with the intrinsically double-object verbs ‘give’ and ‘show’. The recipient has the accusative suffix, while the theme (‘the sheep’) does not.

Nonhuman direct-object nouns are not marked with accusative *-ỳ*, though (like other constituents) they can be focalized by adding the phonologically similar focus clitic *=y* (which has no intrinsic tone).

There are also a number of low-referentiality object-like nouns. This category includes cognate nominals and other conventionalized objects that form tightly-knit phrases with a verb.

(xx3) a. *dǐ:* *ín-ɛ̀:-ŋ-wɔ̀-m*
water bathe-MP-Impf-Prog-1SgS
‘I am bathing.’

b. *bírɛ́* *bìrɛ́-gù-wɔ̀-m*
work(n) work-Impf-Prog-1SgS
‘I am working.’

c. *gìrî:* *yê:-gù-wɔ̀-m*
sleep(n) sleep-Impf-Prog-1SgS
‘I am sleeping’ (cf. noun *gìrì-ý* ‘eye’)

Motion verbs like ‘go’ can take an adverbial (usually postpositional) phrase to denote a specific destination (xx4.a). Proper names of locations (e.g. specific villages) omit the postposition (xx4.b). High-frequency generic locations (*àná* ‘village’, *íbɛ́* ‘market’), even if understood in context by participants to denote a specific location, are undetermined and otherwise unmarked (xx4.c-d), compare English *he’s going to town*, *she’s going home*, etc. ‘House/home’ has a special diminutive form *gèrⁿɛ̀-ýⁿ* in this function (xx4d), cf. common noun *gèrⁿɛ́* house’.

(xx4) a. *[gèrⁿɛ̀*^{L} *kó]-nì* *yǎ:-gù-wɔ̀-m*
[house^{L} that]-to go-Impf-Prog-1SgS
‘I am going to that house.’

b. *bàmàkó* *yǎ:-gù-wɔ̀-m*
B go-Impf-Prog-1SgS
‘I am going to Bamako (city).’

c. *íbɛ́* *yǎ:-gù-wɔ̀-m*
market go-Impf-Prog-1SgS
‘I am going to (the) market.’

d. *gɛ̀r^{n}è-ý^{n}* *yǎ:-gù-wɔ̀-m*
house-Dimin go-Impf-Prog-1SgS
'I am going home.'

'Put X in Y' is illustrated in (xx5). The construction contains an object NP expressing the theme ('milk'), plus a locational adverb (here a postpositional phrase) expressing the container.

(xx5) *[ềm* *ŋɛ̀]* *kɔ̀rɔ́-ǹ* *kúnó = bé-m*
[milk Def] calabash-Loc put=Past-1SgS
'I put the milk in the calabash.'

Certain bodily states are expressed by "X has Y" denoting a state (xx6a) or "X caught Y" denoting a change of state (xx6b), where Y is the person and X is the ailment. Since "X caught Y" can be used resultatively, i.e. in the sense 'X has (recently) caught Y', there is no sharp difference in practice between the 'have' and 'caught' versions. *á:* 'catch' takes Perfective-1a form *á-à:y-* rather than its usual Perfective-1b *á:-tì-* 'caught, grabbed' in this construction, capturing the nonagentive quality of these experiential expressions.

(xx6) a. *gɛ̌:* *mí-ỳ* *yá* *sɛ̀-∅*
hunger 1Sg-Acc Exist **have**-3SgS
'I am hungry.'

b. *gɛ̌:* *mí-ỳ* *á-à:y-∅*
hunger 1Sg-Acc **catch-Perf1a**-3SgS
'I became (=have become) hungry.'

Likewise with *dì:-nî:* 'thirst' and various terms for diseases such as *néw^{n}è* 'leprosy'. However, 'X be sleepy' is expressed as "[X's sleep(n)] *bǎ:l-é:*" with a verb *bǎ:l-é:* that also occurs in *gɔ̀rú bǎ:l-é:* 'be weak, out of shape, unable to work'. 'X be tired' has a dedicated intransitive verb *ɔ́ɲɔ́* 'be weary, tired'.

senses of bǎ:l-é: ?
'I'm hot/cold'

'X be sated, full (after eating)' is expressed as 'it (has) sufficed X' with *bǎ:* 'suffice, be enough (for)' (xx7a), or else as 'X be sated' with the mediopassive verb *ér^{n}-é:-* (xx7b).

(xx7) a. *mí-ỳ* *bà-â:y-∅*
1Sg-Acc suffice-Perf1a-3SgS
'I am full (after eating).'

b. *ɛ́r^{n}-í:-yà-m*
be.sated-MP-Perf1a-1SgS
'I am full (after eating).'

yá: àŋà-dǐ: gǒ:-bé-m 'I slobbered yesterday'
dì:n-î: mí-ỳ á-à:y 'I am thirsty' (note form of Perfective)
dì:-nî: gò-â:-m 'I have slaked my thirst'

11.1.2 Valency of causatives

The causative of an intransitive is treated syntactically like an underived transitive. The derived object takes accusative *-ỳ* if human (xx1).

(xx1) *[yǎ:-r^{n}á ŋɛ̀-y^{n}] súgó-mó = bé-m*
[woman-Sg Def-Acc] go.down-Caus=Past-1SgS
'I made (=had) the woman go down.'

The causative of a transitive verb has two surface objects (xx2.a). If both are human, both have accusative marking (xx2.b).

(xx2) a. *[î: mɔ̀]-ỳ [pèjù*^{L} *nɔ̌:] kɛ̀:^{n}-mɔ̀-jɛ̀-m*
[child 1SgP]-Acc [sheep^{L} this] slaughter-Caus-Fut-1SgS
'I will have my child (= son) slaughter this sheep.'

b. *[î: mɔ̀]-ỳ^{n} [àynɛ̀*^{L} *ná: ŋɛ̀]-y^{n}* ^{L}*bàrà-mɔ̀-jɛ̀-m*
[child 1SgP]-Acc [man^{L} old Def]-Acc ^{L}help-Caus-Fut-1sgS
'I will have my child help the old man.'

11.1.3 Fixed subject-verb combinations

Among the fixed subject-verb collocations are those with an unusual noun *bá:* that occurs in collocations referring to the onset and/or end of a time period, either time-of-day or seasonal, or to seasonal weather conditions, as in *bà:* ^{L} *kâ:l* 'cool weather'.

The expressions in (xx1a) involve *bá:* as a low-referentiality subject-like NP. In (xx1b), however, there is a separate animate subject NP.

(xx1) a. *bá: ɛ́jɛ́* 'day break (before dawn)' (*ɛ́jɛ́* 'become clean')

	bá: dɔ̌:	'rainy season approach' (*dɔ̌:* 'approach')
	bá: gɔ̌:	'rainy season end' (*gɔ̌:* 'go out')
b.	*bá: yá:*	'(sb) spend the night, (be/do) until dawn' (verbal noun *bà:*^{L}*-[yò-ý]*)

exx of 'spend the night' with a subject
exx of 'day break' with 'yesterday'

Some other time-of-day and meteorological subject-verb collocations are in (xx2). In (xx2a), *mɛ̌:* is not otherwise attested, except as an accidental (noncognate) homophone meaning 'be ground into powder'. In (xx2b), *dɛ̌:* is not otherwise attested in noncognate homophones ('insult', 'burn').

(xx2)	a.	*àr^{n}á mɛ̌:*	'rain fall' cf. noun *àr^{n}á* 'rain'
	b.	*dìgɛ́ dɛ̌:*	'night fall, be night'
	c.	*nǎm bàr^{n}á*	'hot season happen, be the hot season' cf. *nǎm* 'sun', *bàr^{n}á* 'become red'

For nominalizations *bà:*^{L}*-[yâ:-rà], bà:*^{L}*-[gó:-rò]*, and *bà:-dɔ̌:* see §4.2.2.3.

check syntax of...

[X kìnɛ̀] ǎ:-l 'he is disappointed, mildly sad'
[X kìnɛ̀] yɔ̀rɔ́ '(enraged person) calm down, cool off'
[kó lé] kír^{n}-à:y, [kó lé] wɛ̀j-â:y 'he is fed up with it'
[X kìnɛ̀] gànáá 'he/she is furious'
[X kìnɛ̀] bàr^{n}-â:y, [kíné wɔ̀-mɔ̀] bàr^{n}-â:y 'he/she got angry'
X kín-túrù gɔ̌: 'X has a nosebleed'
sɔ̌: gɔ̌: '(sb) sweat'
[X kìnɛ̀] pɛ̌: pí: 'X is devastated' (heart weeps)

11.1.4 Fixed verb-object collocations

11.1.4.1 Noncognate verb and object

Some of the more common noncognate collocations are those in (xx1a). If the verb has a more general sense elsewhere, or if the verb-object collocation has a literal meaning, it is indicated in parentheses. (xx1b) illustrates the use of the all-purpose verb *kárⁿá* 'do', which can be added to borrowed nouns (e.g. from Arabic via Fulfulde) or otherwise marginal noun-like forms that cannot be directly inflected. For *kárⁿá* as an auxiliary for expressive adverbials see §xxx.

(xx1) a.

èjìgílè sá:	'sneeze'
gɔ́rɔ́lɔ́ dɔ̀ŋɔ́-mɔ́	'snore'
ìsán sáːⁿ	'take a piss, urinate'
kín pɔ́rⁿɔ́	'blow nose'
kɔ̀mɔ́ tá:	'wage war' (*tá:* 'shoot')
tô:rù púgó	'practice idolatry (animism)'
yù:jă: tɔ́:	'spit'

b. with *kárⁿá* 'do' (among many others)

híjì kárⁿá	'perform the Muslim pilgrimage'
kăwrò kárⁿá	'excuse (me)!'
múrtù kárⁿá	'revolt, rebel'
sàlê: kárⁿá	'render a (legal) judgement'
sêːⁿ kárⁿá	'be kind'
sírìdì kárⁿá	'do magic tricks'

c. with *kúnɔ́* 'put'

áŋá kúnɔ́	'intervene (verbally)' (*áŋá* 'mouth')
dúwà: kúnɔ́	'give a blessing'
gèrègèděy kúnɔ́	'tickle (sb)'
újù kúnɔ́	'blow' (*újù* 'air, breath; steam')

d. with *á:* 'catch, grab'

à-jìrê: á:	'wrestle (sb)'
à-mâːn á:	'make a promise'
sálgù á:	'perform one's ablutions (before prayer)'
yăm á:	'(sth) catch fire'

e. with *yă:* 'go'

ànáː yă:	'travel (especially, to a city to work)'
sìrì-kóró yă:	'(go) play the board game'

f. with *yó:* 'enter; get involved in'

gɔ̌:ⁿ yó:	‘fight hand-to-hand’ (*gɔ̌:ⁿ* ‘chest’)
sɔ̌:ⁿ yó:	‘take a long break in the fields’
újù yó:	‘become inflated’ (*újù* ‘air’)

11.1.4.2 Formal relationships between cognate nominal and verb

Lists of nominal-verb pairings are given in this section organized by the form of the nominal. The basic simple types are given in (xx1). Those in (xx1b) have the nominal in verbal-noun form, with rising tone and final *ý* in monosyllabic *Cv̌-y* or final *-ú* (subject to Apocope after most unclustered sonorants) in longer stems.

(xx1) a. noun segmentally identical to bare stem of verb, final vowel not /u/

unreduplicated monosyllabic noun

dɛ̌: dɛ̌:	‘make an insult’
gɛ́:ⁿ gɛ̌:ⁿ	‘dance (a dance)’
gɔ́: gɔ̌:	‘dance (a dance)’
nɛ́: nɛ̌:	‘sing (a song)’
sɔ̌: sɔ́:	‘state one’s case’
yé: yé:	‘weep (loudly)’

unreduplicated bisyllabic noun

bèrɛ́ bèrɛ́	‘become pregnant’ (*bèrɛ́* ‘belly’)
bírɛ́ bìrɛ́	‘work, do some work’
bɔ́jɔ̀ bɔ̀jɔ́	‘shit (a shit)’
dáwà dàwá	‘seek attention’
èlé élé	‘be rivals’
gâ:jà gă:já	‘vomit (a vomit)’
gúlɔ̀ gùlɔ́	‘vomit (a vomit)’
jàmá jàmá	‘betray’
jègé jègé	‘build a house wall’
kɛ́mɲè kɛ́mɲɛ́	‘cook colostrum (first milk after calving)’
kòlmɔ́ kólmɔ́	‘snap one’s fingers’
kî:dè kí:dé	‘make a challenge (in debate)’
nɛ̀ŋɛ́ nɛ̀ŋɛ́	‘cook the sauce’
sàgá ságá	‘do second round of weeding’
síbè síbé	‘give a simple description’
sìjí síjé	‘draw lines (in sand)’
síɲè síɲɛ́	‘make noise’
sùlɔ́ ságá	‘make a pile of harvested millet’
yàlá yàlá	‘draw images’
yàmá yàmá	‘(crop plants) grow so that they cover turned-up earth from weeding’

yɛ̀gɛ́ yɛ̀gɛ́ ‘take measures (to prepare for sth)’
unreduplicated trisyllabic noun
yɔ́gɔ̀rɔ̀ yɔ̀gɔ̀rɔ́ ‘have fun, play’
reduplicated noun
tí-tágá tágá ‘tell jokes, be funny’
gù-gû:^{n} gŭ:^{n} ‘murmur, speak in a low voice’
verb with derivational suffix
mùŋɔ́ mùŋ-é: ‘(insects) swarm’ (mediopassive)
tìgɛ́ tígɛ́-rɛ́ ‘(griot) call out names’ (transitive)

b. nominal in VblN form (rising tone, final *ú* ~ *ý* ~ ∅)
bàdú bàdá ‘hold a formal meeting’
gĕl gèlɛ́ ‘carry out the harvest (with knives)’
jăw jàwá ‘(stem) fork, divide in two’
jègú jègɛ́ ‘(man) be elegant’
kòrú kóró ‘build stone enclosure’
lĕl lélé ‘make a mistake’
pĭ: pí: (or: *pì-ý pí:)* ‘weep (loudly)’
sĭ: sí: (or: *sì-ý sí:)* ‘(women) ululate, emit cries of joy’
tàgú tág-é: ‘put on one’s shoes’
tĭn tír^{n}é ‘(go) chop (and collect) wood’
tɔ̀ŋú tɔ́ŋɔ́ ‘write, do some writing’
reduplicated noun
kì-kăl kálá ‘tell a falsehood, lie’

c. other nominals with final *u* ~ *y* ~ ∅
noun {H}-toned
dúgú dùgó ‘practice sorcery, cast spells’
gájú gàjá ‘(millet grains) be soft and whitish’
gámúl gàmálá ‘share, do some sharing’
gúnú gùnɔ́ ‘solidify, become hard and solid’
gúy^{n} gŭy^{n} ‘commit theft’
jí:rú jĭ:ré ‘quarrel, argue’
jɔ́ŋú jɔ̀ŋɔ́ ‘perform healing’
kíŋú kíŋɛ́ ‘build a fence’
tól tóló ‘do some pounding (in mortars)’
yégú-rú yègé-ré ‘(man) arm oneself for fighting’
noun {HL}-toned
â:r á:rá ‘come to an agreement’
bógù bògó ‘(dog) bark’
bógùrù bògóró ‘(billygoat) bellow’
dɔ̂n dɔ̀r^{n}ɔ́ ‘make a sale, do some selling’
dûm dùmɔ́ ‘make a flat-topped mound of earth’
gây gă: ‘do a mop-up harvest’
jâŋ jàŋá ‘go to school, engage in studies’

	jî:^{n} jǐ:^{n}	‘fart (a fart)’
	í:jù í:jé	‘do a calculation’
	ímù ímɛ́	‘stutter, stammer’
	mên mèr^{n}ɛ́	‘gossip about, denigrate’
	mɔ̂y^{n} mɔ̌:	‘(have a) laugh’
	nínù nínɛ́	‘breathe (a breath)’
	pêl pélé	‘applaud, clap hands’
	sêl sélé	‘drag waterbag at bottom of well’
	sên sér^{n}ɛ́	‘perform a Muslim prayer’
	tɔ̂:ɲù tɔ́:ɲɛ́	‘provoke, tease’
	tógù tógó	‘have a chat’
	wírdù wírdɛ́	‘(Muslim) say one’s beads’
	noun {LHL}-toned	
	màníŋù mànáŋá	‘have worries’
	verb mediopassive	
	dímù dìm-ɛ́:	‘have an out-of-wedlock relationship’
	èlì-ý él-ɛ́:	‘(woman) be elegant’
	jây jày-ɛ́:	‘fight (a fight)’
	jíɲù jìɲ-ɛ́:	‘sniff/smell an odor’
	verb trisyllabic with (clear or possible) transitive suffix	
	dáŋú-rú dàŋá-rá	‘come to an agreement’
	tɛ́w^{n}ùn tɛ́w^{n}ér^{n}ɛ́	‘give formal counsel’

d. nominal with final *-ê:* or *-ě:*

	final -ê:, §4.2.2.4	
	bè:g-ê: bě:g-ɛ́:	‘belch (emit) a belch’
	kòjùg-ê: kójúg-ɛ́:	‘cough (emit) a cough’
	lùg-ê: lúgó	‘count (recite numbers)’
	final -ě:, §4.2.2.4	
xx	*dè:r^{n}-ě: dě:r^{n}ɛ́*	‘take a break, have a rest’

e. ATR vocalic shift with {*e o*} favored by following *u* in noun

dénú dènɛ́	‘conduct a search’
ébú ébɛ́	‘do some buying’ (cf. *íbɛ́* ‘market’)
jébú jèbɛ́	‘curse (a curse)’
jébú jèb-ɛ́:	‘swear, take an oath’
jóbú jɔ̀bɔ́	‘run; run a race’
sègú ségɛ́	‘pay dues; ante up’
sógù sɔ́gɔ́	‘button up buttons’
sógùrù sɔ́gɔ́rɔ́	‘make a sudden noise’
tògú tɔ́gɔ́	‘lance, make an incision (to bleed)’

f. alternation *a* ~ *o*, compare *gòb-ê*: (xx1b) in §4.2.2.4

bònî: bàn-ɛ́:	‘swim, go swimming’
bòrú bàrá	‘make an addition, increase’

bórú bàr-é:	‘take sides (in a dispute)’
sòŋú sáŋá	‘haggle over price, bargain’
wòlú wàlá	‘cultivate, do farm work’
yólú yàl-é:	‘take a walk, stroll’
plus final reduplication	
lóbó-ló lábá	‘do wood-carving’

If the nominal is composite, the verb is based on one of the components, usually the compound final (xx2a). In (xx2b) it is based on the noun rather than the adjective in the initial. In (xx2c), the verb is based on the final part of an otherwise unsegmentable initial.

(xx2) a. compound final of noun related to verb

àgà^{L}-dàmá dàmá	‘get up and leave early in morning’
àgà^{L}-wègú wègɛ́	‘spend the first half of the day’
àŋà^{L}-yô:lò yǒ:ló	‘whisper’
dùmɔ̀^{L}-kámù kámá	‘bake (ground millet) into bread between hot stones’
[kì-kà:^{n}]^{L}-[lí-lègù] légé	‘hiccup (have) the hiccups’
kù:^{L}-ùló úló	‘(sb) be proud, vain’
nòy^{n}^{L}-[dâ-y] dă:	‘wave hand (as a greeting)’
tàbà^{L}-gònɔ́ gɔ̀nɔ́	‘build a fence’
tòy^{L}-dáŋúrú dàŋárá	‘do spot-sowing while weeding crops’
tòy -jù:rú jǔ:ró	‘(farmers) slash earth in unison’
yàŋà^{L}-yêl yèlé	‘have a dream’
yìm^{L}-[pìrìg-ě:] píríg-é:	‘be in death throes’
yògò^{L}-sèlé sélé	‘be ungrateful’
with apparent prefix, see §4.1.8	
àŋ-gùŋɔ̀lê: gùŋɔ́l-é:	‘crawl (on all fours)’
à^{n}-tà:r^{n}î: tá:r^{n}-é:	‘take a step, stride’
à-tómù tómɔ́	‘take a jump’

b. modified noun related to verb

[wòl gém] wàlá	‘do black farming (first round of weeding)’, cf. *wòlú wàlá* (xx1b)

c. final two syllables of noun related to verb

ná:pìlè pílé	‘perform a supplemental prayer’

In some pairs otherwise similar to those in (xx1a) above, there is an ATR mismatch between the noun (+ATR vowel plus final *u*) and the -ATR verb.

(xx1) a. nominal in VblN form (rising tone, final *ú* ~ *ý* ~ ∅)

sègú ségɛ́	‘pay dues, pay taxes’

tǒy tɔ́:	‘make slashes in earth (to plant)’

b. other nominals with final *u* or Apocope

ébú ébɛ́	‘make a purchase’
jébú jɛ̀bɛ́	‘swear an oath’
kíbù kíbɛ́	‘clear and clean up (new field)’
sógù sɔ́gɔ́	‘button up buttons’
sógùrù sɔ́gɔ́rɔ́	‘(sth unseen) make a noise’
tél télɛ́	‘clear a field (with an ax)’

11.1.4.3 Grammatical status of cognate nominal

examples

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

11.2.1 ‘It is’ clitics

11.2.1.1 Positive ‘it is’ (*=y*, *=i:*)

The ‘it is’ clitic can be added to a NP or other noun-like constituent to form a predicate (with no aspectual marking) that can be glossed ‘it is NP’. The function is identificational, the ‘it’ in the gloss referring to a presupposed referent. The same clitic can be added to a NP or similar constituent to focalize it (§13.1), compare English clefts like *It’s you who(m) I love*. Since objects (among other NPs) can be focalized, care must be taken to distinguish the ‘it is’ and focus clitic on the one hand, from the accusative suffix *-ỳ* for human NPs on the other.

The ‘it is’ clitic has no intrinsic tones; the final tone of the NP extends to the semivowel of the clitic (xx1). Segmentally, the form is *=y* after a vowel, and *=i:* after a consonant (often a noun ending in human plural suffix *-m*, which is lenited to *-w^{n}-* before the clitic).

(xx1) a. *gɛ̀r^{n}ɛ́=ý^{n}*
house=it.is
‘it’s a house’

b. *[mú* ^{L}*bà:]=ỳ*
[1SgP ^{L}father]=it.is
‘it’s my father’

c. *yǎ:-w^{n}=í:*
woman-Pl=it.is
'It's (some) women.' (< *yǎ:-m* 'women')

By contrast, the accusative suffix is L-toned. After a human noun ending in a H-tone, one can hear the difference: *yǎ:-r^{n}á=ý* 'it's a woman' versus *yǎ:-r^{n}á-ỳ^{n}* 'a woman' (direct object). The difference is also audible after pronouns, e.g. *ú=ý* 'it's you-Sg' versus *ú-ỳ* 'you-Sg' (direct object).

The 'it is' clitic is not conjugated for pronominal subject. An independent pronoun may precede the 'it is' predicate to express the subject or topic of the predication (xx2.a). Plurality of humans is expressed in the NP within the predicate in the usual way (xx2.b).

(xx2) a. *mú* *yǎ:-r^{n}á=ý*
1Sg woman-Sg=it.is
'I am a woman.'

b. *bé* *dɔ̀gɔ̌-w^{n}=í:*
3Pl Dogon-Pl=it.is
'They are Dogon (people).' (< *dɔ̀gɔ̌-m*)

In (xx2.b), the rising tone of *dɔ̀gɔ̌-m* has its final H-toned element expressed only on the clitic, since the stem-final vowel is short.

11.2.1.2 'It is not' (*=ý=lǎ:*)

The 'it is' clitic is negated by adding a second clitic, negative *=lǎ:*, to the positive form.

(xx1) a. *gɛ̀r^{n}ɛ́=ý^{n}=lǎ:*
house=it.is=Neg
'it isn't a house'

b. *[mú* ^{L}*bà:]=ỳ=lǎ:*
[1SgP ^{L}father]=it.is=Neg
'it isn't my father'

Unlike the positive 'it is' clitic, the negative clitic can be suffixally conjugated for pronominal subject (xx2).

(xx2) *dɔ̀gɔ̌-nɔ́=ý^{n}=lǎ:-m*
Dogon-Sg=it.is=Neg-1SgS

‘I am not (a) Dogon (person).’

The paradigm is (xx3). The tone of *=y* is, as usual, dependent on the final tone of the preceding NP.

(xx1) category form

1Sg	*=y=lǎ:-m*
2Sg	*=y=lǎ:-w*
3Sg	*=y=lǎ:-∅*
1Pl	*=y=là-ɛ́:^{n}*
2Pl	*=y=lǎ:-y*
3Pl	*=y=là-ɛ́:^{n}*

11.2.2 Existential and locative quasi-verbs and particles

11.2.2.1 Existential (*yá*)

The existential particle *yá* occurs before predicates, especially ‘be (somewhere)’ and ‘have’. The syntax is different between ‘have’ and the predications of existence, location, or position. With ‘be (somewhere)’, *yá* is a default used when no other overt locational expression is present.

The particle does not co-occur with negation. In positive utterances, *yá* is absent in the presence of an overtly focalized constituent, and from relative clauses. The syntax is most readily observed with sɛ̀- ‘have’; for examples see §11.5.1.

11.2.2.2 Locational-existential *wɔ̀-*/*kɔ̀-*, negative *wɔ̀-lɔ́-*/*kɔ̀-lɔ́*

Being in a location, and more generally existing, is expressed by Locational-existential quasi-verb *wɔ̀-* for humans and animates, *kɔ̀-* for inanimates (including plants). Interlinears will have “be.An” and “be.Inan.” Like other statives, the quasi-verb does not take aspectual markers.

(xx1) Paradigm of Locational-existential *wɔ̀-* /*kɔ̀*

. category form

1Sg	*wɔ̀-m*

2Sg	*wɔ̀-w*
3Sg	*wɔ̀-∅*
Inanimate	*kɔ̀*
1Pl	*wɔ̀-y^{n}*
2Pl	*wɔ̀-y*
3Pl	*wɔ̀-y^{n}*

The quasi-verb is obligatorily preceded by a locational expression ('here', '[in] the village', etc.). In the absence of a specific locational, the default is existential *yá*, which indicates existence in an unspecified or contextually understood location. *yá* does not co-occur with another overt locational in this construction.

(xx1) a. *á:màdù* *[bàmàkó* *ǹ]]* *wɔ̀-∅*
A [B in] be.An-3SgS
'Amadou is in Bamako (city).'

b. *émɛ́* *ŋ́* *wɔ̀-y^{n}*
1Pl here be.An-1PlS
'We are here.'

c. *[péjú* *gɔ̀-m]* *òlú* *wɔ̀-y^{n}*
[sheep Def-Pl] bush be.An-3PlS
'The sheep are in the bush (= outback).'

d. *súgɔ̀rɔ̀* *yá* *kɔ̀*
sugar Exist be.Inan
'There is (some) sugar.'

e. *á:màdù* *yá* *wɔ̀-∅* *mà→↑*
A Exist be-An-3SgS Q
'Is Amadou there?'

There is no vocalic assimilation between *yá* and the quasi-verb.

Being in a location, or existing (anywhere), is denied by the relevant conjugated negative form in (xx3).

(xx3) Paradigm of negative Locational-existential *wɔ̀-lɔ́-/kɔ̀-lɔ́*

.	category	form

1Sg	*wɔ̀-lɔ́-m*
2Sg	*wɔ̀-lɔ́-w*
3Sg	*wɔ̀-lɔ́-∅*
Inanimate	*kɔ̀-lɔ́*
1Pl	*wɔ̀-nɛ́*
2Pl	*wɔ̀-lɔ́-y*
3Pl	*wɔ̀-nɛ́*

A locational expression may occur, but is not required, with these negative forms. *yá* is not allowed.

(xx4) a. *á:màdù* *[bàmàkó* *ǹ]* *wɔ̀-lɔ́-∅*
A [B in] be.An-Neg-3SgS
'Amadou is not in Bamako (city).'

b. *súgɔ̀rɔ̀* *kɔ̀-lɔ́*
sugar be.Inan-Neg
'There is no sugar.'

Existential-locational quasi-verbs belong to a larger set of statives that denote location and position. These include *tò* 'be in' (see the following section), and stative verbs derived (in some cases irregularly) from regular verbs (§10.xxx, above). Of the latter, *dà:^{n}* 'be sitting' is particularly important since it generalizes as a 'be on (horizontal surface)' as in 'the tea-kettle is (up) on the burner'. The 'have' quasi-verb is also of this stative type. These defective statives lack a perfective/imperfective distinction (and therefore do not occur with any marked aspectual suffixes such as recent perfect), and they all have similar stative negative suffixes of the shape *-lɛ́*.

11.2.3 'Be in', 'be on'

11.2.3.1 'Be in' (*tò*)

This stative quasi-verb replaces *wɔ̀-*/*kɔ̀-* 'be' (see the preceding section) when the location in question is defined by an enclosing three-dimensional entity (house, waterjar, sack). *tò* is not used in contexts like 'he is in the field' where the enclosing entity is two-dimensional and is not easily thought of as a container. There is no animate/inanimate distinction.

(xx1) Paradigm of *tò* 'be in'

.	category	form
	1Sg	*tò-m*
	2Sg	*tò-w*
	3Sg	*tò-∅*
	1Pl	*tò-ɛ̀ⁿ*
	2Pl	*tò-y*
	3Pl	*tò-ɛ̀ⁿ*

The syntax is similar but not identical to that of *wɔ̀-/kɔ̀-*. Existential *yá* is a default, required if if no other locational expression is present. However, *yá* also optionally co-occurs with another locational (xx2.a).

(xx2) a. *émé* *gèrⁿɛ̀-ýⁿ* *(yá)* *tò-ɛ̀ⁿ*
1Pl house-Dimin (Exist) be.in-1PlS
'We are at home.'

b. *[péjú* *gɔ̀-m]* *[ógú* *nɛ̀]* *(yá)* *tò-ɛ̀ⁿ*
[sheep Def-Pl] [pen in] (Exist) be.in-3PlS
'The sheep are in the bush (= outback).'

c. *[dǐ:* *gɔ̀]* *[tònɔ̀-ýⁿ* *nɛ̀]* *tò-∅*
sugar Exist [waterjar in] be.in-3SgS
'There is (some) sugar in the jar.'

d. *á:màdù* *yá* *tò-∅*
A Exist be.in-3SgS
'Amadou is in (the house).'

The negative forms are in (xx3). They do not co-occur with existential *yá*.

(xx3) Paradigm of 'not be in' *tò-ló-*

.	category	form
	1Sg	*tò-ló-m*
	2Sg	*tò-ló-w*
	3Sg	*tò-ló-∅*
	1Pl	*tò-né*

2Pl	*tò-ló-y*
3Pl	*tò-né*

11.2.3.2 'Be on' (*yàŋà*)

For 'be on (e.g. roof, treetop)', the defective stative quasi-verb is *yàŋà*.

paradigm (pos, neg)
example

For 'be on (horizontal surface, e.g. a wall)' regular mediopassive verbs *tár-é:* and *jàb-é:* are available, and no defective stative is known.

11.2.4 'Want' (*ìbɛ̀-*, *náwⁿɔ́:-*)

'Want' is commonly expressed by the defective quasi-verb *ìbɛ̀-*. It takes a preceding object NP. The all L-toned contour suggests that the object NP is focalized. In isolation 'want' is *íbɛ́:-* with {H}-tones and long vowel.

(xx1) a. *ìnjɛ́* *ìbɛ̀-w*
what? want-2SgS
'What do you-Sg want?'

b. *súgɔ̀rɔ̀* *ìbɛ̀-m*
sugar want-1SgS
'I want (some) sugar.'

The paradigm in such defocalized positions is in the middle column of (xx2). In isolation, the forms in the right-hand column were obtained.

(xx2) Paradigm of *íbɛ́:* 'want'

.	category	defocalized	isolation
	1Sg	ᴸ*ìbɛ̀-m*	*íbɔ́:-m*
	2Sg	ᴸ*ìbɛ̀-w*	*xxx*
	3Sg	ᴸ*ìbɛ̀-∅*	*íbɛ́:-∅*
	1Pl	ᴸ*ìb-ɛ̀:ⁿ*	*xxx*
	2Pl	ᴸ*ìbɛ̀-y*	*xxx*

	3Pl	^{L}*ìb-ɛ̀:^{n}*	*xxx*

The negative is *ìbɛ̀*^{L} *= lá-*, with a conjugated form of the regular stative negative clitic *= lá-* (§xxx). The related noun is *í-íbé* [íʔíbɛ́] 'love(n)'.

(xx4) *súgɔ̀rɔ̀* *ìbɛ̀*^{L} *= lá-m*
sugar want=StatNeg-1SgS
'I don't want (any) sugar.'

There is an alternative stem for 'want', namely mediopassive *náw^{n}-é:*, chaining form *náw^{n}-í:* .

(xx5) Paradigm of *náw^{n}-é:* 'want'

.	category	defocalized	isolation
	1Sg	*xxx*	*náw^{n}ɔ̀:-m*
	2Sg	*xxx*	*xxx*
	3Sg	*xxx*	*náw^{n}ɛ́:-∅*
	1Pl	*xxx*	*xxx*
	2Pl	*xxx*	*xxx*
	3Pl	*xxx*	*xxx*

The negative is *nàw^{n}à*^{L} *= lá-*.

11.2.5 'Know' (*ígɔ́:-*, negative *ínɛ̀:-*)

'Know' is a classic stative concept and is expressed by another defective quasi-verb (*ígɔ́:-*). It can be used absolutely (xx1), denoting knowledge of a contextually understood fact, or with an object (xx2).

(xx1) a. *ígɔ́-m*
know-1SgS
'I know.'

b. *[tɛ̀w^{n}ɛ̀*^{L} *kó]* *ígɔ́-m*
[tree^{L} that] know-1SgS
'I know (= am familiar with) that tree.'

The paradigm is (xx2). The long vowel of *ígɔ́:-* is heard only in the zero-suffixed 3Sg.

(xx2) Paradigm of 'know'

.	category	form
	1Sg	*ígɔ́-m*
	2Sg	*ígɔ́-w*
	3Sg	*ígɔ́:-∅*
	1Pl	*ígɔ́-y^{n}*
	2Pl	*ígɔ́-y*
	3Pl	*ígɔ́-y^{n}*

ígì versus *ígɔ́:-∅*

Negative forms have the same syntax. A (partially) suppletive stem *ínɛ̀:-* is used. Again, the long vowel is heard in the 3Sg only.

(xx2) Paradigm of 'not know'

.	category	form
	1Sg	*ínɛ̀-m*
	2Sg	*ínɛ̀-w*
	3Sg	*ínɛ̀:-∅*
	1Pl	*ín-ɛ̀: ^{n}*
	2Pl	*ínɛ̀-y*
	3Pl	*ín-ɛ̀: ^{n}*

11.2.6 Morphologically regular verbs

11.2.6.1 'Remain, happen' (*bɛ̌:*)

The verb *bɛ̌:* (chaining stem *bǐ:*) means 'stay, remain', usually with animate subject, or '(event) take place, happen'. It has regular aspect-negation inflection and is not stative.

This verb is also used as an inchoative 'become X' with expressive adverbials, see (xx3) in §8.4.7.

11.2.6.2 'Become, happen' (*táŋá*)

X *táŋá* means 'become X' or 'be transformed into X', where X is a NP denoting a type (e.g. 'become an African, turn into a lion'). An example is *mû:mɔ̀ táŋá* 'become a deaf-mute'.

-nè absent on 'deaf' ?
they have become women
he has become like a dog

The other lexical sense that is somewhat close to this is 'move (relocate)', especially '(bride) move permanently to her husband's home' (a highly ritualized procession). Other senses of *táŋá* are '(fire) be lit' and 'become contaminated'.

There is a transitive derivative táŋá-rá with various senses involving transfer or change of state: 'transfer (pour) into a bowl', 'transfer (bride) to husband's house', 'contaminate', 'take across', 'turn on (lights, electronic device)', 'set on fire'.

11.2.6.3 'Fear' (*lɛ́:*)

The verb *lɛ́:* 'fear, be afraid of', chaining form lí:, has normal inflections and may take a direct object (xx1).

(xx1) *wó-ỳ* *lí-lɛ̀:-jɛ̀-m*
3Sg-Acc Rdp-fear-Fut-1SgS
'I am afraid of him/her.'

why Fut?
negative?

11.3 Quotative verb 'Say' (ᴸ*gì-*/ᴸ*gù-*, *gɛ̌:*, *gɛ̌-*)

This verb takes regular inflectional endings in most categories, but it occurs most often in an irregular unsuffixed perfective form ᴸ*gì-*/ᴸ*gù-*, following a quotation or an object NP ('nothing', 'that'. The paradigm is (xx1).

(xx1) Unsuffixed perfective Paradigm of 'say'

.	category	form
	1Sg	^{L}*gù-m*
	2Sg	^{L}*gù-w*
	3Sg	^{L}*gì-∅*
	1Pl	^{L}*g-è:^{n}*
	2Pl	^{L}*gì-y*
	3Pl	^{L}*g-è:^{n}*

The consonantally conditioned *i* ~ *u* alternation is the same as for the perfective-1b -tì and the perfective negative suffix (1Sg *-lú-m*, etc), see §3.4.6.1.

Other inflected forms of 'say' are based on a stem *gě-*, whose vowel is lengthened (to *gě:*) in nonfinal position in verb chains (xx2a) but remains short before nonzero AN suffixes (xx2b-d).

(xx2) a. *kó* *gě:* *bí-bèlè-jè-m*
that say Rdp-can-Fut-1SgS
'I can say that.'

b. *kó* *gí-gè-jè-m*
that Rdp-say-Fut-1SgS
'I will say that.'

c. *kó* *gè-lú-m*
that say-PerfNeg-1SgS
'I didn't say that.'

d. *kó* *gě-lè-m*
that say-PresHabNeg-1SgS
'I don't say that.'

An important irregularity of this verb is that the unsuffixed perfective is not based on the same stem that is used in nonfinal position in chains; see §10.1.1 on the regular distinction between bare and chaining stems.

11.4 Adjectival predicates

The adjectival predicates presented here are distinct from inchoative and factitive verbs ('become heavy', 'make it heavy'), on which see §9.4.

11.4.1 Positive adjectival predicates

The lexical tone of an adjective as reflected in modifying (attributive) function (§4.xxx) is overridden by {LH} before the conjugated quasi-verb *wɔ̀-* 'be'.

(xx1)	modifying	gloss	3Sg predicate	gloss
	pélèl	'having a crispy taste'	*pèlěl wɔ̀*	'it is crispy'
	ɛ̂:l ~ *ɛ́lèl*	'sweet'	*ɛ̌:l wɔ̀* ~ *èlěl wɔ̀*	'it is sweet'

go through full set of adjectives
verify 3Sg neutralization

èlěl wɔ̀ 'it is sweet' versus
[kínɛ́ mɔ̀] élél-í:-gɛ̀ kɔ̀ 'my heart is sweet' (I am happy)

11.4.2 Negative adjectival and stative predicates (xxx)

'I am not tall.' etc.

11.5 Possessive predicates

11.5.1 'Have' quasi-verb

11.5.1.1 Positive 'X have Y' (*sɛ̀*)

Positive 'X have Y' is expressed as *[X Y yá sɛ̀-]* with existential particle *yá* and defective stative quasi-verb *sɛ̀-* 'have'. The construction can denote possession (ownership, custody) (xx1a), or it can be used abstractly to associate a quality with an entity (xx1b).

(xx1) a. *gɛ̀r^{n}ɛ́* *yá* *sɛ̀-m*
house Exist have-1SgS
'I have a house.' (ownership or temporary custody)

b. *séydù* *pàŋá* *yá* *sɛ̀-∅*
Seydou strength Exist have-3SgS
'Seydou is strong/powerful.'

sɛ̀- can also be used as an alternative to *á:* 'catch, grab' in the construction type 'X have/catch Y' where X is a malady or other condition and Y is the animate sufferer (English would switch the subject and object).

(xx2) *[àmsɔ̀gɔ́ wò-mɔ̀]* *mí-ỳ^{n}* *yá* *sɛ̀-∅*
[pity(n) 3Sg-Poss] 1Sg-Acc (Exist) have-3SgS
'I have pity on him.' (lit. "[His pity] has me.")

When a constituent is focalized, the existential particle is omitted, as in (xx3a), a focalized variant of (xx2) above. The particle is also omitted in relative clauses, many of which are semi-lexicalized (xx3b).

(xx3) a. *[àmsɔ̀gɔ́ wò-mɔ̀]=y^{n}* *mí-ỳ^{n}* *yá* *sɛ̀-∅*
[pity(n) 3Sg-Poss]oc 1Sg-Acc (Exist) have-3SgS
'I have pity [focus] on him.'

b. *sɔ̀:* *dímɛ̀* *sɛ̀*
speech prudence have.Ppl
'careful (measured) talk' (lit. "talk that has prudence")

The paradigm is (xx4).

(xx4)

category	'have'
1Sg	*sɛ̀-m*
2Sg	*sɛ̀-w*
3Sg/Inan	*sɛ̀-∅*
1Pl	xxx
2Pl	*sɛ̀-y*
3Pl	xxx

sɛ̀- combines with Past clitic *=bé-* as *yá sɛ̀=bɛ̀-* with the existential particle, or as *sɛ̂:=bɛ̀-* (note the tones) without the particle (xx5a-b). A chaining stem *séy* is attested (xx5c).

(xx4) a. *gɛ̀r^{n}ɛ́* *yá* *sɛ̀=bɛ̀-m*
house Exist have=Past-1SgS
'I had (used to have) a house.'

b. *X* *sɛ̂:=bɛ̀-m*
X have=Past-1SgS

'I had X.' [focalized?]

c. *X* *sɛ́y* *bí-bɛ̀lɛ̀-jɛ̀-m*
X have Rdp-get-Fut-1SgS
'I can have X.'

replace X with real noun

11.5.1.2 'X not have Y'

The negative paradigm is (xx1).

(xx1) category 'not have'

1Sg	*sɛ̀-lɛ́-m*
2Sg	*sɛ̀-lɛ́-w*
3Sg/Inan	*sɛ̀-lɛ́-∅*
1Pl	xxx
2Pl	*sɛ̀-lɛ́-y*
3Pl	xxx

Existential *yá* is never used in negative clauses (xx2a). *sɛ̀-lɛ́-* combines readily with the past clitic (xx2b). There are some semi-lexicalized relative clauses denoting the absence of a quality (xx2c), cf. *-less* in English adjectives like *clueless*.

(xx2) a. *gɛ̀r^{n}ɛ́* *sɛ̀-lɛ́-m*
house have-Neg-1SgS
'I don't have a house.'

verif b. *gɛ̀r^{n}ɛ́* *sɛ̀-lɛ́=bɛ̀-m*
house have-Neg=Past-1SgS
'I didn't have a house.'

c. *kû:* *sɛ̀-lɛ̀*
head have-Neg.Ppl
'headstrong' (lit. "not having a head")

11.5.2 'Belong to' predicates

‘the house is mine’
‘the sheep is Seydou’s’
‘it isn’t mine’

11.6 Verb iteration

11.6.1 Uninflected iteration of type $verb_1$-$verb_1$(-$verb_1$ …)

delete section if unattested

12 Comparatives

12.1 Asymmetrical comparatives

12.1.1 *sìgɛ̀* 'more' and *dɛ̀:* ~ *dɛ̀y* 'than'

sìgɛ̀ 'more' occurs in many comparatives. In addition, it occurs with numerals consisting of a decimal term ('10', '20', etc.) plus a single-digit term, e.g. '17' or '36', see §4.xxx. Related forms are *sìgɛ́* '(the) favorite', a reduplicated noun *sì-sìgɛ́* 'superiority', and the compound final in *ɛ̀n*^{L}*-sìgɛ́* 'extra row of teeth' (*ɛ̌n* 'tooth').

The postposition *dɛ̀:* ~ *dɛ̀y* means 'than' in comparatives, i.e. it is added to the NP denoting the comparandum.

gá-gárá 'more' (with predicate)

12.1.2 Comparative predicate adjectives

I am taller/older/fatter than you
Past clitic
negative
Past negative

12.1.3 Comparatives based on verbal predicates

I ate more meat than you (did).
She runs more than I (do).

I ate more meat than (I ate bread).

12.1.4 'Surpass' (*gàlá*)

The basic sense of *gàlá* as motion verb is 'pass by X' or 'continue onward from X (after stopping there)'.

examples

12.1.5 'Be bigger' (*gă:*)

gă: (cf. Jamsay gàrá) has a genewral sense 'big', but is used especially in relational contexts, in contrast to the nonrelational *dɛ̂:* 'big, large' and the more emphatic *déméélé* 'massive'. For example, *gă:* can mean 'grown-up', describing someone who has now reached full adult size or who has grown considerably since last being seen. It is also used in the sense 'older, more senior' as opposed to 'younger, more junior', for example in kinship contexts (e.g. 'older cousin'). As predicate, it is especially used in the comparative sense, without *wɔ̀-* 'be' (xx1).

(xx1)	*[X*	*dɛ̀:]*	*gă:*
	[X	than]	big(ger)
	'is bigger than X'		

I am bigger than you.

A related noun of extent, with initial reduplication, is *gì-gă:* 'size, dimensions'. *gì-gă: gɔ̀* is used nominally ('a lot') or adverbially ('greatly, very much').

12.1.6 'Be better, more' (*ìré*)

This is a defective stative verb. The H-tone is realized on a suffixal sonorant if present (1Sg *ìrĕ-m* 'I am better'), but on the stem-final *e* in the zero-suffix 3Sg (*ìré-∅* 'he/she is better'). The comparandum has the usual 'than' postposition *dɛ̀y* ~ *dɛ̀:* . The negative form is *ìrè*^{L} *=lá-* with the conjugated stative negative clitic (§10.4.2).

(xx1) a.

[wó	*dɛ̀:]*	*ìrĕ-m*
[3Sg	than]	**be.better**-1SgS

'I am better than he/she (is).'

b.

[wó	*dɛ̀:]*	*ìrè*^{L} *=lá-m*
[3Sg	than]	**be.better=Neg**-1SgS

'I am not better than he/she (is).'

mangoes are better than wild grapes
forms with past clitic

12.1.7 'Best' (xxx)

'X is the best (of a set)'
perhaps a nonverbal predicate with 'it is' clitic
how is the set expressed? ('X is the best of the women')

12.2 Symmetrical comparatives

12.2.1 'Equal' (*kɛ́w-kɛ́w*, *kí-kɛ́w*, *kɛ́w-n-ɛ́ː*, *kɛ́gù*)

A number of expressions are available to indicate that Y and X are equal or level on some scalar criterion. The referents X and Y are expressed as a plural clause subject ('X and Y', 'they', 'all the people', etc.).

kɛ́w-kɛ́w is the most versatile and general adverb meaning 'equally'. This fully iterated form also has a reduplicated variant *kí-kɛ́w*, which is attested in the context 'X and Y are of (exactly) the same height'. The conjugatable verb 'become equal, level' is *kɛ́w-n-ɛ́ː*, with a causative *kɛ́w-n-ɛ́ː-mɔ́* 'make (Y and X) equal or level'.

An obscurely related form *kɛ́gù* is also attested in the sense 'of exactly the same height'. Conceivably the *gù* syllable is connected to adverbial -gú (§8.4.1).

expression of the dimension of comparison?

12.2.2 'As much as' (*bă→*)

bă→ is an expressive element that occurs in the sequence *X bă→* whose basic sense is 'all the way to/until or from/since X', emphasizing the complete trajectory starting from or ending at the point X. Examples are *àgá bă→* '(continuously) since morning' and *[X nɛ̀] bă→* 'all the way to X (place)' with locative postposition.

More abstractly, *bă→* can mean 'as much as X, to the same extent as X' with regard to some scale. As predicate, *X bă→ wɔ̀* means 'he/she is/does as much as X'

examples

12.2.3 ‘Attain, equal’ (*dǒ:*)

The basic sense of the motion verb *dǒ:* is ‘arrive at the edge of’, for example ‘arrive at the door (of a house)’. More loosely it can just mean ‘arrive’ in a noncentripetal direction (it is pre-empted by *wɛ̀lɛ́* ‘come’ in the context ‘arrive here’).

examples

12.3 ‘A fortiori’ (xxx)

wê→y … sǒ→y [examples]

‘I don’t have money to buy a goat, much less (buy) a cow.’
‘I don’t have anything for myself to eat, much less (anything) to give you.’

this might be expressed with a ‘talk’ expression:
‘I dont have money to buy a goat, much less talk of (buying) a cow’

13 Focalization and interrogation

13.1 Focalization

Constituent focalization means that a NP (using this loosely to include adverbs like 'yesterday') is singled out for focus, the remainder of the clause including the predicate being presupposed (backgrounded).

Constituent focalization is expressed by a combination of direct marking of the focalized element and defocalization (by morphological reduction) of the clause-final verb.

The focalized element must be overtly expressed by a NP or pronoun somewhere preceding the predicate. The main effect of this requirement is that when a pronominal subject is focalized, it is not sufficient to index subject category with a pronominal-subject suffix on the predicate. Instead, an independent subject pronoun is required, and there is no pronominal-subject suffix on the predicate. The subject pronoun can occur either clause-initially (e.g. preceding an unfocalized object NP), or immediately before the predicate (following any other constituents).

The focalized constituent (NP or pronoun) may be marked overtly with the focus clitic *=y*, identical to the 'it is' clitic but without pronominal-subject conjugation. The rules for *=y* are somewhat different for subject and non-subject focalization; see the sections below for details.

Defocalized verbs undergo the modifications in (xx1) in the presence of a focalized constituent.

(xx1)

category	unfocalized	focalized
perfective positive system		
simple past	*=bé-*	unsuffixed perfective
perfective-1a	*-à:y-*	" "
perfective-1b	*-tì-*	" "
recent perfect	*-jɛ̀:-*	" "
experiential perfect	*-tɛ́rɔ̀:-*	" "
imperfective positive system		
imperfective	*-jɛ̀-*	*-jɛ̀-* (all L-toned)
reduplicated future	*Cí-…-jɛ̀-*	" "
present progressive	*-ẁ-wɔ̀-*	*-ẁ-wɔ̀-*

perfective negative system		
perfective Neg	*-l-* (suffix H-toned)	*-l-* (all L-toned)
recent perfect Neg	*-jɛ̌:-l-*	" "
experiential perfect Neg	*-tɛ́-rú-*	*-tɛ̀-r-* (all L-toned)
imperfective negative system		
present habitual Neg	*-lɛ̀-*	*-lɛ̀-* (all L-toned)
present progressive Neg	*-ẁ-wɔ̀-lɔ́-*	*-ẁ-wɔ̀-lɔ̀-*

The morphological reduction is most dramatic in the perfective positive system, where the various marked past, perfective, and perfect categories are replaced by the unsuffixed perfective (basically a L-toned form of the chaining stem). In the other systems, the only consistent changes are a) the omission of initial reduplicants, and b) the dropping of any otherwise H-tones in the verb stem and the suffix to L-tone.

Existential particle *yá*, which is otherwise required in some positive predicates of existence-location and possession (§11.xxx), is not compatible with constituent focalization. This suggests that *yá* is itself a kind of default focalized constituent in the relevant constructions (whose quasi-verbs 'be' and 'have' are L-toned and morphoogically defective). *yá* is present in (xx2.a) but is not allowed in any of the constituent-focalized clauses (xx2.b-d).

(xx2) a. *nă:* *yá* *sɛ̀-m*
cow Exist have-1SgS
'I have a cow.'

b. *mí=ý* *nă:* *sɛ̀*
1Sg=Foc cow have
'It's I [focus] who have a cow.'

c. [*nă:* *túrí]=ý* *sɛ̀-m*
[cow one]=Foc have-1SgS
'It's a cow [focus] that I have.'

d. *[[àná* *ɛ̀mɛ̀]* *nɛ̀]=ỳ* *nă:* *sɛ̀-m*
[[village 1PlP] in]=Foc cow have-1SgS
'It's in our village [focus] that I have a cow.'

13.1.1 Subject focalization

The subject (NP or pronoun) must be expressed by a constituent somewhere preceding the verb. This subject may occur in normal subject position (clause-initial), or in immediate preverbal position.

Focus clitic *=y* is normally heard when the focalized subject is clause-initial (i.e. preceding an unfocalized constituent, or in the absence of other preverbal constituents). When a focalized subject is placed in immediate preverbal position, following another constituent, it is usually not followed by *=y*.

The unfocalized clauses (xx1.a) and (xx1.c) should be compared to subject focalized counterparts (xx1.b) and (xx1.d), respectively. Observe the absence of pronominal-subject marking on the predicates in the subject-focalized clauses, and the morphological adjustments of the (defocalized) verbs.

(xx1) a. *mó:tì* *yă:=bé-m*
M go=Past-1SgS
'I went to Mopti.'

b. *ú=ý* *mó:tì* *ˡyày*
2Sg=Foc M ˡgo.Perf
'It's you-Sg [focus] who went to Mopti.'

c. *[tɛ́wⁿɛ́* *ŋɛ̀]* *kí-kɛ̀jɛ̀-jɛ̀-m*
[tree Def] Rdp-cut-Impf-1SgS
'I will cut down the tree.'

d. *[tɛ́wⁿɛ́* *ŋɛ̀]* *ú* *ˡkɛ̀jɛ̀-jɛ̀*
[tree Def] 2SgS ˡcut-Impf
'It's you-Sg [focus] who will cut down the tree.'

13.1.2 Object focalization

In non-subject (including object) focalization, the defocalized verb undergoes the usual modifications in its AN inflection, but it does show pronominal-subject agreement as in unfocalized main clauses.

Focalized objects NPs are typically marked with focus clitic *=y* regardless of position.

(xx1) a. *mí=ý* *[íbɛ̀* *nɛ̀]* *ˡyɛ̀:-w*
1Sg=Foc [market in] ˡsee.Perf-2SgS

'It's me [focus] that you-Sg saw in the market.'

b. *[tèw^{n}è^{L} kó]=ý ^{L}kèjè-m*
[tree^{L} that]=Foc ^{L}cut.Perf-1SgS
'It's that tree [focus] that I cut down.'

c. *á:màdù [tèw^{m}é ŋè]=ỳ ^{L}kèjè-∅*
A [tree Def]=Foc ^{L}cut.Perf-3SgS
'It's the tree [focus] that Amadou cut down.'

The accusative suffix *-ỳ* does not occur in focalized object NPs. To be sure, there is no audible difference between accusative *-ỳ* (inherently L-toned) and focus clitic *=y* (no intrinsic tone) when the NP ends in a L-tone (for example, with a definite morpheme). However, the difference is audible after a NP or pronoun ending in a H-tone, and here we always get the focus clitic *=y* in H-toned form. In addition to the pronominal example in (xx1.a), above, we see this in (xx2).

(xx2) *yă:-r^{n}á=ý^{n} ^{L}yè:-m*
woman=Foc ^{L}see.Perf-1SgS
'It's a woman [focus] that I saw.'

13.1.3 Focalization of PP or other adverb

A locational or other adverbial expression, such as a postpositional phrase, may be focalized.

(xx1) a. *[[àná ^{L}kɔ̀lɔ̀] nɛ̀]=ỳ^{n} bírɛ́ ^{L}bìrɛ̀-jɛ̀-m*
[[village ^{L}interior] in]=Foc work(n) ^{L}work-Impf-1SgS
'It's in the village (town, city) [focus] that I work.'

b. *[ɛ́r^{n}ɛ́ lè]=ỳ wòlú ^{L}wàlà-y*
[daba with]=Foc farming ^{L}do.farm-work-Impf.1PlS
'It's with a daba (hoe) [focus] that we do farm work.'

13.1.4 Focalization of postpositional complement

The complement of a postposition cannot be focalized in the absence of the postposition itself.

13.1.5 Predicate focalization

There is no regular construction for focalization a predicate. The usual functional equivalent of predicate focalization is to focalize an object NP, such as a cognate nominal, or some other nonsubject constituent that is in the pragmatic scope of focalization. The examples in (xx1.a-b) can be used to answer the question 'What are you doing?'

(xx1) a. *jâ:=ỳ* *ˡsìrɛ̀-jɛ̀-m*
meal=Foc ˡcook-Impf-1SgS
'I'm cooking a meal [focus].'
[lit. "It's a meal [focus] that I'm cooking."]

b. *jây=ỳ* *ˡjàyɛ̀-jɛ̀-m*
squabble(n)=Foc ˡsquabble-Impf-1SgS
'I'm squabbling (= involved in a fight).'

Assertive truth-value focus (i.e. clause-level emphasis: *I did see them!*) is expressed by clause-final Emphatic particles (§19.5).

13.2 Interrogatives

Polar interrogation is expressed by a clause-final particle (§13.2.1).

Content (WH) interrogatives (§13.2.2ff.) are expressed by stems or short phrases of the relevant grammatical type (noun, adjective, adverb). Content interrogatives are followed by the 'it is' clitic *=y* in predicative function ('who is it?', 'when is it?', etc.). Some nonpredicate content interrogatives may be followed by the same clitic *=y* as focus marker. 'Who?' and 'what?' in particular often take this focus clitic in nonpredicative position.

Also included at the end of this section are 'whatchamacallit?' forms and embedded (quoted) interrogatives.

13.2.1 Polar (yes/no) interrogatives (*mă→*)

The clause-final (or phrase-final) polar interrogative particle is *mă→*. The rising pitch may really be due to intonational terminal rising rather than to rising phonological tone as such. The polar interrogative particle may therefore be identical in some sense to *mà→* 'or', which is sensible since every yes/no question asks for a choice between a positive and a corresponding negative proposition. In interlinears the abbreviation is Q (for "question").

examples, relationship to ‘or’ (double positive-negative questions)
try perfective negative verb

nárⁿá-ŋ ‘is it true?’

13.2.2 ‘Who?’ (*ă:*)

The interrogative for querying the identity of a human referent is *ă:* . It can be expanded as *ìnɛ̀ ă:*, with the noun ‘person’ in L-toned form.

(xx1) a. *ă:=ý* *ᴸwɛ̀lɛ̀*
who?=Foc ᴸcome.Perf
‘Who came?’

b. *[íbɛ̀* *nɛ̀]* *ă:=ý* *ᴸyɛ̀:-w*
[market in] who?=Foc ᴸsee.Perf-2SgS
‘Who did you-Sg see in the market?’

c. *[ìnɛ̀ᴸ* *ă:]=ý*
[personᴸ who?]=it.is
‘Who is it?’

d. *[gɛ̀rⁿɛ̀ᴸ* *nɔ̌:]* *[ă:* *mɔ̀]=ỳⁿ*
[houseᴸ this] [who? Poss]=it.is
‘This house is whose?’

These examples illustrate subject focus (xx1.a), object focus (xx1.b), ‘it is’ clitic (identical to the focus clitic) (xx1.c), and possessor (xx1.d).

ă: is normally in singular form, although it may be uncertain whether the solved-for referent will turn out to be singular or plural. A plural form *ă: bé* is possible when the referent is clearly plural.

(xx2) *é* *[ă:* *bé]=ý*
2Pl [who? Pl]=it.is
‘Who are you-Pl?’

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

The interrogative for querying the identity of a nonhuman entity is *ìnjɛ́*. It can be extended as *kìjɛ̀* ^{L} *ìnjɛ́*, with the noun ‘thing’ in L-toned form. In nonpredicative position it often takes the focus marker (xx1.b-c).

(xx1) a. *ìnjɛ́* *ú-ỳ* ^{L}*làgù*
what? 2Sg-Acc ^{L}hit-Perf
‘What hit you-Sg?’

b. *[kìjɛ̀*^{L} *ìnjɛ́]=ý* ^{L}*nòmù*
[thing^{L} what?]=Foc ^{L}fall-Perf
‘What fell?’

c. *[ìnjɛ́]=ý* *[mɔ̂:* *nɛ̀]* ^{L}*jɛ̀:l-ɛ̀:*^{n}
[what?]=Foc [1SgPoss in] ^{L}bring.Perf-3PlS
‘What did they bring for me?’

d. *nɔ̌:* *ìnjɛ́=ý*
this what?=it.is
‘What is this?’

Composite content interrogatives containing ‘what?’ are ‘with (by means of) what?’ and ‘for what?’ (= ‘why?’). In my data they do not normally combine with the focus marker.

(xx2) a. *[ìnjɛ́* *lɛ́]* *wɔ̌l* ^{L}*wàlà-jɛ̀-y*
[what? with] farming ^{L}do.farm.work-Impf-2PlS
‘What do you-Pl do farm work with?’

b. *[ìnjɛ́* *dɛ̀:]* *[pɛ́jú* *gɔ̀]* ^{L}*jɛ̀:l-ù-w*
[what? for] [sheep Def] ^{L}bring-Perf-2SgS
‘Why did you-Sg bring the sheep-Sg?’

‘Why?’ is unusual among content interrogatives in that it can easily co-occur with a distinct focalized constituent (xx3).

(xx3) *[ìnjɛ́* *dɛ̀:]* *súgɔ̀rɔ̀=ỳ* ^{L}*jɛ̀:l-ù-w*
[what? for] sugar=Foc ^{L}bring-Perf-2SgS
‘Why is it sugar [focus] that you-Sg brought?’

13.2.4 ‘Where?’ (*yà-bá:*)

The interrogative for locations is *yà-bá:* . The first syllable recurs in some other WH-interrogatives (see sections below). *bá:* may be compared with *bá:* in a few other locative adverbs such as *kó bá:* ‘over there (definite)’, *kû: bá:* or *dárⁿá bá:* ‘overhead’. It is used in simple form, without a locative postposition. In my data it does not occur with the focus marker.

(xx1) a. *yà-bá:* *wɔ̀-w*
where? be-2SgS
‘Where are you-Sg?’

b. *[èrⁿɛ́* *ŋɛ̀-m]* *yà-bá:* ᴸ*jàyù-w*
[goat Def-Pl] where? ᴸconveyPerf-2SgS
‘Where did you-Sg take the goats?’

c. *yà-bá:=ý*
where?=it.is
‘It’s where?’

13.2.5 ‘When?’ (*yă:rⁿà*, *[wà:rù ìnjɛ́] lé*)

The interrogative for querying times, in the sense of ‘(on) what day?’, is *yă:rⁿà*, without a postposition It can be extended as *bày yă:rⁿà*, with the L-toned form of the noun *băy* ‘day’.

(xx1) a. *yă:rⁿà* ᴸ*wèlɛ̀-w*
when? ᴸcome.Perf-2SgS
‘When did you-Sg come?’

b. *yă:rⁿà=ỳⁿ*
when?=it.is
‘When is it?’

If the context is effectively ‘at what hour?’ (i.e. temporal location within the span of a day), an alternative expression *[wà:rù ìnjɛ́] lé* ‘at what time?’ is used. This is based on the noun *wá:rú* ‘time, moment in time’, plus *ìnjɛ́* here in the sense ‘which?’ and postposition *lé*.

13.2.6 ‘How?’ (*yà-ŋín*)

Adverbial ‘how?’ (‘in what way/manner?’) is *yà-ŋín*. It contains *ŋín* ‘like, similar to’, nasalized from *gín* (§8.4.2), suggesting that *yà-* was originally nasalized.

(xx1) a. *yà-ŋín* *pɔ̀rⁿɔ́* *ᴸkàrⁿà-jɛ̀-y*
how? cream.of.millet ᴸmake-Impf-2PlS
‘How do you-Pl make cream of millet?’

b. *yà-ŋín=í:*
how?=it.is
‘How is it?’ (common greeting)

13.2.7 ‘How many?’ (*àŋá*), ‘how much?’ (*yɔ̀gɔ́ bà→*)

The interrogative for querying cardinal quantity (including ‘how much?’ with reference to money) is *àŋá*. Except in iterated form for unit price (see below), in predicative function it does not take the ‘it is’ clitic (xx1.a). In the alternative phrasing (xx1.b) it is clearly adverbial (‘for how much?’). When combined with a common noun (or core NP) denoting the universe of entities in question, *àŋá* behaves like a cardinal numeral. Like numerals, it directly follows the noun (or core NP), which (if human) is plural in form, and there is no tonal interaction between the noun (or core NP) and the interrogative.

(xx1) a. *[nă:* *ŋɛ̀]* *àŋá*
[cow Def] how.much?
‘How much is (the price of) the cow?’

b. *[nă:* *ŋɛ̀]* *àŋá* *ᴸdɔ̀rⁿɔ̀-jɛ̀-w*
[cow Def] how.much? ᴸsell-Impf-2SgS
‘How much will you-Sg sell the cow (for)?’

c. *péjú* *àŋá* *ᴸdɔ̀rⁿɔ̀-w*
sheep how.many? ᴸsell.Perf-2SgS
‘How many sheep did you-Sg sell?’

d. *yă:-m* *àŋá*
woman-Pl how.many?
‘How many women?’

Partitive ‘how much/many of X’, which is normal when X is determined or quantified over, is expressed using a locative postpositional phrase for X that may be set off prosodically from the following words.

(xx2) *[[péjú mɔ̀ ŋɔ̀-m] nɛ̀] àŋá* ^{L}*dɔ̀r^{n}ɔ̀-w*
[[sheep 1SgPoss Def-Pl] in] how.many? ^{L}sell.Perf-2SgS
‘In (= out of) my sheep-Pl, how many did you-Sg sell?’

To express the unit price of items sold at retail, we get distributive reduplication *àŋá-àŋá* (cf. §xxx) in predicative function with ‘it is’ clitic, or in adverbial function without a clitic.

(xx3) a. *[égɛ́lɛ́ gɔ̀]* *àŋá-àŋá=ý^{n}*
[peanuts Def] how.much?-how.much?=it.is
‘The peanuts are how much each?’ [i.e. per bunch as unit of sale]

b. *[nă: ŋɛ̀-m]* *àŋá-àŋá* ^{L}*dɔ̀r^{n}ɔ̀-jɛ̀-w*
[cow Def-Pl] how.much?-how.much? ^{L}sell-Impf-2SgS
‘How much (each) do you sell the cows for?’

The ordinal is *àŋ-é:* ‘how many-th’ (French *quantième*), cf. §4.6.2.2.

Noncardinal ‘how much?’ with mass nouns is expressed by *yɔ̀gɔ̌: bà→*, including *yɔ̀gɔ̌:* ‘which?’ and a quantifying element (‘to X extent’) *bà→*, compare *nɔ̌: bà→* ‘this much, to this extent’.

(xx1) *àr^{n}á* *[yɔ̀gɔ́* *bà→]* ^{L}*mɛ̀:-∅*
rain(n) [which? extent] ^{L}rain.fall.Perf-3SgS
‘How much rain fell?’ (Lit. “To what extent did rain fall?”)

13.2.8 ‘Which?’ (*yɔ̀gɔ̌:*)

yɔ̀gɔ̌: is an interrogative adjective that can be used with a preceding noun (or core NP), which drops to all L-toned form as usual before an adjective (xx1.a). *yɔ̀gɔ̌:* can also be used absolutely, with the reference set contextually understood (xx1.b).

(xx1) a. *[màŋgò:rò*^{L} *yɔ̀gɔ̌:]* ^{L}*dɛ̀nɛ̀-jɛ̀-w*
[mango^{L} which?] ^{L}want-Impf-2SgS
‘Which mango do you-Sg want?’

b. *yɔ̀gɔ̌:* ^{L}*dɛ̀nɛ̀-jɛ̀-w*
which? ^{L}want-Impf-2SgS

‘Which one do you-Sg want?’

‘Which?’ may be singular (‘which one’) or plural (‘which ones?’), with the singular form unmarked (i.e. used in cases of indeterminate plurality). The plural form of *yɔ̀gɔ̌:* is *yɔ̀gɔ̌: bé* or *yɔ̀gɔ̌: wì:ⁿ*. When the noun is human, both it and the interrogative are marked for plural (xx2.b). A nonhuman noun has no morphological plural, so only the interrogative can be marked for plural (xx2.c).

(xx2) a. *[yà:-rⁿà* *yɔ̀gɔ̌:]=ý* *ᴸwèlɛ̀*
[woman-Sg which?]=Foc ᴸcome.Perf
‘Which woman came?’

b. *[yà:-m* *[yɔ̀gɔ̌:* *bé]]=ý* *ᴸwèlɛ̀*
[yà:-m *[yɔ̀gɔ̌:* *wì:ⁿ]]=ýⁿ* *ᴸwèlɛ̀*
[woman-Pl [which?Pl]]=Foc ᴸcome.Perf
‘Which women came?’

c. *[màŋgò:rò*ᴸ *[yɔ̀gɔ̌:* *bé]]=ý* *ᴸdɛ̀nɛ̀-jɛ̀-w*
*[màŋgò:rò*ᴸ *[yɔ̀gɔ̌:* *wì:ⁿ]]=ý* *ᴸdɛ̀nɛ̀-jɛ̀-w*
[mangoᴸ [which?]]=Foc ᴸwant-Impf-2SgS
‘Which mangoes do you-Sg want?’

13.2.9 Embedded interrogatives

embedded polar interrogatives:
‘He doesn’t know whether they have arrived in Bamako’
such a construction may also be used constructions with ‘know’ and factive complement (presupposed to be true)
‘He doesn’t know that they have arrived in Bamako’
(better ex: ‘He doesn’t know whether (= that) I am in Douentza’)

embedded content interrogatives: these may take the same form as main-clause interrogatives, or they may involve substitutions, using generic nouns like ‘person’, ‘thing’, ‘place’, ‘time’, manner’, ‘quantity’

‘I don’t know [who is coming]’ or ‘I don’t know [the person [who is coming]]’

examples:
‘I don’t know ...’
‘... who is coming’
‘... what we will eat’
‘... where they are dancing’

'... when they will come'
'... how they will farm'
'... how much they ate'
'... which house they lodge ("go down") in'
'... why they went away'

14 Relativization

14.1 Basics of relative clauses

The head NP remains internal to the relative clause, and may be preceded by other clause-internal constituents. The subject-inflected verb of a main clause is replaced by a participle of the corresponding AN category. The participle has limited agreement with the head NP (plural agreement, in subject relatives). The head NP is marked by tone-dropping controlled by the relative construction, in addition to any tone-dropping that may already have applied within the NP. The head NP in the relative clause consists of a noun plus any modifying adjectives and/or numerals, i.e. corresponds to numeral phrase (NumP). Determiners and other NP elements that occur after the NumP (i.e. that are linearized after numerals) occur in post-participial position.

To avoid confusion with focalization, a good elicitation context for relative clauses is 'Where is…?' or 'This is…'. In (xx1.a), 'house' is the head NP of an object relative, and is tone-dropped. It follows the subject NP 'Seydou', which has its usual tones and linear position. The definite determiner associated with the head NP occurs to the right of a {HL}-toned perfective participle, which has (unmarked) singular form agreeing with 'house' (not with 'Seydou'). In (xx1.b), 'men' is the head of a subject relative, and is tone-dropped. The participle, and the post-participial definite marker, agree in (human) plurality with the head NP which is also the subject NP. (xx1.c) has 'place' as tone-dropped head, and is separated from the participle by a H-toned preverbal subject pronoun (here 1Sg). Such preverbal subject morphemes, which do not occur in main clauses or in subject relatives, make up for the lack of pronominal-subject marking on the verbal participle of a non-subject relative.

(xx1) a. *[séydù gɛ̀r^{n}ɛ̀*^{L} ^{HL}*ɛ́bù gɔ̀]* *yà-bá:* *kɔ̀*
[S house^{L} ^{HL}buy.Perf.Ppl Def] where? be.Inan
'Where is the house that Seydou bought?'

b. *[àr^{n}ù-m*^{L} *[gɛ̀r^{n}ɛ́* *ŋɛ̀]* ^{HL}*ɛ́bù-m* *ŋɛ̀-m]*
[man-Pl^{L} [house Def] ^{HL}buy.Perf.Ppl-Pl Def-Pl]
yà-bá: *wɔ̀-y^{n}*
where? be.An-3PlS
'Where are the men who bought the house?'

c. *[dɛ̀y^{n}*^{L} *mú* ^{L}*nùmù* *ŋɛ̀]* *nɔ̌ː=ý*
[place^{L} 1SgS ^{L}fall.Perf.Ppl Def] this=it.is
'This is the place where I fell.'

More details on these and other features are given in sections below.

14.1.1 Coordinated relatives with a shared head

'[[people$_x$ (who$_x$) here sleep-Ppl] [(and) (who$_x$) next day go-away-Ppl]] I like'
'[[people who throw bones] [(and) (who) don't sweep up]] I don't like'

usually expressed with an overt head NP in the leftmost clause, and zero (i.e. inaudible) NP in the (headless) second clause

the first (as well as the second) relative clause is usually structurally complete, i.e. ending in a determiner or quantifier if semantically appropriate, i.e. the two relative clauses are appositional

sometimes the main-clause verb comes between the two relative clauses, suggesting that the second relative clause is extraposed:

'[[people$_x$ (who$_x$) here sleep-Ppl] I like] [(and) (who$_x$) next day go-awayPpl]'

simpler construction (one participle) when the two co-events are merged into a chain

[people who jump go-down-Ppl] = 'people who jump down'

14.1.2 Tone-dropping on final word(s) of NP in relative clause

In addition to any tone-dropping that may already have occurred in nonfinal words within the head NP (i.e. noun or adjective before a final adjective), further tone-dropping due to the relative clause (arguably, controlled by the verbal participle) applies to any non-tone-dropped noun, adjective, or numeral in the head NP.

In (xx1) some simple NPs are shown. Underlining indicates tone-dropping, here on the noun preceding an adjective in (xx1.b).

(xx1) a. *gɛ̀r^{n}ɛ́* 'a house'

b. *gèr^{n}è*^{L} *dê:* ‘(a) big house’
c. *gèr^{n}é kúlòy* ‘six houses’

As head NPs of relatives, these become (xx2). The final word (noun or adjective) of the core NP, and the numeral, are tone-dropped. One suspects that if ‘house’ in (xx2.b) had not already been tone-dropped by NP-internal processes, it would have been tone-dropped by the relative clause, but there is no way to verify this.

(xx2) a. *gèr^{n}è*^{L} ‘(a) house’
b. *gèr^{n}è*^{L} *dè:*^{L} ‘(a) big house’
c. *gèr^{n}è*^{L} *kùlòy*^{L} ‘six houses’

Examples are in (xx3).

(xx3) a. *gèr^{n}è*^{L} ^{HL}*númù* *ŋè*
house^{L} ^{HL}fall.Perf.Ppl Def
‘the house that fell’

b. *[gèr^{n}è* *dè:]*^{L} ^{HL}*númù* *ŋè*
[house big]^{L} ^{HL}fall.Perf.Ppl Def
‘The big house that fell.’

c. *[gèr^{n}è* *kùlòy]*^{L} ^{HL}*númù* *ŋè-m*
[house six]^{L} ^{HL}fall.Perf.Ppl Def-Pl
‘the six houses that fell’

The possessed-noun tone contour is {L} in YS, and for alienable possession it applies to the numeral phrase (noun, adjective, numeral) that is possessed. Therefore when a possessed NP functions as head of a relative, tone-dropping in the possessed NP can be attributed either to the possessor or to the relative clause; in effect, it is doubly conditioned. The one thing that is clear is that the possessor retains its tones, i.e. is not subject to tone-dropping induced by the relative clause (xx4).

(xx4) a. *[séydù* ^{L}*gèr^{n}è]* ^{HL}*númù* *ŋè*
[S ^{L}house] ^{HL}fall.Perf.Ppl Def
‘Seydou’s house that fell’

b. *[séydù* ^{L}*[gèr^{n}è* *dè:]]* ^{HL}*númù* *ŋè*
[S ^{L}[house big]] ^{HL}fall.Perf.Ppl Def
‘Seydou’s big house that fell.’

c. *[séydù* ^{L}*[gèr^{n}è* *kùlòy]]* ^{HL}*númù* *ŋè-m*

[S [L[house six]] [HL]fall.Perf.Ppl Def-Pl
'Seydou's six houses that fell'

If a pronominally possessed NP is relativized on, the construction is different. In a main clause, the pronominally possessed NP takes a form like (xx4.a). This can be literally glossed "house his-possession," with a (non-tone-dropped) possessed noun 'house' followed by a possessed form of an appositional noun-like element here glosses 'possession'. There is no audible change in the form when this NP as a whole functions as relative-clause head (xx4.b). The noun 'house' remains non-tone-dropped. Presumably tone-dropping controlled by the relative clause applies (virtually) to the *-mɔ̀* element, but the latter (along with its pronominal possessor) is already L-toned so no audible change occurs.

(xx4) a. *gɛ̀rⁿɛ́* *wò-mɔ̀* *(ŋɛ̀)*
house 3Sg-Poss (Def)
'his/her house'

b. *[gɛ̀rⁿɛ́* *wò-mɔ̀]* [HL]*númù* *ŋɛ̀*
[house 3Sg-Poss] [HL]fall.Perf.Ppl Def
'His/her house that fell.'

(xx4.b) shows that 'house', the noun possessed by a pronoun, is outside of the scope of tone-dropping controlled by the relative clause. In other words, it is a tonosyntactic island.

An alternative, somewhat marked stylistically, is to prepose the pronominal possessor expression to the possessed NP. The pronominal possessor takes the same {HL} tone contour it has in absolute function (i.e. without an overt possessed noun) in main clauses. The remainder is identical to a relative with unpossessed head NP ('the house that fell').

(xx1) *wó-mɔ̀* [L]*gɛ̀rⁿɛ̀* [HL]*númù* *ŋɛ̀*
3Sg-Poss [L]house [HL]fall.Perf.Ppl Def
'his/her house that fell'

If the possessor NP itself is relativized on ('the man whose house fell'), it undergoes the usual tone-dropping of relative head NPs (§14.4, below).

14.1.3 Restrictions on the head noun in a relative clause

Any nonpronominal NP may function as head of a relative construction. For headless relatives see §14.1.5 below.

A personal pronoun cannot function directly as relative head. Instead, the pronoun is in apposition to a noun like ‘person’ that functions as relative head.

we who are here
I who you see

14.1.4 Relative clause with conjoined NP as head

It was difficult to elicit relatives of the type ‘[the men and the women] who squabbled’, based on main clauses like (xx1).

(xx1) *[[ár^{n}ú-m* *ŋɛ̀-m]* *lɛ̀→]* *[[yǎ:-m* *ŋɛ̀-m]* *lɛ̀→]*
[[man-Pl Def-Pl] and] [[woman-Pl Def-Pl and]
jây *jàyá=b-ɛ́:^{n}*
fight(n) fight=Past-3PlS
‘The men and the women squabbled.’

Wherever logically possible (even with a stretch), the construction produced was of the type ‘[the men who squabbled] and [the women who squabbled]’ with two separate relative clauses (xx2).

(xx1) *[[àr^{n}ù-m^{L}* *jây* ^{HL}*jáyù-m* *ŋɛ̀-m]* *lɛ̀→]*
[[man-Pl fight(n) ^{HL}fight.Perf.Ppl-Pl Def-Pl] and]
[[yà:-m^{L} *jây* ^{HL}*jáyù-m* *ŋɛ̀-m]* *lɛ̀→]*
[[woman-Pl fight(n) ^{HL}fight.Perf.Ppl-Pl Def-Pl] and]
yà-bá: *wɔ̀-y^{n}*
where? be.Inan-3PlS
‘Where are the men who squabbled and the women who squabbled?’

However, an explicitly reciprocal sentence like (xx3) cannot be converted to a conjunction of two complete relative clauses like (xx2) without changing the sense completely.

(xx3) *[[ár^{n}ú-m* *ŋɛ̀-m]* *lɛ̀→]* *[[yǎ:-m* *ŋɛ̀-m]* *lɛ̀→]*
[[man-Pl Def-Pl] and] [[woman-Pl Def-Pl and]
tɔ́:^{n}-m̀ *yɛ̀nɛ́-ŋ̀=b-ɛ̀:^{n}*
Recip-Pl look.at-Impf=Past-3PlS
‘The men and the women were looking at each other.’

From (xx3) it was possible to elicit the relative clause (xx4), with a conjoined head NP. The entire conjoined NP ‘men and women’ is tone-dropped due to the

relative; the tone-dropping is audible on the nouns since the 'and' morpheme is already L-toned. The two definite morphemes in (xx3) are consolidated into one post-participial definite marker in (xx4).

(xx4) *[[àr^{n}ù-m* *lè→]* *[yà:-m* *lè→]]*^{L}
[[man-Pl and] [woman-Pl and]]^{L}
tɔ́:^{n}-m̀ *yɛ̀nɛ́-ŋ̀ = b-ɛ̂:^{n}* *ŋɛ̀-m]* *yà-bá:* *wɔ̀-y^{n}*
Recip-Pl look.at-Impf=Past.Ppl-Pl Def-Pl] where? be.An-3PlS
'Where are the men and the women who were looking at each other?'

14.1.5 Headless relative clause

Since semantically light nouns like 'thing' and 'person' are commonly used as heads in the absence of a more specific head NP, relatives like 'what(ever) you want' are usually headed in YS.

For headless relatives (with covert 'place', 'time', 'manner', or more vaguely 'situation') used as adverbial clauses, see §15.5.3 below.

14.1.6 Preparticipial subject pronominal in non-subject relative clause

In a non-subject relative, if the subject is pronominal it is expressed by an immediately pre-participial H-toned subject pronoun. No constituent (e.g. a nonfinal chained verb) may intervene between this subject pronoun and the verbal participle.

If the participle elsewhere begins with a H-tone, in some cases it drops to all-low {L} tone contour after the H-toned pronoun. This applies systematically to perfective (positive) participles, which are elsewhere {HL}-toned, so ^{HL}*éb-ù* appears as L-toned ^{L}*èb-ù* in (xx1.a). The drop also applies to imperfective (positive) participles of lexically /H/-toned verbs, so that *lágà-jɛ̀* appears as ^{L}*làgà-jɛ̀* in (xx1.b). Imperfective participles of lexically /LH/-toned verbs begin with a L-toned mora anyway, and have the same tones after a H-toned subject pronoun as in other contexts; see *jɔ̀bɔ́-jɛ̀* in (xx1.c).

(xx1) a. *[gèr^{n}ɛ*^{L} *ú* ^{L}*èbù* *gɔ̀]* *yà-bá:* *kɔ̀*
[house^{L} 2SgS ^{L}buy.Perf.Ppl Def] where? be.Inan
'Where is the house that you-Sg bought?'

b. *[dɛ̀y^{n}*^{L} *ìjú* *émɛ́* ^{L}*làgà-jɛ̀* *gɔ̀]* *nɔ̌: = ý^{n}*
[place^{L} dog 1PlS ^{L}hit-Impf.Ppl Def] this=it.is
'This is the place where we hit-Present dogs.'

c. *[dɛ̀yⁿ*[L] *jóbú* *émɛ́* *jɔ̀bɔ́-jɛ̀* *gɔ̀]* *nɔ̌ː=ýⁿ*
[place[L] running 1PlS run-Impf.Ppl Def] this=it.is
'This is the place where we run.'

However, a H-toned subject pronoun does not affect the initial H-tone of an imperfective negative participle. The relevant cases are those involving lexically {H}-toned stems like 'hit', whose imperfective negative participle *lágà-lɛ̀* does not drop its initial H-tone in (xx2) in spite of the presence of a preceding H-toned subject pronoun.

(xx2) *[dɛ̀yⁿ*[L] *ìjú* *émɛ́* [HL]*lágà-lɛ̀* *gɔ̀]* *nɔ̌ː=ýⁿ*
[place[L] dog 1PlS [HL]hit-ImpfNeg.Ppl Def] this=it.is
'This is the place where we do not hit dogs.'

14.1.7 Verbal participle

morphological description/analysis of the verbal participle

either invariant form, or adjective-like form with final nominal suffix (Sg, Pl, etc.) agreeing with the head NP

indicate if any neutralizations etc. of main-clause AN categories in relative clauses, for example in perfective positive system (some languages require Perfective-2 -sa/so in relatives)

if participle has unusual morphological form, give a table showing the regular AN suffixes (in main-clause verbs) and their participial counterparts

(xx1) Participles (four basic categories)

category	*suffix*	*related AN suffix*
Perfective	*-xxx*	*Perfective-2 -xxx-*
PerfNeg	*-xxx*	*Perfective Negative -xxx-*
Imperfective	*-xxx*	*Imperfective -xxx-*
ImpfNeg	*-xxx*	*Imperfective Negative --xxx-*

A few marked AN categories may have participial counterparts, whether or not they are in common use.

(xx2) Participles (all categories of active verbs)

category	*suffix(es)*	*similar AN morpheme*
Perfective	*-xxx*	*? (variable)*
Recent Perfect	*-xxx*	*Recent Perfect -xxx-*
Experiential Perfect	*-xxx*	*ExpPerf -xxx -*
Perfective Negative	*-xxx*	*Perfective Negative -xxx-*
Recent Perfect Negative	*-xxx*	*Recent Perfect Neg-xxx-*
Experiential Perfect Neg	*-xxx*	*ExpPerfNeg -xxx-*
Imperfective	*-xxx-*	*Imperfective -xxx-*
Progressive	*-xxx*	*Progressive -xxx-*
Imperfective Negative	*-xxx*	*Imperfective Negative -xxx-*
Progressive Negative	*-xxx*	*Progressive Negative -xxx-*

14.1.7.1 Participles of positive perfective-system verbs (*-u*)

In a positive perfective clause, the participle ends in *y* (monosyllabic *Cvy*) or *u* (bisyllabic and longer stems). The *u* is subject to deletion (Apocope) after most unclustered sonorants. Except when following a H-toned subject pronoun (in non-subject relatives), the participle has {HL} tone overlay, realized as H.L.L in trisyllabics. When the participle does follow a H-toned subject pronoun, the participle is all{L}-toned. Plural suffix *-m* is added to the participle in subject relatives with a human (and sporadically with a nonhuman animate) plural subject. For human plural head noun in a subject relative, plural marking of the perfective participle is systematic, in contrast to the optional and rather sporadic plural marking for other participles (imperfective, perfective negative, imperfective negative, etc.).

The form (final *y* or *u*) is segmentally identical to the chaining stem for those verbs that have distinct chaining and bare stems. This suggests a close association between the perfective participle and the unsuffixed perfective in main clauses (following a focused constituent), except for the difference in tone contour. However, in the perfective participle, the suffixation applies to all stems, not just those that take a suffix in the chaining stem. This is clarified in (xx1).

(xx1) Perfective (positive) participle

chain	bare	Perfective Ppl	gloss
a. stems with final *y* or *u* ~ ∅ in chaining stem			
yǎy	*yǎ:-*	HL*yây*	‘go’
lágú	*lágá-*	HL*lágù*	‘hit’
gǔl	*gùló-*	HL*gûl*	‘dig’
pégúrú	*pégéré-*	HL*pégùrù*	‘winnow (shaking)’
màníŋ	*màníŋá-*	HL*mánìŋù*	‘think’
b. other stems			
gǒ:	*gǒ:-*	HL*gôy*	‘go out’
jɔ̀bɔ́	*jɔ̀bɔ́-*	HL*jɔ́bù*	‘run’

participles of experiential perfect, recent perfect
position of subject pronominal?

14.1.7.2 Participles of positive imperfective-system verbs

Imperfective participles are closely related to the 3Sg and 3Pl subject forms of the inflectable imperfective (*-jɛ̀-*) described in §10.2.2.1, above. The participial suffix is *-jɛ̀*, except optionally *-ỳ* for human plural head NP in subject relatives. These participial forms closely resemble 3Sg *-jɛ̀-∅* and 1Pl/3Pl portmanteau *-y* in the inflected paradigm.

However, the participles differ tonally from the inflected imperfective. The latter neutralizes the lexical tonal distinction between /H/ and /LH/ melodies, shifting to a {HL} contour that drops to {L} in the defocalized form. The participles, on the other hand, respect the lexical distinction in their onsets, so /H/ verbs have a {HL} participle and /LH/ verbs have a {LH(L)} contour, i.e. {LH} with stems of up to two moras and {LHL} for longer stems. In (xx1), note that the inflected imperfectives have the same tones for lexical /H/ and /LH/, while the participles bring out the distinction.

(xx1) Imperfective (positive) participle

Imperfective (inflected)		Imperfective Ppl		gloss
3Sg	3Pl	Sg	human Pl	
a. lexically /H/-toned				
kâ:-jɛ̀-∅	*kâ:-y*	*kâ:-jɛ̀*	*kâ:-y*	‘shave’
lágà-jɛ̀-∅	*lágà-y*	*lágà-jɛ̀*	*lágà-y*	‘hit’

b. lexically /LH/-toned

nɔ̂:-jɛ̀-∅	*nɔ̂:-y*	*nɔ̌:-jɛ̀*	*nɔ̌:-ỳ*	‘drink’
jɔ́bɔ̀-jɛ̀-∅	*jɔ́bɔ̀-y*	*jɔbɔ́-jɛ̀*	*jɔbɔ́-ỳ*	‘run’
wɔ́gɔ̀lɔ̀-jɛ̀-∅	*wɔ́gɔ̀lɔ̀-y*	*wɔ̀gɔ́lɔ̀-jɛ̀*	*wɔ̀gɔ́lɔ̀-y*	‘scoop out’

The present progressive also forms its participles to resemble the 3Sg and 3Pl forms of the inflected paradigm. The difference is that the *-wɔ-* formative is H-toned in the participle (except as noted below), but L-toned in the inflected paradigm. Again the plural form is optional in, and limited to, subject relatives with human head NP.

(xx2) Present progressive participle

Pres Progr (inflected)		Pres Prog Ppl		gloss
3Sg	3Pl	Sg	Pl	
sɛ́mɛ̀-ŋ̀-wɔ̀-∅	*sɛ́mɛ̀-ŋ̀-wɔ̀-y^{n}*	*sɛ́mɛ̀-ŋ̀-wɔ́*	*sɛ́mɛ̀-ŋ̀-wɔ́-ỳ^{n}*	‘sweep’
jɔ̀bɔ́-ẁ-wɔ̀-∅	*jɔ̀bɔ́-ẁ-wɔ̀-y^{n}*	*jɔ̀bɔ́-ẁ-wɔ́*	*jɔ̀bɔ́-ẁ-wɔ́-ỳ^{n}*	‘run’

When a H-toned preverbal subject pronoun occurs, it splits the participles into its components, one ending in *-ẁ* (or *-ŋ̀*), the other consisting of *wɔ́* (interlinear “Prog.Ppl”). Since these H-toned subject pronouns induce a following participle (except in the imperfective negative) beginning with a H-tone to drop to L-tone, we end up with L-toned *wɔ̀-*.

(xx3) *[dɛ̀y^{n}*^{L} *sɛ́mɛ̀-ŋ̀ émɛ́* ^{L}*wɔ̀ gɔ̀]* *nɔ̌:=ý*
[place^{L} sweep-Impf 1PlS ^{L}Prog.Ppl Def] this=it.is
‘This is the place where we are sweeping.’

14.1.7.3 Participles of negative perfective-system verbs

The participles are identical in form to the 3Sg and 3Pl forms of the inflected paradigm. Again, the plural form is optional in, and limited to, subject relatives with human plural head NP.

tóló ‘pound’

(xx1) Perfective negative participle

PerfNeg (inflected)		PerfNeg Ppl		gloss
3Sg	3Pl	Sg	Pl	

nùmɔ̌-n-∅	*nùmɔ̀-né*	*nùmɔ̌-n*	*nùmɔ̀-né*	‘fall’
jɔ̀bɔ̌-l-∅	*jɔ̀bɔ̀-né*	*jɔ̀bɔ̌-l*	*jɔ̀bɔ̀-né*	‘run’

Experiential Perfect Negative
Recent Perfect Negative

14.1.7.4 Participles of negative imperfective verbs

The participles of the imperfective negative are closely related to the 3Sg and 3Pl forms of the inflected paradigm. Again, the plural form is optional in, and limited to, subject relatives with human plural head NP.

(xx1) Imperfective negative participle

PerfNeg (inflected)		ImpfNeg Ppl		gloss
3Sg	3Pl	Sg	Pl	
lágà-lɛ̀-∅	*lágà-ỳ-nɛ̀*	*lágà-lɛ̀*	*lágà-ỳ-nɛ̀*	‘hit’
jɔ̀bɔ́-lɛ̀-∅	*jɔ̀bɔ́-ỳ-né*	*jɔ̀bɔ́-lɛ̀*	*jɔ̀bɔ́-ỳ-nɛ̀*	‘run’

Present Progressive Negative

14.1.7.5 Participles of positive and negative stative verbs

Stative verbs derived from active verbs (§10.4.1) have two positive main-clause forms, one with reduplication and one with existential *yá*. They have a single negative form with *=lá-*. The participles are shown in (xx1).

(xx2) a. *dì-dábà-* ‘be lying on belly’ xx
yá dàbà-

b. *dàbà*^{L} *=lá-* ‘not be lying on belly’ xx

Underived positive and negative statives, and the ‘it is not’ clitic, have participles as shown in (xx2). The positive ‘it is’ participle is usually unelicitable since e.g. ‘the one who is a thief’ is in practice always expressed

directly as ‘the thief’. The locational-existential forms *wɔ̂:* and *kɔ̂:* are especially useful with expressive adverbials.

(xx2)	a.	*wɔ̀-*	‘be (somewhere)’	HL *wɔ̂:*
		kɔ̀	‘it is’	HL *kɔ̂:*
		sɛ̀-	‘have’	HL *sɛ̂:*
		tò-	‘be in’	HL *tô:*
		ibɛ̀-	‘want’	HL xx
		ígɔ́:-	‘know’	HL xx
	b.	*wɔ̀-lɔ́*	‘not be (somewhere)’	xx
		wɔ̀-lɔ́	‘it not be (somewhere)’	xx
		sɛ̀-lɛ́	‘not have’	L *sɛ̀-lɛ̀*
		tò-ló	‘not be in’	L *tò-lò*
		ibɛ̀ L *= lá-*	‘not want’	xx
		ìnɛ̀:-	‘not know’	xx
		= ý = lǎ:	‘not be’	xx

14.1.7.6 Participle of Past clitic *= be*

The Past clitic =xxx has participial forms in several Dogon languages (those in which this clitic is conjugatable).

For positive relative clauses, the form of the participle is shown in (xx1), along with the regular inflectable form for comparison. Negative counterparts are in (xx2).

(xx1) Participle of Past clitic (positive polarity)

AN category	*inflected*	*participle*
Imperfective	*xxx*	*xxx*
Progressive	*xxx*	*xxx*
Past Perfect	*xxx*	*xxx*
Perfective-1b	*xxx*	*xxx*
Perfective-1a	*xxx*	*xxx*
Perfective-2	*xxx*	*xxx*
Recent Perfect	*xxx*	*xxx*

(xx2) Participle of Past clitic (negative polarity)

AN category	*inflected*	*participle*

Past Perfect Neg	*xxx*	*xxx*
Imperfective Neg	*xxx*	*xxx*

14.1.8 Relative clause involving verb- or VP-chain

Only the final verb in a chain takes participial form in a relative clause. Nonfinal verbs have the same form (subordinated or otherwise) as in the corresponding main clause. (xx1.a) has a same-subject subordinating suffix on the nonfinal verb, while (xx1.b) has a verb in chaining form as required in the 'can VP' construction (§xxx). In nonsubject relatives, if a preverbal subject pronoun is present, it occurs immediately before the participle (xx1.c).

(xx1) a. *[ày-nɛ̀*^{L} *yà-yé:* *wɛ̀lɛ́-jɛ̀* *gɔ̀]* *nɔ̌:=ý*^{n}
[man-Sg^{L} go-and.SS come-Impf.Ppl Def] this=it.is
'This is the man who will go and come.'

b. *[ày-nɛ̀*^{L} *yǎ-y* *bɛ̀lɛ́-jɛ̀* *gɔ̀]* *nɔ̌:=ý*^{n}
[man-Sg^{L} go-Chain get-Impf.Ppl Def] this=it.is
'This is the man who can come.'

c. *[ày-nɛ̀*^{L} *yé:* *ú* *bɛ̀lɛ́-jɛ̀* *gɔ̀]* *nɔ̌:=ý*^{n}
[man-Sg^{L} go-Chain 2SgS get-Impf.Ppl Def] this=it.is
'This is the man who(m) you-Sg can see.'

14.1.9 Determiners following the participle

Most of the examples of relative clauses in this chapter have a post-participial definite morpheme that is associated with the head NP. As elsewhere, the definite markers are L-toned and do not affect the tone of adjacent words.

Demonstrative pronouns are also possible. Unlike definite morphemes, demonstratives do control tone-dropping on preceding words. In a relative clause, the demonstrative follows the participle, and the tone-dropping is seen on the participle itself. In (xx1.a), without the demonstrative *kó* the participle would be ^{HL}*númù* with {HL} contour, but the demonstrative drops it to {L}. In the perfective negative, which elsewhere has {L}-toned stem and H-toned suffix, the suffix drops its tone before a demonstrative, thus *nùmɔ̀-n*^{L} for the usual *nùmɔ̌-n* 'did not fall' in (xx1.b). In the imperfective negative, H-tone elements both in the stem and in the suffix are dropped to low, thus *yà:-lɛ̀*^{L} instead of *yǎ:-lɛ̀* in (xx1.c). This example has an intervening constituent between the head noun 'man' and the participle, showing that the tone-dropping of the head noun is separate from that of the participle. In the present

progressive, only the *-wɔ̀* morpheme is (vacuously) tone-dropped, while the verb stem retains its tones (xx1.d).

(xx1) a. *[gɛ̀r^{n}ɛ̀*^{L} *nùmù*^{L} *kó]* *yê:-ẁ-wɔ̀-w* *mà↑*
[house^{L} fall.Perf.Ppl^{L} that] see-Impf-Prog-2SgS Q
'Do you-Sg see that house (over there) that fell?'

b. *[gɛ̀r^{n}ɛ̀*^{L} *nùmɔ̀-n*^{L} *kó]* *yê:-ẁ-wɔ̀-w* *mà↑*
[house^{L} fall-PerfNeg.Ppl^{L} that] see-Impf-Prog-2SgS Q
'Do you-Sg see that house (over there) that did not fall?'

c. *[ày-nɛ̀*^{L} *ól* *yà:-lɛ̀*^{L} *kó]* *yê:-ẁ-wɔ̀-w* *mà↑*
[man-Sg^{L} field go-ImpfNeg.Ppl^{L} that] see-Impf-Prog-2SgS Q
'Do you-Sg see that man (over there) who does not go to the field(s)?'

d. *[séydù* *gɛ̀r^{n}ɛ̀*^{L} *yê:-w-[wɔ̀]*^{L} *kó]*
[S house^{L} see-Impf-[Prog]^{L} that]
nú-nùmɔ̀-jɛ̀
Rdp-fall-Impf
'That house that Seydou is seeing will fall.'

14.1.10 Non-numeral quantifiers following the participle

Universal quantifier *pú→*, which occurs at the end of NPs, may follow a participle (and any determiners) in a relative clause. It has no tonal effect on the preceding words. However, as elsewhere, intonational effects result in *pú→* being higher in pitch than preceding words, regardless of phonological tone.

(xx1) *[àr^{n}ù-m*^{L} *ól* ^{HL}*yây-m* *ŋɛ̀-m* *pú→]*
[man-Pl^{L} field ^{HL}go.Perf.Ppl-Pl Def-Pl all]
wɔ̌l *ɛ̀jú-gú* *wàlá = b-ɛ̀:^{n}*
farming good-Adv do.farm.work=Past-3PlS
'All of the men who went to the fields did a good job of farming.'

'each' with participle
'(For) each house that fell, we are seeking 2 million (francs)'
'any person who has not finished eating'

14.1.11 Indefinite relatives

While relative clauses are most often definite, and show a determiner following the verbal participle, indefinite relatives are also possible. They simply lack a post-participial determiner (xx1).

(xx1) *[ìnɛ̀*^{L} *wǒl* *wǎl-tɛ́rɔ̀:]-ỳ* ^{L}*dɛ̀nɛ̀-jɛ̀-m*
[person^{L} farming do.farm.work-ExpPf.Ppl]-Acc ^{L}want-Impf-1SgS
'I'm looking for someone who has (at some point) done farm work.'

14.2 Subject relative clause

In subject relatives, the participle may agree with a human (less often animate) head NP. This agreement is regular with the perfective (positive) participle, and optional with other categories. Since the subject is expressed by a noun-headed NP (except for the occasional headless relative where an understood subject has been omitted), there is never a preverbal H-toned subject pronoun.

Perfective positive examples are in (xx1).

(xx1) a. *[ày-nɛ̀*^{L} ^{HL}*númù* *ŋɛ̀]* *yà-bá:* *wɔ̀-∅*
[man-Sg^{L} ^{HL}fall.Perf.Ppl Def] where? be.An-3SgS
'Where is the man who fell?'

b. *[àr^{n}ù-m*^{L} ^{HL}*númù-m* *ŋɛ̀-m]* *yà-bá:* *wɔ̀-ỳ^{n}*
[man-Pl^{L} ^{HL}fall.Perf.Ppl-Pl Def-Pl] where? be.An-3PlS
'Where are the men who fell?'

c. *[tìbù*^{L} ^{HL}*númù* *ŋɛ̀]* *yà-bá:* *kɔ̀*
[stone^{L} ^{HL}fall.Perf.Ppl Def] where? be.Inan
'Where is the stone that fell?'

Imperfective positive examples are in (xx2). In (xx2.a), the participle could also take the (non-agreeing) form *wɛ̀lɛ́-jɛ̀*.

(xx2) a. *[ày-nɛ̀*^{L} *wɛ̀lɛ́-jɛ̀* *gɔ̀]* *yà-bá:* *wɔ̀-∅*
[man-Sg^{L} come-Impf.Ppl Def] where? be.An-3SgS
'Where is the man who will come?'

b. *[àr^{n}ù-m*^{L} *wɛ̀lɛ́-ỳ* *gɔ̀-m]* *yà-bá:* *wɔ̀-ỳ^{n}*
[man-Pl^{L} come-Impf.Ppf-Pl Def-Pl] where? be.An-3PlS
'Where are the men who will come?'

14.3 Object and other non-subject relative clauses

Object relatives in the perfective positive, with a nonpronominal subject (‘Seydou’), are in (xx1). The participle does not show plural agreement even with plural human head NP (xx1.c). There is no accusative marking on the clause-internal head NP.

(xx1) a. *[séydù ìjù*^{L} *^{HL}lágù gɔ̀]* *yà-bá:* *wɔ̀-∅*
[S dog^{L} ^{HL}hit.Perf.Ppl Def] where? be.An-3SgS
‘Where is the dog that Seydou hit?’

b. *[séydù ìjù*^{L} *^{HL}lágù gɔ̀-m̀]* *yà-bá:* *wɔ̀-y^{n}*
[S dog^{L} ^{HL}hit.Perf.Ppl Def-Pl] where? be.An-3PlS
‘Where are the dogs that Seydou hit?’

c. *[séydù ùr^{n}ù-m*^{L} *^{HL}lágù gɔ̀-m̀]* *yà-bá:* *wɔ̀-y^{n}*
[S child-Pl^{L} ^{HL}hit.Perf.Ppl Def-Pl] where? be.An-3PlS
‘Where are the children that Seydou hit?’

Preverbal H-toned subject pronouns occur in the absence of a nonpronominal subject. The subject pronoun must immediately precede the participle. In (xx2), the participle would otherwise be {HL}-toned as in (xx1.a-c), but it loses its H-tone after a subject pronoun.

(xx1) *[ìjù*^{L} *ú* ^{L}*làgù* *gɔ̀]* *yà-bá:* *wɔ̀-∅*
[dog^{L} 2SgS ^{L}hit.Perf.Ppl Def] where? be.An-3SgS
‘Where is the dog that you-Sg hit?’

Other non-subject relatives, such as those relativizing on spatial (‘the place where we eat’), temporal (‘the time when we eat’), and manner (‘the way we eat’) have a structure similar to object relatives. Adverbial clauses like ‘when we eat’ are constructed in this fashion; see §xxx.

14.4 Possessor relative clause

We have seen that when a NP including a nonpronominal possessor is relatived on (‘Seydou’s house that fell’), the possessor NP is exempt from the tone-dropping that applies to the possessed NP (§14.1.2).

When the possessor NP itself is relativized on, it has the normal tone-dropped form of a relative head NP. The possessed NP now has a pronominal possessor, resuming the NP possessor. Therefore if the possessor NP in (xx1.a)

becomes the head NP of a relative, as in (xx1.c), the possessor 'man' is separated from the possessed NP, which takes the form (xx1.b) with pronominal possessor. Note that *gɛ̀r^{n}ɛ́* 'house' is not tone-dropped in (xx1.b) or in (xx1.c), though it is in (xx1.a) under the control of the preceding possessor.

(xx1) a. *[áy-nɛ́ ŋɛ̀]* *^{L}gɛ̀r^{n}ɛ̀ (ŋɛ̀)*
[man-Sg Def] ^{L}house (Def)
'the man's house'

b. *gɛ̀r^{n}ɛ́ wò-mɔ̀*
house 3Sg-Poss
'his/her house'

c. *ày-nɛ̀^{L} [gɛ̀r^{n}ɛ́ wò-mɔ̀] ^{HL}númù ŋɛ̀*
man-Sg^{L} [house 3Sg-Poss] ^{HL}fall.Perf.Ppl Def
'the man whose house fell'

14.5 Relativization on the complement of a postposition

When the complement of a postposition is relativized on, it takes the usual tone-dropped form for a head NP. The postposition immediately follows it. Since simple postpositions are lexically L-toned, there is no audible tonal change on them.

(xx1) a. *[[èr^{n}ɛ̀^{L} lɛ̀] wǒl mú wàlá-jɛ̀ gɔ̀] nɔ̌ː=ý^{n}*
[[daba^{L} with] farming 1SgS do.farm.work-Impf.Ppl Def] this=it.is
'This is the daba (hoe) with which I do farm work.' (*ér^{n}ɛ́*)

b. *[[bònɔ̀^{L} nɛ̀] nùmɔ́ mú ^{L}yòy gɔ̀] nɔ̌ː=ý^{n}*
[hole^{L} in] fall 1SgS ^{L}go.in.Perf.Ppl Def] this=it.is
'This is the hole (pit) into which I fell.' (*bònɔ́*)

c. *[[yɛ̀y^{n}L dɛ̀ː] bé ^{L}wɛ̀l gɔ̀] nɔ̌ː=ý^{n}*
[[honey^{L} for] 3PlS ^{L}come.Perf.Ppl Def] this=it.is
'This is the honey that they came for.' (*yɛ̌y^{n}*)

15 Verb (VP) chaining and adverbial clauses

A **direct chain** is a compound-like combination of two (rarely three) verbs, denoting overlapping or otherwise tightly connected co-events. The nonfinal verbs are in the chaining stem, with no additional subordinating morphology. Directly chained verbs are adjacent except as noted below.

Loose chains are combinations of two or more verbs or VPs, where the nonfinal verbs have some explicit subordinating marker (cf. English *-ing*) that specifies the temporal and/or modal relationships among the eventualities in question, in some cases also marking switch-reference category (same or different subject). In loose chains, the verbs need not be adjacent (the final verb may be immediately preceded by its complements).

In all types of chains, the final verb has full aspect-negation and pronominal-subject inflection.

15.1 Direct chains (without chaining morpheme)

In direct chains, the nonfinal verb appears in the chaining stem and is not otherwise inflected for aspect-negation or for pronominal-subject category. The **chaining stem** ends in final *-ú* or *-y* (the latter in monosyllabic Cv-y), but *-u* is subject to Apocope after most unclustered sonorants. The chaining stem, unlike the segmentally identical verbal noun, preserves the lexical tone melody of the stem (§10.xxx). Mediopassive verbs with suffix *-ɛ́:* have a chaining stem with *-í:* .

As in other Dogon languages, verb serialization (direct chaining) does not attain the exuberant level of productivity found in some coastal West African languages. The two verbs must cohere as co-events of a single eventuality, generally as temporally overlapping aspects of a conceptual schema, rather than as discretely sequenced subevents of a complex activity.

Some examples with *yɛ̀nɛ́* 'look' as final (xx1a) or nonfinal (xx1b) verb will give the flavor.

(xx1)	a.	*màrⁿ-í: yɛ̀nɛ́*	'go take a look' (*màrⁿ-ɛ́:* 'xxx')
		jìm-í: yɛ̀nɛ́	'look down at (from a height)'
		dòg-í: yɛ̀nɛ́	'look up at'
		térⁿɛ́ yɛ̀nɛ́	'think over, reflect on'
		sébé yɛ̀nɛ́	'stand on tiptoes to look'

néwⁿé yɛ̀nɛ́ ‘have a taste, sample (and evaluate)’

b. *yɛ̀nɛ́ dàŋá-rá* ‘examine, look over’ (*dàŋá-rá* ‘make good’)

Some other examples are in (xx2).

(xx2) a. final is motion verb

	bă:l gàlá	‘go around (sth) and continue’ (‘go around’ + ‘pass’)
	él-í: súgó	‘fall out (of a tree) and land’ (‘escape’ + ‘go down’)
-u?	*kámá pá:rá*	‘throw down’ (‘throw’ + ‘take down’)
	tómɔ́ táŋá	‘fly a short distance’ (‘jump’ + ‘cross, transfer’)

b. *págú mɔ̌:-nɔ́* ‘bind (two objects) together along their sides’

15.1.1 Verbal noun of directly chained verbs

exx. based on direct chains (preceding section)

15.1.2 Presence of AN suffix in nonfinal verb in direct chains

Ordinarily the nonfinal verb in a direct chain has no AN or pronominal-subject inflection; it occurs in the chaining stem with no other ornamentation.

perfective-1a or -1b in chains?
cross-ref to imperfective

15.1.3 Arguments of directly chained verbs

Ordinarily the final verb in a direct chain either takes no arguments, or shares its arguments with the nonfinal verb. I have no examples where the final verb has an argument such as a direct object that intervenes between the two chained verbs. Objects and adverbial phrases therefore precede the nonfinal verb.

‘I looked up at the bird’ (with *dòg-í: yɛ̀nɛ́*)
‘I fell out of the tree’ (with *él-í: súgó*)

Chain-like sequences where the final verb has its own arguments and/or adjuncts are expressed as loose chains with overt subordination of the nonfinal verb

15.1.4 Negation of direct verb chains

Only the final verb in the chain may be negated; the negation has semantic scope over the entire sequence.

15.1.5 Direct chains including *dàgá* 'leave'

Transitive dàgá 'leave, abandon (sth)' may be directly chained to verbs with meanings like 'put down', denoting actions that result in the theme being stationery in a location. Often the 'leave' verb is not needed in an idiomatic English free translation.

(xx1) *tí:rú* *dàgá*
make.bunches leave
'arrange in bunches (for sale) and leave'

15.1.6 Direct chains including a motion verb or 'pick up, take'

He ran out of the house.

15.1.7 Durative verb-iterations chained to a motion verb

In this construction, a verb denoting a temporally extended co-event occurs in uninflected iterated form with {HL}-{L} tone overlays, followed by an inflected motion verb.

See *jɔ́bɔ̀*^{HL}-^{L}*jɔbɔ̀* 'run-run' (< *jɔbɔ́* 'run'), *yâ:*^{HL}-^{L}*yà:* 'go-go' (< yă: 'go'), and *dábɛ̀*^{HL}-^{L}*dàbɛ̀* 'crawl-crawl' in (xx1a-b,d) in §8.2.xxx.

'he came singing'

15.1.8 Chains including medial *yé* 'go'

yé occurs medially in certain verb chains, sandwiched between two other verbs. *yé* is also a verb, and is probably to be identified as a specialized chaining stem for yă: 'go' (usual chaining stem yăy, e.g. in the unsuffixed perfective ^{L}yày-), but it sometimes makes little or no contribution to the meaning of the relevant combinations.

(xx1) a. *bàŋ-í:* *yé* *kár^{n}á*
hide-MP go do
'do stealthily, in secret'

b. *mɔ̀r^{n}-í:* *yé* *kár^{n}á*
assemble-MP go do
'get together and do; do together'

c. *mùn-í:* *yé* *dǐ:^{n}*
curl.up-MP go lie.down
'curl up to sleep'

15.1.9 Chains including nonfinal *mɔ̀r^{n}-í:* 'be/do together'

By itself, the verb *mɔ̀r^{n}-é:* (chaining stem *mɔ̀r^{n}-í:*) is an intransitive verb meaning 'gather together, assemble'. With an additional *yé* (§15.1.xxx above), it can be chained to following VP, as in *mɔ̀r^{n}-í: yé kár^{n}á* 'get together and to, do together'. For adverb *tɔ́:^{n} ŋú* 'together' see §18.3.2.

15.2 Adverbial clauses with overt chaining or subordinating morpheme

First few subsections below describe various durative or imperfective VP and clause types.

remaining subsections describe constructions specifying a temporal divergence between the two eventualities.

many of the subsections in this section may have to be deleted, combined, split, or rearranged (and reorganized) to suit a particular language.

15.2.1 Imperfective and durative clauses

For durative verb-iterations nonfinally in verb chains, see §15.1.xxx above.

Particle xxx is used in backgrounded durative clauses, which precede a foregrounded event predication. The xxx clause denotes a temporally extended activity, such as motion, that persists through a temporal span T that leads up to and may overlap with the following event E. Usually the activity is first introduced as a main clause, and the verb is then repeated (one or more times) in durative-clause form, before the next event E is introduced.

xxx related to inflectable Imperfective suffix on verbs?

form of verb that xxx follows (bare stem, etc.).
if anything unusual, give a table with representative examples with and without xxx

(xx1)	*bare stem*	*with*	*gloss*
	xxx	*xxx*	*'come'*

must the two clauses have the same subject?
is the subject overtly indicated in the [... verb xxx] clause, or just in the surrounding main clauses?

is the [... verb xxx] durative clause often iterated as a whole in narratives?

examples, including textual examples
'The two of them were coming; ***come xxx, come xxx, come xxx*** *[= they kept coming and coming]. (Then) a storm arose.' (xxx).*

see also durative complements of 'see' and 'find' (§17.2.2.1).

15.2.1.1 Imperfective subordinator *-ẁ* ~ *-gù* ~ *-ŋ̀*

The imperfective morpheme *-ẁ* ~ *-gù* ~ *-ŋ̀* has been seen above as part of the present progressive verbal inflection with following suffixed (or encliticized) *-wɔ̀*, cf. quasi-verb wɔ̀ 'be' (§11.2.2.2).

more exx

15.2.1.2 Durative same-subject *-n* on nonfinal activity verb

The subordinator *-n* is used on the verb of an activity expression that is followed by a verb implying an extended time interval, such as a time-of-day verb ('spend the day/night') or a motion verb. *-n* is added to the bare stem, with no tonal changes.

(xx1) a. *íŋ-ɛ́:-n* *bá:* *yá:*
stand-MP-Dur.SS time.period be.at.night
'stay up at night' (lit. "spend the night standing up")

b. *kúbɔ́* *tégé-n* *yă:*
foot limp-Dur.SS go
'limp along, walk with a limp'

c. *gùŋɔ́-n* *yă:*
swagger-Dur.SS go
'walk with a swagger, strut'

See also *bìrɛ́-n* 'working' in (xx1e) in §8.2.11, and the the verbal-noun example *[yìgè-n]-[dĕn-∅]* 'omasum' in §5.1.12.

15.2.2 'VPed until got tired' = 'VPed for a very long time'

'He ate/sang until he got tired.'

15.2.3 Clauses with *-xxx* 'and then' (different subject, anterior)

jĕ: gɛ́ 'after'

[not all Dogon languages have an explicitly different-subject subordinator]
[conceivably a language could have more than one different-subject subordinators, with different temporal profiles]

interlinear gloss: 'and.DS'

Clauses with xxx following the verb denote eventualities that precede in time the reference time (in the main clause). The subject of the xxx clause is referentially disjoint from that of the main clause, and is therefore overtly expressed (for example, by an independent pronoun).

form (including tones) of verb to which xxx is attached?

expression of pronominal subject?

examples
'Amadou pulled the rope and (then) it snapped'
'You went to him, (but) he didn't give it to you.'

15.2.4 Clauses with *-é→* (same-subject, anterior)

This subordinator indicates that the eventuality denoted by the current clause precedes in time that denoted by the following main clause.

In (xx1a-b) in §4.6.1.1, *gò-é→* 'go out (leave from) and then' occurs in the context 'X leave this house and (then) X go to the other house'. Although both clauses denote aspects of the same trajectory, gǒ: 'go out, leave' specifically refers to the departure and is not conceptualized in YS as overlapping in time with the following clause with yǎ: 'go'.

This subordinator is also used with *kígílí-mɔ́* 'turn around; go back' in both literal ('turn around') and abstract ('re-do') senses (xx1).

(xx1) a. *kígílí-m-é→* *yɛ̀nɛ́*
go.back-(Caus)-and.then.SS look
'turn around and look (back)'

b. *kígílí-m-é→* *kár^{n}á*
go.back-(Caus)-and.then.SS do
'do (it) again, re-do (it)'

more exx: past and nonpast time frames? imperative?
'They left there and came here.'
'You went to his house and/but you didn't find him there.'

15.2.5 Clauses with xxx ‘and then’ (same-subject, anterior, future time)

similar to preceding but the entire temporal sequence is in the future (so the following clause has a verb in imperfective/future, imperative, or hortative form)

interlinear gloss: ‘then.SS’

form (including tones) of verb to which xxx is attached?

examples:
‘Let’s eat and then go!’
‘He/She will do farm work and then go.’

15.3 Other temporal adverbial clauses

15.3.1 ‘Since …‘ and ‘until …‘ clauses (*bà→*)

For *bà→* with NPs in the sense ‘all the way (from/to or since/until)’, see §8.2.11.

‘since’ clauses (‘since he came, he hasn’t bathed’)

See also §15.5.4 for ‘from X until (or: all the way to) Y’ using motion verbs.

clausal exx
[possibly more than one construction; if so, add subsections §15.3.1.1, etc.]

description and examples
‘Since they came, they have not eaten any meat’
‘Since she got sick, she has not gone outside’

brief mention of the ‘since X’ construction where X is a noun/adverb (‘since yesterday’)

15.3.2 ‘Almost, about to’ (*-ỳ* plus *kàrⁿà-jɛ̀-*)

An imminent action can be denoted by the principal verb with suffix -ỳ plus {L}-toned *kàrⁿà-jɛ̀-*, imperfective of kárⁿá ‘do’. The main verb keeps the lexical H or LH onset, then the tone drops for the remainder of the word including the

suffix. The identity of the -ỳ suffix is obscure. The verb form resembles the 1Pl/3Pl subject imperfective positive, but the form is used with singular as well as with plural subjects.

(xx1) a. pá:^{n}-ỳ^{n} ^{L}kàr^{n}à-jɛ̀-∅
dry.up-almost ^{L}do-Impf-3SgS
'It (well) has almost dried up'

b. dɔ̌:-ỳ ^{L}kàr^{n}à-ỳ^{n}
arrive-almost ^{L}do-Impf.1Pl
'we have almost arrived.'

c. gɛ̌l gɛ̀lɛ́-ỳ ^{L}kàr^{n}à-jɛ̀-m
harvest(n) harvest(v)-almost ^{L}do-Impf-1SgS
'I am about to harvest.'

d. émɛ́ nă: págà-ỳ ^{L}kàr^{n}à-y^{n}
1Pl cow tie-almost ^{L}do-Impf.1PlS
'we are about to tie up the cow.'

15.4 Noun-headed temporal clause ('the time when …')

type 'the time/day when he fell'
headless? (cross-ref)
doubled head noun?

15.4.1 Reverse anteriority clause 'before …'

'Before' clauses involve the morpheme sequence *mɔ̀ nɛ̀*, where *nɛ̀* is presumably the locative postposition ('in'). (xx1.a) shows how the clausal construction can be used to translate 'before X' where X is a scheduled event that can be used as a reference point.

(xx1) a. *[sɛ̂n dɔ̌: mɔ̀ nɛ̀]* *wí-wɛ̀lɛ̀-jɛ̀-m*
[Feast.of.Ram arrive before in] Rdp-come-Impf-1SgS
'I will come before the Feast of the Ram (arrives).'

more exx. with {H}-toned verb dropping to {L}
b. *[[nàw^{n}á ŋɛ̀]* *émɛ́* *^{L}tɛ̀w^{n}ɛ̀* *mɔ̀* *nɛ̀,*
[[meat Def] 1PlS ^{L}eat.meat before in,

[máŋgò:rò gɔ̀] *lá:y* *ká:-mòy*
[mango Def] first(adverb) eat-Hort
'Before we eat the meat, let's eat the mango first.'

c. *[àr^{n}á* *(wó)* *mɛ̌:* *mɔ̀* *nɛ̀,*
[rain (3SgS) rain.fall before in,
[[[tógù *gɔ̀]* *^{L}dù:]* *nɛ̀]* *yó:=bɛ́-y^{n}*
[[[shed Def] ^{L}under] in] go.in=Past-1PlS
'Before the rain fell, we went in under the shed (thatch shelter).'

describe in detail
form of verb
subordinators
expression of subject (NP or pronoun)

examples
'Before they came back, I hid (myself).'
'We'll work before we eat'

15.4.2 'No sooner …, than …' (xxx)

Cf. French dès que ...
indicates that the following event took place or began immediately afterwards

may involve an expressive adverbial 'all' element (puu⇒ etc.) at the end of the clause.

expression of pronominal subject?

structural difference between same-subject and different-subject combinations?

examples
'As soon as we came (=arrived here), we went to bed'
'As soon as we came, it rained'
'As soon as we arrive in Douentza, we will go to bed'
'As soon as you touch Seydou, he will weep'
'As soon as Fanta sits down, (every time) she falls asleep'

see also §16.2.2

15.5 Spatial and manner adverbials

15.5.1 Spatial adverbial clause (‘where …‘)

The noun xxx ‘place’ occurs in L-toned form as the relative head.

examples
‘Go to the place where ...’
‘The place where he fell is far way’

15.5.2 Manner adverbial clause (‘how …‘)

A relative clause with xxx ‘manner’ as head NP may function as a NP (xx1.a). With xxx ‘like’ this can become a manner adverbial clause (xx1.b).

examples
(xx1) a. ‘The way he/she works isn’t good.’
b. ‘I work (like) the (same) way he/she works.’

15.5.3 Headless adverbial clause as spatiotemporal or manner clause

The ‘time’, ‘place’, or ‘manner’ head noun may be omitted. The result is a headless adverbial relative clause whose exact interpretation requires contextual decipherment. In some cases there may be no determinable specific head noun, and something like ‘situation’ may be useful in translation. Contextual clues may force one or the other reading; for example, a ‘like’ particle forces a manner adverbial reading.

examples:
‘(The time) when he/she fell is far away (= was long ago).’
‘I work like (the way) he/she works.’

15.5.4 ‘From X, until (or: all the way to) Y’

Indicating the trajectory from starting to ending point can be done by combining *gǒ:* ‘go out, leave’ in same-subject subordinated form *gǒ: gɛ̀* or *gò-é→*, with an inflected form of *dǒ:* ‘arrive’ (xx1).

(xx1) *[mó:tì gǒ: gɛ̀] jɔ́bɔ̀*^{HL} *-* ^{L}*jɔ̀bɔ̀ séwá:rà* ^{L}*dɔ̀-è:*^{n}

[M go.out xxx] run^{HL}-^{L}run S ^{L}arrive.Perf-3PlS
'They ran from Mopti to Sevare.'

also *gò-é→*

See also §8.2.11 and §15.3.1 for *bà→* 'all the way to/from' and hálú 'until, all the way to'.

15.5.5 'As though …' clause

examples
'You-Sg are crying (weeping) as though you hadn't eaten.'
'They are crying as though they hadn't eaten.'
xxxxx

16 Conditional constructions

'if X' (X=clause) may also be used in the sense 'when X' (including recurrent eventsd, e.g. 'if/when the sun comes up'). That is, the probability of X occurring may be anywhere from unlikely to 100%.

antecedent clause ('if'), consequent clause ('then')

There is often one primary 'if/when' particle (occasionally two with similar sense), and a couple of other substitutes (with core meanings 'all', 'even', 'only')

16.1 Hypothetical conditional with *le* 'if'

le
pù→

temporal context: future or (present) habitual

most common logical relationship: cause and effect (entailment)
('if X, then Y' = 'X is a sufficient condition for Y')

form of 'if/when' particle
tones spread from final tone of preceding word?

typical aspect categories of antecedent and consequent clauses
unmarked category for antecedent: perfective (if cause-and-effect conditional)
--may also be imperfective in special contexts
unmarked category for consquent: imperfective, future, imperative, hortative

both clauses have normal main-clause form (AN suffix, pronominal-subject suffix)

16.1.1 Regular antecedent clause with pronominal subject suffix

give examples of the normal conditional construction
'If you-Sg see Amadou in the market, flee!'
'If I see Amadou in the market, I will flee.'
'If Hawa doesn't eat, she will die.'

any unusual patterns in AN marking of antecedent?
preference for one or another of the various perfective-system forms?

16.1.2 'Unless' antecedent

often a regular hypothetical conditional in which the the antecedent clause is negative.

examples
'Unless the rain falls ("if the rain didn't fall") heavily, we cannot sow (millet).'
'Unless the chiefs are here ("if the chiefs are not present"), we cannot slaughter a sheep.'
'Unless you-2Sg do ("f you-2Sg don't do) the farm work, how will you eat?'

16.2 Alternative 'if' particles

16.2.1 'Even if …' (xxx)

usually the 'even' particle replaces the 'if/when' particle
in Nanga, a Purposive particle is used in this construction

examples
'Even if he/she comes, he/she won't eat here.'
'Even if you-Sg come, you won't eat here.'
'Even if it rains, we'll go to the field(s).'

16.2.2 'As soon as …' (*tán*)

Perhaps a particle meaning 'only, just' replaces the ordinary 'if/when' particle in languages under Fulfulde influence, often /tan/

may compete with another construction, see §15.4.2

16.3 Willy-nilly and disjunctive antecedents ('whether X or Y … ')

two mutually incompatible conditions (both irrelevant to the consequent) are spelled out

final 'all' quantifier after the second condition?

examples
'Whether it rains or not, we are going.'
'He doesn't look at (= care whether) "it somebody's", he doesn't look at "it is mine," as for him, he eats everything.'

16.4 Counterfactual conditional

antecedent denotes an eventuality that seemed possible at some point in the past but did not in fact occur

often both the antecedent and the consequent involve the Past clitic/particle.
antecedent: Past Perfect form (Perfective plus Past)
consequent: Past Imperfective form

examples
'If the locusts hadn't come, we would have gotten (= were going to get) a lot of millet in the granary.'
'If the doctor had been there, I would have been cured.'

17 Complement and purposive clauses

note: the suggested subsection organization is subject to modification depending on what type of complement clause occurs in the semantic context indicated; in particular, the division of labor between verbal-noun complements and other constructions (such as simple direct chains) is variable from language to language.

17.1 Quotative complement

Quotations are marked by up to three distinct features:

(xx1)
- *a. inflectable **'say' verb** (xxx), preceding or following the quotation, §17.1.2;*
- *b. invariable **quotative particle** xxx (e.g. /wa/ or /lo/) following the quotation (or multiple segments of the quotation), §17.1.3;*
- *c. **logophoric** pronouns substituting for (original) first person pronouns, §18.xxx.*

17.1.1 Direct versus indirect in quotative complements

reported speech involves a mix of direct and indirect discourse

direct features:
- *initial vocatives ('hey [you]!')*
- *aspect category on verb usually same as original*
- *no 'that' complementizer*

indirect features:
- *pronominal person category recomputed*
  - *so 'hey you!' appears in most contexts as 'hey 3Sg!'*
- *logophoric replaces original 1Sg or 1Pl (in direct quote)*

17.1.2 ‘Say that …‘ with inflectable ‘say’ verb (xxx)

may precede or follow quotation?

when it precedes, set off prosodically, or followed by special interjection?
form of pronominal subject?

examples
‘He$_x$ said that he$_x$ is going tomorrow.’
‘I said that I am not going.’
‘She$_x$ will say that she$_x$ is sick.’
‘(The) people will say that they are cured.’
‘I didn’t say that I can stop the locusts.’
‘He$_x$ didn’t say that they$_y$ will come.’

The ‘say’ verb may also take a NP complement (‘what?’, ‘that’, ‘nothing’, etc.)

‘say’ verb usually omitted when invariant Quotative clitic/particle is present?

17.1.3 Quotative clitic xxx

occurs at the end of quoted clauses, and after quoted vocatives or topicalized constituents

also after subject of quoted clause?

tone borrowed from element to the left?

typically used when quoted speaker is third person (hearsay modality)

also used with first/second person quoted speaker to indicate “quotation marks,” as in [did you say “dog”?] and [yes, I said “dog”]

also used with quoted imperatives/hortatives (jussive complements)?

examples
‘He/she$_x$ said that he/she$_x$ has no sugar.’
‘Hyena said to hare: hey you, go!’
‘Amadou said that the people have sown (the millet).’

extended quotations: xxx is typically repeated after each clause

examples
'He/she said that the people will come, (but that) they won't eat here.'

omitted when it would be adjacent to the 'say' verb?
omitted in negative contexts ('X didn't say that ...')?

examples:
'Amadou did not say that the people have sown (the millet).'
'Did he say that the people have sown (the millet)?'

omitted with factive complement (ending in Definite morpheme)?
example:
'If he says (= claims) that the people have sown (the millet), it's false.'

17.1.4 Jussive complement (reported imperative or hortative)

17.1.4.1 Quoted imperative

When imperative 'Sweep the courtyard!' is quoted ('They told him [to sweep the courtyard]'), the original imperative may appear in the same imperative form (Jamsay), or in a 3rd person Hortative as in e.g. 'may God protect you!' (Nanga).

singular and plural subject of Imperative distinguished or merged?
quotative particle added at end?

overt pronominal denoting the original addressee may be present, perhaps as a quoted vocative ('hey you!' expressed as 'hey 3Sg!')

examples
'I told him to slaughter a sheep. '
'They told me to come. '

reported prohibitives (negative imperatives)

examples
'I told him not to slaughter a sheep. '
'They told me not to come.'

17.1.4.2 Embedded hortative

quoted form of 'let's go!' (hortative)

verb takes regular hortative form, or a special quoted-hortative form

expression of the original 1Pl (dual or plural) subject? (perhaps a dative in the 'say' clause, or perhaps a quoted vocative)
quotative particle present at end?
any difference between 1st, 2nd, and 3rd person quoted speaker?

examples
'They said (to me), let's go!'
'He said (to me), let's go!' (original dual-subject hortative)
'You said (to him), let's go!'
'You said (to me), let's go!'
'I said (to him), let's go!'
'I said (to you), let's go!'

reported hortative negative

examples

17.2 Factive (indicative) complements

This type of complement may be translated as '(the fact/proposition) that ...'. It occurs with verbs like 'know' and 'see/hear' in the main clause. There is no 'that' complementizer. The verb of the complement clause has regular AN-marking, but a pronominal subject is sometimes expressed by an independent pronoun rather than by the usual pronominal-subject suffix on the verb. Alternatively, the subject of the factive clause may be expressed as a possessor. The factive clause functions like a NP and may be followed by a Definite morpheme.

Briefly describe the structure here, and give examples in the subsections below.

17.2.1 ‘Know that …‘ complement clause

if the 3Pl subject inflections are somewhat irregular or formally specialized in main-clause inflectional morphology, for example in negative AN inflections, be sure to include examples with 3Pl subject in these subsections.

examples

‘I know that you are not coming.’
‘You know that I am not coming.’
‘You know that he is not coming.’
‘You know that they are not coming.’

‘I know that you did not come.’
‘You know that I did not come.’
‘You know that he did not come.’
‘You know that they did not come.’

‘I know that you will come.’
‘I know that they will come.’

‘I know that you came.’
‘I know that they came.’

no distinction between ‘X doesn’t know [that S]’ and ‘X doesn’t know [whether S]’? (see §13.2.2)

17.2.2 ‘See (find, hear) that …‘

distinction between direct perception (‘I saw him fall[ing]’) and recognition after the fact, often by inference from circumstantial evidence (‘I saw that he had fallen’).

some but not all of these examples may have factive complements of the same type as with ‘know’, but other examples may take other forms (imperfective or durative complements, passive or resultative complements). It’s best to keep them all here even if some have affinities to subordinated clause types covered elsewhere.

17.2.2.1 Direct-perception type (relative-clause complement)

complement generally treated as imperfective or durative, even when the event is rather brief or sudden ('fall')?

examples
'I saw the cow fall[ing]' or 'I saw the cow about to fall'
'I saw the children dance (dancing).'

17.2.2.2 Recognition (inference, hearsay) construction

factive complement?
perhaps competing with a passive or resultative complement?

perceiver has not perceived the actual event, but perceives the aftermath and infers what has happened

examples (including negative complements)
'I saw that the cow had fallen' = 'I saw the cow (having) fallen'
'I saw (= see) that you-Sg didn't take the motorcycle away.'

'I heard (= hear) that you-Sg are going to Bamako.'

17.2.3 Factive complement with xxx 'it is certain'

xxx 'it is certain' may precede an ordinary indicative clause, denoting a future event that is (all but) certain, or a situation or a past event that one infers from strong evidence or reasoning. tilay is a regionally ubiquitous form.

examples
'It's certain (definite) that I will go to Anda.'
'He/She has certainly left Sevare (by now).'

17.3 Verbal noun (and other nominal) complements

Complements whose verb is in morphological verbal-noun form.
Complement often really a VP (subjectless), but some main-clause control verbs ('prevent') also require a subject

Definite morpheme at end?

17.3.1 Structure of verbal noun phrase

In §5.1.4 we saw compounds consisting of a {L}-toned noun initial, denoting a prototypical object type, and a verbal noun.

describe the form of subject NP and object NP
--same as in main clause? (e.g. Accusative marking on object)
--possessor form?

describe the form of subject pronominal and object pronominal
--object same as in main clause, or possessor?
--subject expressed as possessor, or as independent pronoun?

subsections below are for specific main-clause verbs that take these complements; if the verbs do not in fact take verbal-noun complements, the subsection should be relocated elsewhere. If the verb takes a mix of verbal-noun and other complements, the subsection may remain here.

17.3.2 'Prevent' (*tέŋέ*)

tέŋέ can be a simple transitive with NP object, as in 'X blocked (the passage of) Y'.

exx.

describe semantics of verb (perhaps more than one such verb)
perhaps a basically transitive verb like 'cut' or 'block'

complement is verbal-noun clause, with the agent specified
agent in possessor form?
or treated as direct object of 'prevent' verb in main clause?

examples
'The rain prevented me from going to Douentza.'
'Millet farming [topic], the hot sun prevented me from doing it.'
'The noise prevented Amadou from sleeping.'

17.3.3 ‘Dare’ (*dǎ:r-é:*)

This verb can mean ‘dare, have the audacity to (do)’ or ‘crave, have an urge to’, cf. noun *dì-dá:rú* ‘craving, urge’. When the complement is clausal, the subjects are coindexed.

‘They don’t dare go down.’
‘Do you-Sg dare get close to the elephant(s)?’
‘He/She dared (had the audacity) to speak to me.’

17.3.4 ‘Consent’ (*yàbá*)

This transitive verb means ‘receive, accept (sth)’ as well as ‘consent, accept (a proposal or offer)’.

semantics of verb (often identical to ‘accept, receive’ transitive verb)

distinguish same- from different-subject constructions

examples
‘The chief has agreed to come.’ (same subject)
‘Our father has consented to our going to Bamako.’ (different subject)
‘He did not agree that we do the marriage.’

17.3.5 ‘Cease’ (*dàgá* ‘abandon’, *gǒ:* ‘leave’)

exx.

discuss semantics of verb(s)
may be special case of the transitive ‘leave, abandon’ verb
may suggest a definitive abandonment of the activity, or it may just mean ‘finish, stop (doing)’ in a particular instance

examples:
‘He has ceased to eat meat.’ (= has had enough for now, or has become a vegetarian?)
‘I will stop singing.’ (retire from a singing career, or finish up a song set?)

17.3.6 'Want' (*ìbɛ̀-*, *náwⁿɔ́:*)

For the forms of the verbs, see §11.2.4.

exx.

semantics of 'want' verb ('want, like, love', etc.)

same-subject vs. different-subject constructions

examples (same subject)
'I want to go.'
'We don't even want to see him/her.'

examples (different subject), requiring expression of complement subject
'Your-Sg father doesn't want you-Sg to come here.'

17.3.7 'Forget' (*náŋá*)

exx.
'forget that'
'forget to'

'Remember' is *náŋá-lá*, the suffixed reversive of *náŋá* 'forget'.

17.3.8 Obligational (xxx 'duty')

wá:jìbù 'duty'
exx.

'X must VP' may be expressed as e.g. '[X's ... verb-VblN] [it's a duty]', including the 'it is' predicative form of the noun 'duty, obligation.' There may be variants of this construction.

examples
'I must go to Sevare.' ("My going to Sevare is a duty.")
'I had to go to the field.' ("I went to the field out of a duty.")

17.3.9 ‘Be afraid to’ (*lɛ́:*)

For the forms of the verb, including chaining stem lí:, see (xx2c) in §10.1.3.1.

exx.
‘be afraid that’
‘be afraid to’

In the sense ‘X be afraid to VP’, where the VP has the same logical subject as the main clause, the complement may have a verbal noun.

example
‘He was afraid to come here.’

complement with different subjects?
example:
‘I’m afraid he/she will hit me.’
‘He$_x$’s afraid I will hit him$_{x/y}$.’

17.3.10 ‘Begin’ (*tɔ́lɔ́*)

exx.

The main and subordinated clauses must have a shared subject.

complement: chained verb, or verbal noun?

examples
‘He/She began to eat (the meal).’
‘He/She began to weep.’ (cognate nominal, cf. koyo koyo-)
‘He/She began to slaughter the sheep.’

17.3.11 ‘Finish’ (*kílɛ́*)

exx.

The construction is similar to that of 'begin' (preceding subsection).

examples
'He/She doesn't stop (= keeps on) eating.'
'They have finished farming (=weeding).'
'I havent' (yet) finished writing.'

alternative constructions with similar meaning?
'Their farming is finished' = 'they have finished farming'

Recent Perfect (jE- etc.) also used in the sense 'finish VP-ing' as well as 'have (already) VP-ed'?

17.4 Locative verbal noun or other nominal complement

In this construction, the complement consists of a Locative PP, whose complement in turn is a verbal-noun clause.

17.4.1 'Help' (*bàrá*)

exx.

semantics of 'help' (in some lgs, a special case of 'add, increase'), perhaps 'increase the manpower (in accomplishing sth)'

may also take the form 'X help Y [in [VP-ing]]' with verbal noun (or other nominal, e.g. a cognate nominal related to a verb)

examples
'He/She helped me to sit down.'
'Amadou helped me (= doctor) to treat you'
'He/She helped me to tie up the cow.'
'Amadou helped you in (doing) the farming'

17.5 Chained-verb complement clause

special cases of direct verb chains, but with a specialized final verb.

cross-refs to any instances of this construction in earlier sections in this chapter.

17.5.1 'Be able to, can' (*bɛ̀lɛ́*, negative *bɛ̌ː-lɛ̀*)

The core lexical sense of *bɛ̀lɛ́* is 'get, obtain, acquire, win (sth)'. With a complement it means 'be able to VP, can VP'. The two clauses have coindexed subjects.

subject of lower clause coindexed with that of the main clause

examples
'He/she cannot work.'
'Can you-Sg go up?'
'I can't come tomorrow.'
'Can you-Sg lift the stone?'
'Can you-Sg help me?'

in relative clause
'the day (when) you can come'

17.6 Purposive, causal, and locative clauses

17.6.1 Purposive clauses with postposition xxx 'for'

(purposive clauses including the Purposive postposition)

there may be more than one such construction, involving e.g. Imperfective marking, Imperfective Negative marking, and perhaps Imperative Negative (and Imperative positive?) complement verbs. If so, one might divide this into two or more subsections

examples (same subject)
'They will go up (and stand) on the barrel in order to replaster the house (= ceiling).'
'We have come in order to speak with the chief.'

examples (different subject)

'I put the pot down, so that they (could) eat.'
'Hex gave us hisx bicycle, so that we (could) go to Anda.

examples (negative complement)
'We'll fix the roof, so the roof beam(s) won't fall.'
'We (have) blocked the doorway, so that the sheep-Pl will not eat the mango(s).'
'We'll take food (along), so as not to die (= starve) on the way.' [same subject]
'I will make noise, so that you-Sg do not sleep.'
'I will spend the night in a chair, so as not to sleep.'

17.6.2 Purposive clauses with imperfective participle

an Imperfective complement may occur in combinations suggesting (but not forcing) a purposive reading

example
'They are sitting eating' (= in order to eat.')

17.6.3 Tonal purposive clause with motion verb

In this pattern, associated with matrix-clause motion verbs, the subordinated verb occurs in bare-stem form with overlaid {HL} tones, and the object is tone-dropped to {L}.

(xx1) a. *[dì:*^{L} *bán-è:*^{HL}*]* *yǎ:*
[water^{L} swim-MP^{HL}] go
'go in order to swim, go swimming' (*dǐ:*, *bàn-é:*)

b. *[dì:*^{L} *ín-è:*^{HL}*]* *yǎ:*
[water^{L} bathe-MP^{HL}] go
'go in order to bathe' (*dǐ:*, *ín-é:*)

c. *[pò:*^{L} *kúnə̀*^{HL}*]* *yǎ:*
[greeting^{L} put^{HL}] go
'go to present greetings' (pǒ:, kún

'She$_x$ went to in order to bring her$_x$ father.'
'I went in order to put out the fire.'
'They came in order to drink beer.'

trisyllabic verb (wɔ̀gɔ́lɔ́ ‘scoop’)

negative counterpart?

17.6.4 Causal (‘because’) clause (*sàbù*)

‘because’ particle at beginning or end of causal clause?

clause otherwise in main-clause form

examples
‘We can’t go to the village because the road isn’t good.’

17.6.5 ‘Because of’ (*dɛ̀:*)

‘because of X’ (X is a NP)
perhaps a special case of the Purposive postposition
perhaps a more specific morphology

examples:
‘We went into the house because of the rain.’

18 Anaphora

18.1 Reflexive

18.1.1 Reflexive object (*kû:* 'head')

A possessed form of *kû:* 'head' is used for reflexive object. The possessor agrees with the clausemate subject. *kû:* has no further modification (such as a definite morpheme). All forms are ambiguous between the reflexive reading and the literal 'X's (own) head' reading. There is no accusative marking in either reading.

(xx1) a. *wó* *[kû:* *wɔ̀-mɔ̀]* *kɛ́jɛ́-tì-∅*
3SgS [head 3Sg-Poss] cut-Perf1b-3SgS
'She cut-Past herself.'
or: 'She cut-Past her head.'

b. *[kû:* *ɔ̀:]* *kɛ́jɛ́-tù-w*
[head 2Sg.Poss] cut-Perf1b-2SgS
'You-Sg cut-Past yourself.'
or: 'You-Sg cut-Past your head.'

c. *[úrⁿù-m* *ŋɛ̀-m]* *[kû:* *bɛ̀-mɛ̀]* *kɛ́jɛ́-t-ɛ̀:ⁿ*
[child-Pl Def-Pl] [head 3Pl-Poss] cut-Perf1b-3PlS
'The children cut-Past themselves.'
or: 'The children cut-Past their heads.'

A clearly nonreflexive example with 'their head(s)' in subject position, where it can have no antecedent, is (xx2).

(xx2) *[kû:* *bɛ̀-mɛ̀]* *jògó-gù-wɔ̀-∅*
[head 3Pl-Poss] head.hurt-Prog-be-3SgS
'Their heads are hurting.' ('They have head-aches.')

18.1.2 Reflexive PP complement

The examples in (xx1) involve the VP-type 'X send money to X'. The (reflexive) complement of the locative postposition is expressed using the

absolute forms of possessor pronouns (‘mine’, ‘yours’, etc.). There is no explicit coindexing in (xx1), which has the same PP as in (xx1) with a non-coindexed clausemate subject.

(xx1) a. *[bú:dù gɔ̀] [mɔ̂: nɛ̀] túy = be-m*
[money Def] [1SgPoss in] send=Past-1SgS
‘I sent the money to myself.’

b. *[bú:dù gɔ̀] [mɔ̂: nɛ̀] túy = bɛ̀-∅*
[money Def] [1SgPoss in] send=Past-3SgS
‘He/She sent the money to me.’

A reflexive like (xx1.a) but with third person subjec) is ambiguous, since the third person postpositional complement is not explicitly coindexed with the clausemate subject. This is seen in (xx2.a). Presumably for this reason, the speaker can optionally express the reflexive reading using the possessed ‘head’ construction described above.

(xx2) a. *[bú:dù gɔ̀] [wɔ́-mɔ̀ nɛ̀] túy = bɛ̀-∅*
[money Def] [3Sg-Poss in] send=Past-3SgS
‘He sent the money to himself.’
‘He$_x$ sent the money to her/him$_y$.’

b. *[bú:dù gɔ̀] [kû: wɔ̀-mɔ̀ nɛ̀] túy = bɛ̀-∅*
[money Def] [head 3Sg-Poss in] send=Past-3SgS
‘He sent the money to himself.’

With the purposive postposition *dɛ̀:*, the explicitly reflexive ‘head’ construction is used to indicate coindexation involving subjects of any pronominal person, including first person (xx3).

(xx3) *[[kû: mɔ̀] dɛ̀:] ^{L}bìrɛ̀-jɛ̀-m*
[[head 1SgPoss] for] ^{L}work-Impf-1SgS
‘I work for myself.’

18.1.3 Reflexive possessor absent

There is no special anaphoric element to mark coindexation of a subject NP and the possessor of a clausemate direct object. While (xx1.a) is unambiguous because of the indexical property of a first person singular pronoun, (xx1.b) is ambiguous as to whether the possessor is coindexed with the subject.

(xx1) a. *[péjú mɔ̀]* *dɔ̀rⁿɔ́-tù-m*
[sheep 1SgPoss] sell-Perf1b-1SgS
'I sold my sheep-Sg.'

b. *[péjú wɔ̀-mɔ̀]* *dɔ̀rⁿɔ́-tì-∅*
[sheep 3Sg-Poss] sell-Perf1b-3SgS
'He$_x$ sold his$_x$ (own) sheep-Sg.'
or: 'He$_x$ sold her/his$_y$ sheep-Sg.'

18.1.4 Emphatic pronouns

In (xx1), the implied contrast is with a more normal situation where relatives or neighbors help in the construction. *mú túrú* 'me singly' (*túrú* 'one') is therefore a focalized subject.

(xx1) *[tógù gɔ̀]* *[mú túrú]* *ᴸùjɔ̀-jɛ̀*
[shed Def] [1Sg one] ᴸbuild-Impf
'I alone [focus] (=by myself) will built the shed.'

In (xx2), the addressee is being advised to go in person, rather than sending a substitute or representative, to accomplish some task. Literally it means "[you with your head] will go." The 2Sg pronoun is focalized.

(xx2) *[[kû: ɔ̀:]* *lè]* *ú* *ᴸyà:-jɛ̀*
[[head 2SgPoss] with] 2SgS ᴸgo-Impf
'You-Sg will go yourself (in person).'

18.2 Logophoric and indexing pronouns

ùnɔ́: logophoric sg

18.2.1 True third person logophoric function

pronoun coindexed with attributed author of a speech or thought quotation; corresponds to 1Sg and 1Pl in the original (direct) quotation

logophorics used only when the author is a third person (not the current speaker or addressee)?

forms (with discussion)

same as reflexive, topic-indexing?

syntax

as subject, requires regular 3Sg or 3Pl pronominal-subject suffix on verb?

behaves like personal pronouns, or like nouns?

a) in morphological appearance

b) as possessors (if special construction for pronominal possessors)

c) as subjects (check linear position in relative clause containing a direct chain, e.g 'he$_x$ said that [the cow that he-Logo$_x$ killed (and) left-Participle] is still there' = [... fall go.down-Participle]; same linear position as e.g. preparticipial 1Sg in '[[the cow that I killed (and) left-Participle] is still there] (?)

Accusative marking in direct-object function? ('He said that I hit him')

elicited examples (ordinary clause, and quoted equivalent) showing relationship of logophoric to nouns and to other pronouns

'he jumped down'
'the man jumped down'
'I jumped down'
'he$_x$ said that he-Logo$_x$ jumped down'
(non-logophoric) 'he$_x$ said that she$_y$ jumped down'

elicited examples including relative-clause subject position

'the day he/she jumped down'
'the day the man jumped down'
'He$_x$ said, the day he-Logo$_x$ jumped down, ...'

no logophoric with current 1st/2nd person as quoted author?

'I said that I can't come.'
'You-Sg said that you-Sg can't come.'

singular antecedent included in plural logophoric

'Amadou$_x$ said that they$_{xy}$ (e.g. Amadou and Seydou) are going to Mopti.'
'Amadou$_x$ said you went to their-LogoPl $_{xy}$ (=Amadou & his family's) house.'

more examples including textual exx. of logophorics

long-distance anaphora (logophoric in embedded clause)

'Amadou$_x$ said [you saw that [he-Logo$_x$ was injured]]'
'Amadou $_x$ said [you said [that you would kill him-Logo $_x$]]

quotation embedded in another quotation: can higher antecedent bind a logophoric in the embedded quotation (resulting in ambiguity)?
'Amadou $_x$ said [Seydou$_y$ said [he-Logo will kill him-Logo]]
(perhaps ambiguous as to which antecedent each logophoric is coindexed to (Seydou kill Amadou, or Amadou kill Seydou); if reflexive pronoun is identical to logophoric pronoun, this sentence should also have two additional readings in which he-Logo is antecedent of him-Refl (Amadou kill Amadou, Seydou kill Seydou).

18.2.2 Non-logophoric topic-indexing function

subject of main clause coindexed to the subject of a relative clause (the latter may have a Reflexive/Logophoric pronoun). If reflexive and logophoric are identical in form, such cases (which do not involve quotation) should be labeled Refl in interlinears.

examples
'I will do as much as I can.'
'Amadou$_x$ will do as much as he$_x$ can.'
'The people will do what they can.'

no anaphora when antecedent is object, dative, or other non-subject
'He$_x$ showed me a bird that he$_x$ (had) killed.' (antecedent is subject)
'I showed him$_x$ the damage that he$_x$ (or: she$_y$) had made.' (antecedent is object or dative)

18.3 Reciprocal

18.3.1 Simple reciprocals (*tɔ́ːⁿ-m̀*)

Reciprocals are formed with *tɔ́ːⁿ-m̀* in the relevant NP position, usually object (without overt accusative marking) or postpositional complement, as in *tɔ́ːⁿ-m lɛ̀* 'with each other'. It is slightly different tonally from the plural noun *tɔ́ːⁿ-m* 'companions, (casual) friends', cf. singular *tɔ́ːⁿ-rⁿɔ́*. There is also a verb *tɔ́ːⁿ* 'compare (X and Y)', verbal noun *tɔ̀-ý^n* 'comparison, comparing'.

The antecedent is normally the clausemate subject. There is no distinction between dual and plural.

accusative morpheme?

pronominal-person markers? (1Pl, 2Pl)
verify tones

examples
'We saw each other.'
'They fought each other.'
'You-Pl hit each other.'

18.3.2 'Together' (*tɔ́:ⁿ ŋú*, *mɔ̀rⁿ-ɛ́:*)

An adverb *tɔ́:ⁿ ŋú* 'together' is attested. It is based on the same noun stem *tɔ́:ⁿ* also used in reciprocal *tɔ́:ⁿ-m̀*, see just above. Compare also *tɔ́:ⁿ yɛ̀nɛ́* 'compare (two things)' with *yɛ̀nɛ́* 'look'. *ŋú* is nasalized from /gú/, see §3.4.1.1.

Other 'together' expressions are created by chaining verb *mɔ̀rⁿ-ɛ́:* 'gather together, assemble' or a transitive derivative with a following verblike *yé* then another verb as in *mɔ̀rⁿ-í: yé kárⁿá* 'do together' (§15.1.8).

18.4 Restrictions on reflexives

18.4.1 No antecedent-reflexive relation between coordinands

example
'Amadou$_x$ and his$_x$ father.' (regular 3Sg possessor, not a reflexive)
(so reference of 'his' is ambiguous)

19 Grammatical pragmatics

19.1 Topic

19.1.1 Topic (*kày*)

'As for X' as preclausal topic phrase is *X kày*. This is the local variant of a regionally widespread topic morpheme. X may be a NP, a pronoun, a spatiotemporal word, etc.

(xx1)	*category*	*topicalized pronoun*
	1Sg	*xxx*
	1Pl	*xxx*
	2Sg	*xxx*
	2Pl	*xxx*
	3Sg	*xxx*
	3Pl	*xxx*
	InanSg	*xxx*
	InanPl	*xxx*
	LogoSg	*xxx*
	LogoPl	*xxx*

a few examples (including textual examples, with some context)

is topicalized constituent preclausal, or part of clause?
evidence for preclausal topic:
topicalized X is "resumed" by a pronoun within the clause proper
evidence for clause-internal topic:
topicalized X is marked for case (Accusative, Dative)
topicalized X is preceded by other clause-internal elements

example (topicalized direct object)
'He/She hit my friend, but me he/she didn't hit.'

19.1.2 ‘Now’ (*né: kày*)

In addition to the temporal adverb *kàná* ‘now’ (§8.4.5.1), there is a short ‘now’ form that is used clause-initially with topic morpheme *kày* to index a shift in time frame or perspective

19.1.3 ‘Also’ or ‘even’ (*kàr^{n}à*)

‘X also/too’ and ‘even X’ are expressed as *X kàr^{n}à*. The particle is normally attached to a NP, independent pronoun, or other noun-like element (e.g. spatiotemporal adverb), rather than being clause-final after a verb.

form (including tones)

idiomatic translation may be ‘also, too’ or more loosely ‘likewise, in a similar fashion’.

may follow PP, or Accusative or Dative NP/pronoun

examples (several, including textual exx.)
‘My friend is going to Bamako, and I’m going there too!’
‘If you give (some) to him/her, give (some) to me too!’ (after object/dative pronominal)
‘I do farm work with an ox, (and) I do farm work with a camel also.’ (after PP)

avoidance of clause-final position? (preference for locating the particle after a non-verb constituent, perhaps a cognate nominal instead of the verb)
example:
‘He/She cooks, and he/she sweeps too.’ (perhaps expressed as ‘... [sweeping too] he/she sweeps’ with cognate nominal)

‘Even the little kids will do farm work (= weeding).’
‘He/She didn’t even greet (=say hello).’

cross-refs to other sections in grammar involving ‘even’, e.g. ‘even if’ conditional antecedents §16.2.1.

19.2 Preclausal discourse markers

19.2.1 'Well, …' (*àywà*, *ɔ́rɔ̀y*)

Clause-initial 'well, …' is most often expressed as *àywà* (< Arabic). It is preclausal and is followed by a pause or similar prosodic break.

ɔ́rɔ̀y 'all right' is used in similar contexts especially by older men

háyà ?

19.2.2 Clause-initial emphatic particle (xxx, xxx)

(often more than one such form)

Emphatic clause-final particle in 'not at all' clauses ('not on your life', etc.)

examples:
'I haven't eaten at all.' ('... haven't eaten a lick', etc.)

can such particles also be used as emphatics in positive clauses?

examples (positive):
'I'm perfectly healthy.'

19.2.3 'But …' (*gà:* ~ *kà:*)

The particle *gà:* ~ *kà:* occurs preclausally or clause-initially in the adversative sense 'but'.

19.2.4 'Lo, …' (*jágá*)

This particle is used in narrative to highlight a following clause denoting a surprising or climactic event.

19.3 Pragmatic adverbs or equivalents

19.3.1 'Again' (*lěy*, *yâ:*)

'Again' can be expressed by *lěy*, *yâ:*, or their combination *yâ: lěy*.

lěy is based on the numeral '2' (§4.6.1.2). *yâ:* belongs to a cognate set that in some languages is homophonous to the adverb 'today', but in YS 'today' is *yé:* (§8.4.5.1).

Some relevant verbs are *gìmé* '(e.g. rain) recur, happen again' and *kígílí-mɔ́* 'go back' (and in some combinations 'repeat, do again').

reconcile dict: lě:, §8.4.5.1 lěy

'I won't go to Hombori again.'
'If you come here again, you'll get trouble.'
'Having eaten at home, he ate here again.'

19.4 'Only' particles

19.4.1 'Only' (*săy*)

The simple 'only' particle is *săy*, which follows the constituent or clause that it has scope over.

'he just sleeps'
'he only gave me 100 riyals'

As in probably all Malian languages, more complex phrases of the type 'he doesn't work, unless it is the wet season' (i.e. 'he only works in the wet season') are common.

19.5 Phrase-final emphatics

19.5.1 Clause-final emphatic *kòy*

This is a widespread regional clause-final mildly emphatic particle. It emphasizes the truth of an assertion, confirming an interlocutor's statement or firmly answering a yes-no question. It is not adversative (contradicting the interlocutor). Compare *I sure do* or *you bet I do*.

examples
Q: Did you see the fire?
A: I sure did.
'Money sure is hard to come by.'

19.5.2 Clause-final adversative emphatic *dé*

This is another regional emphatic particle. Like *kòy* it is emphatic, but it differs in being adversative. It has somewhat the flavor of English clause-final nontemporal particle *now* or postclausal *mind you*. It may have either a warning sense ('don't go near the crocodile now!') or it may contradict a proposition uttered by or implicitly attributed to the interlocutor ('there are crocs in that pond, mind you!', said to someone who doesn't believe this).

examples
'Beware of wild animals now!'
'Now don't you go to the field without a hat!'

19.6 Backchannel and uptake checks

In dialogue texts, forms like 'Do you understand?' or 'Did you hear?' (uptake checks); 'uh-huh' or 'amen' etc. (backchannel)

19.7 Greetings

group the greetings into categories like the following:
a) time-of-day greetings from 'good morning' to 'good night'
b) situational greetings like 'hello (to one in a field)'
c) greetings to travelers (departing and arriving)
d) condolences
e) good wishes at marriages and major Muslim holidays
f) Islamic greetings

begin with a discussion of verbs meaning 'X greet Y' (perhaps more than one, for different times of day, e.g. 'greet in the morning')
present the greetings and comment on forms. Some greetings have distinct forms for singular and plural addressee
ask if the old people use(d) greetings now out of fashion with younger people
give the response to each greeting

a) good morning (e.g. sunrise to 10 AM); good day late afternoon and evening greetings; indicate the approximate time-of-day range for each greeting by clock time or e.g. 'late afternoon until sunset')

the 'good morning' and 'good evening' greetings may be retrospective, i.e., respectively 'how did you spend the night?' and 'how did you spend the day?' The mid-day greeting is often unmarked ('hello!'). However, the form of the 'spend the night/day' verb may be specialized, or Imperative in form.

'good morning' and its reply may be followed up with more specific questions, e.g. 'did you sleep well?'

in addition to the retrospective greetings, there may be a 'good night' greeting of the prospective type (cf. 'sleep well!' or 'let's spend the night in peace', etc.).

b) situational greetings referring to activities (and related locations)

'hello in the field!'
'hello at work!'
'hellow at the well (or other water source)!'
'hellow in the market!', etc.

there may be two constructions, one of the type '[field in] greetings!' with locative PP, another of the type 'you and (the) field!'

are these greetings also addressed to someone who is returning to the village from the activity/location specified, or just to someone who is currently there?

c) to a traveler

'welcome (to this house)!' (perhaps 'arrive/approach the house!')
'bon voyage' (perhaps 'arrive there in health!')

d) condolences (presented at the home of the deceased)

from the visitor to the deceased's family
e.g. 'greetings in high worth'
to the visitor as he is about to depart
e.g. 'may God lengthen your life'
or 'may God put distance between us (and the deceased)
to one returning home after presenting condolences in another village
e.g. 'greetings in running'

analysis may require cultural explanations

e) good wishes

at marriages and at the two major Islamic holidays
e.g. 'may God show you next year!'

f) Islamic greetings and other formulae

invitation (to eat, etc.): usually bisimil(l)a (< Arabic 'in the name of God')

formal greeting, especially among men:

asalaamu-aleykum (or variant) < Arabic 'peace to you-Pl'

reply: maleykumma-salaam (or variant) < Arabic 'to you-Pl peace'

'amen' (often a reply to a good wish)

'thanks' (albarka, < Arabic 'the blessing'), said to one's host after a meal, also said to a merchant in politely declining to buy at the price proposed

20 Text

information about circumstances of recording (informants remain anonymous, use e.g. X, Y as speaker labels). Use tabs to align text with interlinear glosses. Organize the text into small units that seem to function like small paragraphs (perhaps including several clauses). Use hyphens and clitic boundary ≡ in interlinears to correspond to the same markers in the text. Use brackets [...] in both the Dogon text and the interlinear to indicate phrasal groupings. Foreign (e.g. French, Bambara) items should be italicized. In addition to interlinear glosses, add free translations for each segment, followed by comments in [...]. These comments should identify constructions or other grammatical features, and give a reference to a section of the grammar describing them.

(xxx) xxx
[formulaic story opening phrase; audience should respond xxx⇒]

(xxx) xxx,
[hare and hyena and] [day.labor.L-work in] go.Perf.L-3PlS,
xxx
[ReflPl two] [day.labor.L-work in] go and.SS,
xxx
[wage.L-work in] [3Pl Obj] receive.Perf-3PlS
xxx
apiary build-Impf-3PlS
'Hare and hyena went to (get) day-labor work. The two of them went to (get) paid work, and they (= people) took them in paid work. They were going to build apiaries (man-made beehives).'
[X yo Y yo 'X and Y' §7.1; topic-indexing Reflexive Plural xxx: §18.2.2; xxx 'and.SS' in same-subject VP chains §xxx]

.....

(xxx) xxx
[story submerged] [finish(noun) submerged] Emph
[story-closing formula]

sample verb paradigms

gloss	chain	Perf1	Perf2
	Imprt	Impf	PerfNeg

Cvv, with *-y* suffix

a. Caa, regular tone

‘sneeze’ (with noun *éjígílè*); also ‘answer’

	sá-y	*sá:-bé*	*sá-y-tì*
	sá:	*sâ:-wˋ-wɔ̀*	*sá:-l*
‘go’	*yǎ-y*	*yǎ:-bé*	*yà-â:y*
	yǎ:	*yǎ:-wˋ-wɔ̀*	*yǎ:-l*
‘shave’	*ká-y*	*ká:-bé*	*ká-y-tì*
	ká:	*kâ:-wˋ-wɔ̀*	*ká:-l*
‘eat’	*ká-y*	*ká:-bé*	*ká-y-tì*
	ká:	*kâ:-wˋ-wɔ̀*	*ká:-l*
‘beat (tomtom)’			
	bǎ-y	*bǎ:-bé*	*bǎ-y-tì*
	bá:	*bǎ:-wˋ-wɔ̀*	*bǎ:-l*

{H} but {LH} in PerfNeg

‘spend night’ (with noun *bǎ:*)

	yá-y	*yá:-bé*	*yá-à:y||yá-y-tì*
	yá:	*yâ:-wˋ-wɔ̀*	*yǎ:-l*

b. Caa, irregular tone

‘convey’	*já-y*	*já:-bé*	*já-y-tì*
	já:	*jâ:-wˋ-wɔ̀*	*jǎ:-l*

c. non Caa

‘arrive’	*dɔ̌-y*	*dɔ̌:-bé*	*dɔ̀-â:y*
	dɔ́:	*dɔ̌:-wˋ-wɔ̀*	*dɔ̌:-l*
‘go in’	*yó-y*	*yó:-bé*	*yó-à:y*
	yó:	*yô:-wˋ-wɔ̀*	*yǒ:-l*

‘sleep’ (with noun *gìrî:* ‘eye’)

	yé-y	*yé:-bé*	*yé-y-tì*
	yé:	*yê:-wˋ-wɔ̀*	*yé:-l*

Cvv, without *-y* suffix

‘pick (fruit)’	*kɔ́:*	*kɔ́:-bé*	*kɔ́:-tì*
	kɔ́:	*kɔ̂:-wˋ-wɔ̀*	*kɔ́:-l*
‘drink’	*nɔ̌:*	*nɔ̌:-bé*	*nɔ̌:-tì*
	nɔ́:	*nɔ̌:-wˋ-wɔ̀*	*nɔ̌:-n*
‘see’	*yé:*	*yé:-bé*	*yé:-tì*
	yé:	*yê:-wˋ-wɔ̀*	*yé-l [short V]*

‘learn’	*dě:*	*dě:-bé*	*dèy-â:y*
	dé:	*dě̂:-ẁ-wɔ̀*	*dě:-l*
‘winnow (in wind)’			
	wě:	*wě:-bé*	*wě:-tì*
	wɛ́:	*wɛ̌̂:-ẁ-wɔ̀*	*wě:-l*
‘burn’	*dě:*	*dě:-bé*	*dě:-tì*
	dɛ́:	*dɛ̌̂:-ẁ-wɔ̀*	*dě:-l*
‘go out’	*gǒ:*	*gǒ:-bé*	*gòw-â:y*
	gó:	*gǒ̂:-ẁ-wɔ̀*	*gǒ:-l*

Cii, cant tell whether *-y* suffix is present

‘weep’ (with cognate nominal *pí:*)

pí:	*pí:-bé*	*pí:-tì*
pí:	*pî:-ẁ-wɔ̀*	*pí:-l*

Cvy

‘send’ *túy*	*túy-bé*	*túy-tì*
túy	*tûy-ẁ-wɔ̀*	*túy-l*

CvCv with *-u*/*-∅* suffix

a. CaCa-

‘pound (w water)’

jǎŋ	*jàŋá-bé*	*jǎŋ-tì*
jáŋá	*jàŋá-ẁ-wɔ̀*	*jàŋǎ-n*
‘touch’ *táb*	*tábá-bé*	*táb-tì*
tábá	*tábà-ẁ-wɔ̀*	*tábá-l*
‘farm’ *wǎl*	*wàlá-bé*	*wǎl-tì*
wálá	*wàlá-ẁ-wɔ̀*	*wàlǎ-l*
‘help; add’ *bǎr*	*bàrá-bé*	*bǎr-tì*
bárá	*bàrá-ẁ-wɔ̀*	*bàrǎ-l*
{H} but {LH} in PerfNeg		
‘hit’ *lágú*	*lágá-bé*	*lágú-tì*
lágá	*lágà-ẁ-wɔ̀*	*làgǎ-l*

b. non CaCa-

‘flip’ *bǐl*	*bìlé-bé*	*bǐl-tì*
bílé	*bìlí-ẁ-wɔ̀*	*bìlǐ-l*
{H} but {LH} in PerfNeg		
‘give’ *ób*	*óbó-bé*	*ób-tì*
óbó	*óbò-ẁ-wɔ̀*	*òbǒ-l*
‘dig’ *gǔl*	*gùló-bé*	*gǔl-tì*
gúló	*gùló-ẁ-wɔ̀*	*gùlǒ-l*

CvCv without *-u*/*-∅* suffix

'eat meat'	*tɛ́w^{n}ɛ́*	*tɛ́w^{n}ɛ́-bé*	*tɛ́w^{n}ɛ́-tì*
	tɛ́w^{n}ɛ́	*tɛ́w^{n}ɛ̀-ẁ-wɔ̀*	*tɛ́w^{n}ɛ́-n*
'hear'	*ɛ́gɛ́*	*ɛ́gɛ́-bé*	*ɛ́gɛ́-tì*
	ɛ́gɛ́	*ɛ́gɛ̀-ẁ-wɔ̀*	*ɛ́gɛ́-l*
'cut'	*kɛ́jɛ́*	*kɛ́jɛ́-bé*	*kɛ́jɛ́-tì*
	kɛ́jɛ́	*kɛ́jɛ̀-ẁ-wɔ̀*	*kɛ́jɛ́-l*
'run'	*jɔ̀bɔ́*	*jɔ̀bɔ́-bé*	*jɔ̀b-â:y*
	jɔ́bɔ́	*jɔ̀bɔ́-ẁ-wɔ̀*	*jɔ̀bɔ̌-l*
'tie'	*kɔ́mɔ́*	*kɔ́mɔ́-bé*	*kɔ́mɔ́-tì*
	kɔ́mɔ́	*kɔ́mɔ̀-ẁ-wɔ̀*	*kɔ́mɔ́-n*
'come'	*wɛ̀lɛ́*	*wɛ̀lɛ́-bé*	*wɛ̀l-â:y*
	wɛ́lɛ́	*wɛ̀lɛ́-ẁ-wɔ̀*	*wɛ̌:-l*
'jump'	*tómó*	*tómó-bé*	--
	tómó	*tómò-ẁ-wɔ̀*	*tómó-n*
'whip'	*pójó*	*pójó-bé*	*pójó-tì*
	pójó	*pójò-ẁ-wɔ̀*	*pójó-l*
{H} but {LH} in PerfNeg			
'die'	*yíw^{n}ɛ́*	--	*yíw^{n}-à:y*
	--	*yíw^{n}ɛ̀-ẁ-wɔ̀*	*yìw^{n}ɛ̌-n*

CvvCv with *-u*/*-∅* suffix

'bring'	*jɛ̌:l*	*jɛ̌:lɛ́-bé*	*jɛ̌:l-tì*
	jɛ̌:lɛ́	*jɛ̌:lɛ̀-ẁ-wɔ̀*	*jɛ̀:lɛ̌-l*

CvCvCv with *-u*/*-∅* suffix

'winnow (shaking)'			
	pégúrú	*pégéré-bé*	*pégúrú-tì*
	pégéré	*pégèrè-ẁ-wɔ̀*	*pégéré-l*
'remove (pounded grain)'			
	wɔ̀gúl	*wɔ̀gɔ́lɔ́-bé*	*wɔ̀gúl-tì*
	wɔ̀gɔ́lɔ́	*wɔ̀gɔ́lɔ̀-ẁ-wɔ̀*	*wɔ̀gɔ̀lɔ̌-l*
'get ready'	*yègír*	*yègéré-bé*	*yègír-tì*
	yègéré	*yègérè-ẁ-wɔ̀*	*yègèrě-l*
'think'	*màníŋ*	*mànínŋá-bé*	*mànínŋ-tì*
	mànínŋá	*mànínŋà-ẁ-wɔ̀*	*mànìŋǎ-n*
'shake'	*jìgi#bú*		

reversive

'open'	*pínɛ́l*	*pínɛ́lɛ́-bé*	*pínɛ́l-tì*
	pínɛ́lɛ́	*pínɛ̀lɛ̀-ẁ-wɔ̀*	*pínɛ́lɛ́-l*

final *í:* alternating with *é:*

‘bathe’ (with noun *dǐ:* ‘water’)

	íní:	*íné:-bé*	*íní:-tì*
	íné:	*ínê:-ẁ-wɔ̀*	*íné:-n*
‘sit’	*dàyⁿí:*	*dàyⁿé:-bé*	*dèyⁿíy-à:y [H-tone]*
	dàyⁿé:	*dàyⁿê:-ẁ-wɔ̀*	*dàyⁿé̌:-n*
‘cough’	*kójígí:*	*kójúgé:-bé*	*kójúgí:-tì*
	kójúgé:	*kójúgê:-ẁ-wɔ̀*	*kójúgé:-l*
‘lie down’	*dǐ:ⁿ*	*dǐ:ⁿ-bé*	*dǐyⁿ-â:y*
	dǐ:ⁿ	*dǐ̂:ⁿ-ẁ-wɔ̀*	*dǐ:ⁿ-n*
‘assemble [intr]’			
	mɔ̀rⁿí:	*mɔ̀rⁿé:-bé*	*mɔ̀rⁿíy-à:y*
	mɔ̀rⁿé:	*mɔ̀rⁿê:-ẁ-wɔ̀*	*mɔ̀rⁿé̌:-n*

causative -m

‘roll (sth)’	*dùnúlúm*	*dùnúlúm-bé*	*dùnúlúm-tì*
	dùnúlúm	*dùnúlùmɔ̀-ẁ-wɔ̀*	*dùnùlùmɔ̌-n*
‘ask’	*sélúm*	*sélúmé-bé*	*sélúm-tì*
	sélúmé	*sélùmè-ẁ-wɔ̀*	*sélúmé-n*
‘xxx	*xxx*	*xxx-bé*	*xxx-â:y xxx-tì*
	xxx	*xxx-ẁ-wɔ̀*	*xxx-l*
‘xxx	*xxx*	*xxx-bé*	*xxx-â:y xxx-tì*
	xxx	*xxx-ẁ-wɔ̀*	*xxx-l*

dùŋ-ná: *yé:-tɛ́rɔ̀:-w* *mà⇒↑* ‘Have you-Sg ever seen an elephant’
(1Sg *yé:-tɛ́rɔ̀:-m*)
dùŋ-ná: *yé:-tɛ́rú-m* ‘I have never seen an elephant’

ká-y-jɛ̀:-m ‘I have already eaten’
(negated by *-lú-m*)

kâ:-w wɔ̀-m ‘I am eating’
kâ:-w wɔ̀-lɔ́-m ‘I am noteating’

kí-kà:-jɛ̀-m ‘I will eat’
kí-kà:-jɛ̀ ‘he/she will eat’
kâ:-lɛ̀ ‘he/she will not eat’

distribution of u ending

XU	*X-bé*	(*X-â:y*) *Xu-tì*
X	*X-ẁ-wɔ̀*	*X-l*

1Sg	*-bé-m*
2Sg	*-bé-w*
3Sg	*-bé-∅*
1Pl	*-bé:^{n}*
2Pl	*-bé:^{n}* (variant *-bé:*)
3Pl	*-bé:^{n}*

gèr^{n}é	‘(a) house’
gèr^{n}è dê:	‘(a) big house’
gèr^{n}è pìl dê:	‘(a) big red house’
gèr^{n}é kúlòy	‘six houses’
gèr^{n}é tă:n	‘three houses’
gèr^{n}é nùmɔ́r^{n}ɔ́	‘five houses’
gèr^{n}è dê: kúlòy	‘six big houses’
gèr^{n}è nɔ̌:	‘this house’
gèr^{n}è dè: nɔ̌:	‘this big house’
gèr^{n}è kùlòy nɔ̌:-m̀	‘these six houses’
gèr^{n}è tà:n nɔ̌:-m̀	‘these three houses’
gèr^{n}è nùmɔ̀r^{n}ɔ̀ nɔ̌:-m̀	‘these five houses’
gèr^{n}è dè: kùlòy nɔ̌:-m̀	‘these six big houses
gèr^{n}è dè: tà:n nɔ̌:-m̀	‘these three big houses
gèr^{n}é ŋè	‘the house’
gèr^{n}é ŋè-m	‘the houses’
gèr^{n}è dê: gɛ̀	‘the big house’
gèr^{n}è kúlóy gɔ̀-m	‘the six houses’
gèr^{n}è tă:n ŋè-m	‘the three houses’
gèr^{n}è nùmɔ̀r^{n}ɔ́ gɔ̀-m	‘the five houses’
gèr^{n}é ŋè-m pú→	‘all the houses’
{num H-toned}	
gèr^{n}è dè: léy gɔ̀-m	‘the two big houses’
gèr^{n}è dè: pél gɔ̀-m	‘the ten big houses’
{num LH-toned}	

gèrⁿè dè: nǎyⁿ gɔ̀-m	‘the four big houses’
gèrⁿè dè: tǎ:n ŋè-m	‘the three big houses’
{num HL-toned}	
gèrⁿè dè: sôy gɔ̀-m	‘the seven big houses’
gèrⁿè dè: kúlóy gɔ̀-m	‘the six big houses’
gèrⁿè dè: túwɔ́ gɔ̀-m	‘the seven big houses’
{num trisyllabic}	
gèrⁿè dè: nùmɔ̀rⁿɔ́ gɔ̀-m	‘the five big houses’
gèrⁿè dè: gàgàrá gɔ̀-m	‘the eight big houses’

yǎ:-rⁿá	‘woman’
yǎ:-rⁿá ŋè	‘the woman’
yà:-rⁿà gàbú	‘a tall woman’
yǎ:-m	‘women’
yǎ:-m kúlòy	‘six women’
yǎ:-m tǎ:n	‘three women’
yǎ:-m nùmɔ́rⁿɔ́	‘five women’
yà:-m kúlóy gɔ̀-m	‘the six women’
gàbú gɔ̀	‘the tall one’ (woman)
úrⁿù-m	‘children’
ùrⁿù-m gàbú bè	‘tall children’
ùrⁿù-m gàbú gɔ̀-m	‘the tall children’
ùrⁿù-m gàbú kúlòy	‘six tall children’
ùrⁿù-m gàbù tǎ:n ŋè-m	‘the six tall children’
ùrⁿù-m gàbù kùlóy gɔ̀-m	‘the six tall children’
ùrⁿù-m gàbù nùmɔ̀rⁿɔ́ gɔ̀-m	‘the five tall children’

gèrⁿé ɔ̂:	‘your-Sg house’
gèrⁿé mɔ̀	‘my house’
séydì gèrⁿè	‘Seydou’s house’
séydì gèrⁿè dè:	‘Seydou’s big house’
séydì gèrⁿè kùlòy	‘Seydou’s six houses’
séydì gèrⁿè kùlòy nɔ̌:-m̀	‘these six houses of Seydou’

péjú	‘sheep’
[péjú gɔ̀] yà-bá: wɔ̀	‘where is the sheep?’
[yǎ:-rⁿá ŋè] yà-bá: wɔ̀	‘where is the woman?’
[èrⁿé ŋè] yà-bá: wɔ̀	‘where is the goat?’
[nǎ: ŋè] yà-bá: wɔ̀	‘where is the cow?’
[wòɡòtórò gɔ̀] yà-bá: kɔ̀	‘where is the cart?’
[êm ŋè] yà-bá: kɔ̀	‘where is the milk?’
[àrùgɔ̌y gɔ̀] yà-bá: kɔ̀	‘where is the boubou?’

[î: gɔ̀] yà-bá: wɔ̀ ‘where is the child?’

[pèjù ú èbɛ̀ gɔ̀] yà-bá: wɔ̀ ‘where is the sheep that you bought?’

[pèjù kùlòy ú èbɛ̀ gɔ̀-m] yà-bá: wɔ̀-y^{n} ‘where are the six sheep that you bought?’

[pèjù mú èbɛ̀ nɔ̌:] yê:-w wɔ̀-w mà→↑ ‘Do you-Sg see this sheep-Sg that I bought?’

[pèjù yî-m ŋɛ̀] yà-bá: kɔ̀ ‘where is the sheep-Sg that died?’

[séydì pèjù yî-m ŋɛ̀] yà-bá: kɔ̀ ‘where is Seydou’s sheep-Sg that died?’

àynɛ̀ nɔ̌: ‘this man’

yà:-r^{n}à nɔ̌: ‘this woman’

[ày-nɛ̀ nɔ̌:] pèjù ‘this man’s sheep-Sg’

péjú gùjù ‘(the) skin of a sheep’

pèjù-gùjú ‘sheepskin’

ná: ‘a mother’

bá:, dé: ‘a father’

[ày-nɛ̀ nɔ̌:] dɛ̀: ‘this man’s father’

[ày-nɛ̀ nɔ̌:] dɛ̀: kùlòy gɔ̀-m ‘this man’s six fathers’

mú dɛ̀: ‘my father’

mú nà: ‘my mother’

ú dɛ̀: ‘your-Sg father’