A Grammar of Nanga
(Dogon language family, Mali)

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color codes

blue: transcription of Nanga forms
green: transcription of phonetic or underlying forms, reconstructions, forms from other languages

Contents

1 Introduction

1.1 Dogon languages

The Dogon languages are spoken in an essentially contiguous block in eastern Mali, though this "Dogon country" also includes smaller Fulfulde-speaking communities and overlaps with or abuts a few ethnically cosmopolitan cities (Douentza, Bandiagara, Mopti-Sevare). The family as a whole has traditionally been included in the Niger-Congo phylum, but the relationship has not been demonstrated and not all Africanists are convinced. There are probably around 80 locally named varieties, including some associated with a single village or village cluster. Linguists have roughly grouped them into about 20 "languages," but the language/dialect boundary is especially difficult in the Dogon case.

An approximate genetic subdivision of Dogon is in (1).

(1) a. eastern Dogon
- Toro Tegu
- Jamsay including Gourou and montane dialects like Perge Tegu
- Ben Tey, Bankan Tey, and Nanga
- Tommo So and Donno So
- Toro So (several varieties)
- southeastern Dogon
  - Togo Kan, Tene Kan, Tengou Kan, Wolu Kan, Guimri Kan
- Tomo Kan

b. western Dogon
- Najamba-Kindigué (Bondu So)
- Dogul Dom
- Tiranige (Duleri)
- Yanda Dom
- Tebul Ure
- southwestern Dogon
  - Bunoge, Penange, Ampari, Mombo (Kolu So)

1.2 Nanga language

The Nanga language (with "ng" pronounced as a velar nasal) is spoken in a relatively small area about halfway between Douentza and Bandiagara. The speakers of the language refer to themselves, and to their language, as *náŋî*.

Genetically, Nanga forms a subgroup of Dogon along with Ben Tey (spoken in Beni village and to a lesser extent Gamni village, see Heath 2015a,b) and Bankan Tey (Walo village, also spelled Oualo). An immediate giveaway to their genetic connection is their paradigm, unique among Dogon languages, of independent pronouns and of pronominal-subject suffixes on verbs. Nanga people, especially from Anda and Wakara, have some contact with Beni village, though in some recent years there have been serious land disputes

between Beni and Wakara including occasional violence. There is virtually no direct contact between the Nanga-speaking zone well south of Douentza and Walo village north of Douentza.

The major contact languages are the Dogon languages Jamsay and Tommo So, and the Atlantic language Fulfulde. Most adult Nanga-L1 speakers also speak these three as second languages. Jamsay is spoken in most Dogon villages around Douentza, and seriously divergent dialects of Jamsay are spoken in Pergué and some nearby montane villages (Amba, Teminde, Aouguiné, Nende). There are close social relations including extensive intermarriage linking these montane Jamsay villages with the Nanga villages Anda and Wakara. There are some Jamsay-speaking dye-ers in Namakoro, originally from the villages of Sogou and Dianwely Maoudé.

Tommo So is the dominant language on the nearby high plateau, including the market towns of Mori and Kassa. There are also groups Tommo So-speaking dye-ers and leatherworkers resident in Namakoro, Kono, and Irani.

Fulfulde, the language of the Fulbe people, is also fairly well-known among Nanga speakers, particularly those who have had dealings with Fulbe herders or who frequent the markets. Fulfulde is the primary market language in Douentza and is also important in Bandiagara and Mopti-Sevare.

1.3 Environment

The Nanga-speaking villages are those in (1). The coordinates are in degrees, minutes, and decimal fractions (.000 to .999) of minutes.

(1)

village	Nanga name	N latitude	W longitude
Anda	*á:ndɛ́*	14 49.163	03 00.626
Boromi	*bòròmí*	14 49.128	03 01.316
Irani	*ìràní*	14 49.747	03 01.540
Kono	*kɔ́:rⁿɔ́* ~ *kɔ́:rⁿɛ́*	14 47.538	03 02.005
Namakoro	*námákòrò* ~ *námbákòré*	14 43.434	03 01.482
Ousse	*ú:sɛ́*	(unknown)	
Pergessa	*pègèsá*	14 48.233	03 01.780
Soroni	*sóròni* ~ *sóròní*	14 49.169	03 00.626
Wakara	*wàkárà* ~ *wàgárì* (Anda dialect)	14 49.304	03 04.732

There are two clusters of villages, separated by hills. One consists of Anda, Namakoro, Kono, and Pergessa; the other is Wakara, Boromi, Irani, Ousse, and Soroni.

Heading south from Douentza, one quickly bends around the cliffs at Fombori, then one goes south across the sandy plains including the village of Dianwely Kessel (Jamsay-speaking). To the left (east) one sees the long north-south inselberg with the sister village Dianwely Maoudé (Jamsay) at its northern base and a long, lower rocky shelf extending south on which are found the villages of Beni (Ben Tey) and Pergué (Pergué dialect of Jamsay). To the right (west) are more cliffs representing the edge of the main Dogon plateau, on which are the two villages that make up Panga (Tommo So).

At the end of the open sandy plain going south from Douentza, one continues southwest in a passage with some rocky sections, hugging a low inselberg to the right (north). The first Nanga village encountered is Anda, followed by nearby Namakoro and Kono. Pergessa is

south of Namakoro at the base of another inselberg. There is an old piste from Pergessa to Bandiagara.

The second group of Nanga-speaking villages is separated from the above by hills. Going south from Douentza, one branches off to the right (west) instead of proceeding through the Anda passage. One first reaches Wakara (the biggest village). The three villages Wakara, Boromi, and Irani are at the bases or on the lower slopes of inselbergs, while Ousse and Soroni are on the summits or upper slopes. There is reportedly a new piste from Wakara to Bandiagara.

The administrative geography has undergone many changes and more are on the way. As of 2013, the Nanga-speaking zone were still carved up between three districts (*cercles*), as the shift to the more up-to-date system of *communes* has been delayed by land disputes between the Wakara cluster and the Anda-Namakoro-Kono cluster. The Douentza *cercle* administered Soroni and Ouse, Koro *cercle* administered Kono, and Bandiagara *cercle* administered the rest (Anda, Wakara, Boromi, Irani, Namakoro, and Pergesa). As of 2015 these three *cercles* all belong to the *région* (province) of Mopti, but there were plans to separate Bandiagara into its own *région*.

There are markets in Wakara and Kono that participate in a regional five-day market-day cycle also involving the Tommo So speaking villages of Mori and Kasa, and the mostly Jamsay-speaking village of Pergué (not to be confused with Nanga-speaking Pergessa).

The Nanga-speaking zone is punctuated by inselbergs, mostly rather low in comparison to the imposing cliffs elsewhere in the zone. Sandy lowlands intervene between the inselbergs and provide farmable land. Historically, all of the villages were located on the slopes of the hills, for protection against Fulbe cavalry. During roughly the period 1970-2000, as security improved, several of the villages (Anda, Namakoro, Pergessa, Boromi, Irani) moved to lower ground to make it easier to reach fields in the plains. As of 2013, the villages of Soroni and Ouse remained mostly in their original elevated position. Wakara is now partly at the base (mostly Muslims) and partly on the inselberg slope (mostly traditional animists). Kono is mostly at the base, but there is a small rump village in the older location up above.

There is a small river fueled by springs that begins in Anda and (in season) empties into a pond at Beni. The other Nanga-speaking villages have wells, seasonal ponds, or mountain springs as water sources. The main productive activity is farming, chiefly pearl millet (*Cenchrus spicatus*) and sorghum as grain staples. Fonio (*Digitaria exilis*) was once widely grown but is now a minor crop. Maize and rice are grown in selected locations. Cow-pea (*Vigna unguiculata*) and roselle (*Hibiscus sabdariffa*) are planted in the same fields as the millet and sorghum. Other crops grown separately during the main farming season are sesame, peanut, groundnut (*Vigna subterranea*), and okra.

Off-season (*contre-saison*) gardening, where water is available, includes maize, onions, tomatoes, lettuce, okra, cassava, chile pepper, potato, and sweet potato. Sugar cane and watermelon are also grown in both seasons in favorable locations.

Fruit trees in the area include mango, papaya, banana, orange, lemon, grapefruit (elsewhere very rare in Dogon country), guava, tamarind, date, and native fruits such as zaban (*Saba senegalensis*), wild grape (*Lannea microcarpa*), and detarium (*Detarium microcarpum*).

1.4 Previous and contemporary study of Nanga

There is no previous published work on this language. It is mentioned briefly, without linguistic data, in the various overall surveys of Dogon languages.

1.4.1 Fieldwork

My data are from the village of Anda, which was relatively accessible from my former base in Douentza. The primary fieldwork was carried out around 2006-2010. Corrections and additions have been made from then until 2016.

1.4.2 Acknowledgements

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 (2004-2006). Brief survey work of Douentza-area Dogon languages during that grant period led to the idea of a comparative Dogon linguistic project, eventually also including the genetic isolate Bangime. The Dogon-Bangime project has been supported by the National Science Foundation in three phases, grants BCS-0537435 (2006-09), BCS-0853364 (2009-13), and BCS-1263150 (2013-17).

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I am indebted to the people of Anda village, including Aperou Moro (*chef de village*), Dogoyeri Moro, Mani Moro, Mandio Moro, and especially Seydou Moro. Many other villagers helped out the lexicographic work by bringing specimens of flora and fauna.

2 Sketch

2.1 Prosody and tonosyntax

Nanga has a typical Dogon stem-level tonal system, with at least one (lexical) high tone element per stem. At the level of syllables, tones are H[igh], L[ow], <HL> (falling), <LH> (rising), and bell-shaped <LHL>. There are no <HLH> syllables. The notation <…> is used for single-syllable contour tones like <HL>. Lexical tone melodies are represented in slashes /…/, e.g. /LH/, /HL/, /H/, and /LHL/. Stem-wide tone overlays conditioned by grammatical environment are represented in curly brackets {…}, e.g. /L/, /HL/.

Verb stems are lexically /LH/ or /H/. If the stem begins with an obstruent, its voicing determined the "lexical" melody. The melody is /LH/ if the obstruent is voiced, and /H/ if the obstruent is voiceless. For example, the lexical melodies of *pɛ́gɛ́-* '(to) nail' and *dàgá-* '(to) lock' are predictable from their initial consonant. Infrequent exceptions like *jállí-* 'grab suddenly' are mostly recent loanwords from Fulfulde. With other onsets (sonorants, vowels), the melody of the stem is a lexical choice. When a derivational suffix is added, the melody of the input stem is respected, as in reversives *pɛ́gí-rí-* 'remove (nail)' and *dàgí-rí-* 'unlock'. In the verbal inflectional system, tones play an important role along with inflectional suffixes. Several suffixes impose specific tone overlays on the preceding stem, overriding lexical tones. For example, there are two distinct *-so-* suffixes, perfective-2 *-só-* and progressive *-sò-*, distinguished only by tone patterns on the stem and suffix and by the length of the stem-final vowel: *súyɔ́-só-* '(has) hit' (perfective-2) versus *súyɔ̀:-sò-* 'is hitting'.

Nouns, adjectives, and numerals have little suffixal morphology, and what they do have is generally straightforward phonologically. As in other Dogon languages, though, these NP-internal words are subject to tonosyntactic processes, by which one word (or phrase) controls a tone overlay on one or more other words. Controllers are reference-restricting words (adjectives, determiners, relative clauses, possessors), but not numerals. In Nanga, definites pattern with demonstratives as controllers. For example, *nɛ̀rⁿî* 'dog' is lexically /LHL/, and remains so before a numeral: *nɛ̀rⁿî nìmǐ:* 'five dogs.' An {L} overlay on the noun (and any intervening modifiers) is controlled by a following reference-restricting modifier: *nɛ̀rⁿì*^{L} *jɛ́mí* 'black dog', *nɛ̀rⁿì*^{L} *wǒ-ŋ* 'that dog', *nɛ̀rⁿì*^{L} *nɛ́* 'the dog'. After a possessor, the noun has {HL} or {L} overlay depending on the final tone of the possessor: *sɛ̌:dù* ^{L}*nɛ̀rⁿì* 'Seydou's dog', *yǎ-ŋ* ^{HL}*nɛ́rⁿî* 'a woman's dog'. The superscripts indicate the tone overlay, {L} or {HL}, and are positioned at the edge of the target domain that "points" left or right in the direction of the controller. They are not phonetic diacritics.

2.2 Inflectable verbs

The verb stem may be underived or suffixally derived (e.g. reversive, causative). In indicative inflections, the verb stem is followed by an aspect-negation (AN) suffix, then a pronominal-subject suffix, as in *súyɔ́-só-y* 'I hit' (perfective-2), with verb *súyɔ́-*, perfective-2 *-só-*, and 1Sg subject *-y*. There is no audible AN suffix in the {L}-toned simple perfective, so here the stem is followed by the usual pronominal-subject suffixes: *sùyɔ̀-y* 'I hit'.

Negation is expressed by (mostly portmanteau) suffixes within the AN suffix system, not by external negative particles: *sùyɔ̀-rí-y* 'I did not hit'. In the indicative, there are two basic negative AN forms, perfective negative and imperfective negative, compared to a somewhat richer set of distinctions in the positive AN suffixes.

There is a full set of imperative and hortative verb forms, positive and negative: *súyɔ̂* 'hit!', *súy(í)-rá* 'don't hit!'

In relative clauses (see below), the regular inflected verb is replaced by a participle that agrees with the head NP in nominal features (but not person). A perfective positive example is *nù*^{L} *sùyɔ̀-sɛ̀* ^{L} *nɛ́* 'the man who hit'.

2.3 Noun phrase (NP)

Nouns and adjectives have no suffixal morphology. Unlike the more northerly Dogon languages, Nanga has no singular/plural distinction, nor a human/nonhuman or animate/inanimate distinction, within nominal or (modifying) adjectival morphology.

The **core NP** consists of a noun, which may be simple or compounded, plus any following modifying adjectives. The core NP may be preceded by a nonpronominal NP possessor or by definite demonstrative *kú* (originally a nonhuman or inanimate possessor). The core NP may be followed by a numeral, another quantifier ('all', 'each'), and/or a determiner (definite morpheme or demonstrative pronoun). Unlike nouns, adjectives, and numerals, Nanga determiners distinguish animate singular, animate plural, inanimate singular, and inanimate plural, and are therefore the primary vehicle for expressing these categories.

For all nouns, a nonpronominal (i.e. noun-headed) possessor NP appears to the left of the possessed noun. For nouns other than kin terms, a pronominal possessor is expressed by postposing a pronominally possessed form of a semantically generic noun ('thing', 'living being') functioning here as a possessive classifier. Kin terms, unlike other nouns, allow pronominal possessors to precede the possessed noun directly, with no classifier.

Examples of multi-word unpossessed and possessed NPs are in (2a-b). The superscript ^{L} indicates that the {L} overlay has applied to the bracketed three-word target domain, and is controlled by the adjacent restrictive modifier (determiner or possessor).

(2) a. *[nɛ̀r^{n}ì dùgù tà:ndì]*^{L} *wɛ̌:*
[dog big three]^{L} Dem.AnPl
'these three big dogs'

b. *sɛ̌:dù* ^{L}*[nɛ̀r^{n}ì dùgù tà:ndì]*
Seydou ^{L}[dog big three]
'Seydou's three big dogs'

2.4 Postposition phrase (PP)

Dative *bay* (realized as *báy* or *bày*), instrumental *yàŋà*, locative *ga* (with various realizations), and other postpositions directly follow an NP. The NP is phonologically independent of the postposition, but the form of certain postpositions is affected, tonally and/or segmentally, by (the end of) the NP.

2.5 Main clauses and constituent order

Main (and subordinated) clauses are verb-final, and more specifically SOV when nonpronominal subject and nonpronominal object are both overt. This is typical of Dogon languages (except Toro Tegu). A simple transitive example is (3).

(3) *[bǎ: yɛ̃:] pɛ̀rgɛ́ sɛ́mɛ́-só-∅*
[father 1SgPoss.AnSg] sheep slaughter-Pfv2-3SgSbj
'My father (has) slaughtered a sheep.'

2.6 Relative clauses

As in all Dogon languages, relative clauses are a distinctive and important syntactic construction. For example, some types of spatiotemporal and manner adverbial clauses are relative clauses in form ('the time/place that …'), with or without an overt head. The syntax of relatives is similar to that of some other eastern Dogon languages (e.g. Jamsay, Ben Tey).

I posit an underlying structure of NP of the type Poss-N-Adj-Num-**RelCl**-Det-…, with the relative clause (RelCl) positioned between the numeral and the determiner as part of the larger NP. The Poss-N-Adj-Num sequence is thereby split from the late-NP coda including determiners, 'all', and discourse-function particles. The Poss-N-Adj-Num sequence surfaces inside the relative clause, constituting the internal head of the relative, but it is subject to a relative-controlled tone overlay as though it were still to the left of the relative clause. This suggests a movement analysis where Poss-N-Adj-Num takes its tonosyntactic form outside the relative clause, but then moves into the coindexed relativization site.

The verb of the relative clause is marked for aspect and negation. but has no agreement morphology except for 3Pl subject in negative nonsubject relatives. It does not agree with the head NP in nominal features, but it is usually followed by a determiner that does show such agreement.

In nonsubject relatives, if the subject is pronominal, it appears as a preverbal proclitic identical in form to the corresponding independent pronoun. For example, (540a) in §14.3, 'the man who(m) I saw in the market', can be marked up as [market Loc] man^{L} 1SgSbj see-Participle.Pfv Def.AnSg. Here 'man' is the internal head NP and is tone-dropped; the 1Sg pronominal subject is proclitic to the verb (i.e. does not occur in the normal clause-initial subject position), the verb is participial (agreeing in animacy and number with the head NP), and the definite determiner is post-participial. Prior to movement this would be, schematically, [man^{L} RelCl Def], i.e. an NP containing a relative clause (which tone-drops the noun 'man') and a determiner. The relative clause would be of the type [… H … verb-Ppl], where the relativization site H is coindexed to entire upstairs NP. Later, 'man^{L}' (and more generally the portion of the higher NP that originates to the left of the relative clause) moves into the relativization site H, becoming an "internal" head.

3 Phonology

3.1 General

Syllables and metrical structure are briefly covered in §3.2. Phonemic segments and some basic facts about their distribution and combinations are presented in §3.3 (consonants) and §3.4 (vowels). Segmental (i.e. nontonal) phonological rules are described in §3.5. Cliticization is briefly discussed in §3.6. Tonal and intonation matters are the subject of §3.7.

3.2 Internal phonological structure of stems and words

3.2.1 Syllables

Word-initial syllables may omit the consonantal onset. Therefore in the formulae given below, if the syllable in question is word-initial the initial *C* is optional.

Using *v* for a short vowel and *v:* for a long vowel, the normal shape of a monosyllabic stem is *Cv:* with long (oral or nasal) vowel (4a). True *CvC*, ending in a sonorant, is attested in a few cases (4b). True *CvC* also occurs in various expressive and emphatic elements, and in the more interjection-like cases the final *C* may even be an obstruent (4c). Many occurrences of phonetic *CvC* and *Cv:C* actually reflect apocope of a final high vowel, most clearly in the case of inflectable verb stems (4d). For *Cuy* and *Ciy* verbs, see discussion in §10.1.3.3.

(4)		form	gloss	comments
	a.	*yî:*	‘child’	
		pɛ́:	‘get old’	
		tǎ:^{n}	‘taboo’	
		ǒ:	‘the bush, outback’	
		ɛ̌:	‘well(n)’	
	b.	*wǒy*	‘two’	
		nǒy^{n}	‘four’	
		dɛ̃w	‘trap(n)’	
	c.	*sóy*	‘all’	
		dóŋ-dóŋ	‘seething (mad)’	
		kɛ́k	‘completely, every inch’	
	d.	*ɛ̌w*	‘purchase (n)’	variant *èwí*, cf. *ɛ́wɛ́* ‘buy’
		sɛ̌ŋ	‘rope’	variant *sèŋí*
		dɛ̌w	‘cover’	/dɛ̀wí/
		bǎ:r	‘add’	/bǎ:rí/
		núy^{n}-	‘enter’	/núy^{n}í/
		túy-	‘put down (in pile)’	/túyí/

The final syllable of a noncomposite multisyllabic word is *Cv* with short vowel (this is the only pattern allowed for verb stems), or *CvC* with a final sonorant.

3.2.2 Metrical structure

Segmental phonological rules generally point to a trochaic bias, i.e. bisyllabic [sw] with a strong followed by a weak. In most *CvCvCv* trisyllabic verbs (§10.1.3.6), the medial syllable of the bare stem and of phonologically related inflected forms has a short high vowel *i* or *u*, which depending on consonantal environment may be subject to Post-Sonorant Syncope (§3.5.3.3). The phonology is clearest in *CvCv-Cv* suffixal derivatives of *CvCv* verb stems, e.g. *ɔ́y^{n}ɔ́-* 'braid (rope)', reversive *ɔ́y^n-r^{n}í-* 'unbraid (rope)' < /ɔ́y^{n}í-r^{n}í/.

Prosodic weight is a factor in some tonal and segmental (vocalic) processes. Overall prosodic weight is a factor in presuffixal vocalism as well as tones of verbs that have final *i* in the bare stem; see the imperfectives in (303) in §10.2.2.1. Prosodically light stems are *Cv:*, *CvCv*, and *CvNCv* (with homorganic nasal and voiced stop). Heavy stems are *Cv:Cv*, *Cv:NCv*, other *CvCCv* (especially if syncopated), and trisyllabic and longer shapes. The division is therefore between stems with two vocalic moras and those with more than two.

In the quoted imperative positive for verb stems not ending in a high vowel, a final L-tone appears at the right edge only if the H-toned part of the stem otherwise occupies at least two vocalic moras (§10.6.4).

3.3 Consonants

The inventory of consonantal phonemes is (5). Single parentheses enclose marginal phonemes. Double parentheses enclose highly marginal phonemes.

(5) Consonants

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

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

3.3.1 Alveopalatals (*c*, *j*, *ɲ*)

As in the other languages of the region (Dogon, montane Songhay, etc.), before front vowels {*i e ɛ*} there is occasional fluctuation between *k* and *c*, and between *g* and *j*. Thus *gɛ̌:r^{n}í* ~

jɛ̌:rⁿí ‘take away, convey’. However, I generally hear unpalatalized (though slightly affricated) velars *k* and *g* before front vowels in this language.

3.3.2 Lenition of stops

3.3.2.1 Voicing of voiceless stops

Nanga has a tendency to voice original voiceless stops *{p t c k} to {*b d j g*} intervocalically, specifically at the onset of the second syllable from the left. There is some variation in the pronunciation, especially in regionally widespread words whose counterparts in neighboring languages are unlenited. Most examples involve old loanwords, since intervocalic voiceless stops are uncommon in Dogon languages in native vocabulary. Examples: *já:dì* ‘exactly’, cf. Fulfulde *jaati* and widespread Dogon *já:tì* ; *póndì* ‘spike, nail’ (French *pointe*), cf. widespread Dogon *póntì* ; *sɔ́ndɛ́-* ‘be unsold’ (widespread *sɔ́ntɛ́-)*

We also observe voicing in cases where Fulfulde or other foreign *f* is nativized first as widespread Dogon *p*, then voiced (in Nanga) to *b*. Examples are *bú→* ‘all’ from Fulfulde *fú→* ‘all’ via *pú→* (both *pú→* and *fú→* are attested as variants of *bú→* in Nanga); *màrpâ* ~ *màrbâ* ‘rifle’ (Arabic root √dfʕ), cf. Bambara *marifa*.

3.3.2.2 *g* not spirantized to *ɣ*

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

3.3.3 Back nasals (*ŋ ɲ*)

Velar *ŋ* occurs intervocalically in such words as *nàŋá* ‘cow’, *bàŋá* ‘owner’, *dɔ̀ŋɔ́ndí* ‘console’, *gɔ̀ŋírⁿí* ‘circulate’, *nùŋó-mí* ‘turn on’, *súŋúrⁿì* ‘ear’, and *nùŋá nùŋí* ‘sing a song’.

in the clusters *ŋg* and *ŋk*, *ŋ* is an allophone of an underspecified nasal. For *ŋk* I can cite only *rɔ́ŋkɛ́* ‘fail’ (< Fulfulde) and *jàjàŋkó:* ‘double grain spike’ (perhaps a frozen compound). *ŋg* is common intervocalically, and there are some alternations (within Nanga or between it and nearby Dogon languages) between *ŋ* and *ŋg*. Examples are *yóŋgì* ‘soul’, *bɔ̀ŋgɔ́* ‘navel’, and *dáŋgárá* ‘thighbone’.

Palatoalveolar *ɲ* is permitted word-initially (where *yⁿ* is unattested), as in *ɲǎ:* ‘meal’, *ɲàmá* ‘malfunction (v)’, *ɲɛ̌:rⁿɛ̂* ‘evil dwarf’, *ɲùŋírⁿí* ‘be stationery’, *ɲɔ́:rⁿì* ‘summons (n)’, *ɲǎ:rⁿí* ‘call, summon’, and *ɲùmɔ́* ‘shake (e.g. branch)’. Some other word-initial cases are *ɲɛ́mírⁿí* ‘reins’, *ɲɛ́ŋɛ́* ‘toilet’ (< Bambara), and *ɲùŋúrⁿí* ‘quiver (v)’. *ɲ* also occurs intervocalically, but the examples are either composite (at least historically), as in *ɔ̀gɔ̀-ɲɔ̀ŋɔ́* ‘camel’, or they are likely borrowings: *ɔ́:ɲí* ‘sag under a load’, *tɔ́:ɲɛ̀* ‘teasing (n)’. One caste of griots is called *ɲɛ́-ɲɛ́yⁿ*, and a term meaning ‘nonsense’ is *ɲɛ́-ɲɛ́mɛ́*, both probably with intial *Cv* reduplication (§4.1.5). Interrogative ‘what?’ is based on *ɲɛ́*, the actual form being either *ǹɲɛ́* (plural) or *kɔ̀-ɲɛ́* (§13.2.3).

3.3.4 Voiceless labials (*p*, *f*)

f is not a full-fledged phoneme in Nanga. It does occur in a small number of loanwords, but even here it is often replaced by *p*. Examples are *fú→* varying with *pú→* 'all' (< Fulfulde), *ná:fígì* or *ná:pígì* 'trouble-maker' (< Arabic via Fulfulde), and *sátsá^{n}sêf* 'sergeant' (< French *sergent-chef*). For *f > *p > *b* in some cases of this type, see §3.3.2.1.

3.3.5 Laryngeals (*h*, *ʔ*)

h occurs stem-initially in numerous nouns and verbs, nearly all of them Fulfulde loanwords: *hɛ́yyèndɛ́* 'index finger', *há:díyí* 'stop (at border)', *hámbɛ́* 'chew (tobacco)', *húkûm* 'tent', *híbbɛ́* 'be complete', *hógô* 'herd'. The ubiquitous regional particle meaning 'until' or 'all the way to' appears as *hálî*.

h is attested medially in the loanword *jàhánámà* 'hell'. It does not occur word- or syllable-finally.

3.3.6 Sibilants (*s*, *š*)

There is no phonemic distinction between *s* and *š* (= IPA *ʃ*). Words like *gùsí* 'skin' have (unpalatalized) alveolar *s* in spite of the high front vowel. Loanwords like *sátsá^{n}šêf* 'sargeant' (French *sergent-chef*) and *ìnšá:lâw* 'maybe' (< Arabic 'if God wills') are poorly-assimilated and usually have pronunciation variants.

3.3.7 Nasalized sonorants (*r^n*, *w^n*, *y^n*)

r^n (nasalized tap) is a true phoneme, though it is limited to word-internal intervocalic position. It (therefore) does not occur initially, finally, or in consonant clusters. When a short vowel following *r^n* is syncopated, the *r^n* is converted to *n*, thus *súŋúr^{n}ì* 'ear', *súŋúr^{n}ì nɔ̀* or syncopated *súŋûn nɔ̀* 'his/her ear'.

r^n occurs independently of other nasals in unclustered intervocalic position, as in *bár^{n}í* 'red'. If there is a preceding nasal in the stem or uncompounded word, *r^n* but not oral *r* may occur, so 'ear' is *súŋúr^{n}ì* and 'give birth' is *nàr^{n}á*. Sequences like #*…ŋúrì* and #*nàrá* with oral *r* are disallowed within uncompounded stems, and this constraint extends to any inflectional suffixes, so perfective negative suffix *-rí* becomes *-r^{n}í* in nasalized environments: *nàr^{n}à-r^{n}í* 'she did not give birth'.

No conspicuous phonetic nasalization occurs in initial semivowels {*y w*} anticipating a following nasal with a separating vowel, e.g. in *wàŋí* 'change direction', *yóŋgì* 'soul'.

y^n occurs independently of other nasals in intervocalic or word-final position: *ɔ́y^{n}ɔ́* 'spin (cotton)', *wày^{n}á* 'boil (v)', *sây^n* 'nauseating', *mǔy^n* '(joint) dislocation', *dúy^n-dùy^n* 'red (intensifier)'. It also occurs in nasalizing environments, where *y* and *y^n* fall together as *y^n*, as in *núy^{n}áy^n* 'this year'. Since *ɲ* (§3.3.3) occurs chiefly in initial position (excluding composites and borrowings), there is a partial complementarity between *ɲ* and *y^n* suggestive of an original phoneme split. However, I can cite no synchronic alternations between *y^n* and *ɲ*.

Unlike *y^n* and *r^n*, *w^n* has a very limited distribution. Within stems, I can cite only *àr^{n}áw^n* variant of *àr^{n}á* 'year', *tɛ́w^{n}ɲí* 'rejoin', and the borrowing *ɲî:w^n* 'a cattle disease'. In these examples, there is either a preceding nasal, or an immediately following (clustered) nasal. I

can find no examples of intervocalic *w*^{n}, nor for that matter of oral *w* in a nasalizing environment.

Nanga has *m* (along with Bankan Tey and Najamba) corresponding to autonomous *w*^{n} in some neighboring languages (Jamsay, Ben Tey, Toro Tegu), e.g. *nɛ́mɛ́* 'taste (v)' (Jamsay and Ben Tey *nɛ́w*^{n}*ɛ́*), *nàmâ* 'meat' (Jamsay *nɔ̀w*^{n}*ɔ́*, Ben Tey *nàw*^{n}*â:*, Toro Tegu *nàw*^{n}*á*, but Bankan Tey *nàmâ:* and Najamba *nàmá*). Toro Tegu and Ben Tey have some synchronic alternations of *w*^{n} (intervocalic) with *m* (other positions). In all such alternations, *m is the likely ancestral form.

3.3.8 Consonant clusters

3.3.8.1 Initial *nd*, *nn*, and other initial *NC* clusters

Nanga and to a lesser extent Bankan Tey have *NC* clusters corresponding to unclustered *l* or *r* in some other languages. An example involving medial position is (6).

(6)	gloss	Nanga	comparative data
	'iron'	*í:ndá*	Jamsay *í:r*^{n}*ɛ́* ~ *í:r*^{n}*é*, Ben Tey *í:r*^{n}*éy*^{n} ~ *í:r*^{n}*ɛ́m*, Bankan Tey *ŋír*^{n}*éy*^{n}

More interestingly, Nanga has a number of stems that begin with a *NC* cluster (*nn*, *nd*, *nj*, *nŋ*) where most Dogon languages have an initial short high vowel followed either by an unclustered coronal *C* or occasionally by a *NC* cluster. Some comparative data are in (7).

(7)		gloss	Nanga	comparative data
	a.	'go up'	*ǹdɛ́*	*r* : Jamsay & Ben Tey *ùrɔ́*, Bankan Tey *ùrá* *n* : Toro Tegu *ùnú* *l* : Pergue *ùlɔ́*, Najamba *ìlɛ́*, Yanda Dom *ʔəlɛ́*, Tommo So *úló*
	b.	'house'	*ńdô* ~ *índô*	*r* : Ben Tey & Bankan Tey *úrò*, Jamsay *úró*, Pergue *íɾé* *l* : Toro Tegu *íló*, Yanda Dom *ʔəló*, Najamba *ólé*
	c.	3Sg pronoun	*ńné*	*r*^{n} : Ben Tey *ɛ́r*^{n}*ɛ́* *n* : Jamsay *ɛ̀né* (anaphoric), cf. also Jamsay *íné-n* 'person'
	d.	'field'	*ńnâ*	*r*^{n} : Ben Tey *ír*^{n}*à*, Bankan Tey *ɲír*^{n}*â:*
	e.	'tooth'	*ǹné* ~ *ìné*	*nn* : Mombo *ínnì* *r*^{n} : Jamsay *ìr*^{n}*é*, Ben Tey *ìr*^{n}*u*, Jamsay *ìr*^{n}*é* *n* : Yanda Dom *ìn*, Najamba *ìnɔ̀:*, Tomo Kan *ìnì*, Tommo So *ìnú*, Yorno So *ɛ̀n*

f.	‘go’	*ńné*	*nd* : Bankan Tey *ǹdó* *l* : Ben Tey *ló* *n* : Najamba *ín* || *ìnè-* *r*^{n} : Yanda Dom *ún-* || *úr*^{n}*é*
g.	‘seed’	*ǹjâ*	*s* : Ben Tey & Bankan Tey *ìsâ:*, Jamsay *séy*^{n}, Toro Tegu *ìsěy*, Dogulu *sây*, Najamba *sê:*, Tommo So *ì-sǎy*, Mombo *sí:* *nj* : Dogul Dom *énjè*
h.	‘give’	*ńdí*	*nd* : Najamba *ǹdɛ́*, Yanda Dom *ńdɛ́*, Mombo *ńdɛ́* *n* : Ben Tey & Bankan Tey *ní*
i.	‘name’	*ǹnèr*^{n}*î*	*n* : Ben Tey *ìnìr*^{n}*î:*, Najamba *ínèn*, Mombo *íní* (*nn* ?): Bankan Tey *ŋìnnî:*, likely from syncopated *(ŋ)ìnrî:)
j.	‘what?’	*ǹɲɛ́*	*nj* : Ben Tey & Bankan Tey *ǹjɛ́*, Tommo So *ńjɛ́*, Pergue *ìnjé*, Mombo *ínjè* *ŋg* : Najamba *yèŋgé* *ɲ* : Jamsay *ìɲé* ‘what?’, Yanda Dom *ʔəɲè* (*y* ?): Toro Tegu *yé*)

An initial short *i* is occasionally heard in the Nanga forms (e.g. *índô* for *ńdô*). In these items, it may be that the cluster-initial nasal crept into and eventually occupied the moraic position of the original initial short vowel. Reduplications treat the verbs as vowel-initial, with *i-* as the reduplicative segment for the *nn* and *nd* verbs, as in imperfective *ì-ʔíndí-m̀-* ‘give’.

Closer phonetic study is needed of what I write as *nd* and *nn*. It may be that “*nd* ” is really [n^{d}], i.e., a single complex segment consisting of an *n* with a brief oral release. This type of complex segment is more apparent with labial [m^{b}], see below.

The stems with initial *nn* are often pronounced with [ʔn], i.e. a preglottalized *n*, after a vowel or semivowel (but not phrase-initially). For example, (8) is heard in a text as [íjéʔnɛ́ʔnímɔ̀].

(8) *íyê* *ńnɛ́* *ńní-mɔ̀*
again 3SgSbj go-while
‘Again she was going, …’ (2004.02.03)

3.3.8.2 Initial *mb*

The verb *m̀bó-* occurs with the noun meaning ‘nose’ (or ‘snot’) in the phrase *kìr*^{n}*é m̀bó* ‘blow one’s nose’. Cognates show that the *mb* was originally intervocalic. Examples are Najamba *ímbí*, Tomo Kan *húmbí* ~ *hùmbí*, and Tommo So *úmbó* (and variants). In Nanga itself, reduplication treats the verb as beginning in *u*, as in reduplicated imperfective *ù-ʔúmbó-m̀-*.

m̀bùrá- (or *m̀bù-rá-*), likely containing a (stative) negative suffix *-rv́-* but now probably frozen), means ‘not want, dislike’. Variant pronunciations are *mùrá-*, *m̀bìrá-*, and *mìrá-*. The known cognates are Ben Tey *mì-rá-*, Bankan Tey *m̀bì-rá-*, and Tebul Ure *m̀bí-là:-*, so in this case the ancestral form probably had initial rather than intervocalic *mb.

I have no other cases of initial *mb* (or *ŋg*, other than grammatical formatives such as negative *ŋ̀gó-* 'not be (somewhere)' (§11.2.2.2) and demonstrative *ŋ̀gú* 'this/that (inaniamte)' (§4.4.1.2).

Based on impressionistic transcriptions, initial (and for that matter medial) "*mb*" has a range of articulations including [m^b], i.e. an *m* with a faint oral release.

3.3.8.3 Medial geminated *CC* clusters

Geminated clusters are rare in Nanga. Based on a search of the lexicon (July 2008 version), only *ll* is well-attested medially within a stem. It occurs in *jállí-* 'grab suddenly' (probable loanword), a few other loanwords, and a few irregular reversives (§9.1) like *ìllí-rí-* 'remember' < *ìrɛ́-* 'forget'.

In loanwords I can also cite one example each of *bb* and *yy* : *híbbɛ́-* 'be complete', *hɛ́yyèndɛ́* 'index finger'. I have no cases of {*cc dd gg hh jj kk mm ŋŋ pp rr ss tt ww*} within a stem.

nn occurs medially in Fulfulde loans like *hínnɛ̂* 'quantity'. In native Dogon stems, it occurs initially (as in *ńné-* 'go') where it probably reflects coalescence of an initial short high vowel with the following nasal (see §3.3.8.1 above), but not medially within a stem.

Some additional geminate clusters may arise at compound boundaries or due to Post-Sonorant Syncope. I can cite *dɛ̀n-nî:* 'semen' (< *dɛ̀r^{n}í* 'penis' and *nî:* 'water').

Nanga tends to simplify even the few geminated clusters that do occur. I heard *hógô* 'animal pen' (in some other Dogon languages *hóggò*, from Fulfulde). For *síddì* 'sulphur' (*síttì), *híjjì* 'pilgrimage to Mecca', and *gállò* 'house with walled courtyard', the medial geminate was often simplified (*sídì*, *híjì*, *gálò*), though the H-tone did not spread into the second syllable, as it typically does with true *CvCv* nouns and in *hógô*. This degemination is consistent with the parallel tendency to lenite intervocalic voiceless stops to voiced stops (*t > *d*, etc.).

3.3.8.4 Medial non-geminate *CC* clusters

Homorganic nasal plus voiced stop clusters {*mb nd ŋg*} are common within stems, e.g. *dùmbó-* '(blade) be blunt', *dóndóró* 'ball-shaped', *mèŋgírɛ́-* 'shape into balls'. *nd* also occurs suffix-initially in inchoative derivatives, like *gàrá-ndíyɛ́-* 'become pungent', and *mb* occurs in *gìrè-mbí* 'blindness'.

Other medial clusters are mostly much less common. Excluding obvious borrowings and compound boundaries, we have the following.

Homorganic nasal plus voiceless stop. *nt* : *àntòŋgó* 'residue after first winnowing of pounded grain' (cognate verb *tóŋgó*), *àntô:* 'stick with hook', and *àntá:rí* (variant *àtá:rí*) 'hunt (n)' may contain an original formative *àn-. *ŋk* in *jà-jàŋkó:* 'double millet grain spike' may also involve an original boundary (cf. Najamba *jànjàn-kàbá*).

r plus consonant is found in a few items: *rg* in *pɛ̀rgɛ́* 'sheep', *(kɔ̀ŋɔ̀r^{n}ɔ̀y-)dàrgá* 'breakfast'; *rŋ* in *búrŋɔ́* 'group of travelers' (etymology unknown); *rs* in *kársì* 'gizzard' (etymology unknown).

wr is well-attested: *kɛ́wrí-* 'cut wood' (cf. Jamsay *cɛ́rɛ́wɛ́-*) and *káwrí-* 'split (peanut)' (Jamsay *káráwá-*), *sɛ́wrú-* 'trim surface (of wood) with knife', *pɔ́wrí-* 'rub or scrape off' (Jamsay *pɔ́rɔ́wɔ́-*), *kówró-* '(handle) be broken', *káwrà* 'shard', *jòwrì-nî:* 'sauce'. *wy* in

éw-yé- 'sit' is perhaps still segmentable (an archaic causative *éw-ré-* is the only synchronic evidence).

yr occurs in *bóyrè* 'porridge', from Fulfulde.

Other non-geminate *CC* clusters are found in borrowings (chiefly from Fulfulde). Examples of such clusters include nasal plus sibilant *ms*, *ns* ; rhotic plus various consonants *rb*, *rd*, *rt*, *rk rm*, *rn* ; lateral plus various consonants *lb*, *lp*, *lg*, *lk*, *lm*, *ls* ; semivowel plus various consonants *wd*, *wt*, *ws*, *yb*, *yg*, *yk*, *yn*.

3.3.8.5 Medial triple *CCC* clusters

Examples are few, and involve tap *r* or semivowel *y* followed by a homorganic nasal-stop sequence.

kàrmbí 'horse's mouth bit' and *kɔ̀rmbí* 'rope around donkey's tail' are heard with no clear vowel after the tap. However, representations of the type *kàrìmbí* with a medial short high vowel would not be far from the phonetic output.

háyndí 'be amazing' and related words and *póyŋgôl* 'light on the horizon', both from Fulfulde, are my examples beginning with *y*.

3.3.8.6 Final *CC* clusters

None.

3.4 Vowels

Excluding tonal markings, the vowel segments are those in (9).

(9)

short oral	long oral	nasalized
u	*u:*	—
o	*o:*	—
ɔ	*ɔ:*	*ɔ:ⁿ*
a	*a:*	*a:ⁿ*
ɛ	*ɛ:*	*ɛ:ⁿ*
e	*e:*	—
i	*i:*	*i:ⁿ*

The vowel qualities {*e o*} are +ATR (advanced tongue root), while {*ɛ ɔ*} are -ATR. The two sets do not normally co-occur within a stem. Some verbal derivational suffixes harmonize to stem vowels (§3.4.5).

3.4.1 Short and (oral) long vowels

Except in loanwords like *bɔ̀mbɔ̂ⁿ* 'candy' (French *bonbon*) and some contractions involving affixes or clitics, all short vowels are oral. Long vowels in monosyllabic stems may be nasal (following section) or oral. There are also some long oral vowels in other syllables.

Vowel-final monosyllabic stems take the form *(C)v:* with long vowel: *yǐ:* 'see', *yî:* 'child', *pɛ̌:* 'old', *pɛ́:* 'get old', *yǎ:* 'women', *dǒ:* 'haunch', *tŭ:* 'each other', *dɔ̌:* 'arrive', *ɔ̂:* 'place', *dě:* 'mother', *pɔ́:* 'pick (fruit)'.

In nonmonosyllabic stems, short vowels predominate. In verb stems (excluding borrowings), a long vowel is allowed only in the initial syllable, except insofar as a final /…iyi/ contracts to *…í:*, as in *ɔ́gí-yí* ~ *ɔ́g-í:* 'become hot' (compare imperative *ɔ́gí-yà*). Initial long vowels are illustrated by *pú:rí* 'caress', *kó:só* 'brush away', *bɔ̌:sí* 'mix (crushed millet) with water'. The long vowel is usually followed by a single consonant, but nasal-stop clusters are also allowed: *ké:ndé* 'make (well)'. There are many trisyllabic verb stems with all-short vowels like *jɛ̀ŋírⁿí* 'look' and *jìgíré* 'spin'.

Examples of long vowels in noun and other non-verb stems: *té:ndí* 'wooden bed', *bá:sì* 'misfortune', *kà:sá* 'wool' Monomorphemic stems like *dóró:sì* 'strap for slapping horse', *músɔ́:rɔ̀* 'head shawl' (French *mouchoir*), and *gùrá:nâ* 'Coran (tome)', with a long vowel in a medial syllable, are borrowings, usually from Fulfulde (or from Arabic via Fulfulde). In expressive adverbials such as *pɔ́tɔ̂→* 'flat and small', the lengthening of the final vowel is variable intonation-like prolongation rather than vowel length.

A final <HL>-tone does not require lengthening of a short vowel: *kɔ̀rɔ̂* 'ax', *tà:rî* 'egg', *sàwâ* 'grass'. In neighboring languages, either the vowel is long as in Ben Tey *tàrî:* 'egg' and *sàwâ:* 'grass', or the tone is simple an in Jamsay *tárú* 'egg'. However, there are no final short rising-toned syllables in Nanga.

3.4.2 Nasalized vowels

Vowel nasalization is limited in Nanga. Leaving aside loanwords, affixal contractions, and an occasional expressive reduplication like *sɔ̂ⁿ-sɔ̂ⁿ* 'newborn', nasalization is confined to long-vowel monosyllables, plus a few expressive adverbials (transcribed with → to indicate prolongation). The known examples are in (10a-b). The correlation with open vowels {*a ɔ ɛ*} is typologically normal, but there are also a couple of cases with *i*.

(10)	a.	*tá:ⁿ*	'(goat) stand on hind legs to browse'
		páⁿ→	'wide open'
		pá:ⁿ	'find a mate or double for' (and other meanings)
		jâ:ⁿ	'normal, right'
		tǎ:ⁿ	'shed (n)'
		gâ:ⁿ	'onion'
	b.	*tɛ̌:ⁿ*	'honeycomb'
		sɛ́ⁿ→	'looking straight at'
		kɛ̂:ⁿ	'inheritance'
	c.	*pɔ̌:ⁿ*	'fonio' (grain)
	d.	*gǐ:ⁿ*	'odor'
		bǐ:ⁿ	'cover up'

The ubiquitous yes/no and similar "grunted" utterances in (11) also show nasalization.

(11) *ɔ̀ⁿhɔ́ⁿ* 'yes'
ɔ́ⁿʔɔ̀ⁿ 'no'
hǎ:ⁿ 'huh?'

tá: 'shoot and *dɛ̌:* 'be tired' are unnasalized, as in some other Dogon languages (but not Jamsay, which has *tá:ⁿ* and *dɛ̌:ⁿ*).

3.4.3 Initial vowels

The word-initial *Cv* (*Cv:*, *CvC*) syllable may have its initial *C* position vacant, so there are many words beginning with a vowel. In an alphabetical printout of the lexicon (July 2008) I count 7.5 pages of entries beginning with *a/a:*, 7 beginning with *e/e:* and *ɛ/ɛ:* combined, 2.5 with *i/i:*, 9 with *o/o:* and *ɔ/ɔ:* combined, and 2.5 with *u/u:* . A few examples follow.

a/a: *àmá* 'half-ripe', *àgí-yí* 'hold', *á:njí* 'yawn (v)', *á:rⁿí* 'shine'.

e/e: *èmbî* 'trap (n)', *èré* 'competition', *éw-yé* 'sit', *émbéré-pè:sì* 'hedgehog', *è:njî* 'roselle'.

ɛ/ɛ: *ɛ́mbí* 'pinch', *ɛ́wɛ́* 'buy', *ɛ̀:mbɛ́* 'sorghum', *ɛ́:ŋí* 'tomorrow'.

i/i: *ìré* 'be better', *ísì* 'fish', *í:-rí-* 'cause to stop', *í:ndá* 'iron'.

o/o: *ómbó* 'take off (garment)', *òmìrⁿí* 'parent-in-law' *ò:kî* and variant *ò:gî* 'tree sp. (*Diospyros*)', *ó:ró* 'hyrax, dassie (mammal)'

ɔ/ɔ: *ɔ́gî* 'hot', *ɔ́ndɔ̀* 'ax', *ɔ́:rí* '(herder) leave in morning with herd', *ɔ́:sɔ̂* 'tree sp. (*Grewia*)'.

u/u: *ùsí* 'day (unit); sun', *úrɔ́* 'skin and butcher', *ú:-yí* 'be afraid of'.

3.4.4 Stem-final vowels (*u* is rare, but …)

Any vowel quality may end a verb, noun, or other stem. However, stem-final *u* is effectively absent except in monosyllabic non-verb stems like *kû:* 'head', and in predicative forms of nonmonosyllabic adjectives whose modifying form ends in *i*. Nouns whose cognates in Jamsay etc. end in *u* have final *i* in Nanga: *búrî* 'bread', *ósî* 'road', *gùsí* 'skin', etc. Likewise with adjectives in their basic modifying forms, e.g. *dúsî* 'heavy', *dùgí* 'big, fat'. Adjectives are unusual in having grammatically conditioned *i/u* alternations (modifying versus predicative), see §4.5.1.1.

However, final short *i* is often realized as [u] in the presence of rounded vowels or *w*. For example, *ùsí* 'sun; day' has final *i* in isolation, and in combinations like *ùsí síyɛ́-* 'day break(s)', but it is heard with final *u* when phrased with a following word with rounded segments, as in *ùsùᴸ ɔ́gî* 'hot sun (=mid-day)'. Nouns like *tɔ́ndí* 'basket' with a rounded vowel and final *i* are treated as having rounded vowels for purposes of vowel-copying into a following locative postposition: *tɔ́ndú gó* 'in a basket'. Verbs like *gɔ̀ŋírⁿí-* 'go around, go in a circle' show similar phonetic fluctuation between *i* and *u*, depending on the vocalism of inflectional suffixes and especially on the opposition between final 1Sg *-y* and 2Sg *-w* (and their plurals) in the simple perfective: 3Sg *gɔ̀ŋìrⁿì-∅*, 1Sg *gɔ̀ŋìrⁿì-ỳ*, 2Sg *gɔ̀ŋùrⁿù-ẁ*. Final short *i* is also highly subject to syncope or apocope after an unclustered sonorant.

3.4.5 ATR vowel harmony

+ATR {*e o*} and -ATR {*ɛ ɔ*} constitute two opposed harmonic sets. Vowels of either set may co-occur with *a*, and with high vowels {*i u*}, which are therefore nonharmonic. In relics of the ablauted A/O-stem, namely the imperative and derived stative stems, stem-final -ATR *ɛ* may shift to *a*, see especially (356a) for imperatives.

This type of vocalic harmony has little practical significance in Nanga. Within verb stems, the most important "harmonic" pattern is that exactly the same vowel quality is repeated, as in *kɛ́mɛ́* 'build' and *bògóró* 'bellow'. Verbal inflectional suffixes do not harmonize with their stems. For example, the imperfective negative suffix *-ŋɔ̀-* does not change to *-ŋò-* after an {*e o*} stem: *(kòyò-kè:sí) kóyò-ŋɔ̀:* 'he/she doesn't shout'. Causative suffix complex *-ndíyé-mí* likewise fails to harmonize with the preceding stem in e.g. *kɛ́wɛ́-ndíyé-mí* 'make equal'. Causative *-mí* has imperative *-mɔ̀* that disregards any preceding harmonic vowels: *gǒ:-mí* 'cause to go in', imperative *gǒ:-mɔ̀*.

However, some other verbal derivational suffixes do harmonize with stem vowels, especially with +ATR vowels. Reversive and transitive *-rí-*, and mediopassive *-yí-*, have variants *-ré-* (sometimes *-ró-* if stem-vowels are back rounded) and *-yé-* (never *-yó-*) if the stem contains +ATR vowels. Examples: *nóŋgí-yé-* 'be caught in tree' and its reversive *nóŋgú-ró-* 'be un-caught' (i.e. be extricated from being caught in the tree), *yòrí-yé* 'extend credit' (Ben Tey and Bankan Tey *yèrì-yé*, Jamsay *yènè-ɲé*), *ónjí-yé* 'be ashamed' (Ben Tey *énjí-yé*, Bankan Tey *ézí-yé*, Jamsay *é:-ɲé*). See §9.1 and §9.3.1 for more data.

Many loanwords, especially from Fulfulde, respect {*e o*} versus {*ɛ ɔ*} vowel harmony. For example, in *òsìpòrê* 'forestry official' (< French *Eaux et Forêts*), we see two *o*'s and an *e* (along with a nonharmonic high vowel), while in *tɔ́rɔ́tɛ̀* or *tɔ́rɔ́dɛ̀* 'pestering' two *ɔ*'s co-occur with an *ɛ*.

In compounds the initial and the final are harmonically independent.

For a few cases where a verb and a cognate nominal differ in ATR value, see (390a,c) below.

3.4.6 Rounding harmony

There is no productive process by which a vowel in one syllable must share backness and rounding features with a vowel in an adjacent syllable. However, in *CvCvCv* sequences with metrically weak medial syllable, the vowel of this syllable is a short high vowel, and the choice between *i* and *u* can be affected by the backness and rounding value of either adjoining syllable. See for example, the discussion of adjectives followed by clitics in (63c) in §4.5.1.1.

3.4.7 Vocalic sound symbolism

Like the other nearby Dogon languages, Nanga has some word-families involving stems that are semantically related and have the same consonantal shell but differ in vowel quality. Generally {*e ɛ*} suggests diminution and {*o ɔ*} suggests augmentation or intensification of some kind, but each relevant word-family deploys the variant forms for its own semantic purposes.

Expressive adverbials often foreground their sound, and are receptive to vocalic sound symbolism. An example is *lèré-lèré* 'cleaned up' with *lòró-lòró* 'clean-shaven head'

(§8.4.7.2). Another set meaning ‘flat and wide’ with stems of the shapes *pʋ́tʋ̂→* and iterated *pʋ̀tʋ̀-pʋ́tʋ̂→* is given in (66) in §4.5.2.

Similar cases can also be found among bisyllabic verb stems. One set is *póló* ‘cut off, sever (e.g. head)’, *pélé* ‘pull off (small twig)’, and *pɛ́llí* ‘break off, cut off a piece of’.

Sound-symbolic variants involve stem-wide vowel mutations. Sound symbolism is quite different from horizontal (syntagmatic) alternations in iterated stems with *a*-vowels replacing other vowels in the second iteration. These are rhythmical rather than size- or intensity-related. See (37) in §4.1.7 for nouns and (232b) in §8.4.7.2 for EAs.

3.4.8 Vocalic stem-ablaut in verbs

Nanga verbs have a limited degree of stem-ablaut. Only the stem-final vowel is modified.

In the analysis I use, the **bare stem** ends in *i* for one class of verbs. For other verbs, it ends in a non-high vowel {*e ɛ a ɔ o*}. If the stem has any preceding vowels, the final non-high vowel is constrained by harmonic principles. The bare stem occurs in nonfinal position in verb chains, in most inflections in the perfective positive system, and for prosodically light stems in part in various imperfective categories.

Ablaut modifications of the bare stem are as follows.

E/I-stem: the 3Sg subject form of the simple perfective positive, which has no further suffix (§10.2.1.1). It matches the bare stem for the *i*-final verbs, but for other verbs it fronts the final vowel to {*e ɛ*}, the choice depending on the ATR-harmonic class of the verb.

I-stem: in the quoted imperative, §10.6.1, and for most nonmonosyllabics before the prohibitive suffix. The stem ends in i for nonmonosyllabics, and in the quoted imperative monosyllabics are *Cv-y*.

A/O-stem: in the imperative stem (§10.6.1.1, unsuffixed for singular addressee), the derived stative stem (§10.4.1, no further AN suffix), and the 3Pl subject form of the simple perfective positive (§10.2.1.1). The stem ends in {*a ɔ o*}, the choice depending on nonfinal vowels and the ATR-harmonic class of the stem.

Non-high stem: for all verbs before the perfective negative suffix *-rí-* (§10.2.3.1) and before hortative suffixes (§10.6.2). Also, for prosodically heavy verbs, in the imperfective positive (§10.2.2.1) and imperfective negative (§10.2.3.4), for which light verbs have the bare stem. Also for nonmonosyllabic *i*-final verbs in imperfective participles with following determiner, see (512). The effect is that heavy *i*-final stems lower the *i* to a harmonically acceptable non-high vowel.

A more detailed general treatment, with examples, is in §10.1.3. Details about specific derivations and inflections occur throughout chapters 9 and 10.

3.4.9 Diphthongs

Combinations of vowel plus *y* or *w* are common and have no special unitary character. More interesting diphthongs are *àɛ̀*, *ɔ̀ɛ̀*, and *òɛ̀* in the 3Sg, and *ɛ̀à* in the 3Pl of the simple perfective positive of monosyllabic verb stems, see (282a-b) in §10.2.1.1. *ɛ̀à* also occurs in the 3Pl form of the perfective negative, see (322a) in §10.2.3.1. These diphthongs occur when vowel-final ablaut, controlled by the inflectional category, collides with lexical vocalism. The diphthongal outputs make both ablaut and lexical vowel accessible to the listener.

3.5 Segmental phonological rules

3.5.1 Trans-syllabic consonantal processes

3.5.1.1 Nasalization-Spreading

With exceptions discussed below, a nasal {*m n ɲ ŋ*) or nasalized sonorant {*r*^{n} *y*^{n} *w*^{n}} at the onset of a syllable, or a nasalized vowel within that syllable, induces nasalization on an intervocalic oral sonorant {*r y w*} at the beginning of the following syllable. Phonetically, of course, the nasalization extends to adjoining vowels, so that in *nàr*^{n}*á* 'give birth' all four segments are phonetically nasalized. Spreading is **recursive**, as we see most clearly when a suffix combination like *-yè-rí-* (mediopassive plus perfective negative) surfaces as *-y*^{n}*è-r*^{n}*í-* after a nasal stem.

Syllable-final semivowels {*y w*} are also (phonetically) nasalized in *Nvy* and *Nvw* syllables. This is true both stem-internally and in combinations of verb stems ending in *Nv* plus 1st/2nd person subject suffixes (e.g. 1Sg *-y*, 2Sg *-w*), as in *tùmò-y*^{n} 'I measured' (simple perfective). I know of no exceptions to nasalization of semivowels in this context. *r* does not occur syllable-finally in normal speech. I indicate syllable-final nasalization in transcriptions, but one could argue that it is a low-level phonetic rather than phonological fact.

Semivowels (but not *r*) are inconsistently nasalized by an adjacent following nasal. My assistant nasalized the semivowels in *póy*^{n}*ŋgôl* 'light on horizon', *háy*^{n}*ndè* 'amazement' and in *tɛ́w*^{n}*ɲí-* 'rejoin', but not noticeably in cases involving simple *yn*, viz. *láyní-* 'chant invocations', *dúmbó-kèmbɛ̌y-nì* 'skinny-buttocks', *ày-nɔ́* 'fatigue', and *séyní-* 'give good news'. These comments are based on the assistant's artificially pronouncing *póy*^{n}, etc., as separate syllables, at the linguist's direction.

Inside an unsegmentable stem, Nasalization-Spreading is a passive constraint, since the nasalized sonorants in question do not appear elsewhere in unnasalized form. A sequence like *nvr*^{n}*v* (*v* =any vowel) as in *nàr*^{n}*á* 'give birth' is acceptable, but a sequence #*nvrv* with oral *r* is not. Examples respecting the constraint are *núy*^{n}*áy*^{n} 'this year', *mùr*^{n}*á* 'sick person', *níŋɛ̂y*^{n} 'now', and *ɲî:w*^{n} 'a cattle disease'.

The exceptions that I have observed involve the stem-internal sequence *mvrv* with unnasalized *r*. Alongside the "correct" *mvr*^{n}*v* in e.g. *dómór*^{n}*ó* 'criticism' and *mɔ̀r*^{n}*ɔ̂* 'wild date', there are several cases with "incorrect" *mvrv*. Those known to me are *mùrá-* 'not want', *dòmúró* 'shave around the edges', *jòmòró* 'foreskin', *òmúrô* 'tamarind', *támórò* 'dates', *pómúró* 'eke out', *kɔ́mɔ́rɔ̀* '(finger-)nail', *màrá* 'be lost', *mùmúró* 'dip (food) deeply (in sauce)', *mɛ̀rɛ̀-gìré* 'abdomen', and *mɛ̀rɛ́gɛ̂* 'evil dwarf'. The *m* in several of these words is optionally (or dialectally) pronounced with a brief oral release, e.g. *kɔ́m*^{b}*ɔ́rɔ̀*, and there is some comparative support for a reconstruction *mb (or *m^b, especially from Bankan Tey. *pá:mírâl* 'understanding' is an unassimilated Fulfulde loanword and shows oral *r*, but note the parallel borrowing *pá:mír*^{n}*è* 'understanding' (cf. verb *pá:mí* 'understand').

I know of no case where a verb ending in *Nv* (including *mv*, if consistently pronounced as such) fails to nasalize a suffixal sonorant. If there were formerly cases of this type, they have been leveled out. A possible example of this leveling is *dùŋí-r*^{n}*í-* 'dress, put clothes on' (in the phrase *dúŋí dùŋí-r*^{n}*í-* with cognate nominal). Bankan Tey noun *dùŋgóy* 'outfit, clothing (that one is wearing)' suggests that the Nanga verb was originally *dùŋgí-rí-. After the *ŋg cluster simplified to *ŋ*, it was treated like original *ŋ in terms of conditioning Nasalization-Spreading to the suffix. A similar case is *túŋí-y*^{n}*í-* 'kneel' (paired with transitive *túŋí-r*^{n}*í-* 'cause to kneel'), compare Ben Tey *túŋgú-yú-* and Bankan Tey *túŋg-í:-*.

Nasalization-Spreading does not apply to *r* at the beginning of a cluster, i.e. in a sequence *NvrCv*. This is not surprising since r^n is disallowed as first member of a cluster. The examples in my data are *màrbâ* (variant *màrpâ*) 'rifle' and *múrsí* 'revolt', both of which are regional words of non-Dogon origin.

Most syllabic derivational and inflectional verbal suffixes beginning with *rv* or *yv* (there are none beginning with *wv*) are subject to Nasalization-Spreading: perfective negative *-rí-*, reversive *-rí-*, transitive *-rí-*, and mediopassive or inchoative *-yí-*. However, suffix *-yɛ́*, whether 3Pl (with statives and adjectives) or passive, does not nasalize. Perfective-1a *-èrɛ̀-*, the only suffix of *-vCv-* shape, also fails to nasalize. The suffixes that do not nasalize also do not harmonize vocalically with the preceding stem, so they simply do not interact with the stem phonologically. This suggests that they were originally phonologically autonomous: a chained perfective-1a auxiliary (*-èrɛ̀-*) or a loosely cliticized pronominal (*-yɛ́*).

Perfective negative *-rí-* is illustrated by *dàmá-* 'speak', *dàmà-*r^n*í-* 'did not speak', and by *tá:*^{n}*-* 'spread out fingers', *tà:*^{n}*-*r^n*í-* 'did not spread out fingers'. In *nùy*^{n}*ɔ̀-*r^n*í-*, which can mean either 'did not enter' < stem *núy*^{n}*(í)* or 'did not hear' < stem *nǔy*^{n}*(í)*, the y^n is clearly nasalized.

Reversive derivational suffix *-rí-* is illustrated by *kámá* 'crumple' and *kámí-*r^n*í* 'uncrumple', whose perfective negative *kàmì-*r^n*à-*r^n*í* 'did not uncrumple' shows recursive application of the rule.

Transitive *-rí-* is often paired with mediopassive *-yí-*. Pairs showing suffixal nasalization are *kúmí-*r^n*í-* '(sb) shut (eye)' and *kúmí-*y^n*í-* '(eye) shut', and *sáŋí-*r^n*í-* 'embellish' and *sáŋí-*y^n*í-* 'become embellished'. Deadjectival inchoatives with the same *-yí-* suffix also nasalize: *támí-*y^n*í-* 'become cold'.

Although I transcribe e.g. *sáŋí-*y^n*í-*, the actual pronunciation reflects Monophthongization (§3.5.7.2): [sáŋí:-]. The long [i:] is no more nasalized than in underlyingly monosyllabic stems like *nî:* 'water'. Transcriptions like *sáŋí-*y^n*í-* are therefore somewhat abstract, and are motivated by forms like perfective negative *sàŋì-*y^n*ɛ̀-*r^n*í-* where a vocalic shift precludes Monophthongization, and where nasalization of y^n is phonetically unmistakable (in this example it has transmitted Nasalization-Spreading into the final suffix). However, in the perfective-1a, where we would expect e.g. #*sáŋí-*y^n*-èrɛ̀-* with nasalized y^n, we actually hear *sáŋí-∅-èrɛ̀-* 'was embellished', parallel to e.g. *tágí-∅-èrɛ̀-* 'put on (one's) shoes' from non-nasal *tágí-yí-*, see *y*-Deletion §3.5.7.3.

Perfective-1a *-èrɛ̀* is not subject to Nasalization-Spreading even in *núy-èrɛ̀* 'entered' (stem *núy*^{n}*(í)*, contrast perfective negative *nùy*^{n}*ɔ̀-*r^n*í* mentioned above), much less in e.g. *mǎ:-èrɛ̀* 'became dry' where the source nasal is farther away. The perfective-1a suffix has an unusual bisyllabic shape suggesting that it is still treated phonologically as a separate word (compare Toro Tegu *-wòrɛ̀*).

3.5.1.2 Backward Nasalization

Backward (leftward) spreading of nasalization is not a regular process in Nanga. The only example, rather opaque, is *ɲù-ŋɔ́-*, the highly irregular imperfective negative of *yǐ:-* 'see' (§10.2.3.4), where the initial *ɲ* probably reflects *y^n.

Backward Nasalization is mildly productive in similar contexts in Toro Tegu, and a handful of frozen cases are known in Jamsay.

3.5.2 Vocalism of suffixally derived verbs

Most suffixally derived verbs have vocalism determined in part by spreading of vowel quality from stem to suffix. In effect, the vocalism of the suffixed verbs is subject to the same constraints that apply to underived stems of similar (usually trisyllabic) shape. The affected derivations are reversives, mediopassives and their paired transitives, verbs with some unproductive causative suffixes like *-gí-*, and some deadjectival inchoatives. Specifically, most of these suffixally derived verbs belong to a verb class with stem-final *i* or (by assimilation) final {*e o*} in the bare stem and related forms, and with non-high vowels in the various AN inflections. See, for example, the paradigms of reversives 'untie' and 'unhook' in (246) in §9.1.

Causative and passive *-mí-* and passive *-yɛ́* are exceptions. They do not allow stem vowel quality to spread into suffixed forms.

3.5.3 Vocalic rules sensitive to syllabic or metrical structure

3.5.3.1 Vowel-lengthening

Nanga (and it alone) has small number of stems that appear to show historically secondary lengthening of a vowel before a nasal-stop cluster in the first syllable of a bisyllabic stem.

(12) a. *nd*

kɔ́:ndɔ́	'curved (stick)'	Yanda Dom *kɔ́ndà*, Tommo So *kɔ́nnɔ́*
kè:ndê	'cheek'	Ben Tey *cèlê:*, Bankan Tey *kèndêy*
dè:ndê	'night'	Tebul Ire *dèndɛ́*, Yanda Dom *dèndà:*
kǎ:ndâ	'melon'	Ben Tey *kànár^{n}ày*, Bankan Tey *kàndìrá*

b. *mb*

ɔ̀:mbɔ́	'chin'	Ben Tey *òmbôy*, Bankan Tey *ɔ̀mbɔ̂y*
sɔ̀:mbɔ́	'earth'	Ben Tey *sùmǒy^{n}*, Bankan Tey *sùmbǎy*

c. *nj*

mɛ̀:njɛ́	'thin'	Ben Tey *mɛ̀njɛ̂-w*, Bankan Tey *mɛ̀zɛ̂y^{n}*

No cognate is known for either *tì:njî* 'grub, larva' or *pà:ŋgǒ:* 'elephant', for example, but they fit the same profile.

However, there is no synchronic rule of lengthening vowels before such clusters, and some native Dogon items retain short vowels in comparable syllabic positions: *nɛ́ndɛ̀* 'tongue', *yùr-pɛ́mbí* 'woman's wrap'.

3.5.3.2 Epenthesis absent

No epenthesis processes have been observed.

3.5.3.3 Post-Sonorant Syncope (verbs)

Many verb stems of more than one syllable end in short *i* (sometimes varying with *u*). When followed by a C-initial inflectional suffix like perfective-2 *-só-* or perfective-1b *-tì-*, the short high vowel optionally deletes in allegro speech after an unclustered sonorant, e.g. *dàgírí-só-y* ~ *dàgír-só-y* 'I got ready'. This optional syncope has no wider phonological consequences; in particular, rhotics do not assimilate to following coronals (§3.5.5.2).

3.5.4 Final-High-Vowel Apocope

Apocope of final short high vowels is not completely productive, but it can occur when the final vowel is preceded by an unclustered sonorant, under some conditions.

That apocope is not fully productive is seen by the fact that final *i/u* alternations are grammatically important in adjectives, many of which are of the shape CvC_2i/u where C_2 is a sonorant. For example, 'cold' is *támî* as a modifying adjective within a NP, but *támû* as predicate. See §4.5.1.1 for a list of such examples, where C_2 can be {*r* r^n *ŋ m*} as well as *m*.

In predicates, the distinction between final short *i* and *u* is also grammatically important. This is notably the case with imperfective positive *-m*, whose pronominal-subject paradigm includes 1Sg *-m-ì* versus 2Sg *-m-ù*. Actually, in this paradigm apocope may erode the final vowels, which speakers cope with by retaining the rounding of the 2Sg form: 1Sg variant *-m̀-∅* versus 2Sg variant *-m̀-*^{w}.

Apocope (and Syncope, before a C-initial suffix) of final short high vowels is most common in bisyllabic and longer stems of the shapes *Cv(:)wv* and *Cv(:)yv*. As a synchronic process it is only observed when both the full and apocopated variants occur overtly. An example involving medial *w* is the noun *dĕw* ~ *dèwí* 'roof' and the related verb *dĕw-* ~ *dèwí-* 'cover; put a roof over'. Medial *y* is very common in mediopassive and other verbs with shapes like /CvCi-yi-/, which is heard as [CvCi:]. One possible analysis is that /iyi/ apocopates to /iy/, then monophthongizes to *i:* .

3.5.5 Local consonant cluster rules

3.5.5.1 Derhoticization (/r^n/ to *n*) in allegro speech style

In forms like *kár*^{n}*í-tì-* 'did' (perfective-1b), Syncope of the medial vowel is not phonologically systematic; the tap r^n is released prior to the onset of the *t* in normal pronunciation. So there is no regular derhotization process. However, in allegro speech I have observed variation between e.g. *súŋúr*^{n}*ì nɔ̀* and syncopated *súŋûn nɔ̀* 'his/her ear', the latter indeed showing /r^n/ to *n*.

3.5.5.2 Rhotic Assimilation generally absent

In forms like *tárí-tì-* 'glued on' (perfective-1b), Syncope of the medial vowel is not phonologically systematic (§3.5.3.3), and the tap *r* is released prior to the onset of the *t* in normal pronunciation. This is parallel to what was just observed concerning *kár*^{n}*í-tì-* 'did' (preceding subsection). As a result, there is no general process assimilating *r* to following

coronal consonants after Syncope, as there is in some Dogon languages. See, however, the discussion of Rhotic-Cluster Lateralization, just below.

3.5.5.3 Rhotic-Cluster Lateralization (/rr/→*ll*)

Although there is no regular phonological rule to this effect, there are vestiges of a phonological development of the type *…rv-r…* > *…r-r…* (Syncope) > *…l-l…*, and of the type *…r^{n}v-r^n…* > *…r^n-r^n…* (Syncope) > *…l-l…,* if my interpretation of reversive derivatives is correct. For discussion of reversive *măl-lí-* 'unseal' from *màr^{n}í-* 'seal up', and of reversives like *kɔ́lli-rí-* 'unhook' from *kɔ́rí-* 'hook, hang up', see (245) in §9.1, below. Since the regular reversive suffix *-rí-* has been re-added to e.g. *kɔ́lli-rí-*, native speakers may well interpret the phonological process here as one where medial *r* is converted to *ll* before the suffix (a kind of double dissimilation, in segmental quality and length, to the *r* of the suffix).

3.5.6 Vowel-vowel and vowel-semivowel sequences

3.5.6.1 Vowel sequences in reduplications and 3Sg perfectives

Hiatus is not typical of Nanga phonology, but when a vowel-initial verb stem is reduplicated, the two occurrences of the same vowel are phonetically separated by a glottal stop. Example: *éw-yé-* 'sit', reduplicated imperfective *è-ʔéw-yé-ŋ̀* 'he/she will sit'.

In unreduplicated perfectives (§10.1.2.2) of monosyllabic stems, the 3Sg form may end in *…o-e*, *…a-ɛ*, or *…ɔ-ɛ*, reflecting a once more productive ablauted "E-stem" of verbs. The vowel is composite but has no hiatus. Examples: *nɔ̀-ɛ̀* 'he/she drank', *sà-ɛ̀* 'he/she replied', *wò-ɛ̀* 'he/she caught'. Similar combinations occurs with perfective-1a *-ɛ̀rɛ̀-* (§10.1.2.3), as in *gɔ̀-ɛ̀rɛ̀-* 'went out'.

3.5.6.2 *vv*-Contraction

There are few situations in Nanga where two vowels come together at a word-internal boundary. As indicated in the immediately preceding section, some vowel sequences are tolerated, and others (involving reduplicative syllables) are protected by adding a glottal stop.

However, perfective-1a *-ɛ̀rɛ̀-* (§10.2.1.2) follows verb stems, including motion verbs and mediopassives. Most, arguably all, verb stems end in a vowel. For some stems, a stem-final non-high vowel is dropped before the suffix-initial vowel of *-ɛ̀rɛ̀-*.

The data are summarized in (13). The duration of vowel sequences is not particularly longer than that of contracted *ɛ̀*. A listener detects vowel sequences primarily by tones in cases like *írɛ́-ɛ̀rɛ̀-* where the stem already ends in *ɛ*, and by tones plus vowel qualities in cases like *gɔ̀-ɛ̀rɛ̀-* and *sígɛ́-ɛ̀rɛ̀-*.

(13)	stem	perfective-1a	gloss
a. contraction occurs			
	áyá-	*áy-ɛ̀rɛ̀-*	'get tired'
	láwá-	*láw-ɛ̀rɛ̀-*	'go past'
	kɔ́yɔ́-	*kɔ́y-ɛ̀rɛ̀-*	'(wood) decay'

{H}-toned bisyllabic with initial high vowel

túwɛ́-	*túw-èrɛ̀-*	'die'
kúmɔ́-	*kúm-èrɛ-*	'(bone) break'
níyⁿɛ́-	*níyⁿ-èrɛ̀-*	'sleep'

b. no contraction

monosyllabic

gɔ̌:-	*gɔ̌-èrɛ̀-*	'go out'
tɛ́:-	*tɛ́-èrɛ̀-*	'sprout'

{H}-toned bisyllabic with double {e o}

séré-	*séré-èrɛ̀-*	'be diluted'
kóró-	*kóró-èrɛ̀-*	'become empty'

{H}-toned bisyllabic with initial high vowel

sígé-	*sígé-èrɛ̀-*	'go down'

bisyllabic with medial cluster (after syncope), all +ATR

éw-yé-	*éw-yé-èrɛ̀-*	'sit'
kówró-	*kówró-èrɛ̀-*	'(rain) stop'
kómjó-	*kómjó-èrɛ̀-*	'be crumpled'
bìndé-	*bìndé-èrɛ̀-*	'go back'

{LH}-toned bisyllabic with double {a ɔ ɛ}

ɲàmá-	*ɲàmá-èrɛ̀-*	'be ruined'
bàrⁿá-	*bàrⁿá-èrɛ̀-*	'redden'
yɔ̀gɔ́-	*yɔ̀gɔ́-èrɛ̀-*	'run'
jèmɛ́-	*jèmɛ́-èrɛ̀-*	'blacken'
yègɛ́-	*yègɛ́-èrɛ̀-*	'fall'

{LH}-toned bisyllabic with initial high vowel or nasal

dìmɛ́-	*dìmɛ́-èrɛ̀-*	'be finished'

other {LH}-toned bisyllabics

bìyɛ́-	*bìyɛ́-èrɛ̀-*	'lie down'

other {H}-toned bisyllabics

írɛ́-	*írɛ́-èrɛ̀-*	'ripen'
ámá-	*ámá-èrɛ̀-*	'become half-ripe'
ńné-	*ńnɛ́-èrɛ̀-*	'go' (§10.1.3.4)

Contraction is usual with {H}-toned *CáCá-*, *Cɛ́Cɛ́-*, and *Cɔ́Cɔ́-* stems. It occurs less systematically in {H}-toned stems with initial {*i u*} followed by -ATR {*ɛ ɔ*}. For example, I recorded *írɛ́-èrɛ̀-* 'ripened' but *túw-èrɛ̀-* 'died', and there is some variation in the pronunciation of the latter. An issue with these stems is that loss of the stem-final vowel would delete any surface manifestation of its underlying vocalism.

Contraction does not occur with any {LH}-toned bisyllabic, even *CàCá-*, *Cɛ̀Cɛ́-*, and *Cɔ̀Cɔ́-*. It is also blocked in *CvCCv-* stems with medial cluster, but this stem shape does not allow final {*ɛ a ɔ*}, so all examples end either in *i* or in +ATR {*e o*}.

Trisyllabic stems have either H.H.H or L.H.H tone sequences, so the penult as well as the final syllable is H-toned (unless a tone overlay has applied to the stem). However, trisyllabics (other than causatives, which do not take the perfective-1a) cannot end in {*ɛ a ɔ*}, so we get pairs like *pégɛ́-* 'nail, drive in (nail)', reversive *pégí-rí* 'remove (nail)'. They can end in {*e o i*}, but we have seen that these final vowels do not contract. The upshot is that no *vv*-Contraction occurs in trisyllabics before perfective-1a *-èrɛ̀-*. Examples: *jìgíré-èrɛ̀-* from *jìgíré-* 'spin (turn)',

3.5.6.3 Desyllabification

Optional desyllabification of stem-final *i* to *y* before perfective-1a *-èrɛ̀-* can occur with stems whose preceding syllable is H-toned, as in *táŋy-èrɛ̀-* (*táŋí-* 'become'). To some extent *o* can be desyllabified in the same context. For example, *tómbó-èrɛ̀* 'jumped' can be pronounced more or less as transcribed, or it can shade into [tómbo̤ɛ̀rɛ̀-] or [tómb^{w}ɛ̀rɛ̀].

3.5.7 Local vowel-consonant interactions

3.5.7.1 Backness/rounding assimilations affecting *i* and *u*

Stem- or suffix-final short high vowels {*i u*} in verbal morphology usually assimilate in backness/rounding to a following suffixal non-homorganic semivowel. This happens, for example, when perfective-1b *-tì-* is followed by 2Sg *-w* (or 2Pl *-w.˸*), and when *bù-* 'be' is followed by 1Sg *-y* (or 1Pl *-y.˸*). Thus *-tù-ẁ*, *bì-y*, see §10.3.3.

These assimilations feed into Monophthongization, see just below.

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

In syllable-final position, /iy/ and /iyi/ are heard as *i:*, and /uw/ is heard as *u:* . In my normal transcription I use the full spellings with vowel and semivowel.

For discussion of the phonological representation of verbs like *tíy(í)-* (or *tí:-*) 'send', see §10.1.3.3.

Subject-pronominal suffixes like 1Sg *-y* and 2Sg *-w* are often involved in Monophthongization. Examples are 1Sg perfective negative *-rí-ý* [rí:] and 2Sg 'be' *bù-ẁ* [bù:] 'you are (somewhere)'. The number of forms that are subject to Monophthongization is swollen by the effects of vowel-semivowel assimilations, see the immediately preceding section. Thus *gò:-rú-ẃ* [gò:ɾú:] 'you-Sg did not go out' from /-rí-w/.

/iyi/ occurs (arguably) in a few unsegmentable verb stems like *tíy(í)-* (or *tí:-*) 'send', see §10.1.1, and (clearly) in a large number of derived verbs with mediopassive or inchoative *-yí-*, e.g. *pɛ́mbí-yí-* [pɛ́mbí:] 'gird oneself'. The trisyllabic nature of this stem is brought out in such forms as perfective negative *pɛ̀mbì-yɛ̀-rí-*, where the vocalic shift to *ɛ* pre-empts Monophthongization. I can hear no difference between [i:] from /iy/ and [i:] from /iyi/. One interpretation of this is that /iyi/ first reduces to /iy/, then monophthongizes.

3.5.7.3 *y*-Deletion (before perfective-1a *-èrɛ̀-*)

The perfective-1a suffix *-èrɛ̀-* is phonologically unusual in several ways. It has only limited phonological interaction with the stem, resisting Nasalization-Spreading (§3.5.1.1) and ATR harmony. However, since the preceding stem usually (arguably always) ends in a vowel, some sandhi-like adjustments occur at the boundary. A stem-final short vowel is deleted in some cases (§3.5.6.2), or a final vowel (especially *í*) may desyllabify (§3.5.6.3).

A slightly different treatment occurs when *-èrɛ̀-* follows a trisyllabic (or longer) stem ending in *…Cíyí* (or nasalized *…Cíy^{n}í*). The output is *…Cí-èrɛ̀*. One can model this as the deletion of the stem-final vowel (independently attested in some other stems before this

suffix), resulting in /…Cíy-èrè-/, followed by a special rule deleting the /y/. The resulting *…Cí-èrè-* may be pronounced as such, or it may additionally be desyllabified to *…Cy-èrè-*.

The stems subject to *y*-Deletion are mostly mediopassives (§9.3.1), whether transparently so or otherwise. Examples are in (14a). Not subject to *y*-Deletion are bisyllabic stems, including syncopated trisyllabics with *Cy* clusters like 'sit' (14b).

(14)	stem	gloss	perfective-1a
a. *y*-Deletion occurs after *i*			
trisyllabics			
	sáŋí-y^{n}í-	'be embellished'	*sáŋí-∅-èrè-* ~ *sáŋy-∅-èrè-*
	tágí-yí-	'put on (one's) shoes'	*tágí-∅-èrè-* ~ *tágy-∅-èrè-*
b. *y*-Deletion fails to apply			
bisyllabics			
	bì-yé-	'lie down'	*bìyé-èrè-*
	í:-yí-	'stand'	*í:-y-èrè-*
	núy^{n}(í)-	'go in'	*núy-èrè-*
	ú:-yí-	'fear'	*ú:-y-èrè-*
y is clustered (syncopated trisyllabic)			
	éw-yé-	'sit'	*éw-yé-èrè-*

3.6 Cliticization

There is no rigorous phonological difference between clitics, suffixes, and postposed particles such as postpositions. Stress and accent patterns, which in other languages of the world often bring out cliticization, are not relevant to Nanga. I use the term clitic (boundary symbol *=*) in cases where a morpheme (or morpheme cluster) that would on syntactic grounds be thought of as independent is attached to an independently occurring stem (noun, verb stem or inflected verb, etc.), with some evidence of phonological interaction.

I transcribe as enclitics the following: the conjugatable 'it is' morpheme *=m* (and variants), along with its negative counterpart *=ndǒ(:)-* 'it is not' (see just below, and cf. §11.2.1.1-2); stative negative *=ǹdó-* (§10.4.2); locative *=yè* with place names (§8.2.4); and the conjugatable past morpheme *=bɛ-* that is added to (partially) inflected verb forms. Based on phonological interactions, one could argue that other simple postpositions are also really clitics.

Candidates for status as preverbal proclitics are existential *yá* (§11.2.2.1) and the subject pronominals found in nonsubject relative clauses (§14.1.6). They directly precede the verb and interact with them tonally, but there are no segmental phonological interactions. I do not use *=* in transcriptions of these forms.

3.6.1 Phonology of 'it is' clitic (*=m-* and variants)

For the paradigm of this clitic, which allows pronominal inflections, see §11.2.1, below. The first and second person forms are based on *=m-*. The normal third person forms are 3Sg *=ŋ* ~ *:=^{n}* ~ *:=∅*, 3Pl *=yɛ̀* ~ *=yɛ*, and inanimate *=w*. These third person forms merge as *=yɛ̀*

~ *=yɛ* in postconsonantal position (this position iss rare for this clitic since there are few truly C-final NPs).

Of phonological interest is the fact that, after a vowel, 1Sg *=m-ì* frequently contracts to *=m̀*, while 2Sg *=m-ù* frequently contracts to *=m̀-ʷ*. This results in a unique (for Nanga, and perhaps for Dogon generally) opposition of final plain versus labialized consonant. The labialization in the 2Sg form is difficult for the unpracticed ear to hear, but my assistant immediately corrects poorly pronounced versions.

Some imperfective inflected forms of verbs also end in an inflected form of *=m*, so the opposition of plain and labialized is quite important.

3.7 Tones

The tone of a Nanga syllable may be H, L, <HL>, <LH>, or <LHL>. Taking *ma:* as the segmental base, these would be transcribed *má:*, *mà:*, *mâ:*, *mǎ:*, and *m̰ǎ:*, respectively. (Not all of these are actual Nanga words.)

Contour-toned diphthongal syllables can be transcribed interchangeably as e.g. *máỳ* and *mây*. I often use the former method when the final semivowel is a suffix, especially one that comes with its own L-tone.

3.7.1 Lexical tone patterns

3.7.1.1 One H-tone in each stem

Regular stems (nouns, verbs, adjectives, numerals) have one H-tone component in their basic lexical forms. For example, a monosyllabic stem may be H-, <HL>-, or <LH>-toned, but not entirely L-toned. As a result, when syntactically controlled tone-dropping applies to them, it is always audible. This is especially important in the context of NP-internal tonosyntax.

I use slashes /…/ to enclose stem-wide melody representations, {…} for overlays that replace the melody, and <…> for single-syllable contour tones.

Typical lexical meodies are /H/, /HL/, /LH/, and /LHL/, with a single H element. This H element may be spread over the entire stem (/H/ melody), or occupy just a part of it (/HL/ melody, etc.). Apparent /HLH/, /LHLH/, and /HLHL/ melodies, with two separate H elements, are very rare and involve borrowed nouns or multisyllabic nouns that are arguably treated phonologically as compounds.

Expressive adverbials (EA) do not fit into phrases (NP, PP) and are neither controllers nor targets of tonosyntactic processes. Some EAs have /L/ melody.

3.7.1.2 Lexical tone melodies of verbs

The lexical melody of a verb stem verbs may be /H/ (15a) or /LH/ (15b). As will soon be seen, the "lexical" melody in the case of verbs is partially predictable from the initial consonant.

/LH/ is realized as *Cv̌:*, *Cv̌y*, *Cv̀Cv́*, *Cv̀CCv́*, *Cv̌:Cv́*, and *Cv̀Cv́Cv́*. Note in particular where the L to H break comes in the last two of these. While some other Dogon languages delay the tone break until the final syllable or mora of the stem (i.e. close to the right edge), in

Nanga the break occurs as close as possible to the **left edge**, i.e. midway through the long vowel of *Cv̌:Cv́*, and in the second syllable of *Cv̀CV́Cv́*.

I hear no noticeable rise on the second consonant of lexical *Cv̀CCv́*, though it is normally a sonorant, e.g. *nàmbí-* 'stomp on'. In native Dogon vocabulary, a medial *CC* is usually a homorganic nasal-stop cluster. The tonal pattern suggests that the syllabification here is *Cv-CCv*, with an initial monomoraic syllable that is not capable of bearing an <LH> tone. Lexical *Cv̀CCv́* is distinguishable from a surface <LH>.H sequence in *CV̌CCv́* that is syncopated from *Cv̀CV́Cv́*, as in *găl-lí-* 'take out', reversive of *gàrⁿí-* 'put in', from /gàrⁿí-rⁿí/ (§9.1).

Examples of the various melodies for verbs are in (15).

(15)	stem	gloss
	a. /H/ melody	
	tɔ́:	'sow, plant (seeds)'
	núyⁿ(í)	'go in'
	súyɔ́	'hit'
	kímé	'tremble'
	kɛ́sɛ́	'cut'
	níyⁿɛ́	'sleep'
	kúwó-mí	'burn' (also 'give meat to')
	ɛ́wrɛ́-ndíyé	'become small'
	b. rising-toned	
	gɔ̌:	'go out'
	nɔ̌:	'drink'
	wɔ̌:	'catch'
	jàrⁿá	'tap'
	yɛ̀gɛ́	'fall'
	yɔ̀gɔ́	'run'
	bǎ:rí	'add' (or 'help')
	yǎ:sí	'scrub (one's body)'
	dǎ:-ndí	'instruct'
	bǎ:rá-mí-	'have (sb) help (sb)'
	nàmbí	'stomp on (hide)'
	nàmbí-rí	'remove foot from'
	wìnjɛ́-mí	'swing (a whip)'
	wɛ̀gísí	'poke with fingers'
	dùgú-ndíyé	'become big'

In native vocabulary, if a verb stem begins with an obstruent, the voicing feature of the obstruent determines the "lexical" melody of the verb. An initial voiceless obstruent requires /H/. An initial voiced obstruent requires /LH/. Occasional exceptions involve loanwords like *já:jíyí-* 'come back home from the pasture' (< Fulfulde) and *gáɲɛ́-* 'win (match or contest)' (< French). If the stem begins with a sonorant or with no consonant (vowel-initial), there is a true lexical choice between /H/ and /LH/ melodies. For example, *má:-* 'become dry' is /H/ while *mɔ̌:-* 'tie knot' is /LH/.

Minimal pairs differing only in lexical melody are almost nonexistent in Nanga verbs, which is to be expected given the frequent overriding of lexical melodies by tone overlays in

various inflectional categories. However, there is one notable pair, *núyⁿ(í)-* 'go in' versus *nŭyⁿ(í)-* 'hear'. However, there are many minimal pairs involving different inflected forms of the same verb stem. In particular, the bare stem (used in verb chains) and the imperative differ only in tones for some verbs: *tíŋí* 'speak', imperative *tíŋî*, see (357a-c) in §10.6.1.1.

Voiced obstruents are familiar "depressor consonants" in African tone systems. However, the effect of obstruent voicing on lexical melody does not operate anywhere near the phonetic level. Nouns, including cognate nominals that are phonologically related to verbs, completely disregard initial obstruent voicing in their own lexical melodies. Even for verbs, the melodies are constantly chipped away at or completely erased in inflected forms, except in the perfective positive system and the bare stem. The correlation between initial-obstruent voicing and tone applies only at the abstract (lexical) level of underlying melodies, and plays no role at the surface.

For vocalic sequences in verb stems, see §10.1.

3.7.1.3 Lexical tone melodies of unsegmentable noun stems

"Nouns" is interpreted broadly here, including some noun-like adverbs. Combining data from all syllable counts, the attested lexical melodies are /HL/, /LH/, /H/, /LHL/, and very rarely /HLH/, /HLHL/, and /LHLH/.

Monosyllabic nouns have at least two moras. Most have /HL/ or /LH/ melody. There are a few /LHL/ stems. /H/ is attested but rare.

(16) Monosyllabic nouns

stem	gloss
a. /H/ (rare)	
gáyⁿ	'courage'
b. /HL/	
pî:	'wealth'
jâ:ⁿ	'just deserts'
gɔ̂:	'large awl'
c. /LH/	
tă:ⁿ	'shed'
sŏŋ	'horse'
jă:	'fence'
dŏ:	'hip'
nă:	'hand'
d. /LHL/ (all known examples)	
gõ:	'fire'
tɛ̃:ⁿ	'honeycomb'
mɛ̃:	'soft mud'
sõ:	'awareness'
gɔ̃yⁿ	'last year'
dɛ̃w	'trap'

See also the *Cv-Cv̌:* reduplicated nouns in (33) in §4.1.5.

For bisyllabic nouns, the lexical melody may be monotonal /H/, bitonal /HL/ or /LH/, or tritonal /LHL/. There is one possible case of /HLHL/ ('ostrich'), which may have originated as a compound. For the contoured tones, the location of the tone break may vary, see §3.7.1.6-7 below.

(17) Bisyllabic nouns

stem	gloss
a. /H/	
gírⁿá	'harvest'
ségí	'dues'
má:ndí	'belief'
wé:rí	'tendon'
tó:sí	'testicles'
b. /HL/ realized as H.<HL>	
CvCv	
pírⁿâ	'flour'
mírⁿâ	'voice'
tígâ	'griot's calling out of lineage'
súgî	'francolin'
kíyâ	'squirrel'
final heavy syllable	
sápôl	'row'
kúmpâm	'curiosity'
sínwâ:	'Chinese (person)' (French *chinois*)
báykâl	'modern rifle (type)'
c. /HL/ realized as H.L	
Cv:Cv	
bú:dì	'money'
CvCCv	
tɛ́mbì	'customary rite'
CvCCCv	
háyⁿndɛ̀	'amazement'
d. /LH/ realized as L.H	
final Cv	
kùwⁿá	'crowned crane' (bird)
lì:gí	'bird'
pàndí	'mourning'
nɔ̀:mbɔ́	'rainbow'
nɛ̀rⁿî	'dog'
e. /LH/ realized as L.<LH>	
final CvC	
lèrɛ̌w	'entirely' (adverb)

f. /LHL/ realized as L.<HL>

CvCv

jàmâ	‘crowd’
dùrⁿɔ̂	‘eagle-owl’
dùwâ	‘act of forging’

CvCCv

màrpâ	‘rifle’
tòndô	‘leech’
ɛ̀ŋjɛ̂	‘chicken’

Cv:Cv

tà:rî	‘egg’
kò:rô	‘kneading stick’

Cv:CCv

tì:njî	‘worm, grub’

CvCv:

ɔ̀ŋî:	‘frog’
sàgô:	‘blue-eared starling’

g. /LHL/ realized as <LH>.<HL>

CvCCv

dɛ̌njɛ̂ ~ jɛ̌njɛ̂	‘God’

Cv:Cv

kɛ̌:rɛ̂	‘money’
sǎ:râ	‘steam-cooked millet meal’
sǒ:rô	‘young (person)’

h. /HLHL/ (?) realized as H.<LHL>

CvCv:

sákɔ̌:	‘ostrich’ (variant *ságɔ̌:*)

Trisyllabics are in (18). For the location of the tone break(s) in (18d,f), see §3.7.1.6-7 below.

(18) Trisyllabic nouns

stem	gloss

a. /H/ realized as H.H.H

tá-tágá	‘arrogance’
pógírí	‘belly strap’
ádúrⁿó	‘life’
dáŋgárá	‘thigh’

b. /HL/ realized as H.H.L

final Cv̀

úsúrⁿò	‘wind’
sámárⁿì	‘day laborer’
dúgúrì	‘remorse’
dóró:sì	‘strap’

c. /HL/ realized as H.H.<HL>

final CV̂C

tɔ́gíyêm	'pot used to heat metal underneath'
kórósôl	'first rains'
pá:mírâl	'understanding'

*final CV̂ from *CV̂C or *CV̂:*

súgúlâ	'remorse' (variant *súgúlâm*)
bálámbâ	'champion' (variant *bálámbâŋ*, cf. Ben Tey *bálámbâ:*)
káráwâ	'wooden milk bucket' (variant *ká:râ*, Fulfulde *karawal*)

d. /LH/ realized as L.L.H

gàsɛ̀gɛ́	'domestic animal'
nàrⁿìyⁿɛ́	'orphan'
àrⁿàwⁿɔ́	'marabou stork'

e. /LHL/ realized as L.H.<HL>

dòndíyê	'cat'
gòmbórô	'chest'
sàríyê	'Islamic law'
wòtúmbâ	'mound'

f. /LHL/ realized as L.L.<HL>

màrpà-jìgìrî	'rifle-cock tightener' (*màrpâ* 'rifle')
pì-pìrî	'craziness'
sɔ̀-sɔ̀rî	'branch whip'
dògòrô	'cave cemetery'
làsìrî	'finger'
bɔ̀gɔ̀rɔ̂	'hubbub'
pìtòlô	'pistol'
nèmbìrê	'act of pleading'

g. /LHL/ realized as L.H.L

làsá:sì	'modern rifle'

h. /HLH/ realized as H.L.H (only example)

hɛ́yyɛ̀ndɛ́	'index finger'

i. /LHLH/ as <LH>.L.H (only example)

mǎŋgòró	'mango' (variant *mǎŋgórò*)

Quadrisyllabics are typically treated like compounds, though some are borrowed (usually from Fulfulde). They can show tone sequences like L.L.H.H that seemingly violate the rule that tone breaks occur near the right edge. This is because rules that apply to unsegmentable stems do not apply across compound boundaries.

3.7.1.4 Lexical tone patterns for adjectives and numerals

Adjectives and numerals have basically the same tone types as nouns, allowing for gaps due to a limited inventory and due to a predominance of mono- and bisyllabic rather than longer stems.

Examples, beginning with monosyllabics, are in (19).

(19) Adjectives and Numerals

stem	gloss
monosyllabic, /LH/	
pě:	'old'
yǎ:	'female'
wǒy	'two'
bisyllabic, /H/	
sóró	'straight'
úmá	'alive'
pírí	'white'
pé:ré	'innocent'
nánáy^{n}	'respectable'
bisyllabic, /HL/ realized as H.<HL>	
ár^{n}â	'male'
órî	'smooth, sleek'
kúrê	'six'
bisyllabic, /HL/ realized as H.L	
pé:rù	'ten'
bisyllabic /LH/, realized as L.H	
nà:r^{n}á	'easy'
kùnjú	'middle-aged'
dùgí	'big'
mùsú	'thousand'
bisyllabic /LH/, realized as L.<LH>	
nìmǐ:	'five'
tè:sǐ:	'nine'
bisyllabic /LHL/, realized as L.<HL>	
tègê	'young'
nɔ̀mî	'difficult'
gɔ̀mî	'bad'

3.7.1.5 Default H-tone, or autosegmental mapping?

Particularly for verbs, the effective restriction of lexical tone melodies to /H/ and /LH/ gives us the option of taking the H-tone element as a default that need not be specified lexically. In this view, the /LH/ verbs are those that also have an initial L-tone element.

It would be much more difficult to make such an analysis work for non-verb stems, which have a greater range of lexical tone melodies.

3.7.1.6 Tone-break location for bitonal non-verb stems

For monosyllabic stems, a contoured melody /HL/ or /LH/ is obviously realized on the single syllable: *tǎ:ⁿ* 'shed', *pî:* 'wealth'.

Bisyllabic and longer non-verb stems (nouns, adjectives, numerals) with /LH/ melody have the tone break as close as possible to the right edge: *CV̀CV́*, *CV̀CCV́*, *CV̀:CV́*, *CV̀:CV̌:*, *CV̀CV̀CV́*. Examples are *kùwⁿá* 'crowned crane', *pàndí* 'mourning', *nɔ̀:mbɔ́* 'rainbow', *gàsègé* 'animal'.

Bisyllabic and longer non-verb stems with /HL/ melody likewise have the break near the right edge. For prosodically light *CvCv* and *nCv* stems (with short vowels), the usual pronunciations are *CV́CV̂* and *ńCV̂*, with the H-tone component spreading into the onset of the second syllable. Bisyllabics with a final heavy syllable likewise have the tone break just before the final mora. Bisyllabics with a heavy first syllable and light second syllable have the break at the syllable boundary. Examples: *súgî* 'francolin', *bú:dì* 'money', *sínwâ:* 'Chinese person'. Trisyllabics are usually H.H.L-toned if they have a final light syllable, and H.H.<HL>-toned if they have a final heavy syllable, but some loanwords (mostly from Fulfulde) that have lost a final sonorant are still pronounced with a final falling tone; see (18c) in §3.7.1.3.

The tendency of tone breaks in the basic lexical forms of noun, adjective, and numeral stems to occur as close as possible to the right edge is also observed with most {HL} and {LH} tonosyntactic or tonomorphological overlays (§3.7.2.2-3).

3.7.1.7 Tone-break location for tritonal non-verb stems

/HLH/ is very rare. I can cite *hɛ́yyɛ̀ndɛ́* 'index finger', which occurs with similar tones in some other languages. It is probably a loanword.

/LHL/ is more variable in tone-break location than the other melodies considered above. One consistent pattern is *CV̀CV̂* for bimoraic *CvCv* stems, where the final vowel has <HL> tone. Likewise *CV̀CV̂:* when the first syllable is light and the second is heavy. Examples: *dùrⁿɔ̂* 'eagle-owl', *sàgô:* 'starling sp.' However, *CvCCv* can appear, depending on the lexical item, as *CV̀CCV̂* or *CV̌CCV̂*, compare *tòndô* 'leech' and *màrpâ* 'rifle' with *dɛ̌njɛ̂* (variant *jɛ̌njɛ̂*) 'God'. Likewise with *Cv:C(C)v* stems: *tà:rî* 'egg' and *kò:rô* 'kneading stick', but *sɔ̌:rô* 'young (person)' and *kɛ̌:rɛ̂* 'money'.

There is a similar lexical choice of tone-break location in /LHL/ trisyllabics, namely between L.H.<HL> with the tone break near the left edge and L.L.<HL> with the tone break as close as possible to the right edge. Examples are *dòndíyɛ̂* 'cat' and *nɛ̀mbìrɛ̂* 'act of pleading'. The /LHL/ melody realized as L.H.L when the medial syllable has a long vowel, as in *làsá:sì* '(modern) rifle', is a variant on L.H.<HL>.

3.7.2 Grammatical tone patterns

Tonosyntactic overlays, usually {L} or {HL} in Nanga, are (optionally) indicated in transcriptions and interlinears by a superscripted ^{L} or ^{HL} which is placed at the edge of the target domain "pointing" left or right toward the controller. These superscripts are not phonetic diacritics, and can be omitted without changing the pronunciation; they merely index the prior operation of a tonal overlay. In practice, I use these superscripts mainly for NP-internal tonosyntactic overlays with an overt controller (N^{L} Adj, Poss ^{HL}N, etc.). Tonomorphological overlays occur in verb-suffix combinations in the morphology, in compounds, and in certain types of stem-iteration, but to avoid clutter I often omit the superscripts in these cases.

3.7.2.1 Grammatical tones for verb stems

Verbs are lexically /H/ or /LH/. The tone break in /LH/ stems, as seen in the bare stem (e.g. in verb chains) and in positive perfective forms, is near the left edge: *Cv̌:*, *Cv̀Cv́*, *Cv̌:Cv́*, *Cv̀CCv́*, *Cv̀Cv́Cv́*, etc. For examples see §10.1.3.

The lexical melody is overridden in some morphological combinations, though I do not usually indicate the overlay in superscripts. The details are idiosyncratic and are best presented in the sections on specific AN categories in chapter 10.

3.7.2.2 Grammatical tones for noun stems

When preceded by a possessor NP, the possessed noun is subject to an overlaid possessor-controlled tone overlay. This overlay is {HL} if a preposed possessor ends in an H-tone, and {L} (i.e. tone-dropping) if the possessor ends in an L-tone. This distinction applies to all types of preposed possessor (pronominal, simple core NP, determined or quantified-over NP).

The overlay erases the lexical melody. For example, *nèr^{n}î* 'dog' becomes *X* ^{HL}*nér^{n}î* or *X* ^{L}*nèr^{n}ì*, depending on what tone the possessor X ends in. The same is true with a preposed pronominal possessor in inalienable possession (kin terms): *lèsí* 'maternal uncle', *ú* ^{HL}*lésî* 'your-Sg maternal uncle'.

However, alienable pronominal possessors follow the possessed NP. In this case there is no possessor-controlled overlay on the possessum, which has its regular tones: *nèr^{n}î yɛ̌:* 'my dog'. This construction was originally appositional: 'dog [my critter]'.

Trisyllabic possessed nouns are illustrated in (20). The distinction between {HL} and {L} overlays (20b-c) is amplified by the rightward extension of the H-tone element in {HL} to the medial syllable.

(20)	a.	*dòndíyê*	'cat'
		dòndíyê yɛ̌:	'my cat'
	b.	*yǎ-ŋ* ^{HL}*dóndíyè*	'a woman's cat'
	c.	*ár^{n}â* ^{L}*dòndìyè*	'a man's cat'

A fuller set of nouns is given in (21) to show the phonological realization of the basic {HL} possessed-noun overlay. (21a) shows that a monosyllabic lexically /HL/-toned noun has no

audible change when the possessed-noun {HL} overlay is superimposed. In (21b), the overlay is subtly audible, from unpossessed H.<HL> to possessed H.L. In (21c), the noun has unpossessed and possessed H.H.L, so as in (21a) there is no audible difference. In (21d), the tonal contrast between unpossessed and possessed forms is also audible.

(21)		gloss	lexical form	possessed (after *yǎ-ŋ* 'a woman')
	a.	'wealth'	*pî:*	*yǎ-ŋ* ^{HL}*pî:*
	b.	'house'	*ńdô*	*yǎ-ŋ* ^{HL}*ńdò*
		'money'	*bú:dì*	*yǎ-ŋ* ^{HL}*bú:dì*
	c.	'donkey'	*súmáŋà*	*yǎ-ŋ* ^{HL}*súmáŋà*
	d.	'dog'	*nèrⁿî*	*yǎ-ŋ* ^{HL}*nérⁿî*
		'courtyard'	*dámbí*	*yǎ-ŋ* ^{HL}*dámbì*
		'blood'	*gòndùgó*	*yǎ-ŋ* ^{HL}*góndúgò*
		'mother'	*dě:*	*yǎ-ŋ* ^{HL}*dê:*
		'hawk'	*tè-têw*	*yǎ-ŋ* ^{HL}*té-têw*

As indicated above, all of the possessed forms drop to {L} when the preceding possessor NP ends in an L-tone component: *árⁿâ* ^{L}*gòndùgò* 'a man's blood', etc.

An unpossessed noun stem drops its tones to {L} when followed by a modifying adjective or by a determiner (definite or demonstrative). Thus *nèrⁿî* 'dog' becomes L-toned in *nèrⁿì*^{L} *èsí* 'a good dog', *nèrⁿì*^{L} *né* 'the dog', and *nèrⁿì*^{L} *wǒ-ŋ* 'this dog'. See §6.1.4, §6.3, and §6.5 below.

An unpossessed noun (or noun-adjective sequence) does not interact tonally with a following cardinal numeral or other quantifier: *nèrⁿî kúrê* 'six dogs', *nèrⁿî kéréw* 'all the dogs'.

A noun that has escaped tone-dropping within the core NP or from a possessor is tone-dropped as head of a relative clause: *nèrⁿì* ^{L} *î: sùyɔ̀-sɛ̀*^{L} *né* 'the dog that we hit-Past'. See §14.1.2.

There are some complexities involving multi-word NPs and relative clauses with competing tonosyntactic controllers, e.g. Poss-N-Adj-Num-Det ('these three white dogs of Seydou's') or N-Adj-Num-Poss-Det ('these three white dogs of yours'). How these conflicts are worked out is discussed in §6.2.

3.7.2.3 Grammatical tones for adjectives and numerals

An adjective drops its tones when followed within the core NP by another modifying adjective. Thus *nèrⁿì*^{L} *bárⁿí* 'a red (= brown) dog' has an H-toned adjective *bárⁿí*, but it is part of the target domain of {L} overlay controlled by a second adjective: *[nèrⁿì bàrⁿì]* ^{L} *èsí* 'a good red (= brown) dog'.

A modifying adjective and/or a cardinal numeral following a noun is within the domain of the {HL} or {L} possessor-controlled overlay. The possessed noun appears with {HL} or {L} depending on the final tone of the possessor NP. An adjective or numeral that follows the noun appears as {L}. Thus *yǎ-ŋ* ^{HL}*[nérⁿì bàrⁿì]* 'a woman's red (= brown) dog' (*bárⁿí* 'red'), *yǎ-ŋ* ^{HL}*[nérⁿì kùrè]* 'a woman's six dogs' (*kúrê* 'six'), *yǎ-ŋ* ^{HL}*[nérⁿì bàrⁿì kùrè]* 'a woman's

six red (= brown) dogs'. Since a possessed NP always ends in an L-tone, it follows that recursive possessives of the type [[X's Y]'s Z] always have an {L}-toned Z, as in *[yǎ-ŋ* ^{HL}*yî:]* ^{L}*ǹdò* 'a woman's child's house'.

An adjective or cardinal numeral within an unpossessed NP functioning as head NP of a relative drops its tones. *[nèrⁿì bàrⁿì]*^{L} *î: sùyɔ̀-sɛ̀*^{L} *nɛ́* 'the red (= brown) dog that we hit-Past' (*nèrⁿì*^{L} *bárⁿí* 'red dog'), *[nèrⁿì kùrè]*^{L} *î: sùyɔ̀-sɛ̀ nɛ́* 'the six dogs that we hit-Past' (*nèrⁿî kúrê* 'six dogs').

3.7.2.4 Grammatical tones for postnominal determiners

As mentioned in §3.7.2.2 above, determiners (definite and demonstrative) are tonosyntactic controllers, inducing tone-dropping on preceding words in unpossessed NPs. However, when a possessor is added to the mix, the tables are turned and the determiner itself is tone-dropped. This is referred to as Determiner Tone-Dropping (§6.5.4).

Consider the formulae in (22), paying attention to the ^{HL} and ^{L} superscripts indicating overlays. X is a nonpronominal NP possessor ending in an H-tone. Det is any postnominal definite or demonstrative morpheme. In (22a), the determiner controls tone-dropping on the noun. In (22d-e), the determiner loses this control, and is tone-dropped by the possessor, whether the possessor is preposed or postposed to the possessed noun. The possessed noun is *túŋgúrí* (~ *túŋgúrú* by assimilation) 'stool'.

(22) a. *tùŋgùrù*^{L} *gú / ŋ̀gú*
stool^{L} Def.InanSg / Dem.InanSg
'the/that stool'

b. *[nù:*^{L} *wǒ-ŋ]* ^{HL}*túŋgúrì*
[person^{L} Dem-AnSg] ^{HL}stool
'this person's stool'

c. *túŋgúrú* *[ú* ^{HL}*gɔ̂]*
stool [2Sg ^{HL}Poss.InanSg]
'your-Sg stool'

d. *[nù:*^{L} *wǒ-ŋ]* ^{HL}*túŋgúrù* ^{L}*gù* / ^{L}*ŋ̀gù*
[person^{L} Dem-AnSg] ^{HL}stool ^{L}Def.InanSg / ^{L}Dem.InanSg
'the/that stool of this person's'

e. *túŋgúrú* *[ú* ^{HL}*gɔ̂]* ^{L}*gù* / ^{L}*ŋ̀gù*
stool [2Sg ^{HL}Poss.InanSg] ^{L}Def.InanSg / ^{L}Dem.InanSg
'the/that stool of yours-Sg'

The situation is more complex than this quick summary indicates. For more examples and discussion of fine points, see §6.5.2-3 below.

3.7.3 Tonal morphophonology

3.7.3.1 Autosegmental tone association (verbs)

Verbs have either all-high /H/ or rising /LH/ lexical melody. /H/ spreads over the entire verb stem, unless overridden by a grammatical overlay. /LH/ is realized as <LH> on monosyllabic stems, as L.H on bimoraic bisyllabics (*CvCv*) and on *CvCCv* bisyllabics, as L.H.(H…) on trisyllabic or longer stems with initial short-voweled *Cv* or *CvC* syllable, and as <LH>.H.(H…) on bisyllabic or longer stems with initial-syllable long vowel. The generalization is that the break from L to H in /LH/ is before the second vocalic mora, i.e. near the left edge.

3.7.3.2 Break point in {HL} and {LH} overlays

This section considers the tonal break point between H and L when an {HL} or {LH} overlay is applied to a stem or word. The most revealing cases are trisyllabics, e.g. *CvCvCv*, since these stems allow us to determine whether the break point occurs near the left edge or near the right edge. The patterns are summarized in (23); see the indicated sections for the data. Except for one stylistically marked narrative verb-stem iteration, which limits the initial H of {HL} to one syllable, all overlaid {HL} and {LH} overlays have break points after the second syllable in trisyllabic stems. In other words, the location of tone break is defined with respect to the right, not left, edge.

(23) {HL} overlay tonal break point

grammatical context	*CvCvCv* tone
a. {HL} overlay	
break point up to 2 syllables from left	
possessed noun after H-final possessor	*[CvCv]*[Cv]*
possessive-type (n̄ n̂) compound (§5.1.4)	*[CvCv]*[Cv]*
bahuvrihi (n̄ â) compounds (§5.2.1)	*[CvCv]*[Cv]*
imperative of {H}-toned stems (§10.6.1.1)	*[CvCv]*[Cv]*
break point one syllable from left	
first of 2+ iterated verb stems (§11.6.1)	*[Cv]*[CvCv]*
b. {LH} overlay	
break point up to 2 syllables from left	
agentive (x̄ v̂-Ppl) compounds (§5.1.5)	*[CvCv]*[Cv]*

When the relevant stem has only one or two syllables, the break point is positioned in such a way that the final tone element is not obliterated. For the narrative verb-stem iterations, this is an issue only for monosyllabic verbs, which have an <HL> tone on the first iteration, e.g. *Cv̂:-Cv:* .

For the {HL} patterns that have trisyllabic H.H.L realizations, we again get <HL> tone on monosyllabics: *Cv̂:*, *Cv̂C*. Bisyllabics with heavy first syllable and monomoraic final syllable, i.e. *Cv:Cv*, *CvCCv*, and *Cv:CCv*, position the tone break at the internal syllabic boundary (*Cv́:Cv̀*, etc.). Bisyllabics with final bimoraic syllable, e.g. *CvCvC*, *CvCv:*, and

CvCCvC, have the tone break inside the second syllable (*CV́CV̂C*, etc.). Light bisyllabics with two monomoraic syllables, i.e. *CvCv* and *nCv* (with syllabic nasal), are usually pronounced (prepausally) with the H-tone spilling into the second syllable, but not obliterating the terminal L-tone, resulting in a final <HL> tone: *CV́CV̂*, *ńCV̂*. However, if such a light bisyllabic is a compound initial, or is followed by a modifying adjective, it is normally heard as *CV́CV̀*, *ńCV̀*.

For the {LH} overlay (deverbal agentives), monosyllabics have rising tone (*CV̌:*), and all bisyllabics have the break at the internal syllable boundary (*CV̀CV́*). Since the inputs here are verb stems, they are either *Cv:* monosyllabics, or longer stems ending in a short *Cv* syllable, so they do not present the same full range of stem shapes as do nouns.

There are few non-verb stems that have four or more syllables and that are not treated phonologically as compounds. However, there are a few, and they too show the tone break near the right edge: *yǎ-ŋ* ^{HL} *bísíyémì* 'a woman's acacia' (< *bísíyémì*), see §6.2.1.1. Because derivational suffixes can be stacked up in verbs, it is easier to find quadrisyllabic and even longer verbs, and their imperative stems show the same right-edge tone break: *ɛ́wré-ndíyé-mò* 'make (it) small(er)!'.

Examples showing the primary tone-break patterns are in (24). {HL} is illustrated with bahuvrihis. The {LH} examples are agentives. The second stem in each compound is the relevant one.

(24) a. monosyllabic

{HL}	
kû:-wôy	'two-headed' (*wǒy* 'two')
{LH}	
tòndì-tɛ̌:	'basket-weaver'

b. bisyllabic

{HL}	
kû:-dúgî	'big-headed' (*dùgí* 'big')
nǎ:-nímî:	'five-armed' (*nìmǐ:* 'five')
sɛ̀gɛ́-mɛ́:njɛ̀	'thin-skeletoned' (*mɛ̀:njɛ́* 'thin')
{LH}	
nàmà-tùrí	'meat-seller, butcher'

c. trisyllabic

{HL}	
kû:-púrúgì	'with an off-white head' (*púrúgí* 'off-white')
{LH}	
bìdìgà-bìdìgí	'magician'

3.7.3.3 Tone-Polarization (decimal numerals)

pɛ́:rù 'ten' forms compounds with following single-digit numerals to produce '20', '30', … '90' (§4.7.1.3). The 'ten' word appears segmentally in these compounds as *pɛri-* ('20', before a *y*), *pɛr-* ('60' through '90', before velar or coronal {*k g s t*}), and *pɛ-* ('30' through '50', before coronal {*n t*}). There is a close, but not perfect, inverse correlation of the final tone of 'ten' with the initial tone of the following numeral. The correlation is seen in *pèrí-yɛ̌y* '20' (cf. *wǒy* '2'), *pɛ́-tà:ndǐ:* '30', *pɛ̌n-nɔ̌y*^{n} '40', *pɛ̌n-nìmǐ:*^{n} '50', *pèr-kúrê* '60', *pèr-súyê* '70', and

pèr-gá:rè ‘80’, but the final decimal numeral in the series is an exception: *pèr-tè:sǐ:* ‘90’. Because numeral sequences like this are often recited in an incantational fashion, adjacent numerals often share phonological properties, and ‘90’ may simply be following the shape *pèr-* of the three preceding members of the series.

3.7.3.4 Atonal-Morpheme Tone-Spreading

Atonal morphemes (suffixes, clitics, particles, postpositions) acquire their surface tone by spreading from the final tone of the morpheme on the left. The morphemes in question are mostly monosyllabic, but *yaŋa* ‘also, too’ is bisyllabic, and both of its syllables get their tones by spreading from the left. I distinguish spreading into atonal morphemes from the word-level tone overlays controlled by a word or phrase to the left. However, in Nanga the distinction is less sharp than in other Dogon languages, since possessor-controlled overlays (the only case of left-to-right control) are affected by the final tone of the possessor.

Atonal suffixes in verbal morphology are 1Sg *-y*, 2Sg *-w*, and some allomorphs of the 3Pl suffix. (3Sg suffix is zero, and 1Pl and 2Pl suffixes have their own unusual pitch contour.)

For nouns and pronouns, accusative suffix (or enclitic) *-ŋ* is atonal and therefore gets its tone by spreading.

Atonal enclitics are nonsyllabic forms of the ‘it is’ enclitic (*=m-*, *=w-*, etc.). For example, with *nă:* ‘hand’ we get *nă:=ẃ*^{n} ‘it is a hand’, and with *nàmâ* ‘meat’ we get *nàmâ=ẁ*^{n} ‘it is meat’ (§11.2.1.1).

Particles that get their tones by spreading include interrogative *ma*, quotative *wa*, same-subject subordinator *ŋ*, and *nde* ‘if’. Interrogative *ma* in particular is highly subject to intonational modification, so (phonological) tone-spreading is not always clearly discernible on this morpheme.

When tones spread from a stem or word that ends in a vowel with a contour tone, and when the targeted suffix or clitic consists of just a consonant, the resulting *CvC* or *Cv:C* syllable may require a phonetic adjustment regarding the location of the tone break; see Contour-Tone Stretching (§3.7.4.2, below).

Certain H-toned morphemes systematically fail to spread their tone. Perfective-2 *-só-* (including conjugated forms like 1Sg *-só-y*) is followed by L-toned particles *mà→* (interrogative), *wà* (quotative), and *ndè* (‘if’) (§10.2.1.3).

In other cases, failure of tone-spreading occurs in specific combinations only, and is not systematic. Pronouns, determiners, and WH-interrogatives ending in H-tone are followed by L-toned ‘it is’ clitic *=ŋ̀* ~ *=ẁ*, which is elsewhere atonal (§11.2.1.1).

To a limited extent, the process is recursive insofar as an atonal suffix that gets H-tone by spreading can pass this tone to a particle. The only examples known to me involve a nonsyllabic suffix and a following particle. In *yè:-rú-ẃ* ‘you-Sg did not come’, 2Sg *-w* gets its H-tone from the perfective negative suffix /-rí-/, and this tone spreads to a following particle: *yè:-rú-ẃ má→* ‘did you-Sg not come?’, *yè:-rú-ẃ wá* ‘it is said that you-Sg did not come’, *yè:-rú-ẃ ndé* ‘if you did not come’.

In other cases, potential recursion fails. When accusative *-ŋ* becomes H-toned *-ŋ́* by spreading, it does not pass the H-tone on to *yaŋa* ‘also’, so we get e.g. *ǹjí-ŋ́ yàŋà* ‘me too’ (§19.1.3).

One way to model the tonal behavior of perfective-2 *-só-* and accusative *-ŋ* would be to attribute to them an underlying L-tone (perhaps a following floating L) which is realized (if at all) on a following morpheme. However, a purely phonological solution like this is ad hoc and (to me) unconvincing.

Although interrogative *ma* and quotative *wa* individually acquire their tones by spreading when clause-final (prepausal), when they co-occur they appear with H-tones as *má→ wá* or less often *mâ→ wà*, disregarding the tone of the preceding word (§13.2.1). In effect, when *ma* is not clause-final, a latent lexical H- or HL-tone appears, and it then spreads to the quotative morpheme.

Indeed, I know of no case where two separate syllabic atonal morphemes both acquire an H- or L-tone by spreading from the left. However, the significance of this is unclear since, except for interrogative-quotative, it is difficult to construct a context where two syllabic atonal morphemes are juxtaposed.

3.7.4 Low-level tone rules

3.7.4.1 Rising-Tone Mora-Addition

A final <HL> tone may occur on a short *Cv* syllable; there is no lengthening (mora-addition) of this vowel. In addition to *CvCv̂* and *Cv̌:Cv̂* stems (lexical nouns, some imperative verb forms), where the final <HL> tone represents the spread of the preceding H-tone into the onset of the final syllable, there are nouns like *ùsùrî* 'broom' that clearly have an <HL> tone expressed entirely on the final short vowel.

However, a rising tone cannot be expressed on a single mora, i.e. in a *Cv* syllable with short vowel. A few nouns, notably *nŭ:* 'person' and *yă:* 'woman' (Sg *yă-ŋ*) are always pronounced with a long vowel in their bare form with <LH> tone, but shorten to *Cv* in some other contexts. *nŭ:* idiosyncratically becomes *nú* before numerals, as in *nú tà:ndĭ:* 'three people', and with tone-dropping as *nù* in *nù*^{L} *tùmâ* 'one person' ('one' is treated as a modifying adjective) and in *nù*^{L} *kámâ* 'everybody'. In other combinations it retains its vowel length, even when tone-dropped, as before adjectives (*nù:*^{L} *mɔ̀sí* 'a nasty person'). So it is not quite corrcct that vowel length correlates with tone for this noun. *yă:* 'woman' is likewise always long-voweled when unsuffixed and <LH>-toned, for example before a numeral, but when tone-dropped it appears variously as *yà:*^{L} and *yà-* (the latter probably archaic, as in *yà-gùrɔ́* 'young woman').

So 'person' and 'woman' do not convincingly point to underlying /Cv̌/ that lengthens to *Cv̌:* when unsuffixed and when the tones are not altered. However, there are some nonmonosyllabic numerals ending in <LH>-toned long vowels that do seem to systematically shorten when the final tones shift, as in finals of bahuvrihi compounds with {HL} overlay (25), and as relative-clause heads (26).

(25)	stem	gloss	with {HL}-overlay	
	nìmĭ:	'five'	*nă:-nímî*	'five-armed' (bahuvrihi)
	tà:ndĭ:	'three'	*kû:-tá:ndì*	'three-headed' (bahuvrihi)

(26)					
	[nàŋà^{L}	*tà:ndì*^{L}	*ú*	*ɛ̀wɛ̀-sɛ̀*^{L}	*bû:]*
	[cow^{L}	**three**^{L}	2SgSbj	buy-Ppl.Pfv^{L}	Def.AnPl]
	àr^{n}*àŋá*	*b-ɛ̀*			
	where?	be-3PlSbj			

'Where are the three cows that you-Sg bought?'

One could therefore argue for underlying /nìmǐ/ '5' and /tà:ndǐ/ '3', leave the final vowels short when they surface with any tone other than <LH>, and lengthen them when <LH>-toned, by rule (27).

(27) Rising-Tone Mora Addition

In a final monomoraic *Cv* syllable, a rising tone forces addition of one mora (i.e. the vowel is lengthened).

Verb stems never meet the phonological conditions for the shortening.

There are no parallel cases of length alternations involving <HL> tone, so (27) is specifically formulated for rising tone.

3.7.4.2 Contour-Tone Stretching

The final syllable of a word may contain a *Cv* or *Cv:* with a contour tone plus a suffixal or clitic sonorant consonant (atonal or tonal). A contour <HL> or <LH> tone in such a syllable is pronounced with the tone break near the end of the syllable.

For example, in combinations with the 'it is' clitic, the final semivowel bears the second tone component in combinations like *nǎ:=ẃ*^{n} 'it is a hand' and *nàmâ=ẁ*^{n} 'it is meat'. I transcribe the noun stem in such cases with its regular (word-final) tones, but the actual pronunciations are closer to [nà:ẃ^{n}] and [nàmáẁ^{n}]. So a minor rule stretching the tone break to just before the final mora is needed, strictly speaking.

3.7.4.3 Final-Tone Resyllabification

There are no combinations of a *CV̂C* or *CV̌C* stem with a vowel-initial clitic or suffix that would trigger a resyllabification and consequent tonal jump.

3.7.4.4 Rightward H-Spreading

Whether special tone-spreading rules are needed for Nanga depends on a number of analytical decisions. If we take lexical melodies to be ontologically separate from syllables and segments, we will need some rules or constraints to account for the surface tones. If the tones are already associated with segments or syllables in the lexicon, those rules are not needed. Similarly, how we analyse the imposition of possessed-noun tone overlays, and of tone-dropping and other tonosyntactic processes, determines the need for spreading rules and their precise formulation.

Here I will merely comment on one relatively tangible matter. Historically, *CV́CV̀ stems have shifted in Nanga to *CV́CV̂*, and *CV̌:CV̀ to *CV̌:CV̂*, as the H-tone spills over partially from the final (or sole) mora of the first syllable into the onset of the second, resulting in a short <HL>-toned short vowel that is a distinctive characteristic of Nanga. We also get *CV́CV̂* when a *CvCv* stem has an {HL} overlay controlled by a preceding possessor. However, in this case, the output is *CV́CV̀* when the stem is a compound initial or when it is modified by a following adjective (in either case, the following stem is tone-dropped). The alternation between *CV́CV̀* and *CV́CV̂*, and the absence of a lexical contrast between the two, raises the possibility that

CvCv̂ is derived by a synchronic phonological rule from /CvCv̀/, and (by extension) that *Cv̌:Cv̂* is derived from /Cv̌:Cv̀/, by a very limited Rightward H-Spreading process.

When atonal quotative *wa* follows a *Cv̂* syllable, the result is *Cv́ wà*, perhaps via /Cv̂ wà/. Here too the H-tone pushes an L-tone rightward, though only up to the word boundary.

3.7.4.5 Floating-Tone Linking

There are no systematic vowel-deletion rules (syncope, apocope), so there are no contexts where a tone stranded (de-linked) by such a deletion must relink to the left or right.

However, the 1Sg possessor morpheme is a floating L-tone preceding the possessive classifiers ^{HL}*gɔ̂* ~ ^{HL}*kɔ̂* (inanimate) and ^{HL}*yɛ̂* (animate). The resulting forms are *kɔ̌:* and *yɛ̌:*, respectively, i.e. with <LHL> tones (§6.2.1.3, §6.2.2.1). They can be represented with superscripts as $^{L+HL}$*gɔ̂*, etc., where the + sign indicates that the peripheral tone element is confined to the edge.

3.7.4.6 Final-*Cv* <LH>-to-H Reduction

I know of no clear cases where a final rising tone is reduced (e.g. in a monomoraic syllable) to an H-tone. This occurs in some other Dogon languages in nominal morphology, where a noun stem (arguably /Cv̀Cv̌/ lexically) is realized as *Cv̀Cv́-* without suffix and as *Cv̀Cv̀-x́* with a suffix consisting of a (nasal) consonant *x*. The only noun in Nanga that has such a suffix is *yǎ* 'woman', with its archaic singular *yǎ-ŋ* and its unsuffixed plural *yǎ:*, but here (perhaps since the stem is monosyllabic) the unsuffixed form is lengthened, allowing full expression of the rising tone. See Rising-Tone Mora-Addition (§3.7.4.1, above).

3.8 Intonation contours

3.8.1 Phrase and clause-final nonterminal contours (↑, →, →↑, →↓)

In texts, and to a lesser extent in elicited sentential examples, arrows can be used to indicate intonationally significant high (↑) or low (↓) terminal pitch, prolongation of the final syllable (→), or the combination of prolongation with either high (→↑) or low (→↓) terminal pitch. Prolongation and/or high terminal pitch are typical of nonfinal phrases or clauses in parallel with a final phrase or clause, which may have ordinary phrasal intonation or may have unusually low pitch. Intonational prolongation is also common with interrogative particle *ma* and 'or' disjunctive particle *ma*, which are not clearly separable.

3.8.2 Adverbials and particles with lexically specified prolongation (→)

Prolongation of the coda of the final syllable is also lexically baked into certain expressive adverbials (EAs). Examples of monosyllabic sonorant-final EAs are *dém→* 'straight (direction)' and *déy^{n}→* 'apart, separate', where the sonorant itself undergoes prolongation: [démmm], etc.

Prolongation occurs in numerous nonmonosyllabic expressive adverbials and adjectival intensifiers, e.g. *késékéréy→* 'very dry (intensifier)', *pɔ́tɔ̂→* 'flat and small', and *bèndè-bɛ́ndɛ́→* 'brick-shaped'. See §8.4.7.1-5 for more examples.

3.8.3 Dying-quail intonational effect *.∴* (1Pl, 2Pl)

A dying-quail intonational effect, by which the final syllable of a word is prolonged and undergoes a slow pitch decline, has been found in Jamsay (most systematically at the end of each coordinand in a pronominal or NP conjunction). A variation on this occurs in Ben Tey, where it converts singular to plural pronominal categories for first, second, and 3Logophoric persons. The symbol for this is *.∴*, placed at the end of the word.

In Jamsay, only the coda of the final syllable of the word is affected, so if the word ends in a *CvC* syllable with final sonorant, as in *ɲě-m* 'women' as a coordinand, the prolongation and final pitch decline in the conjoined form *ɲě-m.∴* are realized on the *m*, not on the syllabic nucleus *ɛ*. In Jamsay, the initial pitch of the relevant syllable respects the phonological tone, which may be H or L. If H, the pitch decline is conspicuous; if L, the main audible effect is prolongation.

In Nanga, I have occasionally observed a clause-final dying-quail effect in 'whether' clauses, as in (641) and (660e). However, the most systematic dying-quail pattern is in 1Pl and 2Pl subject forms of verbs and other predicates. Ben Tey has a similar 1Pl/2Pl pattern, but Nanga and Ben Tey differ in phonetic details.

Nanga independent pronouns, 1Pl *î:* (cf. 1Sg *ĭ:ⁿ*), 2Pl *û:* (cf. 2Sg *ú*), and 3Logophoric plural *â:* (cf. singular *á*) are (in part) tonal modifications of the singulars. However, in Nanga I did not observe exaggerated prolongation and corresponding slow pitch decline in these independent pronouns, as in the cases I consider to have the dying-quail feature.

In verbal inflections, by contrast, we do get terminal pitch patterns close to the dying-quail examples in the other languages. Consider the data in (28), where the transcriptions in square brackets simulate the phonetic pitch effects, and *.∴* in the phonological transcription indexes dying-quail intonation.

(28) 1Sg 1Pl
2Sg 2Pl

a. *sùyɛ̀-* 'hit' (simple perfective)
sùyɔ̀-ỳ *sùyɔ̀-ỳ.∴* [sùjɔ̀ɔ̀ɔ̀j]
sùyɔ̀-ẁ *sùyɔ̀-ẁ.∴* [sùjɔ̀ɔ̀ɔ̀w]

b. *súyɔ́-jɛ̀-* 'have already hit'
súyɔ́-jɛ̀-y *súyɔ́-jɛ̀-ỳ.∴* [sújɔ́dʒɛ̀ɛ́ɛ̀j]
súyɔ́-jɛ̀-ẃ *súyɔ́-jɛ̀-ẁ.∴* [sújɔ́dʒɛ̀ɛ́ɛ̀w]

c. *súyɔ́-só-* 'hit' (perfective-2)
súyɔ́-só-ý *súyɔ́-só-ý.∴* [sújɔ́sɔ̀ɔ́ɔ̀j]
súyɔ́-só-ẃ *súyɔ́-só-ẃ.∴* [sújɔ́sɔ̀ɔ́ɔ̀w]

In these transcriptions, *.∴* overrides the tone patterns shown in the final syllable (and earlier syllables under some conditions). Therefore we get phonetic LHL pitch not only in (28a-b),

where the singulars show L-toned final syllable, but also in (28c), where the singulars have H-toned final syllable.

Consider now (29). In these paradigms, observe in particular that the 1Pl and 2Pl forms show an H-tone on the penultimate syllable, including the nasal onset in (29a), in contrast to an L-tone in the 1Sg and 2Sg (and the third person forms, not shown). In addition, the stem-final vowel is lengthened in the perfective negative. The final syllable is realized with LHL or L pitch. I hear LHL in the final syllable of 1Pl and 2Pl 'not be' (29a) in careful pronunciation, but I have also heard L. I hear L in the final syllable of 1Pl and 2Pl 'dislike' and the perfective negative (29b-c).

(29) form 1Sg 2Sg 1Pl 2Pl

a. *ŋ̀gó-* 'not be (somewhere)'
ŋ̀gó-ý *ŋ̀gó-y.˸* [ŋ́gòóòj]
ŋ̀gó-ẃ *ŋ̀gó-w.˸* [ŋ́gòóòw]

b. *m̀bùrǎ-* 'dislike' (§11.2.6.3)
m̀bùrà-ý *m̀bùrà-ý.˸* [ḿbúráàj]
m̀bùrà-ẃ *m̀bùrà-ẃ.˸* [ḿbúráàw]

c. *sùyɔ̀-rí-* 'did not hit'
sùyɔ̀-rí-ý [sùjɔ̀rí:] *sùyɔ̀-rí-y.˸* [sùjɔ́:rì:]
sùyɔ̀-rú-ẃ [sùjɔ̀rú:] *sùyɔ̀-rú-w.˸* [sùjɔ́:rù:]

These forms create a transcriptional conundrum. One choice is to transcribe more or less phonetically, e.g. 1Pl *sùyɔ́-rì-y* for 'we did not hit'. The other is to transcribe the 1Pl and 2Pl forms as intonational modifications of the corresponding singulars, e.g. 1Pl *sùyɔ̀-rí-y.˸*, bringing out the morpho-phonological structure but disguising the phonetics. I choose the latter course.

In (29a), the dying-quail intonation actually is quadripartite [H-LHL], with the initial high pitch realized on the penultimate syllable. In (29b-c), dying quail is [H-L] if analysed as being realized on the final two syllables, or [L-H-L] if analysed as being realized on the last three syllables.

In (29c), I can hear no lengthening of 1Pl *-rì-ỳ* [rì:] vis-à-vis 1Sg *-rí-y* [rí:], the latter already being pronounced like a long vowel (as the /iy/ sequence monophthongizes). Likewise for 2Pl versus 2Sg.

The various realizations of dying-quail intonation are summarized in (30). The 2Pl forms, not shown, are parallel prosodically to the 1Pl forms shown. Verb stems used to illustrate the regular inflectional suffixes are *súyɔ́-* 'hit', supplemented by *túwɛ́-* 'die' (perfective-1a), *nŭy*^{n} 'hear' as an irregular imperfective negative, and a stative form of *bàmbí-yí* 'carry on back'. The 1Pl (and 2Pl) imperfective positive do not have the usual bell-shaped tone on the final syllable, but the final vowel is effectively lengthened vis-à-vis the singulars.

(30) Nanga dying-quail intonation with 1Pl *-y.˸*

a. [LHL] pitch, erasing input tone, on final syllable only

on otherwise L-toned final syllable

simple perfective	*sùyɔ̀-ỳ.˸*	[sùjɔ̀ɔ̀j]
perfective-1a	*túwɛ́-ɛ̀rɛ̀-y.˸*	[túwɛ́ɛ̀ɾɛ̀ɛ́ɛ̀j]
perfective-1b	*súyɔ́-tì-y.˸*	[sújɔ́tìíì]
recent perfect	*súyɔ́-jɛ̀-ỳ.˸*	[sújɔ́dʒɛ̀ɛ́ɛ̀j]
reduplicated perfective	*sú-sùyɔ̀-y.˸*	[súsùjɔ̀ɔ̀j]
progressive	*(sù-)súyɔ̀(:)-sò-y.˸*	[(sù)sújɔ̀(ɔ̀)sòóòj]
stative	*bá-bàmbà-ỳ.˸*	[bábàmbàáàj]
imperfective negative	*súyɔ̀-ŋɔ̀-y^{n}.˸*	[sújɔ̀ŋɔ̀ɔ̀j^{n}]
past	*=bɛ̀-y.˸*, *=bɛ̀-y.˸*	[bɛ̀ɛ́ɛ̀j]
'have'	*yá sò-y.˸*	[sòóòj]
'be present'	*yá bì-y.˸*	[yábìíì]
'we are Fulbe'	*pírâ=mi-y^{n}.˸*	[mìíì]

[cf. *pírâ=m-ì* 'I am a Fulbe']

on otherwise H-toned final syllable

perfective-2 *-só-*	*súyɔ́-só-ý.˸*	[sújɔ́sòóòj]
'we are women'	*yǎ:=mí-y^{n}.˸*	[mìíì]

[cf. *yǎ-ŋ=m-í* 'I am a woman']

on otherwise <LH>-toned final syllable

'it is not'	*=ndǒ-y.˸*	[ndòóòj]

b. […H-L] with [H] realized on the penult, both vowels lengthened

on otherwise L-toned penult and final

progressive negative	*súyɔ̀:-sò=ndò-ỳ.˸*	[súyɔ̀:sòóńdòòj]

on otherwise L-toned penult and H-toned final

stative negative	*bàmbà=ndó-ý.˸*	[bàmbàándòòj]
'not have'	*sò=ndó-ý.˸*	[sòóńdòòj]

c. [H-L] with [H] realized on the penult, only the final lengthened

on otherwise L-toned penult and L-toned final

imperfective	*(sù-)súyɔ̀-mì-y.˸*	[(sù)sújɔ́mìì]

on otherwise L-toned penult and H-toned final

irregular imperfective negative

'hear'	*nù-ŋɔ́-y^{n}.˸*	[núŋɔ̀ɔ̀j^{n}]

on otherwise H-toned penult and final

'love'	*m̀bá=m-íy.˸*	[m̀bámìì]
'be small'	*ɛ̀wɾɛ́=mí-y.˸*	[ɛ̀wɾɛ́mìì]

d. [H-L] with H on penult (for monosyllables only at the end of the syllable), penult and (perhaps) ultimate lengthened

on otherwise H-toned final following {L}-toned stem

perfective negative	*sùyɔ̀-rí-y.˸*	[sùjɔ́:ɾì:]
"	*tà:-rí-y.˸*	[tǎ:ɾì:]

e. [H-L] with H through onset of ultimate, ultimate lengthened
on otherwise L-toned then <LH>-toned final

‘dislike’ (irregular)	*m̀bùrà-ý.ː*	[m̀búráàj]

f. [HLHL] pitch, with H on initial and LHL on ultimate

‘not be’	*ŋ̀gó-ý.ː*	[ŋ̀gòójˋ]

4 Nominal, pronominal, and adjectival morphology

4.1 Nouns

4.1.1 Simple nouns

With the exception of 'woman', discussed below (§4.1.2), nouns in Nanga have a single form that is used with both singular and plural reference. Number is therefore expressed not in the noun (or adjective), but in postnominal determiners (definite or demonstrative), which distinguish animate singular, animate plural, inanimate singular, and inanimate plural. 'Dog' and 'tree' illustrate animate and inanimate nouns, with and without definite determiners (31). As usual, superscripted ^{L} at the right edge of a word (or of a bracketed word string) indicates that tone-dropping has occurred, controlled by a word to the right.

(31)	a.	*nèr^{n}î*	'(a) dog; dogs'
		nèr^{n}ì^{L} *nɛ́*	'the dog' (singular)
		nèr^{n}ì^{L} *bû:*	'the dogs'
	b.	*tùmá*	'tree; trees'
		tùmà^{L} *gú*	'the tree'
		tùmà^{L} *ý*	'the trees'

In absolute form (free of modifiers), *Cv:* is an allowable nominal stem shape (32a). Short-voweled *Cv* is found as a free form only in the variant *kɔ́* 'thing' and its suppletive plural *yɛ́* (32b). The singular is more often *kɔ́ŋ*, or an expanded form *kɔ̀*^{L} *kámâ* 'thing, anything'. A handful of nouns have *Cv̀* form certain combinations, likely archaic. *nŭ:* 'person' reduces to a short-voweled form *nú* before a quantifier, but does have a long vowel before a determiner (32c). Kin terms *bă:* 'father' and *dĕ:* 'mother' have short forms in uncle/aunt terms with following 'big' or 'small', as in *bà*^{L} *díyâ* 'big father', i.e. 'father's elder brother' (§6.2.2). *yă:* 'woman' has archaic singular variant *yă-ŋ* (32d), and reduces to *yà-* in two compounds (§5.1.7). *ná* 'time(s)' occurs only before a numeral or other quantifier (32e).

(32)		free	definite	gloss
	a.	*kû:*	*kù:*^{L} *gú*	'head'
		jă:	*jà:*^{L} *gú*	'fence'
		nɔ̌:	*nɔ̀:*^{L} *gú*	'mouth'
		dŏ:	*dò:*^{L} *gú*	'rag cushion'
		nă:	*nà:*^{L} *gú*	'hand'
		ɲă:	*ɲà:*^{L} *gú*	'meal'
		tă:^{n}	*tà:*^{n}^{L} *gú*	'taboo'
		dû:	*dù:*^{L} *gú*	'load'
		ó:	*ò:*^{L} *gú*	'medication'
		ɔ̂:	*ɔ̀:*^{L} *gú*	'place'
		ɛ̌:	*ɛ̀:*^{L} *gú*	'well'

	bǎ:	*bà:*^{L} *nɛ́*	'father'
	dě:	*dè:*^{L} *nɛ́*	'mother'
b.	*kɔ́-ŋ* ~ *kɔ́*	*kɔ̀*^{L} *gú*	'thing' (see §4.1.3)
	yɛ́	*yɛ̀*^{L} *gú*	'things' (see §4.1.3)
c.	*nǔ:*	*nù:*^{L} *nɛ́*	'person' (see §4.1.3)
d.	*yǎ:*, *yǎ-ŋ*	*yà:*^{L} *nɛ́*	'woman' (see §4.1.2)
e.	*nà*	—	'time(s)', followed by a quantifier

Some nouns have *Cv:* free forms but appear in at least some compounds as *Cv-*. For short-voweled *yà-* 'woman' in certain compounds, see §5.1.7. *bǎ:* 'father' and *dě:* 'mother' occur with short vowels in parallel uncle/aunt terms (the finals are the adjectives 'big' and 'small'): *bà*^{L} *díyâ* 'father's elder brother', *bà*^{L} *tègɛ̂* 'father's younger brother', *dè*^{L} *díyâ* 'mother's elder sister', *dè*^{L} *tègɛ̂* 'mother's younger sister'. The terms for two types of hide shoulderbag, *nà-pɛ́:rɛ́* (variant *nà-pɛ́gírɛ́*) and *nà-kɔ̀mbɔ́* are suggestive of a similar relationship to *nǎ:* 'hand', but both are etymologically obscure and the connection with 'hand' is doubtful.

4.1.2 Animate singular *-ŋ* (*yǎ-ŋ* 'woman'), animate plural *-yè*

For 'woman' (and 'wife' when possessed), the basic form is *yǎ:*, which by itself functions as the plural 'women'. *yǎ:* is also the basis for combinations (even with singular reference) with a following word or particle within the NP or with a preceding or following possessor: *yà:*^{L} *tùmâ* 'one woman', *yà:*^{L} *kámâ* 'each woman', *yà:*^{L} *ɛ̀sí* '(a) good woman', *yà:*^{L} *nɛ́* 'the woman', *yà:*^{L} *wǒ-ŋ* 'this woman', *yǎ: nɔ̀* 'his wife', *yǎ: [ú* ^{HL}*yɛ̂]* 'your-Sg wife'. See also the compounds in §5.1.7, below. However, as an unmodified simple noun (e.g. indefinite), the singular is *yǎ-ŋ*, as in *yǎ-ŋ gǒ-ɛ̀rɛ̀-∅* 'a woman went out'. This is the only regular noun stem that preserves animate singular *-ŋ*.

The suffix also occurs in the demonstrative-like *wǎ-ŋ* 'the counterparty' versus plural *wã:* or *wǎ:-yè* (§4.4.1.5), in *ǎ-ŋ* 'who?' versus plural *ǎ:-yè* (§13.2.2), and in somewhat frozen form in demonstrative *wǒ-ŋ* 'this, that (animate)' versus plural *wɛ̃:* or *wǒ:-yè* (§4.4.1.2). In these cases, except 'woman', animate singular *-ŋ* is paired with plural (usually but not always animate) suffix *-yè*. This plural suffix also appears in *gàmbí-yɛ̂* 'some (ones), certain ones' (§6.3.2) and in *ŋ̀gú-yè* 'these/those (inanimate)'.

Nanga *-ŋ* and Ben Tey/Bankan Tey *-m* likely reflect *-n (from earlier *-nu), related to an old Dogon word for 'person', cf. e.g. Jamsay *-n*, Toro Tegu *-r*^{n}*u*.

The shift of animate singular *-n to *-m had already taken place in the proto-language for Nanga, Ben Tey, and Bankan Tey. The further lenition of *-m to *-ŋ* in Nanga (often weakening further to vocalic nasalization, or disappearing entirely) has parallels in verbal morphology. Imperfective *-m- appears in Nanga as *-m-* before vocalic suffixes (e.g. 3Pl *-m-ɛ̀*) but as *-ŋ̀* in the otherwise unsuffixed 3Sg form. Hortatives *-má* or *-mày*^{n} in main clauses correspond to shortened *-ŋ́* (presumably from *-m) in quoted hortatives. In the case of nouns and demonstratives, a further catalyst may have been cluster assimilation followed by morphemic resegmentation in combinations including the 'it is' clitic, which in Nanga has primary allomorphs *=m-* and *=ŋ-* (§11.2.1.1).

Curiously, while *-ŋ* occurs chiefly in animate singular forms, it seems to be optionally present in *kɔ́-ŋ ~ kɔ́* 'thing', see §4.1.3 just below. It is possible that in this case *-ŋ* was added to a subminimal *Cv* noun stem to make it prosodically more respectable.

4.1.3 Other basic nouns ('child', 'person', 'thing')

'Child' is *yî:* (for its compounds, see §5.1.6). Examples with following elements include *yì:*^{L} *èsí* '(a) good child', *yì:*^{L} *nɛ́* 'the child', and *yì:*^{L} *tùmâ* 'one child'. The plural 'children' is *yì-tɛ̀gɛ̂*, a somewhat frozen and semantically specialized combination with *tɛ̀gɛ̂* 'small' (whose more common synonym is *ɛ̀wrɛ́*), cf. also noun *tɛ̀gɛ̂* 'childhood'.

nǔ: 'person' may have singular or plural reference. It shortens to *nù* or *nú* in combinations involving quantifiers internal to the N-Num sequence (this does not include 'all'). I hear tone-dropped *nù*^{L} in *nù*^{L} *kámâ* 'everyone', and H-toned *nú* before nonsingular cardinal numerals, as in *nú tà:ndǐ:* 'three people'. Elsewhere the vowel is long, as in *nǔ: kérɛ́w* 'all the people', and even when tone-dropped as in *nù:*^{L} *wǒ-ŋ* 'this person', *nù:*^{L} *nɛ́* 'the person', and *nù:*^{L} *mɔ̀sí* 'nasty person'.

For 'thing', the singular form without a modifier is *kɔ́-ŋ* or variant *kɔ́*, with optional plural *yɛ́*. The singular is *kɔ́* (or tone-dropped *kɔ̀*^{L}) before a modifier: *kɔ̀*^{L} *gú* 'the thing', *kɔ̀*^{L} *èsí* 'a good thing', and *kɔ́ tà:ndǐ:* 'three things'. The combination *kɔ̀*^{L} *tùmâ* 'one thing' can mean 'anything, each thing' and, under negation, '(not) anything'. The suppletive plural *yɛ́* 'things' optionally replaces *kɔ́* before nonsingular quantifiers, i.e. as an inanimate classifier: *yɛ́ tà:ndǐ:* 'three (things)'. The combination *yɛ̀*^{L} *kámâ* 'any things' is also possible.

kɔ́-ŋ ~ kɔ́ 'thing' is undoubtedly related historically to the inanimate singular pronoun *kú*, and to inanimate singular definite marker *gú ~ kú ~ ḿ*. Its plural *yɛ́* is similarly related to inanimate plural definite *ý*. *kɔ́-ŋ ~ kɔ́* and plural *yɛ́* are also the sources of possessive classifiers used with postposed pronominal possessors (§6.2.1.3).

4.1.4 'So-and-so' (*à-má:nì* and variants)

The 'So-and-so' word, used in generic contexts as a variable representing any personal name, is *à-má:nì* ~ *à-mâ:n* ~ or *má:nì* ~ *mâ:n*. For *à-* see §4.1.7.

4.1.5 Initial *Cv-* and *CvC-* reduplications in nouns

Corresponding to *Ci-* reduplications in Jamsay and Ben Tey, Nanga (like some other languages of the zone) has *Cv-* with a copy of both the source consonant and vowel.

In (33), we see the different tonal patterns for a basic type with *Cv:* or *CvC* base and an initial *Cv-* reduplicant. All known examples are given. The reduplicant is L-toned except in the flagrantly onomatopoeic 'crow' (33b). The base is <HL> or <LHL>. In (33c), the ethnic term Bobo is perhaps an accidental member of this reduplicated class. (The so-called "Bobo" of Mali speak Bwamu, Gur language family, rather than one of the Bobo languages, Mande family, of Burkina Faso.) 'Agama lizard' seems to have mutated to fit the pattern of the other fauna terms. Its cognates are unreduplicated bisyllabics pointing to *kèŋgú or the like.

(33) *Cv*-reduplications

form	gloss
a. $C_1\grave{v}_1$-$C_1\check{v}{:}_1$	
body parts	
bɛ̀-bɛ̌:	'beard'
kò-kŏ:	'back of skull above nape'
fauna	
kà-kǎ:	'grasshopper' (all species)
kɛ̀-kɛ̌:	'beetle, bug' (all species)
kɛ̀-kɛ̌:	'agama lizard' (multiple species)
tà-tǎ:	'hyena' (extends to leopard)
b. $C_1\acute{v}_1$-$C_1\check{v}{:}_1$	
fauna	
gá-gǎ:^{n}	'crow'
c. $C_1\grave{v}_1$-$C_1\hat{v}{:}_1$	
humans	
bɔ̀-bɔ̂:	'Bobo' (ethnicity, Bwamu-speaking)
gɔ̀-gɔ̂:	'griot (with war tomtoms)'
d. $C_1\grave{v}_1$-$C_1\hat{v}_1w$	
fauna	
tɛ̀-tɛ̂w	'large raptor' (multiple species)
e. $C_1\grave{v}_1$-$C_1\check{v}_1w$	
topography	
jà-jǎw	'slope'

Numerous trisyllabic and longer nouns begin with an L-toned *Cv̀-* reduplicant. In most cases no unreduplicated form is attested. Examples are *kɔ̀-kɔ́sɔ̂* 'dried leaves on ground', *kɔ̀-kɔ̀sí* 'viper (*Echis*)', *pà-pàgìrí* 'rocky hill', *kí-kínjí* 'broken pieces of seed spike', *jà-jàŋkó:* 'double grain spike', *gù-gùsí* 'giant pouched rat', *mɔ̀-mɔ̀r*^{n}*ɔ̂* 'scorpion', *nà-nà:r*^{n}*á* 'spider', *kó-kòsô* 'cough (n)' (cf. verb *kósó-*), *gò-góndúgò* 'ants', and a few others.

H-toned reduplicants occur in *tú-tùgúrô* 'bush sp. (*Tephrosia mossiensis*; cf. verb *túgúró* 'retract a curse'), *gó-gómí* 'cliff', *sá-sàŋár*^{n}*â* 'tall herb sp. (*Aeschynomene*)', *jú-júŋgí* 'protrusion (in tree)', and the final of *sàmìr*^{n}*à-[bú-bùrî]* 'grass sp. (*Cenchrus pedicellatus*)', cf. *búrî* 'soft' (initial < *sàmír*^{n}*î* 'soap').

CvC- reduplication is sparsely attested (34). The one in (34a) could also be analysed as full-stem iteration. The examples in (34b) have exact matches or close parallels in Jamsay and other nearby Dogon languages.

(34) *CvC*-reduplications

form	gloss
a. $C_1\grave{v}_1C_2$- $C_1\check{v}_1C_2$	
gɔ̀ŋ-gɔ̌ŋ	'giant millipede'
b. $k\grave{v}_1w^n$-$k\grave{v}_1r^n\hat{v}_1w^n$ (onomatopoeic, for two noisy bird spp.)	
kɛ̀w^n-kɛ̀r^{n}ɛ̂w^n	'lapwing (*Vanellus tectus*)'
kàw^n-kàr^{n}âw^n	'white-bellied bustard (*Eupodotis*)'

4.1.6 Final partial reduplications in nouns

The known examples of nouns with a partial final reduplication, all of them flora-fauna terms, are given in (35). In most cases the reduplicant is a single heavy syllable, but there is one bisyllabic case (35d).

(35) Final reduplication (nouns)

form	gloss
a. …-$C_1\check{v}:_1$	
initial {LH}-toned	
bègírí-bɛ̌:	'stone partridge'
initial {L}-toned	
sùgì bègèrè-bɛ̌:	'sandgrouse'
gògòrò-gɔ̌:	'sickle'
kɔ̀rɔ̀ŋ-kɔ̌:	'louse'
b. … $C_1\hat{v}:_1$	
initial {L}-toned	
bègìrè-bê:	'hiccup (n)', see (391e) in §11.1.5.1
c. … $C_1\hat{v}_1y$	
initial {H}-toned	
pɛ́tɛ́-pɛ̂y	'grasshopper sp. (*Oedaleus*)'
sɛ́ŋɛ́r^{n}ɛ́-sɛ̂y^n	'grasshopper sp. (*Kraussella*)'
pɔ́r^{n}ɔ́-pɔ̂y^n	'trailing vine sp. (*Rhynchosia*)'
kɔ́gɔ́rɔ́-kɔ̂y	'hooded vulture (*Necrosyrtes*)'
d. … $C_1\acute{v}_1$ $C_2\hat{v}$	
yàgàrà-yágî	'bristly bush sp. (*Hibiscus longisepalus*)'
	cf. verb *yàgí-rí-* 'itch'

Alternatively, *-kɔ̌:* in the term for 'louse' (35a) could be taken as derived from *kɔ́:-* 'eat (meal)'. The term for 'stone partridge' is onomatopoeic, so any semantic connection to verbs *bègírí-* 'shake (grain)' and *bɛ̌:-* 'cut off the end of' is incidental.

kà:mbà-kê: ‘scrambling shrub sp. (*Strophanthus*)’ might be added to (35a), but it has no carryover of vowel quality. This term has a cognate in the Pergué variety of Jamsay, where however it denotes another species (*Loeseneriella*, a woody liana).

4.1.7 Nouns with full-stem iteration

Several patterns are at least vaguely onomatopoeic. There is usually no unreduplicated counterpart with related meaning.

In (36), the vocalism is identical in the two iterations. The tone sequence L.L-H.L occurs in several body-part terms (36a). The remaining examples are onomatopoeic or otherwise expressive and have various tone patterns.

(36) Full-stem iteration (nouns)

form	gloss
a. L.L-H.L or L.L-H.<HL> tones	
L.L-H.L with -CV́CCV̀ final	
kùnjò-kúnjò	‘knee’
L.L-H.<HL> with -CV́CV̂ final	
kòrò-kórô	‘bell’
kìsì-kísî	‘edible winged termite; bat (mammal)’
nà:-[tɔ̀ŋɔ̀-tɔ́ŋɔ̂]	‘elbow’ (*nă:* ‘hand, arm’)
dùmò-dúmô	‘heel’
wàrà-wárâ	‘vine sp. (*Cissus quadrangularis*)’
wèrè-wérê	‘swift (bird)’
lì:gì kù:-[gòrò-górô]	‘grey-headed sparrow’ (“bird head-…”)
b. all-H	
sɔ́gɔ́y-sɔ́gɔ́y	‘rattling’
[tógó-tógó]-bàríyɛ̀	‘praying mantis’
c. <HL>-<HL>	
wôw-wôw	‘bow-wow!’
sîw^{n}-sîw^{n}	‘cheep!’ (birds chirping)
kòyô wô:y-wô:y	‘disconsolately weeping’ (*kòyô* ‘weeping’)
d. other	
jùŋgùdú-júŋgúdú	‘call of wild pigeon’
bìrìrí-bìrìrí	‘hawk-moth’ (wings make humming sound)
kòyô ^{L}*bà:gà-bà:gà*	‘sobbing’ (*kòyô* ‘weeping’ as possessor)
ɲàmà-ɲàmá	‘junk, bric-à-brac’

The examples in (37) below involve vocalic changes. In the single-iteration cases (37a-c), i.e. of type X-X′, one or both non-low vowels in the first occurrence are replaced by *a*-vowels in the second. *pú:sù-pâ:s* can be interpreted as apocopated < *pú:sù-pá:sù*. When both vowels, not just the first, are replaced by *a*-vowels (37c), there is also a tonal change. In the double

iteration type (37d), i.e. of type X-X′-X, the first and third occurrences are identical and each has at least one H-tone, while the medial occurrence has *a*-vowels and is all-L-toned.

(37) a. only vowel replaced by *a*

tɛ̀:ɲjɛ̀-[sɛ̀:ⁿ-sá:ⁿ]	'five-lined skink' (*tɛ̀:ɲjɛ̂* 'skink')

b. one of two vowels replaced by *a*

kɛ̀ndɛ̀-[pú:sù-pâ:s]	'lungs' (*kɛ́ndɛ̀* 'liver, heart')
sɛ̀rì-[búndì-bándì]	'cream of millet with tamarind'

c. both vowels replaced by *a*

kóró-kàrá	'in clusters'
sùŋùrⁿù-[gɛ̀rɛ̀-gárá]	'earring' (*súŋúrⁿì* 'ear')

d. triplets (double iterations) with medial *a*-vocalism

L.H-L.L-L.H tone sequence

kòró-kàrà-kòró	'hubbub'

H-L-H tone sequence

cí:ⁿ-cà:ⁿ-cí:ⁿ	'creaking sound'
hó:-hà:-hó:	'loud chatter'
ɔ́:-à:-ɔ́:	'(sound of bullfrog croaking)'

L-L-<LH> tone sequence

dì:ⁿ-dà:ⁿ-dǐ:ⁿ	'shrub sp. (*Euphorbia balsamifera*)'

See also the expressive adverbial *pɛ̀rɛ́-pàrá* 'suddenly encountering', (231a) in §8.4.7.1.

Bimoraic stems like *bà-bá* 'parrot' and *jà-já* 'longhorn beetle sp. (*Crossotus*)' are less transparently iterative (or reduplicative) since neither segment has the minimal shape of a stem. *tɛ̂:-tɛ̂:* 'chestnut-bellied starling', for example, is more transparently iterative (and onomatopoeic).

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

A considerable number of noun stems begin with *à-* or *àn-*, which might originally have been a segmentable affix. For example, the term for 'stick with curved end' is either *bɛ̀rɛ̀*[L] *kɔ́:ndɔ́* (with *bɛ́rɛ́* 'stick' followed by an adjective) or *àkɔ́:ndɔ́* (*à-kɔ́:ndɔ́*). A fuller list of candidates for this segmentation is in (38). Though historically unrelated, the number of such cases is increased accidentally by loanwords of Arabic origin, a few of which are listed in (38c).

(38)

form	gloss	comment
a. with *à-*		
forms with and without a- are attested		
à-kɔ́:ndɔ́	'stick with curved end'	*kɔ́:ndɔ́* 'curved'
à-tá:ndì	'constellation with 3 stars'	*tà:ndǐ:* 'three'
à-pétû	'(a) jump'	*pété-* 'jump'
no form without a- is attested		
àbɛ́lkɔ̀	'game played with knife'	
àdǎŋ	'somewhat deaf person'	

àbà:gìrⁿé	'grass sp.' (*Rottboellia*)
àmíyⁿɛ́	'inflection'
àpûm	'mumps'
àsìmá	'dandy'

b. with *àn-*

àndìrí	'rival'
àndèŋgè kèsí	'baggy pants'
àɲjèrí	'wrestling'
àntá:rí	'hunt (n)' variant *àtá:rí*
àntô:	'stick with hooked end'
àntòŋgó	'grains left after first winnowing'

c. Arabic loans (vowel-initial or with definite *al-), selected examples

àmá:nà	'promise, vow'
ànsá:rá	'white person'

à- is also segmentable in *(à-)má:nì* 'So-and-so' (§4.1.3), where it is optional. It is also possibly recognizable in several WH interrogative forms (§13.2) such as *àmâyⁿ* 'how?', compare *mayⁿ* 'like' (§8.4.1). However, it may be that the initial *à-* in these cases was originally an interrogative morpheme (e.g. 'like what?') that was etymologically unrelated to the other *à-* cases.

4.1.9 Collective *-à:ndì*

The noun *pírâ* 'Fulbe person (Pullo)' has a special collective form *pír-à:ndì* 'Fulbe (people)', which can take plural agreement. It can also be used as a generic 'a Fulbe (in general)', in which case it takes singular agreement (39). No other such form is known.

(39) *pírà:ndì* *dɔ́gɔ̂* *m̀bù-rá-∅*
Fulbe Dogon want-StatNeg-3SgSbj
'A Fulbe person does not like (a) Dogon.' (2004.01.10)
(i.e. 'There is no love lost between Fulbe and Dogon.')

4.1.10 Animacy

Although animacy is rarely marked on nouns themselves, it is important in concord, especially for determiners. "Animates" include humans, domestic animals, and most wild fauna. "Inanimates" include some lower animals, plants, inanimate objects such as rocks, and abstractions.

tɛ́:ɲjɛ̀ 'story, tale' (extended to 'riddle' especially by young speakers) and *nùŋá* 'song' are sometimes treated as animate: *nùŋà*[L] *nɛ́* 'the song', see (372) in §10.6.2.

Animacy is marked systematically in determiners. In the conjugated 'it is' clitic, inanimate *=w* and animate *=ŋ* are not as consistently distinguished, probably because both can be reduced phonetically to vowel length. (The distinction is not made in corresponding negative 'it is not' forms.) For example, 'viper' regularly takes animate determiners, as in

kɔ̀-kɔ̀sì^{L} *wǒ-ŋ* 'this viper'. However, 'it is a viper' can fluctuate between inanimate (?) *kɔ̀-kɔ̀sú=ẃ*, see (728a) in §19.5.1, and animate *kɔ̀-kɔ̀sí=ŋ́*.

4.1.11 *àrⁿá* 'year' (*àrⁿà-ẃⁿ*)

àrⁿá 'year' is tonally distinct from *árⁿâ* 'man', but the two are in danger of confusion when tone-dropped by a modifier. The 'year' noun has a variant *àrⁿà-ẃⁿ* that avoids this potential homophony. I have observed *àrⁿà-ẃⁿ* in singular contexts ('a year') and with universal quantifiers (see end of §8.4.6.1). Simple *àrⁿá* is usual with numerals and modifying adjectives: *àrⁿá tà:ndǐ:* 'three years', *àrⁿà*^{L} *mɔ̀sú* 'a bad year'.

4.2 Derived nominals

4.2.1 Characteristic derivative (*-gí*)

A noun-to-noun derivation, denoting a person characterized by whatever the core noun denotes (such as a physical or mental handicap or a personality trait), is expressed by characteristic suffix *-gí*. The core noun drops its tones before the suffix. The characteristic derivative can also function as an adjective (or compound final), for example with the noun 'person', as in *nù*^{L} *jɔ̀:dɛ̀-gí* 'miserly person'.

(40)

noun	gloss	characteristic	gloss
àmà-sɔ̀gɔ́	'pity'	*àmà-sɔ̀gɔ̀-gí*	'pitiable person'
bò:mbó	'stupidity'	*bò:mbò-gí*	'idiot'
dây	'wealth'	*dày-gí*	'rich person'
ɛ̀:sɛ́	'slyness'	*ɛ̀:sɛ̀-gí*	'sly person'
gìrè-mbí	'blindness'	*gìrè-mbì-gí*	'blind person'
gúmjɛ́	'hump'	*gùmjɛ̀-gí*	'hunchback'
jɔ̀:dɛ́	'stinginess'	*jɔ̀:dɛ̀-gí*	'miser'
lá:lì	'joking (n)'	*là:lì-gí*	'jokester'
múŋárⁿì	'tolerance'	*mùŋùrⁿì-gí*	'tolerant person'
mùrⁿá	'disease'	*mùrⁿà-gí*	'sick person'
tó:rì	'fetish'	*tò:rù-gí*	'fetishist (sorceror)'
ùwá	'fear (n)'	*ùwà-gí*	'coward; fearful one'
wà:rá	'laziness'	*wà:rà-gí*	'lazy person'

4.2.2 Verbal nouns

4.2.2.1 Regular verbal noun (*-ndɛ́*)

The basic verbal noun formation has a suffix *-ndɛ́*. The suffixal vowel is invariant and does not harmonize with stem vowels (41). The stem before *-ndɛ́* gets {H} overlay, audible when the stem otherwise has a rising melody (41b).

(41)

verb	gloss	verbal noun
a. verb with /H/ melody		
kɛ́sɛ́-	'cut'	*kɛ́sɛ́-ndɛ́*
súyɔ́-	'hit'	*súyɔ́-ndɛ́*
b. verb with /LH/ melody		
nɔ̌:-	'drink'	*nɔ́:-ndɛ́*
wǒ:-	'catch'	*wó:-ndɛ́*
gǒ:-	'go out'	*gó:-ndɛ́*
jàrⁿá-	'tap'	*járⁿá-ndɛ́*

4.2.2.2 Other abstractive deverbal nominals

I can cite *tò-tórî* 'beginning' from verb *tɔ́rɔ́-* 'begin', its antonym *dùmá* 'end (n), limit (n)', from verb *dìmɛ́-* 'end, finish', and *kàrⁿá* 'act, action' from *kárⁿí-* 'do'. There are many other pairs of nouns and verbs under the rubric of cognate nominals, and some of the nouns could be considered abstractive (§11.1.5.1).

4.2.3 Instrument nominals (final *î*)

Some uncompounded instrument nominals related to verbs are in (42). The basic form, also seen in the compounds, is with L-toned stem ending in *î*. (42b) may be a case of apocope from *bùwî, with the tones shifted to the surviving syllable. An apparent alternation of *ɔ* with *o* occurs in (42c), but the nominal is historically related to *kó:só-* 'brush away (trash)', whose meaning has shifted (cf. Ben Tey *kó:sí-* 'scrape'). Nanga and other Dogon languages have numerous sound-symbolic alternations like *ɔ/o*, especially in bisyllabic action verbs.

(42)

	verb	gloss	nominal	gloss
a.	*dǐ:sɛ́-*	'file'	*dì:sî*	'file' (tool)
	jǔw-ró-	'turn (sth)'	*jù:rî*	'blacksmith's bellows'
b.	*bùwɔ́-*	'scrub'	*bǔw*	'scrubber'
c.	*kɔ́:sí-*	'scrape'	*kò:sî*	'scraper' (tool)

There are several other nominals of similar form, denoting instruments that have no synchronic relationship to a verb, e.g. *gùsìrî* 'pointed instrument for undoing braids'. There are also several other (non-instrument) nominals of similar shape, functioning as cognate nominals; see (389e) and (390b-c) in §11.1.5.1.

This morphological construction is likely cognate to the productive Ben Tey verbal noun construction with final *-î:* after {L}-toned stem.

4.2.4 Uncompounded agentives

Agentive nominals are normally compounds, with incorporated object or other nominal as compound initial; see §5.1.5.

'Hunter' is *àtá:rí* (variant *àntá:rí*), the same form used as a cognate nominal '(the) hunt' in the phrase *àtá:rí tá:rí-* 'go on (= engage in) a hunt'.

4.2.5 Deadjectival nominals

The only known affixally marked deadjectival noun is (43a). Some adjectives are used without derivational modification as abstractive nouns denoting scalar dimensions (43b). These abstractives occur chiefly in comparatives, where it is sometimes difficult to distinguish deadjectival nouns from 3Sg adjectival predicates; compare (434b) with (442a) in chapter 12.

(43)

adjective	gloss	noun	gloss	comment
a. ordinal				
suffix -ẃ				
kìyá	'first'	*kìyǎ-w*	'(in) the past, previously'	often adverbial
b. measurable dimension				
adjective = noun				
sóŋî	'deep'	*sóŋî*	'depth'	
gùrɔ́	'long'	*gùrɔ́*	'length'	
gâw	'wide'	*gâw*	'width'	
dùgú	'big, fat'	*dùgú*	'size'	
dùsú	'heavy'	*dùsú*	'weight'	
wàgá	'distant'	*wàgá*	'distance'	
suffix -nɔ́				
gàwá	'tall'	*gàw-nɔ́*	'height'	syn. *ígí-rí*

gàw-nɔ́ may co-occur with 3Sg possessor *nɔ̀*, as in *gàw-nɔ́ nɔ̀* 'its/his/her height'.

4.3 Pronouns

4.3.1 Basic personal pronouns

The morphological series are those in (44).

(44)
a. independent, preverbal subject, and (optionally) object
b. accusative (optional)
c. pronominal-subject suffix on verbs
d. possessor, complement of postposition

The independent, pronominal-subject, and accusative forms are given in (45). 3AnSg and 3AnPl are animate categories (including humans and animals), while Inan[imate] applies to

plants and non-living things. Logo[phoric] pronouns are coindexed to the attributed author of quoted speech or thought (§18.2.1).

The preverbal proclitic subject forms ("_-Vb" below). which occur in relative clauses, are identical to the independent forms. A slightly distinct set, all H-toned, is used in a construction with suffix *-ẁ* on the verb ("_-Vb-*ẁ*" below), see §15.2.8.5, and also in reciprocals (§18.3.1-2). In regular main clauses the pronominal subject category is expressed by a suffix on the verb ("Vb-_", rightmost column below). The accusative suffix (or enclitic) *-ŋ* is usually reduced to nasalization of the preceding vowel. It may be entirely inaudible, due either to phonetic erosion or to structural omission. In this case, there is no overt difference between accusative and independent (or preverbal subject) forms, except in the 1Sg which has a dedicated accusative form.

(45) Personal pronouns

	indep.	accus.	subject		
			[_Vb]	[_Vb-*ẁ*]	[Vb-_]
1Sg	*ǐ:*^{n}	*ǹjí-ŋ*	*ǐ:*^{n}	*í:*^{n}	*-ỳ*
1Pl	*î:*	*î:-ŋ*	*î:*	*í:*	*-ỳ.:*
2Sg	*ú*	*ú-ŋ*	*ú*	*ú*	*-ẁ*
2Pl	*û:*	*û:-ŋ*	*û:*	*ú:*	*-ẁ.:*
3AnSg	*ńné*	*ńné-ŋ*	*ńné*	—	*-∅*
3AnPl	*bû:*	*bû:-ŋ*	*bû:*	—	[see below]
InanSg	*kú*	*kú-ŋ*	*kú*	—	*-∅*
InanPl	*kû:*	*kû:-ŋ*	*kû:*	—	=3AnPl
(for *kú* as strong discourse-definite pseudo-possessor, see §4.4.1.3)					
3Logo/ReflSg	*á*	*á-ŋ*	*á*	*á*	*-∅*
3Logo/ReflPl	*â:*	*â:-ŋ*	*â:*	*á:*	=3AnPl

Inanimate plural *kû:* is homophonous with *kû:* 'head', which also has grammatical functions (§8.2.5, §18.1.4.3). My texts have numerous occurrences of 'head' but none of the pronoun *kû:* . Inanimate singular *kú* frequently functions as a strong discourse-definite 'that', resuming a situation or other abstraction already described. For discourse uses of *kú màyⁿ* 'like that', see §4.4.1.7. It can also be used as a (pseudo-)possessor of a NP in a similar strong discourse-definite function, see §4.4.1.3.

For analysis of the subject-pronominal suffixes, including the various 3Pl allomorphs (*-à*, *-yà*, *-ɛ̀*, etc.), see §10.3.

Forms used as possessors and as datives, are in (46). The possessor forms except 3AnSg include a classifier whose basic form is ^{HL}*kɔ̂* ~ ^{HL}*gɔ̂* for inanimate singular and ^{HL}*yɛ̂* for animate singular and all plural categories; see §6.2.1. The infrequently used inanimate true possessor forms are merged with the much more common 3AnSg and 3AnPl forms, but the animate/inanimate distinction is maintained in datives. There is a special 3Sg possessor form *nɔ̀* that does not allow a possessive classifier. In (46), the possessor forms are shown with N representing the preceding possessed noun, which retains its regular tones.

(46) Possessor and dative pronouns

		possessor		dative
		AnSg/AnPl/InanPl	InanSg	
a.	1Sg	N *yɛ̌:*	N *kɔ̌:*	*bàr^{n}í*
	1Pl	N *î:* ^{L}*yɛ̀*	N *î:* ^{L}*gɔ̀*	*î: bày*
b.	2Sg	N *ú* ^{HL}*yɛ̂*	N *ú* ^{HL}*gɔ̂*	*ú báy*
	2Pl	N *û:* ^{L}*yɛ̀*	N *û:* ^{L}*gɔ̀*	*û: bày*
c.	3AnSg	N *nɔ̀*		*ńné báy*
	3AnPl	N *bû:* ^{L}*yɛ̀*	N *bû:* ^{L}*gɔ̀*	*bû: bày*
		(for *bù gɔ̀* in factive complements, see §17.2.1)		
d.	InanSg	[=3AnSg]		*kú báy*
	InanPl	[=3AnPl]		*kû: bày*
e.	3LogoSg/3ReflSg	[see below]		*á báy*
	3LogoPl/3ReflSg	[see below]		*â: bày*

The third person anaphoric (logophoric-reflexive) pronouns have a slightly different morphosyntax as possessors. With kin terms and a few other human relationship terms ('friend'), the anaphoric possessor precedes the possessed noun (N), which therefore takes the relevant possessum overlay, namely {HL} after singular *á* and {L} after plural *â:* . With other animate possessed nouns (e.g. 'slave', 'sheep'), and with inanimates, the morphosyntax is the same as for the other pronouns (other than 3AnSg).

(47)

	kin	AnSg/AnPl/InanPl	InanSg
3LogoSg	*á* N	N *á* ^{HL}*yɛ̂*	N *á* ^{HL}*gɔ̂*
3LogoPl	*â:* N	N *â:* ^{L}*yɛ̀*	N *â:* ^{L}*gɔ̀*

Examples: *á* ^{HL}*dérè* 'his/her-Logo elder sibling(s)', *â:* ^{L}*dèrè* 'their-Logo elder sibling(s)', *pèrgɛ́ [á* ^{HL}*yɛ̂]* 'his/her-Logo sheep', *pèrgɛ́ [â:* ^{L}*yɛ̀]* 'their-Logo sheep', *ńdô [á* ^{HL}*gɔ̂]* 'his/her-Logo house(s)', *ńdô [â:* ^{L}*gɔ̀]* 'their-Logo house(s)'.

4.4 Determiners

4.4.1 Definite morphemes and demonstrative pronouns

4.4.1.1 Definite morphemes

The forms in (48) behave syntactically and tonosyntactically like demonstratives, but are best glossed with definite 'the' in English. They are weak (nonemphatic) discourse-definite markers. In the forms given, they require a preceding noun (or NP). In absolute function (i.e. without a noun), a third-person independent personal pronoun (§4.3.1) must be used. Except for inanimate plural, definite markers and third person pronouns are closely related in form.

(48)	category	regular	tone-dropped (see below)
	animate singular	*nɛ́*	^{L}*nɛ̀*
	animate plural	*bû:*	^{L}*bù(:)*
	inanimate singular	*gú* ~ *kú* ~ *ẃ*	^{L}*gù* ~ ^{L}*kù* ~ ^{L}*ẁ*
	inanimate plural	*ý*	^{L}*ỳ*

These definite morphemes also occur at the end of (restrictive) relative clauses, agreeing with the head NP (§14.1.9).

Definite morphemes, like demonstratives, control tone-dropping on the preceding core NP (except when the determiner is tone-dropped, see below). Therefore N-Def is realized tonosyntactically as N^{L} Def (49a-d), and N-Adj-Def as $[N\ Adj]^{L}$ Def with both noun and adjective tone-dropped (49f). In the latter case, it technically cannot be determined whether the noun is tone-dropped by the adjective at a lower tonosyntactic cycle, as in N^{L} Adj, or whether the noun is just part of the domain targeted by the higher controller (the determiner). The analysis could be hedged by parenthesizing the superscript on the inner noun, as in (49f), though I generally transcribe with just the outer superscript at the right braket. Nouns in (49) are *ár^{n}â* 'man' and *béré* 'stick'.

(49)			
	a.	*àr^{n}à*^{L} *nɛ́*	'the man'
	b.	*àr^{n}à*^{L} *bû:*	'the men'
	c.	*bèrè*^{L} *gú* ~ *bèrè*^{L} *kú* ~ *bèrè*^{L} *ẃ*	'the stick'
	d.	*bèrè*^{L} *ý*	'the sticks'
	e.	*bèrè*^{L} *gùrɔ́*	'(a) long stick'
	f.	*[bèrè*$^{(L)}$ *gùrɔ̀]*^{L} *gú* (~ *kú* ~ *ẃ*)	'the long stick'

The fact that definite morphemes control tone-dropping distinguishes Nanga from Jamsay, Ben Tey, Najamba, and other Dogon languages where demonstratives but not definite morphemes control tone-dropping.

In recordings, this tone-dropping may be the most easily audible cue that *ẃ* or *ý* is present, especially after more-or-less homorganic stem-final vowels.

Definite morphemes also behave like demonstratives in that they themselves can be tone-dropped. The tone-dropped variants occur, for example, in NPs with a pronominal possessor, whether this possessor preceeds or follows the possessed noun (or core NP), as in *ú* ^{HL}*lésî* ^{L}*nɛ̀* 'your-Sg (maternal) uncle'. Nonpronominal (i.e. noun-headed) possessors do not induce this tone-dropping: *[sùmǎylâ* ^{L}*ǹdò kú]* 'Soumaila's house'. See §6.2.1.2 for details.

The inanimate definite forms, singular *kú* ~ *gú* ~ *ẃ* and plural *ý*, interact phonologically with a following locative postposition. The latter has surface segmental variants {*ga gɔ go ŋa ŋɔ ŋo*} after ordinary core NPs (e.g. nouns), and gets its tone by spreading from the final preceding tone. The combination of definite inanimate singular *kú* with the locative is the invariant portmanteau *gá*, after a tone-dropped core NP. This *gá* has the segments of the locative postposition but the tone (and tone-dropping control) of the definite. Historically it is presumably contracted from *kú gá via syncopated *k gá. The combination of definite inanimate plural *ý* with the locative is *ý gò*. See §8.2.3.2 for examples and discussion. The locative postposition is not ordinarily used after animate NPs.

My working hypothesis is that Nanga definite markers have developed out of former Near-Distant demonstratives. This demonstrative category merge into discourse-definiteness in Dogon and other languages of the zone.

4.4.1.2 'This/that' (deictic demonstrative pronouns)

There is no distinction between proximate and distant demonstratives. Instead, there is a single deictic demonstrative category ('this' or 'that'). Demonstratives may be accompanied by a pointing gesture to make spatial distinctions. The forms are in (50).

(50)	animate singular	*wǒ-ŋ*
	animate plural	*wɛ̃ː* ~ *wǒː-yè*
	inanimate singular	*ŋ̀gú*
	inanimate plural	*yěy* ~ *ŋ̀gú-yè*

wǒ-ŋ contains a somewhat frozen animate singular nominal suffix *-ŋ*, preserved elsewhere only in *yǎ-ŋ* 'woman', *ǎ-ŋ* 'who?', and *wǎ-ŋ* 'the counterparty' (§4.1.2 and references there). The equally unproductive variant plural ending *-yè* in *wǒː-yè* and *ŋ̀gú-yè* in (50) is likewise limited to a handful of forms: *ǎː-yè* 'who?-Pl', *wǎː-yè* 'the counterparties', and *gàmbí-yê* 'some, certain ones' (§6.3.2).

A preceding modified noun (or core NP) drops its tones. Examples with *ár^{n}â* 'man' and *bɛ́ré* 'stick'.

(51)	a.	*àr^{n}à*^{L}	*wǒ-ŋ*	'this/that man'
	b.	*àr^{n}à*^{L}	*wɛ̃ː* ~ *wǒː-yè*	'these/those men'
	c.	*bèrè*^{L}	*ŋ̀gú*	'this/that stick'
	d.	*bèrè*^{L}	*yěy* ~ *ŋ̀gú-yè*	'these/those sticks'

Unlike definite morphemes, these deictics may also be used absolutely (i.e. with no overt preceding noun), see §6.1.2.

(52) a. *wǒ-ŋ* *jɔ́rɔ̀-ŋɔ̀-y^{n}*
Dem-AnSg like-IpfvNeg-1SgSbj
'I don't like that one (animate).'

b. *ŋ̀gú* *ǹjí-ŋ* *gɔ̀ɛ̀-∅*
Dem.InanSg 1Sg-Acc jab.Pfv-3SgSbj
'That (object) jabbed (=pricked) me.'

For L-toned variants like *ŋ̀gù*, see §6.1.4.

4.4.1.3 Discourse-definite pseudo-possessor *kú* 'that (same)'

kú is the regular inanimate singular independent pronoun, see (45) above. It is related to inanimate singular postnominal definite marker *gú* ~ *kú* ~ *ḿ*, see (48) above.

As independent pronoun or object, *kú* may denote a specific inanimate entity, like English *it*, as in (569c) in §15.2.6.1 below. Alternatively, it may be used abstractly to resume a previously described state of affairs, like English *that* in *that's why I want to marry you*. For the very common combination *kú mày*^{n} 'like that', see §4.4.1.7.

The strong discourse-definite function is also usual when pronoun *kú* functions syntactically as a preposed pseudo-possessor, like the preposed pronominal true possessors of kin terms (§6.2.2.3). As a "possessor" ending in an H-tone, it controls {HL} overlay on the immediately following noun. The referent may be human, animate, or inanimate. A definite morpheme or other determiner with the appropriate animacy and number features follows the noun. The determiner usually takes L-toned form after other pronominally possessed nouns, at least when the tone overlay on the possessed noun is {HL} rather than {L}, by Determiner Tone-Dropping (§6.5.4). In (53a-f), pseudo-possessor *kú* is glossed DiscDef, since it functions essentially as a nonpossessive strong discourse-definite marker.

(53) a. *kú* ^{HL}*tâ:*^{n} ^{L}*gù*
DiscDef ^{HL}shed ^{L}Def.InanSg
'that (same) shed' (*tǎ:*^{n})

b. *kú* ^{HL}*ńdô* ^{L}*gù*
DiscDef ^{HL}house ^{L}Def.InanSg
'that (same) house' (*ńdô*)

c. *kú* ^{HL}*ńdô* ^{L}*ỳ*
DiscDef ^{HL}house ^{L}Def.InanPl
'those (same) houses' (*ńdô*)

d. *kú* ^{HL}*nû:* ^{L}*nɛ̀*
DiscDef ^{HL}person ^{L}Def.AnSg
'that (same) person' (*nǔ:*)

e. *kú* ^{HL}*yâ:* ^{L}*nɛ̀*
DiscDef ^{HL}woman ^{L}Def.AnSg
'that (same) woman' (*yǎ:*)

f. *kú* ^{HL}*yâ:* ^{L}*bù*
DiscDef ^{HL}woman ^{L}Def.AnPl
'those (same) women' (*yǎ:*)

See also the textual example *kú* ^{HL}*námà* ^{L}*gù* 'that meat' in (752) below.

Any such expression may be simplified by omitting the relevant common noun stem, using (possessed) ^{HL}*kɔ̂* 'thing' (inanimate) or ^{HL}*yɛ̂* 'critter' (animate) as a substitute; these generic morphemes are also used in pronominal-possessor constructions (§6.2.1.3).

(54) a. *kú* ^{HL}*kɔ̂* ^{L}*gù*
DiscDef ^{HL}thing ^{L}Def.InanSg
'that (same) one [inanimate]'

b. *kú* HL*yê* L*nè*
DiscDef HLcritter LDef.AnSg
'that (same) one [animate]'

kú, in spite of its probable origin as a "possessor" of sorts ('its …'), may co-occur with a true possessor NP (nonpronominal or pronominal, and preposed or postposed), as in (55a-c). For analysis see discussion of (156a-d) in §6.5.1.

(55) a. *kú* HL*ńdô* *[ú* HL*gɔ̂]* L*gù*
DiscDef HLhouse [2Sg HLPoss.InanSg] LDef.InanSg
'that (same) house of yours-Sg'

b. *kú* *ú* HL*lésî* L*nè*
DiscDef 2SgPoss HLuncle LDef.AnSg
'that (same) uncle of yours'

c. *kú* *á:mádù* L*ǹdò* L*gù*
DiscDef Amadou Lhouse LDef.InanSg
'that (same) house of Amadou's'

4.4.1.4 Anaphoric/logophoric demonstrative pronoun.

For the all-purpose anaphoric pronouns for third-person antecedents, singular *á* and plural *â:*, see chapter 18. There are no additional Jamsay-style logophoric demonstrative forms.

4.4.1.5 *wǎ-ŋ* 'the counterparty'

Singular *wǎ-ŋ* or its plural *wã:* or *wǎ:-yè* is used in narratives where two comparable animate entities (such as two brothers X and Y) are alternately referred to. If X is the topic in a particular passage, Y may be reintroduced (or otherwise referred to) as *wǎ-ŋ*.

The form *wǎ-ŋ* is interesting since it preserves an archaic animate singular suffix *-ŋ* (§4.1.2) also found in *yǎ-ŋ* 'woman' and in *ǎ-ŋ* 'who?-Sg', and in somewhat fused form in animate singular demonstrative *wǒ-ŋ*.

There is an occurrence of *wǎ-ŋ* in text 2004.02.02. An orphaned goat has been separated from the herd of ewes: "… they were inside. The rain struck *wǎ-ŋ* (the counterparty, here the orphaned goat) over that way, he was shivering miserably." There is an occurrence of plural *wã:* in text 2004.02.03, at a similar shift from one referent (orphan and camels) to another (giraffes), both of whom were already established as protagonists in the narrative. (These texts are not yet ready for publication.)

4.4.1.6 *ɛ́ndɛ̀* (proximate) and *sár^{n}á* (obviative/distal)

These two words can be used to denote persons (other than the speech-event participants) in one's physical or social environment without using their names or other explicit descriptions. The listener is expected to guess or infer the identities. *ɛ́ndɛ̀* functions as the proximate form

('the fellow'), and *sár^{n}á* as the obviative or distal form ('that other fellow'). Close friends and other regular interlocutors can adapt the use of the terms to their own situations.

My assistant claimed that both terms also occur in neighboring Tommo So. McPherson's sentence examples include *ɛ́ndɛ́* (2013: 205) and *sáná* (2013: 209-210) as personal names.

4.4.1.7 'Like this/that' (*kú mày^{n}*, *m̀mǎy^{n}*, *ŋ̀gù mǎy^{n}*)

kú mày^{n} 'like that, thus (discourse-definite)' is common in texts, resuming a situation just described, before introducing a new eventuality. It consists of discourse-definite *kú* (§4.4.1.3) and *may^{n}* 'like' (§8.4.1). See (738), (746), (747), (751), (753), (755), and (756) in the sample text.

In deictic (as opposed to discourse-definite) contexts, there is a form *m̀mǎy^{n}* 'like this' or spatial 'on this side, this way', which occurs several times in the texts. Elicitation brought out an opposition between *m̀mǎy^{n}* and *ŋ̀gù mǎy^{n}* 'like that, in that way, thus' or spatial 'on the other side'. *ŋ̀gù mǎy^{n}* is audibly distinct from the tonally regular PP *ŋ̀gú máy^{n}* 'like this (thing)'.

A good textual example of the spatial use of *m̀mǎy^{n}* as '(on) this side/way' is (56). In the tale, the people need to get past some angry giraffes who are blocking the road. The people magically create a tall boulder betwen themselves and the giraffes. The giraffes come around one side of the boulder to try to catch the people, who go around on the other side and get through. *m̀mǎy^{n}* functions like an adjective or compound final in this example, to judge by tone-dropped *tàŋà*^{L}.

(56) *[[[tàŋà*^{L} *m̀mǎy^{n}]* *ŋá]* *â:* *bà:r-sɛ̀*
[[[side^{L} like.this] Loc] 3ReflPlSbj go.around-Ppl.Pfv
gù-ndɛ̀] *láw-ɛ̀r-à*
and.then.Past] pass-Pfv1a-3PlSbj
'They went around this (other) side and got through (safely).' (2004.02.03)

4.4.2 Demonstrative adverbs

4.4.2.1 Locative adverbs

The simple spatial deictic adverbs, with stationery locative function (unless given ablative or allative function by a motion verb) are in (57). *gá* in *ŋ̀gà-gá* is recognizable as the locative postposition. *ŋ̀gá* 'here' is identical in form to the fusion of *ŋ̀gú* 'this' (inanimate) and the same postposition. *ká* is probably likewise the fusion of *kú* (inanimate pronoun, often discourse-definite) plus the same postposition. See §8.2.3.2 for the fusions.

(57) a. *ŋ̀gá* 'here'

b *ŋ̀gà-gá* 'over there' (pointing)

c. *ká* 'there' (discourse-definite)
yá "

Another set of forms is used in the sense ‘(over) this/that way’ or ‘around here/there’, indicating direction of motion or approximate location. The suffix *-r^{n}ì* is added to the forms in (57). This is followed by *ŋà*, an allomorph of the locative postposition. The prolongation in the *→* variants perhaps reflects compensatory lengthening after the loss of this morpheme.

(58) a. *ŋár^{n}í ŋà* ‘this way, around here’
ŋár^{n}ì→

b. *ŋ̀gà-gá-r^{n}í ŋà* ‘(over) that way, around there’ (pointing)
ŋ̀gà-gá-r^{n}ì→

c. *kár^{n}í ŋà* ‘around there, in that direction (definite)’
kár^{n}ì→
yár^{n}í ŋà
yár^{n}ì→

4.4.2.2 Emphatic and approximinative modifiers of adverbs

An emphatic particle *té→* with prolonged vowel is used to insist on a specific location. A particle *yàŋà* is attested in approximative sense.

(59) a. *ŋ̀gá* *té→*
here Emph
‘right here’

b. *ŋ̀gá* *yàŋà*
here around
‘around here’

4.4.3 Presentatives (‘here’s …!’) (*wùnér^{n}ɛ́*, *wùnɛ́*, *wɛ̀rɛ́*)

There are two basic presentative forms (60).

(60) a. Sg or Pl *wùnér^{n}ɛ́* ‘here it is, here they are’
wùnɛ́

b. Pl only *wɛ̀rɛ́* ‘there they are’

wùnér^{n}ɛ́ and variant *wùnɛ́* are used, for example, when handing something to the addressee, while *wɛ̀rɛ́* is most often used to indicate that something lost or absent has just come into view. However, the distinction does not seem to be sharp.

When they have scope over an NP (‘here’s X!’), they may precede or follow the NP. For *wùnér^{n}ɛ́* and *wɛ̀rɛ́*, pronominal conjugation may be added using *bù-* ‘be’ (61b-c). The presentative particles may also be used preclausally, with scope over the whole clause (61d-e); here the English free translation is awkward, but cf. French (e.g. *les voilà qui dansent!*).

(61) a. *á:mádù* *wùnér^{n}é*
Amadou here.is!
'Here's Amadou!'

b. *yì-tègê* *wɛ̀rɛ́* *b-ɛ̀*
child-Pl there.is! be-3PlSbj
'There are the children!'

e. *wùnér^{n}é* *bù-ỳ.:*
here.is be-1PlSbj
'Here we are!'

d. *wɛ̀rɛ́* *gìyé* *gíyè-m-ɛ̀*
there.are! dance(n) dance-Ipfv-3PlSbj
'There they are, dancing!'

e. *wùnér^{n}é* *gìyé* *gíyé-ŋ̀*
here.is! dance(n) dance-Ipfv.3SgSbj
'Here he/she is, dancing!'

4.5 Adjectives

Within an NP a modifying adjective, like a noun (except 'woman'), lacks morphological marking of intrinsic categories (e.g. human, animate, plural). The adjective follows the head noun. An adjective and a numeral may occur in either order (§6.4.2). Both precede further modifiers such as determiners and 'all'.

For adjectival intensifiers, see §8.4.7.2. For stative adjectival predicates, see §11.4. For inflectable adjectival verbs, see §9.5.

4.5.1 Types of adjectives

The word-class adjective can be defined operationally as a noun-like word that can follow a noun in modifying function, controlling tone-dropping on it, and that can also occur in predicates, specifically including negative predicates with stative negative *=ǹdó-* (§11.4.2). In modifying function, adjectives are indistinguishable from compound finals, specifically the finals in the compound type (ǹ n̄) where the initial is tone-dropped (§5.1.2).

There are two subtypes of adjectives, based on the form of the positive predicate for 3Sg (including inanimate) subject. In the first main type, there is a special unsuffixed 3Sg predicative form. In the second main type, the 'it is' clitic is added to predicative adjectives in 3Sg as well as other forms. This second type effectively treats predicative adjectives like predicative nouns. It also has a wider range of prosodic stem shapes. Basic color adjectives are intermediate between the two types.

In the case of *ìrɛ́* 'ripe' (postnominal in e.g. *yù:*^{L} *ìrɛ́* 'ripe millet'), in predicative function I could elicit only forms of the verb *írɛ́-*, e.g. *írɛ́-ɛ̀rɛ̀-∅* 'it has ripened (=is ripe)'.

Adjectives are clearly distinguishable from expressive adverbials (EAs), even though some EAs have adjective-like senses. EAs do not control tone-dropping on any other word. Unlike nouns and adjectives, they form predicates with *bù-* 'be (somewhere)' or its negation

ŋ̀gó- ‘not be’ (§8.4.7). However, many adjectives can be converted into EAs by adding *-í→*, in which case they take the regular EA predicative forms, §8.4.7.

4.5.1.1 Adjectives with simple 3Sg predicative form

The first type of adjective is illustrated in (62). In addition to a postnominal modifying form, these stems have a simple predicative form for 3Sg subjects (‘X is wide’, etc.). In practice, several of these adjectives are restricted to either inanimate or animate subjects (‘spacious’ to inanimates, ‘plump’ to animates), but those that can apply to both inanimate and animate entities have a single 3Sg predicative form.

If the modifying form of the adjective ends in a non-high vowel (62a) or in a semivowel (62b), the predicative form is identical to the modifying form. The same is true of the one *Ci:* adjective (62c), which is arguably also semivowel-final (/sîy/). If the adjective ends in a high vowel, we get final *i* in postnominal modifying function, and final *u* in predicative function (62d-f).

Of interest is the absence of H.H-toned bisyllabic adjectives (except for color adjectives, discussed below), and the absence of H-toned monosyllabic adjectives. The observed tone melodies are rising /LH/ realized as bisyllabic L.H, falling /HL/ realized as bisyllabic H.<HL> or monosyllabic <HL>, and one case of /LHL/ realized as L.<HL>. The switch between final modifying *i* and predicative *u* does not affect the lexical tone in the bitonal patterns. However, in the one case of tritonal L.<HL>, the final <HL>-toned *î* in modifying function corresponds to H-toned *ú* in the predicative form (62f).

(62) Adjectives

gloss	modifying	predicative 3Sg
a. final non-high vowel, no change from modifying to predicative		
CvCv		
‘distant’	*wàgá*	*wàgá*
‘tall’	*gàwá*	*gàwá*
‘long, tall’	*gùrɔ́*	*gùrɔ́*
‘big, grand; many’	*ɔ̀wɔ́*	*ɔ̀wɔ́*
CvCCv		
‘small, young’	*ɛ̀wrɛ́*	*ɛ̀wrɛ́*
Cv:Cv		
‘easy, cheap’	*nà:r^{n}á*	*nà:r^{n}á*
b. final semivowel, no change from modifying to predicative		
‘spacious’	*gâw*	*gâw*
c. *Ci:* (arguably /Ciy/), no change from modifying to predicative		
‘pointed’	*sî:*	*sî:*
	[cf. verb *síyé-ndíyé-* ‘become pointed’]	

d. final high vowel, H.<HL>, final modifying *i* versus predicative *u*

CvCv		
‘narrow’	*péŋî*	*péŋû*
‘short’	*déŋî*	*déŋû*
‘lightweight’	*ér^{n}î*	*ér^{n}û*
‘cold; slow’	*támî*	*támû*
‘sweet; sharp’	*érî*	*érû*
‘bitter’	*gárî*	*gárû*
‘slightly coarse’	*yágî*	*yágû*
‘hard’	*már^{n}î*	*már^{n}û*
‘slightly bitter’	*ásî*	*ásû*
‘salty, sour’	*párî*	*párû*
‘heavy’	*dúsî*	*dúsû*
‘soft (skin)’	*búrî*	*búrû*
‘hot, fast’	*ɔ́gî*	*ɔ́gû*
‘smooth, sleek’	*órî*	*órû*
‘deep’	*sóŋî*	*sóŋû*
CvCCv		
‘coarse’	*kúnjî*	*kúnjû*

e. final high vowel, L.H, final modifying *i* versus predicative *u*

CvCv		
‘narrow’	*ɛ̀mbí*	*ɛ̀mbú*
‘good’	*ɛ̀sí*	*ɛ̀sú*
‘good-sized’	*àmí*	*àmú*
‘thick (liquid)’	*kùrí*	*kùrú*
CvCCv		
‘narrow’	*ɛ̀mbí*	*ɛ̀mbú*

f. final high vowel, tritonal L.<HL>, final modifying *i* versus predicative *u*

‘difficult, costly’	*nɔ̀mî*	*nɔ̀mú*

With other than 3Sg subject, the positive predicative form (‘I am __’, ‘they are __’, etc.) consists of the form used in modifying function plus the relevant conjugated form of the ‘it is’ clitic *=m-* (§11.2.1.1). The 3Pl is a suppletive form *=yɛ̀*. All of the negative predicative forms (‘I am not __’, ‘they are not __’, ‘it/he/she is not __’) are formed by adding a conjugated stative negative *=ǹdó-* to the form of the stem used in modifying function (§11.4.2). This suggests that the modifying form is lexically basic, and I treat it accordingly in the lexicon.

(63) illustrates the treatment of final vowels for two adjectives ending in high vowels (‘heavy’, ‘lightweight’) and for one adjective ending in a stable non-high vowel (‘long, tall’). ‘Heavy’ furthermore illustrates Rounding Harmony before a nonzero clitic (63c), where the first-syllable *u* seems to have been the catalyst.

(63)

construction	'heavy'	'lightweight'	'long, tall'
a. postnominal modifying			
'a __ person'	*nù: dúsî*	*nù: ɛ́rⁿî*	*nù: gàwá*
b. special 3Sg-subject positive predicative form			
'he is __'	*dúsû*	*ɛ́rⁿû*	*gàwá*
c. cliticized forms based on (a), but subject to assimilatory rounding			
'they are __'	*dúsû = yɛ̀*	*ɛ́rⁿî = yɛ̀*	*gàwá = yɛ́*
'I am __'	*dúsû = m-ì*	*ɛ́rⁿî = m-ì*	*gàwá = m-í*
'he is not __'	*dùsù = ndó-∅*	*ɛ̀rⁿì = ndó-∅*	*gàwà = ndó-∅*

4.5.1.2 Basic color adjectives

The three core color stems in (64) can pattern like the adjectives described in the predecing subsection. In particular, they have a special suffixless 3Sg predicative form. However, this 3Sg form was recorded only for inanimate subject (64a), and even for inanimates it is less common (with color adjectives) than a morphological construction with the relevant form of the 'it is' clitic, viz., inanimate *= w*, animate singular *= ŋ*, or animate plural *= yɛ* (64b). Of interest is the fact that the modifying forms like *bárⁿí* 'red' and the predicative forms with clitics like *bárⁿú = ẃⁿ* 'it is red' are H.H-toned, while the simple 3Sg predicative forms like *bárⁿû* in (64a) are H.<HL>-toned following the pattern of (63b) above.

(64) Basic color adjectives

	gloss	modifying	predicative 3Sg/3Pl inanimate	AnSg	AnPl
a.	'red'	*bárⁿí*	*bárⁿû*	—	—
	'black'	*jɛ́mí*	*jɛ́mû*	—	—
	'white'	*pírí*	*pírû*	—	—
b.	'red'	*bárⁿí*	*bárⁿú = ẃⁿ*	*bárⁿí = ŋ́*	*bárⁿí = yɛ́*
	'black'	*jɛ́mí*	*jɛ́mú = ẃ*	*jɛ́mí = ŋ́*	*jɛ́mí = yɛ́*
	'white'	*pírí*	*pírí = ẃ*	*pírí = ŋ́*	*pírí = yɛ́*

These color adjectives are transitional between the two major types of adjectives, since they alternate between the two defining 3Sg predicative patterns.

4.5.1.3 Adjectives with 'it is' clitic in 3Sg predicative form

The stems in (65), below are common in postnominal modifying function. In predicative function I was only able to elicit the 'it is' clitic, even for 3Sg subject. These stems are therefore more "noun-y" than those in §4.5.1.1, above. The type with 'it is' clitic includes a wider range of stem-shapes than the first type; note the long vowels and the wide range of syllable counts in (65).

There is one consonant-final bisyllabic, *nánáy*^{n} 'respectable' (also 'useful', etc.); it is phonologically possible to add the 3Sg clitics to this stem, as shown (65f), but these combinations sound somewhat awkward, and one can alternatively use the auxiliary *bú-* 'be'.

(65) Adjectives with obligatory 'it is' clitic in 3Sg predicative form

gloss	modifying	predicative 3Sg inanimate	predicative 3Sg animate
a. *Cv:*			
H-toned			
'full'	*bá:*	*bá:=ẃ*	—
<LH>-toned			
'dry'	*mǎ:*	*mǎ:=ẃ*^{n}	—
'old'	*pɛ̌:*	*pɛ̌:=ẃ*	*pɛ̌:=ŋ́*
b. *CvCv*			
H.H-toned			
'deserted, empty'	*kóró*	*kóró=ẃ*	*kóró=ŋ́*
'living, alive'	*úmá*	—	*úmá=ŋ́*
L.H-toned			
'runty'	*kɛ̀tɛ́*	—	*kɛ̀tɛ́=ŋ́*
'half-ripe'	*àmá*	*àmá=ẃ*^{n}	—
'weak, diluted'	*sèré*	*sèré=ẃ*	—
'ripe (fruit)'	*bòró*	*bòró=ẃ*	—
'big; fat'	*dùgí*	*dùgú=ẃ*	*dùgí=ŋ*
'nasty, ugly'	*mɔ̀sí*	*mɔ̀sú=ẃ*	*mɔ̀sí=ŋ*
L.<HL>-toned			
'no good'	*gɔ̀mî*	*gɔ̀mû=ẁ*^{n}	*gɔ̀mî=ŋ̀*
c. *CvCCv*			
H.L-toned			
'new'	*kándà*	*kándà=ẁ*	*kándà=ŋ̀*
L.H-toned			
'coarse'	*kùnjí*	*kùnjú=ẃ*	—
d. *Cv:Cv*			
H.H-toned			
'innocent'	*pɛ́:ré*	—	*pɛ́:ré=ŋ́*
L.H-toned			
'unripe, raw'	*kɛ̀:sí*	*kɛ̀:sú=ẃ*	—
<LH>.<HL>-toned			
'young'	*sɔ̌:rô*	—	*sɔ̌:rô=ŋ̀*
e. *Cv:CCv*			
H.H-toned			
'lean, emaciated'	*kó:mbó*	—	*kó:mbó=ŋ́*
'slender'	*kɛ́:mbɛ́*	*kɛ́:mbɛ́=ẃ*	*kɛ́:mbɛ́=ŋ́*

f. *CvCvC* *H.H-toned* 'respectable'	*nánáy*^{n}	*nánáy*^{n}*=ẃ*	*nánáy*^{n}*=ŋ́*
f. *CvCvCv* *H.H-toned* 'adult'	*sátárá*	—	*sátárá=ŋ̀*

4.5.2 Expressive adverbials with adjective-like sense ('flat')

Some apparent "adjectives" are really expressive adverbials (§8.4.7) morphosyntactically, like *dém→* 'straight' (§8.4.7.3).

The forms in (66) are also expressive adverbials (EAs) syntactically (they take *bú-* in predicative function), but translate as adjectives. Like other EAs they can occur in predicative function with a following *bú-* 'be' or its negation *ŋ̀gó-* 'not be'. Although EAs cannot directly modify nouns in the fashion of true adjectives, a relative clause based on *bú-* can translate the relevant sense, as in *kù:*^{L} *pétê→ bú-mì* 'flat-topped head' (lit. "head that is flat").

(66)

form	gloss
pétê→	'flat and wide'
pɔ́tɔ̂→	'flat and small, but longer than wide (e.g. nose)'
pɔ̀tɔ̀-pɔ́tɔ̂→	'flat, wide, and moderately thick (e.g. tortoise, nose)'
pàtà-pátâ→	'flat and wide (e.g. face, nose)'

The vocalic alternation reflects a minor sound-symbolic system also seen here and there among verbs and other EAs (§3.4.7). The final syllable is prolonged intonationally, as with several other EAs.

4.5.3 Iterative adverbials

A small set of iterative adverbials denoting unusual shapes is presented in (67). The tone sequence is L.L-H.H. The final syllable is prolonged. A single vowel is repeated in all four syllables.

(67)

form	gloss
pɛ̀mbɛ̀-pɛ́mbɛ́→	'shaped like a flattened calabash'
bɛ̀ndɛ̀-bɛ́ndɛ́→	'brick-shaped'
sòrò-sóró→	'elongated, ovoid, barrel-shaped'
kɛ̀bɛ̀-kɛ́bɛ́→	'bar-shaped with flat sides'

A different pattern, with tone sequence L.L-H.L, is observed in (68). This sequence also occurs in several iterative noun stems denoting body parts (§4.1.7).

(68)	form	gloss
	kù:-[gòrò-górò]	'having an oversized head' (*kû:* 'head')
	gòmbò-gómbò	'projecting (rock)'

A form like *jìnjà-jìnjí* 'noisy' (noun or adjective) is to be taken not as a simple iteration, rather as an agentive with incorporated cognate object, cf. *jìnjâ jìnjí-* 'make noise' (cognate nominal followed by verb).

4.6 Participles

In principle, the term participle should denote a noun- or adjective-like form of a verb. Several Dogon languages have clearcut participles replacing ordinary verbs in relative clauses. By "clearcut" is meant that the participles have suffixes agreeing in intrinsic categories (number, human/animate) with the head NP, and take little or no verbal inflection.

Nanga is not a clearcut case, but since nouns do not mark intrinsic categories anyway (except for singular in the noun 'woman'), the fact that relative-clause verbs generally do not agree overtly with head NPs is not surprising. Actually, verbs in negative relative clauses do agree with an animate plural head NP (§14.1.7.3-4). I will refer to relative-clause verbs as verb-participles (or participles for short), but readers should understand that the noun-y quality of these relative-clause verbs is very limited.

See §14.1.7 for full coverage of participial forms.

4.7 Numerals

4.7.1 Cardinal numerals

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

'1' is expressed as an adjective *tùmâ*. The preceding noun drops tones, as before normal modifying adjectives: *pèrgɛ̀*^{L} *tùmâ* 'one sheep' (*pèrgɛ́*), *yà:*^{L} *tùmâ* 'one woman' (*yǎ-ŋ* 'woman', unmarked plural *yǎ:*). *tùmâ* is also used in counting sequences ('1, 2, 3, …').

Adverbial phrase 'one day', introducing a specific but non-discourse-definite day, as in 'one (fine) day I went hunting', is *ùsú tùmâ:*, with (surprising) lexical tone on *ùsú* 'sun, day' and with final long vowel on the numeral. As a measure of duration, 'one day' has the regular noun-adjective form *ùsù*^{L} *tùmâ*, with tone-dropped noun and with 'one' in its normal shape. *ɔ̀:*^{L} *tùmâ* 'a certain place' in (549b) below also introduces a new, but specific discourse referent, and here *tùmâ* does function as an adjective. Similarly *àrⁿà*^{L} *tùmâ* 'a/one man' as a new discourse reference in the extended passage (584) in §15.2.8.4.

tùmâ may be followed by either of two intensifiers. One, *déndè*, behaves like an adjective; it controls tone-dropping on *tùmâ*, as in *[nù tùmà]*^{L} *déndè* 'one single person'. The other is expressive adverbial *lék* (§19.4.2, §8.4.3.2), which does not interact tonally with preceding words: *tùmâ lék* 'a single one'.

For adverbial 'alone, by oneself' expressed by *tùmâ* or variant *tùmáyⁿ*, see §18.1.4.2. See also *tùmá(-yɛ́)* 'nothing but, exclusively' in §19.4.3.

The adjective for ‘other’ is either *bìndé* or *bèndí*. In practice they are used in postnominal modifying function, but not as adjectival predicates: *pèrgè*^{L} *bèndí* ~ *pèrgè*^{L} *bìndé* ‘a/the other sheep.’

4.7.1.2 ‘2’ to ‘10’

The numerals from ‘2’ to ‘10’ are in (69).

(69)	gloss	form	melody	tone sequence
	‘2’	*wǒy* ~ *bú-wǒy*	/LH/	<LH>
	‘3’	*tà:ndǐ:*	"	L.<LH>
	‘4’	*nǒy*^{n}	"	<LH>
	‘5’	*nìmǐ:*	"	L.<LH>
	‘6’	*kúrê*	/HL/	H.<HL>
	‘7’	*súyê*	"	H.<HL>
	‘8’	*gá:rè*	"	H.L
	‘9’	*tè:sǐ:*	/LH/	L.<LH>
	‘10’	*pɛ́:rù*	/HL/	H.L

For *bú-wǒy* versus simple *wǒy*, see §6.4.3.

Numerals can be added to pronouns as well as to nouns. An example is *î: wǒy* ‘we two’, see (449a) in §12.2.2. Numerals may precede or follow modifying adjectives (§6.4.2).

4.7.1.3 Decimal multiples (‘20’, …) and combinations (‘29’, …)

The multiples of ‘10’ are in (70). The initial element is one variant or another of ‘10’, showing tonal and segmental modifications. The final element in ‘20’ through ‘90’ is the relevant single-digit numeral in its usual form.

(70)	gloss	form	tones	tone sequence
	‘10’	*pɛ́:rù*	/HL/	H.L
	‘20’	*pèrí-yěy*	{LH}-/LH/	L.H.<LH>
	‘30’	*pɛ́-tà:ndǐ:*	{H}-/LH/	H-L.<LH>
	‘40’	*pɛ̌n-nǒy*^{n}	{LH}-/LH/	<LH>.<LH>
	‘50’	*pɛ̌n-nìmǐ:*^{n}	"	<LH>.L.<LH>
	‘60’	*pèr-kúrê*	{L}-/HL/	L.H.<HL>
	‘70’	*pèr-súyê*	"	"
	‘80’	*pèr-gá:rè*	"	L.H.L
	‘90’	*pèr-tè:sǐ:*	{L}-/LH/	L.L.<LH>

For the tonal patterns, see Tone-Polarization §3.7.3.3. The forms with final H- or <LH>-tone (‘20-50’, ‘90’) are sometimes heard with final low pitch when phrase-final. However, the terminal H-tone is always audible in careful pronunciation, and when followed by *sǎy* ‘only’ or by an ‘it is’ clitic.

Combinations with a single-digit ('1-9') numeral, like '11' and '59', are expressed as shown in (71). The morpheme *ságâ*, used only with numerals, follows the single-digit numeral; I gloss it as 'plus'. Obviously 'one' in (71a) does not modify 'ten', so there is no tonosyntactic interaction.

(71) a. *pê:r* *[tùmâ* *ságâ]*
ten [one plus]
'eleven'

b. *pé-nìmǐ:ⁿ* *[tè:sǐ:* *ságâ]*
ten-five [nine plus]
'fifty-nine'

c. *ùsú* *[pé-tà:ndǐ:* *tà:ndǐ:* *ságâ]*
day [ten-three three plus]
'thirty-three days'

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

The stems in (72) are nouns.

(72)		gloss	form	
	a.	'hundred'	*tɛ́:mdɛ́rɛ̂*	(< Fulfulde)
	b.	'thousand'	*mùsú*	
	c.	'million'	*mìlyɔ̂:ⁿ*	(< French)

With a following numeral: *tɛ́:mdɛ́rɛ̀ wǒy* 'two hundred', *mùsú tà:ndǐ:* 'three thousand'.

Numerals involving more than one level ('1-99', hundreds, thousands) did not require repetition of the modified noun in elicited examples, which occurred just once, at the beginning, like 'sheep' in (73). Instead, the nonfinal segments showed prosodic prolongation (→).

(73) *[pèrgé* *mùsú* *wǒy→]* *[tɛ́:mdɛ́rɛ̀* *nìmǐ:→]*
[**sheep** thousand two] [hundred five]
[pèrí-yɛ̌y]
[ten-two]
'two thousand, five hundred, (and) twenty sheep'

For *sɛ̀ŋí* '80' or '100' in currency terms, see just below.

4.7.1.5 Currency

The currency unit used in markets is *bú:dù*, equivalent to five CFA francs.

sɛ̀ŋí is an archaic term meaning '100' still used by older people in connection with currency, hence '500 CFA francs' (synonym: *bú:dì tɛ́:mdɛ́rɛ̀*).

dɔ̀gɔ̀-sɛ̀ŋí 'Dogon hundred' means '80 (riyals)', i.e. '400 CFA francs'.

4.7.1.6 Distributive numerals

'One at a time', 'one apiece', and similar distributive phrases are expressed as *tùmá-tùmá*. Other adverbial distributives are likewise formed by iterating the numeral. See (169a-b) for additional examples.

4.7.2 Ordinal adjectives

In addition to the regular ordinals based on numerals (see below), that for 'how many?' (§13.2.7) is *à:ŋgày-nɔ̌:* .

4.7.2.1 'First' and 'last'

The basic forms are in (74).

(74) *kìyá* 'first'
dùmá 'last'

Examples: *ǹdò*^{L} *kìyá* '(the) first house', *ǹdò*^{L} *dùmá* '(the) last house' (cf. *ńdô* 'house').

kìyá is irregularly related to the adverb *kìyǎ-w* 'previously, in the old days, long ago' (43a).

4.7.2.2 Other ordinals (suffix *-nɔ̌:*)

Other ordinals are formed by adding *-nɔ̌:* to the numeral, whose tones are dropped. There are irregular forms for 'second', 'third', and 'fourth'.

(75)

form	gloss
a. single-digit numeral	
irregular	
wònjò-nɔ̌: (or: *wònjǒw*)	'second'
tàndà-nɔ̌:	'third'
nɔ̀r^{n}ɔ̀-nɔ̌:	'fourth'
regular	
nìmì:-nɔ̌:	'fifth'
kùrè-nɔ̌:	'sixth'
sùyɛ̀-nɔ̌:	'seventh'
gà:rɛ̀-nɔ̌:	'eighth'
tè:sì:-nɔ̌:	'ninth'
pɛ̀:r-nɔ̌:	'tenth'
b. decimal	
pɛ̀rì-yɛ̀y-nɔ̌:	'twentieth'
c. decimal plus single-digit numeral	

pê:r tùmà sàgà-nɔ̌: 'eleventh'

d. hundred
tɛ̀:mdɛ̀rɛ̀-nɔ̌: 'hundredth'

e. hundred plus '1-99' numeral (two levels)
tɛ́:mdɛ́rɛ̀ pɛ̀rì-yèy-nɔ̌: 'hundred and twentieth'

In (75c,e), I did not observe tone-dropping on the first part of the complex numeral, indicating that they are outside of the tonomorphologically targeted domain. In (75b), the two components of the numeral are tightly fused and are treated as a frozen unit, so the whole sequence drops tones.

4.7.3 Fractions and portions

pɛ́jɛ́rɛ̀ commonly means '(one) half'. Other (equal) fractions may be described generically as *gɔ́sô* 'portion, division'.

5 Nominal and adjectival compounds

5.1 Nominal compounds

The notation used here indicates tone changes. x is a stem-class variable including n[oun], adj[ective], and num[eral]. x̄ means no change in lexical tone, x́ means shift to {H} overlay, x̀ means shift to {L}, x̌ means shift to {LH}, and x̂ means shift to {HL}.

5.1.1 Compounds of type (n̄ n̄)

Compounds of two nouns (one or both of which may be internally composite) where both the initial and the final have their regular tones are rare. I can, however, cite *káŋ̂ mútúkâl*, literally "gold[metal] bushel," which denotes an ornament, shaped like a grain measuring container, worn on the top of the ear as a pendant to an earring.

5.1.2 Compounds of type (ǹ n̄)

One of the two most common noun-noun compound types has {L}-toned nominal initial (in some cases itself compounded) and a nominal final with its regular tones. This pattern competes most directly with the possessor-type compounds (§5.1.4, below). In general, the more established and lexicalized a noun-noun compound is, the more likely it is to take the tonal form (ǹ n̄) rather than the possessor-type compound pattern.

Examples with initial from *ènjê* 'chicken' are in (76).

(76)	*ènjè-tóndí*	'chicken basket' (i.e. wicker chicken coop)
	ènjè-ńdô	'chicken coop (constructed with bricks or stones)'
	ènjè-bìyê	'chicken's roosting place'
	ènjè-tɛ̀ŋ̂	'chicken's drinking pan'
	ènjè-gùwá	'chicken's foot' (by extension 'cock of musket')
	ènjè-káwsá	'chicken lice' (name of a disease with skin sores)
	ènjè-kɔ̀mɔ́rɔ̂	'chicken finger' (name of a tree [*Piliostigma*])
	ènjè-kɛ́wrɛ́	'chicken eggplant' (name of a bush sp. [*Solanum*])

5.1.3 Compounds with final verbal noun, type (ǹ n̂)

Verbal nouns take direct-object complements in the form of regular NPs (77). I do not consider them to be compounds, but if they are classified as compounds they would belong to the (n̄ n̄) type (§5.1.1).

(77)	*[yû:*	*gírⁿé-ndɛ́]*	*nɔ̀mú*
	[**millet**	harvest-VblN]	be.difficult

'Harvesting millet is difficult.'

An alternative construction is a compound type with {L}-toned initial representing an incorporated object, and {HL} toned verb stem in nominal function (78). The compound initial in this case (unlike the verbal-noun construction) cannot be expanded with a determiner or quantifier.

(78) a. *yù:*^{L}-^{HL}*bárâ*
millet^{L}-^{HL}gather.Nom
'act of gathering millet after the harvest (and taking it to the village)
(cf. verb *bàrá-* 'gather')

b. *yù:*^{L}-^{HL}*[dú:-yɛ̀]*
millet^{L}-^{HL}[carry.on.head-MP.Nom]
'act of carrying millet on the head (from the field to the village)'

c. *ǹjà*^{L}-^{HL}*bɛ́gírɛ̀*
grain^{L}-^{HL}winnow.Nom
'winnowing grain'.

Further examples are *lɛ̀:tɛ̀rɛ̀*^{L}-^{HL}*tɔ́ŋɔ̀* 'letter-writing', *pɛ̀rgɛ̀*^{L}-^{HL}*sɛ́mɛ̂* 'slaughtering sheep', and *nàŋà*^{L}-^{HL}*págâ* 'tying up cow(s)'. Such compounds also occur as locative postpositional complements for the verb *bǎ:rí-* 'help', see (670) in §17.5.1.

5.1.4 Possessive-type compounds (n̄ n̂) ~ (n̄ ǹ)

In this compound type, the initial is treated as a possessor and the final as a possessum. That is, the initial has its regular tones, while the final has either {HL} or {L} overlay, depending on whether the initial ends in H or L tone. When eliciting new compounds, I found that my assistant often fluctuated between this pattern and the (ǹ n̂) type (§5.1.2, above). The more lexicalized compounds in common use are generally (ǹ n̂).

Because there is no sharp distinction between possessor-possessed sequences and possessor-type compounds, I do not hyphenate the latter. Compare the compound (79a) to the clearly possessive construction (79b). The {HL} overlay produces ^{HL}*dúgá-njà*. The fact that the final *dùgà-njâ:* is already a (somewhat frozen) compound of (ǹ n̄) type is not relevant here.

(79) a. *nǎ:* ^{HL}*dúgá-njà*
hand ^{HL}necklace
'hand-necklace' (term for 'thin bead bracelets')

b. *yǎ-ŋ* ^{HL}*dúgá-njà*
woman-Sg ^{HL}necklace
'a woman's necklace'

More examples are in (80). In (80a), the {HL} overlay on the already /HL/-toned *músɔ́:rɔ̀* produces no audible change.

(80) a. *[yùgùsì*^{L} *jɛ́m]* ^{HL}*músɔ́:rɔ̀*
[velvet^{L} black] ^{HL}shawl
'(woman's) head shawl of black velvet' (< *yúgúsí*, *músɔ́:rɔ̀*)

b. *gɔ̃:* ^{L}*òmìr*^{n}*ì*
fire ^{L}parent.in.law
'fire's in-law' (a plant, *Waltheria*) (< *òmìr*^{n}*í*)

c. *bòndí* ^{HL}*lí:gì*
rain ^{HL}bird
'rain-bird' (i.e., 'cuckoo') (< *lí:gí*)

5.1.5 Agentive compounds of type (x̀ v̌)

Most agentive nominals are compounds including an incorporated compound initial, usually a noun denoting a typical direct object of the action, or a cognate nominal of the verb. The initial is L-toned. The agentive form of the verb has {LH} overlay realized as <LH>, L.H, or L.L.H depending on syllable count. The agentive form ends in *i* (always H-toned), except for monosyllabic stems, which have their regular lexical vowel. In (81), the form of the inflectable verb with its typical object is given in parentheses after the free gloss. The monosyllabic finals are (81f-g).

(81) a. *kù:-kùwí*
sorcery-practice.sorcery.Agent
'sorceror' (< *kŭ: kúwó-*)

b. *bìdìgà-bìdìgí*
magic.tricks-do.magic.Agent
'magician' (< *bìdìgâ bìdígí-*)

c. *dàwrì-bìrí*
magical.solution-work.Agent
'magician (generally maleficent)' (< *dǎwrî bìrɛ́-*)

d. *nàmà-tùrí*
meat-sell.Agent
'butcher' (meat-seller) (< *nàmâ túrɔ́-*)

e. *ǹdò-kɛ̀mí*
house-build.Agent
'construction worker, mason' (< *ńdô kɛ́mɛ́-*)

f. *tòndì-tɛ̌:*
basket-weave.Agent
'basket-weaver' (< *tóndí tɛ́:-*)

g. *kɔ̀njɔ̀-nɔ̌:*
millet.beer-drink.Agent
'drinker of millet beer' (< *kɔ̀njɔ́ nɔ̌:-*)

h. *ùrì-àrí*
breast-suckle.Agent
'baby who still suckles (not yet weaned)' (French *nourrisson*) (< *úrî árá*)

The initial may itself be compound, as long as it has no determiner.

(82) a. *[nà:-bìrà]-bìrí*
[hand-work(n)]-work(v).Agent
'manual worker' (< *nà:-bírá bìré-*)

b. *[sàgì-nì:]-nɔ̌:*
[dried.wild.grapes-water]-drink.Agent
'drinker of wild-grape juice' (< *sàgì-nî: nɔ̌:-*)

A different tonal patter is found in *jòrìyè*^{L}*-jórìyè* 'fighter', alongside the regular agentive compound *jòrìyè*^{L}*-jòrìyí* 'fighter', both based on *jóríyè jòríyé-* 'fight a fight'.

5.1.6 Compounds with *yî:* 'child' and *ǹjâ* or *nàr*^{n}*á* 'fruit'

The noun *yî:* 'child' (irregular plural *yì-tɛ̀gɛ̂* 'children') can be possessed, generally in the sense 'son or daughter (of someone)'. In cases like *ámbérì* ^{L}*yì:* 'chief's child', if the possessor is understood to be generic ('a/any chief's child') the construction fits the form and meaning of possessive-type compounds (§5.1.4).

An important compound of the (ǹ ñ) tone pattern (§5.1.2) is *bà:-yî:* 'child of the same agnatic family (e.g. offspring of one's father's brother)'. This compound is itself usually possessed, as in *bà:-yî: yɛ̌:* 'my …'. Also in common use are cousin terms like *tùsà-yî:* 'father's sister's child' (< *tùsá* 'father's sister').

In other compounds with this (ǹ ñ) tone pattern, the initial is not a possessor, rather a noun that defines the category that the child belongs to: *tà:lìbù-yî:* 'child beggar (koranic-school pupil)', *[kɛ̀-kɛ̀r*^{n}*ì]-yî:* 'recently circumcised boy', *lɛ̀kɔ̀l-yî:* 'school child (pupil in public school)'. In these cases the plural is with *-yì-tɛ̀gɛ̂.* Similar compounds are used to denote the young of animals, e.g. *bɛ̀r-yî:* 'goat kid', *ɛ̀njɛ̀-yî:* 'chick'.

For 'girl' and 'boy', see §5.1.7, just below.

With flora terms as initials, *-yî:* as final is a diminutive, denoting young plants (e.g. saplings) rather than fruits or other products. Thus *tùmà-yî:* 'sapling (of tree)', *tò:-yî:* 'sprout' (*tɔ̌:* 'sown seeds'). My assistant accepted plurals with *-yì-tɛ̀gɛ̂.*

For other inanimate referents, I can cite the pairs a) *sɛ̀rí* 'mound of excavated earth (at a burial)' and *sɛ̀rì-yî:* 'small pit dug for corpse inside larger burial pit'; b) *kɔ́-kɔ́rɔ́* 'bobbin (in the shuttle of a weaver's loom)' and *[kɔ̀-kɔ̀rɔ̀]-yî:* 'thin wooden rod on which the bobbin rotates'; and c) *béré* 'stick, wood' and *bɛ̀rɛ̀-yî:* 'small stick, twig'. Again, my assistant accepted plurals with *-yì-tɛ̀gɛ̂.*

yî: 'child' is not used as a compound final in the sense 'fruit (of a specific plant)'. For this sense, the compound final is either *ǹjâ* 'seed' (e.g. for nut-like fruits) or more often *nàr*^{n}*á* 'fruit' (cf. verb *nàr*^{n}*á-* 'give birth, bear').

(83) a. *mɔ̀:r^{n}ɔ̀-ǹjâ*
wild.date-seed
'fruit (date-like) of wild-date tree'

b. *kùrò-nàr^{n}á*
wild.grape-fruit
'fruit of wild-grape tree'

5.1.7 'Man/male' (*àr^{n}á*, *ár^{n}â*), 'woman/female' (*yǎ:*, *yà-*)

The adjectives that are used after terms for animal species, generally denoting actual biological sex, are *àr^{n}á* 'male' and *yǎ:* 'female'. These gender terms are also used to differentiate closely related or similar plant species. For example, both local trees of the family Bignoniaceae can be called *pò-bògórô*, but they can be distinguished as *pò-bògòrò*^{L} *àr^{n}á* (*Kigelia africana*) versus *pò-bògòrò*^{L} *yǎ:* (*Stereospermum kunthianum*). Likewise, the two local *Cleome* spp. can be called *jǎ:^{n}-mìsírî* (lit. "leatherworker-shea.butter"), or distinguished as *jà:^{n}-mìsìrì*^{L} *àr^{n}á* (*C. viscosa*) versus *jà:^{n}-mìsìrì*^{L} *yǎ:* (*C. gynandra)*. In such cases one species is more common or more conspicuous than the other and is the most common referent in the absence of modifiers. The criteria for gender assignment is some combination of size (big = male) and shape (long & thin = male).

yǎ-ŋ 'woman' (plural *yǎ:*) is phonologically regular before numerals and adjectives. It appears as *yǎ:* before numerals (from '2' up) as in *yǎ: wǒy* 'two women', and as tone-dropped *yà:*^{L} before modifying adjectives: *yà:*^{L} *tùmâ* 'one woman' ('1' is an adjective), *yà:*^{L} *èsí* 'pretty woman', *yà:*^{L} *kó:* 'unmarried woman'. *yà-* with short vowel is the initial in certain compounds: *yà-gùrɔ̂* 'young adult woman', *yà-wô:* 'woman who has just given birth', and *yà-nɔ̀r^{n}í* 'co-wife'.

ár^{n}â 'man' (Sg=Pl) is phonologically regular when denoting a human, but note the tone difference versus adjective *àr^{n}á* 'male'. With modifiers: *ár^{n}â wǒy* 'two men', *àr^{n}à*^{L} *dùgí* 'fat man'. Compounds: *àr^{n}à-gùrɔ́* 'adolescent boy', *àr^{n}à-mɔ̌:* 'man's knot', *àr^{n}à-òsìr^{n}é* '(a) swagger'.

Compounds for 'girl' and 'boy' are slightly irregular. 'Girl' is *yǎ-ỳ^{n}*, while 'boy' is *ár^{n}â-y^{n}*. The final in both cases is a reduced variant of *yî:* 'child', see §5.1.6. Plurals: *àr^{n}à-(y^{n}-)tègê* 'boys' and *yà-(ỳ^{n}-)tègê*, with the medial morpheme often omitted.

5.1.8 Compounds with *bàŋá* 'owner'

The regular 'owner of X' construction is a possessive-type compound with final ^{HL}*báŋà* or ^{L}*bàŋà* 'owner(s)', the tones depending on whether the initial ends in H or L tone. Simple examples are *ńdô* ^{L}*bàŋà* 'house owner' and *nàŋá* ^{HL}*báŋà* 'cow owner'. The unpossessed form is *bàŋá* 'owner, master'.

The initial is an NP in form and may be expanded (e.g. with a determiner), as in *[nàŋà*^{L} *wǒ-ŋ]* ^{HL}*báŋà* 'the owner of this cow'.

The construction with *bàŋá* as final may be used to define a person or object on the basis of a conspicuous attribute. An example is *gúmjɛ́* ^{HL}*báŋà* 'person with curved (hunched) back', based on the noun *gúmjɛ́* 'curved back'. Other examples include *kìyá* ^{HL}*báŋà* 'hair-owner' (= 'hairy person'), *yǎr* ^{HL}*báŋà* 'sky-owner' (= 'lightning jolt'), *lèwɛ́* ^{HL}*báŋà* 'owner of

sacrificial altar' (= member of a founding family of the village), *ìsê* ^{L}*bàŋà* 'village-owner' (= aboriginal, old-stock), and *tùrá:bì* ^{L}*bàŋà* 'divination owner' (= 'Muslim fortune teller').

The 'owner' construction competes with the characteristic suffix *-gí* (§4.2.1).

5.1.9 Loose and tight compounds with *dé:* ('authentic', 'entire')

Adjective *dé:* 'authentic, prototypical' is distinct tonally from *dě:* 'mother', but H-toned adjective *dé:* occurs with animal terms in e.g. *nàŋà*^{L} *dé:* 'cow that has calved at least once' (*nàŋá* 'cow'). The senses 'mother' and 'authentic'/'entire' are associated in other Dogon languages. The similarity to *dè-dé:* 'papa!', a resepectful address form, may be accidental; *dè-dé:* is considered by my assistant to be derived from *dèré* 'elder sibling'.

dé: was recorded as an adjective specifying the prototypical member of a multi-member category in connection with the taxon *ɔ́:sɔ̀*, which denotes a group of shrubs with edible fruits of the genus *Grewia* (excluding *G. bicolor*). Each included species can be individually denoted by adding an adjective or compound final (*ɔ̀:sɔ̀*^{L} *kóró-kàrá G. flavescens*, *ɔ̀:sɔ̀*^{L} *jáŋmá G. tenax*, *ɔ̀:sɔ̀*^{L} *ɔ̀gɔ̀-béré G. villosa*). I recorded *ɔ̀:sɔ̀*^{L} *dé:* 'prototypical *Grewia*' for *G. lasiodiscus*. There is, however, some disagreement among informants as to the species-specific epithets.

kùmbì^{L} *dé:* 'prototypical (broad-leaved) fig tree' is a synonym for *kùmbì*^{L} *pírí* "white fig tree," denoting the mountain fig *Ficus abutilifolia*. The other species called *kúmbî* is *F. platyphylla*, which can be specified as *kùmbì*^{L} *bár*^{n}*í* 'red fig tree'.

A non-prototypical variant of a species may alternatively be named after the prototypical species, by adding adjective *sǎ:ndâ*, glossable as 'false' (though 'second-string' as used in baseball is closer to the Nanga sense). My only examples are these: *kùrô* 'wild-grape tree' (*Lannea microcarpa*) and *kùrò*^{L} *sǎ:ndà* (*L. acida*); *wèrè-wérê* 'swift or swallow' (focally a large swift) and *wèrè-wèrè*^{L} *sǎ:ndà* 'small swift or swallow'.

dé: is also used productively in the sense 'entire (plant)', distinguishing this from a fruit or other part that is also denoted by the same name. Thus *màŋgòrò*^{L} *dé:* 'mango tree' (*mǎŋgórò*).

5.1.10 Natural-species iterative compounds with medial linking element

There is a possible case of *X-dóŋ-X* in one bird name, viz., *pón-dóŋ-pòríyê* 'bulbul'.

bàrá-dínjí-bàrá 'mud-dauber wasp (*Delta*)' is an apparent X-Y-X compound, but *-dínjí-* is too heavy to be considered a simple linking element. *bàrá-* means 'gather' (among other things) and here refers to the mud-dauber's incessant collecting of bits of mud to construct its nest on walls. *-dínjí-* is somewhat obscure but is probably related to the medial element in *sɔ̀gɔ̀-dínjí-bárá* 'stump of cut-down millet stem' (with *sɔ́gɔ̂* 'stem'), cf. (with different vowel) *tùmà-[dú-dúnjú]* 'tree stump'.

I did not observe any instances of flora-fauna (or other) nouns of the type X-L-X with an iterated segment X flanking a simple linking element related to Jamsay *-na:-*, Tommo So *-ma:-*, Yanda Dom *-mà-* ~ *-nà-*, and cognates. However, *kɔ́mbɔ́má* ~ *kɔ́mbɔ́mɛ́* ~ *kɔ́mbɔ́mɔ́*, denoting certain annual vines of the genus *Ipomoea* (at least *I. coscinosperma* and *I. dichroa*, and probably others), is recognizably related to the verb *kɔ́mbí-* 'climb'. The final syllable of the noun is possibly related to the Tommo So linking morpheme. Alternatively, it could be related to causative *-mí-*.

The hoopoe bird (*Upupa*) is called *góró-mà-sɔ́gɔ́rɔ́* or *góró-mà-sógóró*. A connection of this *-mà-* with the linker in the widespread *X-mà(:)-X* or *X-nà(:)-X* type of iterative compound is possible but uncertain. The first element is understood by native speakers to mean 'nape' (more accurately, 'back of skull just above nape'), which is expressed by *gòró* in Jamsay, but as *kò-kõ:* in Nanga. The final is understood to mean 'peck, eat by pecking', the idea being that the hoopoe's extravagant nape crest can be used to peck at food. 'Peck' is *sɔ́:-* in Nanga, and *sɔ́gɔ́* pronounced [sɔ́ɣɔ́] in Jamsay. Overall it looks like the Nanga form is an adaptation of some variant of the Jamsay term for hoopoe, *[[ká:-lè]-sɔ́ɣɔ́y]-[[gòró-lè]-sɔ́ɣɔ́y]*, which is slightly irregular for 'peck with mouth, peck with nape'. The medial *-mà-* in the Nanga term may therefore be the Jamsay possessive morpheme *mà*.

5.1.11 Instrumental relative compounds ('oil for rubbing')

In this construction, the noun is head of a relative clause (with imperfective participle) describing the function, e.g. 'water that one drinks'. A nonspecific human subject ('they' or 'one') is understood.

(84) a. *nì:*[L] *nɔ̂:-mì*
water drink-Ppl.Ipfv
'water for drinking'

b. *nì:*[L] *dìyɛ́-mì*
water[L] bathe-Ppl.Ipfv
'water for bathing'

Stems of the scrambling liana *Cynanchum viminale* are used as a treatment for sore necks. The plant is called *kɔ̀rɔ̀*[L] *mámyɛ́-mì*, which contains *kɔ̀rɔ́* 'neck' and an imperfective participle (not otherwise in use) related to *màmí→* 'tilted'.

This instrumental construction is tonally distinct from a construction with the agentive form of a causative verb and an incorporated object noun. The latter is of (x̀ v̌) type, like other agentive compounds. For example, a harmful wood-boring larva is denoted by the compound *tì:njì* [L] *[ǹdò-[kɔ̀yɔ̀-mí]]*, literally "grub[L] [house-[decay-Caus.Agent]]." Here the agentive compound functions as a modifier for 'grub'.

5.1.12 Other phrasal compounds

Clause-like phrasal compounds occur here and there.

A "false" indigo bush, *Indigofera omissa*, is called *gàrá gǎl-lâ* ("indigo put.in-Reversive.Imperative," i.e. "take (the) indigo out (after putting it in)!" It is based on verb *gàr*^{n}*í-* 'put (liquid, grain) in (container)'.

The scolopender (*Scolopendra* sp.), a centipede whose bite is widely believed to be lethal to young women, is called *[yà-gùrɔ́]-kùwò-jî:*, "[young woman]-bite-kill."

A tall erect herb with sharply pointed spines on its fruits, *Rogeria adenophylla*, is called *[gɔ̌:-tì ǹdè] [wú dɛ̌y→ kíyɛ́-ŋ-ɛ̀:]*, slightly irregular (or dialectal) Nanga for "if it has pricked, they don't say 'oh mother!' "

kà-kã: dɛ̌:rê-w ("bigger than a grasshopper") is the name for the smallest bird in the zone, the cricket warbler.

Other phrasal compounds are borrowed, in full or in part, from other languages.

tàgà L *[mó:tì yâ:tà]* denotes a plastic man's shoe with raised top. *tàgá* 'shoe' has as compound-like modifier a Fulfulde phrase *mooti yaata* '(it) doesn't go to Mopti'. Other nearby Dogon languages (Bankan Tey, Najamba, Tommo So) also have terms based on this Fulfulde phrase.

A lightweight woman's plastic shoe is called *jènèbà-[yɛ́rɛ́-yɛ́rɛ́]*, which is said to mean "Djénéba [woman's name] is shaking" in Bambara.

A grass whose whitish seeds are difficult to pick off, *Elionurus elegans*, is called by the Jamsay phrase *[pɔ́: bèrɛ́] [nàŋá yɔ́wɔ́]*, "(if you) can pick (it), receive (i.e. you win) a cow." Similar names occur in some other Dogon languages.

A tenacious weedy grass of cultivation, *Eragrostis tremula*, is called by the Jamsay phrase *àsìmá lɛ̀:-gó*, "Asima (name) does not fear."

A trunkfish (*Marcusenius*) whose flesh contains bones that are dangerous for children is called by the Tommo So phrase *[î: mɔ̀] dǎy óbó*, literally 'kill my child for me!'

5.2 Adjectival compounds

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

Here the initial is a noun that denotes an attribute of the referent. The final is an adjective or cardinal numeral that describes or quantifies the attribute. The compound as a whole may be used as a modifying adjective, or absolutely as a stand-alone noun.

The initial noun keeps its regular tones. The final has {HL} overlay, expressed as <HL>, H.<HL>, H.L, or H.H.L depending on syllable count. If the initial ends in an H-tone, the tonal pattern of the bahuvrihi is the same as for possessive-type compounds. However, in the bahuvrihi, the final has {HL} overlay even if the initial ends in L-tone.

I transcribe bahuvrihis as hyphenated compounds.

5.2.1.1 With adjectival compound final

Examples are in (85). The initial, which often denotes a body part, has its regular tones. The adjectival final has {HL} overlay. For the location of the tone break cf. §3.7.3.2. The regular form of the adjective showing its lexical melody is given in parentheses.

(85)	*bèndé-dúgî*	'big-bellied'	(< *dùgí*)
	kû:-dúgî	'big-headed'	(< *dùgí*)
	kû:-mɛ́:njɛ̀	'small-headed'	(< *mɛ̀:njɛ́*)
	sègɛ́-mɛ́:njɛ̀	'skin-and-bones' (lit. "skeleton-thin")	(< *mɛ̀:njɛ́*)
	gèsí-búrî	'soft-bodied' (= 'soft-skinned')	(< *búrî*)
	kírⁿê-sî:	'pointy-nosed'	(< *sî:*)
	kû:-púrúgì	'with an off-white head'	(< *púrúgí*)
	lì:gì dúrâ-gúrɔ̂	'long-tailed bird (e.g. whydah, starling)'	(< *gùrɔ́*)

One of two terms for (edible) grasshoppers of the genus *Acorypha* is the double bahuvrihi *[téw-dúgù]-[nàwⁿá-érù]*, literally "hind.leg-fat, meat-delicious," probably borrowed with little or no change from dialectal Jamsay, cf. mainstream Jamsay *[tém-dúgù]-[nɔ̀wⁿɔ́-érù]*.

5.2.1.2 With numeral compound final

Examples are in (86), with the regular form of the numeral in parentheses. In the compound, the numeral has the same {HL} overlay as in the adjectival examples given above.

(86)	*kû:-wôy*	'two-headed'	(< *wǒy*)
	kû:-tá:ndì	'three-headed'	(< *tà:ndǐ:*)
	nǎ:-nímî	'five-armed'	(< *nìmǐ:*)
	nǎ:-kúrê	'six-armed'	(< *kúrê*)

5.2.1.3 Alternative bahuvrihi with *-nì* suffix

I also recorded a minor compound construction with bahuvrihi-like sense but with a different form, including a terminal suffix *-nì* following the adjective. The only two examples I have are in (87). Each shows a vowel-length and tonal change vis-à-vis the normal form of the adjective. As the glosses suggest, these belong to a slangy, insult-prone register.

(87)	*dúmbó-kɛ̀mbɛ̌y-nì*	'having skinny buttocks'	(< *kɛ́:mbɛ́* 'slender [person]')
	dúmbó-tàsìrây-nì	'having flat buttocks'	(< *tàsìrí* 'flat and small')

5.2.2 Compounds of *ɔ̌:-* 'very' plus adjective

The initial element *ɔ̌:-* may occur with a following adjective in L-toned form, as one way of emphasizing the extent of the quality. It is used in predicates with the 'it is' clitic (my assistant balked at suggested examples as part of a nonpredicative NP). Examples: *ɔ̌:-dùgù = ∅* 'he/she is very fat', *ɔ̌:-dùgù = m-ù* 'you-Sg are very fat'; *ɔ̌:-bàr^{n}ù = ∅* 'it is very red'.

See also the adjectival intensifiers in §8.4.7.2.

6 Noun Phrase structure

6.1 Organization of NP constituents

6.1.1 Linear order

The basic ordering of elements within NPs is (88).

(88) Order within NP (first approximation)

a. strong discourse-definite demonstrative *kú* 'that (same) …' (§6.5.1)

b. preposed possessor
b_1. possessor NP
b_2. pronominal possessor (inalienable, except 1Sg and 3Sg)

c. **noun**

d. pronominal possessor (inalienable, 1Sg or 3Sg, optionally)

e. modifying adjective(s)

f. cardinal numeral or distributive
(may switch position to precede e or to follow g)

g. pronominal possessor (all categories, especially alienable)

h. determiners
h_1. deictic demonstrative pronoun 'this/that'
h_2. definite morpheme

i. non-numeral quantifiers
universal quantifier 'all' (*kérέw*)
distributive quantifier 'each' (*kámâ*, *kêw*)

Examples are in (89). After the free translation of each example, an indication of which positions in (88) above are filled is given in curly brackets.

(89) a. *kú* *á:mádù* ^{L}*ǹdò*
DiscDef Amadou ^{L}house
'that (same) house of Amadou's' {abc_____}

b. *kú* *ú* ^{HL}*lésî* ^{L}*nè*
DiscDef 2SgPoss ^{HL}uncle ^{L}Def.AnSg
'that (same) uncle of yours-Sg' {abc____h_}

c. *[nèrⁿì* *tà:ndì]*^{L} *bû:*
[dog three]^{L} Def.AnPl
'the three dogs' {__c__f_h_}

d. *[nèrⁿì* *tà:ndì]*^{L} *wɛ̌:*
[dog three]^{L} Dem.AnPl
'these three dogs' {__c__f_h_}

e. *[pèrgɛ̀*^{L} *bû:* *kérɛ́w]* *ńnɛ́-ɛ̀r-à*
[sheep^{L} Def.AnPl all] go-Pfv1a-3PlSbj
'All the sheep went.' {__c____hi}

f. *ńdô* *tà:ndǐ:* *[ú* ^{HL}*yɛ̂]* ^{L}*ỳ* *kérɛ́w*
house three [2Sg ^{HL}Poss.InanPl] ^{L}Def.InanPl all
'all three of your-Sg houses' {__c__fghi}

g. *ǹdò*^{L} *ɔ̀wɔ́* *[ú* ^{HL}*gɔ̂]* ^{L}*gù*
house^{L} big [2Sg ^{HL}Poss.InanSg] ^{L}Def.InanSg
'your-Sg big house' {__cdef___}

h. *ǹdò*^{L} *ɔ̀wɔ́* *gá:rɛ̀* *[ú* ^{HL}*yɛ̂]* ^{L}*ỳ*
house^{L} big eight [2Sg ^{HL}Poss.InanPl] ^{L}Def.InanPl
'your-Sg eight big houses' {__c_egfh_}

i. *lèsí* *nɔ̀* *mɔ̀sí* *kúrê*
uncle 3SgPoss bad six
'his/her six bad (maternal) uncles' {__cdegfh_}

kámâ 'each' is somewhat problematic in terms of ordering. It is usually combined with a simple noun: 'each house' (*ǹdò*^{L} *kámâ*), 'each person' (*nù*^{L} *kámâ*). It does not co-occur with the universal quantifier 'all' for logical reasons.

However, *kámâ* may follow a cardinal numeral that has summative (rather than distributive) sense. Therefore (90a) means 'each of the three has two women' rather than 'each (group of) three has two women'. My assistant had difficulty with elicitation of distributive examples, but in (90b) he eventually settled on a construction with *kɛ̂w*, a less common 'each/every' expression that is syntactically adverbial and whose core sense is 'equally' (cf. Jamsay *cɛ̂w*).

(90) a. *[[àrⁿà* *tà:ndì]*^{L} *kámâ]* *[yǎ:* *wǒy]* *sò-∅*
[[man **three**]^{L} each] [woman two] have-3SgSbj
'Each of the three men has two women.'

b. *[árⁿâ* *tà:ndǐ:]* *kɛ̂w* *[kìlò:*^{L} *tùmâ]* *bérɛ̀-m-ɛ̀*
[man three] equally [kilo^{L} one] get-Ipfv-3PlSbj
'Each/Every (group of) three men gets one kilo.'

kámâ may co-occur with a possessor, though the combination is somewhat awkward. The sense is generally partitive (91). *kɛ̂w* is more freely used in such contexts, see §6.6.2.

(91) *[[yì* *[ù* *yè]]*^{L} *kámâ* *bày]*
[[child [2Sg **Poss.AnSg**]]^{L} **each** Dat]
[bonbon *wǒy-wǒy]* *ńdí-m̀-∅*
[candy two-two] give-Ipfv-1SgSbj
'I will give two candies to each child of yours-Sg' (= 'to each of your children')

It may also follow a determiner (92).

(92) *[yì-tɛ̀gɛ̀* *wè:]*^{L} *kámâ*
[child-Pl **DemAnPl**]^{L} **each**
'each of these children'

Numerals often precede postnominal possessors (93a). However, care should be taken to distinguish this NP construction from a clause with an unquantified possessed NP as subject and with a numeral as predicate (93c).

(93) a. *pɛ̀rgɛ́* *kúrê* *[ú* ^{HL}*yɛ̂]*
sheep six [2Sg ^{HL}Poss.AnSg]
'your six sheep'

b. *pɛ̀rgɛ́* *[ú* ^{HL}*yɛ̂]* *kúrê*
sheep [2Sg ^{HL}Poss.AnSg] six
[=(a)]

c. *[pɛ̀rgɛ́* *[ú* ^{HL}*yɛ̂]]* *kúrê=yɛ̀*
[sheep [2Sg ^{HL}Poss.AnPl]] six=it.is.3PlSbj
'Your sheep are six (in number)'.

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

Deictic demonstrative pronouns (§4.4.1.2), universal quantifiers ('all', §6.8.1), and bipartite pronominal possessors can be used absolutely (i.e. without a noun).

(94) a. *ŋ̀gú* *kɔ̂:-ŋɔ̀-y*^{n}
Dem.InanSg eat.meal-IpfvNeg-1SgSbj
'I won't eat that.'

b. *kérɛ́w* *kɔ́:* *jɛ̀-∅*
all eat.meal RecPrf-3SgSbj
'He/She ate everything.'

c. *[á* ^{HL}*gɔ̂]*
[3ReflSg ^{HL}Poss.InanSg
'his (own) thing', as direct object, from (744) in the sample text

6.1.3 Apparent bifurcation (in relatives)

Possessors (preceding or following the head noun), modifying adjectives, and cardinal numerals remain with the noun to form the internal head NP of a relative. Determiners (demonstrative pronouns, definite morphemes), non-numeral quantifiers ('each', 'all'), and discourse particles like the topic particle follow the verb-participle, and may therefore be separated from the internal head NP by various other constituents. This apparent bifurcation is best analysed as a consequence of an underlying NP structure wherein a relative clause is positioned between numerals and determiners, and where the elements to its left move into the relativization site, see chapter 14.

6.1.4 Internal bracketing and tone-dropping in unpossessed NPs

Within an NP that does not contain a preposed possessor, an {L} overlay (tone-dropping) is imposed on the X, which is either a simple noun or a word-string beginning with a noun, in the constructions shown in (95). NPs that do contain a possessor are covered in §6.2 below.

(95) Tone-Dropping within NP

a. [X^L + adjective] ("adjectives" includes ordinals)
b. [X^L + *káma* 'each, any']
c. [X^L + postnominal determiner]

The tonosyntactic controllers (adjectives, 'each', determiners) are the reference-restricting elements that may follow a noun within the NP. Possessors and relative clauses are also reference-restricting and they too control tones on NPs.

Tone-dropping is indexed by superscript ^{L} on the side (left or right) of the targeted word or bracketed word string that "points" toward the controller. Examples: *ńdô* 'house' drops tones to *ǹdò*^{L} before a modifying adjective in (96a), a demonstrative pronoun in (96b), a definite morpheme in (96c), and distributive quantifier *kámâ* 'each' in (96d).

(96) a. *[ǹdò*^{L} *èsí]* *yá* *sò-y*
[**house**^{L} good] Exist have-1SgSbj
'I have a good house.'

b. *ǹdò*^{L} *ŋ̀gú*
house^L Dem.InanSg
'this house'

c. *ǹdò*^{L} *gú*
house^L Def.InanSg
'the house'

d. *ǹdò*^{L} *kámâ*
house^L each
'each house'

Recursive tone-dropping has arguably applied in (97), which has two adjectives.

(97) *[[ńdò*$^{(L)}$ *bàr*^{n}*ì]*^{L} *èsí]* *yá* *sò-y*
[[**house**$^{(L)}$ **red**]^{L} good] Exist have-1SgSbj
'I have a good red house.' (*ńdô*, *bár*^{n}*í*)

In a cyclical model, 'red' controls tone-dropping on 'house', and is then itself tone-dropped by the following adjective following 'good'.

Recursion is also a possibility in (98), where *kámâ* 'each' controls tone-dropping on the demonstrative pronoun *wĕ:* 'these', which has already induced tone-dropping on 'children'. Again, the alternative analysis is that *kámâ* controls one-step tone-dropping on the two preceding words.

(98) *[yì-tègè*$^{(L)}$ *wè:]*^{L} *kámâ*
[**child-Pl**$^{(L)}$ **DemAnPl**]^{L} each
'each of these children' (*yì-tègê*, *wĕ:*)

But it is more likely that the final adjective 'good' in (97), and 'each' in (98), simultaneously tone-drop both preceding words in a single step. There is clear evidence for multi-word tonosyntactic targets of a single controller in examples like (101a-c) and (102) below. I will therefore generally not include the parenthesized $^{(L)}$ superscript in transcriptions.

Tone-dropping does not apply to X in the combinations in (99) within an NP. Numerals and quantifiers are not reference-restricting; they may maximize reference ('all') and in any event they do not divide a set into subsets of excluded and potentially included specific individuals. Postnominal pronominal possessors may restrict reference, but most of them originated as appositions ('house my-thing' = 'my house'), and in Nanga they still have an apposition-like feel. Discourse-functional morphemes do not alter reference.

(99) No Tone-Dropping

a. [X + cardinal numeral]
b. [X + universal quantifier *kéréw* 'all']
c. [X + adverbial quantifier *kêw* 'each, all']
d. [X + postnominal pronominal possessor]
e. [X + discourse-function morpheme (topic, 'also', 'even', 'only', etc.)]

Examples are in (100). In (100b-c) 'house' is tone-dropped by the demonstrative, and the following quantifiers have no tonal effect.

(100) a. *ńdô* *tà:ndĭ:*
house three
'three houses'

b. *ńdò*^{L} *yĕy* *kéréw*
house^{L} Dem.InanPl all
'all of these/those houses'

c. *ńdò*^{L} *yĕy* *kêw*
house^{L} Dem.InanPl each
'each of these/those houses'

d. *ńdô* *kɔ̃:*
house 1SgPoss.InanSg
'my house'

This raises the question of what happens when a sequence of tonally independent words like those in (100) is itself followed by a tone-dropping controller, such as a determiner. *kérέw* 'all' cannot be followed by anything within the NP, but numerals and possessors can be.

In the absence of a possessor, when N-Num is followed by a determiner, both the noun and the numeral are tone-dropped. This is shown by bracketing the two words and placing the ^{L} superscript on the right bracket. The determiner has its normal pronunciation including an H-tone (101a-c).

(101) a. *[ǹdò* *tà:ndì]*^{L} *yěy*
[**house** **three**]^{L} Dem.InanPl
'these three houses' (*ńdô*)

b. *[yà:* *wòy]*^{L} *bû:*
[**woman** **two**]^{L} Def.AnPl
'the two women' (*yǎ:*, *wǒy*)

c. *[yà:* *wòy]*^{L} *wɛ̃:*
[**woman** **two**]^{L} Dem.AnPl
'these two women'

Distributive quantifier *kámâ* 'each' can also control simultaneous tone-dropping on a noun and a numeral (102).

(102) *[[nù* *tà:ndì]*^{L} *kámâ]* *[kìlò:*^{L} *tùmâ-tùmâ]*
[[**person** **three**]^{L} each] [kilo^{L} one-one]
'one kilo for each three persons'

Given the clear evidence that a controller can target a multi-word domain, I reject the cyclical model suggested above for (97) and (98).

We will see below that things change when a possessor is added to the mix in (101a-c); in this case, the determiner is itself tone-dropped (with some exceptions) and then has no tonal effect on the preceding words; see §6.5.2.

6.2 Possessives

Nonpronominal possessors always precede the possessed noun (and the latter's modifiers). Pronominal possessors also precede the possessed noun in the case of inalienable possession ('your uncle'), except for 1Sg and 3Sg, which always follow. With alienables (everything except kinship and similar relationships), all pronominal possessors follow the noun and its inner modifiers.

Preposed (but not postposed) possessors control a tone overlay on the noun and (usually) the modifiers. The overlay is {HL} if the possessor ends in an H-tone, {L} if it ends in an L-tone. Superscripts ^{HL} and ^{L} indexing the prior application of these overlays are placed on the left edge of the targeted word or word-string, "pointing" to the preposed possessor.

Inalienable possessives are quirky when modifiers are included and the possessor is pronominal ('your nasty uncle', 'your six nasty uncles'). The domain of the possessor-controlled overlay can be narrowed to just the noun, and the postposed 1Sg and 3Sg possessors may shift to immediate postnominal position.

When there is both a preposed possessor and a postnominal reference restrictor, a tonosyntactic conflict occurs. This is the case with Poss-N-Adj and Poss-N-Det combinations. In many cases, the preposed possessor trumps the right-to-left controller. This happens not only with Poss-N-Adj, but also (usually) with Poss-N-…-Det. This priority is most easily observable when the possessor-controlled overlay is {HL}, since the only overlay controlled by right-to-left controllers is {L}, i.e. tone-dropping. The unsuccessful right-to-left controller drops its own tones, with some exceptions. This happens to determiners even when the possessor is postposed to the noun; see §6.5.4.

However, a preposed or postposed pronominal possessor in inalienables is sometimes itself absorbed into the domain of a right-to-left controller. In this case, the right-to-left controller keeps its tones, and the possessor (along with the noun and its modifiers) is tone-dropped. The prosodic lightness of such Poss-N combinations (often two or three total syllables) may be a factor in this respect.

A Poss-N-Adj sequence appears as [Poss $^{(H)L}$[N Adj]]. The choice between {HL} and {L} overlay depends on the final tone of the possessor. The adjective is {L}-toned in either case, confirming that the possessor is the dominant tonosyntactic controller in this combination.

(103) a. *ú* ^{HL}*[lésî* *mɔ̀sì]*
2SgPoss ^{HL}[uncle **bad**]
'your-Sg bad uncle' (*mɔ̀sí*)

b. *û:* ^{L}*[lèsì* *kàndà]*
2PlPoss ^{L}[uncle **new**]
'your-Pl new uncle' (*kándà*)

When a pronominal possessor follows the possessed noun, it comes at the end of the core NP (following any adjectives), and there is no tonal interaction between the possessor (with its possessive classifier) and the core NP. In (104a-b), the N-Adj combination has the same form it would have without the possessor.

(104) a. *lèsì*^{L} *mɔ̀sí* *yɛ̌:*
uncle^{L} bad 1SgPoss.AnSg
'my bad uncle'

b. *[ǹdò*^{L} *ɔ̀wɔ́]* *[ú* ^{HL}*gɔ̂]*
[house^{L} big] [2Sg ^{HL}Poss.InanSg]
'your-Sg big house'

6.2.1 Alienable possession

For special features of kin terms (with pronominal possessor), see §6.2.2 (inalienable possession). In this section I cover the productive possessed NP construction applicable to the great majority of possessed nouns.

6.2.1.1 Nonpronominal NP as preposed possessor

As shown in §6.2.2.1 below, there is no difference between alienable and inalienable possessives when the possessor is a nonpronominal NP and the possessum is a simple noun. Nonpronominal possessors always precede the possessed NP.

The possessed noun has either of two possessor-controlled overlays. If the possessor ends in an L-tone (including falling <HL> and bell-shaped <LHL>), the possessor-controlled contour is {L}. This word-level tone-dropping is indicated by ^{L} superscript at the left edge of the target domain (105).

There is no overt genitive linker between the possessor and the possessed noun. See (684) in §17.6.3 for a textual occurrence of an apparent linker *mɔ̀* that may be cognate to genitive linkers in a few other Dogon languages.

(105) a. *sùmǎylâ* ^{L}*ǹdò*
Soumaila ^{L}house
'Soumaila's house' (< *ńdô*)

b. *sùmǎylâ* ^{L}*pèrgè*
Soumaila ^{L}sheep
'Soumaila's sheep-Sg' (< *pèrgɛ́*)

c. *[bǎ:* *yɛ̃:]* ^{L}*sòm*
[father 1SgPoss.AnSg] ^{L}horse
'my father's horse' (< *sǒm*)

If the possessor ends in an H-tone, the possessor-controlled overlay is {HL}. The tone break on the possessed noun occurs near the right edge of the stem but does not obliterate the L-tone: *Cv̂:*, *CV́CV̂* (with final falling tone), *CV́CV̂C*, *CV́:CV̀*, *CV́CCV̀*, *CV́CV́CV̀*, *CV́CV́CV́CV̀*, etc. This overlay is indicated by an ^{HL} superscript at the left edge of the target domain. Examples are in (106), with the lexical form of the noun shown in parentheses after the gloss.

(106) {HL}-toned possessed noun after final-H-toned possessor

a. possessor is *yǎ-ŋ* 'a woman'

yǎ-ŋ	^{HL}*sôm*	'a woman's horse'	(< *sǒm*)
yǎ-ŋ	^{HL}*kɔ́sî*	'a woman's calabash'	(< *kɔ̀sî*)
yǎ-ŋ	^{HL}*gúlá:rì*	'a woman's ax'	(< *gúlá:rì*)
yǎ-ŋ	^{HL}*túŋgúrì*	'a woman's stool'	(< *túŋgúrí*)
yǎ-ŋ	^{HL}*gúsírì*	'a woman's de-braiding tool'	(< *gùsìrî*)
yǎ-ŋ	^{HL}*bísíyémì*	'a woman's acacia'	(< *bísíyémì*)

b. possessor is *yǎ: wǒy 'tw*o women'
[yǎ: wǒy] ^{HL}*sôm* 'a horse of two women'

c. possessor is *yà:*^{L} *nɛ́* 'the woman'
[yà:^{L} *nɛ́]* ^{HL}*sôm* 'the woman's horse'

d. possessor is *yà:*^{L} *wǒ-ŋ* 'this woman'
[yà:^{L} *wǒ-ŋ]* ^{HL}*sôm* 'this woman's horse'

e. possessor is *yǎ-ŋ kérέw* ‘every woman’
[yǎ-ŋ kérέw] ^{HL}*sôm* ‘every woman’s horse’

As shown especially by the longer possessed nouns like ‘acacia’ at the bottom of (106a), the tone break in {HL} occurs close to the right edge of the stem. However, most quadrisyllabic noun stems can be treated phonologically as compounds, unlike ‘acacia’ in (106a), whether or not they actually originated as compounds. If so, the {HL} overlay is completed on the compound initial, with the compound final then continuing the L-tone (107). *CvCv-* initials are realized as *CV́CV̀-* instead of as *CV́CV̂-*, since a falling tone cannot occur in a word-medial syllable. (107) also shows alternative pronunciations not involving a compound break, i.e. treating ‘perfume’ and ‘*Albizia* tree’ as unsegmentable quadrisyllabics.

(107) a. *yǎ-ŋ* ^{HL}*lásì-kɔ̀rɔ̀* ‘a woman’s perfume’ (< *làsì-kɔ́rɔ̀*)
or: *yǎ-ŋ* ^{HL}*lásíḱɔ́rɔ̀*

b. *yǎ-ŋ* ^{HL}*súgɔ̀-pàpà:* ‘a woman’s *Albizia* tree’ (< *sùgɔ́-pàpâ:*)
or: *yǎ-ŋ* ^{HL}*súgɔ́pápà:*

6.2.1.2 Tones of modifiers following an alienably possessed noun

If the possessor is nonpronominal, there is no difference between alienable and inalienable possession in the tonal treatment of modifiers. The comments in this section on alienables will therefore apply to both. See §6.2.2.2 for specific material on inalienables.

If the noun that heads the possessum is followed by a modifying adjective, tone-dropping controlled by the preposed possessor extends to that modifier as well. In (108a-b), both ‘big’ and ‘house’ undergo tone-dropping. Phonologically, the tone overlay is first applied to the noun, so that the L-tone portion of the {HL} contour is audible on the final syllable or mora of the noun). This is also the case with the compounds described in the preceding section. A light bisyllabic (*CvCv*, *nCv*) with {HL} overlay is realized as *CV́CV̂* or *ńCV̂* before an adjective, though this can be pronounced *CV́CV̀* or *ńCV̀* to avoid a contour tone in a medial syllable in the noun-adjective sequence. Then the L-tone of the overall {HL} extends to the end of the adjective. If the noun and adjective were treated as an undifferentiated syllable string, the tone break in the {HL} overlay would occur at the final syllable break in the adjective, giving e.g. the incorrect #*yǎ-ŋ* ^{HL}*[ńdó ɔ́wɔ̀]* in (108b). In other words, word-boundaries within the tonosyntactically targeted string remain “visible.”

(108) a. *[sùmǎylâ* ^{L}*[ǹdò ɔ̀wɔ̀]] àr^{n}áŋá bù-∅*
[Soumaila ^{L}[house **big**]] where? be-3SgSbj
‘Where is Soumaila’s big house?’ (< *ńdô*, *ɔ̀wɔ́*)

b. *[yǎ-ŋ* ^{HL}*[ńdô ɔ̀wɔ̀]] àr^{n}áŋá bù-∅*
[woman ^{HL}[house **big**]] where? be-3SgSbj
‘Where is a woman’s big house?’ (< *ńdô*, *ɔ̀wɔ́*)

In the absence of the possessor, the adjective would have controlled tone-dropping on the noun in such examples. As in similar previous cases, one could argue for a cyclical tonosyntactic derivation, whereby first N-Adj becomes [N^{L} Adj], then the possessor-controlled overlay produces [Poss $^{(H)L}$[N $^{\cancel{L}}$Adj]] with the first-cycle {L} obliterated by the

final overlay (obliteration shown by double strike-through). Or one can posit a simpler, one-step tonosyntax with just the possessor-controlled overlay: [Poss $^{(H)L}$[N Adj]]. There is no obvious way to resolve this question empirically, but I prefer the one-step model for reasons given above.

Tone-dropping also targets a cardinal numeral following a possessed noun (or noun plus adjective). For example, *kúrê* 'six' drops to *kùrè* in (109a-b), as part of the bracketed domain targeted by the tonosyntactic controller 'Soumaila'.

(109) a. *[sùmǎylâ* ^{L}*[ǹdò kùrè]] àrⁿáŋá bù-∅*
[Soumaila ^{L}[house **six**]] where? be-3SgSbj
'Where are Soumaila's six houses?' (*ńdô*, *kúrê*)

b. *[sùmǎylâ* ^{L}*[ǹdò ɔ̀wɔ̀ kùrè]] àrⁿáŋá bù-∅*
[Soumaila ^{L}[house big **six**]] where? be-3SgSbj
'Where are Soumaila's six big houses?' (*ńdô*, *ɔ̀wɔ́*, *kúrê*)

Determiners may be added at the end. They are subject to Determiner Tone-Dropping (§6.5.4) in the presence of a possessor, and they do not normally affect the tones of the preceding words.

kéréw 'all' may follow and is tonally free (110).

(110) *[sùmǎylà* ^{L}*ǹdò kéréw] èsì=ndó-∅*
[Soumaila ^{L}house all] good=it.is.not-3SgSbj
'Every house of Soumaila's is no good.'

6.2.1.3 Pronoun plus possessive classifier as postposed possessor

A pronominal possessor is expressed by juxtaposing an alienably possessed noun (essentially anything but a kin term) in its regular form with a following pronominal possessor. The normal linear ordering is N-Adj-Num-Poss-Det or inverted N-Num-Adj-Poss-Det (§6.4.2), with the possessor following adjectives and numerals (111).

(111) a. *ǹdò*^{L} *ɔ̀wɔ́ [ú* ^{HL}*gɔ̂]*
house^{L} big [2Sg ^{HL}Poss.InanSg]
'your-Sg big house'

b. *ńdô kúrê [ú* ^{HL}*yɛ̂]*
house six [2Sg ^{HL}Poss.InanPl]
'your six houses'

c. *ǹdò*^{L} *ɔ̀wɔ́ kúrê [ú* ^{HL}*yɛ̂]*
house^{L} big six [2Sg ^{HL}Poss.InanPl]
'your-Sg six big houses'

For 3Sg (including inanimate singular) possessor, there is a special invariant possessor morpheme *nɔ̀*. A [+ATR] variant *nò* has been heard after +ATR stems, as in *ńdô nò* ~ *ńdô nɔ̀* 'his/her house', but the difference is phonetically subtle and transcription is difficult.

For all pronominal categories other than 3Sg, the postnominal possessor is bipartite, consisting of a pronominal morpheme plus a possessive classifier that originated as a generic noun meaning 'thing' (inanimate) or 'critter' (animate). To some extent the appositional character of this construction is still apparent. For all pronominal possessors, the pronoun plus classifier combination is used in predicates ('belongs to X'). This applies even to 3Sg, which replaces *nɔ̀* with a bipartite classifying form as predicate (§11.5.2).

There are two such classifiers, one used for inanimate singular (occasionally directly pluralized), and the other for everything else: animate singular, animate plural, inanimate plural. Arguably the second classifier is really a set of three homophones.

For inanimate singulars, the generic noun is ^{HL}*gɔ̂* after H-tone or ^{L}*gɔ̀* after final L-tone (including <HL>-tone). These tones could be attributed to the preceding pronoun as possessor; I show this here with superscripts ^{HL} and ^{L} , but elsewhere I often omit them. A variant with *k* instead of *g* is uncommon within NPs, though it was occasionally elicited. It is common, however, in predicates (§11.5.2).

The 1Sg form fuses the pronominal possessor with the <HL>-toned classifier. The resulting portmanteau is invariant *kɔ̌:* with bell-shaped tone. Unlike other NP-internal pronominal possessives, *kɔ̌:* is always pronounced with *k* rather than *g*.

The inanimate singular possessive classifier is related to the noun *kɔ́* 'thing', whose regular post-possessor form is ^{HL}*kɔ̂*, see (411b). Except for the irregular 3Sg form *nɔ̀*, all of the pronominal possessives reflect an appositional construction *[noun [Pron thing]]. The pronoun functioned directly as the possessor of 'thing', which therefore appeared with possessor-controlled tone as *kɔ̂ ~ *kɔ̀. The 1Sg form would have originally been *ɩ̀ kɔ̂: with some L-toned 1Sg possessor morpheme *ɩ̀ that later disappeared segmentally, but left its L-tone behind, resulting in the attested *kɔ̌:* with <LHL> tone. Nanga *kɔ̌:* is almost exactly matched morphologically by Ben Tey *kɔ̌:ⁿ*. In Ben Tey this is a predicative form ('it is mine'), and the nasalization reflects the 'it is' clitic.

The paradigm for inanimate singular possessed nouns is (112).

(112) Pronominal possessor (following inanimate singular noun)

category	possessor form
1Sg	*kɔ̌:*
1Pl	*ɩ̂:* ^{L}*gɔ̀*
2Sg	*ú* ^{HL}*gɔ̂*
2Pl	*û:* ^{L}*gɔ̀*
3Sg	*nɔ̀* (but predicative *ńné* ^{HL}*gɔ̂*=*ŋ̀* 'is his/hers')
Inan	*nɔ̀* (but predicative *kú* ^{HL}*gɔ̂*=*ŋ* 'is its')
3Pl	*bû:* ^{L}*gɔ̀*
InanPl	*kû:* ^{L}*gɔ̀*
3Refl/3LogoSg	*á* ^{HL}*gɔ̂*
3Refl/3LogoPl	*â:* ^{L}*gɔ̀*

'House', for example, occurs in combinations like those in (113a-c). The invariant 3Sg possessor *nɔ̀* is regular in NPs (113c), but in predicates it is replaced by 3Sg pronoun *ńné* plus

^{HL}*kɔ̂* (113d). The noun *kɔ́* 'thing' may also be possessed, like any other inanimate noun (113e).

(113) a. *ńdô* *kɔ̌:*
house 1SgPoss.InanSg
'my house'

b. *ńdô* *[ú* ^{HL}*gɔ̂]*
house [2Sg ^{HL}Poss.InanSg]
'your-Sg house'

c *ńdô* *nɔ̀*
house 3SgPoss
'his/her house'

d. *[ǹdò*^{L} *gú]* *[ńnɛ́* ^{HL}*kɔ̂]=ŋ̀*
[house^{L} Def.InanSg] [3Sg ^{HL}Poss.Inan]=it.is.3SgSbj
'The house is his/hers.'

e. *kɔ́* *[ú* ^{HL}*gɔ̂]*
thing [2Sg ^{HL}Poss.InanSg]
'your-Sg thing'

Inanimate plural is not always overtly distinguished from inanimate singular in possessives. For example, in (573) in §15.2.6.2 (giraffes), *dúrâ [bû:* ^{L}*gɔ̀]* 'their (i.e. giraffes') tail(s)' has plural possessor (*bû:* 'their') but inanimate singular classifier, though the reference is obviously to multiple tails.

However, inanimate plural is often marked. One way to mark it is to add definite inanimate plural *ý* (tone-dropped to ^{L}*ỳ*) to the relevant form of inanimate singular ^{L}*gɔ̀*. This is exemplified in (114).

(114) a. *ńdô* *kɔ̌:* ^{L}*ỳ*
house 1SgPoss.InanSg ^{L}Def.InanPl
'my houses' (definite)

b. *ńdô* *[î:* ^{L}*gɔ̀]* ^{L}*ỳ*
house [1Pl ^{L}Poss.InanSg] ^{L}Def.InanPl
'our houses' (definite)

However, the regular process is to replace ^{HL}*gɔ̂* by inanimate plural possessive classifier ^{HL}*yɛ̂*. The same (or a homophonous) classifier ^{HL}*yɛ̂* is used for animate possessed noun (regardless of number), see below. The surface form for inanimate plural and for animate classifiers is ^{HL}*yɛ̂* after H-tone and ^{L}*yɛ̀* after L-tone, with 1Sg *yɛ̌:* . The tones are parallel to those for the inanimate singular classifier described above. The invariant (nonclassifying) 3Sg possessor *nɔ̀* occurs in NP-internal possessives, here as elsewhere.

(115) Pronominal possessor (after inanimate plural or animate singular or plural)

category	possessor form
1Sg	*yɛ̃:*
1Pl	*î:* ^{L}*yɛ̀*
2Sg	*ú* ^{HL}*yɛ̂*
2Pl	*û:* ^{L}*yɛ̀*
3Sg	*nɔ̀* (but predicative *ńnɛ́* ^{HL}*yɛ̂*=*ŋ̀*)
InanSg	*nɔ̀* (but predicative *kú* ^{HL}*yɛ̂*=*ŋ̀*)
3Pl	*bû:* ^{L}*yɛ̀*
InanPl	*kû:* ^{L}*yɛ̀*
3Refl/3LogoSg	*á* ^{HL}*yɛ̂*
3Refl/3LogoPl	*â:* ^{L}*yɛ̀*

Inanimate plural possessed nouns with ^{HL}*yɛ̂* ~ ^{L}*yɛ̀* classifier are exemplified in (116).

(116) a. *ńdô* *yɛ̃:*
house 1SgPoss.InanPl
'my houses'

b. *ńdô* *[ú* ^{HL}*yɛ̂]*
house [2Sg ^{HL}Poss.InanPl]
'your-Sg houses'

c. *ńdô* *[î:* ^{L}*yɛ̀]*
house [1Pl ^{L}Poss.InanPl]
'our houses'

Animate singular possessed nouns are in (117). The possessive classifier is ^{HL}*yɛ̂* ~ ^{L}*yɛ̀*, which in this case derives from an old Dogon noun for 'critter, nonhuman animate being'. This stem is also preserved in *yɛ̀búmbâ* '(any) snake', which combines cognates of Najamba *yɛ̂:* 'critter' and the Najamba suppletive plural *bómbò* 'critters'. The singular/plural distinction is frequently made by a following determiner (not shown here).

(117) a. *pɛ̀rgɛ́* *yɛ̃:*
sheep 1SgPoss.AnSg
'my sheep-Sg'

b. *kórójì* *[ú* ^{HL}*yɛ̂]*
family [2Sg ^{HL}Poss.AnSg]
'your-Sg family'

c. *gùndá* *[î:* ^{L}*yè]*
slave [1Pl ^{L}Poss.AnSg]
'our slave'

The situation for 3Sg (and inanimate singular) possessor is more complex. With an animate singular possessed noun, the same *nɔ̀* seen above (with inanimate singular possessed noun) is used postnominally. The expected, fully transparent predicative forms are also used. For inanimate plural possessed nouns, 3Sg possessor can again be expressed by *nɔ̀*, meaning that there is no distinction (so far) between singular and plural possessed noun. The distinction can be expressed by a following determiner, such as a definite morpheme (inanimate singular *gú*, inanimate plural *ý*, but here in L-toned form ^{L}*gù* and ^{L}*ỳ*): *ńdô nɔ̀* ^{L}*gù* 'the house of his/hers', *ńdô nɔ̀* ^{L}*ỳ* 'the houses of his/hers'.

While *nɔ̀* is the usual 3Sg/inanimate possessor form, it is also possible to revert to the more generally productive pattern for pronominal possessors, using 3Sg pronoun *ńnɛ́* as the possessor, with a following classifier. Thus *ńnɛ́* ^{HL}*gɔ̂* 'his/her' for inanimate singular possessed noun, and *ńnɛ́* ^{HL}*yɛ̂* for inanimate plural (as well as all animates). This construction is, however, mainly used in predicates, and within an NP it is limited to animate (usually human) possessors. My assistant rejected comparable forms with inanimate singular pronoun *kú*.

(118) a. usual invariant 3Sg/Inanimate possessor within NP

3Sg *nɔ̀* (but predicative *ńnɛ́* ^{HL}*yɛ̂*=*ŋ̀*)
InanSg *nɔ̀* (but predicative *kú* ^{HL}*yɛ̂*=*ŋ̀*)

b. alternative 3Sg possessor form with classifier

3Sg with inanimate singular *ńnɛ́* ^{HL}*gɔ̂*
3Sg with inanimate plural *ńnɛ́* ^{HL}*yɛ̂*

Examples of third person possessors of inanimate plural nouns are in (119). (119a) is the common 3Sg possessor form, with invariant *nɔ̀*. The optional bipartite form in (119b), with a possessive classifier, is less common but possible within an NP for animate possessors. The bipartite form is required in predicates (119c).

(119) a. *ńdô* *nɔ̀*
house 3SgPoss
'his/her/its houses'

b. *ńdô* *[ńnɛ́* ^{HL}*yɛ̂]*
house [3Sg ^{HL}Poss.InanPl]
'his/her houses'

c. *[ǹdò*^{L} *ŋ̀gú-yè]* *[ńnɛ́* ^{HL}*yɛ̂]*=*ŋ̀*
[house^{L} Dem.InanPl] [3Sg ^{HL}Poss.InanPl]=it.is
'These houses are his/hers.'

The forms for third person possessor of animate singular possessed noun in (120) are identical to the inanimate plural type just described. That *nɔ̀*, like other postnominal pronominal

possessors (those with classifiers), can follow a modifying adjective is shown by (120b). Predicative counterparts, distinguishing animate 3Sg possessor (common) from inanimate singular possessor (uncommon) are in (120c-d).

(120) a. *pèrgɛ́* *nɔ̀*
sheep 3SgPoss
'his/her sheep-Sg' = 'its sheep'

b. *pèrgɛ̀*^{L} *dùgí* *nɔ̀*
sheep^{L} big 3SgPoss
'his/her big sheep-Sg' = 'its big sheep-Sg'

c. *[pèrgɛ̀*^{L} *wǒ-ŋ]* *[ńnɛ́* ^{HL}*yɛ̂]=ŋ̀*
[sheep^{L} Dem-AnSg] [3Sg ^{HL}Poss.AnSg]=it.is.3SgSbj
'This sheep is his/hers.'

d. *[pèrgɛ̀*^{L} *wǒ-ŋ]* *[kú* ^{HL}*yɛ̂]=ŋ̀*
[sheep^{L} Dem-AnSg] [InanSg ^{HL}Poss.AnSg]=it.is.3SgSbj
'This sheep is its (= belongs to it).'

If the possessed noun is animate plural, the same forms as for animate singular are used.

6.2.2 Inalienable possession

The main syntactic difference between inalienables (kin terma) and alienables (all other nouns) is that inalienables have preposed pronominal possessors without classifiers (except for 1Sg and 3Sg, which are postnominal). This contrasts with the postposed pronominal possessors for alienables, most of which are composite (pronominal plus classifier).

In addition, when modifiers are added to a pronominally possessed noun, the linear order and tonosyntax are different for alienables and inalienables. For inalienables, the pronominal possessor can appear adjacent to the kin term.

I have observed no difference between alienable and inalienable possession when the possessor is a nonpronominal NP, which is always preposed.

Kin terms treated as inalienable are (in unpossessed form, as in 'I do not have a __'): *bǎ:* 'father', *dě:* 'mother', *lèsí* 'maternal uncle', *tùsá* 'paternal aunt', *tìyé* 'cross-cousin (MoBrCh)', *pàwá* 'grandfather', *tèsí* 'grandmother', *jɛ́ŋɛ̂* 'great-grandparent', *kúmbî* 'great-great-grandparent', *táŋî* 'great-great-great-grandparent', *dèré* 'elder same-sex sibling', *ǹjó* 'younger same-sex sibling', *àmìr^{n}àsǎ:* 'opposite-sex sibling', *lɔ̀gɔ̂* 'husband', *òmìr^{n}í* 'parent- or child-in-law', and the generic *tɔ̀gí* 'kin (collective)' or 'relative, kinsman'. Composite kin terms ending *yî:* 'child' are *lèsí-yê* 'sister's child' ('maternal uncle' plus a harmonized variant of *yî:* 'child') and *tùsà-yí:* 'paternal aunt's child'. Adjectives 'big' and 'small' can be used to distinguish senior from junior if not lexically distinct: *bà*^{L} *díyâ* 'father's elder brother', *bà*^{L} *tègê* ~ *bà*^{L} *tɛ̃:* 'father's younger brother', likewise for mother's siblings (*dè*^{L} *díyâ*, *dè*^{L} *tègê*). In these combinations, 'father' and 'mother' irregularly shorten from *Cv̌:* to *Cv̀*^{L}.

Some non-kin relationship nouns are treated grammatically as inalienables: *tìyá* 'friend', *tɔ̀gìrá* 'namesake' (anyone with the same personal name), *tǔ:* 'agemate' (related to reciprocal *tǔ:*, §18.3), *kàdàgá* 'agemate group', *tá:má* 'colleague, and *àndìrí* 'rival, competitor'.

‘Woman’ even in the sense ‘wife’, and ‘child’ even in the kinship sense, are regular alienable nouns, so pronominal possessors follow the noun: *yǎ: [ú* ^{HL}*yê]* ‘your-Sg wife’, *yî: [ú* ^{HL}*yê]* ‘your-Sg child’. My assistant also rejected preposed pronominal possessors for *sá:rà* ‘parent’ and *yà-nɔ̀r*^{n}*í* ‘co-wife’.

Body parts are not treated as inalienable: *nǎ: [ú* ^{HL}*gɔ̂]* ‘your hand’, *kû: [ú* ^{HL}*gɔ̂]* ‘your head’.

6.2.2.1 Inalienables with nonpronominal possessor

Inalienables have the same Poss-N construction as alienables when the possessor is a nonpronominal NP. In both cases, the possessor precedes the possessed noun, with no intervening genitive marker, and the possessor controls a tone overlay on the noun, {HL} if the possessor ends in an H-tone and {L} if the possessor ends in an L-tone. Inalienable examples are in (121).

(121) a. *sùmǎylà* ^{L}*bà:*
Soumaila ^{L}father
‘Soumaila’s father’ (*bǎ:*)

b. *ámbérì* ^{L}*dè:*
chief ^{L}mother
‘(a/the) chief’s mother’ (*dě:*)

c. *[àmbèrì*^{L} *nɛ́]* ^{HL}*dê:*
[chief^{L} Def.AnSg] ^{HL}mother
‘the chief’s mother’

6.2.2.2 Tones of modifiers after nonpronominal inalienable possessors

Elicitation with my assistant produced no systematic difference between alienable and inalienable possession with regard to tonosyntactic treatment of postnominal modifiers when the possessor is a nonpronominal NP (as opposed to a pronoun). We get the same choice between {HL} and {L} overlays, based on the final tone of the possessor. A postnominal adjective or numeral is again {L}-toned in either case. As with alienable counterparts, the schemas are [Poss $^{(H)L}$[N Adj]] (122a-b), [Poss $^{(H)L}$[N Num]] (122c-d), [Poss $^{(H)L}$[N Adj Num]] (122e), and inverted [Poss $^{(H)L}$[N Num Adj]] (122f), in all cases with wide-domain tone overlay.

(122) a. *sùmǎylâ* ^{L}*[lèsì* *mɔ̀sì]*
S ^{L}[uncle **bad**]
‘Soumaila’s nasty uncle’ (*lèsí*, *mɔ̀sí*)

b. *[yà-ŋ* *wǒ-ŋ]* ^{HL}*[lésì* *mɔ̀sì]*
[woman-Sg Dem-AnSg] ^{HL}[uncle **bad**]
‘this woman’s nasty uncle’ (*lèsí*, *mɔ̀sí*)

c. *sùmǎylâ* ^{L}*[dèrè* *kùrè]*
S ^{L}[older.sibling **six**]
'Soumaila's six older brothers'

d. *[àr^{n}à*^{L} *wǒ-ŋ]* ^{HL}*[dérè* *kùrè*]
[man^{L} Dem-AnSg] ^{HL}[older.sibling **six**]
'this man's six older brothers'

e. *[yà-ŋ* *wǒ-ŋ]* ^{HL}*[lésì* *mɔ̀sì* *kùrè]*
[woman-Sg Dem-AnSg] ^{HL}[uncle **bad** **six**]
'this woman's six nasty uncles'

f. *[yà-ŋ* *wǒ-ŋ]* ^{HL}*[lésì* *kùrè* *mɔ̀sì]*
[woman-Sg Dem-AnSg] ^{HL}[uncle **six** **bad**]
[=(e)]

Determiners can be added at the end, often in tone-dropped form without affecting the tones of the preceding words; see §6.5.4, below.

6.2.2.3 Inalienables with pronominal possessor

As we have seen, with alienable nouns like 'house' and 'dog', pronominal possessors are expressed in a distinctive construction involving a postnominal possessive classifier: *ńdô [ú* ^{HL}*gɔ̂]* "house [you(r) thing]" = 'your house'. With kin terms as the possessed nouns, however, pronominal possessors (other than 1Sg and 3Sg/inanimate, on which see below) have the same prenominal position as do nonpronominal possessors: *lèsí* '(maternal) uncle', *ú* ^{HL}*lésî* 'your-Sg uncle'. The possessed noun, as usual, has {HL} overlay if the pronoun ends in an H-tone (2Sg *ú*, 3Logophoric singular *á*), and {L} overlay if the pronoun ends in an L-tone (1Pl *î:*, 2Pl *û:*, 3Pl *bû:*, 3Logophoric plural *â:*).

For 3Sg (including inanimate) and 1Sg possessor, there is no difference between alienable and inalienable possessor. 3Sg possessor is expressed by the invariant postnominal morpheme *nɔ̀*, and 1Sg possessor is expressed by the relevant 1Sg form of the postnominal possessive classifier, which for kin terms (always animate) is *yɛ̂:* in both singular and plural.

The paradigm of *bǎ:* 'father', organized by phonological form and linear order, is (123).

(123) category 'X's father'

a. preposed possessor ending in H-tone, {HL} overlay
2Sg *ú* ^{HL}*bâ:*
3LogoSg *á* ^{HL}*bâ:*

b. preposed possessor ending in L-tone, {L} overlay
1Pl *î:* ^{L}*bà:*
2Pl *û:* ^{L}*bà:*
3Pl *bû:* ^{L}*bà:*
3LogoPl *â:* ^{L}*bà:*

c. postnominal possessor with possessive classifier, lexical tone
1Sg *bǎ: yɛ̌:*

d. special 3Sg postnominal morpheme, lexical tone
3Sg *bǎ: nɔ̀*

Further examples of the full {HL} overlay with kin terms: ^{HL}*dê:* 'mother' (< *dɛ̌:*), ^{HL}*dérê* 'elder sibling' (< *dèré*), ^{HL}*lɔ́gɔ̂* 'husband' (< *lɔ̀gɔ̂*), and ^{HL}*ómírⁿì* 'parent-in-law' (< *òmìrⁿí*).

6.2.2.4 Modifiers after pronominally possessed inalienable noun

In Poss-N-Adj and Poss-N-Num sequences with pronominal possessor, the modifier can be tonosyntactically external to the domain of possessor control. However, variant tonal pronunciations turned up in elicitation with my assistant. There is probably significant inter-speaker and subdialectal variation.

Consider Poss-N-Adj combinations with inalienable pronominal possessor. (124a) follows the tonal pattern observed with nonpronominal possessors (alienable and inalienable), i.e. [Poss $^{(H)L}$[N Adj]]. However, there is an alternative (124b-c) where the adjective preserves its lexical tones, showing that the possessor here has narrow-domain control limited to the noun. This can be schematized as [Poss $^{H)L}$N Adj]]. The narrow domain can be further brought out by using tonosyntactic island notation, as in [⊂Poss $^{H)L}$N⊃ Adj]], which emphasizes that the adjective cannot affect the tones of Poss-N. I have no meaningful statistics but my impression is that the type (124b-c) predominates over the type (124a) at least in fairly careful speech.

(124) a. *ú* ^{HL}*[lésì* *mɔ̀sì]*
2SgPoss ^{HL}[uncle bad]
'your-Sg nasty uncle'

b. *⊂ú* ^{HL}*lésî ⊃* *mɔ̀sí*
⊂2SgPoss ^{HL}uncle⊃ bad
[=(a)]

c. *⊂û:* ^{L}*lèsì ⊃* *mɔ̀sí*
⊂2PlPoss ^{L}uncle⊃ bad
'your-Pl nasty uncle'

There is also another tonosyntactic option, where the (prosodically light) possessor is itself included in the adjective-controlled overlay (125), the formula then being [[Poss N]^{L} Adj]. For a similar tonosyntactic pattern before *kámâ* 'each', see §6.6.2 below.

(125) a. *[ù* *lèsì]*^{L} *mɔ̀sí*
[2SgPoss uncle]^{L} bad
'your-Sg nasty uncle'

b. *[ù:* *lèsì]*^{L} *mɔ̀sí*
[2PlPoss uncle]^{L} bad
'your-Pl nasty uncle'

For comparison, the corresponding adjectival predicate construction is (126). Here the adjective does not belong to the same syntactic or tonosyntactic phrase as the possessed noun.

(126) *[ú* ^{HL}*lésî]* *mɔ̀sí=ŋ*
[2SgPoss ^{HL}uncle] bad=it.is
'Your-Sg uncle is bad/nasty.'

If we substitute a numeral for the adjective in (124a-c) above, we get the same range of outputs (127a-c). The most unusual variant is (127c), where the numeral appears to control {L} on the preceding N-Adj string, though in general numerals do not interact with preceding words tonosyntactically. In effect, the distinction between adjective and numeral is partially neutralized in this context (i.e. with pronominal inalienable possessor), so (127c) has the same tonal structure as (125a) above.

(127) a. *ú* ^{HL}*[lésì* *kùrè]*
2SgPoss ^{HL}[uncle six]
'your-Sg six uncles', compare (124a)

b. *[ú* ^{HL}*lésî]* *kúrê*
[2SgPoss ^{HL}uncle] six
[=(a)], compare (124b-c)

c. *[ù* *lèsì]*^{L} *kúrê*
[2SgPoss uncle]^{L} six
[=(a)], compare (125a)

The combination Poss-N-Adj-Num is illustrated in (128a-c), which are tonosyntactically parallel to (127a-c) above, respectively, except that in (128c) the final numeral does not control {L} on the preceding adjective. The numeral is bolded in the interlinears in (128) and later examples to emphasize its changing position.

(128) a. *ú* ^{HL}*[lésì* *mɔ̀sì* *kùrè]*
2SgPoss ^{HL}[uncle bad **six**]
'your-Sg six nasty uncles'

b. *⊂ú* ^{HL}*lésî ⊃* *mɔ̀sí* *kúrê*
⊂2SgPoss ^{HL}uncle⊃ bad **six**
[=(a)]

c. *[[ù* *lèsì]*^{L} *mɔ̀sí]* *kúrê*
[[2SgPoss uncle]^{L} bad] **six**
[=(a)]

The combination Poss-N-Adj-Num is optionally inverted to Poss-N-Num-Adj, since possessors are licensors of Adjective-Numeral Inversion (§6.4.2). Inverted examples are in (129a-c). The adjective controls {L} on the immediately preceding numeral in (129b-c), whose tones therefore differ from those in (128b-c) above, respectively.

(129) a. *ú* ^{HL}*[lésî* *kùrè* *mɔ̀sì]*
2SgPoss ^{HL}[uncle **six** bad]
[=(a)]

b. *⊂ú* ^{H}*lésî ⊃* *[kùrè*^{L} *mɔ̀sí]*
⊂2SgPoss ^{H}uncle⊃ [**six**^{L} bad]
[=(a)]
[alternatively marked up as: *⊂ú [lésî kùrè]⊃ mɔ̀sí*]

c. *[ù* *lèsì* *kùrè]*^{L} *mɔ̀sí*
[2SgPoss uncle **six**]^{L} bad
[=(a)]

The most salient take-away from this section is that preposed pronominal possessors, which are only possible with inalienables, have only weak tonosyntactic control powers. Often a possessor-controlled overlay extends only to the immediately following noun. In other cases, the possessor has no effective control power at all, and is itself caught up in a modifier-controlled overlay. These factors suggest that preposed pronominal possessors tend to function within word-level tonomorphology rather than extended phrasal tonosyntax.

Determiners added at the end are often tone-dropped, and in this case they do not affect the tones of preceding words. For details, see §6.5.4.

6.2.3 Modifiers after nouns with following pronominal possessors

1Sg and 3Sg possessors are postnominal even for inalienable possession. When an adjective and/or a number are added, there is considerable variation in linear order. I will illustrate with a kin term, but the same patterns apply to alienables like ‘sheep’ and ‘house’.

6.2.3.1 Modifiers after nouns with following 1Sg possessors

We exemplify first with 1Sg possessors. In the absence of a modifier, the simple N-Poss combination has the same form for inalienable possession (130) as for alienable possession, cf. (117a) above.

(130) *lèsí* *yɛ̃:*
uncle 1SgPoss.AnSg
‘my (maternal) uncle’

When (130) is complicated by adding an adjective and/or a numeral, the possessor may occur either immediately after the noun or after all modifiers. (131a-b) illustrate the alternatives N-Poss-Adj and N-Adj-Poss. The adjective controls tones to its left only.

(131) a. *[lèsì* *yè:]*^{L} *mɔ̀sí*
[uncle 1SgPoss.AnSg]^{L} bad
‘my nasty uncle’

b. *[lèsì*[L] *mɔ̀sí]* *yɛ̌:*
[uncle[L] bad] 1SgPoss.AnSg
[= (a)]

Examples (132a-b) illustrate the alternatives N-Poss-Num and N-Num-Poss. Numerals and postposed possessors are non-controllers of tone overlays. The possessor is bolded in the interlinears.

(132) a. *lèsí* *yɛ̌:* *kúrê*
[uncle **1SgPoss**.AnSg] six
'my six uncles'

b. *lèsí* *kúrê* *yɛ̌:*
uncle six **1SgPoss**.AnSg
[= (a)]

Examples (133a-c) illustrate N-Poss-Adj-Num, varying with N-Adj-Num-Poss and N-Adj-Poss-Num. The adjective controls tones only to its left. In one elicitation session my assistant dispreferred (133c), where the possessor is sandwiched between the two other modifier. On another occasion he accepted it along with the others.

(133) a. *[[lèsì* *yè:]*[L] *mɔ̀sí]* *kúrê*
[[uncle **1SgPoss**.AnSg][L] bad] **six**
'my six bad uncles'

b. *[lèsì* *mɔ̀sí]* *kúrê* *yɛ̌:*
[uncle[L] bad] six **1SgPoss**.AnSg
[= (a)]

c. *[lèsì* *mɔ̀sí]* *yɛ̌:* *kúrê*
[uncle[L] bad] **1SgPoss**.AnSg six
[= (a)]

Examples (134a-c) contain the same lexical material as (133a-c) above, but they show the effects of Adjective-Numeral Inversion, which is licensed (but not required) by the presence of a possessor (§6.4.2). The sequences are now N-Poss-Num-Adj, N-Num-Poss-Adj, and N-Num-Adj-Poss. The adjective controls tones to its left.

(134) a. *[lèsì* *yè:* *kùrè]*[L] *mɔ̀sí*
[uncle **1SgPoss**.AnSg six][L] bad
'my six bad uncles'

b. *[lèsì* *kùrè]*[L] *mɔ̀sí* *yɛ̌:*
[uncle six][L] bad **1SgPoss**.AnSg
[= (a)]

c. *[lèsì* *kùrè* *yè:]*[L] *mɔ̀sí*
[uncle six **1SgPoss**.AnSg][L] bad
[= (a)]

6.2.3.2 Modifiers after inalienable noun with following 3Sg possessor

Examples like those just given for 1Sg, but now with 3Sg possessor, are presented in this section. Since 3Sg possessor *nɔ̀* is already L-toned, listeners cannot distinguish its regular and tone-dropped realizations. I assume (inaudible) tone-dropping on this morpheme when it is followed by an adjective, by analogy to the 1Sg possessor examples, where tone-dropped *yɛ̀:*^{L} is audibly distinct from regular *yɛ̌:* .

(135) *lèsí* *nɔ̀*
uncle 3SgPoss
'his/her (maternal) uncle'

N-Poss-Adj and N-Adj-Poss, with the possessor bolded in interlinears.

(136) a. *[lèsì* *nɔ̀]*^{L} *mɔ̀sí*
[uncle **3SgPoss**]^{L} bad
'his/her nasty uncle'

b. *lèsì*^{L} *mɔ̀sí* *nɔ̀*
uncle^{L} bad **3SgPoss**
[= (a)]

N-Poss-Num and N-Num-Poss::

(137) a. *[lèsí* *nɔ̀]* *kúrê*
[uncle **3SgPoss**] six
'his/her six uncles'

b. *[lèsí* *kúrê]* *nɔ̀*
[uncle six] **3SgPoss**
[= (a)]

Uninverted N-Poss-Adj-Num, varying with N-Adj-Num-Poss and N-Adj-Poss-Num:

(138) a. *[lèsì* *nɔ̀]*^{L} *mɔ̀sí* *kúrê*
[uncle **3SgPoss**]^{L} bad six
'his/her six bad uncles'

b. *lèsì*^{L} *mɔ̀sí* *kúrê* *nɔ̀*
uncle^{L} bad six **3SgPoss**
[= (a)]

c. *lèsì*^{L} *mɔ̀sí* *nɔ̀* *kúrê*
uncle^{L} bad **3SgPoss** six
[= (a)]

After optional Adjective-Numeral Inversion, these become N-Poss-Num-Adj varying with N-Num-Adj-Poss and N-Num-Poss-Adj:

(139) a. *[lèsí* *nɔ̀* *kùrè]*^{L} *mɔ̀sí*
[uncle **3SgPoss** six]^{L} bad
'his/her six bad uncles'

b. *[lèsì* *kùrè]*^{L} *mɔ̀sí* *nɔ̀*
[uncle six]^{L} bad **3SgPoss**
[= (a)]

c. *[lèsì* *kùrè* *nɔ̀]*^{L} *mɔ̀sí*
[uncle six **3SgPoss**]^{L} bad
[= (a)]

6.3 Noun plus adjective

6.3.1 Noun plus regular adjective

Modifying adjectives (including ordinals) follow the noun. In the absence of a possessor, an adjective controls tone-dropping on the noun. Thus *ńdô* 'house' drops its tones to *ǹdò*^{L} in (140b-d).

(140) a. *ńdô* '(a) house'
b. *ǹdò*^{L} *èsí* '(a) good house'
c. *ǹdò*^{L} *pírí* '(a) white house'
d. *ǹdò*^{L} *kìyá* '(the) first house'

For the combinations Poss-N-Adj, N-Poss-Adj (inalienable), and N-Adj-Poss (alienable), see §6.2 above. For Adjective-Numeral Inversion, see §6.4.2.

Adjectives are themselves subject to tone-dropping as part of a target domain controlled by a following determiner or 'each' quantifier, or in the internal head NP of the relative. See (158b) for N-Adj-Definite, (159b) for N-Adj-Demonstrative, and (494b) for relative heads.

6.3.2 Adjective *gàmbí* 'certain (ones)'

The partitioning quantifier *gàmbí* is most often used in the plural form *gàmbí-yê*, meaning 'certain (ones)', i.e. a subset (with at least two members) of a larger collectivity. Singular *gàmbí* '(a) certain (one)' or 'some (of a mass)' is also possible. *gàmbí* functions tonosyntactically as an adjective.

(141) a. *nŭ:* '(a) person'; 'people'
b. *nù:*^{L} *gàmbí* 'a certain person'
c. *nù:*^{L} *gàmbí-yê* 'certain people'

(142) a. *kúr*^{n}*ô* '(a) stone'
b. *kùr*^{n}*ò*^{L} *gàmbí* 'a certain stone'
c. *kùr*^{n}*ò*^{L} *gàmbí-yê* 'certain stones'

A typical discourse context for *gàmbí* is a parallel construction contrasting an eventuality involving one subgroup with a contrary eventuality involving the complementary subgroup (143). The noun may or may not be repeated with the second occurrence of *gàmbí*.

(143) *[nù:*^{L} *gàmbí-yê]* *wárà:*^{n}*-s-è,*
[person^{L} **certain**] do.farming-Prog-3PlSbj,
[(nù:^{L}*)* *gàmbí-yê]* *wórî* *dɔ̀gɔ́-tì-yà*
[(person^{L}) **certain**] farming leave-Pfv1b-3PlSbj
'Some people are (still) farming, (while) some (others) have given up farming.'

With mass nouns like 'sugar', *gàmbí* means 'some of (X)', denoting a portion of a larger quantity (144).

(144) *[sùkɔ̀rɔ̀*^{L} *gàmbí]* *kɔ̀:-y.:* *ndè,* *gàmbí* *àgí-yɛ̀-mì-y.:*
[sugar^{L} **some**] eat.Pfv-1PlSbj if, **some** hold-MP-Ipfv-1PlSbj
'We'll consume some of the sugar, and we'll keep some (= the rest).'

6.3.3 Expansions of adjective

6.3.3.1 Adjective sequences

An adjective may follow a sequence of a noun and one or more other adjectives. In this case, the final adjective retains its lexical tones, but all preceding words in the core NP are tone-dropped.

(145) a. *[nɛ̀r*^{n}*ì* *dùgì]*^{L} *mɔ̀sí*
[dog big]^{L} nasty
'a big vicious dog' (*nɛ̀r*^{n}*î*, *dùgí*)

b. *[yɛ̀bùmbà* *bàr*^{n}*ì]*^{L} *gùrɔ́*
[snake red]^{L} long
'a long red (= brown) snake' (*yɛ̀búmbâ*, *bár*^{n}*í*)

6.3.3.2 'Good to eat'

In the most transparent construction, the NP in question is the subject of an adjectival predicate ('be good' etc.), and the activity type is expressed by the locative form of a verbal noun. The adjectival predicate agrees with the subject (146a-b).

(146) a. *[tàgá* ^{HL}*nî:]* *[nɔ́:-ndɛ́* *gá]* *ɛ̀sù=ndó-∅*
[pond ^{HL}water] [drink-**VblN** **Loc**] be.good=it.is.not-3SgSbj
'The water of the pond isn't good to drink.'

b. *yì-tɛ̀gɛ̂* *[kúwó-ndɛ́* *gá]* *ɛ́rí-yɛ̀*
children [eat.meat-**VblN** **Loc**] be.sweet-Pl
'Children are good to eat.'

A variation on this is with a form of the verb equivalent to the imperfective (but with no further pronominal suffixation) instead of the verbal noun.

(147) *kìsì-kísî* *[kúwó-m̀* *gò]* *ɛ̀sú*
winged.termite [eat.meat-**Ipfv** **Loc**] be.good
'Winged termites are good to eat.'

These constructions are distinct from one where the verbal noun is the subject of the adjectival predicate (148). Here there is no agreement in the predicate with the subject of the verbal-noun complement ('children').

(148) *[yì-tɛ̀gɛ̂* *ŋírⁿɛ́-ndɛ́]* *ɛ́rû*
[children look-VblN] be.good
'It's good to look at children.'

6.4 Noun plus cardinal numeral

6.4.1 Noun (and adjective) plus cardinal numeral

Cardinal numerals follow the core NP, consisting of a noun plus any modifying adjectives. In the absence of a possessor, the numeral has its lexical tones, and it has no tonal interaction with the words in the core NP.

(149) a. *ńdô* 'house'
ńdô wǒy 'two houses'

b. *ǹdò*^{L} *ɔ̀wɔ́* 'a large house'
[ǹdò^{L} *ɔ̀wɔ́] wǒy* 'two large houses'

The numeral remains with the noun and other inner modifiers (adjective, possessor) when it functions as head NP of a relative, as in (497b-c) in §14.1.2. In this position the numeral is subject to tone-dropping. A numeral is also tone-dropped by a following determiner.

For combinations of the type Poss-N-(Adj-)Num, N-Poss-(Adj-)Num (inalienable), and N-(Adj-)Num-Poss, see §6.2 above. In the specific combination Poss-N-Num with pronominal possessor and inalienable noun, a numeral behaves like an adjective in (optionally) controlling tone-dropping, see (125b) in §6.2.2.4.

6.4.2 Adjective-Numeral Inversion

The sequence [N-Adj-Num], as in *ǹdò*^{L} *dùgí kúrê* 'six big houses' with mark-up [house^{L} big six], has fixed order when not further expanded (tone-dropping on the noun is controlled by the adjective). However, the adjective and numeral are optionally (but often) inverted when one of the following "inversion licensors" is also present in the NP: possessor (preposed or postposed), demonstrative, or relative clause (i.e. when the undetermined NP is head of a relative). A definite morpheme also seems to license inversion at least occasionally.

The motivation for inversion (in Nanga and other Dogon languages) is obscure, and formal modeling within an arboreal syntactic representation would be difficult even for the most ingenious syntactician.

In the following examples, the numeral is bolded in interlinears. The licensing element is a demonstrative in (150), a postposed pronominal possessor in (151), a preposed possessor in (152), and a relative clause in (153). When the numeral precedes the adjective, it is subject to adjective-controlled tone-dropping even in the absence of another tone-dropping controller. This shows that adjectives can only control tone-dropping on elements to their left. This can be seen clearly in (151b), since the postposed pronominal possessor licenses inversion but does not control tone-dropping on elements to its left. In (150b), (152b), and (153b), we cannot determine whether the adjective is responsible for tone-dropping the numeral, since a higher (wider-scope) tonosyntactic controller is also present.

(150) licensor is a demonstrative

a. *[ǹdò* *dùgì* *kùrè]*^{L} *yěy*
[house big **six**]^{L} Dem.InanPl
'these six big houses'

b. *[ǹdò* *kùrè* *dùgì]*^{L} *yěy*
[house **six** big]^{L} Dem.InanPl
[=(a)]

(151) licensor is a postposed pronominal possessor

a. *[ǹdò*^{L} *dùgí* *kúrê]* *[ú* ^{HL}*yê]* ^{L}*ỳ*
[house^{L} big **six**] [2Sg ^{HL}Poss.InanPl] ^{L}Def.InanPl
'your-Sg six big houses' (for L-toned *ỳ* see §6.2.1.3)

b. *[ǹdò* *kùrè]*^{L} *dùgí]* *[ú* ^{HL}*yê]* ^{L}*ỳ*
[house **six**]^{L} big] [2Sg ^{HL}Poss.InanPl] ^{L}Def.InanPl
[=(a)]

(152) licensor is a preposed nonpronominal possessor

a. *sě:dù* ^{L}*[ǹdò* *dùgì* *kùrè]* *ý*
Seydou ^{L}[house big **six**] Def.InanPl
'Seydou's six big houses'

b. *[sě:dù* ^{L}*[ǹdò* *kùrè* *dùgì]* *ý*
[S ^{L}[house **six** big] Def.InanPl
[=(a)]

(153) licensor is a relative clause

a. *[ǹdò* *dùgì* *kùrè]*^{L} *yègè-sɛ̀*^{L} *ý*
[house big-Inan **six**]^{L} fall-Ppl.Pfv^{L} Def.InanPl
'the six big houses that fell'

b. *[ńdò* *kùrè* *dùgì]*^{L} *yègè-sè*^{L} *ý*
[house **six** big-Inan]^{L} fall-Ppl.Pfv^{L} Def.InanPl
[=(a)]

6.4.3 *bú-wǒy* versus *wǒy* 'two'

The basic numeral '2' is *wǒy*. When it follows a noun, it is often extended as *bú-wǒy*. Morphologically, *bú-* (cf. pronoun *bû:* 'they') resembles animate plural numeral-classifier prefixes of certain Dogon languages. For example, *nàŋá bú-wǒy* 'two cows' can be compared to Yanda Dom *nà:-mù bó-nó:* (same gloss), with *bó-* (interchangeable with *á-*) as the animate numeral classifier (*-mù* is animate plural). However, Nanga *bú-wǒy* can occur after inanimate as well as animate nouns, as in *ńdô (bú-)wǒy* 'two houses', there being no Nanga counterpart to Yanda Dom inanimate numeral classifier *yè-*. Both *bú-wǒy* and simple *wǒy* are possible in all postnominal positions, regardless of Adjective-Numeral Inversion (preceding section).

An informant rejected *bú-* with other numerals such as '3'. In Yanda Dom, the classifiers are used systematically for '2' through '10' with nearly all nouns.

6.5 Noun plus determiner

For invariant preposed determiner *kú* ('that same …'), see the following section. Preposed *kú* is normally paired with a postnominal determiner.

Postnominal determiners (definite or demonstrative) distinguish number and animacy, which are usually not expressed by preceding words in the NP. The simple combination N-Det takes the form N^{L} Det, with tone-dropped noun; see (49a-d) and (51a-d) in §4.4.1.1-2. Likewise, N-Adj-Det is realized as [N Adj]^{L} Det, see (49f) in §4.4.1.1.

When a determiner follows a possessed NP, Determiner Tone-Dropping is applied, see §6.5.4 below. Definite morphemes appear in this context as ^{L}*nè*, ^{L}*bù(:)*, ^{L}*gù*, and ^{L}*ỳ*, while demonstratives surface as ^{L}*wò-ŋ*, ^{L}*wè:*, ^{L}*ŋ̀gù*, and ^{L}*yèy*. In these combinations, the determiner provides clearer information about animacy and number than does even a pronominal possessor (which contains a numeral classifier), since numeral classifier ^{HL}*yê* can be singular (animate) or plural (animate or inanimate).

(154) a. *[pèrgé* *yɛ̌:* ^{L}*nè]* *gùró* *j-à*
[sheep 1SgPoss.An] ^{L}Def.AnSg] steal RecPrf-3PlSbj
'They stole my sheep-Sg.' (< *nɛ́*)

b. *[pèrgé* *yɛ̌:* ^{L}*wò-ŋ]* *gùró* *j-à*
[sheep 1SgPoss.An] ^{L}Dem-AnSg] steal RecPrf-3PlSbj
'They stole this sheep of mine.' (< *wǒ-ŋ*)

c. *[pèrgé* *yɛ̌:* ^{L}*bù:]* *gùró* *j-à*
[sheep 1SgPoss.An] ^{L}Def.AnPl] steal RecPrf-3PlSbj
'They stole my sheep-Pl.' (< *bû:*)

d. *[pèrgé* *yɛ̌:* ^{L}*wè:]* *gùró* *j-à*
[sheep 1SgPoss.An] ^{L}Dem.AnPl] steal RecPrf-3PlSbj
'They stole these sheep of mine.' (< *wɛ̌:*)

Postposed determiners normally follow the N-Adj-Num-Poss sequence. They control tone-dropping on preceding words if there is no possessor, as in N-Adj-Num-Det. However, when a possessor is present, Determiner Tone-Dropping is often triggered (§6.5.4).

In relative clauses, the head NP is seemingly bifurcated into a clause-internal portion (maximally Poss-N-Adj-Num) and a tail (coda) that follows the verbal participle. Postposed determiners are included in the tail. They then control tone-dropping on the participle; see §14.1.9.

6.5.1 Preposed strong discourse-definite *kú* 'that (same)'

There is also an invariant preposed determiner *kú*, etymologically an inanimate pronominal possessor. It functions as a strong discourse-definite determiner ('that same X'), and requires a postnominal determiner, usually definite but occasionally demonstrative. See §4.4.1.3 for discussion and examples.

When it directly precedes the possessed noun, *kú* controls the same tone overlays as do (other) preposed possessors. Since it is H-toned, the overlay on the possessum is {HL}, in accordance with the usual rules for possessor-controlled overlays. As in true Poss-N-Det combinations, in the presence of a possessor the final determiner is subject to Determiner Tone-Dropping, which is favored by the {HL} overlay on the possessed noun (§6.5.4). The tone-dropping is systematic for definite markers (155a-d), less so for demonstratives (155e).

(155)	a.	*kúrⁿô*	'stone'
		kùrⁿò ^{L} *gú*	'the stone'
		kú ^{HL}*kúrⁿô* (^{L}*gù)*	'that (same) stone'
	b.	*kùrⁿò* ^{L} *ý*	'the stones'
		kú ^{HL}*kúrⁿô* (^{L}*ỳ)*	'those (same) stones'
	c.	*nŭ:*	'person'
		nù: ^{L} *nɛ́*	'the person'
		kú ^{HL}*nû:* ^{L}*nɛ̀*	'that (same) person'
	d.	*nù:* ^{L} *bû:*	'the people'
		kú ^{HL}*nû:* ^{L}*bù:*	'those (same) people'
	e.	*kùrⁿò* ^{L} *ŋgú*	'this stone'
		kú ^{HL}*kúrⁿò* ^{L}*ŋgù*	'this (same) stone' (variant *kú* ^{HL}*kúrⁿò ŋgú*)

Although *kú* behaves much like a possessor syntactically, it can co-occur with a true possessor morpheme. In (156a), the possessor is a pronoun, and therefore it (along with its possessive classifier) follows the noun. The L-tone of the final definite morpheme is attributable to pronominal possessor *ú* ^{HL}*gɔ̂*, as the bracketing suggests. In (156b), *kú* precedes (and has broad semantic scope over) a sequence beginning in an indefinite possessor NP ('woman'). *kú* here has no effect on this possessor NP (or on any other word). This construction is distinct from that in (156c), where *kú* has local scope over the immediately following possessor (again 'woman'), and therefore controls the {HL} possessum overlay on

this noun. My assistant accepted (156d) as grammatical, though awkward; it combines two occurrences of definite *kú*, with broad and narrow semantic scope, respectively.

(156) a. *[kú* ^{HL}*ńdô]* *[[ú* ^{HL}*gɔ̂]* ^{L}*gù]*
[DiscDef ^{HL}house] [[2Sg ^{HL}Poss.InanSg] ^{L}Def.InanSg]
'that (same) house of yours-Sg'

b. *kú* *[yǎ-ŋ* ^{HL}*ńdô* ^{L}*gù]*
DiscDef [woman-Sg ^{HL}house ^{L}Def.InanSg]
'that (same) house of (a/the) woman'

c. *[kú* ^{HL}*yâ-ŋ]* ^{L}*ǹdò* ^{L}*gù*
[DiscDef ^{HL}woman-Sg] ^{L}house ^{L}Def.InanSg
'(a/the) house of that (same) woman'

d. *kú* *[[kú* ^{HL}*yâ-ŋ]* ^{L}*ǹdò* ^{L}*gù]*
DiscDef [[DiscDef ^{HL}woman-Sg] ^{L}house ^{L}Def.InanSg]
'that (same) house of that (same) woman'

6.5.2 Postnominal definite morphemes

For NPs containing a possessor and a definite marker, see the preceding section. In the absence of a possessor, definite morphemes (§4.4.1) induce tone-dropping on the preceding noun and any intervening modifiers. In each pair of forms in (157), the second form is definite, versus the unmarked (often indefinite) first form. These examples are inanimate, with inanimate singular *gú* ~ *kú* ~ *ŵ* and inanimate plural *ý*.

(157) Unpossessed inanimate definite NPs

a. noun
ńdô 'house'
ǹdò ^{L} *gú* 'the house'

b. noun plus adjective
ǹdò ^{L} *ɔ̀wɔ́* '(a) big house'
[ǹdò $^{(L)}$ *ɔ̀wɔ̀]* ^{L} *gú* 'the big house'

c. noun plus numeral
ńdô wǒy 'two houses'
[ǹdò wòy] ^{L} *ý* 'the two houses'

d. [noun adjective] numeral
[ǹdò ^{L} *ɔ̀wɔ́] wǒy* 'two big houses'
[ǹdò $^{(L)}$ *ɔ̀wɔ̀ wòy]* ^{L} *ý* 'the two big houses'

In the second items in (157b) and (157d), we again have the issue whether to recognize cyclical tone-dropping, or one-step tone-dropping where the highest controller imposes an overlay on the noun and all intervening words. Hence the parenthesized $^{(L)}$ superscripts. I

prefer the one-step analysis, since definite morphemes can clearly control {L} on strings of two or more words, for example on the adjective and the numeral in 'the two big houses' (157d).

Animate definite morphemes work the same way. (158) illustrates with animate singular *nɛ́* and animate plural *bû:* .

(158) Unpossessed animate definite NPs

a. noun

nɛ̀r^{n}î	'dog'
nɛ̀r^{n}ì^{L} nɛ́	'the dog'

b. noun plus adjective

nɛ̀r^{n}ì^{L} pírí	'(a) white dog'
[nɛ̀r^{n}ì$^{(L)}$ pìrì]^{L} nɛ́	'the white dog'

c. noun plus numeral

nɛ̀r^{n}î wǒy	'two dogs'
[nɛ̀r^{n}ì wòy]^{L} bû:	'the two dogs'

d. [noun adjective] numeral

[nɛ̀r^{n}ì^{L} pírí] wǒy	'two white dogs'
[nɛ̀r^{n}ì$^{(L)}$ pìrì wòy]^{L} bû:	'the two white dogs'

6.5.3 Postnominal demonstratives

A postposed demonstrative (undifferentiated 'this/that', generally deictic rather than discourse-definite §4.4.1.1), has the same syntax as a definite morpheme. It follows the noun and any modifiers (adjective, numeral, possessor). For NPs that include both a possessor (preposed or postposed) and a postposed demonstrative, see §6.5.1 above. In the absence of a possessor, the demonstrative controls tone-dropping on preceding words, viz., the final word in the N(-Adj) sequence and any numeral. Examples in (159) are inanimate, singular *ŋ̀gú* and plural *yɛ̌y*.

(159) Unpossessed inanimate NPs with demonstratives

a. noun

ńdô	'house'
ǹdò^{L} ŋ̀gú	'this house'

b. noun plus adjective

ǹdò^{L} ɔ̀wɔ́	'(a) big house'
[ǹdò$^{(L)}$ ɔ̀wɔ̀]^{L} ŋ̀gú	'this big house'

c. noun plus numeral

ńdô wǒy	'two houses'
[ǹdò wòy]^{L} yɛ̌y	'these two houses'

d. [noun adjective] numeral

[ǹdò^{L} *ɔ̀wɔ́] wǒy*	'two big houses'
[ǹdò$^{(L)}$ *ɔ̀wɔ̀ wòy]*^{L} *yěy*	'these two big houses'

Animate counterparts are in (160).

(160) Unpossessed animate NPs with demonstratives

a. noun

nèr^{n}*î*	'dog'
nèr^{n}*ì*^{L} *wǒ-ŋ*	'this/that dog'

b. noun plus adjective

nèr^{n}*ì*^{L} *pírí*	'(a) white dog'
[nèr^{n}*ì*$^{(L)}$ *pìrì]*^{L} *wǒ-ŋ*	'this/that white dog'

c. noun plus numeral

nèr^{n}*î wǒy*	'two dogs'
[nèr^{n}*ì wòy]*^{L} *wě:*	'these/those two dogs'

d. [noun adjective] numeral

[nèr^{n}*ì*^{L} *pírí] wǒy*	'two white dogs'
[nèr^{n}*ì*$^{(L)}$ *pìrì wòy]*^{L} *wě:*	'these/those two white dogs'

6.5.4 Determiner Tone-Dropping

When a postposed demonstrative or determiner co-occurs with a possessor in an NP, the demonstrative loses its tonosyntactic control over the preceding possessed noun. On the contrary, in many cases the demonstrative itself is tone-dropped. If the possessor is preposed to the noun, the possessor-controlled {HL} or {L} overlay applies to the noun (161a). If the only possessor-controlled overlay were {L}, we would be unable to determine whether the possessor (on the left) or the demonstrative (on the right) is the effective controller. However, the occurrence in Nanga of an {HL} possessor-controlled overlay (when the possessor ends in an H-tone) decides the question at least for the noun, since {HL} rather than {L} appears on it. The examples in (161a-d) have demonstratives, those in (161a-d) have definite markers, and all involve alienable possession of a otherwise simple (unmodified) noun.

(161) Poss-N-Demonstrative

a.	*[àr*^{n}*à*^{L}	*nɛ́]*	^{HL}*túŋgúrì*	^{L}*ŋ̀gù*
	[man^{L}	Def.AnSg]	^{HL}stool	^{L}Dem.InanSg
	'this stool of the man('s)'			
b.	*[àr*^{n}*à*^{L}	*nɛ́]*	^{HL}*túŋgúrì*	^{L}*yèy*
	[man^{L}	Def.AnSg]	^{HL}stool	^{L}Dem.InanPl
	'these/those stools of the man'			

c. *ú* ^{HL}*lésî* ^{L}*wò-ŋ*
2SgPoss ^{HL}uncle ^{L}Dem-AnSg
'this/that uncle of yours-Sg' (*wǒ-ŋ*)

d. *ú* ^{HL}*lésî* ^{L}*wè:*
2SgPoss ^{HL}uncle ^{L}Dem.AnPl
'these/those uncles of yours-Sg'

(162) Poss-N-Definite

a. *[yà-ŋ*^{L} *wǒ-ŋ]* ^{HL}*ńdô* ^{L}*gù*
[woman-Sg Dem-AnSg] ^{HL}house ^{L}Def.InanSg
'the house of this woman'

b. *[yà-ŋ*^{L} *wǒ-ŋ]* ^{HL}*ńdô* ^{L}*ỳ*
[woman-Sg Dem-AnSg] ^{HL}house ^{L}Def.InanPl
'the houses of this woman'

c. *[yà-ŋ*^{L} *wǒ-ŋ]* ^{HL}*nɛ́r*^{n}*î* ^{L}*nɛ̀*
[woman-Sg Dem-AnSg] ^{HL}dog ^{L}Def.AnSg
'the dog of this woman'

d. *[yà-ŋ*^{L} *wǒ-ŋ]* ^{HL}*nɛ́r*^{n}*î* ^{L}*bù(:)*
[woman-Sg^{L} Dem-AnSg] ^{HL}dog ^{L}Def.AnPl
'the dogs of this woman'

In examples like those in (161-2), we could argue that the L-tone of the determiner is simply an extension of the {HL} overlay that the possessor controls on 'stool' and its modifiers (adjective, numeral). If this were all there were to it, we would simply define the domain of the possessor-controlled overlay to include the determiner, and no special rule would be needed for determiners. I return to this question below.

My assistant normally drops the tones of the determiners in the examples in (161-2). In these examples, the possessor-controlled overlay is {HL} because the possessor ends in an H-tone. By contrast, when the possessor-controlled overlay is {L}, he frequently fails to drop the tones of the determiner. An example is *sùmǎylâ* ^{L}*ǹdò*^{L} *ŋ̀gú* varying with *sùmǎylâ* ^{L}*ǹdò ŋ̀gù* 'this house of Soumaila'. In the first variant, the {L} overlay of *ǹdò* 'house' could be attributed to either the possessor-controlled {L}, as in *sùmǎylâ* ^{L}*ǹdò* 'Soumaila's house', or to the demonstrative-controlled {L} in *ǹdò*^{L} *ŋ̀gú* 'this house'. So the variation in the data may reflect a tug-of-war between two would-be controllers.

When the simple Poss-N-Det examples in (161-2) are expanded by adding postnominal modifiers (adjective and/or numeral), the lexical tones of the determiner may reappear. When this happens, as in Poss-N-Adj-Num-Det, the possessor and the determiner on the two flanks are tonal peaks, while everything in between is L-toned except for a possible initial H on the possessed noun. Examples of this pattern are in (163).

(163) a. *[yà-ŋ*^{L} *nɛ́]* ^{HL}*[ńdô* *ɔ̀wɔ̀]* *ŋ̀gú*
[woman-Sg^{L} Def.AnSg] ^{HL}[house big] Dem.InanSg
'this/that big house of the woman'

b. *[yà-ŋ*^{L} *né]* ^{HL}*[lésî* *mɔ̀sì]* *wǒ-ŋ*
[woman-Sg^{L} Def.AnSg] ^{HL}[uncle bad] Dem-AnSg
'this/that nasty uncle of the woman'

c. *[yà-ŋ*^{L} *né]* ^{HL}*[lésî* *mɔ̀sì]* *bû:*
[woman-Sg^{L} Def.AnSg] ^{HL}[uncle bad] Def.AnPl
'the nasty uncles of the woman'

d. *á:mádù* ^{L}*[nɛ̀r*^{n}*ì* *kùrè* *mɔ̀sì]* *bû:*
A ^{L}[dog six bad] Def.AnPl
'the six nasty dogs of Amadou'

e. *[yà-ŋ*^{L} *wǒ-ŋ]* ^{HL}*[ńdô* *pìrì* *kùrè]* *ý*
[woman-Sg^{L} Dem-AnSg] ^{HL}[house white six] Def.InanPl
'the six white houses of this woman'

f. *[yà-ŋ*^{L} *wǒ-ŋ]* ^{HL}*[nɛ́r*^{n}*î* *pìrì* *kùrè]* *bû:*
[woman-Sg^{L} Dem-AnSg] ^{HL}[dog white six] Def.AnPl
'the six white dogs of this woman'

There are, however, other examples where the final determiner in such strings is L-toned. My impression is that this is more common for the singular definite morphemes (inanimate singular *gú* and variants, animate singular *né*), as in (164a-b), than for the demonstratives and for the plural definites. However, there is likely to be considerable interspeaker variation.

(164) a. *[yà-ŋ*^{L} *wǒ-ŋ]* ^{HL}*[ńdô* *pìrì]* ^{L}*gù*
[woman-Sg^{L} Dem-AnSg] ^{HL}[house white] ^{L}Def.InanSg
'this woman's white house'

b. *[yà-ŋ*^{L} *wǒ-ŋ]* ^{HL}*[nɛ́r*^{n}*î* *pìrì]* ^{L}*nɛ̀*
[woman-Sg^{L} Dem-AnSg] ^{HL}[dog white] ^{L}Def.AnSg
'this woman's white dog'

Consider now the inalienables with preposed pronominal possessors in (165). In my assistant's usual pronunciation, the N-Poss sequence is realized as though in isolation, the determiner similarly shows its lexical melody, and the intervening adjective and/or numeral are tone-dropped. Two analyses are possible. In one, N-Poss is a tonosyntactic island, and is followed by a second grouping in which the final determiner controls tone-dropping on the postnominal modifiers. Alternatively, we can attribute the tone-dropping on the postnominal modifiers to the possessor-controlled {HL} or {L} overlay. In such lengthy examples, my assistant usually did not drop tones on the Poss-N sequence, i.e. to *ù lèsì*, in the same way as he did in comparable examples without the determiner (§6.2.2.4). Apparently the more lengthy NPs in (165) favor chunky phrasings with multiple tonal peaks.

(165) a. *⊂ú* ^{HL}*lésî⊃* *[mɔ̀sì*^{L} *né]*
⊂2SgPoss ^{HL}uncle⊃ [bad^{L} Def.AnSg]
'the nasty uncles of yours-Sg'
[alternatively parsable as *⊂ú* ^{HL}*[lésì mɔ̀sì]⊃ né]*]

b. *⊂ú* ^{HL}*lésî⊃* *[mɔ̀sì* *kùrè]*^{L} *bû(:)]*
⊂2SgPoss ^{HL}uncle⊃ [bad six]^{L} Def.AnPl]
'the six nasty uncles of yours-Sg'
[alternatively parsable as *⊂ú* ^{HL}*[lésì mɔ̀sì kùrè]⊃ bû:]*]

(166a-d) exemplify the combination of a determiner with a postposed pronominal possessor, with or without other postnominal modifiers. The determiner is regularly tone-dropped in this combination. The fact that these possessors end in an L-tone may have been a factor historically.

(166) a. *túŋgúrí* *[ú* ^{HL}*gɔ̂]* ^{L}*ŋ̀gù*
stool [2Sg ^{HL}Poss.InanSg] ^{L}Dem.InanSg
'this stool of yours-Sg'

b. *ńdô* *[î:* ^{L}*gɔ̀]* ^{L}*ŋ̀gù*
house [1Pl ^{L}Poss.InanSg] ^{L}Dem.InanSg
'this house of ours'

c. *túŋgúrí* *[ú* ^{HL}*yɛ̂]* ^{L}*yèy*
stool [2Sg ^{HL}Poss.InanPl] ^{L}Dem.InanSg
'these stools of yours-Sg'

d. *[ǹdò*^{L} *pírí]* *kúrê* *[ú* ^{HL}*yɛ̂]* ^{L}*ỳ*
[house white] six [2Sg ^{HL}Poss.InanPl] Def.InanPl
'your-Sg six white houses (definite)'

e. *[ǹdò*^{L} *pírí]* *[ú* ^{HL}*gɔ̂]* ^{L}*gù*
[house^{L} white] [2Sg ^{HL}Poss.InanSg] ^{L}Def.InanSg
'your-Sg white house (definite)'

To summarize: Determiner Tone-Dropping applies frequently in simple Poss-N-Det sequences, especially with {HL} overlay on the possessed noun, and reliably in N-…-Poss-Det combinations. In the more complex sequences also involving postnominal modifiers, determiners tend not to drop, and they arguably control tone-dropping on the modifiers.

Determiner Tone-Dropping might be compared with vaguely similar tone-dropping that occurs on the locative postposition, see (196) in §8.2.3.2.

6.6 Universal and distributive quantifiers

6.6.1 'All' (*kéréw*, *sóy*, *pú→*)

Universal quantifier *kéréw* 'all' is added to the end of the NP. With inanimates, agreement is 3Sg rather than 3Pl (167a). With animates, agreement is plural. *kéréw* may be combined directly with an independent pronoun (167c), with appropriate person agreement. *kéréw* can also be used absolutely, in the sense 'everything' or 'everyone'. There is no tonosyntactic interaction between *kéréw* and preceding words in the NP.

(167) a. *[ǹdò*[L] *ý* *kérέw]* *yɛ̀gɛ́-ɛ̀rɛ̀-∅*
[house[L] Def.InanPl] **all**] fall-Pfv1a-3SgSbj
'All of the houses fell (=collapsed).'

b. *[yì-tɛ̀gɛ̀*[L] *bû:* *kérέw]* *yá* *b-ɛ̀*
[child-Pl[L] Def.AnPl **all**] Exist be-3PlSbj
'All of the children are present.'

c. *[î:* *kérέw]* *yá* *bù-y.:*
[1Pl **all**] Exist be-1PlSbj
'We are all present.'

d. *kérέw* *ńnɛ́-ɛ̀r-à*
all go-Pfv1a-3PlSbj
'Everyone went.'

e. *kérέw* *kɔ́:-tì-yà*
all eat-Pfv1b-3PlSbj
'They ate everything.'

It is also possible to use the more emphatic *sóy* in the same NP-final position (168a), and absolutely (168b). However, *sóy* can also be used phrase-initially, and in this case it may co-occur with *kérέw* (168c).

(168) a. *[ǹdò*[L] *ý* *sóy]* *ɲàmɛ́-ɛ̀rɛ̀-∅*
[house[L] Def.InanPl **all**] be.ruined-Pfv1a-3SgSbj
'All of the houses were ruined.'

b. *sóy* *ńnɛ́-ɛ̀r-à*
all go-Pfv1a-3PlSbj
'Everyone went.'

c. *[sóy* *yì-tɛ̀gɛ̀*[L] *bû:* *kérέw]* *yá* *b-ɛ̀*
[**all** child-Pl[L] Def.AnPl **all**] Exist be-3PlSbj
'All of the children are present.'

A regionally ubiquitous 'all' expression *pú→* (variants *fú→*, *bú→*), pronounced emphatically and often prolonged intonationally, is common in texts at the end of an NP. It also occurs in 'as soon as' clauses (§15.4.2).

For *kérέw* and *sóy* with negation, see §6.6.3, below. For emphatic *pés* '(not) at all', see §19.2.4.

6.6.2 'Each' (*kámâ*, *kɛ̂w*)

Distributive 'each' is *kámâ*. It forces tone-dropping on the preceding noun: *ńdô* 'house' but *ǹdò*[L] *kámâ* 'each house', likewise *yà:*[L] *kámâ* 'each woman'. Agreement is 3Sg. *kámâ* cannot be directly attached to a personal pronoun, but an independent pronoun with nonsingular

reference may precede it appositionally. In this case, agreement is still 3Sg regardless of the category of the pronoun (169c).

(169) a. *[nù*^{L} *kámâ] [pèrgɛ́ wǒy-wǒy] ńdí-mì-y.:*
[person^{L} **each**] [sheep two-two] give-Ipfv-1PlSbj
'We will give two sheep (apiece) to each person.'

b. *[nù*^{L} *kámâ]*
[person^{L} **each**]
[pèrgɛ̀^{L} *tùmâ-tùmâ] ǹjí-ŋ ńdí-ŋ̀*
[sheep^{L} one-one] 1Sg-Acc give-Ipfv.3SgSbj
'Each person will give me one sheep.'

c. *î: [nù*^{L} *kámâ]*
1Pl [person^{L} **each**]
[á ^{HL}*gɔ̂] ɛ́wɛ́-ŋ̀*
[3ReflSg ^{HL}Poss.InanSg] pay-Ipfv.**3SgSbj**
'Each of us will pay for his/her own (portion).'

The linear position of *kámâ* is discussed in §6.1.1, above.

kámâ forces double tone-dropping on a preceding noun-numeral sequence, though the construction is construed as summative; see 'each of the three men' in (90a) in §6.1.1. *kámâ* also controls tone-dropping on pronominally possessed nouns, targeting the pronoun as well as the noun. This applies to inalienables with preposed pronominal possessor (170a) and to any noun with postposed pronominal possessor (170b). Similar cases involving determiners as controllers have been presented above (§6.5).

(170) a. *[ù lèsì]*^{L} *kámâ*
[**2SgPoss** uncle]^{L} each
'each uncle of yours-Sg' (= 'each of your uncles') (< *ú lésî*)

b. *[ǹdò*^{L} *[ù gɔ̀]]*^{L} *kámâ*
[house [2Sg **Poss**.InanSg]]^{L} each
'each house of yours-Sg' (= 'each of your houses') (< *ńdô [ú* ^{HL}*gɔ̂])*

The expression *kɔ̀*^{L} *kámâ* 'each thing' is commonly used under negation to mean '(not) anything', i.e. 'nothing'. It is a high-frequency expression and is often heard as [kɔ̀kɔ́mâ] with partial forward vocalic assimilation.

For *àr*^{n}*à*^{L} *kámâ* 'next year' (not 'each year'), see (226c) in §8.4.6.1 below.

The basic sense of *kɛ̂w* is 'equal(ly)', as seen clearly in its use in explicit comparatives. It is an adverb, and does not induce tone-dropping on a preceding NP. However, in many contexts 'equally' and 'each' overlap, as in 'I gave them each/equally two cows.' As an adverb, *kɛ̂w* can be used in some contexts where the NP-internal *kámâ* is awkward, as with preposed possessors (171b). See also (90b) in §6.1.1.

(171) a. *[yǎ-ŋ* ^{HL}*lésî] kɛ̂w*
[woman-Sg ^{HL}uncle] equally
'each uncle of a woman'

b. *[àrⁿà*[L] *wǒ-ŋ]* [HL]*lésî* *kêw*
[man[L] Dem-AnSg] [HL]uncle equally
'each uncle of this man'

6.6.3 Universal and distributive quantifiers with negation

Of the two 'all' parrticles (universal quantifiers) described above (§6.6.1), the more emphatic *sóy* is most likely to have wide scope containing a negation. It therefore functions to emphasize the negation in (172).

(172) *sóy* *kɔ̂:-ŋɔ̀-w* *ndè,* *tù-túwè-m̀-ʷ*
all eat-**PfvNeg**-2SgSbj if, Rdp-die-Ipfv-2SgSbj
'If you-Sg don't eat at all, you will die.'

The more basic and unmarked universal quantifier *kérέw* is more usual in narrow-scope contexts, i.e. where the negation has wide scope (173).

(173) *yû:* *[î:* [L]*gɔ̀],* *kà-kǎ:* *gàmbí* *kúwó* *ŋ́,*
millet [1Pl [L]Poss.InanSg]], Rdp-grasshopper certain eat and.SS
gàmbí *dɔ̀g-ɔ̀,* *[kérέw* *gày]* *kùwò-ndú*
some leave.Pfv-3PlSbj, [**all** Topic] eat-**PfvNeg**.3Pl
'The locusts ate some of our millet and left some; they did not eat all (of it).'

6.7 Accusative *-ŋ*

The accusative suffix (or enclitic) *-ŋ* is added to NPs including pronouns in direct object function. It is common with animate referents. It is uncommon but possible with inanimates, especially in emphatic pronunciations; see e.g. 'gear' in line 2 of (584) below. When it occurs at the end of an NP it could be taken as a postposition, but there are some cases where it is NP-medial,

-ŋ usually reduces phonetically to nasalization and perhaps very slight lengthening of a preceding vowel, though I normalize transcription as *-ŋ*. When followed by a vowel-initial word, we might expect a loud and clear [ŋ]. However, the *-ŋ́* in *pèrgɛ́-ŋ́* 'sheep-Acc' has the same phonetic reductions in e.g. *pèrgɛ́-ŋ́ ǎy-só-ý* 'I picked up a sheep' as it does before a consonant or prepausally. The suffix is often entirely inaudible in contexts where I suspect it is "present" grammatically. Inaudibility is common when the final syllable of the form is already nasal (*kúrⁿô* 'stone', *árⁿâ* 'man', *nàmâ* 'meat'), but inaudibility is also fairly common even in more benign phonological environments. When there is no audible cue, it is difficult to determine whether the suffix is structurally absent (i.e. because it is optional), or has merely been reduced to zero phonetically. My practice is to omit it in transcriptions unless it has at least some audible trace (such as nasalization). However, (animate) pronouns seem to have (underlyingly) obligatory *-ŋ* in the relevant syntactic environments, and in the case of 1Sg *ǹjí-ŋ́* even the phonetic disappearance of *-ŋ́* is recoverable from the change in pronominal allomorph (compare regular 1Sg pronoun *ǐ:ⁿ*).

The suffix has no intrinsic tone, so the final tone of the noun or pronoun is extended to the suffix. (174a) show *-ŋ́* after a simple animate noun stem. The pronominal version in

(174b) also shows *-ŋ́*. A prenominal possessor is compatible with *-ŋ́* on the possessed noun (174c).

(174) a. *pèrgɛ́-ŋ́* *sɛ́mɛ́-só-ý*
sheep-Acc slaughter-Pfv2-1SgSbj
'I slaughtered a sheep.'

b. *ńné-ŋ́* *sɛ́mɛ́-só-ý*
AnSg-Acc slaughter-Pfv2-1SgSbj
'I slaughtered it (animate).'

c. *[á* ^{HL}*bâ:-ǹ]* *yǐ:-só-∅*
[3ReflSgPoss ^{HL}father-Acc] see-Pfv2-3SgSbj
'She saw her (own) father.'

d. *béré-ŋ́* *kɛ́sɛ́-só-ý*
stick-Acc cut-Pfv2-1SgSbj
'I cut a stick.'

A following *yaŋa* 'also, even' has L-tones, even when the accusative morpheme is H-toned, as in *ǹjí-ŋ́ yàŋà* 'me too'. This could be taken as evidence for an underlying L-tone of the accusative morpheme; see §3.7.3.4, §19.1.3.

If a noun is followed by a modifying adjective, accusative *-ŋ* (if present at all) is attached to the adjective (175a-b). The same NP-final accusative is found when the noun precedes a pronominal possessor (which includes a possessive classifier) as in (175c). Accusative *-ŋ* is not doubled on the noun in these combinations.

(175) a. *[pèrgɛ̀*^{L} *ɛ̀wré-ŋ́]* *sɛ́mɛ́-só-ý*
[sheep^{L} small-**Acc**] slaughter-Pfv2-1SgSbj
'I slaughtered a small sheep.'

b. *[àr*^{n}*à*^{L} *gàwá-ŋ́]* *súyɔ́-só-ý*
[man^{L} tall-**Acc**] hit-Pfv2-1SgSbj
'I hit a tall man.'

c. *[pèrgɛ́* *[á* ^{HL}*yê-ŋ]]* *sɛ́mɛ́-só-∅*
[sheep [3ReflSg ^{HL}Poss.AnSg-**Acc**]] slaughter-Pfv2-3SgSbj
'He slaughtered his (own) sheep-Sg.'

When a numeral greater than 'one', the universal quantifier *kéréw* 'all', distributive quantifier *kɛ̂w* 'each', or *sǎy* 'only' follows an animate noun, accusative *-ŋ* is suffixed to the noun (not to the quantifier) (176).

(176) a. *[pèrgɛ́-ŋ́* *pɛ̂:r]* *sɛ́mɛ́-só-ý*
[sheep-**Acc** ten] slaughter-Pfv2-1SgSbj
'I slaughtered ten sheep.' (*pɛ́:rù*)

b. *[pèrgɛ́-ŋ* *kérɛ́w]* *sɛ́mɛ́-só-ý*
[sheep-**Acc** all] slaughter-Pfv2-1SgSbj
'I slaughtered all the sheep.'

c. *[pèrgɛ́-ŋ* *kɛ̂w]* *[ná* *wǒy-wǒy]* *sùyɔ̀-ỳ*
[sheep-**Acc** each] [time two-two] hit.Pfv-1SgSbj
'I hit each sheep twice.'

The distributive quantifer *kámâ* is treated like a modifying adjective (in this as in other respects), so *-ŋ* in this case is added to the quantifier (177b). The numeral 'one' is also an adjective syntactically and takes *-ŋ* directly (177c).

(177) a. *[pèrgɛ́-ŋ́* *sǎy]* *sɛ̀mɛ̀-ỳ*
[sheep-**Acc** only] slaughter.Pfv-1SgSbj
'I slaughtered only a sheep.'

b. *[pèrgɛ̀*^{L} *kámâ-ŋ]* *[ná* *wǒy-wǒy]* *sùyɔ̀-ỳ*
[sheep^{L} each-**Acc**] [time two-two] hit-Pfv-1SgSbj
'I hit each sheep twice.'

c. [*pèrgɛ̀*^{L} *tùmâ-ŋ̀]* *sǎy* *sɛ̀mɛ̀-y*^{n}
[sheep^{L} one-**Acc**] only slaughter.Pfv-1SgSbj
'I slaughtered only one sheep.'

Accusative *-ŋ* can also attach to a postnominal determiner (178).

(178) a. *[pèrgɛ̀*^{L} *nɛ́-ŋ́]* *sɛ́mɛ́-só-ý*
[sheep^{L} Def.AnSg-**Acc**] slaughter-Pfv2-1SgSbj
'I slaughtered the sheep-Sg.'

b. *[[pèrgɛ̀* *ɛ̀wrɛ̀]*^{L} *nɛ́-ŋ́]* *sɛ́mɛ́-só-ý*
[[sheep small]^{L} Def.AnSg-**Acc**] slaughter-Pfv2-1SgSbj
'I slaughtered the small sheep-Sg.'

c. *[kùr*^{n}*ò*^{L} *gú-ŋ́]* *gùyó-só-ý*
[stone^{L} Def.InanSg-**Acc**] break.up-Pfv2-1SgSbj
'I broke up the rock.'

d. *[ǹdò*^{L} *ŋ̀gú-ŋ́]* *ɛ́wɛ́-só-ý*
[house^{L} Dem.InanSg-**Acc**] buy-Pfv2-1SgSbj
'I bought this house.'

However, the determiners that end in a consonant, namely *wǒ-ŋ* 'this (animate)', *yɛ̌y* 'these' (inanimate), and definite plural *ý*, do not occur with accusative *-ŋ* (or at least do not allow it to be audibly expressed).

Accusative *-ŋ* does not occur in my data with pro forma cognate-nominal objects (§11.1.5), like *kò-kósô* 'coughing' in *kɔ̀-kósô kósó-só-ý* 'I coughed (a cough)'.

A difficulty in parsing texts is that accusative *-ŋ* is phonologically indistinguishable from *=ŋ*, the 3Sg animate form of the 'it is' clitic, which is commonly added to nouns and NPs (§11.2.1.1).

7 Coordination

7.1 Conjunction

7.1.1 NP conjunction ('X and Y') with *yò* ~ *yè*

The basic 'and' conjunction is *yò*, following both coordinands (179). It is L-toned even after an H-tone. A variant *yè* is also recorded. L-toned conjunction *yò* is distinct from an apparent minor contrastive topic particle *yó*, with H-tone and not paired with a second conjunct, attested once in a text (179c), see §18.1.4.4.

(179) a. *[ú yò] [ĭ:ⁿ yò]*
[2Sg **and**] [1Sg **and**]
'you-Sg and I'

b. *[bɛ́rî yò] [pèrgɛ́ yò]*
[goat **and**] [sheep **and**]
'a goat and a sheep'

c. *[mɔ̀rɔ̀ gú] [ĭ:ⁿ yó]*
[Moro^{L} Def.InanSg] [1Sg **Topic**]
[[tìgà^{L} gú] tígí-rí] bɛ́rɛ̀-m̀-∅,
[[surname^{L} Def.InanSg] recite.surnames-Tr] can.Ipfv-1SgSbj]
[tìgà^{L} gú] tígí-rì
[surname^{L} Def.InanSg] recite.surnames-Tr.QuotImprt
kìyɛ̀-ẁ ndé gày
said Topic
'That Moro (surname), as for me, I can speak about the name, if you have said (=asked me) to speak about the name.' (2004.01.06)

7.1.1.1 Ordering of coordinands

My assistant indicated that the coordinands can be ordered either way. He did, however, express a preference for ordering pronouns before names or other NPs. In combinations of two pronouns, he preferred ordering third person before second person ('he/she and you') and second before first ('you and I').

7.1.1.2 Conjunction with final quantifier

kɛ́rɛ́w 'all' may appear at the end of a conjoined NP as a kind of right-edge marker.

(180) *[ú yò] [ǐ:ⁿ yò] kérέw ńné-mì-y.:*
[2Sg and] [1Sg and] **all** go-Ipfv-1PlSbj
'You-Sg and I are both going.'

7.1.2 Conjunction with *yaŋa* 'also'

Atonal *yaŋa* 'also' (§19.1.3) can be added to each NP in a list, including the first item. This is not the same morpheme as {L}-toned instrumental *yàŋà* ~ *ỳŋà*. The list may be brought to a clear end by a final *kérέw* 'all'.

(181) *[ɔ̀gɔ̀ŋɔ̀ŋɔ́ [pê:r wǒy ságâ]] yàŋà,*
[camel [10 2 plus]] **also**,
káŋê yàŋà, jámâ yàŋà, yû: yàŋà,
gold **also**, diamonds **also**, millet **also**,
pɔ̌:ⁿ yáŋá, sà:yú: yáŋá,
fonio **also**, wild.fonio **also**,
bàrá á gò-ndò-sè gù-ndè, …
gather 3ReflSg go.out-Caus-Ppl.Pfv and.then.Past, …
'She gathered up and brought out twelve camels, gold, diamonds, millet, fonio (a grain, *Digitaria exilis*), and wild fonio (*Panicum laetum*).' (2004.02.03)

7.1.3 Conjunction with animate plural definite *bû:*

After a noun, *bû:* is elsewhere the animate plural definite morpheme (§6.2.2.3). It also occasionally functions as an alternative to *yò* and *yaŋa* in NP conjunctions.

In (182), two NPs that had been conjoined by *yaŋa* in the immediately preceding discourse are repeated, this time with just high nonterminal final pitch. Animate plural *bû:* is technically incorrect for the inanimate 'the carts', but its repetition here fits the usual pattern where an invariant 'and' or 'also' morpheme is repeated after each conjunct. *kérέw* 'all' concludes the phrase as a right-edge marker, as often in other types of NP conjunction.

(182) *[ɔ̀gɔ̀ŋɔ̀ŋɔ̀ᴸ bû:↑], [wògòtòrò^L bû:↑], kérέw*
[camelᴸ **Def.AnPl**], [cartᴸ **Def.AnPl**], all
'the camels and the carts' (2004.02.03)

Another possible textual example is (183), though parsing it is difficult. *bû:* occurs only after what appears to be the right conjunct. It is tone-dropped to ᴸ*bù:* after the pronominal possessor (§6.5.4), and it is combined with the 'also' particle.

(183) *yì-tègê [yî: yɛ̌: ᴸbù:] yàŋà,*
child-Pl [child 1Sg.Poss.AnPl ᴸ**Def.AnPl**] also,
[ǹnè-ẁⁿ.: ndè] [kɔ̀ᴸ kámâ] bàrá jô:-ndì
[go.Pfv-2PlSbj] if] [thingᴸ any] gather bring.Imprt-PlAddr
'(You) children (of the village) along with my children, (you-Pl) go, gather the various things, and bring (them)!' (2004.02.03)

7.1.4 "Conjunction" of verbs or VP's

The conjoined NP type *[X yò] [Y yò]* is not used with verbs, VP's, or clauses (except when clauses are quoted and treated as NPs, as in 'X said ["Y" and "Z"]').

For various ways to chain verbs, VPs, and clauses, see chapter 15.

7.2 Disjunction

There is no sharp distinction between disjunctive 'X or Y' in indicative contexts, and polar (mainly yes/no) interrogatives (§13.2.1).

7.2.1 'Or' (*mà*)

The simplest disjunctive phrase is of the type *[X mà] [Y mà]*, as in (184a). This is directly comparable to the conjunction type *[X yò] [Y yò]* described above. However, there is an asymmetry in the disjunctive construction, in that the first but not the second *mà* is subject to intonational prolongation, the effect of which is to make it difficult to bracket this *mà* with the first coordinand. Furthermore, the second *mà* is often omitted, as in (184b).

(184) a. *àsú→ [pèrgé mà→] [bɛ́rî mà] sɛ́mɛ̀-mì-y.:*
always [sheep or] [goat **or**] slaughter-Ipfv-1PlSbj
'We slaughter (either) a sheep or a goat always (= every day).'

b. *[nù:*[L] *bû: [[nàŋá tà:ndǐ: mà→] nǒy*[n]*]*
[person[L] Def.AnPl] [[cow three **or]** four]
màrà-g-à
be.lost-Caus.Pfv-3PlSbj
'The people lost three or four cows.'

7.2.2 Clause-level disjunction

It is particularly difficult to keep clausal disjunction (which by definition allows two or more possibilities) distinct from polar interrogation. The examples in (185) were elicited as disjunctions. They show a single occurrence of *mà→* 'or' between the two clauses, which is also possible with interrogatives ('will we go to the market, or will we die?'). In the indicative disjunctive sense, my assistant showed a distinct preference for the simple perfective as opposed to the imperfective, for future as well as past time frames. Stative verbs are also possible (185c).

(185) a. *ɛ́:ŋí [ɛ́wɛ́ gá] ǹnɛ̀-y.: mà→ tùwɛ̀-y.:*
tomorrow [market Loc] go.Pfv-1PlSbj **or** die.Pfv-1PlSbj
'Tomorrow, (either) we'll go to the market, or we'll die.'
(lit. "… we'll have gone … or we'll have died")

b. *bàmàkɔ́* *ǹnɛ̀-ẁ* *mà→* *ŋ̀gá* *bɛ̀:-w*
B go.Pfv-2SgSbj **or** here stay.Pfv-2SgSbj
'You-Sg will go to Bamako or you will stay here.' (but e.g. you won't go to Mopti)

c. *[ò:*[L] *gɔ́]* *ǹnɛ̀-∅* *mà→* *ní-nìyà-∅*
[field[L] Loc] go.Pfv-3SgSbj **or** Rdp-sleep.Stat-3SgSbj
'Either he has gone to the field, or he's sleeping.' (one infers, since he doesn't answer our knock at the door)

My assistant rejected disjunctions including morphological imperatives (either two imperatives, or a combination of some other verb form with a final imperative). (185b) can be used as a rough pragmatic equivalent to a disjunction of two imperatives ('Go to Bamako, or stay here!').

8 Postpositions and adverbials

8.1 Dative and instrumental

8.1.1 Dative *bay* ('for', 'at the place of')

This atonal postposition appears in two tonal variants, *báy* and *bày*, carrying over the final tone from the preceding morpheme.

(186) a. *yùrí* *[[nù:*^{L} *pĕ:]* *báy]* *ké:r-só-ý*
garment [[person^{L} old] **Dat**] show-Pfv2-1SgSbj
'I showed the garment to the old man.'

b. *kĕ:rê* *[á:mádù* *bày]* *ńdí-só-ý*
money [Amadou **Dat**] give-Pfv2-1SgSbj
'I gave the money to Amadou.'

c. *[[ú* ^{HL}*bâ:]* *bày]* *dámâ*
[[2SgPoss ^{HL}father] **Dat**] speak.Imprt
'Speak-2Sg to your father!'

d. *nî:* *[lò:sí* *báy]* *ǹdì-y*
water [visitor **Dat**] give.Pfv-1SgSbj
'I gave some water to a visitor.'

With 'give' and 'show', datives are optionally replaced by accusatives, but 'say' requires that the addressee (if specified overtly) be in dative form.

This postposition can also be used like French *chez X* 'at the place/house of X'.

(187) *á:mádù* *[ú* *báy]* *bù-∅*
A [2Sg **chez**] be-3SgSbj
'Amadou is at your-Sg place.'

Pronominal datives are repeated in (188) from §4.3.1. Except for the first singular portmanteau, the forms are transparent. 1Sg *bàr*^{n}*í* arguably begins with a variant of *bày* followed by a 1Sg element (reversing the usual order), but the morphology here is opaque.

(188) Pronominal datives

	category	dative	
a.	1Sg	*bàr*^{n}*í*	[irregular]
	1Pl	*î: bày*	

b. 2Sg *ú báy*
2Pl *û: bày*

c. 3Sg *ńnɛ́ báy*
3Pl *bû: bày*

d. InanSg *kú báy*
InanPl *kû: bày*

e. 3Logo/3ReflSg *á báy*
3Logo/3ReflPl *â: bày*

Further examples of pronominal datives are in (189).

(189) a. *bàr^{n}í* *ǹjɛ̀nà:r^{n}í* *dàmà-r^{n}ì-∅*
1SgDat nothing speak-PfvNeg-3SgSbj
'He/She said nothing to me.'

b. *tégî* *[ú* *báy]* *dámá-m̀-∅*
truth [2Sg **Dat**] speak-Ipfv-1SgSbj
'I will tell you-Sg the truth.'

8.1.2 Instrumental or comitative *yàŋà* (*ỳŋà*)

The basic instrumental postposition is {L}-toned *yàŋà*, optionally elided after a vowel to *ỳŋà*. It is distinct from *yaŋa* (atonal, hence either *yáŋá* or *yàŋà*) 'also, even' (§19.1.3).

(190) a. *nàmâ* *[pòrí* *yàŋà]* *kɛ́sɛ́-só-∅*
meat [knife **Inst**] cut-Pfv2-3SgSbj
'He/She cut the meat with a knife.'

b. *[nɛ̀:mí* *yàŋà]* *nɛ̀ŋí* *nɛ́ŋgírɛ̀-m-ɛ̀*
[salt **Inst**] baobab.sauce cook.sauce-Ipfv-3PlSbj
'They will cook the sauce with salt.'

c. *[kúr^{n}ô* *yàŋà]* *ńnɛ́-ŋ́* *sùyɔ̀-y*
[stone **Inst**] 3Sg-Acc hit.Pfv-1SgSbj
'I hit him/her with a stone.'

With pronouns: *kú yàŋà*, *ńnɛ́ yàŋà*, etc. With demonstratives: *ŋ̀gú yàŋà*, etc.

A fixed combination *níŋèy ỳŋà* 'now' occurs in the texts, where the postposition adds no discernible incremental meaning to *níŋèy* 'now'. An example is at the end of (746) in the sample text.

If the complement denotes a human, the postposition can be comitative ('with' in the sense 'together with' or 'in the company of'). Examples are 'Who did they come with?' (466e) in §13.2.2 and 'they fought with each other' in (706b) in §18.3.1.

8.2 Locational postpositions

8.2.1 Locative, allative, and ablative functions

Simple locative adverbials, including locative PPs, can be translated as (stationary) locatives, as allatives, or as ablatives ('in/at X', 'to X', 'from X'). Directional senses (allative and ablative) are expressed by other words, primarily motion verbs. Ablative is expressed by *gŏ:* 'go out, exit', which can be chained to other verbs. Any other verb of motion or locomotion ('go', 'run') can be combined with a locative adverbial or place name to express the allative. For examples see §8.2.11, §15.1.6, and §15.1.9.

8.2.2 Simple and complex PPs

The complex PPs are parallel to English 'in front of X' or the like. In Nanga they involve a possessed noun expressing the spatial relation ('over', 'under', 'front', etc.). This possessed spatial noun is then followed by the simple locative postposition *ga* (§8.3.3). Since the spatial noun in question is possessed, it has its lexical melody when it precedes a pronominal possessor, and a possessor-controlled overlay {HL} or {L} when it follows a possessor (usually nonpronominal). The spatial noun may therefore have three distinct tone patterns: lexical melody, {HL} overlay, or {L} overlay. In practice, the {HL} overlay has generalized to become the lexical (as well as possessed) tone.

8.2.3 Locative postposition 'in, on'

8.2.3.1 Forms of the postposition *(ga, ŋa, gɔ, ŋɔ, go, ŋo)*

The basic locative postposition has allomorphs {*ga ŋa gɔ ŋɔ go ŋo*}. Distributional asymmetries described below suggest that the oldest form is *gɔ* or *go*, i.e. with oral stop and back rounded vowel, compare Ben Tey *wo*.

The postposition is used chiefly with inanimate NP complements, but not with toponyms, which instead have a clitic *=yè* that may reduce to just a tone element (§8.2.4, below). The opposition between a general inanimate category that is associated with a morpheme *KO* (*K* a velar, *O* a back or low vowel), and a toponym category associated with a morpheme *YE*, can be connected with Najamba nominal morphology, where a final E vocalism {e ɛ} is associated with nouns denoting topographic features and liquids, while the more common final O vocalism {o ɔ a} is found with most other inanimate nouns.

The NP preceding locative {*ga ŋa gɔ ŋɔ go ŋo*} has its regular tones (with exceptions noted below), and its final tone spreads to the postposition. There is a partial phonological basis for the allomorphs, but some nouns have unpredictable allomorph choices and there is some variation in my data. The following is a summary of what I think are the basic patterns.

Segmentally, one common allomorph of the postposition is *ga*. It is realized tonally as either *gà* or *gá* depending on the final tone of the noun. The stems with this allomorph generally have vowels from the set {*a ɛ i*} and do not have a final nasal syllable (191).

(191)	gloss	noun	'in a(n) X'	
	'shop'	*bìtíkî*	*bìtîk gà*	(syncopated)
	'pond; shoe'	*tàgá*	*tàgá gá*	
	'cousinhood'	*màgí*	*màgí gá*	
	'courtyard'	*dámbí*	*dámbí gá*	
	'market'	*ɛ́wɛ́*	*ɛ́wɛ́ gá*	
	'afternoon'	*dèndè-sî*	*dèndè-sî gà*	
	'leaves'	*úwâ*	*úwâ gà*	
	'goat(s)'	*bɛ́rî*	*bɛ̂r gà*	(syncopated)

The *g* of the postposition is nasalized to *ŋ* after a nasalized vowel or after a syllable of the shape *Nv* with a nasal (or nasalized sonorant) followed by a phonemically oral vowel. A nasal earlier in the word does not have this effect; see cousinhood' in (191), above. Examples with locative *ŋá* ~ *ŋà* are in (192).

(192)	gloss	noun	'in a(n) X'
	'shed'	*tǎ:ⁿ*	*tǎ:ⁿ ŋá*
	'man(-hood)'	*árⁿâ*	*árⁿâ ŋà*
	'word'	*dàmá*	*dàmá ŋá*
	'tree'	*tùmá*	*tùmá ŋá*
	'beam'	*gâ:ⁿ*	*gâ:ⁿ ŋà*
	'cow'	*nàŋá*	*nàŋá ŋá*
	'meal'	*ɲǎ:*	*ɲǎ: ŋá*

The vowel of the postposition is often rounded to *ɔ* or *o*. In many cases this is by assimilation to the final vowel of the preceding NP. If the final vowel is *ɔ*, the postposition has *ɔ* (193a). If the final vowel is *o* or *u* (the latter is rare at the end of nonmonosylalbic noun stems), the postposition has *o* (193b). Stems ending in a sequence like *…oCi* and *…ɔCi* may appear as *…oCu* and *…ɔCu*, respectively, before the postposition, and the *o* or *ɔ* vocalism may carry over into the postposition; it was noted in §3.4.4 that lexical final short *u* is rare, but that final short *i* often alternates with *u* in the presence of rounded vowels or *w*. My assistant inconsistently distinguished the *ŋo* and *ŋɔ* variants, tending to pronounce *ŋɔ* even in vocalic environments where *ŋo* is expected. Some but not all nouns containing a nasal require *ɔ* in the postposition even without a rounded vowel in the noun itself (193e). Stems with *e* also favor *o* in the postposition (193f). I flag idiosyncratic tonal shifts of the stem with ! to the right of the PP (explanations below).

(193)	gloss	noun	'in a(n) X'
	a. *Cɔ* after *ɔ*		
	'immature pod'	*gɔ̌:ɲjɔ̂*	*gɔ̌:ɲjɔ̂ gɔ̀*
	'wide pond'	*tàgà ɔ̀wɔ́*	*tàgà ɔ̀wɔ́ gɔ́*
	'mountain'	*tɔ́rɔ̂*	*tɔ́rɔ̂ gɔ̀*
	'chaff'	*ɔ̀yⁿɔ́*	*ɔ̀yⁿɔ́ ŋɔ́*

b. *Co* after *o* or *u*

'criticism'	*dómór^{n}ó*	*dómór^{n}ó ŋó*	
'the bush, outback'	*ò:-sóró*	*ò:-sóró gó*	
'fields, outback'	*ǒ:*	*ò: gó*	!
'complex'	*gálô*	*gálô gò*	
'head'	*kû:*	*kú: gó*	!

c. *Cɔ* after *ɔ…i becoming ɔ…u*

'toilet area'	*sùgɔ̀-gɔ̀mí*	*sùgɔ̀-gɔ̀mú ŋɔ́*

d. *Co* after *o…i* or *u…i becoming o/u…u*

'road'	*ósî*	*ósú gó*	!
'mountain'	*tɔ̀rɔ́-kúndí*	*tɔ̀rɔ̀-kúndú gó*	
'rear'	*tùndí*	*tùndú gó*	
'skin'	*gùsí*	*gùsú gó*	
'forest'	*úndì*	*úndù gò*	

e. *Cɔ* after unrounded vowels

'meat'	*nàmâ*	*nàmâ ŋɔ̀*
'speech'	*dàmá*	*dàmá ŋɔ́*
'milk'	*ɛ́mɛ̂*	*ɛ́mɛ̂ ŋɔ̀*
'water'	*nî:*	*ní: ŋɔ́*	!

f. nouns with *e*

'speech'	*tégî*	*tégî gò* (or syncopated [têg:ò])
'belly'	*bèndé*	*bèndé gó*
'eye'	*gìré*	*gìré gó*
'sauce'	*nèŋí*	*nèŋí ŋó* (syncopated [nĕŋ:ó])

Combined with Nasalization-Spreading (see above), the rounding of the postposition vowel accounts for the allomorphs *gɔ*, *ŋɔ*, *go*, and *ŋo*.

In several high-frequency combinations, a final L- or <HL>-tone on the noun shifts to H-tone before the postposition (which then itself acquires the H-tone by spreading). This is the case with 'head', 'road', and 'water', which are flagged with ! in (193) above and are repeated in (194). In the case of *gǒ:* 'fire', the same process is at work, but since the input stem is a <LHL> monosyllabic the output is <LH> (i.e. rising tone).

(194)

gloss	noun	'in a(n) X'
a. final <HL> to H		
'farming'	*wórî*	*wór gó*
'grass'	*sàwâ*	*sàwá gá*
'house'	*ńdô*	*ńdó gó*
'road'	*ósî*	*ósú gó*
'head'	*kû:*	*kú: gó*
'water'	*nî:*	*ní: ŋɔ́*

b. final <LHL> to <LH>

‘fire’	*gɔ̌:*	*gɔ̀: gó*

The raising of the final L-tone element in (194) is not a general phonological rule; several examples given above preserve a final L- or <HL>-tone before the postposition, which then itself has L-tone.

The common expression ‘in/to the field(s)’ is *ò: gó*, with an L-toned version of *ɔ̌:* ‘field(s)’. There is no general phonological rule converting an <LH>-toned monosyllabic to an L-toned one, compare *ɛ̌: gá* ‘in/to the well’.

8.2.3.2 Fusion of locative postposition with determiners (*gá*, *ŋ̀gá*)

The locative postposition (*ga* and variants) fuses with a preceding inanimate singular definite *kú* ~ *gú* ~ *ḿ* to form invariant portmanteau *gá*, presumably contracted from *gù-gá either via syncope (*g-gá) or, less plausibly, via spirantization and deletion of intervocalic *g (*gùɣá > *gùá). As with definite *kú* ~ *gú* ~ *ḿ* by itself, the fused form *gá* induces tone-dropping on the preceding noun. For nouns that take simple (indefinite) locative allomorph *gá*, the tone-dropping on the noun distinguishes the simple locative from the definite locative (195a). No confusion is possible with nouns that take any simple locative allomorph other than *gá*. (195) summarizes the audible cues that distinguish ‘in X’ from ‘in the X’ for different nouns, and shows how ‘in the X’ is based on ‘the X’.

(195)

gloss	noun	‘in X’	‘the X’	‘in the X’
a. distinction made only by tone-dropping of noun				
‘market’	*ɛ́wɛ́*	*ɛ́wɛ́ gá*	*ɛ̀wɛ̀*^{L} *gú*	*ɛ̀wɛ̀*^{L} *gá*
‘courtyard’	*dámbí*	*dámbí gá*	*dàmbì*^{L} *gú*	*dàmbì*^{L} *gá*
b. distinction made only by form of postposition (only known example)				
‘fields’	*ɔ̌:*	*ò:*^{L} *gó*	*ò:*^{L} *gú*	*ò:*^{L} *gá*
c. distinction made by tone-dropping and by form of postposition				
L-toned gà				
‘shop’	*bìtíkî*	*bìtík gà*	*bìtìk*^{L} *gú*	*bìtìk*^{L} *gá*
‘calabash’	*kɔ̀sî*	*kɔ̀sî gà*	*kɔ̀sù*^{L} *gú*	*kɔ̀sì*^{L} *gá*
rounded vowel				
‘hide bag’	*nàkɔ̀mbɔ́*	*nàkɔ̀mbɔ́ gɔ́*	*nàkɔ̀mbɔ̀*^{L} *gú*	*nàkɔ̀mbɔ̀*^{L} *gá*
‘house’	*ńdô*	*ńdó gó*	*ǹdò*^{L} *gú*	*ǹdò*^{L} *gá*
‘forest’	*úndì*	*úndù gò*	*ùndù*^{L} *gú*	*ùndì*^{L} *gá*
‘river’	*nì:-bá:*	*nì:-bá: gó*	*nì:-bà:*^{L} *gú*	*nì:-bà:*^{L} *gá*
‘seeds’	*tɔ̌:*	*tɔ̌: gó*	*tò:*^{L} *gú*	*tò:*^{L} *gá*
‘village’	*ìsê*	*ìsé gó*	*ìsè*^{L} *gú*	*ìsè*^{L} *gá*
ŋ for g				
‘shed’	*tǎ:*^{n}	*tǎ:*^{n} *ŋá*	*tà:*^{nL} *gú*	*tà:*^{nL} *gá*
rounded vowel plus ŋ for g				
‘water’	*nî:*	*ní: ŋɔ́*	*nì:*^{L} *gú*	*nì:*^{L} *gá*

A similar fusion occurs with the inanimate singular demonstrative pronoun *ŋ̀gú*, which has locative form *ŋ̀gá*. As with the fusion of definite *gú* and the locative into *gá*, the fused form *ŋ̀gá* requires tone-dropping on the preceding noun: *ǹdò*^{L} *ŋ̀gá* 'in this house'. The plural is *ǹdò*^{L} *yěy gò* 'in these houses'.

Without a preceding noun, *ŋ̀gá* functions as the regular 'here' demonstrative adverb. It is likely that *ká* 'there (discourse-definite)' is similarly reconstructible as the fusion of pronoun *kú* 'it' (in context often discourse-definite 'that') with the locative postposition. See §4.4.2.1 for these locative adverbs.

The inanimate plural definite is *ý* (with tone-dropping on the noun), see §4.4.1.1. The locative postposition takes L-toned form *gò* after this, regardless of the vocalism of the noun. This tone-dropping is reminiscent of Determiner Tone-Dropping (§6.5.4).

(196)	gloss	noun	'the Xs'	'in the Xs'
	'stick'	*béré*	*bèrè*^{L} *ý*	*bèrè*^{L} *ý gò*
	'house'	*ńdô*	*ǹdò*^{L} *ý*	*ǹdò*^{L} *ý gò*
	'field'	*ǒ:*	*ò:*^{L} *ý*	*ò:*^{L} *ý gò*
	'market'	*ɛ́wɛ́*	*ɛ̀wɛ̀*^{L} *ý*	*ɛ̀wɛ̀*^{L} *ý gò*
	'writing'	*tɔ̀ŋɔ́*	*tɔ̀ŋɔ̀*^{L} *ý*	*tɔ̀ŋɔ̀*^{L} *ý gò*
	'damage'	*ɲámâ*	*ɲàmà*^{L} *ý*	*ɲàmà*^{L} *ý gò*

After inanimate plural demonstrative *yěy* we get *gà*, as in *ǹdò*^{L} *yěy gà* 'in those houses'.

Animate nouns are not commonly followed by the locative postposition, but the combination is attested. Most often it involves a plural noun, in partitive or spatial sense. The combinations are phonologically regular with no fusion. My assistant pronounced them as follows: definite animate singular *nɛ́ ŋɔ́*, definite animate plural *bû: gò* (197), animate singular demonstrative *wǒ-ŋ ŋɔ́*, animate plural demonstrative *wɛ̌: gò*.

(197) *[[àr*^{n}*à*^{L} *bû:] gò], [nù*^{L} *tùmâ sǎy] ɛ́sû*
[[man^{L} Def.AnPl] **Loc**], [person^{L} one only] good.Pred
'In (= among) those men, only one is any good.'

8.2.3.3 Semantics of locative postposition

In the examples given in the subsections above, the locative postposition can usually be glossed with 'in', since the reference entity is (potentially) a container or a bounded zone with an interior. The postposition can also mean 'on X' where X is an entity with an upper or lateral surface ('rock', 'wall'). Examples (with the definite form of the postposition) are in (198).

(198)	gloss	noun	'on the X'
	'rocky area'	*pàpàgìrí*	*pàpàgìrì*^{L} *gá*
	'rock'	*kúr*^{n}*ô*	*kùr*^{n}*ò*^{L} *gá*
	'wall'	*ǹdò-tùndí*	*ǹdò-tùndì*^{L} *gá*

The 'on X' use of the postposition competes with fuller expressions of the type 'on the head of X' described below (§8.2.5).

The locative, or its fused definite form *gá*, may also be used with NPs denoting periods of time, such as seasons (199).

(199)	gloss	noun	'in X'	'in the X'
	'rainy season'	*gèrⁿé*	*gèrⁿé ŋó*	*gèrⁿè*[L] *gá*
	'hot season'	*ùsìyè-bárⁿâ*	*ùsìye-bárⁿà ŋà*	*ùsìyè-bàrⁿà*[L] *gá*

However, time-of-day expressions such as 'at night' are normally expressed simply as nouns ('night'). These nouns are interpreted adverbially unless the syntax of a given clause points in another direction.

(200) *dɛ̀:ndɛ̂* *bírɛ̀-mì-y.:*
night work-Ipfv-1PlSbj
'We work at night.'

The precise gloss of the locative in context depends not only on the 'in/on' distinction (container versus surface), but also on the verb. As in the other languages of the zone, verbs rather than postpositions distinguish (static) locative (201a), allative (201b), and ablative (201c) relations.

(201) a. *[ǹdò*[L] *gá]* *níyⁿɛ̀-m̀-∅*
[house[L] Def.InanSg.**Loc**] sleep-Ipfv-1SgSbj
'I will sleep in the house.' (*ńdô*)

b. *[ɛ́wɛ́* *gá]* *ńní-m̀-∅*
[market **Loc**] go-Ipfv-1Sg
'I am going to (the) market.'

c. *[ósú* *gó]* *gô:*
[road **Loc**] go.out.Imprt
'Get-2Sg out of the road!'

tùyà-gá 'bunch (unit of items for sale)' is an apparent case where an original locative PP has become frozen into a noun. It can be followed by a numeral or other modifier: *tùyà-gá wǒy* 'two bunches', *tùyà-gà*[L] *ɔ̀wɔ́* 'large bunch'. The composite origin of *tùyà-gá* is suggested by comparison with verb *túy* 'put down'.

The locative postposition is readily used with nouns denoting or implying actions: *[ɲǎ: ŋá] ɛ́w-yɛ́-* 'sit down at (=for) a meal', *[dàmá ŋá] ɛ́w-yɛ́-* 'sit down at (=for) a talk'.

Subordinated clauses that contain the locative or a similar form include complements of 'help' (§17.4.1), and "pseudo-locative" purposive complements §7.6.3.

8.2.4 Locative clitic *=yè* (or final tone change) with place names

There are no Jamsay-style tonal locatives (locative forms of nouns marked only by a tonal change). However, there is a locative form of place names that is expressed by a final clitic, which in some cases reduces to a tonal change. The forms of the clitic are in (202).

(202)	form	context
	=yè	default
	=y^{n}ɛ̀	after nasalized syllable
	(*: ˋ*) *=∅* (final L-tone)	after some vowels

The default allomorph, and the one that I take to be phonologically basic, is *=yè*. It is required after *i* in a non-nasal syllable, and it occurs after other vowels in some place names (203a). If the preceding syllable is nasalized, the variant *=y^{n}ɛ̀* is obligatory (203b). After heavy (i.e. quadrisyllabic) place names, *=yè* tends to contract with a stem-final vowel, resulting in either a long or a short vowel with falling tone, although the full pronunciation is also possible (203c).

(203)		location	Nanga term	locational form
	a.	Mopti	*mó:tì*	*mó:tí=yè*
		Wakara	*wàgárî*	*wàgárí=yè*
		Perge	*pèrgɛ́*	*pèrgɛ́=yè*
		Pergesa	*pègèsá*	*pègèsá=yè*
	b.	Douentza	*dúwánsár^{n}í*	*dúwánsár^{n}í=y^{n}ɛ̀*
		Boni	*bó:ní*	*bó:ní=y^{n}ɛ̀*
		Ben Tey	*bɛ̌:r^{n}î*	*bɛ̌:r^{n}î=y^{n}ɛ̀*
		Soro-ni	*sóròní*	*sóròní=y^{n}ɛ̀*
	c.	Namakoro	*námbákòré*	*námbákòr=ê:* ~ *námbákòré=yè*
		Bandiagara	*bàŋ̀nàgàrá*	*bàŋ̀nàgàr=ɛ̂:* ~ *bàŋ̀nàgàrɛ́=yè*
		Bamako	*bàmàkɔ́*	*bàmàkɔ̂:=∅* ~ *bàmàkɔ́=yè*
		Dianwely	*jáw^{n}lé*	*jáw^{n}lê=∅* ~ *jáw^{n}lê:=∅*
		Kono	*kɔ́:r^{n}ɛ́*	*kɔ́:r^{n}ɛ̂=∅*
		Anda	*á:ndɛ́*	*á:ndɛ̂=∅*

This clitic is used with place names as locations, destinations (e.g. with a motion verb like ‘go’ or ‘go in’), or points of departure (with a motion verb like ‘go out, leave’).

(204) a. *bàmàkɔ́=yè* *ǹnɛ̀-tà:-rí-y*
Bamako=**Loc** go-ExpPrf-PfvNeg-1SgSbj
‘I have never gone to Bamako.’

b. *bàmàkɔ́=yè* *tùwɛ̀-∅*
Bamako=**Loc** die.Pfv-3SgSbj
‘He/She died in Bamako.’

c. *bàmàkɔ́=yè* *gò-y*
Bamako=**Loc** go.out.Pfv-1SgSbj
‘I left Bamako.’

8.2.5 'On (the head of) X' (*[X* $^{(H)L}$*kû:] gò*)

The concept 'on X' is expressed as *[[X* ^{HL}*kû:] gà]* or *[[X* ^{L}*kù:] gà]*, depending on whether the NP (X) ends in an H- or L-tone. It is based on possessed forms of *kû:* 'head' followed by the basic locative postposition *ga*. In some cases, when X is a human or animal, the literal sense 'on the head of X' may be pertinent.

(205)

gloss	noun	'on X'
'stool'	*túŋgúrí*	*[túŋgúrí* ^{HL}*kû:] gò*
'box	*góŋgó*	*[góŋgó* ^{HL}*kû:] gò*
'cart'	*wògòtórô*	*[wògòtórô* ^{L}*kù:] gò*

The usual postnominal pronominal possessors are used, following the noun which has its regular tonal form (206).

(206) a. *kû:* *kɔ̃:*
head 1SgPoss.InanSg
'my head'

b. *[kû:* *kɔ̃:]* *gɔ̀*
[**head** 1SgPoss.InanSg] **Loc**
'on me' (or: 'on my head')

8.2.6 'Next to, beside X' (*[X* $^{(H)L}$*kérî] gà*)

This concept is expressed using a possessed form of *kérí* 'side' followed by locative *ga*. When *X* is a nonpronominal NP, the combination is heard as *[[X* ^{HL}*kérî] gà]* or *[[X* ^{L}*kèrì] gà]*, depending on whether X ends in H or L tone. The locative postposition is optional after a pronominal possessor (207b).

(207) a. *[[ǹdò* ^{L} *gú]* ^{HL}*kérî]* *gà*
[[house^{L} Def.InanSg] ^{HL}**side**] **Loc**
'beside the house'

b. *[kérí* *kɔ̃:]* *(gɔ̀)*
[**side** 1SgPoss.InanSg] (**Loc**)
'beside me'

This complex postposition specifies that the topical entity (trajector) is next to the landmark, as with two persons sitting next to each other. For a looser spatial connection, as when the two persons are in the same setting but not directly next to each other, *[[X* $^{(H)L}$*dósû] gà]* 'under X' (§8.2.9) can be used.

8.2.7 'In front of' (*[X* $^{(H)L}$*gírê] gà*)

With nonpronominal complement, 'in front of X' is expressed by a possessed form of *gírê* 'front' (cf. *gìré* 'eye'), plus locative postposition *ga*. When *X* is a nonpronominal NP, the result is *[[X* ^{HL}*gírê] gà]* or, if X ends in an L-tone, *[[X* ^{L}*gìrè] gà]*. The final *gà* is optional after a pronominal possessor, which is preceded by *gírê* in its lexical form (208b).

(208) a. *[ɛ̌:* ^{HL}*gírê]* *gà*
[well ^{HL}**front**] **Loc**
'in front of the well'

b. *[gírê* *kɔ̌:]* *(gà)*
[**front** 1SgPoss.InanSg] (**Loc**)
'in front of me'

c. *[ńdô* ^{L}*gìrè]* *gà*
[house ^{L}**front**] **Loc**
'in front of (a/the) house'

The corresponding adverb, with no landmark, is *gírê gò* 'ahead, in front'.

8.2.8 'Behind/after X' (*[X* $^{(H)L}$*túndù] gò*), 'about'

'About (=concerning) X' is expressed with X as possessor of a verbal noun (or similar nominal), when the verb is 'speak'. With other verbs, we get *[X* ^{HL}*túndù] gò* or (if X ends in an L-tone) *[X* ^{L}*tùndù] gò* 'after X', cf. noun *tùndí* 'back, rear' and adverbial PP *[tùndú gó]* 'afterwards'.

(209) a. *[ɛ́mê* ^{L}*dàmà]* *dámà-mì-y.:*
[milk ^{L}talk] speak-Ipfv-1PlSbj
'We will speak about milk.' (lit. "… speak some milk's talk")

b. *[[ɛ́mê* ^{L}*tùndù]* *gò]* *mǎ:ndí=bɛ́-y*
[[milk ^{L}**rear**] **Loc**] think.Pfv=Past-1SgSbj
'I thought about milk.'

c. *[[ɛ́mê* ^{L}*tùndù]* *gò]* *nùŋú=b-á*
[[milk ^{L}**rear**] **Loc**] sing.Pfv=Past-3PlSbj
'They sang about milk.'

8.2.9 'Over X' (*[X* $^{(H)L}$*tɛ́mbè] gà*), 'under X' (*[X* $^{(H)L}$*dósû] gò*)

There are complex postpositions with nouns *tɛ́mbè* 'top' and *dósí* 'bottom, underneath', in possessed form with following locative postposition (*gà*, *gò*). The forms with preposed X are *[[X* ^{HL}*tɛ́mbè] gà]* or *[[X* ^{L}*tɛ̀mbè] gà]*, and *[[X* ^{HL}*dósû] gò]* or *[[X* ^{L}*dòsù] gò]*, with the tone depending on whether X ends in H or L. As in other such complex postpositions, the locative postposition is optionally omitted after a pronominal possessor (210b,e).

(210) a. *[[ńdô* ^{L}*tɛ̀mbɛ̀]* *gà]* *bù-∅*
[[house ^{L}**over**] Loc] be-3SgSbj
'It is over the house.'

b. *[tɛ́mbɛ̀* *[ú* ^{HL}*gɔ̂]]* *(gɔ̀)*
[**over** [2Sg ^{HL}Poss.InanSg]] (in)
'over you-Sg'

c. *[[ǹdò*^{L} *gú]* ^{L}*dósû]* *gò*
[[house^{L} Def] ^{L}**under**] Loc
'under the house'

d. *[[tùmá* ^{HL}*dósû]* *gò]* *bìyò-∅*
[[tree ^{HL}**under**] Loc] lie.down.Stat-3SgSbj
'He/She is lying down under a tree.'

e. *mɔ̀:r^{n}ɔ̂* *[[dósú* *kɔ̃̀:]* *(gɔ̀)]* *bɛ̀r-à*
wild.date [[**under** 1SgPoss.InanSg] (in)] find.Pfv-3PlSbj
'They found some wild dates under me.'

Without an explicit landmark NP, we get pure adverbials *tɛ́mbɛ̀ gà* 'up above, overhead' and *dósú gó* 'down below, at the bottom, underneath'.

'Under X' can also be stretched to mean 'beside, in the vicinity of (someone)'.

See also *[dúmbó nɔ̀] gà* 'at its base' in (551) in §15.1.7.

8.2.10 'Between' (*[X* $^{(H)L}$*bɛ́rɛ̀-kɛ̀ndɛ̀] gá*)

'Between' or 'among/amidst' is expressed by a complex postposition containing the noun *bɛ̀rɛ̀-kɛ́ndɛ̀* 'middle'. The postposition, with noun X, appears as *[[X* ^{HL}*bɛ́rɛ̀-kɛ̀ndɛ̀] gà]* or *[[X* ^{L}*bɛ̀rɛ̀-kɛ̀ndɛ̀] gà]* depending on whether X ends in H or L. The first of these (i.e. after a final H-tone) can also be pronounced *[[X* ^{HL}*bɛ́rɛ́kɛ́ndɛ̀] gà]*, where the break in the {HL} tone overlay is delayed until the beginning of the final syllable of *bɛrɛkɛndɛ*. The difference between *[[X* ^{HL}*bɛ́rɛ̀-kɛ̀ndɛ̀] gà]* and *[[X* ^{HL}*bɛ́rɛ́kɛ́ndɛ̀] gà]* is attributable to the ambiguous status of *bɛ́rɛ́kɛ́ndɛ̀* as either a compound *bɛ́rɛ́-kɛ́ndɛ̀* or as an unsegmentable quadrisyllabic noun, since the application of {HL} overlays is sensitive to this distinction.

This complex postposition may take either a simple NP (with plural reference) or a conjoined NP as its complement.

(211) a. *[ì:* ^{L}*bɛ̀rɛ̀-kɛ̀ndɛ̀]* *gà*
[1Pl ^{L}**middle**] **Loc**
'between/among us'

b. *[[[ú* *yò]* *[ɩ̌:^{n}* *yò]]* ^{L}*bɛ̀rɛ̀-kɛ̀ndɛ̀]* *gà*
[[[2Sg and] [1Sg and]] ^{L}**middle**] Loc
'between you-Sg and me'

c. *wògòtórô* *[[[[á:ndɛ́* *yò]* *[dúwánsár^{n}í* *yò]]*
donkey.cart [[[[Anda and] [Douentza and]]
^{L}*bɛ̀rɛ̀-kɛ̀ndɛ̀]* *gà]* *ɲàmɛ̀-∅*
^{L}**middle**] **Loc**] be.ruined.Pfv-3SgSbj

d. *[ìsɛ̀* *kùrɛ̀]^{L}* *ý]* ^{HL}*bɛ́rɛ̀-kɛ̀ndɛ̀]* *gà*
[[village six]^{L} Def.InanPl] ^{HL}**middle**] **Loc**
'between/among the six villages'

8.2.11 'From X to Y'

A complete locational 'from X to Y' expression requires two clauses, the first including *gǒ:* 'go out, leave' to convey an ablative sense. *bǎ→* 'since, all the way from' may be added (212).

(212) *[[dúwánsár^{n}í=y^{n}ɛ̂* *bǎ→]* *gǒ:* *ŋ́]*
[[D=Loc **all.the.way.from**] **go.out** and.SS]
[lɔ̀sɔ́ *gɔ́]* *mó:tí=yè* *ǹn-ò*
[foot Loc] M=Loc go.Pfv-3PlSbj
'They walked on foot from Douentza to Mopti.'

If the distance to the endpoint is emphasized, *hálî* 'all the way to' can be used; cf. §19.2.1.

(213) *[hálî* *mó:tí=yè]* *[yɔ̀gɔ́* *jɛ̀→]* *ǹnɛ̀-∅*
[**all.the.way.to** M=Loc] [run while.SS] go.Pfv-3SgSbj
'He/She ran all the way to Mopti (city).'

8.3 Purposive-causal *dɛ̀r^{n}í* 'for' or 'because of'

This postposition has invariant segmental and tonal form. It does not behave tonally as a possessed noun or have any phonological interaction with the preceding complement NP. Examples with pronouns: *kú dɛ̀r^{n}í*, *ú dɛ̀r^{n}í*, *ńnɛ́ dɛ̀r^{n}í*.

The postposition occurs in a range of purposive and causal senses. In (214a-b), the purposive sense is prospective, while the causal sense in (214c) and arguably that in the high-frequency phrase 'for God' in (214d) are retrospective.

(214) a. *[[ò:ndò^{L}* *gú]* *dɛ̀r^{n}í]* *y-ò:*
[[honey^{L} Def.InanSg] **Purp**] come.Pfv-3PlSbj
'They have come for the honey.'

b. *[kɛ̌:rɛ̂* *dɛ̀r^{n}í]* *núŋí-ŋ̀*
[money **Purp**] sing-Ipfv.3SgSbj
'He/She sings for money.'

c. *[[[bòndì* *dùgù]^{L}* *gú]* *dɛ̀r^{n}í]* *yɔ̀g-ɔ̀*
[[[rain big]^{L} Def.InanSg] **Purp**] flee.Pfv-3PlSbj
'They fled because of the great (= heavy) rain.'

d. *[nù:*[L] *bû:]* *[jěnjê* *dèr^{n}í]* *ǹjí-∅* *bà:r-à*
[person[L] Def.AnPl] [God **Purp**] 1Sg-Acc help.Pfv-3PlSbj
'The people helped me on account of (=for the sake of) God.'

The final H-tone of *dèr^{n}í* is sometimes not realized, see e.g. (447b). There is a regrettable homophone *dèr^{n}ǐ* 'penis'.

8.4 Other adverbials (or equivalents)

8.4.1 Similarity (*may^{n}* 'like')

The atonal particle *may^{n}* 'like' follows the argument that it has scope over (215). The final tone of the preceding word spreads into the particle.

(215) a. *[ńné* *máy^{n}]* *bù-y*
[3Sg **like**] be-1SgSbj
'I am like him/her.'

b. *[yǎ-ŋ* *máy^{n}]* *dámà-m̀-^{w}*
[woman-Sg **like**] speak-Ipfv-2SgSbj
'You-Sg talk like a woman.'

c. *[ár^{n}â* *mày^{n}]* *bírɛ̀-m̀-∅*
[man **like**] work-Ipfv-1Sg
'I work like a man.'

Compare interrogative *àmây^{n}* 'how?' (§13.2.6).

The very common expression *kú mày^{n}* 'like that, thus (discourse-definite)' from discourse-definite *kú* is an exception to the tone-spreading pattern. From inanimate demonstrative *ŋ̀gú* 'this/that' we get both regular *ŋ̀gú máy^{n}* 'like this/that (thing)' and tonally irregular *ŋ̀gù mǎy^{n}* 'like that (deictic)' or 'on the other side' (§4.4.1.7). Other pronouns are regular: *ú máy^{n}* 'like you-Sg', *ńné máy^{n}* 'like him/her/it'.

8.4.2 Extent ('a lot', 'a little')

The adverb *èsí→* 'a lot' can be used in a wide range of senses, ranging from quantity ('a lot' in the sense 'a large amount') to frequency or intensity of an event type (adverbial 'a lot' as synonym of 'greatly' or 'frequently'). It is normally preverbal, but its position with respect to e.g. object nouns is variable, and it does not behave like an adjective (for example, it does not force tone-dropping on a preceding noun). *èsí→* is related to adjective *èsí* 'good', and specifically to the latter's EA predicative variant *ès-í→ (bù-∅)* '(it is) good' (§8.4.7).

(216) a. *bírá* *èsí→* *bírɛ́-ŋ̀*
work(n) **a.lot** work-Ipfv.3Sg
'He/She works a lot.'

b. *èsí→* *bírá* *bírɛ́-ŋ̀*
[= (a), reordered]

c. *èsí→* *ìsɛ̂-ŋ* *ǹd-à*
a.lot village-Acc give.Pfv-3PlSbj
'They gave a lot (=a large amount) to the village.'

In the sense of 'large amount' ('many', 'much'), other devices are also available. As predicate, there are several options (217).

(217) a. *ò:ndó* *èsí→* *bù-∅*
honey a.lot be-3Sg
'There is a lot of honey.'

b. *ò:ndó* *jǒ-èrɛ̀-∅*
honey **be.much**-Pfv1a-3SgSbj
'There is a lot of honey.' (lit. "Honey has become abundant.")

c. *ò:ndó* *sámá-èrɛ̀-∅*
honey **be.common**-Pfv1a-3SgSbj
'There is a lot of honey.' (lit. "Honey has become common.")

d. *ò:ndó* *lɔ́gɔ́-èrɛ̀-∅*
honey **be.excessive**-Pfv1a-3SgSbj
'There is a whole lot of honey.' (or: 'There is too much honey')

e. *ò:ndó* *dǎy*^{n} *sò-ndó-∅*
honey **limit(n)** **have-Neg**-3SgSbj
'There is a whole lot of honey.' (lit. "The honey has no end.")

Example (217a) is semantically unremarkable, merely stating a current abundance. (217b-c) imply that the element in question was previously less common. *jǒ:* 'become much/many' is otherwise semantically neutral, while *sámá-* 'become common' implies a loss of value due to abundance. (217d-e) are more emphatic in nature; (217d) can be pejorative.

(218) illustrates modifying function. In (218a), *èsí→* is still an adverb syntactically, and has no tonal effect on 'sheep'. In (218b), *jó:* is a regular modifying adjective, rather than an expressive adverbial, and it therefore controls tone-dropping on 'sheep'. It is, however, often prolonged for emphasis. There is no significant difference in meaning between *èsí→* and *jó:* in such contexts.

(218) a. *pèrgɛ́* *èsí→* *tùw-à*
sheep **a.lot** die.Pfv-3PlSbj
'A lot of sheep died.'

b. *[pèrgɛ̀*^{L} *jó:→]* *tùw-à*
[sheep^{L} **a.lot**] die.Pfv-3PlSbj
'Many sheep died.'

Antonyms ('a little' or 'slightly'), translatable either as adverbs or as argument NPs, are expressed by *dágáy* ~ *dákáy* and *dɛ́mì→*, which are basically adverbial. NP function can alternatively be expressed by the adjective *ɛ̀wrɛ́* 'small' used as a noun. *dɛ́mì→* is best glossed 'somewhat', and suggests that the amount is adequate though not especially big, while *dágáy* is more emphatic, may be glossed 'slightly' when adverbial, and is more likely than *dɛ́mì→* to occur with *sǎy* 'only'.

(219) a. *á:mádù* *dágáy* (*sǎy*) *ǹd-à*
A **a.little** (**only**) give.Pfv-3PlSbj
'They gave (only) a little to Amadou.'

b. *á:mádù* *dɛ́mì→* *ǹd-à*
A **somewhat** give.Pfv-3PlSbj
'They gave a little to Amadou.' (suggests adequacy)

c. *á:mádù* *ɛ̀wrɛ́* *ǹd-à*
A **small** give.Pfv-3PlSbj
[= (a)]

d. *dágáy* *ìró-∅*
a.little be.better-3SgSbj
'It (e.g. illness) is a little (= slightly) better.'
(i.e. 'I'm feeling better')

e. *dɛ́mì→* *ìró-∅*
somewhat be.better-3SgSbj
'It (e.g. illness) is a somewhat better.'

8.4.3 Specificity

8.4.3.1 'Approximately'

bǎ→, which in other contexts can mean 'all the way from (a starting point)', can indicate approximateness of a numerical value.

(220) *[pèrgɛ́* *pɛ́-nìmì:ⁿ* *bǎ→]* *màrá-s-ɛ́*
[sheep ten-five **about**] be.lost-Pfv2-3PlSbj
'Around fifty sheep were lost (=died).'

An alternative is to use *mayⁿ* 'like', as in 'I will buy like (= somewhere around) fifty sheep'.

8.4.3.2 'Exactly' (*lék*, *cɔ́k*, *té→*)

lék is an interjection-like intensifier that can be used with numerals; see §19.4.2.

(221) *[pèrgɛ́ pɛ́-nìmì:ⁿ lɛ́k] màrá-s-ɛ́*
[sheep ten-five **exactly**] be.lost-Pfv2-3PlSbj
'Exactly fifty sheep were lost (=died).'

cɔ́k is another interjection-like particle used to indicate 'exactly identical' (on some measure, usually height). It can also be used to indicate that all members of a group are present.

Adverbial *té→* can be used with time expressions: *mìdî té→* 'at noon sharp'. Its reduplication *té:-té:* is also in use in similar contexts. See also the following subsection.

To confirm the truth or correctness of what an interlocutor has just said, the particle *já:dì* 'exactly' (i.e. 'you're exactly right') is used; see §19.5.1.

8.4.3.3 'Specifically' (*té→*)

Adverbial particle *té→* is also used in the sense 'specifically'.

(222) *ú-ŋ̀ té→ ǹdì-∅*
2Sg-Acc specifically give.Pfv-3SgSbj
'He/She gave (it) specifically to you-Sg.'

8.4.4 Evaluation

8.4.4.1 'Well' and 'badly'

The preferred construction equivalent to English evaluative manner adverbials is one with a complement NP (often containing a cognate nominal or similar noun) plus an evaluative adjective like 'good' or 'bad'.

(223) a. *[bìrà*[L] *ɛ̀sí] bírɛ́-m̀*
[work(n)[L] **good**] work-Ipfv-1SgSbj
'I do good work.' (= 'I work well.')

b. *[bìrà*[L] *mɔ̀sí] bírɛ́-m̀*
[work(n)[L] **bad**] work-Ipfv-1SgSbj
'I do bad work.' (= 'I work badly.')

8.4.4.2 'Proper, right'

The adverbial *jâ:ⁿ*, generally predicative with following 'it is' clitic, characterizes an action or behavior pattern as normal or proper (respecting social norms), or as contextually appropriate. *jâ:ⁿ* also occurs in Jamsay.

(224) a. *jâ:ⁿ=∅*
proper=it.is
'It's proper (right, normal, appropriate).'

b. *[kàrⁿà*[L] *ú* *kàrⁿà-mù*[L] *gú]* *jà:ⁿ=ndó-∅*
[doing(n)[L] 2SgSbj do-Ppl.Ipfv[L] Def] **proper**=it.is.not-3SgSbj
'What you are doing is not right.'

8.4.5 Manner

The equivalents of simple English manner adverbials (*-ly*) can be constructed using NP complements (with an adjective) as in (225a). Or an adverbial PP may be used if there is a suitable noun available, like *pàŋá* 'strength, force' in (225b).

(225) a. *[bìrà*[L] *ɔ́gù]* *bírɛ̀-m̀-∅*
[work(n)[L] **fast**] work-Ipfv-1SgSbj
'I do fast work.' (= 'I work fast.')

b. *[pàŋá* *ŋá]* *ǹjí-∅* *dàmbì-∅*
[**strength** **Loc**] 1Sg-Acc push.Pfv-3SgSbj
'He/She pushed me hard (with force).'

The noun 'manner, way' is *dǎyⁿ*. It also means 'limit, outer bound'. For manner adverbial clauses, see §15.5.2.

8.4.6 Spatiotemporal adverbs

8.4.6.1 Temporal adverbs

Some of the major temporal adverbs are in (226). Note the tonal distinction between *íyé* 'today' and *íyê* 'again' (226a). *níŋèyⁿ* 'now' and *ɛ́ndɛ̀y* 'day after tomorrow' were heard with H.L tone sequence. 'Today', 'yesterday', and 'tomorrow' are often extended to mean 'nowadays', 'in the old days', and 'in the future'.The traditional Dogon week, still used for small local markets, is five days.

(226) a. *íyé* 'today; nowadays'
íyê 'again'
yéŋìrⁿì: 'yesterday; formerly, in the old days'
íyé tà:ndì: 'day before yesterday'
níŋèyⁿ 'now'

b. *ɛ́:ŋí* 'tomorrow; in the future'
ɛ́ndɛ̀y 'day after tomorrow'
ɛ̀ndɛ̀y[L] *túndɛ̀y* 'second day after tomorrow' (third from today)
lɛ́g tàrà 'third day after tomorrow' (fourth from today)
júgú 'week' 'fourth day after tomorrow' (fifth from today)
júgú-jàgú 'fifth day after tomorrow' (sixth from tomorrow)

c.	*gɔ̃y^{n}*	'last year'
	àr^{n}à^{L} kámâ	'next year'
	àr^{n}à^{L} bìndé	" (cf. *bìndé* 'change; go back')
	àr^{n}à^{L} wònjŏw	" (with *wònjŏw* 'second' [ordinal])
	núy^{n}áy^{n}	'this year'

In (226c), one would expect *àr^{n}à^{L} kámâ* to mean 'each/every year', cf. §6.6.2 above, but this sense is expressed instead by *àr^{n}à-ẃ^{n} kéréw* or *àr^{n}à-ẃ^{n} pú →.*

8.4.6.2 'First' (*kìyá*)

Adverbial 'first' ('firstly', 'at first') is expressed by *kìyá*, which (as in English) is identical to the ordinal adjective 'first'. That *kìyá* is syntactically an adverb in (227), rather than a modifying adjective, is shown by the fact that it does not control tone-dropping on the noun *bírá* 'work (n)'.

(227) *bírá* *kìyá* *bìrè*^{L} *gáy,* *ɲă:* *kɔ́:-mì-y.:*
work(n) **first** work(v)^{L} and.then.SS, meal eat.meal-Ipfv-1PlSbj
'We'll work first, then we'll eat.'

8.4.6.3 Spatial adverbs

Nondemonstrative spatial adverbs, generally nouns and PPs, are in (228). Some of those in (228a) and (228c) are also part of complex postpositions. For spatial demonstrative adverbs, see §4.4.2.1.

(228)	a.	*tɛ́mbè*	'above, (on) top, (at the) summit'
		dósí	'below, (on the) bottom, down'
	b.	*ùsì-[túm-nɔ́], dû: gìrè*	'east'
		ùsì-[yégí-nɔ́]	'west'
		tèŋì-dágá	'south'
		dù:-dágá	'north'
	c.	*tùn-túndì→*	'going backward, in reverse'
		tùndú gó	'in the rear'
		gíré gó	'forward; in front', cf. *gìré* 'eye'

ùsì-[túm-nɔ́] 'east' and *ùsì-[yégí-nɔ́]* 'west' are compounds containing *ùsí* 'sun' plus nominals based on the verbs *túmbó* '(sun) rise' and *yègɛ́* 'fall; (sun) set', respectively. The term for 'south' is based on the location of the Tengou (southern Dogon sub-ethnicity around Bankass).

'Left hand' is *nà:*^{L} *bàrìyɛ́*, while 'right hand' is *nà:*^{L} *nàr^{n}ìy^{n}ɛ́* (with *nă:* 'hand' plus a modifying adjective).

8.4.7 Expressive adverbials

Like other Dogon languages, Nanga has many expressive adverbials (EAs), defined as words that cannot be directly inflected but that can be made predicative by adding an auxiliary. The phonological form of EAs is usually distinctive, with full-stem iteration or final intonational prolongation (but usually not both). Many are also semantically colorful, evoking a visual image or other sensation, and they are similar to what are often referred to (in other languages) as mimetics or ideophones. I do not use these terms in the Dogon context, since they convey nothing about the grammatical properties of the forms, and since some EAs have prosaic senses like 'straight' (see below).

Some EAs have adjective-like senses, but they differ morphosyntactically from adjectives. EAs are not parts of NPs. They (therefore) have no tonal interactions with nouns or other NP words; they do not control tone-dropping and cannot themselves be tonosyntactically controlled. Like adjectives and nouns, EAs can also function in (stative or inchoative) predicates, but the forms of the predicates are different for the three word classes.

In a positive predicate denoting a state, the EA is followed by quasi-verb *bù-* 'be (somewhere)' for stative and durative senses. The negative counterpart of *bù-* is *ŋ̀gó-* 'not be (somewhere), be absent'. Thus *jèŋí→ bù-∅* 'it is tilting', *jèŋí→ ŋ̀gó-∅* 'it is not tilting'. In other words, these EAs pattern syntactically like spatial adverbials. EAs with more active senses are made predicative by adding regular transitive verb *kár^{n}í-* 'do', which has a fuller range of aspect-negation forms. EAs like *yàl-yàl* 'flapping' can take either: *yàl-yàl kár^{n}í-só-∅* 'it flapped in the wind (perhaps briefly)', *yàl-yàl bù-∅* 'it is flapping in the wind'.

In predicates denoting state changes ('become'), the auxiliary verb used is the morphologically regular verb *bĕ:-*, which in other contexts means 'remain'. Its causative *bĕ:-m-* can also combine with EAs, as a kind of factitive ('cause to become').

(229) illustrates nonpredicative adverbial function (229a), stative positive and negative predicates (229b-c), and dynamic (inchoative) predicates (229d).

(229) a. *dém→* *ló-èrè-∅*
straight go-Pfv1a-3SgSbj
'He/She went straight (to somewhere).'

b. *dém→* *bù-∅*
straight be-3SgSbj
'It (e.g. stick) is straight.'

c. *dém→* *ŋ̀gó-∅*
straight not.be-3SgSbj
'It is not straight.'

d. *dém→* *bĕ-èrè-∅*
straight become-Pfv1a-3SgSbj
'It became straight.'

Many adjectives can be made into EAs, with little difference in sense, by adding a final *-í→*, which could be analysed as a suffix or as a stem-final mutation plus "intonational" prolongation. In most cases these function as predicates, with the auxiliary verbs or quasi-verbs mentioned above. Thus *èsí* 'good', adjectival predicate *èsú* 'it is good', derived EA

ès-í→, predicate of EA *ès-í→ bù-∅* 'it is good'. Compare adverbial *èsí→* 'a lot, very much' (§8.4.2).

8.4.7.1 Forms of expressive adverbials

Examples of expressive adverbials without stem iteration are in (230). Only a handful, like 'tilting' (230a) and the two cases in (230c), are parts of larger word families. It is noteworthy that EAs, unlike nouns and adjectives, may be lexically /L/-toned.

(230)	form	gloss	related form
	a. H-toned, final prolongation		
	/H/-toned		
	pó→	'gaping (hole)'	
	pá^n→	'wide open (doorway)'	
	kárás→	'face to face'	
	/LH/-toned		
	kǎy^n→	'wide open (eyes)'	
	jèŋí→	'tilting'	*jèŋí* 'tilt'
	màmí→	'with head tilting'	
	èndìrí→	'ajar (door)'	
	gògìrí→	'rickety, shaky, poorly encased'	
	/L/-toned		
	lòm→	'froth forming'	
	dìm→	'towering, lofty'	
	sèm→	'straight-nosed'	
	yòw→	'slightly open (mouth)'	
	yèw→	'slightly open (eyes)'	
	tàrù→	'fat (woman, cow)'	
	gènjèy→	'motionless'	
	b. no final prolongation		
	/H/-toned		
	sómógó	'(head) long and bending forward'	
	/L/-toned		
	ɲàm	'brief shower (rain)'	
	jùŋày^n	'fat and clumsy'	
	c. *CuCuCôy*		
	lùgùsôy	'chubby, puffy'	*lùgùsí* (adjective)
	yùgùsôy	'woolly, disheveled'	*yùgùsí* 'velvet'

The intonational prolongation is realized on the final segment. Therefore in e.g. *sèm→* 'straight-nosed', the *m* but not the vowel is prolonged.

Examples of iterated adverbials involving "nonsense" stems (i.e. those whose uniterated form do not occur) are in (231).

(231) form gloss related form

a. H-toned

ɲéyⁿ-ɲéyⁿ	'drizzle (fairly light rain)'
sɔ́:ⁿ-sɔ́:ⁿ	'all together'
ɲɛ́m-ɲɛ́m	'drizzle (very light rain)'
yàl-yàl ~ yɛ̀l-yɛ̀l	'flapping, dangling'
pár-párú	'shiny new'
yìgìsé-yìgìsé	'runty and weak'
with vowel change to a, cf. (37) in §4.1.7	
pèré-pàrá	'suddenly encountering'

b. L-toned

jɔ̀:-jɔ̀:	'swaying'

c. complex tone pattern

tùn(dì)-túndì→	'going backward'	*tùndú* 'rear'
dɔ̀ndí-dɔ̀ndí→	'almost alongside'	

8.4.7.2 Adjectival intensifiers

Like the other Dogon languages, Nanga has an abundance of uninflectable expressive adverbials used as intensifiers, primarily for adjectival but also for a few verb-like senses. For the discourse function, compare English *brand new*, *blind as a bat*, *X stopped still (in his tracks)*, and the like. In most cases the intensifer has no phonological relationship to the semantically associated word(s), or to any other lexical stem. There is no sharp difference between intensifiers and (other) expressive adverbials.

Intensifiers (mostly adjectival in sense) are in (232). For the glosses, supply 'very' or the like for the intensifier. If there is no associated word that commonly co-occurs with the intensifier, the semantically closest word is given in parentheses. In *èsè-[tɛ́w-tɛ́w]* and *bùdè-[tɛ́w-tɛ́w]* (232a), there is (unusually) a {L}-toned compound initial corresponding to the associated word.

Vocalic sound symbolism (§3.4.7) is apparent in the alternation of *lèré-lèré* 'cleaned up' with *lòró-lòró* 'clean-shaven head'.

Because of the frequency of collocations (associated word followed by intensifier), it is possible for a single form to serve as intensifier for unrelated senses, see *kát-kát* in (232a). It is also possible for a basic sense to have multiple intensifiers, normally used by different speakers, see *kát-kát*, *kúsú-kúsú*, and *kúrúŋ-kúrúŋ* for 'black' in (232a).

The data in (232) are organized by the phonological form of the intensifier.

(232) intensifier gloss associated word(s)

a. iteration (no tonal or vocalic change)

one iteration

sɔ̂ⁿ-sɔ̂ⁿ	'newborn'	*bà-bàrⁿî*	'newborn baby'
púl-púl	'(brand) new'	*kándà*	'new'
bóm-bóm	'stout'	*dùgí*	'big'
dím-dím	'straight'	*dém→*	'straight'

dóŋ-dóŋ	'furious'	*kèndè bár^{n}í*	'anger'
sél-sél	'long; tall'	*gùrɔ́*	'long'
géŋ-géŋ	'tight-fitting'	*pɔ̀rɔ́-*	'be tight-fitting'
kúy-kúy	'stocky (person)'	*démbíré*	'stout'
kɛ́y-kɛ́y	'hard'	*mǎ:*	'hard, dry'
káy-káy	'hard, dry'	*mǎ:*	'hard, dry'
pɛ́y-pɛ́y	'unripe'	*kɛ̀:sí*	'unripe'
kɔ́y^{n}-kɔ́y^{n}	'emaciated'	*kó:mbí-yé-*	'be lean'
sɛ́y^{n}-sɛ́y^{n}	'slender (person)'	*kɛ́:mbɛ́*	'slender'
gáy^{n}-gáy^{n}	'tight; crowded'	*ɛ̌:*	'tight'
jáy^{n}-jáy^{n}	'uncooked (red)'	*bár^{n}í*	'red'
táy^{n}-táy^{n}	'sweet'	*érî*	'sweet'
"	'salty'	*párî*	'salty'
dúy^{n}-dùy^{n}	'red'	*bár^{n}í*	'red'
táw-táw	'hot (weather)'	*sɔ̀y*	'hot weather'
jáw-jáw	'hot (object)	*ɔ́gî*	'hot; fast'
lâw-lâw	'fast'	*ɔ́gî*	'hot; fast'
jɛ́w-jɛ́w	'lightweight'	*ér^{n}î*	'lightweight'
èsɛ̀-[tɛ́w-tɛ́w]	'unfertilized (field)'	*ésɛ́-*	'be unfertilized'
"	'bland'	*ây*	'bland'
bùdɛ̀-[tɛ́w-tɛ́w]	'fine (powdery)'	*bùtɛ́*	'fine, powdery'
"	'supple'	*bùtɛ́*	'supple'
pɛ́p-pɛ́p	'full'	*bá:*	'full'
tɛ́k-tɛ́k	'standing straight'	*í:-yí-*	'stand, stop'
kát-kát	'rotten'	*ɔ̀mbí*	'rotten'
"	'bitter'	*gárí*	'bitter'
"	'black'	*jɛ́mí*	'black'
pár-párú	'shiny new'	*kándà*	'new'
písí-písí	'lost'	*màrá-*	'be lost'
sérí-sérí	'dusty'	*kɔ́ŋgɔ̀*	'dust'
kúsú-kúsú	'black'	*jɛ́mí*	'black'
"	'glaring (at)'	*bèmbí-*	'glare (at)'
yɔ́gɔ́-yɔ́gɔ́	'soft'	*búrî*	'soft'
búdɛ́-búdɛ́	'fine (powdery)'	*bùtɛ́*	'fine, powdery'
"	'supple'	*bùtɛ́*	'supple'
púlá-púlá	'hot (object)	*ɔ́gî*	'hot; fast'
péré-péré	'cold (weather)'	*gɔ̀yɔ́*	'(the) cold'
pàsá-pàsá	'white'	*pírí*	'white'
tègé-tègé	'moon shining'	*wà: pírí*	'moonlight'
lèré-lèré	'cleaned up'	*ésɛ́-*	'be clean'
lòró-lòró	'clean-shaven head'	*ká:-*	'shave'
kúrúŋ-kúrúŋ	'black'	*jɛ́mí*	'black'
gérɛ́ŋ-gérɛ́ŋ	'inflated'	*píríyé-*	'be inflated'
kórógó-kórógó	'loose-fitting'	*kórógó*	'loose-fitting'
gùsùró-gùsùró	'fraying'	*gùsúró-*	'fray'
more than one iteration			
dɔ́ŋ dɔ́ŋ dɔ́ŋ	'pouting'	*nɔ̌: sómó-*	'pout'

b. iteration (with vocalic and/or tonal change)

tonal change only

táy-tày	'used up'	*dìmɛ́-*	'be used up'

tonal and vocalic change (high vowel to a)

yùgùsì-yágísím	'very woolly'	*yúgúsí*	'furry, woolly'
bìrgì-bárgí	'junk (in disorder)'	*ɲàmà-ɲàmá*	'junk'

c. intonational prolongation

simple

dám→	'blind'	*gìrè-mbí*	'blind'
dím→	'stout'	*dùgí*	'thick'
póm→	'enormous'	*dùgí*	'big'
sɛ̌w^{n}→	'tiny (eye)	*ɛ̀wrɛ́*	'small'
táy^{n}→	'full (eating)'	*sír^{n}ɛ́-*	'be full, satisfied'
kǎy^{n}→	'oversized (eye)'	(*dùgí*	'big')
kɛ̌y^{n}→	'tiny (moon, eye)'	(*ɛ̀wrɛ́*	'small')
kɛ̌w^{n}→	'tiny (moon)'	(*ɛ̀wrɛ́*	'small')
pútúm→	'flowery'	*pùr^{n}ó*	'flower'
"	'foggy, hazy'	*súdî*	'haze'
lèrɛ̌w→	'everything'	*kéréw*	'everything'
dù-dǔy^{n}→	'red'	*bár^{n}í*	'red'

apparently compound

késɛ́-kɛ́réy→	'dry'	*mǎ:*	'hard, dry'
lèrè-gèrɛ̌w→	'everything'	*kéréw*	'everything'

d. final reduplication

ísásâ:	'well-branched'	*jǎŋmí-*	'ramify'
wúsúsú	'long'	*gùrɔ́*	'long'
ɛ̀rɛ́lɛ́lɛ́	'sweet (abstract)'	*ɛ́rî*	'sweet'
dìmámámá	'stout'	*dùgí*	'thick', cf. *dím→*
pàrálálá	'sour'	*párî*	'sour'
màr^{n}ánáná	'solid (no holes)'	(*déŋ*	'hard, stiff')
pèsésésé	'cold (object)'	*támî*	'cold'
pòsósósó	'point of light'	(*ɛ́sɛ̂*	'light')
pàsásásá	'point of light'	(*ɛ́sɛ̂*	'light')
dùsúsúsú	'heavy'	*dúsî*	'heavy'
bùrúndúndú	'red'	*bár^{n}í*	'red'
gòmómómó	'rotten smelling'	*ɔ̀mbí*	'rotten'

e. other

mâ:	'pouring out'	*tí:rí-*	'pour'
tɛ́p	'full'	*bá:*	'full'
lɛ́k	'sole, only (one)'	*tùmâ*	'one'
kɛ́k	'completely'	(*kéréw*	'everything')
kɛ̀mìr^{n}ɛ̂y^{n}	'tiny (eye)	(*ɛ̀wrɛ́*	'small')
kédégéy	'short'	*déŋî*	'short'

8.4.7.3 ‘Straight’ (*dém→*)

dém→ is the basic adverb for ‘straight’ in the sense of a direct trajectory (not the absence of crookedness in e.g. a stick). The *m* is prolonged intonationally.

(233) *mó:tì* *dém→* *ńné-mì-y.:*
Mopti straight go-Ipfv-1PlSbj
‘We’ll go straight (= directly) to Mopti.’

Iterated *dém-dém* can be used in the sense ‘straight ahead’ without an NP complement (French *tout droit*). As usual in iterations, there is no intonational prolongation.

(234) *dém-dém* *ńnô*
straight go.Imprt
‘Go-2Sg straight (ahead)!’

8.4.7.4 ‘Apart, separate’ (*déyⁿ→*)

The adverbial *déyⁿ→* is used in parallelistic constructions of the type ‘X is apart, Y is apart’ (meaning ‘X and Y are separated or distinct’). The *yⁿ* is intonationally prolonged.

(235) *[pèrgè*[L] *bû:]* *déyⁿ→* *b-ɛ̀,*
[sheep[L] Def.AnPl] **apart** be-3Pl,
[bèr[L] *bû:]* *déyⁿ→* *b-ɛ̀*
[goat[L] Def.AnPl] **apart** be-3Pl
‘The sheep-Pl and the goats are apart (= separated or distinct).’

The iterated form *déyⁿ-déyⁿ* occurs in examples where the parallelistic phrasing is absent (236). There is no intonational prolongation.

(236) *[[pèrgɛ́* *yò]* *[bɛ́rî* *yò]]* *déyⁿ-déyⁿ* *kúrⁿù-mì-y.:*
[[sheep and] [goat and]] **separated** put-Ipfv-1PlSbj
‘We’ll put sheep and goats in separate spots.’

8.4.7.5 ‘Always’ (*àsú→*), ‘never’ (*à:bádá*)

The adverbial ‘always’ is *àsú→* (also found in Ben Tey and Najamba) (237a). It has an obscure resemblance to *ùsú* ‘day; sun’. The usual ‘never’ or ‘not on your life!’ particle is the regionally widespread *à:bádá* (ultimately < Arabic), which occurs in combination with a negated predicate (237b).

(237) a. *àsú→* *sígɔ́rɔ̀* *[ńnɛ́* *báy]* *ɛ́wɛ̀-m̀-∅*
always sugar [3Sg Dat] buy-Ipfv-1SgSbj
‘I always buy sugar from him (= at his store).’

b. *à:bádá* *sígɔ́rɔ̀* *[ńné* *báy]* *ɛ́wɛ̀-ŋɔ̀-y*
never sugar [3Sg Dat] buy-IpfvNeg-1SgSbj
'I never buy sugar from him (= at his store).'

8.4.7.6 'Exclusively, together' (*sɔ́:ⁿ-sɔ́:ⁿ*)

The adverb *sɔ́:ⁿ-sɔ́:ⁿ* functions, for example, to indicate that a group is seated together (in a bus or concert). The context suggests both togetherness of the group and the exclusion of others from the zone occupied by the group.

(238) *[kàdàgá* *yɛ̌:]* *sɔ́:ⁿ-sɔ́:ⁿ* *ńné-mì-y.:*
[agemate 1SgPoss.AnPl] **together** go-Ipfv-1PlSbj
'Only I and my agemates will go.'

In many cases, 'together' is translated indirectly by a verb-chain ('assemble and work', §15.1.8), by a PP ('beside each other', §8.2.6), or by a numeral in the subject NP ('[we two] work'). See also the construction with *bèndèy* (§18.3.2).

8.4.7.7 'All, entirely' (*kérɛ́w*, *sóy*)

The usual 'all, entirely' adverb is *kérɛ́w* (239a-c). This is also the most common universal quantifier ('all X'). A less common form with similar sense is *sóy* (239d). An intensifier for 'all, entirely' is *tǎy* (239e) or its iteration *tǎy-tǎy*.

(239) a. *kérɛ́w* *ńné-èr-à*
all go-Pfv1a-3PlSbj
'They all went (away).'

b. *sígɔ́rɔ̀* *kérɛ́w* *dìmɛ́-èrɛ̀-∅*
sugar **all** be.finished-Pfv1a-3SgSbj
'The sugar is all used up.'

c. *[[àrⁿà-y* *tà:ndì:]*ᴸ *bû:]* *kérɛ́w* *ńné-èr-à*
[[man-child three]ᴸ Def.Pl] **all** go-Pfv1a-3PlSbj
'The three boys all went (away).'

d. *sígɔ́rɔ̀* *sóy* *dìmɛ́-èrɛ̀-∅*
sugar **all** be.finished-Pfv1a-3SgSbj
'The sugar is all used up.'

e. *sígɔ́rɔ̀* *tǎy* *dìmɛ́-èrɛ̀-∅*
sugar **all.Intens** be.finished-Pfv1a-3SgSbj
'The sugar is used up (to the last grain).'

The accusative suffix can be added to a noun or NP preceding an 'all' quantifier. This is also the case with numerals; see (176a-c) in §6.7.

Another adverb, *lèrĕw*, is not commonly used with human referents. Its characteristic context is exemplified by e.g. 'they swept the courtyard completely (= thoroughly)'. However, it was accepted by my assistant as an alternative to the 'all, entirely' adverbials in the 'sugar' examples (239b,d-e).

8.4.8 Derived iterated adverbials

8.4.8.1 Distributive adverbial iteration

Any numeral, or the quantificational interrogative *à:ŋgǎy* 'how many?', can be iterated to form a distributive adverb with meanings like 'six at a time', 'six apiece', or 'six by six'. Such phrases can be used, among other things, to specify the price per unit of a commodity for sale.

(240) a. *tùyà-gá* *à:ŋgǎy-à:ŋgǎy* *má*
bunch **how.many?-how.many?** Q
'How much per bunch (unit of sale)?'

b. *pèrí-yĕy* *pèrí-yĕy*
ten-two ten-two
'Twenty (riyals, = 100 francs CFA) each'

8.4.8.2 'Scattered, here and there' (*kân-kân*)

This adverb, also found in Jamsay (and with phonological variations in other nearby Dogon languages) indicates irregular and sparse distribution.

(241) *tŏ:* *kân-kân* *té:-só-∅*
seeds **here.and.there** sprout-Pfv2-3SgSbj
'The (planted) seeds have sprouted here and there.'

9 Verbal derivation

The productive suffixal derivations (stem to stem) for verbs are the reversive ('un-…', 'dis-…') and the causative. There are a fair number of verbs with contrasting mediopassive and transitive (argument-adding) endings. There are two other passive constructions, one of which is morphologically identical to the causative but is attested with only two verbs. Adjectives have corresponding intransitive inchoative and transitive factitive verb forms, but these are not formed by adding suffixes directly to the adjective.

9.1 Reversive verbs (*-rí-*)

The reversive suffix is *-rí-* (or ATR-harmonized *-ré-*). It is common in verb pairs like 'cover/uncover' that denote complementary actions, one of which reverses or undoes the other. 'Open' is the reversive of 'shut', and 'remember' is the reversive of 'forget'. The reversive usually keeps the valency of the input verb.

The reversive is sometimes chained with a following intransitive *gǒ:-* 'exit' or transitive *gò-ndó-* 'take out, remove', which also helps to clarify the valency. Examples are *níndí-rí gǒ-ɛ̀rɛ̀-∅* as an alternative to *níndí-rí-ɛ̀rɛ̀-∅* 'it became untangled', and *níndí-rí gò-ndó-tì-∅* as an alternative to *níndí-rí-tì-∅* 'he/she untangled (it)'. The chain construction also makes it unambiguous that a reversive sense is intended (some reversives are homophonous with nonreversive transitives, which have a homophonous suffix *-rí-*, §9.3.1). For verbs that have no morphological reversive, the chain construction can be used as a periphrastic reversive.

A full inventory of attested reversives is in (242-5). The input must be mono- or bisyllabic, so the reversive is bi- or trisyllabic. Unlike the causative, the reversive usually respects tonal patterns, and restrictions on vowel sequences, that apply to underived trisyllabic verbs. This can be seen most clearly in (242a-b), where merely adding *-rí-* to the input stem would produce an incorrect vowel sequence like *a…a…i*. So the outputs shift to acceptable trisyllabic vowel sequences like *a…i…i*. In (242c), the input is already an *i*-final stem, so no observable change is needed in the vocalism when *-rí-* is added. In (242d), the initial-syllable stem vowel is shortened. In (242e), a reversive of the underlying shape /CV̀CV́-rí-/ has undergone Post-Sonorant Syncope, resulting in a *CV̌C-rí-* output with <LH>-toned initial syllable. (242f) illustrates monosyllabic inputs.

(242)	input	gloss	reversive	gloss
a. non-high vocalism adjusted to acceptable trisyllabic pattern				
	dàgá-	'lock (sth)'	*dàgí-rí-*	'unlock'
	pégé-	'drive in (nail)'	*pégí-rí-*	'remove (nail)'
	kóndó-	'fold (mat)'	*kóndú-ró-*	'unfold (mat)'
	púndó-	'clump up (rope)'	*púndú-ró-*	'un-clump'
b. like (a) but medial *i* in reversive is syncopated				
	ɔ́yⁿɔ́-	'braid (rope)'	*ɔ́yⁿ-rⁿí-*	'unbraid (rope)'

c. the underived stem already ends in *i*

gòŋí-	'surround'	*gòŋí-r^{n}í-*	'un-surround'
bèsí-	'bury'	*bèsí-rí-*	'disinter, dig up'
gìsí-	'immobilize'	*gìsí-rí-*	'allow to move again'
págí-	'tie (up)'	*págí-rí-*	'untie'
lɛ́gí-	'insert'	*lɛ́gí-rí-*	'remove (inserted item)'
tɛ́ŋí-	'hobble (donkey)'	*tɛ́ŋí-r^{n}í-*	'unhobble (donkey)'
tímbí-	'put lid on'	*tímbí-rí-*	'take lid off'
nàmbí-	'step on'	*nàmbí-rí-*	'remove foot from'
yèmbí-	'cover (person)'	*yèmbí-rí-*	'uncover (person)'
	(*yèmbí-rí-* is also used as synonym of *yèmbí-*)		
pɛ́mbí-	'press to wall'	*pɛ́mbí-rí-*	'release (sth pressed to wall)'
kɛ́ndí-	'roll up (pants)'	*kɛ́ndí-rí-*	'unroll (pants)'
mɛ̀ndí-	'roll up'	*mɛ̀ndí-rí-*	'unroll'
nɔ́mbí-	'sag'	*nɔ́mbí-rí-*	'bounce back'

d. vowel shortened

kɔ́:ndí-	'bend'	*kɔ́ndí-rí-*	'unbend'

e. reversive with <LH>.H tone after Post-Sonorant Syncope

dɛ̀wí- [dɛ̌w]	'cover (object)'	*dɛ̌w-rí-*	'uncover (object)'

f. monosyllabic stems

pi:^{n}-	'shut'	*pí:^{n}-r^{n}í-*	'open'
jǎ:-	'fence in'	*jǎ:-rí-*	'un-fence'
mɔ̌:-	'tie (knot)'	*mɔ̌:-r^{n}í-*	'untie (knot)'
lá:-	'braid (rope)'	*lá:-rí-*	'unbraid (rope)'
tɔ́:-	'roll turban'	*tɔ́:-rí-*	'unroll turban'

(243) shows suffix allomorph *-ré-* or *-ró-* with +ATR mid-height vowel instead of *-rí-*. These are regular adjustments to the vowel-sequence constraints on trisyllabics (§10.1.3.6). In (243a), the initial syllable has *o*, which induces a matching *o* rather than *i* in the third syllable. In (243b), the initial syllable has *i*, which is compatible with either *i…i…i* or *i…i…e* trisyllabic sequences, and the latter is required by the input bisyllabic sequence *i…e*.

(243) a. *nóŋgí-yé-* 'be caught in tree' *nóŋgú-ró-* 'be un-stuck, get free'

b. *wìré-* 'go into coma' *wìllí-ré-* 'come to (= recover)'
dìsé- 'prop up' *dìsí-ré-* 'remove a prop from'

(243a) also illustrates the pattern whereby a mediopassive suffix *-yv-* is dropped when reversive *-rí-* is added (there are no quadrisyllabic or longer reversives). More examples of this are in (244).

(244) *níndí-yí-* 'become tangled' *níndí-rí-* 'untangle (sth)'
pɛ́mbí-yí- 'put on a wrap' *pɛ́mbí-rí-* 'take off wrap'
[*pɛ́mbí-rí-* also transitive 'put a wrap on (sb)']

The phonologically most difficult reversives are those in (245). When *-rí-* is added to a stem of the shape *(C)vrv-* or *(C)vr^{n}v-*, the expected "regular" *(C)vrv-rv-* or *(C)vr^{n}v-r^{n}v-* with two rhotics does not occur. Rather, at least one of the rhotics becomes *l*. In (245a), after syncope, the expected rhotic cluster shifts to *ll*. In (245b), there is some ambiguity as to the morphemic composition. In one analysis, reversive *-ri-* is added to a variant form of the stem with *ll* instead of *r* (a kind of dissimilation to the suffixal rhotic). In the other analysis, the variant stem with *ll* already contains the reversive morpheme (after Post-Sonorant Syncope), and the final suffix is transitive *-rv́-*, which is elsewhere often paired with mediopassive *-yv́-*. In (245c), because of the initial nasal, there are optional pronunciations with *n* or *nd* (via *nn or *nd) instead of *ll*. The example in (245d) shows no syncope and shifts the stem's rhotic to *l* while keeping the suffixal rhotic. My assistant struggled with several of these forms in elicitation.

(245)	a.	*kɔ́rí-yí-*	'be hooked'	*kɔ́l-lí* (*gǒ:-*)	'be unhooked'
		gàr^{n}í-	'put in'	*gǎl-lí-*	'take out'
		tárí-yí-	'be affixed'	*tál-lí-yí-*	'affixed item come off'
		ìré-	'forget'	*ìllí-*	'remember' (variant 1)
	b.	*kɔ́rí-*	'hook, hang'	*kɔ́llí-rí-*	'unhook'
		ìré-	'forget'	*ìllí-rí-*	'remember' (variant 2)
		tárí-	'affix'	*tál-lí-rí-*	'remove affixed item'
	c.	*màr^{n}í-*	'seal up'	*mǎl-lí-rí-* ~ *mání-r^{n}í-* ~ *mǎn-ní-*	'unseal'
		màrá-	'become lost'	*màndí-rí (gǒ:-)* ~ *màllí-rí (gǒ:-)*	'lost item be found'
		—		*màllí-rí-*	'recover lost item'
	d.	*jùró-*	'fold up (rope)'	*jùlù-ró-*	'unfold (rope)'

Some synchronically unsegmentable trisyllabic stems ending in *-rí* may have originated as reversives. Since *-rv́-* is also a minor transitive (valency-increasing) suffix, we should be careful about identifying such trisyllabics as frozen reversives. One clear case is *náŋgírí-* 'remember' (synonym of *ìllí-rí-*), which is synchronically isolated but is an exact cognate of Jamsay *náŋá-r^{n}á-* 'remember', reversive of Jamsay *náŋá-* 'forget'.

Representative AN paradigms of two trisyllabic reversive verb stems (i.e. from bisyllabic inputs) are in (246). AN paradigms of two bisyllabic reversives, one from a monosyllabic input ('open') and the other a trisyllabic reversive that has undergone Post-Sonorant Syncope ('uncover'), are in (247).

(246)	'untie'	'unhook'
bare stem	*págí-rí*	*kɔ́llí-rí*
imperative	*págí-rà*	*kɔ́llɔ́-rɔ̀*
prohibitive	*págí-rí-ndà:*	*kɔ́llí-rí-ndà:*
perfective-1b	*págí-rí-tì-*	*kɔ́llí-rí-tì-*
perfective negative	*pàgì-rà-rí-*	*kɔ̀llɔ̀-rɔ̀-rí-*
imperfective	*pà-págí-rá-ŋ*	*kɔ̀-kɔ́llɔ́-rɔ́-ŋ*
imperfective negative	*págí-rà-ŋɔ̀:-*	*kɔ́llɔ́-rɔ̀-ŋɔ̀:-*

(247)

	'open'	'uncover (object)'
bare stem	*pí:^{n}-r^{n}í*	*dɛ̌w-rí*
imperative	*pí:^{n}-r^{n}à*	*dɛ̌w-râ*
prohibitive	*pí:^{n}rí-ndà:*	*dɛ̌w-rí-ndà:*
perfective-1b	*pí:^{n}-r^{n}í-tì-*	*dɛ̌w-rí-tì-*
perfective negative	*pì:^{n}-r^{n}è-r^{n}í-*	*dɛ̀w-rɛ̀-rí-*
imperfective	*pì-pí:^{n}-r^{n}ɛ́-ŋ̀*	*dɛ̀-dɛ́w-rɛ́-ŋ̀*
imperfective negative	*pí:^{n}-r^{n}ɛ̀-ŋɔ̀:-*	*dɛ́w-rɛ̀-ŋɔ̀:-*

For the suffix sequence reversive-mediopassive, see the end of §9.3.1.

9.2 Deverbal causative verbs

9.2.1 Productive causative with suffix *-mí-*

The productive causative suffix added to verb inputs is *-mí-*. It preserves the /H/ or /LH/ melody of the input (248), and more generally it has little phonological interaction with the stem.

(248) Causatives with *-mí-* (input verb ends in non-high vowel)

input	gloss	causative	gloss
a. {H}-toned			
kóyó	'weep'	*kóyó-mí-*	'make weep'
kúwó-	'eat (meat)'	*kúwó-mí-*	'give meat to'
ńné-	'go'	*ńnɛ́-mí-*	'allow to go' (with *ɛ*)
tómbó-	'jump'	*tómbó-mí-*	'make jump'
kɔ́:-	'eat (meal)'	*kɔ́:-mí-*	'feed, nourish'
sír^{n}ɛ́-	'be full (sated)'	*sír^{n}ɛ́-mí-*	'make full (sated)'
ɛ́w-yɛ́-	'sit down'	*ɛ́w-yɛ́-mí-*	'make sit'
pɛ́rɛ́-	'jump off'	*pɛ́rɛ́-mí-*	'make jump off'
pírɪ́yɛ́-	'be inflated'	*pírɪ́yɛ́-mí-*	'inflate'
b. {LH}-toned			
jùgɔ́-	'know'	*jùgɔ́-mí-*	'in form'
c. monosyllabic *Cv̌:-* verbs			
dɔ̌:-	'arrive'	*dɔ̌:-mí-*	'cause to arrive'
nɔ̌:-	'drink'	*nɔ̌:-mí-*	'give drink to'

As the examples in (248) show, *-mí-* does not force changes in the vowel qualities of the preceding stem, provided that the stem ends in a non-high vowel (i.e. in anything but *í*). In other words, although most causatives are trisyllabic or longer, they are not subject to the constraints on vowel sequences that apply to underived trisyllabics and longer stems.

However, if the input stem ends in *i*, this vowel must be changed before *-mí-*, as shown in (249). If there is a preceding non-high vowel, which in practice is almost always from the set

{*a ɛ ɔ*}, this vowel is copied on the final vowel of the input stem before *-mí-* (249a). If the stem has no non-high vowel, the default for the stem-final vowel is *ɔ* after *u*, and *ɛ* after *i* (249b). I have also recorded *e* (as an optional variant of *ɛ*) after initial-syllable *i* under the influence of a preceding nasal (249c).

(249) Causatives with *-mí-* (input verb ends in *i*)

input	gloss	causative	gloss
a. input has preceding non-high vowel {*a ɛ ɔ*}			
bǎ:rí-	'help'	*bǎ:rá-mí-*	'make help'
dɛ̀wí-	'cover'	*dɛ̀wɛ́-mí-*	'make cover'
sɔ́:rí-	'creak'	*sɔ́:rɔ́-mí-*	'make creak'
b. input has preceding {*u i*} only			
núy^{n}í-	'enter'	*núy^{n}ɔ́-mí-*	'make enter'
pú:rí-	'frisk'	*pú:rɔ́-mí-*	'make frisk'
tímbí-	'cover'	*tímbɛ́-mí-*	'make cover'
píy^{n}í-	'shut'	*píy^{n}ɛ́-mí-*	'make shut'
jìnjí-	'make noise'	*jìnjɛ-mí-*	'cause to make noise'
c. input has preceding *i* only, nasal allows variant *e*			
tíŋí-	'speak'	*tíŋɛ́-mí-* ~ *tíŋɛ́-mí-*	'make speak'
jìŋí-	'ride double'	*jìŋɛ́-mí-* ~ *jìŋɛ́-mí-*	'have (them) ride double'
d. after mediopassive *-yí-*			
tágí-yí-	'put on shoes'	*tágí-yɛ́-mí-*	'put shoes on (sb)'

The causative stem has a distinctive conjugation (250). The vocalism of the suffix combinations is independent of that of the preceding input stem, with no ATR harmony. For example, *kóyó-mí-* 'cause to weep' from a +ATR stem has the same suffixal forms as *núy^{n}ɔ́-mí-* 'cause to go in' from a -ATR stem (250), e.g. imperative *kóyó-mɔ̀*. However, no other element (such as a preverbal subject pronoun in a nonsubject relative) may intervene between the stem and the causative suffix, so we cannot analyse the latter as being a chained auxiliary verb.

(250) Paradigm of causative ('cause to go in')

a. nonfinite	
núy^{n}ɔ́-mí	bare stem
núy^{n}ɔ́-mí-ndɛ́	verbal noun
b. perfective system	
nùy^{n}ɔ̀-mì-	simple perfective
núy^{n}ɔ́-m-tì-	perfective-1b
núy^{n}ɔ́-m-só-	perfective-2
núy^{n}ɔ́-m-jɛ̀-	recent perfect
núy^{n}ɔ́-mí tá:-só-	experiential perfect
nùy^{n}ɔ̀-mɛ̀-r^{n}í-	perfective negative

c. imperfective system

nù-núyⁿɔ́-mɛ́-ŋ̀	reduplicated imperfective
nù-núyⁿɔ́-mɛ̂:-sò-	reduplicated progressive
núyⁿɔ́-m-ŋɔ̀:-	imperfective negative

d. deontic

núyⁿɔ́-mɔ̀	imperative
núyⁿɔ́-m-ndà:	prohibitive
núyⁿɔ́-mɛ́-màyⁿ	hortative

The causative suffix can be followed by passive *-yɛ́*, as in *sàmbà*[L] *nɔ́:-mí-yɛ́* 'poisoned spear', which is based on *nɔ̌:-mí-* 'cause to drink'. It cannot be followed by mediopassive *-yí-*, transitive *-rí-*, or reversive *-rí-*.

Conversely, the causative suffix may follow mediopassive or inchoative *-yí-*, transitive *-rí-*, or reversive *-rí-*. The only combination of any frequency is with inchoative *-yí-*, as in *ɔ́gí-yɛ́-mí-* 'heat (sth)' from *ɔ́gí-yí-* 'become hot'. Causatives of the other suffixal derivations are elicitable but uncommon, probably for semantic reasons. Transitive *-rí-* is a productive causative-like counterpart to mediopassive *-yí-*, making a *-mí-* causative generally superfluous.

Most *-mí-* causatives are formed from intransitive inputs, but some have transitive inputs, as already suggested by several examples in (248-9) above. In the textual example (251), the input is transitive *dùrⁿɔ́-* 'look for, seek'.

(251) *[dɔ́gɔ̂ ɔ̀:*[L] *yû: wárà-mì sǎy]*
[Dogon place[L] millet do.farming-Ppl.Ipfv only]
dùrⁿɔ́-mɛ́-ŋ̀
look.for-Caus-Ipfv.3SgSbj
'(That) would make (them) look just for (fields) where Dogon were farming millet.' (2004.01.10)

In causatives of transitive inputs, both the lower subject and the lower object are treated as direct objects of the causativized transitive verb, see §11.1.2.

9.2.2 Minor causative suffixes (*-gí* ~ *-ŋí-*, *-ndɛ́-*)

For transitive *-rí-*, which functions as a causative in some but not all cases, see §9.2.3, below.

A suffix *-gí* ~ *-ŋi-* occurs with a few stems, mainly in causative function. All clear examples known to me are in (252). The variant *-ŋí-* occurs after nasal syllables. As with causative *-mí-*, adding *-gí* ~ *-ŋi-* does not alter the vocalism of the preceding stem (there is no conversion to canonical trisyllabic vowel-sequence patterns).

(252) *-gí* ~ *-ŋi-* in causative and other functions

a. causative

-gí- after nonnasal syllable

pɔ́sɔ́-	'(sth) crumble'	*pɔ́sɔ́-gí-*	'crumble (sth)'
màrá-	'become lost'	*màrá-gí-*	'get rid of'
wòró-	'cave in'	*wòró-gí-*	'demolish'

wùrɔ́-	'(sb) wake up'	*wùrɔ́-gí-*	'wake (sb) up'
párá-	'(sth) snap'	*párá-gí-*	'snap (sth)'
-ŋí- after nasal syllable			
kúmó-	'(bone) break)'	*kúmó-ŋí-*	'break (sth long)'
ɲàmá-	'malfunction'	*ɲàmá-ŋí-*	'damage, waste'
b. transitivizing (causative-like)			
ɛ́mbí-	'be narrow, tight'	*ɛ́mbí-gí-*	'hold (sth) in armpit (by squeezing)'
c. intensive			
kárá-	'incise'	*kárá-gí-*	'rip, tear'

A suffix *-nde-* is attested in the archaic and irregular *sí:-ndé-* 'take/bring down', from intransitive *sígé-* 'go down'. It resembles a minor factitive suffix *-ndí-* that is attested with two adjectival verbs (*bǎ:-ndí-* 'fill, make full' and *ɛ́:-ndí-* 'tighten'), see §9.5, below.

9.3 Passive and transitive

9.3.1 Mediopassive *-yí-* and transitive *-rí-*

Alternations of mediopassive (MP) *-yí-* and transitive (Tr) *-rí-* occur chiefly with verbs of stance (253a), clothing (253b), and holding (253c). The examples given are representative rather than exhaustive. The *y* or *r* is subject to Nasalization-Spreading, and the *i* vowel may shift to *e*, under conditions described below.

For the stance verbs, the mediopassive denotes taking a position (change of state), while the form with transitive *-rí-* is causative. For the verbs of clothing and holding, the mediopassive is syntactically transitive but denotes an action that results in the agent being in a state (of wearing or holding something). In this case, the form with transitive *-rí-* denotes the act of placing an object in such a way that another person wears or holds it.

(253)

MP	gloss	stem	gloss
a. stance			
bìyé-	'lie down'	*bǐ:-ré-*	'have (sb) lie down, put to sleep'
éw-yé-	'sit down'	*éw-ré-*	'have (sb) sit, seat'
í:-yí-	'stand up, stop'	*í:-rí-*	'stop (sth)'
túŋí-y^{n}í-	'kneel'	*túŋí-r^{n}í-*	'cause (sb) to kneel'
b. wearing clothes			
tágí-yí-	'put one's shoes on'	*tágí-rí-*	'put shoes on (sb)'
dòmbí-yé-	'roll on one's turban'	*dòmbó-ró-*	'put turban on (sb)'
ków-yé-	'put one's hat on'	*ków-ró-*	'put hat on (sb)'
págí-yí-	'tie one's belt on'	*págí-rí-*	'tie belt on (sb)'
(cf. *págí-* 'tie')			

c. carrying/holding

bàmbí-yí-	'carry on back'	*bàmbí-rí-*	'load (sth) on (sb's) back'
dǔ:-yí-	'carry on head'	*dǔ:-rí-*	'load (sth) on (sb's) head'
		[see also §9.6]	
kɔ́mbí-yí-	'cling to (sth)'	*kɔ́mbí-rí-*	'cause (sb) to cling to (sth)'

d. other

nî: dìyé-	'(sb) bathe'	*nî: dǐ:-ré-*	'bathe (sb)'
(with *nî:* 'water')			
ńdé-	'go up'	*ńdí-rí-*	'take (sth) up'
káwá-	'be separated'	*káw-rí-*	'separate (them)'
tɛ́mbí-yí-	'become wet'	*tɛ́mbí-rí-*	'make (sth) wet'
ságí-yí-	'(sth) grow, expand'	*ságí-rí-*	'expand (sth)'
dàwí-yí-	'(sb) hide'	*dǎw-rí-*	'hide (sth)'
		(< /dàwí-rí-/)	
tíyɛ́-	'(sth) be spilled'	*tí:-rí-*	'spill (sth)'

Several mediopassives in the left column of (253) are transcribed with final *í-yí-* or *í-y^{n}í*. These sequences monophthongize to [iː] (§3.7.5.2). Monophthongization is pre-empted by final vowel ablaut before most inflectional suffixes, as in imperfective *àgí-yè-mì-y.:* 'we'll keep' in (144) in §6.3.2.

The *e* in the variants *-yé-* and *-ré-* seen in some of these pairs is due to the +ATR vocalism of the stems, which contain {*o e*} and therefore trigger adjustments that reflect constraints on vowel sequences in +ATR trisyllabic stems. Likewise, the suffix-initial sonorant is subject to regular Nasalization-Spreading (§3.5.1.1), as in *púŋí-y^{n}í-* 'be bruised' and *túŋí-r^{n}í-* 'cause to kneel'.

Segmentability of mediopassive *-yí-* is difficult in the case of *bìyé-* 'lie down' (253a), and in those of *dìyé-* 'bathe' and *tíyɛ́-* 'be spilled' (253d), because of their initial short-voweled syllables. The corresponding transitives have a phonetic long [iː] that could easily be (re-)interpreted by native speakers as reflecting /iy/ syncopated from /iyi/, i.e. *bǐy-rí-* and *dǐy-rí-*. In this interpretation, *-rí-* is still segmentable as a transitive suffix allomorph, but the stems can be taken as unsegmentable *bìyé-* and *dìyé-*. I therefore transcribe these stems without hyphens. A similarly problematic case is *dǔ:-yí-* 'carry on head' (253c), but here the transitive is *dǔ:-rí-*.

In some cases, the transitive form shown competes with a causative with suffix *-mí-* added to the mediopassive form, e.g. *éw-yé-mí-* 'cause to sit'. This shows that the *-yí-*/*-rí-* alternation is not quite as productive in Nanga as in Najamba, for example.

Of the two verbs with the general sense 'put on clothes, get dressed', one has the expected alternation: *dúŋí dùŋí-y^{n}í-* 'get dressed' versus *dúŋí dùŋí-r^{n}í-* 'dress (someone)' (shown with cognate nominal *dúŋí*). The alternative for 'get dressed' is *yùrí kúr^{n}í-y^{n}í-* (with *yùrí* 'fabric, garment'), but the expected transitive #*kúr^{n}í-r^{n}í-* does not occur. Instead, the actual form is just *yùrí kúr^{n}í-* 'dress (someone)'. This suggests that transitive *-rí-* is not readily added to stems with a rhotic in the final syllable. Compare (245) above, which shows how reversive *-rí-* deals with rhotic-final input stems.

Mediopassive *-yí-* is readily added to a reversive suffix, resulting in double derivation (254). The simple reversive in these cases is usually transitive ('tie', 'hook'), so the mediopassive is useful as a nonagentive intransitive ('become untied', 'become unhooked'). The sequences transcribed *-rí-yí-* and *-rí-yí-* are phonetically monophthongized (§3.7.5.2) to [ɾiː] and [ɾ^{n}iː].

(254) Reversive plus mediopassive

reversive	gloss	mediopassive
a. *Cv:-r(ⁿ)i-* reversive		
pí:-rⁿí-	'open (sth)'	*pí:-rⁿí-yⁿí-*
mɔ̌:-rⁿí-	'undo (knot)'	*mɔ̌:-rⁿí-yⁿí-*
b. trisyllabic reversive		
kóndú-ró-	'unfold'	*kóndi-rí-yí-*
dàgí-rí-	'unlock'	*dàgí-rí-yí-*
kɔ́l-lí-rí-	'unhook'	*kɔ́l-lí-rí-yí-*

-yí- cannot follow causative *-mí-* (which instead allows passive *-yɛ́*). Conversely, the causative suffix readily follows and has scope over the mediopassive, as in *í:-yɛ́-mí-* 'cause to stand' from *í:-yí-* 'stand', among other examples. The combination *-yɛ́-mí-* is especially common in deadjectival factitives (§9.5).

9.3.2 Passive suffix *-yɛ́*

A construction with passive *-yɛ́* is an unusual feature, perhaps unique to Nanga. It allows, but does not require, an implicit but unexpressed agent. The passive was readily elicited from a range of transitive inputs (255).

The preceding stem shifts to {H}-tone. The change is audible with inputs that have /LH/ melody (255b). The suffix itself is not affected by phonological features of the stem. There is no Nasalization-Spreading, and no harmonizing of vowels.

(255)

input verb	gloss	passive	gloss
a. input /H/-toned			
kárⁿí-	'do'	*kárⁿí-yɛ́*	'be done'
tíŋí-	'speak'	*tíŋ-yɛ́*	'be said'
tɔ́ŋí-	'write'	*tɔ́ŋ-yɛ́*	'be written'
káwrá-	'disperse'	*káwrí-yɛ́*	'be dispersed'
kɛ́mɛ́-	'build'	*kɛ́mɛ́-yɛ́*	'be build'
b. input /LH/-toned			
yǐ:-	'see'	*yí:-yɛ́*	'be seen'
gùró-	'rob'	*gúró-yɛ́*	'be robbed/stolen'
gòndó-	'take out'	*góndó-yɛ́*	'be taken out'
nɔ̌:-	'drink'	*nɔ́:-yɛ́*	'(liquid) be drunk'

The passive is adjectival in form; more specifically, it has developed out of a participle (as shown below). It can still function as a modifying adjective, either with a semantically light stem filling the noun slot (256a), or with a more typical common noun (256b). In (256c), the passive adjective is tone-dropped under the control of the following demonstrative.

(256) a. *[kɔ̀*^{L} *gúró-yɛ́]* *ɛ́wɛ́-ŋɔ̀-y*^{n}
[thing^{L} steal-Pass] buy-IpfvNeg-1SgSbj
'I don't/won't buy anything stolen.'

b. *[mɔ̀bìlì*^{L} *gúró-yɛ́]* *ɛ́wɛ́-ŋɔ̀-y*^{n}
[vehicle^{L} steal-Pass] buy-IpfvNeg-1SgSbj
'I don't/won't buy a stolen vehicle.'

c. *gɔ̀r*^{n}*ì*^{L} *gùyò-yɛ̀*^{L} *ý*
gear^{L} break-Pass^{L} Def.InanPl
'the broken housewares' (2004.02.03)

The passive adjective is, however, often predicative, in which case it is followed by the appropriate conjugated form of the 'it is' enclitic (§11.2.1). For example, *ŋ̀gú gúró-yɛ́=ẃ* 'this is/was stolen' can be said while pointing to an object of dubious provenance found in a thieves' den. It can be negated with the conjugated 'it is not' clitic *=ndɔ̌:*, as in *ŋ̀gú gúró-yɛ́-ẃ=ndɔ̌:* 'this is/was not stolen'.

The third plural forms end in *-yɛ́=∅* instead of expected #*-yɛ́=yɛ́*.

Some further examples are in (257); see also §17.2.2.2.

(257) a. *kár*^{n}*í-yɛ́=ẃ*
do-Pass=it.is.InanSgSbj
'It is (= has already been) done.'

b. *tɔ́ŋ-yɛ́=∅*
write-Pass=it.is.InanPlS
'They (e.g. books) are (= have already) been written.'

c. *gùrí* *gúró-yɛ́=mí-y*
robbery rob-Pass=it.is-1SgSbj
'I have been robbed.'

That we are dealing with a participle, and therefore with a kind of relative construction, is suggested by the fact that the subject, when overtly expressed as a nonpronominal NP, undergoes tone-dropping. This is consistent with the tone-dropping on relative head NPs. Examples are in (258).

(258) a. *pɛ̀rgɛ̀*^{L} *sɛ́mɛ́-yɛ́=ŋ́*
sheep^{L} slaughter-Pass=it.is.3SgSbj
'A/the sheep-Sg is (= has already been) slaughtered.' (*pɛ̀rgɛ́*)

b. *àr*^{n}*à*^{L} *gùrí* *gúró-yɛ́=ŋ́*
man^{L} robbery rob-Pass=be.3SgSbj
'A/the man has been robbed.' (*ár*^{n}*â*)

c. *tɔ̀ŋɔ̀*^{L} *tɔ́ŋ-yɛ́=ẃ*
writing^{L} write-Pass=be.InanSbj
'A/the book is (= has already been) written.' (*tɔ̀ŋɔ́*)

However, the passive-predicate construction differs from the true relative construction in that the subject NP may end in a determiner (259a-b). In relatives, determiners follow the participle. No tone-dropping of the subject NP (other than regular NP-internal tone-dropping of a noun before a definite or demonstrative determiner) occurs in this combination. Even an N-Num combination may escape tone-dropping (259c).

(259) a. *[pèrgè*^{L} *bû:]* *sɛ́mɛ́-yɛ́=∅*
[sheep^{L} **Def.AnPl**] slaughter-Pass=it.is.3PlSbj
'The sheep-Pl are (= have already been) slaughtered.'

b. *[àr*^{n}*à*^{L} *wǒ-ŋ]* *gùrí* *gúró-yɛ́=ŋ́*
[man^{L} **Dem-AnSg**] robbery rob-Pass=it.is.3SgSbj
'This man has (already) been robbed.'

c. *[ár*^{n}*â* *gá:rɛ̀]* *gùrí* *gúró-yɛ́=∅*
[man **eight**] robbery rob-Pass=it.is.3PlSbj
'Eight men have been robbed.'

Negative predicative forms of the passive can be formed by adding an inflected form of the negative 'it is not' clitic *=ndǒ:* (§11.2.1.2) to the passive suffix and the 'it is' clitic (260).

(260) *tɔ́ŋɔ́-yɛ́=ẃ=ndǒ:-∅*
write-Pass=it.is.InanSgSbj=it.is.not-3SgSbj
'It has not been written.'

Alternatively, *-yɛ́=* plus the inflected form of the (positive) 'it is' clitic can be added to the perfective negative verb form with suffix *-rí-* (261). In the case of 3Pl subject, both inanimate and animate, the 3Pl perfective negative *-ndú-* is the basis for the form, which is therefore doubly conjugated. *-ndú-* is pronounced *-ndí-* before *-yɛ́=*. This construction could be parsed as addition of the 'it is' enclitic to a perfective negative participle (§14.1.7.3).

(261) a. *tɔ̀ŋɔ̀-r*^{n}*í-yɛ́=ẃ*
write-PfvNeg-Pass=it.is.InanSbj
'It has not been written.'

b. *gùrò-rí-yɛ́=mí-y*
rob-PfvNeg-Pass=it.is-1SgSbj
'I have not been robbed.'

c. *gùrò-ndí-yɛ́=∅*
rob-PfvNeg.3PlSbj-Pass=it.is.3PlSbj
'They have not been robbed.'

d. *tɔ̀ŋɔ̀-ndí-yɛ́=∅*
write-PfvNeg.3PlSbj-Pass=it.is.3PlSbj
'They have not been written.'

Both positive and negative predicative forms of the passive may combine with past clitic *=bɛ-*. For examples, see §10.5.1.4.

Participle-like passive *-yɛ́* is distinct from inflectable verbal suffix *-yɛ́-* 'be possible' (§17.5.2.1), but a historical connection cannot be ruled out.

9.3.3 Minor passive suffix *-mí-*

One unproductive passive construction is a morphological mimic of the causative, using the same suffix *-mí-*. The two known examples are in (262). The best gloss is of the type 'be Vb-able', referring to the presence or distribution of the referent rather than to its inherent qualities.

(262)	a.	*tɛ́mbɛ́-*	'encounter'	*tɛ́mbɛ́-mí-*	'be found (often), findable'
	b.	*bɛ̀rɛ́-*	'obtain'	*bɛ̀rɛ́-mí-*	'be gotten (often), available'

Examples: reduplicated imperfective *tɛ̀-tɛ́mbɛ́-mɛ́-ŋ̀* 'it is found (= possible to find, available)', imperfective negative *bɛ̀rɛ́-m-ŋɔ̀:-∅* 'it isn't available, it can't be gotten'.

No such form was elicitable for 'be seen' or 'be heard'.

9.4 Ambi-valent verbs without suffixal derivation

Ambi-valent verbs, i.e. those used both transitively and intransitively, are not typical of Nanga. Intransitive/transitive pairs are normally expressed morphologically, by such suffixes as causative, transitive, and mediopassive. Many verbs (e.g. 'eat', 'sing') that are typologically low on transitivity (i.e. the object is obvious from the meaning of the verb, or is otherwise uninformative), have high-frequency cognate-nominal or other default nominal objects in Dogon languages ('eat a meal', 'sing a song'), see §11.1.5.1.

9.5 Deadjectival inchoative and factitive verbs

In the tables in this section, the adjective is first given in its usual modifying form. It should be recalled, though, that many nonmonosyllabic adjectives with final *i* in this form also have a predicative form with final *u*. The adjective is followed by the inchoative verb ('[sth] become ADJ') and the factitive verb ('make [sth] ADJ'). The factitive is the causative of the inchoative, and usually ends in causative suffix *-mí-* (there are also a few cases with *-ndí-*). The inchoative is therefore the lexically basic verb.

In the first set of examples, the inchoative verb has no segmentable derivational suffix. The inchoative verb and the adjective are independent members of the same word-family, rather than one being directly derived from the other. The phonological form of the verb respects the usual constraints on verb-stem shapes regarding tone and vocalism. Therefore the verb has /LH/ melody if it begins with a voiced obstruent, /H/ melody if it begins with a voiceless obstruent, and otherwise there is a lexical choice (§3.7.1.2). These constraints do not apply to the adjective.

(263)

gloss	adj	inchoative	factitive
a. factitive *-ndí-*			
‘full’	*bá:*	*bă:-*	*bă:-ndí-*
‘tight (screw)’	*ɛ̌:*	*ɛ́:-*	*ɛ́:-ndí-*
b. factitive with causative *-mí-*, inchoative ends in non-high vowel			
‘tight (rope)’	*ɛ̌:*	*ɛ́:-*	*ɛ́:-mí-*
‘old’	*pɛ̌:*	*pɛ́:-*	*pɛ́:-mí-*
‘dry, hardened’	*mă:*	*mă:-*	*mă:-mí-*
‘ripe (crop); fresh’	*írɛ́*	*írɛ́-*	*írɛ́-mí-*
‘half-ripe’	*àmá*	*ámá-*	*ámá-mí-*
‘plump’	*àmí*	*ámá-*	*ámá-mí-*
‘red’	*bár^{n}í*	*bàr^{n}á-*	*bàr^{n}á-mí-*
‘empty, bare’	*kóró*	*kóró-*	*kóró-mí-*
‘weak, diluted’	*sèré*	*séré-*	*séré-mí-*
‘ripe (fruit)’	*bòró*	*bòró-*	*bòró-mí-*
‘black’	*jɛ́mí*	*jɛ̀mɛ́-*	*jɛ̀mɛ́-mí-*
c. factitive with causative *-mí-*, inchoative ends in *i*			
‘curved’	*gɔ̀ndí*	*gɔ̀ndí-*	*gɔ̀ndɔ́-mí-*
‘narrow’	*ɛ̀mbí*	*ɛ́mbí-*	*ɛ́mbɛ́-mí-*
‘tilted’	*jɛ̀ŋí*	*jɛ̀ŋí-*	*jɛ̀ŋɛ́-mí-*

In (263c), the final *i* of the inchoative is replaced, before the causative suffix, by a non-high vowel copied from the initial syllable.

In the remaining forms, the inchoative verb has a derivational suffix. One could therefore argue that the inchoative is formed by adding an inchoative suffix directly to the adjective. To make this work, the adjectival stem would have to be reshaped to fit the constraints on the phonolological form of verbs, over and above simple addition of the derivational suffix.

In (264), the inchoative suffix is *-yí-*, with harmonized variant *-yɛ́-* after verbs with +ATR {*e o*} vowel. This suffix requires the preceding bisyllabic stem to end in *i*. The *-yí-* variant shifts to *-yɛ́-* before the causative suffix, while +ATR *-yɛ́-* does not shift. The *y* is regularly nasalized to *y^{n}* after a nasal syllable, audibly in factitives like *ná:r^{n}í-y^{n}ɛ́-mí-*, but the sequence /í-y(^{n})í/ in inchoatives is heard as [i:] due to Monophthongization (§3.5.7.2).

(264) Inchoative *-yí-*/*-yɛ́-*

gloss	adj	inchoative	factitive
a. *Cv:C(C)v-*			
‘thin’	*kɛ́:mbɛ́*	*kɛ́:mbí-yí-*	*kɛ́:mbí-yɛ́-mí-*
‘skinny’	*kó:mbó*	*kó:mbí-yé-*	*kó:mbí-yé-mí-*
‘young, adolescent’	*sǒ:rô*	*só:rí-yé-*	*só:rí-yé-mí-*
‘easy, cheap’	*nà:r^{n}á*	*ná:r^{n}í-y^{n}í-*	*ná:r^{n}í-y^{n}ɛ́-mí-*
‘unripe, raw’	*kɛ̀:sí*	*kɛ́:sí-yɛ́-*	*kɛ́:sí-yɛ́-mí-*

b. temperature adjectives

‘cold’	*támî*	*támí-y^{n}í-*	*támí-y^{n}ɛ́-mí-*
‘hot’	*ɔ́gî*	*ɔ́gí-yí-*	*ɔ́gí-yɛ́-mí-*

The most common and productive inchoative suffix, however, is *-ndíyé-*. The *e* vowel is stable, occurring with any stem vocalism. The comments at the beginning of each group of examples in (265) suggest how one might derive the vocalism of the inchoative verb from that of the modifying adjective. This is unnecessary (and unwarranted) if one decides that the adjective and the inchoative are independent members of their word-families.

The tone pattern of the inchoative can again be predicted if the stem begins with an obstruent. Inchoatives beginning in a voiceless obstruent (stop or fricative) have /H/ melody, while those beginning in a voiced obstruent have /LH/. The eight or so vowel-initial inchoatives also have /H/ melody. General constraints on verb-stem melodies do allow /LH/ for V-initial stems (cf. *ìrɛ́* ‘forget’), but /H/ is considerably more common.

This leaves sonorant-initial stems, which in principle allow either tone melody in verbs, and might therefore clarify whether the adjective and the inchoative share a lexical melody. Here I find two cases of /LH/ in both the adjective and the inchoative (*wàgá* ‘distant’, *mɔ̀sí* ‘bad/ugly’), one case with /HL/ in the adjective and /H/ in the verb (*már^{n}î* ‘hard’), one case with /HL/ in the adjective and /LH/ in the verb (*yágî* ‘coarse’); and one with /LHL/ adjective and /H/ verb (*nɔ̀mî* ‘difficult/costly; this adjective has a predicative form *nɔ̀mú* with /LH/ melody). No clear pattern emerges.

(265) Inchoative *-ndíyé-*

a. stem ends in {*ɛ ɔ a*}, vocalism stable

‘distant’	*wàgá*	*wàgá-ndíyé-*	*wàgá-ndíyé-mí-*
‘fat; numerous’	*ɔ̀wɔ́*	*ɔ́wɔ́-ndíyé-*	*ɔ́wɔ́-ndíyé-mí-*
‘small, young’	*ɛ̀wrɛ́*	*ɛ́wrɛ́-ndíyé-*	*ɛ́wrɛ́-ndíyé-mí-*
‘long, tall’	*gùrɔ́*	*gùrɔ́-ndíyé-*	*gùrɔ́-ndíyé-mí-*

b. *CvC* stem with non-high vowel extended to *CvCv-* by copying vowel

‘spacious’	*gâw*	*gàwá-ndíyé-*	*gàwá-ndíyé-mí-*
‘short’	*dêŋ*	*dèŋé-ndíyé-*	*dèŋé-ndíyé-mí-*

c. stem has *u…i* (but predicative *u…u*) becoming *u…u*, stem *CvCv*

‘big, fat’	*dùgí*	*dùgú-ndíyé-*	*dùgú-ndíyé-mí-*
‘heavy’	*dúsî*	*dùsú-ndíyé-*	*dùsú-ndíyé-mí-*
‘soft (skin)’	*búrî*	*bùrú-ndíyé-*	*bùrú-ndíyé-mí-*

d. stem has *u…i* becoming *u…e*, stem *CvCCv*

‘coarse’	*kùnjí*	*kúnjé-ndíyé-*	*kúnjé-ndíyé-mí-*

e. stem has *i…i*, vocalism stable

‘white’	*pírí*	*pírí-ndíyé-*	*pírí-ndíyé-mí-*

f. *Ci:* stem extended to *Ciye-*

‘pointed’	*sî:*	*síyé-ndíyé-*	*síyé-ndíyé-mí-*

g. stem ends in *i* that is replaced by copy of non-high first vowel

‘bitter’	*gárî*	*gàrá-ndíyé-*	*gàrá-ndíyé-mí-*
‘salty, sour’	*párî*	*párá-ndíyé-*	*párá-ndíyé-mí-*
‘half-bitter’	*ásî*	*ásá-ndíyé-*	*ásá-ndíyé-mí-*
‘hard’	*már^{n}î*	*már^{n}á-ndíyé-*	*már^{n}á-ndíyé-mí-*
‘coarse’	*yágî*	*yàgá-ndíyé-*	*yàgá-ndíyé-mí-*
‘no good (garbage)’	*gɔ̀mî*	*gɔ̀mɔ́-ndíyé-*	*gɔ̀mɔ́-ndíyé-mí-*
‘somewhat rotten’	*gɔ́mî*	*gɔ̀mɔ́-ndíyé-*	*gɔ̀mɔ́-ndíyé-mí-*
‘bad, ugly’	*mɔ̀sí*	*mɔ̀sɔ́-ndíyé-*	*mɔ̀sɔ́-ndíyé-mí-*
‘difficult, costly’	*nɔ̀mî*	*nɔ́mɔ́-ndíyé-*	*nɔ́mɔ́-ndíyé-mí-*
‘hot, fast’	*ɔ́gî*	*ɔ́gɔ́-ndíyé-*	*ɔ́gɔ́-ndíyé-mí-*
‘deep’	*sóŋî*	*sóŋó-ndíyé-*	*sóŋó-ndíyé-mí-*
‘smooth, sleek’	*órî*	*óró-ndíyé-*	*óró-ndíyé-mí-*
‘good’	*èsí*	*ésé-ndíyé-*	*ésé-ndíyé-mí-*
‘sweet; sharp’	*érî*	*éré-ndíyé-*	*éré-ndíyé-mí-*
‘lightweight’	*ér^{n}ì*	*ér^{n}é-ndíyé-*	*ér^{n}é-ndíyé-mí-*

There are also two cases known to me of inchoative *-rí-*. The adjective *yágî* ‘coarse’ has been given above with its inchoative *yàgá-ndíyé-* ‘become coarse’, but there is also a semantically specialized verb *yàgí-rí-* ‘(skin) be itchy’. The adjective *ɔ́gî* is also given above, in the sense ‘hot’, with inchoative *ɔ́gí-yí-*, and in the senses ‘hot/fast’, with inchoative *ɔ́gɔ́-ndíyé-*. However, for ‘become fast(er)’ (i.e. ‘speed up’), there is another verb, *ɔ́gí-rí-*.

Examples of adjectives (or adjective-like compound finals) that do not have an associated inchoative verb are in (266). For ‘other’ the problem is logical (‘become other’ makes little sense except in a postmodern context). ‘Become new’ is not much better, in the absence of cosmetic surgery and revitalizing skincare products. The other terms in (266) are noun-like.

(266)

gloss	adjective	inchoative/factitive
‘other’	*bèndí*	—
‘new’	*kándà*	—
‘young adult’	*sátárá*	—
‘living’	*úmá*	—
‘runty’	*kèdɛ́*	—

9.6 Denominal verbs

There is no productive denominal verbalization. Some cases of verb-noun relationships where the noun is arguably lexically basic are listed with subheading comments in (267). As usual the verb is subject to phonological constraints on its tone melody while the noun is not.

(267)

noun	gloss	verb	gloss
a. verb has transitive *-rí-*			
dû:	‘load’	*dǔ:-rí-*	‘load (e.g. cart)’
tìgâ	‘family name’	*tígí-rí-*	‘(griot) chant the ancestry of (sb)’
nèŋí	‘sauce’	*néŋgí-ré-*	‘cook (sauce)’

b. verb has *-gíyé-*

úndì	'forest'	*úndú-gíyé-*	'(zone) become dense (e.g.after rains)'

c. verb has mediopassive *-yí-*

kùrí	'(a) share'	*kérí-yé-*	'share, divide up'
lìsìgìr^{n}ɛ́	'filth'	*lísígír^{n}í-y^{n}í-*	'become dirty, soiled'
noun resembles stative			
ùwá	'fear'	*ú:-yí-*	'be afraid' (stative *ú-ʔùwà-*)
ìyâ	'position'	*í:-yí-*	'stand, be in a position' (stative *í-ʔìyà-*)

d. verb has causative *-mí-*

pǒ:	(greeting)	*pó:-mí-*	'greet'
lìsìgìr^{n}ɛ́	'filth'	*lísígír^{n}é-mí-*	'soil, make dirty'

e. verb has no suffix (Fulfulde borrowings)

bármà	'injury'	*bármí-*	'injure, wound (someone)'

f. noun is reduplicated

kà-kàrí	'lie, untruth'	*kárá-*	'lie, tell a lie'

The noun and verb co-occur in collocations in some cases, notably 'chant the ancestry', 'cook the sauce', and 'tell a lie'. Syntactically, the nouns in these cases function as cognate nominals (§11.1.5).

dǔ:-rí- 'load (cart)' in (267a) is alternatively derivable from mediopassive *dǔ:-yí-* 'carry (on head)', see §9.3.1. This is probably correct historically, but the synchronic situation is more ambiguous.

9.7 Obscure verb-verb relationships

ná:-mí- in (268) looks like a causative but has a noncausative sense. For time-of-day greetings, see §19.7.1.

(268)

verb	gloss	related verb	gloss
ná:-	'spend night'	*ná:-mí-*	'greet in the morning'

10 Verbal inflection

10.1 Inflection of regular indicative verbs

Inflected indicative verbs are normally followed by an aspect-negation (AN) suffix, then an optional past clitic (or suffix), then a pronominal-subject suffix (including 3Sg zero). Verbs can be lexically *i*-final or non-*i*-final. In either case, they undergo final-vowel ablaut in some inflections.

Tense as such is not marked in the basic AN system, but a conjugatable past clitic may be added to several AN suffixes.

The modal categories (imperative, etc.) have distinctive morphology but are also suffixal, except that the singular imperative is marked only by tonal and vocalic changes.

10.1.1 Suffixes versus chained auxiliary verbs

As in other Dogon languages, in those categories where a nonzero AN morpheme follows the regular bare stem of the verb (with its regular tones), there is an issue as to whether the AN morpheme is a suffix or a chained auxiliary verb. Experiential perfect *tá:-* is unmistakably an auxiliary verb, since it has its own perfective-2 suffix *-só-* in main clauses. Recent perfect *jɛ̀-* lacks such an inflectional suffix in main clauses, but both *tá:-* and *jɛ̀-* are followed in relative clauses by perfective participial *-sɛ̀*, and both can be followed by perfective negative *-rí-*.

An important test for suffix (Vb-Y) versus auxiliary-verb (Vb Y) status is whether, in nonsubject relatives, a preverbal pronominal-subject proclitic (§14.1.6) precedes the main verb or intervenes between it and Y. Such pronominals do intervene between directly chained verbs (§14.1.8). The fact that they can likewise intervene between the main verb stem and the experiential perfect participle (*tá:-sɛ̀*) and the recent perfect participle (*jɛ̀-sɛ̀*), see §14.1.7.1, supports the view that these latter are auxiliary verbs that combine with the main verb in direct chains.

Tone-dropping effects are also relevant. Determiners (‘the’, ‘this’, ‘that’) control tone-dropping on preceding words within the NP (including relative clause). In the relative clause constructions, if a determiner is added the outputs are *Vb [tà:-sɛ̀]*^{L} *DET* (experiential perfect) and *Vb [jɛ̀-sɛ̀]*^{L} *DET* (recent perfect). Here determiner-controlled tone-dropping affects only the auxiliary verbs (audibly in *[tà:-sɛ̀]*^{L}, inaudibly in *[jɛ̀-sɛ̀]*^{L}), and does not affect the preceding verb; see §14.1.7.1.

Based on these considerations, I transcribe (and analyse) *tá:-só-* and *jɛ̀-* as separate words. However, there is one piece of countervailing evidence suggesting that *tá:-* is suffixal, or at least that it and the preceding verb constitute a word-like entity (a compound?). This is the fact that tone-dropping controlled by perfective negative *-rí-* extends to the main verb preceding the experiential perfect morpheme, resulting in *Vb*^{L} *tà:-rí-*, or more perspicuously *[Vb tà:]*^{L}*-rí-*; see §10.2.3.2-3 for examples. Since this does not apply to the recent perfect, whose negation is *Vb jɛ̀-rí-* with no tone-dropping of the main verb, i.e. *Vb [jɛ̀]*^{L}*-rí-*, I regard it as a quirky, isolated feature of the experiential perfect negative.

Perfective-1b *-tì-* and perfective-2 *-só-* might also be analysed as constituting separate words. Verbs have their bare stem before these suffixes, as we would expect in verb-chains. I have no other evidence in favor of taking perfective-2 *-só-* as a separate word. If *-só-* is equated with perfective participial *-sɛ̀*, there is evidence against separate-word status, since a preverbal subject pronominal cannot intervene between the verb stem and *-sɛ̀*, and since the verb stem is included along with *-sɛ̀* in the domain of determiner-controlled tone-dropping (§14.1.7.1).

With perfective-1b *-tì-* the situation is tricky. In relative clauses, the perfective-1b and other perfective positive forms are normally merged into a single participial category. It was possible to elicit one type of relative with *-tì-sɛ̀ gà*, see (509) in §14.1.7.1 below. However, the only textual example I have where the perfective-1b morpheme is separated from the main verb is a combination with different-subject anterior subordinator *nà*, see §15.2.6. So whether *-tì-* is a suffix or a chained auxiliary verb is a borderline call. H-toned *tí-* does, however, occur as a true chained verb. It has unmistakably perfective flavor, but it occurs in this construction before imperfective *-m̀-* (§15.1.10).

Perfective-1a *-ɛ̀rɛ̀-* behaves somewhat similarly to perfective-1b *-tì-* in these respects. Like *-tì-*, it can be separated from the main verb by a preverbal subject pronoun when it is followed by different-subject anterior *nà*, see §15.2.6. In this case it takes the autonomous form *yɛ̀rɛ́*. Also like *-tì-*, *-ɛ̀rɛ̀-* has a {H}-toned form *-ɛ́rɛ́-* that occurs between the main verb and imperfective inflections, see §15.1.10. However, *-ɛ́rɛ́-* contracts with stem-final vowels in the same way as does perfective-1a *-ɛ̀rɛ̀-*, making a verb-chain analysis more problematic.

Etymologically, all of these elements were probably chained auxiliaries. No clear etymology is available for experiential perfect *tá:-*, but it has verb-like morphology, and since it occurs in most Dogon languages its origin is likely ancient. Perfective-1a *-ɛ̀rɛ̀-* and proble cognates like Toro Tegu *-wòrè* ~ *-wɔ̀rè* have the bisyllabic shape typical of verbs. Recent perfect *jɛ̀-* is probably from a 'take' verb: Bankan Tey *zɛ́*, Najamba *jɛ́*, and other cognates, within Nanga *jɛ̌:-* '(man) marry (woman)' and other related forms. Perfective-1b *-tì-* is from 'send': Nanga *tíyí* and numerous cognates. The transition from 'send' to perfective is in progress in Donno So. Perfective-2 *-só-* is from 'have': Nanga *sò-* and cognates.

10.1.2 Overview of categories

For regular (active or dynamic) verbs in the basic indicative mood, there is a fundamental aspectual split between perfective and imperfective aspectual systems, though each system consists of more than one AN category. The aspectual split crosses with a polarity split (positive/negative), so there are four divisions.

The aspectual split is neutralized in statives, which include stative paradigms derived from otherwise active verbs (§10.4) and various defective quasi-verbs like 'be (somewhere)' and 'have' (§11.2). It is also neutralized in the progressive (§10.2.2.3). Statives also have special negative forms distinct from those of active verbs.

Modal categories marked in the morphology are imperative, hortative ('let's …!'), and the quoted imperative (QuotImprt) form used in wishes and imprecations. The imperative and hortative have special negative forms.

10.1.3 Verb stem shapes

There are two morphological verb classes, one ***i*-final** and the other **non-*i*-final**. They are distinct in the bare stem (see below) and some other forms, but merged in others. Prosodically heavy verbs are *i*-final, except that the few heavy stems that are +ATR have final {*e o*. Light bisyllabics (*CvCv*, *CvNCv*) are arbitrarily *i*-final or non-*i*-final (lexical choice). Monosyllabics (*Cv:*) are non-*i*-final, except for *yĭ:-* 'see'.

In addition to this lexical division, verb stems are subject to ablaut affecting the stem-final vowel in some inflections, whether or not an aspect-negation (AN) suffix follows. The following amplifies the brief overview in §3.4.8. I take as lexically basic the **bare stem** of each verb, which occurs in nonfinal position in verb chains, in most perfective positive inflections, and (for light stems) in the imperfective positive and negative. This leads to the question, in some inflections, whether the "suffixes" might really be chained auxiliary verbs (§10.1.1 just below). Other inflected forms use the segmental form (in particular, the vocalism) of the bare stem but apply tonal modifications.

What I call the **E/I-stem** occurs in the 3Sg subject form of the simple perfective positive. It consists of the **E-stem** of non-*i*-final verbs, and the **I-stem** (identical to the bare stem) of *i*-final verbs. The E-stem ends in {*e ɛ*}, depending on ATR-harmonic class of the verb: *dɔ̀gɛ̀-∅* 'he/she left (sth)', *gùrɛ̀-∅* 'he/she stole'. An example of the I-stem is *tìŋì-∅* 'he/she spoke' (§10.2.1.1). The E/I-stem also occurs, with lengthened final vowel, in a durative complement used with 'be tired' as main verb (§15.2.5.1).

The overall **I-stem**, for both *i*-final and non-*i*-final verbs, including monosyllabic *Cv-y*, occurs in the quoted imperative (§10.6.4). For most nonmonosyllabics it also occurs before the prohibitive suffix (§10.6.1.2).

The **A/O-stem** is used without further AN suffix as the imperative (singular), the derived stative stem, and the 3Pl subject form of the simple perfective positive (though in the latter case I treat the final vowel as a suffix). This stem ends in *a ɔ o*}, depending on the nonfinal vocalism and ATR-harmonic value of the stem. Imperative examples are *yɔ́gɔ̂* 'run!', *pérô* 'jump off!', and *ɛ́wâ* 'buy!'.

The **non-high stem** can end in any short vowel except *i* and *u*. The non-*i*-final verbs already satisfy this, so their non-high and bare stems are identical. The effect is that *i*-final verbs must convert the *i* to a non-high vowel that squares with the stem's nonfinal vocalism (if any) and its ATR-harmonic class. All verbs must occur in the non-high stem before perfective negative suffix *-rí-* (§10.2.3.1) and hortative suffixes (§10.6.2). For example, *yɔ̀gɔ́* 'run' and *i*-final *págí* 'tie' have perfective negatives *yɔ̀gɔ̀-rí-* and *pàgà-rí-*. Only prosodically heavy verbs also require the non-high stem before imperfective (positive and negative) suffixes, while prosodically light verbs show up in their bare stem. Examples are regular stems *yɔ̀gɔ́* 'run' and *mònjúró-* 'dream', and *i*-final stems *kár^{n}í-* 'tie' and *bɛ̀gírí-* 'sift', imperfective negatives *yɔ́gɔ̀-ŋɔ̀:-*, *mònjúrò-ŋɔ̀:-*, and *kár^{n}ì-ŋɔ̀:-* with no stem change, but *bɛ̀gírɛ̀-ŋɔ̀:-* with audible shift to non-high stem (§10.2.3.4).

A possible revision of this analysis would be to take the non-high stem as lexically basic, and argue that the final *i* of the bare stem for some verbs (including the I-stem portion of the E/I-stem) is due to ablaut. The challenge for this revision would be explaining why some verbs shift to *i* while others do not. The good news is that there is a correlation of final i with prosodic heaviness, observable in suffixal derivation: *pɛ́gɛ́-* 'drive in (nail)', reversive *pɛ́gí-rí-* 'remove (nail)'. The bad news is that bisyllabics with similar nonfinal vocalism can are assigned by the lexicon to either regular or *i*-final classes, e.g. *bàyá-* 'be cured' versus *gàr^{n}í-* 'put', *tɛ́rɛ́-* 'chop' versus *dɛ̀ŋí-* 'tamp', *dɔ̀gɔ́-* 'leave' versus *bɔ̀gí-* 'perpetrate (crime)',

and *gùró-* ‘steal’ versus *dùŋí-* ‘put down’ (§10.1.3.5). If we take the bare stem as lexically basic, the final-vowel alternations are predictable.

The comments above are strictly about vocalism, i.e. segmental form. The various inflectional categories also require their own tonal patterns. Tones and vocalism (ablaut) are partially orthogonal, but there are some interactions of tone with vocalism (*i*-final versus other stems) in the imperative.

10.1.3.1 *Cv:-* verb stems

The *Cv:-* verbs known to me are in (269), which is organized by tone melody and vowel quality. The subsections are organized by vowel quality. The difference between H- and LH-toned *Cv:* onsets is subtle, since in /LH/-toned *Cv̌:* speakers waste little time in reaching a high pitch.

I have no example of a *Cu:-* verb. The verbs ‘go in’ and ‘hear’ are heard segmentally as [nuj^{n}] but their paradigms point to /nuy^{n}i/ (§10.1.3.3), in spite of cognates like Jamsay *nú:-* and Ben Tey *nú.* ‘See’ is the only example of *Ci:-* (§10.1.3.2).

(269)	/H/	/LH/	gloss
with *a*			
	á:-		‘uproot (peanuts)’
	ká:-		‘shave’
	má:-		‘become dry’
	ná:-		‘spend night’
	pá:-		‘chip off’
	sá:-		‘reply’
	sá:-		‘uproot (with a tool)’
	sá:-		‘take (millet grain spikes) to pile’
	sá:-		‘strain’
	tá:-		‘shoot’
	tá:-		‘(ripening fruit) begin to turn color’
		bǎ:-	‘be enough; be full’
		dǎ:-	‘learn’
		dǎ:-	‘endure’
		dǎ:-	‘patch up’
		gǎ:-	‘harvest (rice) with sickle’
		gǎ:-	‘be unaware’
		jǎ:-	‘fence in (with thorn branches)’
with *a*^{n}			
	tá:^{n}-		‘avoid (taboo)’
	tá:^{n}-		‘build shed (thatched shelter)’
	pá:^{n}-		‘take (step)’
with *o*			
	kó:-		‘cover (e.g. box) with animal hide’
	kó:-		‘spit (wood)’
	kó:-		‘sew’

pó:-		'whistle'
pó:-		'replaster (mud wall)'
só:-		'dip'
tó:-		'hit hard (with stone)'
	bŏ:-	'sip'
	dŏ:-	'wash (hands)'
	gŏ:-	'go out'
	wŏ:-	'catch, hold'

with *ɔ*

kɔ́:-	'eat (meal)'	
pɔ́:-	'pick (fruits)'	
pɔ́:-	'leach, let ferment'	
sɔ́:-	'peck at'	
tɔ́:-	'sow, plant (seeds)'	
tɔ́:-	'roll (turban)'	
tɔ́:-	'take out (daily rations)'	
tɔ́:-	'(milk) fill up (in udder)'	
	bɔ̌:-	'unsheathe'
	dɔ̌:-	'arrive'
	dɔ̌:-	'burn (on fire)'
	gɔ̌:-	'jab'
	jɔ̌:-	'pick out delicately'
	mɔ̌:-	'tie (knot)'
	nɔ̌:-	'drink'
	wɔ̌:-	'(rain) fall'

with *e*

ké:-		'(grasshopper) bite off'
té:-		'(muddy water) become clear'
	bě:-	'remain'
	jě:-	'bring'
	yě:-	'come'

with *ɛ*

ɛ́:-		'become tight'
ɛ́:-		'(woman) marry (man)'
tɛ́:-		'lay out (mat)'
pɛ́:-		'break off'
pɛ́:-		'get old'
kɛ́:-		'shine'
kɛ́:-		'cut out (leather sections)'
sɛ́:-		'trim (hair)'
	bɛ̌:-	'cut off end'
	dɛ̌:-	'be tired'
	jɛ̌:-	'(man) marry (woman)'
	jɛ̌:-	'scoop up (hot coals, in a pottery shard)'
	jɛ̌:-	(in *ńné jɛ̌:-* 'go away, get out')

with *i* (see also *Ciy-* stems, §10.1.3.3 below)
yǐ:- (*yǐ-*) 'see' (§10.1.3.2, below)

with *u*
[none]

For the verbs in (269) other than 'see', the long vowel is consistent across all AN suffixal categories, with the following exceptions. Those that take perfective-1a *-ɛ̀rɛ̀-* instead of perfective-1b *-tì-* shorten the vowel, and may contract it with the initial *ɛ* of the suffix into one syllable: *gǒ:-* 'go out', perfective *gǒ-ɛ̀rɛ̀* 'went out' (§10.2.1.2). In the imperative, *Ce:* verbs shift to *Co:*, and *Cɛ:* verbs appear as *Cɛa* with a diphthong (§10.6.1.1).

10.1.3.2 *yǐ:-* 'see'

The only *Ci:-* verb is *yǐ:-* 'see', and it is somewhat irregular. Specifically, the perfective negative *yɛ̀-rí-* suggests a short-voweled variant /yǐ-/, and also suggests that the *i* has affinities to the final short *i* of nonmonosyllabic verbs like *kár^{n}í-* 'do', which also drops to a non-high vowel before the perfective negative suffix (*kàr^{n}à-r^{n}í-* 'did not do'). The other cases where the vowel of 'see' shifts from /i/ to *ɛ* are certain hortative forms. Imperfective negative *ɲù-ŋɔ́-* (more common than the morphophonologically regular variant *yǐ:-ŋɔ̀:-*) not only shows a similar short stem vowel, but presents other irregularities (L-toned stem followed by H-toned suffix, short suffixal vowel) that are shared only with *nǔy^n* 'hear' (on which see the following section). The other inflected forms are regular and are compatible with /yǐ:-/. The paradigm is in (270). The perfective-1b is elicitable but uncommon, as the perfective-2 is the regular marked perfective of perception verbs.

(270) Paradigm of 'see'

a.	*yǐ:*	bare stem
	yí:-ndɛ́	verbal noun
b.	*yì:-*	simple perfective (3Pl *y-à:*)
	yǐ:-tì-	perfective-1b (uncommon)
	yǐ:-só-	perfective-2
	yǐ:-jɛ̀-	recent perfect
	yǐ: tá:-só-	experiential perfect
	yɛ̀-rí-	perfective negative
c.	*yì-yî:-ŋ̀*	reduplicated imperfective
	yì-yî:-sò-	reduplicated progressive
	ɲù-ŋɔ́- ~ *yǐ:-ŋɔ̀:-*	imperfective negative
d.	*yǐ:*	imperative
	yí-rá	prohibitive
	yɛ̌:-ndà:	quoted prohibitive
	yɛ̌:-mày^n	hortative

10.1.3.3 *Cuy(i)-* and *Ciy(i)-* verbs

There is a difficulty in deciding whether the verbs in (271) are best represented as *Cvy-* (where "v" = a short high vowel *i* or *u*) or as bisyllabic *Cvyi-*. In the cases where "v" is *i* (271c and in part 271b), the third possible representation is *Ci:* .

(271)		stem	gloss
	a.	*núy^{n}(í)-*	'go in'
		nǔy^{n}(í)-	'hear'
	b.	*túy(í)-* ~ *tíy(í)-*	'put down (in pile)'
	c.	*tíy(í)-*	'send'
		bǐy^{n}(í)-	'put (earth in hole)'

The analytical problem is due to the fact that a final *i* is deleted in noninitial syllables after a semivowel, so there is no surface contrast between *Cuyi* and *Cuy*, and no surface contrast between *Ciyi*, *Ciy*, and *Ci:* .

The best evidence for a bisyllabic representation is the form of the perfective negative and that of the hortative. A final *i* in a nonmonosyllabic stem shifts to a non-high vowel before perfective negative *-rí-* and hortative *-mày*. The perfective negative forms of the verbs in question suggest lexical /Cvyi-/. (272) shows the revised representations for the stems as well as the perfective negative forms.

(272)		stem	perfective negative	gloss
	a.	*núy^{n}í-*	*nùy^{n}ɔ̀-r^{n}í-*	'go in'
		nùy^{n}í-	*nùy^{n}ɔ̀-r^{n}í-*	'hear'
	b.	*túyí-* ~ *tíyí-*	*tùyɔ̀-rí-* ~ *tìyɛ̀-rí-*	'put down (in pile)'
	c.	*tíyí-*	*tìyɛ̀-rí-*	'send'
		bìy^{n}í-	*bìy^{n}ɛ̀-r^{n}í-*	'put (earth in hole)'

However, other forms of these verbs are compatible with monosyllabic *Cvy-* representations. It is possible that native speakers have a phonological analysis of the perfective negative and the hortative (which are rather marked categories) that does not require positing a lexical representation with final *i*.

10.1.3.4 *nCv-* and *mCv-* verbs

The four verbs in (273) are bisyllabic (and treated as such morphophonologically), but their first syllable consists of just a nasal consonant, followed by a homorganic stop or nasal. The initial nasal may be H-toned (273a) or L-toned (273b-c).

(273)

	stem	gloss	reduplicated imperfective 3Sg
a.	*ńné-*	'go'	*ì-ʔíní-ŋ̀* ~ *ì-ʔńní-ŋ̀*
	ńdí-	'give'	*ì-ʔíndí-ŋ̀* ~ *ì-ʔńdí-ŋ̀*
b.	*ǹdɛ́-*	'go up'	*ì-ʔíndɛ́-ŋ̀* ~ *ì-ʔńdɛ́-ŋ̀*
c.	*(kìrⁿɛ́) m̀bó-*	'blow (nose)'	*ù-ʔúmbó-ŋ̀* ~ *ù-ʔm̀bó-ŋ̀*

For background on initial *NC* clusters, see §3.3.8.1-2.

In the reduplicated forms on the right in (273), a synchronic constraint requiring a vocalic nucleus in the reduplicant forces the stems in question to "grow" an initial *i*, which is then optionally copied in the reduplicant. There are also variants with the glottal-stop separator followed directly by the initial syllabic nasal.

The 'go' verb has somewhat irregular stem-final vowel-quality alternations, in addition to the regular shift of final *e* to *o* in the imperative and to *i* in the prohibitive. *ɛ* occurs instead of *e* in several forms, including those with a suffix containing the vowel *ɛ* or *a*, but also in the simple perfective and in the perfective negative (suffix *-rí-*). *i* occurs for expected *e* in the positive and negative imperfective forms.

(274) Paradigm of 'go'

form	category
a. with *e*	
ńné	bare stem (contrast *ńnɛ́* 3Sg pronoun)
ńné-só-	perfective-2
ńné tá:-só-	experiential perfect
ńné-màyⁿ	hortative
b. with *ɛ*	
ńnɛ́-ndɛ́	verbal noun
ǹnɛ̀-	simple perfective (but 3Pl *ǹn-ɔ̀*)
ńnɛ́-ɛ̀rɛ̀-	perfective-1a
ńnɛ́-jɛ̀-	recent perfect
ǹnɛ̀-rⁿí-	perfective negative
c. with *i*	
ì-ʔíní-ŋ̀ ~ *ì-ʔńní-ŋ̀*	reduplicated imperfective
ì-ʔnnî:-sò-	reduplicated progressive
ńní-ŋɔ̀:-	imperfective negative
ńní-rⁿá	prohibitive
d. with *o*	
ńnô	imperative

10.1.3.5 Regular bisyllabic stems

All nonmonosyllabic stems end in a short vowel. Bisyllabics are *CvCv*, *Cv:Cv*, *CvCCv*, and rarely *Cv:CCv*. The initial *C* position may be empty. Except in recent French or Fulfulde loanwords, there are tight restrictions on vowel sequences. For bisyllabics, there are two primary patterns, *i*-final and non-*i*-final.

In non-*i*-final stems, either the two vowels are identical non-high vowels, hence {*e…e*, *ɛ…ɛ*, *a…a*, *ɔ…ɔ*, *o…o*} (275a), or there is an initial high vowel followed by a mid-height vowel with the same back/rounding value, hence {*i…e*, *i…ɛ*, *u…o*, *u…ɔ*} (275b). This is common but not required for light bisyllabics *CvCv* including *CvNCv*, the latter with homorganic nasal-voiced stop cluster. For *Cv:Cv* and *Cv:NCv*, which count as heavy, the non-*i*-final type is limited to +ATR stems ending in *e* or *o*.

Curly brackets here simply enclose members of a set. There are therefore nine possible combinations of the seven vowel qualities, so we cannot quite reduce the vocalisms to single autosegments. However, all of the vowel-pairings are harmonic.

(275)

stem	gloss
a. identical non-high vowels	
bàyá-	'be cured'
tɛ́rɛ́-	'chop'
ké:ndé-	'do well'
kóyó-	'weep'
dɔ̀gɔ́-	'leave'
b. high vowel followed by non-high vowel	
gùró-	'steal'
dùyɔ́-	'insult'
` *bìndé-*	'go back'
wìsɛ́-	'swing (arms)'

Verb loans from Fulfulde normally end in *ɛ* regardless of other vowels in the stem, and unless further assimilated they often have vowel sequences that violate the tight patterns illustrated in (276a). The final *ɛ* is also typical of French loans (276b), reflecting both an extension of the Fulfulde pattern to a wider range of loans, and the convenient fact that French verbs have several high-visibility forms ending in phonetic [e] or [ɛ] (written *-er*, *-ez*, *-ait*, etc.). A further source of noncanonical vowel sequences is the tendency for *iwv to shift to *uwv*, notably in the word for 'die', *tíwɛ́-* or *túwɛ́-* (276c), where the usual reduplicated imperfective *tù-túwɛ́-m̀-* shows that the representation with *u* now has the upper hand.

(276)

	stem	gloss
a.	*súrɛ́-*	'pacify'
	pálɛ́-	'box in'
b.	*gájnɛ́-*	'win (match, election)' < *gagner*
c.	*túwɛ́-* ~ *tíwɛ́-*	'die'

The second major pattern for bisyllabic stem vowelism is with final *i* (in some environments varying with *u*). The preceding vowel quality is normally {*i u ɛ ɔ a*}, i.e. anything but +ATR, since initial-syllable +ATR {*e o*} require a harmonizing stem-final vowel instead of *i*. The final *i* is subject to syncope/apocope after an unclustered semivowel *w* (*dɛ̀wí-* 'cover') or *y* (*í:-yí-* 'stop').

(277)	stem	gloss
a. *CvCi-*		
	gàrⁿí-	'put'
	jɔ̀ŋí-	'cure'
	bɔ̀gí-	'perpetrate (crime)'
	dɛ̌w (< /dɛ̀wí/)	'cover'
	dɛ̀ŋí-	'tamp'
	dùŋí-	'put down'
	tíŋí-	'speak'
b. *Cv:Ci-*		
	bǎ:rí-	'help'
	gɛ̌:rⁿí-	'take away, convey'
	í:-yí-	'stop'
c. *CvCCi-*		
	tɛ́mbí-	'find'
	gɔ̀mbí-	'open wide'
	tímbí-	'put lid on'
d. *Cv:CCi-*		
	mɔ̌:ndí-	'gather'

The contrast of *tímbí-* 'put lid on' with *tímbé-* 'lean on (cane)' shows how one cannot always predict the final vowel from an initial high vowel

10.1.3.6 Trisyllabic stems

Trisyllabic stems are often etymologically composite, but in individual cases it is difficult to demonstrate this in the absence of semantically and phonologically linked underived stems..

As with *Cv:Cv* and *Cv:NCv*, the other heavy stem types, trisyllabics are non-*i*-final if they contain a +ATR vowel, of which the final vowel is usually a copy (278). The medial vowel is in a metrically weak position, and is usually raised to a high vowel (usually of the same backness/rounding value as the first value), and in some consonantal environments it can then be syncopated. A few +ATR stems keep medial *e* or *o* (278e).

(278) stem gloss

a. repeated +ATR {*e o*} vowels flanking medial high vowel

néŋgíyé-	'carry on head (without hands)'
bègíré-	'hiccup'
yègísé-	'cut up (into pieces)'
mònjúró-	'dream'

b. (*o…i…e*)

dògíyé-	'look up at'

c. (*o…o* after syncope)

kómró- ~ *kómúró-*	'shell (peanuts)' (and other senses)
dŏmró- ~ *dòmúró-*	'shave around edges'

d. (initial and medial high vowels, final mid-height vowel)

pígíré-	'screw in'
wìgíré-	'be dizzy'
lúgúró-	'ransack'
dùsúró-	'poke'

e. medial non-high vowel (usually), +ATR

péndéré- ~ *péndíré-*	'squeeze out', cf. *péndíré* 'paint (sth)'
túmóró- ~ *túmbóró-*	'tamp down'

Cognate nominals sometimes show three identical vowels with no weakening of the medial, e.g. *mónjórò* 'dream (n)' versus verb *mònjúró-*. Infrequently, such a triple sequence occurs in a +ATR verb at least as a variant (278e).

In (278b), the pair of initial and final vowels is *o…e* rather than *o…o* or *e…e*, but it respects ATR harmony. This uncommon pattern is probably a reflection of frozen suffixal derivations, in the case of *dògíyé-* 'look up at' perhaps with mediopassive *-yv́-*.

The majority of trisyllabics are -ATR, and therefore belong to the *i*-final class. The medial vowel is raised (279a-c) and may syncopate (279c). The trisyllabic source is clear in the derived transitive verb *dăw-rí-* 'hide (sth)' from /dàwí-rí-/, cf. *dàwí-yí-* 'hide (oneself)'. When the final syllable begins with *y*, the resulting /…iyí/ is heard as [iː] (279b), but the underlying trisyllabic form is revealed by inflected forms such as the imperative (*íríyà* 'get up!').

(279) stem gloss

a. initial vowel other than {*e o*}, final *i*

súmúrⁿí- ~ *súmírⁿí-*	'rest'
púgúsí-	'scrub'
íŋgírí-	'accompany'
kɛ́mírⁿí-	'have fun'
gɔ̀ŋírⁿí-	'go around'
bɔ́gísí-	'punch' (< French *boxer*)
dàgírí-	'get ready'

b. final …*íyí* heard as [i:]

írí-yí- [íɾi:]	'get up'
níndí-yí- [níndí:]	'be tangled'

c. syncope to *CvCCi-*

tɛ́wsí-	'tamp down'

If we combine the trisyllabic data in (278) and (279), we can say that initial-syllable {*u i*} allow either a final *i* or a final {*o e*} (agreeing in rounding), while non-high initial-syllable vowels allow us to predict the final-syllable vowel. The allowable sequences (disregarding occasional assimilatory rounding of the medial vowel) are therefore *u…i…i*, *u…u…o*, *i…i…i*, *i…i…e*, *e…i…e*, *o…u…o*, *ɛ…i…i*, *ɔ…i…i*, and *a…i…i*. Factoring out *i* as the basic medial vowel, these sequences have a partial correspondence to those allowed in bisyllabic verbs. However, one notes the absence of #*ɛ…i…ɛ* and #*ɔ…u…ɔ* corresponding to bisyllabic *ɛ…ɛ* and *ɔ…ɔ*, of #*e…i…i* and #*o…i…i* corresponding to the (not very common) bisyllabic *e…i* and *o…i*, and of #*a…i…a* corresponding to bisyllabic *a…a*.

The preceding discussion of trisyllabic vowel sequences is somewhat idealized. However, the generalizations are valid for trisyllabic stems that are under no whiff of suspicion of including a derivational suffix. When we include stems that do seem to have such a suffix (even if frozen and no longer clearly segmentable), additional vowel sequences emerge. Consider the data in (280).

(280)

	stem	gloss
a.	*jòríyé-*	'fight'
b.	*làrágí-*	'scrub lightly'
	ámbígí-	'hold on chest'
c.	*bèndɛ́-mí-*	'hit hard'
	pínjé-mí-	'wring'

In (280a), an initial *o* or *u* co-occurs with a final *e* (instead of *o*). Since the cognate nominal is *jòríyè* '(a) fight', one suspects that the verb is simply following the vocalism of the noun. An additional factor is that *-yé-* can be a derivational suffix (mediopassive), and there are some examples of this suffix after a stem containing *o* or *u*, e.g. *nóŋgí-yé-* 'be caught (stuck)', *tónjí-yé-* 'be curved', and *púndí-yé-* 'be clumped'.

In (280b), the first two syllables of the stem have the correct vocalism for *CvCv-* stems. The following *-gí-* syllable resembles a minor causative allomorph *-gí-* which likewise does not alter the vocalism of a preceding *CvCv-* stem (§9.2.2). However, I know of no unsuffixed counterpart to *làrágí-*, and *ámbí-* is recorded only in the sense 'apply (a compress)'.

Similarly, the productive causative suffix *-mí-* does not alter the vocalism of a preceding *CvCv-*. The forms in (280c) are phonologically compatible with causative morphophonology, though they do not function as causatives semantically and are only dubiously connected to *pínjé-* '(water) splash' and *bèndí-* 'swim'.

10.2 Positive indicative AN categories

10.2.1 Perfective positive system (including perfect)

10.2.1.1 Simple perfective with {L}-toned stem

The simple perfective consists morphologically of the stem without audible AN suffix, except in the 3Sg and perhaps 3Pl, and with tones dropped. 1st/2nd persons add the relevant pronominal-subject suffix to what is segmentally the bare stem. In the 3Sg, the stem has final {*ɛ e i*}, as in the more systematic E/I-stem of several other Dogon languages (§10.1.3). Non-*i*-final stems end in *ɛ* or *e* depending on ATR-harmonic category of the stem. *i*-final stems end in *i*, identical segmentally to the bare stem. The 3Pl ends in {*o ɔ a*}, which derives from the A/O-stem of many of the same languages, though (given that other inflections have a nonzero 3Pl suffix) this final vowel may be interpreted by native speakers as a suffix.

The simple perfective is typical of clauses that have a focalized constituent (other than the verb itself). "Focalized" can be construed loosely here, and the simple perfective is very common when any preverbal constituent is present.

Sample paradigms of non-*i*-final stems are in (281). The verbs are *dɔ̀gɔ́-* 'leave', *túwɛ́-* 'die', *gùró-* 'steal, rob', and *yɛ̌:-* 'come'. The latter shows that a *Cv:-* stem shortens its vowel before the consonant of a 1st/2nd person suffix.

(281) Unsuffixed perfective paradigm

category	'leave'	'die'	'rob'	'come'
1Sg	*dɔ̀gɔ̀-ỳ*	*tùwɛ̀-y*	*gùrò-y*	*yɛ̀-y*
1Pl	*dɔ̀gɔ̀-ỳ.˸*	*tùwɛ̀-ỳ.˸*	*gùrò-ỳ.˸*	*yɛ̀-ỳ.˸*
2Sg	*dɔ̀gɔ̀-ẁ*	*tùwɛ̀-w*	*gùrò-w*	*yɛ̀-w*
2Pl	*dɔ̀gɔ̀-ẁ.˸*	*tùwɛ̀-ẁ.˸*	*gùrò-ẁ.˸*	*yɛ̀-ẁ.˸*
3Sg/InanSg	*dɔ̀gɛ̀-∅*	*tùwɛ̀-∅*	*gùrɛ̀-∅*	*yɛ̀:-∅*
3Pl/InanPl	*dɔ̀g-ɔ̀*	*tùw-à*	*gùr-ò*	*y-ò:*

Before *nde* 'if', the 3Sg form reverts to bare-stem vocalism. In the case of 'leave', but not the three other verbs in (281), this accidentally results in homophony of 3Sg and 3Pl before the 'if' morpheme, though I put the hyphen in different places to distinguish them transcriptionally: *dɔ̀gɔ̀-∅ ndé* 'if/when he/she leaves', *dɔ̀g-ɔ̀ ndé* 'if/when they leave'.

There is no AN suffix as such in this paradigm, hence the term "simple" (or "unsuffixed") perfective. In the first and second person forms, the pronominal-subject suffix is added directly to the L-toned form of the stem, with the same vocalism (in particular, the same final vowel) as in the bare form.

The 1Pl and 2Pl subject forms are pronounced with a version of dying-quail intonational effect, see (28a) in §3.8.3. The stem-final vowel is prolonged. Having started out with L-tone, this vowel then raises its pitch slightly and then lowers it, resulting in a bell-shaped [LHL] pitch on this syllable. Therefore *dɔ̀gɔ̀-ỳ.˸* 'we left' is realized phonetically as [dɔ̀gɔ̀ɔ̀ỳ] or [dɔ̀gɔ̀ɔ̀ỳ], and *tùwɛ̀-ẁ.˸* 'you-Pl died' is realized as [tùwɛ̀ɛ̀ɛ̀ẁ] or [tùwɛ̀ɛ̀ẁ]. In transcribing e.g. *dɔ̀gɔ̀-ỳ.˸* and *tùwɛ̀-ẁ.˸*, instead of e.g. *dɔ̀gɔ̌:-ỳ* and *tùwɛ̌:-ẁ*, I am suggesting a morphophonological analysis where the dying-quail intonation of the plural-subject forms is superimposed onto the already formed 1Sg and 2Sg forms.

The 3Sg and 3Pl forms of monosyllabic *Cv:-* stems are illustrated in (282). Of particular interest are diphthongal *àɛ̀*, *ɔ̀ɛ̀*, and *òɛ̀* in the 3Sg, and *ɛ̀à* in the 3Pl. Unlike some other Dogon languages, Nanga does not desyllabify either vowel in such sequences. For example, in the case of *òɛ̀* I hear [òɛ̀] with two clear (though clipped) vowels, not [o̯ɛ̀], [wɛ̀], [òe̯], or [òj].

(282) 3Sg versus 3Pl subject forms of simple perfective

gloss	bare stem	3Sg Pfv	3Pl Pfv
a. non-*i*-final *Cv:-* verbs			
'reply'	*sá:-*	*sàɛ̀-∅*	*s-à:* (=*sà-à*) etc.
'go out'	*gǒ:-*	*gòɛ̀-∅*	*g-ò:*
'eat'	*kɔ́:-*	*kɔ̀ɛ̀-∅*	*k-ɔ̀:*
'come'	*yě:-*	*yɛ̀:-∅*	*y-ò:*
'lay out (mat)'	*tɛ́:-*	*tɛ̀:-∅*	*tɛ̀-à*
'avoid taboo'	*tá:ⁿ-*	*tàⁿɛ̀ⁿ-∅*	*t-à:ⁿ*
b. *i*-final 'see'			
'see'	*yǐ:-*	*yì:-∅*	*y-à:*

The verbs of type *Cvy(i)-*, which are arguably *Cvyi* bisyllabics (§10.1.3.3, above), have the simple perfectives in (283). *túyí-* ~ *tíyí-* 'put down' can be treated as in (283a) or as in (283b). In all of the forms shown, a final *i* syncopates or apocopates after *y*, in the 3Sg forms (heard as *nùyⁿ-∅* etc.) as well as in the bare stem.

(283) Simple perfective of *Cvyi* stems

gloss	bare stem	3Sg Pfv	3Pl Pfv
a. *Cuyi*			
'hear'	*nùyⁿí-*	*nùyⁿì-∅*	*nùyⁿ-ɔ̀*
'go in'	*núyⁿí-*	*nùyⁿì-∅*	*nùyⁿ-ɔ̀*
b. *Ciyi*			
'send'	*tíyí-*	*tìyì-∅*	*tìy-à*
'put earth in'	*bìyⁿí-*	*bìyⁿì-∅*	*bìyⁿ-à*

3Sg and 3Pl simple perfective forms of *nCv-* and other bisyllabics are in (284). There are no final diphthongs. The 3Sg ends in {*e ɛ*} for non-*i*-final stems (284a-c), but in *i* for *i*-final stems (284d). The 3Pl ends in {*o ɔ a*} for both verb classes, with *a* replacing *ɛ*. The three *nCv-* stems in (284e) have messy perfective forms. 'Go' behaves as though -ATR in the 3Sg but as +ATR in the 3Pl (and bare stem). 'Give' and 'go up' have homophonous 3Pl but not 3Sg forms.

(284) Simple perfective of bisyllabic stems

gloss	bare stem	3Sg Pfv	3Pl Pfv
a. bisyllabics with repeated non-high vowel			
‘touch’	*táwá-*	*tàwɛ̀-∅*	*tàw-à*
‘get’	*bɛ̀rɛ́-*	*bɛ̀rɛ̀-∅*	*bɛ̀r-à*
‘do well’	*kɛ́:ndɛ́-*	*kɛ̀:ndɛ̀-∅*	*kɛ̀:nd-ò*
‘weep’	*kóyó-*	*kòyè-∅*	*kòy-ò*
‘leave’	*dɔ̀gɔ́-*	*dɔ̀gɔ̀-∅*	*dɔ̀g-ɔ̀*
b. high vowel followed by non-high vowel			
‘steal’	*gùró-*	*gùrè-∅*	*gùr-ò*
‘insult’	*dùyɔ́-*	*dùyɛ̀-∅*	*dùy-ɔ̀*
‘return’`	*bìndé-*	*bìndè-∅*	*bìnd-ò*
‘swing’	*wìsɛ́-*	*wìsɛ̀-∅*	*wìs-à*
‘spray’	*písé-*	*pìsè-∅*	*pìs-ò*
c. final *ɛ* after a different vowel (loanwords)			
‘win’	*gáɲɛ́-*	*gàɲɛ̀-∅*	*gàɲ-à*
d. *i*-final bisyllabics with initial {*i ɛ a ɔ u*}			
‘put’	*gàr^{n}í-*	*gàr^{n}ì-∅*	*gàr^{n}-à*
‘cover’	*dɛ̀wí-* [dɛ̌w]	*dɛ̀wì-∅*	*dɛ̀w-à*
‘tamp’	*dɛ̀ŋí-*	*dɛ̀ŋì-∅*	*dɛ̀ŋ-à*
‘put down’	*dùŋí-*	*dùŋì-∅*	*dùŋ-ɔ̀*
‘speak’	*tíŋí-*	*tìŋì-∅*	*tìŋ-à*
‘perpetrate’	*bɔ̀gí-*	*bɔ̀gì-∅*	*bɔ̀g-ɔ̀*
‘treat’	*jɔ̀ŋí-*	*jɔ̀ŋì-∅*	*jɔ̀ŋ-ɔ̀*
e. *nCv-* verbs			
non-i-final			
‘go’	*ńné-*	*ǹnɛ̀-∅*	*ǹn-ò*
‘go up’	*ǹdɛ́-*	*ǹdɛ̀-∅*	*ǹd-à*
i-final			
‘give’	*ńdí-*	*ǹdì-∅*	*ǹd-à*

Trisyllabic examples are in (285). In the +ATR stems (285a), 3Sg ends in *e* and 3Pl ends in *o*, regardless of which of these two vowels the bare stem ends in. In the -ATR stems (285b-c), the 3Sg ends in *i* and the 3Pl ends in {*o ɔ a*}.

(285) Simple perfective of trisyllabic stems

gloss	bare stem	3Sg Pfv	3Pl Pfv

a. final {*e o*}, +ATR

'cut up'	*yègísé-*	*yègìsè-∅*	*yègìs-ò*
'dream'	*mònjúró-*	*mònjùrè-∅*	*mònjùr-ò*
'look up at'	*dògíyé-*	*dògìyè-∅*	*dògìy-ò*
'ransack'	*lúgúró-*	*lùgùrè-∅*	*lùgùr-ò*

b. *i*-final, -ATR, no derivational suffix

'accompany'	*íŋgírí-*	*ìŋgìrì-∅*	*ìŋgìr-à*
'have fun'	*kɛ́mír^{n}í-*	*kɛ̀mìr^{n}ì-∅*	*kɛ̀mìr^{n}-à*
'get ready'	*dàgírí-*	*dàgìrì-∅*	*dàgìr-à*
'punch'	*bɔ́gísí-*	*bɔ̀gìsì-∅*	*bɔ̀gìs-ɔ̀* (< French *boxer*)
'scrub'	*púgúsí-*	*pùgùsì-∅*	*pùgùs-ɔ̀*

c. trisyllabic derived verbs

'demolish'	*wòró-gí-*	*wòrò-gì-∅*	*wòrò-g-ò*
'make go in'	*núy^{n}ɔ́-mí-*	*nùy^{n}ɔ̀-mì-∅*	*nùy^{n}ɔ̀-m-ɔ̀*
'make jump'	*péré-mí-*	*pèrè-mì-∅*	*pèrè-m-ò*
'recover'	*màllí-rí-*	*màllì-rì-∅*	*màllì-rì-à*

Sentence examples containing simple perfectives are in (286). Interlinears use ".Pfv" with no preceding hyphen.

(286) a. *yéŋìr^{n}ì:* *yè-y*
yesterday come.**Pfv**-1SgSbj
'It was <u>yesterday</u> [focus] that I came.'

b. *ǎ-ŋ* *[yì:* *nɛ́-ŋ]* *sùyɛ̀-∅* *mà*
who?-AnSg [child DefAnSg-Acc] hit.**Pfv**-3SgSbj Q
'Who hit the child?'

c. *àr^{n}áŋá* *nà:-w^{n}* *mà*
where? spend.night.**Pfv**-2SgSbj Q
'Where did you-Sg sleep?'

10.2.1.2 Perfective-1a *-ɛ̀rɛ̀-*, perfective-1b *-tì-*

The simple perfected is complements by three other marked perfective positive forms that have nonzero inflectional suffixes. Two of the suffixes are *-ɛ̀rɛ̀-*, which I label perfective-1a, and *-tì-*, which I label perfective-Ib. These two are in complementary distribution, the choice between them depending on the semantic class and valency of the verb. The suffixes follow the bare stem of the verb, without tonal change, though the stem-final vowel quality is masked by *vv*-Contraction before *-ɛ̀rɛ̀-*.

The two perfective-1 suffixes compete most directly with the perfective-2, which has suffix *-só-*.

Perfective-1a *-ɛ̀rɛ̀-* combines with motion and stance verbs ('go', 'sit down'), with deadjectival inchoatives and other non-active intransitives, with a few low-impact transitives like 'forget', and optionally with transitive verbs of holding and clothing (which often contain mediopassive *-yí-* ~ *-yɛ́-*)

(287) Perfective-1a *-èrè-*

gloss	stem	perfective-1a
a. *Cv:-*		
‘go out’	*gǒ:-*	*gǒ-èrè-*
‘arrive’	*dɔ̌:-*	*dɔ̌-èrè-*
‘spend night’	*ná:-*	*ná-èrè-*
‘come’	*yě:-*	*yě-èrè-*
b. *nCv-*		
‘go’	*ńné-*	*ńné-èrè-*
‘go up’	*ǹdɛ́-*	*ǹdɛ́-èrè-*
c. bisyllabic with final non-high vowel		
final {ɛ a ɔ], no medial cluster, {H}-toned		
‘die’	*túwɛ́-*	*túw-èrè-*
‘go past’	*láwá-*	*láw-èrè-*
‘(wood) decay’	*kɔ́yɔ́-*	*kɔ́y-èrè-*
others		
‘jump’	*tɔ́mbɔ́-*	*tɔ́mbɔ́-èrè-*
‘sit down’	*ɛ́w-yɛ́-*	*ɛ́w-yɛ́-èrè-*
‘lie down’	*bìyɛ́-*	*bìyɛ́-èrè-*
‘be finished’	*dìmɛ́-*	*dìmɛ́-èrè-*
‘run’	*yɔ̀gɔ́-*	*yɔ̀gɔ́-èrè-*
d. *Cvyí-* and …*iyí-*		
‘enter’	*núy^{n}(í)-*	*núy-èrè-*
‘stand’	*í:-yí-*	*í:-y-èrè-*
e. bisyllabic with final *i*		
‘become’	*táŋí-*	*táŋí-èrè-* ~ *táŋy-èrè-*

-èrè- is not subject to Nasalization-Spreading even when the preceding stem ends in a nasalized syllable. In *núy-èrè-* ‘went in’, from *núy^{n}(í)-*, there is no nasality even in the first *ɛ*, so I write *y* without the nasal diacritic.

The main phonological problem is how *vv* sequences are treated. The issue is possibly moot for (287d), if we argue that the stems are *C*-final. With *Cv:-*, the stem vowel is shortened and we get a surface bimoraic *vɛ* sequence (short vowel plus *ɛ*) with both vowels clearly articulated, and without ATR harmony (*gǒ-èrè*, etc.). With bisyllabic and longer stems, a stem-final short {*ɛ a ɔ*} disappears before *-èrè-* unless it is H-toned and not preceded by another H-toned syllable. A stem-final short *i* with such stems optionally desyllabifies to *y*, and *o* sometimes desyllabifies at least partially (§3.5.6.3).

A variant *èrɛ́* with rising tone pattern is attested as a semi-equivalent of the perfective-1a suffix preceding the clause-final different-subject subordinator *nà* ‘then’. See …*gǒ: ńné èrɛ́ nà* ‘(When hare) had gone out (completely), …’ in (747) in the sample text. In this example, *èrɛ́* is separated from *gǒ:* ‘go out’ by an intervening 3Sg pronominal-subject proclitic. An H-toned variant *(-)ɛ́rɛ́-* is also attested in a construction similar to a verb chain, with a following imperfective suffix, see (555) in §15.1.10.

Perfective-1b *-tì-* is used with most transitives, and with active intransitives denoting speech or thought. It is probably cognate to *tíyí-* 'send', but a direct synchronic connection is questionable. See the discussion of (509) in §14.1.7.1 below. An H-toned variant *tí-* occurs in verb-chains (§15.1.10) and in the uncommon combination with past clitic *=bɛ-* (§10.5.1.3).

(288) Perfective-1b *-tì-*

gloss	stem	perfective-1b
a. monosyllabic *Cv:-*		
'shave'	*ká:-*	*ká:-tì-*
'catch'	*wǒ:-*	*wǒ:-tì-*
'see'	*yǐ:-*	*yǐ:-tì-*
b. *nCv-*		
'give'	*ńdí-*	*ńdí-tì-*
c. bisyllabic with final non-high vowel		
'hit'	*súyɔ́-*	*súyɔ́-tì-*
'shout'	*kóyó-*	*kóyó-tì-*
'bathe'	*díyé-*	*díyé-tì-*
'cut (slice)'	*kɛ́sɛ́-*	*kɛ́sɛ́-tì-*
d. bisyllabic with final *i*		
'send'	*tíyí-* [tí:]	*tíy-tì-*
'cover'	*dɛ̀wí-* [dɛ̌w]	*dɛ̌w-tì-*
'speak'	*tíŋí-*	*tíŋ-tì-* ~ *tíŋí-tì-*
'think'	*mǎ:ndí-*	*mǎ:ndí-tì-*
'laugh'	*màndí-*	*màndí-tì-*

Many nonmonosyllabic verbs that take *-tì-* (but not those that take *-ɛ̀rɛ-*) end in a lexical *i*, and this vowel is usually syncopated before *-tì-* where syllabically possible, i.e. after a single *C*: *lǎ:r-tì-* 'chased' from *lǎ:rì-*, *pág-tì-* 'tied' from *págí-*. Pronunciations with the *i* are also possible, especially in careful speech.

Pronominal paradigms are in (289). The second person forms of *-tì-* show optional assimilation of the *i* to the following *w* (§3.5.7.1). Homorganic sequences of vowel and semivowel (i.e. /iy/, /uw/) are monophthongized to long vowels [i:], [u:] (§3.5.7.2). The 1Pl and 2Pl forms have their usual prolongation and [LHL] pitch of the final syllable, reflecting the dying-quail effect, see (30a) in §3.8.3.

(289) Paradigms for perfective-1b and perfective-1a

category	form of 1b *-tì-*	form of 1a *-ɛ̀rɛ̀-*
1Sg	*-tì-ỳ*	*-ɛ̀rɛ̀-y*
1Pl	*-tì-y.:* [tìíì]	*-ɛ̀rɛ̀-y.:* [ɛ̀rɛ̀ɛ́ɛ̀j]
2Sg	*-tì-ẁ* ~ *-tù-ẁ*	*-ɛ̀rɛ̀-w*
2Pl	*-tì-w.:* ~ *-tù-w.:* [tùúù]	*-ɛ̀rɛ̀-w.:* [ɛ̀rɛ̀ɛ́ɛ̀w]

3Sg/Inan	*-tì-∅*	*-ɛ̀rɛ̀-∅*
3Pl	*-tì-yà*	*-ɛ̀r-à*

The distinction between perfective-1a *-ɛ̀rɛ̀-* and perfective-1b *-tì-* is neutralized under negation, where both (and other perfective positives) are replaced by a perfective negative portmanteau (§10.2.1.3, below). The distinction is also generally neutralized in relative clauses, where perfective participial *-sɛ̀* replaces them (and perfective-2 *-só-*). With some effort it was possible to elicit relatives with *-tì-*, see §14.1.7.1, below, but these did not occur spontaneously.

10.2.1.3 Perfective-2 (*-só-*)

Another positive perfective-system form is expressed by H-toned suffix *-só-*. This is the regular marked perfective of perception verbs ('see', 'hear'), but can be used with any verb and competes with the perfective-1a and -1b just described. It is the most common perfective form obtained in elicitation for verbs in general, using French past-tense cue sentences.

(290) a. *ŋ̀gí-∅* *yǐː-só-∅*
1Sg-Acc see-**Pfv2**-3SgSbj
'He/She saw me.'

b. *bɔ̀gɔ̀rɔ̂* *nǔy^{n}-só-y*
noise hear-**Pfv2**-1SgSbj
'I heard a noise.'

The suffix is added to the bare stem, with no tonal or segmental changes. Examples are in (291).

(291)

gloss	stem	perfective-2
a. *Cvː-* monosyllabics		
'catch'	*wǒː-*	*wǒː-só-*
'go out'	*gǒː-*	*gǒː-só-*
'spend night'	*náː-*	*náː-só-*
'see'	*yǐː-*	*yǐː-só-* (as in 290a)
b. *nCv-*		
'go'	*ńné-*	*ńné-só-*
'go up'	*ǹdɛ́-*	*ǹdɛ́-só-*
'give'	*ńdí-*	*ńdí-só-*
c. bisyllabics ending in non-high vowel		
'hit'	*súyɔ́-*	*súyɔ́-só-*
'bathe'	*dìyé-*	*dìyé-só-*
'run'	*yɔ̀gɔ́-*	*yɔ̀gɔ́-só-*
'sit down'	*éw-yé-*	*éw-yé-só-*

d. bisyllabics ending in *i*

'do'	*kár^{n}í-*	*kár^{n}í-só-*
'enter'	*núy^{n}í-* [núj^{n}]	*núy^{n}-só-*
'think'	*mǎ:ndí-*	*mǎ:ndí-só-*

The pronominal paradigm is (292). The 1Pl and 2Pl have their usual bell-shaped [LHL] pitch contour in the final syllable.

(292)

category	perfective-2	
1Sg	*-só-ý*	
1Pl	*-só-ý.˸*	[sòóòj]
2Sg	*-só-ẃ*	
2Pl	*-só-ẃ.˸*	[sòóòw]
3Sg/Inan	*-só-∅*	
3Pl	*-s-ɛ́*	

3Pl *-s-ɛ́* is distinguishable tonally from perfective participial *-sɛ̀*, which occurs in relative clauses (§14.1.7.1).

Representative stem combinations are in (293), with the imperative and progressive for comparison.

(293)

gloss	imperative	perfective-2	progressive
'see'	*yǐ:*	*yǐ:-só-*	*yì-yî:-sò-*
'understand'	*pá:mɔ̀*	*pá:mí-só-*	*pà-pá:mɛ̀(:)-sò-*
'hit'	*súyɔ̂*	*súyɔ́-só-*	*sù-súyɔ̀(:)-sò-*
'hear'	*nùy^{n}í* [nǔj^{n}]	*nǔy^{n}-só-*	*nù-núy^{n}-sò-*
'tie'	*págî*	*págí-só-*	*pà-págì(:)-sò-*
'have fun'	*kɛ́mír^{n}à*	*kɛ́mír^{n}í-só-*	*kɛ̀-kɛ́mìr^{n}ɛ̀(:)-sò-*

For progressive *-sò-* see §10.2.4.4. The perfective-2 and the progressive both have *-so-* suffix but differ phonologically as indicated in (294). The 1Pl and 2Pl forms are disregarded in (294).

(294)

feature	perfective-2	progressive
suffixal tone	H	L
stem tone sequence	lexical	H, H.L, or H.H.L
stem-final vowel length	lexical	lengthened (in some cases optionally)
form of verb stem	bare stem	non-high stem
reduplication	none	yes, if clause-initial (focused)

The opposition is illustrated in (295a) versus (295b), and (295c) versus (295d-e).

(295) a. *nàŋá* *yǐ:-só-ý*
cow see-**Pfv2**-1SgSbj
'I saw the cow.'

b. *nàŋá* *yî:-sò-ỳ*
cow see-**Prog**-1SgSbj
'I see (=am seeing) the cow.'

c. *sɛ́mbí-só-ý*
sweep-**Pfv2**-1SgSbj
'I swept.'

d. *sɛ̀-sɛ́mbì(:)-sò-ỳ*
Rdp-sweep-**Prog**-1SgSbj
'I am sweeping.' (verb focalized)

e. *dámbí* *sɛ́mbì(:)-sò-ỳ*
courtyard sweep-**Prog**-1SgSbj
'I am sweeping the courtyard.' (verb not focalized)

Although perfective-2 *-só-* is H-toned, and (as just shown) distinctively so, it does not spread its H-tone to a following atonal particle. Therefore quotative *wa* and yes/no interrogative *ma* have L-toned form after all inflected forms of *-só-*. In other words, in these particular combinations, *-só-* behaves as though it ended in an otherwise covert L-tone element (296). Compare the Ben Tey cognate *-sô-* with <HL>-tone.

(296) a. *nàr^{n}á-só-∅* *wà*
give.birth-**Pfv2**-3SgSbj Quot
'It is said that she has given birth.'

b. *[ǹnɛ̌n* *nɔ̀* *gày]* *á-ŋ́* *kíyɛ́-s-ɛ́* *wà*
[name 3SgPoss Topic] 3LogoSg-Acc say-**Pfv2**-3PlSbj Quot
'(She said), "they told me her name." ' (2004.02.03)

c. *ú-ŋ́* *kíyɛ́-só-ý* *mà→*
2Sg-Acc say-**Pfv2**-1SgSbj Q
'Did I tell you-Sg?'

10.2.1.4 Experiential perfect 'have ever' (*tá:-só-*)

The suffix *tá:-* occurs before perfective-2 *-só-* in the experiential perfect sense 'have (once, ever) done'. This is most common in questions ('have you ever …?') like (297), but it can also be used in statements ('I once …' or 'I have …'). The preceding main verb is often 'see' or 'go (to somewhere)', but any verb denoting an event that has an enduring effect (e.g. in memory or social status) can be used.

The negative counterpart means 'have never VPed', see §10.2.3.2.

I consider *tá:-* to be an auxiliary verb rather than a suffix, for reasons given in §10.1.1 above, not the least of which is that it is followed by perfective-2 *-só-*. However, no strong candidates for etymologically related independent verbs are apparent to me.

(297) *pà:ŋgǒ:* *yǐ:* *tá:-só-ẃ* *mà*
elephant see **ExpPrf-Pfv2**-2SgSbj Q
'Have you-Sg (ever) seen an elephant?'

10.2.1.5 Recent perfect (*jɛ̀-*)

The inflectable stem *jɛ̀-* indicates recency of the (positive) event denoted. It can often be translated with 'already' or 'just'. However, it can also mean 'have (just) finished VP-ing' as in 'we have (just) finished the work', or 'have (just) achieved VP-ing' as in 'I have (just) caught (=have achieved catching) it'. In other words, the emphasis can vary between recency as such, and completion as such.

It combines with the bare-stem form of the primary verb, with no change in tone or vocalism. It is transcribed as a separate (chained) verb rather than as a suffix, because a preverbal subject pronoun (e.g. in nonsubject relatives) intervenes between the primary verb and *jɛ̀* (298d). It also can be followed by modal suffixes, like the quoted imperative form in (298e).

(298) a. *nàmá* *kúwó* *jɛ̀-y*
meat eat.meat **RecPrf**-1SgSbj
'I have already eaten (or: I have finished eating) the meat.'

b. *nàrⁿá* *jɛ̀-∅*
give.birth **RecPrf**-3SgSbj
'She has (just) given birth.'

c. *gìrⁿɛ́* *jɛ̀-y.:*
harvest **RecPrf**-1PlSbj
'We have (already) harvested.'

d. *ɲǎ:* *wàgàdì*[L] *kɔ́:* *ǐ:ⁿ* *jɛ̀-sɛ̀* *gà*
meal time[L] eat 1SgSbj **RecPrf**-Ppl.Pfv Loc
'at the time when I finished eating'

e. *[dósí* *[â:* [L]*gɔ̀]]* *gǒ:* *jɛ́-ý* *wá*
[bottom [3LogoPl [L]Poss.InanSg] go.out **RecPrf**-QuotImprt Quot
'(They) said: so completely leave (=go far away from) our presence!'
(2004.02.02)

The pronominal paradigm is (299). The dying-quail effect in the 1Pl and 2Pl results is expressed as [LHL] pitch on the final syllable.

(299)

category	recent perfect	
1Sg	*jɛ̀-y*	
1Pl	*jɛ̀-y.:*	[dʒɛ̀ɛ́ɛ̀j]
2Sg	*jɛ̀-w*	
2Pl	*jɛ̀-w.:*	[dʒɛ̀ɛ́ɛ̀w]

3Sg/Inan	*jɛ̀-∅*
3Pl	*j-à*

10.2.1.6 Reduplicated perfective (*Cv́-*)

An initial reduplication, with no further affixation, expresses another perfective category. It is not very common in my texts, but it is used in conversation in somewhat emphatic contexts. My assistant gave as one example 'So-and-so has already eaten (plenty)' (and therefore doesn't need any more food).

The reduplicant has H-tone, while the following stem (the base) is {L}-toned. The stem has the same vocalism as in the simple perfective; it therefore ends in {*e ɛ i*} depending on the stem, and has the usual perfective diphthongs with *Cv:-* stems. The pronominal-subject suffixes are the same as for the simple perfective.

(300)		stem	gloss	Redup Pfv	
	a.	*àgí-yí-*	'hold'	*á-ʔàgì-yì-*	
		dŭ:-yí-	'carry on head'	*dú-dù:-yì-*	
		nùy^{n}í-	'hear'	*nú-nùy^{n}ì*	[núnùj^{n}]
	b.	*níy^{n}ɛ́-*	'sleep'	*ní-nìy^{n}ɛ̀-*	
	c.	*kósó-*	'cough'	*kó-kòsè-*	
	d.	*kɔ́:-*	'eat'	*kɔ́-kɔ̀ɛ̀-*	
		nɔ̌:-	'drink'	*nɔ́-nɔ̀ɛ̀-*	
		gŏ:-	'go out'	*gó-gòè-*	
		ká:-	'shave'	*ká-kàɛ̀-*	

In each of (301a-b), two propositions differing only in verbs are contrasted, one being asserted and the other denied. (301) is a willy-nilly conditional antecedent. This suggests verb focalization as the semantic basis for reduplication, at least in these examples.

(301) a. *gɛ̀r^{n}ɛ́* *kɛ́-kɛ̀:ndɛ̀-∅*
rainy.season **Rdp**-be.good.Pfv-3SgSbj
ɲá-ɲàmɛ̀-∅ *cɛ́w*
Rdp-be.ruined.Pfv-3SgSbj all
'whether the rainy season has been good or has been bad'

b. *nú-nùy^{ǹ}-∅* *yɛ̀-rí-∅*
Rdp-hear-3SgSbj see-PfvNeg-3SgSbj
'He has (definitely) <u>heard</u> of (it), (but) he hasn't <u>seen</u> (it).'

A phonologically similar reduplicated stem, also without a final AN suffix but with telltale stem-final {*a o*} rather than {*e ɛ i*}, is the reduplicated stative; see §10.3. There is also a reduplicated imperfective, which has an L-toned reduplicative syllable and an H-toned stem, see §10.2.2.3, below.

10.2.2 Imperfective positive system

In addition to the constructions described below, see the combination of imperfective subordinator *-ŋ̀* with *bù-* 'be (somewhere)' in §15.2.2.2.

10.2.2.1 Imperfective (positive) (*-m̀-* ~ *-ŋ̀* ~ *ː-ⁿ*)

A suffix *-m̀-* occurs before a nonzero pronominal subject suffix in all forms except 3Sg subject. The 3Sg imperfective is a synchronic portmanteau *-ŋ̀*, which likely reflects original word-final *-m̀. The only segmental irregularity is *ńní-* for *ńné-* 'go', see §10.1.3.4. The stem to which the suffixes are added has the segmental (but often not the tonal) form of the bare stem for prosodically light verbs, and of the non-high stem for heavy verbs.

A tonal feature of this inflectional category is that /LH/-toned *CV̀CV́-* (including *CV̀NCV́-* with homorganic nasal/voiced-stop cluster) is merged tonally with /H/-toned *CV́CV́-*. *CV̌ː-*, the other bimoraic type, is likewise merged with *CV́ː-*, but with a slight twist (see below).

For all verbs, the 3Sg form requires a final H-tone on the stem, followed by the L-toned nasal of the suffix *-ŋ̀*, as in *dɔ́gɔ́-ŋ̀* (~ *dɔ́gɔ̂ː-ⁿ*) 'he/she leaves'. The non-3Sg subject forms have (or are treated as having) L-toned syllabic suffixes, and the stem-final syllable preceding the suffix is often heard with an L-tone, or perhaps a mid pitch representing a stepwise progression from the H-tone of the stem to the L-tone of the final suffix. For example, what I write as 1Sg *dɔ́gɔ̀-m-ì* (~ *dɔ́gɔ̀-m̀-∅*) with somewhat normalized tone marking is sometimes heard as [dɔ́gɔ̄mì], which could arguably be phonemicized as /dɔ́gɔ́-m-ì/.

For /H/-melody *CV́ː-* stems, the falling stem-tone melody is clearly audible on the syllabically suffixed forms, as in *kâː-m-ɛ̀* 'they shave'. However, for *CV̌ː* stems I do not hear the falling pitch except in deliberate speech style, and usually transcribe e.g. *góː-m-ɛ̀* 'they go out' (rather than *gôː-m-ɛ̀*). However, my ears may deceive me on this point.

Similarly, 'they go' is *ńní-m-ɛ̀* with {H}-toned stem, perhaps because the first *n* (as part of a geminate) is not a full-fledged syllable, contrast *ńdɛ̀-m-ɛ̀* [ńdɛ̄mɛ̀] 'they go up' where the initial *n* is clearly its own syllable.

Examples showing the imperfective of non-*i*-final stems are in (302). For these verbs, the imperfective vocalism is that of the bare stem, except for the irregular shift of *ńné-* 'go' to *ńní-* (302b). /H/ and /LH/ melodies merge as {H} in prosodically light stems (302b-d). The melodic distinction is maintained in heavy stems (302e-f).

(302) Imperfective (stem ends in non-high vowel)

bare stem	imperfective 3Sg	gloss
a. monosyllabic *Cvː-*		
CV́ː		
káː-	*káː-ŋ̀*	'shave' (3Pl *kâː-m-ɛ̀*)
tɛ́ː-	*tɛ́ː-ŋ̀*	'lay out' (3Pl *tɛ̂ː-m-ɛ̀*)
CV̌ː		
gǒː-	*góː-ŋ̀*	'go out' (3Pl *góː-m-ɛ̀*)
bɛ̌ː-	*bɛ́ː-ŋ̀*	'remain' (3Pl *bɛ́ː-m-ɛ̀*)
yɛ̌ː-	*yɛ́ː-ŋ̀*	'come' (3Pl *yɛ́ː-m-ɛ̀*)

b. *nCv-*

ńné-	*ńní-ŋ̀*	‘go’ (3Pl *ńní-m-ɛ̀*)
ǹdɛ́-	*ńdɛ́-ŋ̀*	‘go up’ (3Pl *ńdɛ̀-m-ɛ̀*)

c. *CvCv-* (bimoraic)

dɔ̀gɔ́-	*dɔ́gɔ́-ŋ̀*	‘leave’
gùró-	*gúró-ŋ̀*	‘steal’
níyⁿɛ́-	*níyⁿɛ́-ŋ̀*	‘sleep’
písé-	*písé-ŋ̀*	‘spray’
gájné-	*gánⁿɛ́-ŋ̀*	‘win’
túwɛ́-	*túwɛ́-ŋ̀*	‘die’
irregular tone (old mediopassive)		
bìyé-	*bìyé-ŋ̀*	‘lie down’
dìyé-	*dìyé-ŋ̀*	‘bathe’

d. *CvNCv-*

dòŋgó-	*dóŋgó-ŋ̀*	‘rub on’
tímbé-	*tímbé-ŋ̀*	‘lean on’

e. *Cv:(N)Cv-*

kɛ́:ndé-	*kɛ́:ndé-ŋ̀*	‘do well’
yǒ:ró-	*yǒ:ró-ŋ̀*	‘stalk’

f. trisyllabic

yègísé-	*yègísé-ŋ̀*	‘cut up’
mònjúró-	*mònjúró-ŋ̀*	‘dream’
kóndíyé-	*kóndíyé-ŋ̀*	‘droop, sag’

The imperfective of *i*-final stems has the same tone patterns as above, except that the lexical distinction between /LH/ and /H/ is respected not only in stems that have three or more moras, but also in monosyllabic and *CvCv* stems. Therefore ‘see’ in (303a), and ‘hear’, ‘cover’, and ‘put down’ in (303c), begin with an L-tone in the imperfective, contrast ‘leave’ and ‘steal’ in (302c) above.

Segmentally, the final *i* is preserved in stems of two vocalic moras (303c-d). However, in stems with three or more vocalic moras, including *Cv:Cv-*, the non-high stem is required (303e-f). This means that the stem must produce a mid-height or low vowel, taking its cue from nonfinal vowels. If the only vowels in the stem are high, the non-high stem ends in *ɔ* after *u*, and *ɛ* after *i* in the available examples, suggesting that -ATR is predominant for these verbs. The imperfective of causative *-mí-* is *-mɛ́-m̀* regardless of the vocalism or prosodic weight of the input stem (303g).

(303) Imperfective (stem ends in high vowel)

bare stem	imperfective 3Sg	gloss
a. monosyllabic *Ci:-*		
yǐ:-	*yǐ:-ŋ̀*	'see'
b. *nCi-*		
ńdí-	*ńdí-ŋ̀*	'give' (3Pl *ńdì-m-ɛ̀*)
c. *CvCi-*		
nùy^{n}í- [nǔj^{n}]	*nǔy^{n}-ŋ̀*	'hear'
núy^{n}í- [núj^{n}]	*núy^{n}-ŋ̀*	'go in'
dɛ̀wí- [dɛ̌w]	*dɛ̀wí-ŋ̀*	'cover'
dùŋí-	*dùŋí-ŋ̀*	'put down'
kár^{n}í-	*kár^{n}í-ŋ̀*	'do'
d. *CvCCi-*		
tímbí-	*tímbí-ŋ̀*	'cover, close'
tɛ́mbí-	*tɛ́mbí-ŋ̀*	'find'
dàmbí-	*dǎmbí-ŋ̀*	'push'
e. *Cv:C(C)i-*		
bǎ:rí-	*bǎ:rá-ŋ̀*	'help'
tí:rí-	*tí:rɛ́-ŋ̀*	'pour over'
pɛ́:ndí-	*pɛ́:ndɛ́-ŋ̀*	'stimulate'
f. trisyllabic with final *i*		
kɛ́mír^{n}í-	*kɛ́mír^{n}ɛ́-ŋ̀*	'have fun'
púgúsí-	*púgúsɔ́-ŋ̀*	'scrub'
bɛ̀gírí-	*bɛ̀gírɛ́-ŋ̀*	'winnow'
g. Causative *-mí-*		
kɔ́:-mí-	*kɔ́:-mɛ́-ŋ̀*	'feed'
pɛ́rɛ́-mí-	*pɛ́rɛ́-mɛ́-ŋ̀*	'make jump'
núy^{n}ɔ́-mí-	*núy^{n}ɔ́-mɛ́-ŋ̀*	'make go in'

The pronominal paradigm is given in (304), with sample paradigms for *ká:* 'shave', *wàrá* 'do farming' and (*i*-final) *dùŋí* 'put down'.

(304) Imperfective paradigms

category	suffix	'shave'	'do farming'	'put down'
1Sg	*-m-ì* ~ *-m̀-∅*	*kâː-m-ì*	*wárà-m-ì*	*dùŋí-m-ì*
1Pl	*-mì-y.ː*	*kâː-mì-y.ː*	*wárà-mì-y.ː*	*dùŋí-mì-y.ː*
	(could be written *-m-ìy* ; phonetic [ká:mì:], etc.)			
2Sg	*-m-ù* ~ *-m̀-ʷ*	*kâː-m-ù*	*wárà-m-ù*	*dùŋí-m-ù*
2Pl	*-mù-ẁ.ː*	*kâː-mù-ẁ.ː*	*wárà-mù-ẁ.ː*	*dùŋí-mù-ẁ.ː*
	(could be written *-m-ùw* ; phonetic [ká:mù:], etc.)			
3Sg/Inan	*-ŋ̀* ~ *̀ː-ⁿ*	*káː-ŋ̀*	*wárá-ŋ̀*	*dùŋí-ŋ̀*
	(often just a nasalized long vowel; falling tone)			
3Pl	*-m-ɛ̀*	*kâː-m-ɛ̀*	*wárà-m-ɛ̀*	*dùŋí-m-ɛ̀*

In the 1Sg and 2Sg forms, my assistant wavered between syllabic variants (1Sg *-mì*, 2Sg *-mù*) and apocopated variants (1Sg *-m*, 2Sg *-mʷ*). In the shortened forms, 2Sg *-mʷ* was heard with slight rounding at the transition from the stem-final vowel to the nasal; in effect, the nasal is "prelabialized." The corresponding plurals have long vowels, but the pitch of the final syllable is level low. Tonally, when a 1Sg or 2Sg form, e.g. *kâː-m-ì* 'I shave', loses its final vowel, the resulting monosyllabic form is pronounced [ká:m̀] with the pitch fall at the end of the syllable, following standard phonetic patterns; see §3.7.4.2.

The 1Pl and 2Pl forms are based on *-mì-y* and *-mù-w*, which are arguably the idealized full forms of the corresponding singulars. Alternatively, we could posit underlying singulars *-m-ì* and *-m-ù* and attribute the long vowel in the plural counterparts to prolongation as part of the dying-quail effect. However, these sound like ordinary long vowels rather than intonational prolongations of highly variable duration. The other manifestation of the dying-quail effect in these forms is that the stem ends in a clear H-tone before the 1Pl and 2Pl suffixes, versus lexically variable pitch in the singulars. The dying-quail effect here is therefore best represented as an {HL} overlay with the H appearing on the penult (i.e. the stem-final) and the L on the suffixes, plus preservation of the full form of the suffixal syllables. See (30c) in §3.8.3.

Examples of the imperfective are in (305). As a reminder, 3Sg imperfective portmanteau *-ŋ̀* is optionally weakened to nasalization and falling tone on the preceding vowel (305c-d).

(305) a. *àsú→* *wórî* *wárà-m̀-∅*
every.day farming farm-**Ipfv**-1SgSbj
'I farm (=work in the field) every day.'

b. *tê:* *dɔ́gɔ̀-m̀-∅*
tea leave-**Ipfv**-1SgSbj
'I will leave (the) tea.'

c. *èsí* *bírɛ́-ŋ̀* (or: *bírɛ̂ː-ⁿ*)
good work-**Ipfv**.3SgSbj
'He/She works well.'

d. *[ɲà:*^{L} *mɔ̀sí]* *dàŋí-ŋ̀* (or: *dàŋî:-*^{n})
[meal^{L} bad] cook-**Ipfv**.3SgSbj
'He/She cooks badly.'

e. *[ǹdò*^{L} *ŋ̀gá]* *sígè-m̀-∅*
[house^{L} Dem.InanSg.Loc] go.down-**Ipfv**-1SgSbj
'I go down (= lodge) in this house.'

Further examples of imperfective suffixes are given in the following section on the reduplicated imperfective, which differs from the simple imperfective only in adding an initial reduplication.

10.2.2.2 Unsuffixed imperfective (absent)

There is no imperfective form of the Jamsay type that lacks a (segmental) imperfective suffix, i.e. with just a pronominal-subject suffix added directly to the verb (with perhaps a tone change on the verb).

However, in disjunctions of clauses with future-time reference (as well as past-time reference), the simple perfective (or a homophonous form) is in use. See §7.2.2, above.

10.2.2.3 Reduplicated imperfective (*Cv̀-*)

The reduplicated imperfective has an initial L-toned *(C)v̀-* reduplicant. Its segmental form matches that of the reduplicated perfective and that of the reduplicated stative. The vowel of the reduplicant copies the quality features of the first stem vowel. If the stem is vowel-initial, so is the reduplicant, and a glottal stop separates the two vowels. Stems elsewhere beginning with *NC* clusters are sometimes treated as though beginning with *iNC*, see (273) in §10.1.3.4. The base (stem minus reduplicant) and suffixes are identical, segmentally and tonally, to those of the simple imperfective described above.

(306)

gloss	stem	reduplicated imperfective 3Sg
a. *Cv:-* monosyllabic		
'eat (meal)'	*kɔ́:-*	*kɔ̀-kɔ́:-ŋ̀*
'drink'	*nɔ̌:-*	*nɔ̀-nɔ́:-ŋ̀*
b. /H/-melody bisyllabic		
'jump'	*tómbó-*	*tò-tómbó-ŋ̀*
'hit'	*súyɔ́-*	*sù-súyɔ́-ŋ̀*
'sit down'	*éw-yé-*	*è-ʔéw-yé-ŋ̀*
c. /LH/-melody bisyllabic shifting to all-high in imperfective		
'leave'	*dɔ̀gɔ́-*	*dɔ̀-dɔ́gɔ́-ŋ̀*
d. longer /LH/-melody stem preserving initial L-tone		
'laugh'	*màndí-*	*mà-mǎndí-ŋ̀*
'dream'	*mònjúró-*	*mò-mònjúró-ŋ̀*

A sample paradigm (‘sit down’) is (307).

(307) ‘sit down’ (reduplicated imperfective)

1Sg	*è-ʔéw-yè-m̀*	~ *è-ʔéw-yè-mì*	
1Pl	*è-ʔéw-yè-mì-y.:*		[èʔéwjémì:]
2Sg	*è-ʔéw-yè-m̀^{w}*	~ *è-ʔéw-yè-mù*	
2Pl	*è-ʔéw-yè-mù-w.:*		[èʔéwjémù:]
3Sg	*è-ʔéw-yé-ŋ̀*	~ *è-ʔéw-yê:-^{n}*	
3Pl	*è-ʔéw-yè-m-ɛ̀*		

The reduplicated imperfective can be distinguished from the reduplicated perfective by the presence of H-tones on the stem, and by the L-tone d reduplicant.

See also (637), and *yì-yí:-ŋ̀* in (755).

10.2.2.4 Progressive (*-sò-*)

A verb form used in progressive contexts involves L-toned AN suffix *-sò-*, following a stem-ending in an L- or <HL>-toned vowel. A short stem-final vowel is also lengthened. The stem vocalism follows the pattern in the imperfective. Light *i*-final stems keep final *i*, while heavy *i*-final stems switch to the non-high stem.

This is likely a historical reflex of an original imperfective morpheme (*-m- or *-ŋ-) added to the stem before *sò ‘have’. I have heard variant pronunciations that still include overt *-ŋ-* in the progressive: *gô:-ŋ-sò-* ‘be going out’, variant of *gô:-sò-*. The fuller form suggests a two-word construction parallel to that with imperfective *-ŋ̀* (*-m̀*) plus *bù-* ‘be’, see §15.2.2.2. However, the fuller form is no longer in common use, at least in my assistant’s speech. See also the discussion of *-m̀-sɛ̀* in §15.2.3, below.

When the verb is clause-initial (i.e. in the absence of an object or other preverbal constituent), so that the verb is the only candidate for focalized status, reduplication (*Cv̀-*) is present.

Progressive forms of non-*i*-final stems are in (308). In monosyllabics and short bisyllabics, the lexical distinction between /H/ and /LH/ tones is neutralized, and we get an {HL} overlay on the (simple) progressive stem. In *Cv:Cv-* bisyllabics and in all trisyllabics, the onset of the (simple) progressive stem respects the lexical melody, followed by {HL}. ‘Go’ shifts from *e* to *i*, as it does in the imperfective, reflecting ithe hybrid status (final nonhigh or high vowel) of this stem (308b). I hear lengthening of a short stem-final vowel consistently in the *nCv-* stems (308b), inconsistently in other stems (308c-d).

(308) Progressive of non-*i*-final verb

gloss	bare stem	progressive	
		simple	reduplicated
a. monosyllabic *Cv:-*			
‘eat’	*kɔ́:-*	*kɔ̂:-sò-*	*kɔ̀-kɔ̂:-sò-*
‘lay out’	*tɛ́:-*	*tɛ̂:-sò-*	*tɛ̀-tɛ̂:-sò-*
‘drink’	*nɔ̌:-*	*nɔ̂:-sò-*	*nɔ̀-nɔ̂:-sò-*

b. *nCv-*			
‘go up’	*ǹné*	*ńdɛ̀:-sò-*	*ì-ńdɛ̀:-sò-*
irregular			
‘go’	*ńné*	*ńnì:-sò-*	*ì-ńnì:-sò-*
c. bisyllabic			
‘hit’	*súyɔ́-*	*súyɔ̀(:)-sò-*	*sù-súyɔ̀(:)-sò-*
‘leave’	*dɔ̀gɔ́-*	*dɔ́gɔ̀(:)-sò-*	*dɔ̀-dɔ́gɔ̀(:)-sò-*
‘jump’	*tómbó-*	*tómbò(:)-sò-*	*tò-tómbò(:)-sò-*
‘rub on’	*dòŋgó-*	*dóŋgò(:)-sò-*	*dò-dóŋgò(:)-sò-*
‘stalk’	*yǒ:ró-*	*yǒ:rò(:)-sò-*	*yò-yǒ:rò(:)-sò-*
d. trisyllabic			
‘cut up’	*yègísé-*	*yègísè(:)-sò-*	*yè-yègísè(:)-sò-*
‘dream’	*mònjúró-*	*mònjúrò(:)-sò-*	*mò-mònjúrò(:)-sò-*
‘droop, sag’	*kóndíyé-*	*kóndíyè(:)-sò-*	*kò-kóndíyè(:)-sò-*

i-final stems are illustrated in (309). I hear consistent lengthening of the final vowel in the one *nCi-* verb (309b), and also in the lexically /LH/-toned *CvCCi-* verbs ‘laugh’ and ‘push’ in (309d), which express the final <HL> characteristic of the progressive on the stem-final syllable (the first syllable carrying the lexical initial L-tone). In the other verbs, I heard sporadic but inconsistent lengthening of the stem-final vowel, except that the /Cvyi/ (*Cvy*) verbs ‘go in’ and ‘hear’ were always heard as just *Cvy* (309c). Segmentally, the stem-final *i* is retained on light stems (309a-c), but heavy stems including *Cv:Cv-* switch to the non-high stem. If a heavy stem has an initial non-high vowel, its vowel quality is copied on the stem-final, and if it has only high vowels the stem-final vowel is usually -ATR *ɔ* after *u*, or *ɛ* after *i*.

(309) Progressive of *i*-final verb

gloss	stem	progressive simple	progressive reduplicated
a. monosyllabic *Ci:-*			
‘see’	*yǐ:-*	*yî:-sò-*	*yì-yî:-sò-*
b. *nCi-*			
‘give’	*ńdí*	*ńdî:-sò-*	*ì-ńdî:-sò-*
c. *CvCi-*			
‘do’	*kár^{n}í-*	*kár^{n}ì(:)-sò-*	*kà-kár^{n}ì(:)-sò-*
‘cover’	*dɛ̀wí-* [dɛ̌w]	*dɛ́wì(:)-sò-*	*dɛ̀-dɛ́wì(:)-sò-*
‘go in’	*núy^{n}í-* [núj^{n}]	*nûy^{n}-sò-*	*nù-nûy^{n}-sò-*
‘hear’	*nùy^{n}í-* [nǔj^{n}]	*nûy^{n}-sò-*	*nù-nûy^{n}-sò-*
d. *CvCCi-*			
‘grill’	*símbí-*	*símbì(:)-sò-*	*sì-símbì(:)-sò-*
‘laugh’	*màndí-*	*màndî:-sò-*	*mà-màndî:-sò-*
‘push’	*dàmbí-*	*dàmbî:-sò-*	*dà-dàmbî:-sò-*

e. *Cv:C(C)i-*

'pour over'	*tí:rí-*	*tí:rè(:)-sò-*	*tì-tí:rè(:)-sò-*
'stimulate'	*pɛ́:ndí-*	*pɛ́:ndɛ̀(:)-sò-*	*pɛ̀-pɛ́:ndɛ̀(:)-sò-*
'help'	*bă:rí-*	*bă:rà(:)-sò-*	*bà-bă:rà(:)-sò-*

f. trisyllabic

'have fun'	*kɛ́mír^{n}í*	*kɛ́mír^{n}ɛ̀(:)-sò-*	*kɛ̀-kɛ́mír^{n}ɛ̀(:)-sò-*
'winnow'	*bɛ̀gírí-*	*bɛ̀gírɛ̀(:)-sò-*	*bɛ̀-bɛ̀gírɛ̀(:)-sò-*
'scrub'	*púgúsí-*	*púgúsɔ̀(:)-sò-*	*pù-púgúsɔ̀(:)-sò-*

The pronominal paradigm is (310). The 1Pl and 2Pl suffixes have LHL tone (or pitch) due to the dying-quail effect, see (30a) in §3.8.3, while all other forms have L-tone.

(310)

category	progressive	
1Sg	*-sò-ỳ*	
1Pl	*-sò-ỳ.ː*	[sòóòj]
2Sg	*-sò-ẁ*	
2Pl	*-sò-ẁ.ː*	[sòóòw]
3Sg/Inan	*-sò-∅*	
3Pl	*-s-ɛ̀*	

Examples are in (311).

(311)

a. *bírá* — *bírɛ̀(:)-sò-ỳ*
work(n) — work-**Prog**-1SgSbj
'I am working.'

b. *mɔ́ndì* — *màndî:-sò-ỳ*
laughter — laugh-**Prog**-1SgSbj
'I am laughing.'

c. *kɛ̀mìr^{n}ɛ́* — *kɛ́mír^{n}ɛ̀(:)-s-ɛ̀*
fun — have.fun-**Prog**-3PlSbj
'They are having fun.'

d. *tɔ́mbì* — *tɔ́mbò(:)-s-ɛ̀*
jump(n) — jump-**Prog**-3PlSbj
'They are jumping.'

A distinct construction with progressive-like sense is that with imperfective subordinator *-ŋ̀* (becoming *-m̀*) plus auxiliary *bù-* 'be' (§15.2.2.2).

10.2.3 Negation of indicative verbs

Conjugated stative negative *=ǹdó-* (§10.4.2) can be added to the progressive suffix *-sò* (§10.2.3.5). Other than this, the regular negative counterparts of the perfective positive

system and of the imperfective positive system are portmanteaus that replace any positive inflectional suffixes.

Reduplication is not allowed in negative verb forms.

10.2.3.1 Perfective negative *-rí-* (3Pl *-ndú-*)

For practical purposes, there is a single negative perfective-system form, that with suffix *-rí-* added directly to the non-high stem of the verb (regardless of its prosodic weight). This can negate any of the positive perfective-system forms: simple perfective, reduplicated perfective, perfective-1a *-èrè-*, perfective-1b *-tì-*, perfective-2 *-só-*, and recent perfect *jè-*.

(312) a. *ɲǎ:* *kɔ̀:-rí-∅*
meal eat-**PfvNeg**-3SgSbj
'He/She hasn't eaten (yet).'

b. *ǐ:^{n}* *gò:-rí-y*
1SgSbj go.out-**PfvNeg**-1SgSbj
'I didn't go (= haven't gone) out.'

c. *[kɔ̀^{L}* *kámâ]* *yè-rí-y*
[thing^{L} each/any] see-**PfvNeg**-1SgSbj
'I didn't see anything.'

The plural-subject (1Pl, 2Pl, 3Pl) forms are structurally distinct from those for singular subjects. For 1Pl and 2Pl, the differences are tonal. For 3Pl, the differences are more substantial. The plural forms are covered at the end of this section, after the description of the singular forms.

In the singular-subject forms, the stem drops tones to {L} before the H-toned *-rí-*.

If the verb already ends in a non-high vowel {*e ɛ a ɔ o*}, the only change to the stem is tone-dropping (313). The only exceptional stem is 'go', which shifts from +ATR *e* to -ATR *ɛ* (313b).

(313)

stem	perfective negative	gloss
a. monosyllabic *Cv:*		
bě:-	*bè:-rí-*	'remain'
gǒ:-	*gò:-rí-*	'go out'
jě:-	*jè:-rí-*	'bring'
ká:-	*kà:-rí-*	'shave'
yě:-	*yè:-rí-*	'come'
b. *nCv*		
ǹdɛ́-	*ǹdɛ̀-rí-*	'go up'
irregular		
ńné-	*ǹnè-r^{n}í-*	'go'

c. bisyllabic

yɔ̀gɔ́-	*yɔ̀gɔ̀-rí-*	'run'
tómbó-	*tòmbò-rí-*	'jump'
ké:ndé-	*kè:ndè-rí-*	'make well'

d. longer stems

mònjúró-	*mònjùrò-rí-*	'dream'
pígíré-	*pìgìrè-rí-*	'screw in'

i-final verbs, whether light or heavy, must shift to the non-high stem. Verbs with only high vowels generally show final -ATR *ɛ* or *ɔ* in available examples (314b-e). The *Cuy-* and *Ciy-* (*Ci:*) verbs likewise appear to add *ɛ* or *ɔ* before *-rí-* (314c). This could be considered evidence in favor an otherwise doubtful bisyllabic representation for these stems. 'See' additionally shortens its vowel before *-rí-* (314e).

(314)

stem	perfective negative	gloss
a. final *i*, bisyllabic, lexical non-high vowel present		
ɔ́njí-	*ɔ̀njɔ̀-rí-*	'urinate'
págí-	*pàgà-rí-*	'tie'
dèwí ([dɛ̌w])	*dèwè-rí-*	'cover'
dèŋí-	*dèŋè-r^{n}í-*	'tamp'
jɔ̀ŋí-	*jɔ̀ŋɔ̀-r^{n}í-*	'cure'
b. final *i*, bisyllabic, no lexical non-high vowel present		
nùŋí-	*nùŋɔ̀-r^{n}í-*	'sing'
dùŋí-	*dùŋɔ̀-r^{n}í-*	'put down'
tíŋí-	*tìŋè-r^{n}í-*	'speak'
tímbí-	*tìmbè-rí-*	'put lid on'
c. *Cuy(i)-*, *Ciy(i)-*		
nǔy^{n}(í)-	*nùy^{n}ɔ̀-r^{n}í-*	'hear'
núy^{n}(í)-	*nùy^{n}ɔ̀-r^{n}í-*	'go in'
túy(í)-	*tùyɔ̀-rí-*	'put down'
tíy(í)-	*tìyè-rí-*	'send'
d. *nCi-*		
ńdí-	*ǹdè-rí-*	'give'
e. irregular		
yǐ:-	*yè-rí-*	'see'

Trisyllabics, all of them *i*-final, are in (315). Again, stems that have only high vowels mostly have final -ATR *ɔ* and *ɛ* (315b).

(315)

stem	perfective negative	gloss
a. final *i*, trisyllabic, lexical non-high vowel		
táŋá-ndí-	*tàŋàndà-rí-*	'ignite (fire)'
bègírí-	*bègìrè-rí-*	'winnow'
dèŋí-rⁿí-	*dèŋì-rⁿè-rⁿí-*	'dislodge (stuck flour)'
wɔ̀gírí-	*wɔ̀gùrɔ̀-rí-*	'take grain out of mortar'
kɔ́ŋúrⁿí-	*kɔ̀ŋùrⁿɔ̀-rⁿí-*	'gnaw (bones)'
b. final *i*, no lexical non-high vowel present		
kúgírí-	*kùgùrɔ̀-rí-*	'skim'
írí-yí- [írí:]	*ìrì-yè-rí-*	'get up'
c. Fulfulde loanwords		
yúrúmí-	*yùrùmè-rⁿí-*	'pity'
sógíní-	*sògìnè-rⁿí-*	'take to pasture at night'

Causative *-mí-* becomes *-mè-* before *-rí-* (hence *-mè-rⁿí-*), regardless of the vocalism of the preceding stem (316).

(316)

stem	perfective negative	gloss
bàrⁿá-ndíyé-mí-	*bàrⁿà-ndìyè-mè-rⁿí-*	'make red'
jèmɛ́-mí-	*jèmè-mè-rⁿí-*	'make black'
tómbó-mí-	*tòmbò-mè-rⁿí-*	'cause to jump'
éw-yé-mí-	*èw-yè-mè-rⁿí-*	'seat, have sit'

Stems ending in minor causative allomorphs, the reversive suffix, or the mediopassive suffix, are treated for inflectional purposes just like underived trisyllabics.

The suffixal *r* of the perfective negative suffix is subject to Nasalization-Spreading (§3.5.1.1), hence *-rⁿí-* after a nasal syllable (one containing a nasalized vowel, or beginning with a prevocalic nasal consonant or nasalized sonorant) (317a). The *Cuy-* verbs are expanded to *Cuyv-* before *-rí-* (see above), and since two of them begin with *n* they expand as *nùyⁿɔ̀-* in this inflection and therefore induce Nasalization-Spreading on the suffix (317b). 'Go in' and 'hear', which are elsewhere distinguished tonally, merge in the perfective negative.

(317)

	stem	gloss	perfective negative
a.	*nàrⁿá-*	'bear (child)'	*nàrⁿà-rⁿí-*
	tá:ⁿ-	'spread fingers'	*tà:ⁿ-rⁿí-*
	níyⁿɛ́-	'sleep'	*nìyⁿɛ̀-rⁿí*
	nɔ̌:-	'drink'	*nɔ̀:-rⁿí-*
b.	*núyⁿ-*	'go in'	*nùyⁿɔ̀-rⁿí-*
	nǔyⁿ-	'hear'	*nùyⁿɔ̀-rⁿí-*

We now consider the singular pronominal-subject paradigm of *-rí-* (318) In forms with 3Sg *-∅*, 1Sg *-y*, and 2Sg *-w*, the stem is tone-dropped as illustrated above, and the suffix

is *-rí-*. In the 1Sg and 2Sg, the suffixal semivowel extends the H-tone of the AN suffix. 2Sg /-rí-ẃ/ assimilates to *-rú-ẃ* (phonetic [ɾú:]).

(318)

category	perfective negative
1Sg	*-rí-ý*
2Sg	*-rú-ẃ*
3Sg	*-rí-∅*

To complete the exposition of the singular-subject forms, sample paradigms are given in (319). 'Go up' (*ǹdɛ́-*) and irregular 'give' (*ńdí-*) have homophonous perfective negatives.

(319) Partial sample paradigms (perfective negative)

1Sg	2Sg	3Sg	stem	gloss
yɛ̀-rí-ý	*yɛ̀-rú-ẃ*	*yɛ̀-rí-∅*	*yɪ̌:-*	'see'
yè:-rí-ý	*yè:-rú-ẃ*	*yè:-rí-∅*	*gǒ:-*	'come'
gò:-rí-ý	*gò:-rú-ẃ*	*gò:-rí-∅*	*yě:-*	'go out'
ǹnɛ̀-r^{n}í-ý^{n}	*ǹnɛ̀-r^{n}ú-ẃ^{n}*	*ǹnɛ̀-r^{n}í-∅*	*ńné-*	'go'
ǹdɛ̀-rí-ý	*ǹdɛ̀-rú-ẃ*	*ǹdɛ̀-rí-∅*	*ǹdɛ́-*	'go up'
ǹdɛ̀-rí-ý	*ǹdɛ̀-rú-ẃ*	*ǹdɛ̀-rí-∅*	*ńdí-*	'give'
bàyà-rí-ý	*bàyà-rú-ẃ*	*bàyà-rí-∅*	*bàyá-*	'be cured'
gò-ndò-rí-ý	*gò-ndò-rú-ẃ*	*gò-ndò-rí-∅*	*gò-ndó-*	'take out'
kùwò-mɛ̀-r^{n}í-ý^{n}	*kùwò-mɛ̀-r^{n}ú-ẃ^{n}*	*kùwò-mɛ̀-r^{n}í-∅*	*kúwó-mí-*	'burn'
tàŋà-ndà-rí-ý	*tàŋà-ndà-rú-ẃ*	*tàŋà-ndà-rí-∅*	*táŋá-ndí-*	'ignite'
gìsè-rí-ý	*gìsè-rú-ẃ*	*gìsè-rí-∅*	*gìsé-*	'throw'

1Pl and 2Pl show vowel-length and tonal changes, but are otherwise segmentally identical to the corresponding singulars (with 1Sg *-y* and 2Sg *-w*). If not already long, the stem-final vowel is lengthened before the perfective negative suffix. The stem has {LH} overlay, which is realized as <LH> (rising) on a monosyllabic stem, as L.H on a bisyllabic, as L.L.H on a trisyllabic, etc. This {LH} can arguably be decomposed into a remnant of the {L} perfective negative overlay also seen in singular-subject forms, plus an additional stem-final H-tone. In this analysis, the 1Pl/2Pl version takes the 1Sg/2Sg input, applies an {HL} overlay on the portion of the word beginning with the final syllable (or monosyllabic mora) of the stem, and lengthens the stem-final vowel. For example, 1Sg *yɛ̀-rí-ý* 'I did not see' corresponds to 1Pl [jɛ̌:ɾì:] 'we did not see'. The latter is transcribed *yɛ̀-rí-ý.:.* to bring out the fact that it is an "intonational" modification of the 1Sg form. I do not hear 1Pl *-rì-y* or 2Pl *-rù-w* suffixes themselves as longer than their singular counterparts. See (30d) in §3.8.3.

Examples below of the 1Pl (320) and 2Pl (321) show the phonetic realizations in brackets.

(320)	1Pl (1Sg plus *.∴*)	1Pl phonetic	gloss
	a. monosyllabic		
	yè-rí-y.∴	[jɛ̌:ɾì:]	'see'
	yè:-rí-y.∴	[jɛ̌:ɾì:]	'come'
	gò:-rí-y.∴	[gɔ̌:ɾì:]	'go out'
	tà:-rí-y.∴	[tǎ:ɾì:]	'shoot'
	b. bisyllabic		
	ǹnè-r^{n}í-y.∴	[ǹnɛ́:ɾ^{n}ì:]	'go'
	ǹdè-rí-y.∴	[ǹdɛ́:ɾì:]	'go up'
	ǹdè-rí-y.∴	[ǹdɛ́:ɾì:]	'give'
	bàyà-rí-y.∴	[bàjá:ɾì:]	'be cured'
	gìsè-rí-y.∴	[gìsɛ́:ɾì:]	'throw'
	gò-ndò-rí-y.∴	[gòndɔ́:ɾì:]	'take out'
	c. trisyllabic		
	kùwò-mè-r^{n}í-y.∴	[kùwòmɛ́:ɾ^{n}ì:]	'burn'
	tàŋà-ndà-rí-y.∴	[tàŋàndá:ɾì:]	'ignite'

(321)	2Pl (2Sg plus *.∴*)	2Pl phonetic	gloss
	a. monosyllabic		
	yè-rú-w.∴	[jɛ̌:ɾù:]	'see'
	yè:-rú-w.∴	[jɛ̌:ɾù:]	'come'
	gò:-rú-w.∴	[gɔ̌:ɾù:]	'go out'
	tà:-rú-w.∴	[tǎ:ɾù:]	'shoot'
	b. bisyllabic		
	ǹnè-r^{n}ú-w^{n}.∴	[ǹnɛ́:ɾ^{n}ù:]	'go'
	ǹdè-rú-w.∴	[ǹdɛ́:ɾù:]	'go up'
	ǹdè-rú-w.∴	[ǹdɛ́:ɾù:]	'give'
	bàyà-rú-w.∴	[bàjá:ɾù:]	'be cured'
	gìsè-rú-w.∴	[gìsɛ́:ɾù:]	'throw'
	gò-ndò-rú-w.∴	[gòndɔ́:ɾù:]	'take out'
	c. trisyllabic		
	kùwò-mè-r^{n}ú-w^{n}.∴	[kùwòmɛ́:ɾ^{n}ù:]	'burn'
	tàŋà-ndà-rú-w.∴	[tàŋàndá:ɾù:]	'ignite'

The 3Pl form diverges sharply from the rest of the paradigm, since the perfective negative portmanteau (elsewhere *-rí-*) combines with 3Pl to produce a higher-level portmanteau *-ndú*. The preceding stem is L-toned as in the singular-subject forms.

Additional segmental changes occur in the stem-final vowel before the 3Pl portmanteau. They point to underlying 3Pl suffix /-àndú/, with initial /a/ that is manifested in certain combinations. Cross-cutting this is a process by which final {*e ɛ*} are rounded to {*o ɔ*}. One might attribute the rounding to the influence of suffixal *u*, but there is no productive rule of this type, and data from other Dogon languages point to stem-final ablaut in the 3Pl perfective negative. Moreover, in some cases it appears that *-(à)ndú* is added to a form of the stem

whose vocalism is consistent with that of the singular-subject perfective negative forms (i.e. before *-rí-*) rather than that of the bare stem, to the extent the two can be distinguished.

Regarding the possible allomorph /-àndú/, note 3Pl *Cɛ̀à-ndú-* for the *Cɛ́:-* stems 'shine' and 'sprout' in (322a), and the shift of final /ɛ/ to *a* in most bisyllabic and longer stems, e.g. 'obtain' and 'take handful'. The /ɛ/ that shifts to *a* is specifically the /ɛ/ of the perfective negative stem, not that of the bare stem form, for 'give' (322b), irregular 'see' (322c), and 'fear' and 'take handful' in (322e), all of which have final *i* in the bare stem. The alternative rounding and backing of {/e ɛ/} to {*o ɔ*} is relatively systematic in the case of /e/ > *o*, being obligatory in monosyllabics, see 'come' and 'bring' in (322a), and common in spite of considerable phonetic variation (from my assistant) in the stem-final *e* of longer stems like those at the end of (322d). 'Go' (322b) shows the shift of /ɛ/ to *ɔ* in 3Pl *ǹnɔ̀-ndú*, based on perfective negative *ǹnɛ̀-rⁿí-*, already shifted from lexical *e* to *ɛ*.

(322)	stem	perfective negative singular	3Pl	gloss
a. monosyllabic *Cv:-*				
	gŏ:-	*gò:-rí-*	*gò:-ndú*	'go out'
	jĕ:-	*jè:-rí-*	*jò:-ndú*	'bring'
	yĕ:-	*yè:-rí-*	*yò:-ndú*	'come'
	ká:-	*kà:-rí-*	*kà:-ndú*	'shave'
	tɛ́:-	*tɛ̀:-rí-*	*tɛ̀à-ndú-*	'sprout'
	kɛ́:-	*kɛ̀:-rí-*	*kɛ̀à-ndú*	'shine'
	kɔ́:-	*kɔ̀:-rí-*	*kɔ̀:-ndú*	'eat (meal)'
b. *nCv-*				
	ńné-	*ǹnɛ̀-rⁿí-*	*ǹnɔ̀-ndú*	'go'
	ǹdɛ́-	*ǹdɛ̀-rí-*	*ǹdà-ndú*	'go up'
	ńdí-	*ǹdɛ̀-rí-*	*ǹdà-ndú*	'give'
c. 'see' (irregular)				
	yĭ:-	*yɛ̀-rí-*	*yà:-ndú*	'see'
d. bisyllabic or longer, ending in non-high vowel				
	bàyá-	*bàyà-rí-*	*bàyà-ndú*	'be cured'
	yɔ̀gɔ́-	*yɔ̀gɔ̀-rí-*	*yɔ̀gɔ̀-ndú*	'tun'
	gò-ndó-	*gò-ndò-rí-*	*gò-ndò-ndú*	'take out'
	bɛ̀rɛ́-	*bɛ̀rɛ̀-rí-*	*bɛ̀rà-ndú*	'obtain'
	gìsé-	*gìsè-rí-*	*gìsè-ndú* ~ *gìsò-ndú*	'throw'
	sígé-	*sìgè-rí-*	*sìgò-ndú* ~ *sùgò-ndú*	'go down'
	péré-	*pèrè-rí-*	*pèrè-ndú* ~ *pèrò-ndú*	'jump (off)'
	mèŋgìré-	*mèŋgìrè-rí-*	*mèŋgìrò-ndú*	'make into balls'
e. bisyllabic or longer, ending in high vowel				
	ú:-yí-	*ù:-yè-rí-*	*ù:-yà-ndú*	'fear'
	nŭyⁿ-	*nùyⁿɔ̀-rⁿí-*	*nùyⁿɔ̀-ndú*	'hear'
	pénjí-	*pènjè-rí-*	*pènjà-ndú*	'take handful'
	kúwó-mí-	*kùwò-mè-rⁿí-*	*kùwò-mɔ̀-ndú*	'burn'
	táŋá-ndí-	*tàŋà-ndà-rí-*	*tàŋà-ndà-ndú*	'ignite'

10.2.3.2 Experiential perfect negative *Vb*^{L} *tà:-rí-*

For the sense 'have never Vb-ed', perfective negative *-rí-* is added to the auxiliary verb *tá:-*, which is chained to the preceding main verb (§10.1.2.3.2). A peculiarity of this combination, in Nanga and some other Dogon languages, is that the preceding main verb is also tone-dropped. A tonosyntactically revealing notation would be e.g. *[ńnè tà:]*^{L}*-rí-y* in (323a), but I generally use the more informal notation in (323a-c) to avoid word-internal superscripts.

(323) a. *bàmàkɔ́* *ńnè*^{L} *tà:-rí-y*
Bamako **go**^{L} **ExpPerf-PfvNeg**-1SgSbj
'I have never gone to Bamako.' (< *ńné-*)

b. *yî:* *sùyɔ̀*^{L} *tà:-rí-y.˸*
child **hit**^{L} **ExpPrf-PfvNeg**-1PlSbj
'We have never struck a child.' (< *súyɔ́-*)

c. *pír-à:ndì* *[pàŋá* *nɔ̀],*
Fulbe [power 3SgPoss],
dɔ́gɔ̂-ŋ *gɔ̀r*^{n}*ɔ̀*^{L} *tà:-rí-∅*
Dogon-Acc **be.stronger**^{L} **ExpPrf-PfvNeg**-3SgSbj
'Fulbe, their might was never stronger than Dogon.' (2004.01.10) (< *gɔ̀r*^{n}*ɔ́-*)

10.2.3.3 Recent perfect negative (*jɛ̀-rí-*)

Recent perfect *jɛ̀-* (§10.2.1.5), which can also mean 'have finished VP-ing', is often negated by the simple perfective negative *-rí-* without *jɛ̀-*. In other words, in the negative it is not usually distinguished from other subtypes of the perfective. Therefore the usual negative answer to the question *ɲǎ: kɔ́: jɛ̀-ẁ mà* 'have you-Sg already eaten a meal?' is simply *kɔ̀:-rí-y* 'I have not eaten'.

However, it is possible to elicit examples with recent perfect *jɛ̀-* followed by the perfective negative suffix to produce *jɛ̀-rí-*. The perfective negative form *jɛ̀-rí-* is usually understood to mean 'have not finished (VP-ing)', as in *ɲǎ: kɔ́: jɛ̀-rí-y* 'I have not finished eating the meal'. The 3Pl subject form is *ɲǎ: kɔ́: jà:-ndú* 'they have not finished eating'.

These examples show that the main verb is not tone-dropped in the negative. We therefore hear H-toned *kɔ́:* 'eat' in the negative examples just given, as in the corresponding positive (*kɔ́: jɛ̀-y* 'I have eaten'). In this respect, the recent perfect differs from the experiential perfect, which includes the main verb in the domain of tone-dropping (preceding section).

10.2.3.4 Imperfective negative *-ŋɔ̀(:)-*

The all-purpose negation of imperfectives ('doesn't VP', 'isn't VP-ing', 'will not VP') is formed by adding the imperfective negative suffix to the bare stem of prosodically light verbs, and to the non-high stem of heavy verbs. This is the same stem vocalism as in the imperfective positive. The suffix has a long-voweled form *-ŋɔ̀:-* for third person categories

(3Sg *-ŋɔ̀:-∅*, 3Pl *-ŋ-ɛ̀:*), but the 1st/2nd person forms are based on short-voweled *-ŋɔ̀-*, which is followed by the suffixal semivowel (1Sg *-ŋɔ̀-y^n*, 2Sg *-ŋɔ̀-w^n*).

The tones are the same as for the (positive) imperfective. Since the imperfective negative suffix is always syllabic, the comparison is with the suffixally syllabic imperfective forms (i.e. not with 3Sg). The mergers of /H/ and /LH/ light stems in imperfectives of tthe non-*i*-final class also apply in the imperfective negative.

The pronominal-subject paradigm of *-ŋɔ̀:-* is given in (324), with 'run' as the example in the right-hand column. The *.:* symbol indicates dying-quail intonation in the 1Pl and 2Pl. In the imperfective negative, *.:* is expressed as prolongation and [LHL] pitch on the suffixal syllable, see (30a) in §3.8.3.

(324)

category	imperfective negative		'run'
1Sg	*-ŋɔ̀-y^n*		*yɔ́gɔ̀-ŋɔ̀-y^n*
1Pl	*-ŋɔ̀-y^n.:*	[ŋɔ̀ɔ́ɔ̀j]	*yɔ́gɔ̀-ŋɔ̀-y^n.:*
2Sg	*-ŋɔ̀-w^n*		*yɔ́gɔ̀-ŋɔ̀-w^n*
2Pl	*-ŋɔ̀-w^n.:*	[ŋɔ̀ɔ́ɔ̀w]	*yɔ́gɔ̀-ŋɔ̀-w^n.:*
3Sg	*-ŋɔ̀:-∅*		*yɔ́gɔ̀-ŋɔ̀:-∅*
3Pl	*-ŋ-ɛ̀:*		*yɔ́gɔ̀-ŋ-ɛ̀:*

(325) shows that the imperfective negative, like the imperfective positive, merges /LH/ and /H/ melodies for light verbs.

(325) Imperfective negative (light non-*i*-final stem)

stem	imperfective negative	gloss
a. monosyllabic		
/LH/ melody		
gŏ:-	*gô:-ŋɔ̀:-*	'go out'
nŏ:-	*nô:-ŋɔ̀:-*	'drink'
bĕ:-	*bê:-ŋɔ̀:-*	'remain'
jĕ:-	*jê:-ŋɔ̀:-*	'bring'
wŏ:-	*wô:-ŋɔ̀:-*	'catch'
yĕ:-	*yê:-ŋɔ̀:-*	'come'
/H/ melody		
tá:-	*tâ:-ŋɔ̀:-*	'shoot'
tɔ́:-	*tɔ̂:-ŋɔ̀:-*	'sow'
b. *CvCv*		
/LH/ melody		
yɔ̀gɔ́-	*yɔ́gɔ̀-ŋɔ̀:-*	'run'
dɔ̀gɔ́-	*dɔ́gɔ̀-ŋɔ̀:-*	'leave'
bàrá-	*bárà-ŋɔ̀:-*	'gather'
/H/ melody		
péré-	*pérè-ŋɔ̀:-*	'jump (off)'
tóró-	*tórò-ŋɔ̀:-*	'pound'

c. *nCv*
/LH/ melody

ǹdɛ́-	*ńdɛ̀-ŋɔ̀:-*	'go up'

d. *CvCCv*
/LH/ melody

gòmbó-	*gómbò-ŋɔ̀:-*	'pull in (stomach)'
gùnjɔ́-	*gúnjò-ŋɔ̀:-*	'harvest (peanuts)'

/H/ melody

tónjó-	*tónjò-ŋɔ̀:-*	'bend, flex'
éw-yé-	*éw-yè-ŋɔ̀:-*	'sit down'

Heave non-*i*-final verbs maintain the lexical distinction of /H/ and /LH/ melodies (326).

(326) Imperfective negative (heavy stem ending in non-high vowel)

stem	imperfective negative	gloss
a. *Cv:Cv*		
/LH/ melody		
yǒ:ró-	*yǒ:rò-ŋɔ̀:-*	'stalk'
/H/ melody		
sɛ́:rɛ́-	*sɛ́:rɛ̀-ŋɔ̀:-*	'encounter'
b. trisyllabic		
/LH/ melody		
mònjúró-	*mònjúrò-ŋɔ̀:-*	'dream'
/H/ melody		
pígírɛ́-	*pígírɛ̀-ŋɔ̀:-*	'screw in'

i-final verbs respect the lexical /H/ versus /LH/ distinction, even for light stems. As in the imperfective positive, light stems of this class keep the final *i* (327).

(327) Imperfective negative (*i*-final light stem)

stem	imperfective negative	gloss
a. *Cvy*		
/H/ melody		
núy^n-	*núy^n-ŋɔ̀:-*	'go in'
túy-	*túy-ŋɔ̀:-*	'put down'
/LH/ melody		
[for *nǔy^n-* 'hear' see (328a) below]		
b. *nCi*		
/H/ melody		
ńdí-	*ńdì-ŋɔ̀:-*	'give'
/H/ melody, irregular, NCé- shifting to *NCí-*		
ńné-	*ńní-ŋɔ̀:-*	'go'

c. *CvCi*

/LH/ melody		
gàrⁿí-	*gàrⁿí-ŋɔ̀:-*	'put (in)'
dɛ̀wí-	*dɛ̀wí-ŋɔ̀:-*	'cover'
/H/ melody		
kárⁿí-	*kárⁿì-ŋɔ̀:-*	'do, make'

d. *CvCCi*

/LH/ melody		
màndí-	*màndí-ŋɔ̀:-*	'laugh'
gànjí-	*gànjí-ŋɔ̀:-*	'dig'
/H/ melody		
sándí-	*sándì-ŋɔ̀:-*	'pray'
túŋgí-	*túŋgì-ŋɔ̀:-*	'rest (one's head)'

Quite irregular are two perception verbs (*yǐ:-* 'see' and *nǔyⁿ-* 'hear'). Each of these has an L-toned stem and an H-toned imperfective negative suffix. In addition, the stem is shortened to *Cv-* and the suffix has a short vowel even in the third person (328). For 'see', the initial *y* is nasalized to *ɲ* by a unique (for Nanga) case of Backward Nasalization (§3.5.1.2), and the vowel is irregularly backed and rounded to *u*, perhaps by analogy to the corresponding form of 'hear'.

(328)

stem	imperfective negative	gloss
a. *Cvy*		
/LH/ melody		
nǔyⁿ-	*nù-ŋɔ́-*	'hear'
	(alongside regular variant *nǔyⁿ-ŋɔ̀:-*)	
b. *Cv:*		
/LH/ melody		
yǐ:-	*ɲù-ŋɔ́-*	'see'
	(alongside regular variant *yǐ:-ŋɔ̀:-*)	

In heavy *i*-final stems, the /LH/ versus /H/ melodic distinction reappears. These heavy stems switch to the non-high stem before *-ŋɔ̀:-*, as in other imperfective inflections (329).

(329) Imperfective negative (*i*-final heavy stem)

stem	imperfective negative	gloss
a. *Cv:Ci*		
/LH/ melody		
dǎ:rí-	*dǎ:rà-ŋɔ̀:-*	'dare'
gɛ̌:rⁿí-	*gɛ̌:rⁿɛ̀-ŋɔ̀:-*	'take away, convey'
/H/ melody		
ká:rí-	*ká:rà-ŋɔ̀:-*	'rip'
tɔ́:rí-	*tɔ́:rɔ̀-ŋɔ̀:-*	'authorize'

b. trisyllabic, final *i*, non-high vowel in stem

/LH/ melody		
bègírí-	*bègírè-ŋɔ̀:-*	'sift'
jèmbírí-	*jèmbírè-ŋɔ̀:-*	'hit off-center'
wùrɔ́-gí-	*wùrɔ́-gɔ̀-ŋɔ̀:-*	'awaken'
gàgírí-	*gàgírà-ŋɔ̀:-*	'rub into the ground'
/H/ melody		
tígí-rí-	*tígírè-ŋɔ̀:-*	'(griot) call out names'
kɛ́gírí-	*kɛ́gírè-ŋɔ̀:-*	'trim off'

As in other imperfectives, an *i*-final stem with only high vowels usually has final -ATR *ɛ* or *ɔ* before the suffix (330).

(330) Imperfective negative (heavy stem with high vowels and final *i*)

stem	imperfective negative	gloss
a. with *ɛ*		
í:-rí-	*í:-rɛ̀-ŋɔ̀:-*	'cause to stop'
yúrúmí-	*yúrúmɛ̀-ŋɔ̀:-*	'pity' (cf. noun *yúrúmɛ̀*)
b. with *ɔ*		
pú:rí-	*pú:rɔ̀-ŋɔ̀:-*	'frisk'
súmúr^{n}í-	*súmúr^{n}ɔ̀-ŋɔ̀:-*	'rest (v)'

10.2.3.5 Progressive negative *-sò=ndò-*

Progressive *-sò-* does have a special negative form *-sò=ndò-*, ending with an L-toned version of the conjugatable stative negative clitic *=ǹdó-* (§10.4.2).

(331) *[kɔ̀*^{L} *kámâ]* *yĩ:-sò=ndò-ỳ*
[thing^{L} each/any] see-**Progr**=**StatNeg**-1SgSbj
'I don't see anything.'

The stem has the same form as in the positive progressive. The *-sò-* suffix is invariant in this construction, except that the 3Pl subject is doubly marked, both with *-sò-* and with the following clitic, resulting in *-s-ɛ̀=nd-ɛ̀*. In the 1Pl and 2Pl forms, *-sò=ndò-* plus dying-quail intonation is realized as [-sòɔ́ńdòò-], as both the penult and the final are lengthened, and as the […HL] pitch of the dying-quail effect is expressed as […H] on the penult and L on the final. See (30b) in §3.8.3. The full paradigm is (332).

(332)

category	form		with 'see'	with 'hit'
1Sg	*-sò=ndò-ỳ*		*yî:-sò=ndò-ỳ*	*súyɔ̀:-sò=ndò-ỳ*
1Pl	*-sò=ndò-ỳ.̗*	[-sòɔ́ńdòòj]	*yî:-sò=ndò-ỳ.̗*	*súyɔ̀:-sò=ndò-ỳ.̗*
2Sg	*-sò=ndò-ẁ*		*yî:-sò=ndò-ẁ*	*súyɔ̀:-sò=ndò-ẁ*
2Pl	*-sò=ndò-ẁ.̗*	[-sòɔ́ńdòòw]	*yî:-sò=ndò-ẁ.̗*	*súyɔ̀:-sò=ndò-ẁ.̗*

3Sg	*-sò = ndò-∅*	*yî:-sò = ndò-∅*	*súyɔ̀:-sò = ndò-∅*
3Pl	*-s-ɛ̀ = nd-ɛ̀*	*yî:-s-ɛ̀ = nd-ɛ̀*	*súyɔ̀:-s-ɛ̀ = nd-ɛ̀*

10.3 Pronominal paradigms for indicative verbs

10.3.1 Subject pronominal suffixes

The forms used to index subject pronominal category on verbs and some other predicators are in (333). The third person forms are used for inanimate as well as animate referents. The symbol *.:* refers to the dying-quail intonational effect, which converts 1Sg to 1Pl and 2Sg to 2Pl, by applying duration and pitch modifications to the singulars, with some details specific to particular inflectional categories (§3.8.3).

(333)

category	suffix
1Sg	*-y*
1Pl	*-y.:*
2Sg	*-w*
2Pl	*-w.:*
3Sg	*-∅*, except 3Sg imperfective portmanteau *-ŋ̀*
3Pl	[see below]

The third person forms are more difficult to analyse. The 3Sg can generally be taken as *-∅*, but in the positive imperfective we get a kind of portmanteau *-ŋ* (or just *-ⁿ*, i.e. vowel nasalization) rather than the expected #*-m-∅*. I have analysed the 3Sg perfective positive as having *-∅* added to the E-stem for some verbs, but one might argue instead for a suffix *-e* ~ *-ɛ*.

The 3Pl category is expressed in a variety of ways that resist unified treatment. Using 1Sg and 1Pl for comparison (2Sg *-w* and 2Pl *-w.:* are exactly parallel), note the 3Sg versus 3Pl alternations across various AN categories in (334). The *-ɔ̀ ~ ò ~ à* 3Pl ending in the simple perfective has an interesting resemblance to the A/O-stem in the imperative (§10.6.1.1). However, 3Pl *-à* or even *-yà* elsewhere follows suffixes (perfective-1a/-1b, recent perfect, past), eliminating stem-ablaut as a general explanation for 3Pl forms.

(334)

category	1Sg	1Pl	3Sg	3Pl	suffix
unsuffixed Pfv	*-ỳ*	*-ỳ.:*	*(è\ɛ̀\ì)-∅*	*-ɔ̀\ò\à*	—
perfective-1a	*-ɛ̀rɛ̀-ỳ*	*-ɛ̀rɛ̀-ỳ.:*	*-ɛ̀rɛ̀-∅*	*-ɛ̀r-à*	*-ɛ̀rɛ̀-*
perfective-1b	*-tì-ỳ*	*-tì-ỳ.:*	*-tì-∅*	*-tì-yà*	*-tì-*
perfective-2	*-só-ý*	*-só-ý.:*	*-só-∅*	*-s-ɛ́*	*-só-*
recent perfect	*-jɛ̀-ỳ*	*-jɛ̀-ỳ.:*	*-jɛ̀-∅*	*-j-à*	*-jɛ̀-*
PfvNeg	*-rí-ý*	*-rí-ý.:*	*-rí-∅*	*-ndú*	*-rí-*
imperfective	*-m̀-(i)*	*-m-i.:*	*-ŋ̀*	*-m-ɛ̀*	*-m̀-*
progressive	*-sò-ỳ*	*-sò-ỳ.:*	*-sò-∅*	*-s-ɛ̀*	*-sò-*
IpfvNeg	*-ŋɔ̀-y*	*-ŋɔ̀-yⁿ.:*	*-ŋɔ̀:-∅*	*-ŋ-ɛ̀:*	*-ŋɔ̀:-*
past	*-bɛ̀-y*	*-bɛ̀-y.:*	*-bɛ̀-∅*	*-b-à*	*-bɛ̀-*

3Pl subjects also allow verb agreement in some constructions that do not allow it for any other subject category. This is the case in factive complements of verbs like 'know', see (634c) in §17.2.1. Similarly, some types of relative clauses allow participial animate plural agreement with animate plural head NPs, see (519b) in §14.1.7.3.

10.3.2 Nonhuman/inanimate versus 3Sg subject

There is no distinction between animate 3Sg and nonhuman or inanimate third person subjects in ordinary verbal inflection.

However, the 'it is' clitic has an inanimate subject form *=w* (§11.2.1.1). 'It is' clitics are also part of the passive construction, so inanimate *=yɛ̀-w* is part of its paradigm (§10.5.1.4).

10.3.3 Vowel-semivowel interactions of AN and pronominal suffixes

What I write as *uw* and *iy* are, in syllable-final position, pronounced [u:] and [i:] by Monophthongization (§3.5.7.2). Assimilations of a short high vowel to a nonhomorganic following semivowel (§3.5.7.1) can feed into Monophthongization.

Perfective-1b *-tì-* combines with 2Sg *-w* as *-tù-ẁ* more often than as *-tì-ẁ*. Likewise, perfective negative *-rí-* has a 2Sg form *-rú-ẃ*. The 2Pl forms have the same vowel quality.

Quasi-verb *bù-* 'be' combines with 1Sg *-y* as *bì-ỳ* ~ *bù-ỳ*. The 1Pl form has the same vowel qualities (§11.2.2.2).

10.3.4 Tones of pronominal-subject suffixes

Pronominal-subject suffixes that occur in indicative categories lack intrinsic tones. The nonzero suffixes except 3Pl each consist of a sonorant *-y* or *-w*, whose tone is acquired by spreading from the preceding vowel. 3Pl variants, including the only syllabic allomorph (*-yà* in perfective-1b *-tì-yà*), can also be analysed as atonal, getting their surface L-tone by spreading from the left. The same is true of imperative plural-addressee *-ndì*.

10.4 Stative form of verbs (reduplicated and unreduplicated)

10.4.1 Stative positive

Verbs of stance (sitting, standing, etc.), holding and carrying, and certain others like 'be closed', are used in both active ('sit down') and stative ('be sitting, be seated') contexts. The regular indicative conjugations (perfective and imperfective) are used in the active sense. In stative function, denoting a stable position, the (reduplicated or unreduplicated) stative inflection is used. Statives make no aspectual distinctions, falling outside of the perfective and imperfective systems that apply to active verbs.

The reduplicated stative has an initial *Cv́-* reduplication (H-toned), followed by an L-toned form of the A/O-stem. The final vowel is *o* for +ATR stems. It is *a* or *ɔ* for -ATR stems, with *ɔ* only used following another *ɔ* in the stem, so *a* is the default.

For those stems that contain a transparent *-yv-* suffix in the active forms, the suffix is omitted in the reduplicated stative. The criterion for transparency is syllabic in nature; the

stem minus the *-yv-* formative must be *CvCv-* or *CvC-* (335b-c). Original *Cv-yv- derivatives with just a monomoraic *Cv- stem have arguably become unsegmentable *Cvyv-*, and in any event maintain the second syllable in the stative form to satisfy the bisyllabic shape requirement (335d). This is also arguably the case with some of the *Cv:-yv- stems in (335e), but 'fear' in particular suggests that in these verbs the initial *Ci:-* or *Cu:-* splits into *Ciya-* and *Cuwa-*, in which case there is no need to assume the presence of the *-yv- formative in the stative.

(335)	gloss	imperative	perfective-1a	reduplicated stative
	a. bisyllabic stem (unsegmentable)			
	'lean (on)'	*tísô*	*tísé-èrè-*	*tí-tìsò-*
	b. bisyllabic stem plus mediopassive *-yv́-*			
	'lean back'	*dìsí-yô*	*dìsí(-y)-èrè-*	*dí-dìsò-*
	'kneel'	*túŋí-y^{n}à*	*túŋí(-y)-èrè-*	*tú-tùŋò-*
	'hold'	*ágí-yà*	*ágí(-y)-èrè-*	*á-ʔàgà-*
	'be hooked'	*kɔ́rí-yɔ̀*	*kɔ́rí(-y)-èrè-*	*kɔ́-kɔ̀rɔ̀-*
	'grip'	*kúmbí-yò*	*kúmbí(-y)-èrè-*	*kú-kùmbò-*
	'carry on back'	*bàmbí-yâ*	*bàmbí(-y)-èrè-*	*bá-bàmbà-*
	c. *CvC-* stem plus mediopassive *-yv́-*			
	'sit'	*éw-yò*	*éw-yé-èrè-*	*é-ʔèwò-*
	'squat'	*sów-yò*	*sów-yé-èrè-*	*só-sòwò-*
	'perch'	*téw-yò*	*téw-yé-èrè-*	*té-tèwò-*
	d. *Cvyv-* stem (with frozen mediopassive *-yv́-)			
	'sleep'	*níy^{n}â*	*níy^n-èrè-*	*ní-nìy^{n}à-*
	'lie down'	*bíyô*	*bìyé-èrè-*	*bí-bìyò-*
	e. *Cv:yv-* stem (with frozen mediopassive *-yv́-)			
	'be closed'	*pí:-y^{n}à*	*pí:-y^n-èrè-*	*pí-pìy^{n}à-*
	'stand'	*í:-yà*	*í:-y-èrè-*	*í-ʔìyà-*
	'fear'	*ú:-yà*	*ú:-y-èrè-*	*ú-ʔùwà-*

The pronominal-suffix paradigm is (336), with 'be sitting' as the example.

(336)	category	stative	'be sitting'
	1Sg	*-y*	*èwò-ỳ*
	1Pl	*-y.∴*	*èwò-y.∴*
	2Sg	*-w*	*èwò-ẁ*
	2Pl	*-w.∴*	*èwò-w.∴*
	3Sg/Inan	*-∅*	*èwò-∅*
	3Pl	*-yɛ̀*	*èwɛ̀-yɛ̀* (arguably *èw-ɛ̀-yɛ̀*)

In 3Pl *èwɛ̀-yɛ̀*, what appears in the rest of the stative paradigm as stem-final *o* has shifted back to *e*. A similar example is stative *bí-bìyò* 'is lying down', 3Pl *bí-bìyɛ̀-yɛ̀*. However, there

is no back-shift in *tú-tùŋò-* 'be kneeling', 3Pl *tú-tùŋò-yɛ̀*, or in *ú-ʔùwà-* 'fear', 3Pl *uwà-yɛ̀* 'they fear'. It seems that the vocalism of the preceding stem syllable, as well as that of the suffix *-yɛ̀*, are influencing the stem-final vowel. But there may also be a tendency here to mark 3Pl doubly, as in some negative paradigms.

tú-tùŋò-yɛ̀ 'they are kneeling' also shows that 3Pl *-yɛ̀* is not subject to Nasalization-Spreading. Another example of this *ní-nìy^{n}à-yɛ̀* 'they are asleep'.

The full reduplicated form of the stative stem is used when no location is overtly specified, so that the verb itself is arguably focal. When the verb is preceded by a locational adverb, the reduplicant is optionally (but usually) omitted (337a-c).

(337) a. *ŋ̀gà-gá* *èwò-∅*
there sit.**Stat**-3SgSbj
'He/She is sitting over there.'

b. *ŋ̀gà-gá* *ìyà-yɛ̀*
there stand.**Stat**-3PlSbj
'They are standing there.'

c. *[ńdó* *gó]* *bìyò-∅*
[house Loc] lie.down.**Stat**-3SgSbj
'He/She is lying down over there.'

Existential particle *yá* may precede a stative positive verb, as an alternative to reduplication. The combination with *yá* implies a specific location, though the latter is not otherwise overtly specified. The reduplication is used in a broader range of contexts.

(338) a. *yá* *èwò-∅*
Exist sit.Stat-3SgSbj
'He/She is sitting (e.g. over there).'

b. *é-ʔèwò*
Rdp-sit.Stat-3SgSbj
'He/She is sitting.'

10.4.2 Stative negative (*=ǹdó-*)

The negative forms are based on stative negative clitic *=ndó-*. The paradigm, and the forms for 'not be sitting', are in (339). The 3Pl form *=nd-ɛ́* has a -ATR vowel, unlike the +ATR of *=ndó-*. With 'sit', the stem-final /o/ shifts to *e* before the 3Pl form, as in the positive paradigm. Reduplication is absent.

(339)

category	stative negative	'not be sitting'	
1Sg	*=ndó-ý*	*èwò=ndó-ý*	
1Pl	*=ndo-y.˸*	*èwó=ndo-y.˸*	[èwòóndòóòj]
2Sg	*=ndó-ẃ*	*èwò=ndó-ẃ*	
2Pl	*=ndo-w.˸*	*èwó=ndó-w.˸*	[èwóndòóòw]

3Sg/Inan	*=ndó-∅*	*èwò=ndó-∅*
3Pl	*=nd-ɛ́*	*èwè=nd-ɛ́*

10.5 Past and present

10.5.1 Conjugated past clitic (*=bɛ-*)

The conjugatable past clitic (or suffix) *=bɛ-* carries over the preceding tone (subject to further tonal processes involving a following pronominal suffix). We therefore get e.g. *-m̀=bɛ̀-* with L-tone but e.g. *-rí=bɛ́-* with H-tone. Perfective-1b *-tì-* takes H-toned form *-tí-* in this combination (as it does in some verb-chains, §15.1.10), resulting in *-tí=bɛ́-*. The past clitic combines with certain AN forms of the verb, and is itself conjugated for pronominal subject. The combinations with preceding AN suffixes are given in (340).

(340)

AN category	AN suffix	AN + past
positive		
imperfective	*-m̀-*	*-m̀=bɛ̀-*
progressive	*-sò-*	*-sò=bɛ̀-*
simple perfective	(zero)	*=bɛ̀-* (past perfect)
perfective-1b	*-tì-*	*-tí=bɛ́-*
perfective-1a	*-ɛ̀rɛ̀-*	*-ɛ̀rɛ̀=bɛ̀-*
perfective-2	*-só-*	*-só=bɛ́-*
recent perfect	*-jɛ̀-*	*-jɛ̀=bɛ̀-*
negative		
perfective	*-rí-*	*-rí=bɛ́-*
imperfective	*-ŋɔ̀ː-*	*-ŋɔ̀ː=bɛ̀-*

The past clitic is also used with statives, both those derived from regular verbs ('be sitting', 'be afraid') and defective quasi-verbs like 'be (somewhere)' (§11.2.2.2), 'have' (§11.5.1), and 'love' (§17.2.5). The past morpheme is especially useful for statives since they do not make aspectual distinctions.

=bɛ- is followed by the usual 1st/2nd person subject pronominals, and has the usual zero 3Sg form. The 3Pl form is *=b-a*. The paradigm is given in (341) in two tonal variants, correlated with the preceding tone. The tonal variants are not audibly distinguished in the 1Pl and 2Pl, which impose their bell-shaped [LHL] pitch, see (30a) in §3.8.3.

(341)

category	form with *=bɛ-* after H-tone	after L-tone	
1Sg	*=bɛ́-y*	*=bɛ̀-y*	
1Pl	*=bɛ́-yː*	*=bɛ̀-yː*	both [bɛ̀ɛ́ɛ̀j]
2Sg	*=bɛ́-w*	*=bɛ̀-w*	
2Pl	*=bɛ́-wː*	*=bɛ̀-wː*	both [bɛ̀ɛ́ɛ̀w]
3Sg	*=bɛ́-∅*	*=bɛ̀-∅*	
3Pl	*=b-á*	*=b-à*	

The past clitic itself is not directly negated. Instead, negation is marked in the preceding verb or other predicate (perfective negative, imperfective negative, stative negative, 'it is not'), and this combination is followed by the conjugated forms of *=bɛ-* in (341).

Double pronominal conjugation, whereby the subject is marked both on the past clitic and on the preceding verb, is regular for 3Pl in negative inflections, see (343d) and (347c). Double conjugation is is attested as a variant for 1st/2nd person subject categories in these negative inflections, see (343a,c). The issue is moot for the unmarked 3Sg.

10.5.1.1 Past imperfective (positive and negative)

A past imperfective (positive) is formed with the complex *-m̀=bɛ̀-*. Here *-m̀-* is equatable with the imperfective suffix *-m-* seen above. This leaves *=bɛ̀-* as the specifically past morpheme. The 3Sg form is *-m̀=bɛ̀-∅* (compare 3Sg nonpast imperfective *-ŋ̀*). The 3Pl form is *-m̀=b-à*.

(342) a. *àmây^{n}-àmây^{n} ká kár^{n}ì-m̀=bɛ̀-ẁ.:*
how?-how? there do-**Ipfv**=**Past**-2PlSbj
'What did you-Pl use to do there (= about it)?'

b. *kìyǎ-w [ǹdò^{L} ŋ̀gá] sígè-m̀=bɛ̀-y*
previously [house^{L} Dem.InanSg.Loc] go.down-**Ipfv**=**Past**-1SgSbj
'I used to go down (= lodge) in this house.'

c. *bàmàkɔ́ ńní-m̀=bɛ̀-∅*
Bamako go-**Ipfv**=**Past**-3SgSbj
'He/She used to go to Bamako.'

d. *bàmàkɔ́ ńní-m̀=b-à*
Bamako go-**Ipfv**=**Past**-3PlSbj
'They used to go to Bamako.'

The past imperfective negative combines the imperfective negative suffix *-ŋɔ̀:-* with the inflected form of *=bɛ̀-*. In the 3Pl, both *-ŋɔ̀:-* and *=bɛ̀-* are conjugated, so the 3Pl form is doubly marked (343d). For other nonzero categories, i.e. first and second persons, *=bɛ̀-* is conjugated, and my assistant occasionally also conjugated *-ŋɔ̀:-*, but it seems that the singly-conjugated variants in (343a,c) are preferred. The issue is undecidable for the zero 3Sg subject (343b).

(343) a. *kìyǎ-w [ǹdò^{L} ŋ̀gá]*
previously [house^{L} Dem.InanSg.Loc]
sígè-ŋɔ̀:=bɛ̀-y
or: *sígè-ŋɔ̀-y=bɛ̀-y*
go.down-IpfvNeg(-**1SgSbj**)=Past-**1SgSbj**
'I did not use to go down (= lodge) in this house.'

b. *sígè-ŋɔ̀:-∅=bɛ̀-∅*
go.down-IpfvNeg-**3SgSbj**=Past-**3SgSbj**
'He/She did not use to go down.'

c. *sígè-ŋɔ̀ː = bɛ̀-wːː*
or: *sígè-ŋɔ̀-w = bɛ̀-wːː*
go.down-IpfvNeg(-**2PlSbj**)=Past-**2PlSbj**
'You-Pl did not use to go down.'

d. *sígé-ŋ-ɛ̀ː-∅ = b-à*
go.down-IpfvNeg-**3PlSbj**=Past-**3PlSbj**
'They did not use to go down.' (double conjugation required)

10.5.1.2 Past forms of stative quasi-verbs and derived statives

The stative quasi-verbs *bù-* 'be' (existential-locational) and *sò-* 'have', which do not make the perfective/imperfective aspectual distinction, take *-m̀ = bɛ̀-* for past time reference (*bù-m = bɛ̀-*, *sò-m = bɛ̀-*). The *-m-* is unusual for these quasi-verbs, but suggests a crypto-connection (made overt in the past only) between these statives and the imperfective category of active verbs. However, I will gloss it as Stat[ive] to avoid confusion. Derived statives omit the *-m-* in this construction.

The special negative forms of 'be' and 'have', as well as derived statives, directly take *= bɛ́-*, without *-m-*.

(344)

gloss	regular form	past
positive		
quasi-verbs (defective, stative only)		
'be'	*bù-*	*bù-m = bɛ̀-*
'have'	*sò-*	*sò-m = bɛ̀-* ~ *sò = bɛ̀-*
derived statives (reduplicated version)		
'be sitting/seated'	*é-ʔɛ̀wò-*	*é-ʔɛ̀wò = bɛ̀-*
'want'	*ná-nàmà-*	*ná-nàmà = bɛ̀-*
negative		
'not be'	*ŋ̀gó-*	*ŋ̀gó = bɛ́-*
'not have'	*sò-ndó-*	*sò-ndó = bɛ́-*
'not be sitting/seated'	*ɛ̀wò-ndó-*	*ɛ̀wò-ndó = bɛ́-*
'not want'	*nàmà-ndó-*	*nàmà-ndó = bɛ́-*

For 3Pl, 'they were not' is usually the doubly conjugated *ŋ̀g-ɛ́ = b-á*. 'They did not have' is usually the doubly (actually, triply) conjugated *s-ɛ̀-nd-ɛ́ = b-á*. However, singly conjugated 3Pl *sò-m = b-à* is also attested. Positive 3Pl forms are *s-ɛ̀-m = b-à* ~ *sò-m = b-à* 'they had' and *bù-m = b-à* 'they were'.

For (positive) 'have', the variant without *-m-* is used in 3Sg variant *sò = bɛ̀-∅*. For (positive) 'be', the *-m-* is required in all forms, including 3Sg *bù-m = bɛ̀-∅*.

10.5.1.3 Past perfect (positive and negative)

The past clitic *= bɛ̀-* can directly follow the bare stem (with lexical tone melody and vocalism), or a suffixed perfective form, in past perfect (positive) sense ('X had Vb-ed'). This

requires establishment of a separate temporal reference point, before which the eventuality in question occurred.

In the version without an overt perfective suffix, the bare stem functions as a substitute for the simple perfective, which does not itself combine with *=bɛ̀-*. The bare stem likewise replaces the simple perfective before the 'if' particle, see discussion following (281) in §10.2.1.1. The bare stem and the simple perfective are partially identical anyway, except in the 3Sg form where the simple perfective is the original E/I-stem.

Examples follow with the bare stem (345a), perfective-1a *-ɛ̀rɛ̀-* (345b), perfective-1b *-tì-* (345c), perfective-2 *-sɔ́-* (345d), and recent perfect *jɛ̀-* (345e). Perfective-1b *-tì-* occurs here in H-toned form, as in some verb-chains (§15.1.10).

(345) a. *bàyá=bɛ́-y*
be.cured=**Past**-1SgSbj
'I had been cured.'

b. *gɔ̌-ɛ̀rɛ̀=b-à*
go.out-**Pfv1a**=**Past**-3PlSbj
'They had gone out.'

c. *ǹjí-ŋ* *súyɔ́-tí=bɛ́-∅*
1Sg-Acc hit-**Pfv1b**=**Past**-3SgSbj
'He/She had hit me.'

d. *ǹjí-ŋ* *yǐː-sɔ́=bɛ́-∅*
1Sg-Acc see-**Pfv2**=**Past**-3SgSbj
'He/She had seen me.'

e. *wàgàtì*[L] *ńnɛ́* *yɛ́ː-m̀-sɛ̀* *gà,*
time[L] 3SgSbj come-Ipfv-while.Past in,
ɲǎː *kɔ́ː* *jɛ̀=bɛ̀-y.∴*
meal eat **RecPrf**=**Past**-1PlSbj
'When he was coming, we had already eaten.'

The past perfect negative is formed by adding conjugated *=bɛ́-* to perfective negative suffix *-rí-*. The latter takes its usual 3Pl form *-ǹdú-*, but is otherwise invariant before *=bɛ́-*. The paradigm is therefore (346).

(346)

category	past perfect negative
1Sg	*-rí=bɛ́-y*
1Pl	*-rí=bɛ̀-y.∴*
2Sg	*-rí=bɛ́-w*
2Pl	*-rí=bɛ̀-w.∴*
3Sg	*-rí=bɛ́-∅*
3Pl	*-ǹdú=b-á*

Examples are in (347).

(347) a. *wàgàtì*[L] *ńné* *yé:-m̀-sè* *gà,*
time[L] 3SgSbj come-Ipfv-while.Past Loc
ɲǎ: *kɔ̀:-rí=bɛ̀-y.˸*
meal eat-**PfvNeg**=**Past**-1PlSbj
'When he came, we had not (yet) eaten.'

b. *ɲǎ:* *kɔ̀:-rí=bɛ́-∅*
meal eat-**PfvNeg**=**Past**-3SgSbj
'He/She had not (yet) eaten.'

c. *ɲǎ:* *kɔ̀:-ndú=b-á*
meal eat-**PfvNeg.3PlSbj**=**Past**-3PlSbj
'They had not (yet) eaten.'

Past perfect verb forms with *=bɛ-* are also used in both the antecedent and consequent clauses of counterfactual conditionals (§16.4), as in (348).

(348) *ó:* *ǎy=bɛ́-y* *ndè,* *bàyá-èrɛ̀=bɛ̀-y*
medication take=**Past**-1SgSbj if, be.cured-**Pfv1a**=**Past**-1SgSbj
'If I had taken the medicine, I would have been cured.'

10.5.1.4 Past passive (positive and negative)

The past passive consists morphologically of H-toned passive *-yɛ́=* (§9.3.2), imperfective *-ḿ-* (< /-m̀-/) except in the 3Pl, and the conjugatable past clitic *=bɛ-*. The past clitic is L-toned here, reflecting the underlying L-tone of /-m̀-/. The pronominal paradigm is (349).

(349)

category	past passive
1Sg	*-yɛ́=ḿ=bɛ̀-y*
1Pl	*-yɛ́=ḿ=bɛ̀-y.˸*
2Sg	*-yɛ́=ḿ=bɛ̀-w*
2Pl	*-yɛ́=ḿ=bɛ̀-w.˸*
3Sg	*-yɛ́=ḿ=bɛ̀-∅* (< /=ŋ́=bɛ̀-/)
3Pl	*-yɛ́=∅=b-à*
InanSg	*-yɛ́=ẃ=b-ɛ̀*
InanPl	*-yɛ́=ẃ=b-à* (or same as 3Pl)

Pronominal-subject inflection occurs on past *=bɛ̀-*, and for inanimates and for 3Pl also on passive *-yɛ́=*. The expected #*=ŋ=bɛ̀-* sequence (3SgSbj plus Past) is pronounced *=m=bɛ̀-* with Nasal-Assimilation, and therefore falls together with *=m=bɛ̀-* in the first and second person forms.

Examples of the past passive are in (350).

(350) a. *ǹdò*[L] *kɛ́mɛ́-yɛ́ = ẃ = bɛ̀-∅*
house[L] build-**Pass**=it.is.InanSgSbj=**Past**-3SgSbj
'A/The house had been built.'

b. *tɔ́ŋ-yɛ́ = ∅ = b-à*
write-**Pass**=it.is.3PlSbj=**Past**-3PlSbj
'They (= books) had been written.'

c. *pɛ̀rgɛ̀*[L] *sɛ́mɛ́-yɛ́ = ḿ = bɛ̀-∅*
sheep[L] slaughter-**Pass**=it.is.3SgSbj=**Past**-3SgSbj
'A/The sheep-Sg had been slaughtered.' (from /… = ŋ = bɛ̀-/)

d. *[pɛ̀rgɛ̀*[L] *bû:]* *sɛ́mɛ́-yɛ́ = ∅ = b-à*
[sheep[L] Def.AnPl] slaughter-**Pass**=it.is.3PlSbj=**Past**-3PlSbj
'The sheep-Pl had been slaughtered.'

The past passive negative is based on combining either of the two passive negative constructions, see (260-1) in (§9.3.2) with past *= bɛ̀-* (351a-b).

(351) a. *tɔ́ŋɔ́-yɛ́ = ẃ = ndɔ̌:-∅ = bɛ̀-∅*
write-**Pass**=it.is.InanSgSbj=**it.is.not**-3SgSbj=**Past**-3SgSbj
'It had not been written.'

b. *tɔ̀ŋɔ̀-rⁿí-yɛ́ = ẃ = bɛ̀-∅*
write-**PfvNeg-Pass**=it.is.InanSgSbj=**Past**-3SgSbj
'It has not been written.'

10.5.2 'Still', 'up to now', (not) yet'

'Still' and 'up to now, for the present, so far' can be expressed by *[níŋɛ̀yⁿ yŋà]*, instrumental PP (§8.1.2) from *níŋɛ̀yⁿ* 'now'. If the predicate is negative, the idiomatic translation is 'not (yet)'.

(352) a. *[níŋɛ̀yⁿ* *yŋà]* *[ò:*[L] *gɔ́]* *bù-∅*
[now Inst] [field[L] Loc] be-3SgSbj
'He/She is still in the fields.'

b. *[níŋɛ̀yⁿ* *yŋà]* *yɛ̀:-rí-∅*
[now Inst] come-PfvNeg-3SgSbj
'Up to now he/she hasn't come.'
(= 'He/She hasn't come yet.')

10.6 Imperatives and hortatives

10.6.1 Imperatives and prohibitives

10.6.1.1 Positive imperatives (imperative stem, plural *-ndì*)

Positive imperatives have distinctive forms for 2Sg and 2Pl subject. Comparison with the hortative suggests that the proper category is addressee number (singular versus plural) rather than subject.

The singular-addressee imperative is segmentally the A/O-stem, with no suffix, except for light *i*-final verbs, which keep the final *i* (as in the bare stem). Tonally, the imperative ends in an HL-pattern. For heavy non-*i*-final verbs, and for substantially all *i*-final verbs, the onset respects the /H/ versus /LH/ melodic distinction, resulting in {HL} versus {LHL} imperatives. Light non-*i*-final verbs, on the other hand, merge /LH/ into /H/ and have {HL} imperatives.

The plural-addressee imperative adds suffix allomorph *-ndì* to the singular imperative; it has also been heard as *-nì* after longer stems (353). I gloss it as "PlAddr" in interlinears.

(353)

	number	imperative	
		singular addressee	plural addressee
a.	'run'	*yɔ́gɔ̂*	*yɔ́gɔ̂-ndì* [jɔ́gɔ́ǹdì]
	'go out'	*gô:*	*gô:-ndì*
	'buy'	*ɛ́wâ*	*ɛ́wâ-ndì*
	'go'	*ńnô*	*ńnô-ndì*
b.	'make weep'	*kóyó-mɔ̂*	*kóyó-mɔ̂-ndì*
	'return'	*bíndò*	*bíndò-ndì*
	'open'	*pí:ⁿ-rⁿà*	*pí:ⁿ-rⁿà-ndì*

Examples with objects, showing that transitive verbs remain transitive in imperative clauses, are in (354). In the free translation, -2Sg or -2Pl is added to the verb to indicate subject number.

(354)

a.	*ǹjí-ŋ́*	*ŋírⁿâ*
	1Sg-Acc	look.at.Imprt
	'Look-2Sg at me!'	
b.	*ńnɛ́-ŋ́*	*súyɔ̂-ndì*
	3Sg-Acc	hit.Imprt-PlAddr
	'Hit-2Pl him/her/it!'	

Both light and heavy non-*i*-final stems with +ATR vocalism have imperatives ending in *o* (355). These examples are compatible with the A/O-stem and with the tonal patterns described above, though not all input types are represented here.

(355)		gloss	bare stem	imperative
	a.	'bring'	*jě:*	*jô:*
		'come'	*yě:*	*yô:*
	b.	'go'	*ńné*	*ńnô*
	c.	'do well'	*ké:ndé*	*ké:ndò*
		'fight'	*jòríyé*	*jòríyô*
		'jump off'	*péré*	*pérô*

Non-*i*-final verbs of two or more syllables whose base stem ends in *ɛ* shift it to *a* in the imperative, as usual in the A/O-stem. *ǹdɛ́* 'go up' is counted as bisyllabic for this purpose (356a). Monosyllabic *Cɛ:* verbs have diphthongal imperatives of the form *Cɛa*. One seemingly monosyllabic verb, *tɛ́:* 'lay (mat)', also has a bisyllabic imperative variant *Cɛya* (356b). Cognates of *tɛ́:* in some closely related languages have a medial semivowel and count as bisyllabic, e.g. Ben Tey *tɛ́y(í)*. Light verbs with /LH/ melody ('go up', 'fall', 'look') merge with /H/ melody tonally.

(356)		gloss	bare stem	imperative
	a.	'go up'	*ǹdɛ́*	*ńdâ*
		'build'	*kɛ́mɛ́*	*kɛ́mâ*
		'fall'	*yɛ̀gɛ́*	*yɛ́gâ*
		'look'	*ŋìrⁿɛ́*	*ŋírⁿâ*
	b.	'lay (mat)'	*tɛ́:*	*tɛ́yâ* ~ *tɛ́â*
		'shine'	*kɛ́:*	*kɛ́â*
		'knock off'	*pɛ́:*	*pɛ́â*
		'get old'	*pɛ́:*	*pɛ́â*

i-final verbs are featured in (357). Light stems keep the final *i* in the imperative, while heavy stems shift to the A/O-stem. The difference in onsets between /LH/ and /H/ melodies is respected in imperatives of both light and heavy verbs, resulting in {LHL} and {HL} imperatives. 'See' (357a) has <LHL> in a single syllable.

(357) Imperatives of *i*-final verbs

	gloss	bare stem	imperative
a. *Ci:* and *Ciyi*			
/LH/ melody			
	'see'	*yǐ:*	*yǐ̂:*
/H/ melody			
	'send'	*tíyí* [tí:]	*tîy* [tî:]

b. *CvCi* and *CvCCi*

/LH/ melody

‘cure’	*jɔ̀ŋí*	*jɔ̀ŋî*
‘sing’	*nùŋí*	*nùŋî*
‘cover’	*dɛ̌w* (< /dɛ̀wí/)	*dɛ̀wî*
‘laugh’	*màndí*	*màndî*
‘step in’	*nàmbí*	*nàmbî*

/H/ melody

‘speak’	*tíŋí*	*tíŋî*
‘put’	*kúrⁿí*	*kúrⁿî*
‘tie’	*págí*	*págî*
‘do’	*kárⁿí*	*kárⁿî*
‘put up’	*náŋí*	*náŋî*
‘find’	*tɛ́mbí*	*tɛ́mbì*
‘put lid’	*tímbí*	*tímbì*
‘urinate’	*ɔ́njí*	*ɔ́njì*

c. *nCi*

/H/ melody

‘give’	*ńdí*	*ńdî*

d. *Cv:Ci*

underived, /LH/ melody

‘call’	*ɲă:rⁿí*	*ɲă:rⁿâ*
‘help’	*bă:rí*	*bă:râ*
‘take away, convey’	*gɛ̌:rⁿí*	*gɛ̌:rⁿɔ̂*
‘gather’	*mɔ̌:ndí*	*mɔ̌:ndɔ̀*
‘think’	*mă:ndí*	*mă:ndà*

mediopassive, /LH/ melody

‘carry on head’	*dŭ:-yí*	*dŭ:-yâ*

e. trisyllabic

/LH/ melody

‘go around’	*gɔ̀ŋírⁿí*	*gɔ̀ŋɔ́rⁿɔ̂*
‘winnow’	*bɛ̀gírí*	*bɛ̀gírâ* ~ *bɛ̀gírɔ̂*
‘get ready’	*dàgírí*	*dàgírâ*
‘get rid of’	*màrá-gí*	*màrá-gâ*
‘remember’	*ìllí-rí*	*ìllí-râ*

/H/ melody

‘rest’	*súmírⁿí*	*súmórⁿò*
‘demolish’	*wòró-gí*	*wòró-gô*
‘get up’	*írí-yí* [íɾí:]	*írí-yà*
‘have fun’	*kɛ́mírⁿí*	*kɛ́mírⁿà* ~ *kɛ́mírⁿɔ̀*

If the bare stem of an *i*-final verb contains only high vowels in the bare stem, the imperative ends in a vowel from the A/O-stem trio {*a ɔ o*} (358).

(358) Imperatives of stems with only high vowels

gloss	bare stem	imperative
a. imperative ends in *a*		
‘remember’	*ìllí-rí*	*ìllí-râ*
‘get up’	*ír-í:* (</írí-yí/)	*írí-yà*
‘accompany’	*íŋgírí*	*íŋgírà*
b. imperative ends in *o*		
‘rest’	*súmír^{n}í*	*súmór^{n}ò*
c. imperative ends in *ɔ*		
‘skim’	*kúgírí*	*kúgɔ́rɔ̀*

Verbs that already end in {*o ɔ a*} are segmentally stable as we go from the bare stem to the imperative. This remark applies to monosyllabics (359a) as well as to heavier stems (359b).

(359)

	gloss	bare stem	imperative
a.	‘drink’	*nɔ̌:*	*nɔ̂:*
	‘reply’	*sá:*	*sâ:*
	‘go out’	*gǒ:*	*gô:*
b.	‘run’	*yɔ̀gɔ́*	*yɔ́gɔ̂*
	‘bite’	*kúwó*	*kúwô*
	‘touch’	*táwá*	*táwâ*

More examples of light non-*i*-final stems, showing the {HL} overlay overriding the lexical melody, are in (360).

(360) Imperatives of light non-*i*-final verbs showing tones

gloss	bare stem	imperative
a. *Cv:*		
/H/ melody		
‘reply’	*sá:*	*sâ:*
/LH/ melody		
‘go out’	*gǒ:*	*gô:* (contrast *gǒ:* ‘fire’)
‘drink’	*nɔ̌:*	*nɔ̂:*
b. *CvCv* (including *nCv*)		
/H/ melody		
‘go’	*ńné*	*ńnô*
‘get bogged’	*pídé*	*pídô*

/LH/ melody

'go up'	*ǹdɛ́*	*ńdâ*
'steal'	*gùró*	*gúrô*
'run'	*yɔ̀gɔ́*	*yɔ́gɔ̂*

c. *CvCCv* with simple *CC* cluster (see discussion below)

/H/ melody

'tamp down'	*túmbó*	*túmbò*

/LH/ melody

'dig'	*gùnjó*	*gúnjò*
'churn'	*jùmbó*	*júmbò*

The two verbs in (361a) are, or at least were, *Cv̀-(N)Cv́* stems including a submiminal *Cv̀-* stem and a derivational suffix. They are irregular in preserving the initial L-tone in the imperative. Other Dogon cognates of 'take out' have similar tonal peculiarities.

The two verbs in (371b) are *Cv́CCv́* stems with nonhomorganic medial *CC* cluster, usually a sign of syncope from a trisyllabic input. Some cognates remain trisyllabic: for 'sit down', Najamba *óbíy\\òbìyè*, Yanda Dom *óbí-yó-* ; for 'crumple', Jamsay *kómɔ́ŋnɔ́-*, Togo Kan *kúmúŋnù-*, Toro Tegu *kúmíy^{n}* (imperative *kúmíy^{n}ó*). In Nanga they seem to be treated like *Cv́NCv́* stems with homorganic nasal-voiced stop clusters, hence prosodically light.

(361) Tonally irregular imperatives of *CvCv* and *CvCCv* stems

gloss	bare stem	imperative

a. initial L-tone of lexical {LH} verb preserved

mediopassive *Cv̀-yv́*

'lie down'	*bì-yé*	*bì-yê*

Cv̀-ndv́ (frozen causative)

'take out'	*gò-ndó*	*gò-ndô*

b. H.<HL> instead of H.L sequence for *CvCCv*

mediopassive *Cv́C-yv́*

'sit'	*éw-yé*	*éw-yô*

Cv́mjv́

'crumple'	*kúmjó*	*kúmjô*

+ATR heavy stems are in (362). As usual, these stems reject final i in the bare stem and imperative, and have imperatives ending in *o*.

(362) Imperatives of heavy non-*i*-final verbs (+ATR)

gloss	bare stem	imperative

a. *Cv:Cv* and *Cv:CCv*

/H/ melody

'weigh'	*pɛ́:sé*	*pɛ́:sò*
'do well'	*ké:ndé*	*ké:ndò*

/LH/ melody		
'stalk'	*yǒ:ró*	*yǒ:rô*
'file'	*dǐ:sé*	*dǐ:sô*

b. *CvCvCv*

/H/ melody		
'screw in'	*pígíré*	*pígírò*
'rub'	*lígísé*	*lígísò*
/LH/ melody		
'fight'	*jòríyé*	*jòríyô*
'lean'	*dìsíyé*	*dìsíyô*

More *i*-final verbs are in (363). Those with /LH/ meolody keep the initial L-tone in the imperative. Light verbs have imperatives segmentally identical to the bare stem; heavy verbs switch to the A/O-stem. Causative *-mí* is discussed separately below.

(363) Imperative of *i*-final verbs showing tones

gloss	bare stem	imperative
a. *Cvy(i)*, tonally irregular imperatives		
/H/ melody		
'go in'	*núy^n*	*núy^n*
/LH/ melody		
'hear'	*nǔy^n*	*nǔy^n*
b. *CvCi*		
/H/ melody		
'cross'	*táŋí*	*táŋî*
'affix'	*tárí*	*tárî*
'put up on'	*náŋí*	*náŋî*
/LH/ melody		
'cure'	*jɔ̀ŋí*	*jɔ̀ŋî*
'cover'	*dɛ̌w* (< /dɛ̀wí/)	*dɛ̀wî*
c. *CvCCi*		
/H/ melody		
'pinch'	*kɛ́mbí*	*kɛ́mbì*
/LH/ melody		
'laugh'	*màndí*	*màndî*
d. *Cv:Ci* and *Cv:CCi*		
/H/ melody		
'scratch'	*kɔ́:sí*	*kɔ́:sɔ̀*
/LH/ melody		
'chase'	*lǎ:rí*	*la:rà*
'mix'	*gǎ:r^{n}í*	*gǎ:r^{n}â*
'take away, convey'	*gɛ̌:r^{n}í*	*gɛ̌:r^{n}ɔ̂*

'call'	*ɲǎ:rⁿí*	*ɲǎ:rⁿâ*
'gather'	*mɔ̌:ndí*	*mɔ̌:ndɔ̂*

e. trisyllabic

/H/ melody

'have fun'	*kɛ́mírⁿí*	*kɛ́mírⁿà*

/LH/ melody

'winnow'	*bɛ̀gírí*	*bɛ̀gírâ*

Causative suffix *-mí* is treated tonally like a chained verb stem in the imperative. For example, in imperative *kóyó-mɔ̂* 'make-2Sg weep!' and its suffixed plural-addressee form *kóyó-mɔ̂-ndì*, the causative suffix has its own {HL} tone overlay, while the preceding stem has the same form it would have as a bare stem. If *kóyó-mí* 'make weep' were treated as an ordinary trisyllabic, the H-tone would extend from the left edge only to the second syllable, giving the incorrect #*kóyó-mɔ̀*, #*kóyó-mɔ̀-ndì*.

10.6.1.2 Prohibitives (*-rá*, *-ndá*, *-ndà:*)

The prohibitive is the negative imperative.

(364) *tê:* *nɔ̌:-rⁿá-ndì*
tea drink-Proh-Pl.Addr
'Don't-2Pl drink the tea!'

The prohibitive is formed from mono- and bisyllabic stems with a suffix *-rá* that has a variant *-ndá*. The form *-rá* is usual in Anda, but a Wakara informant generally used *-ndá*. This suffix is distinct in form from other negative suffixes on verbs (perfective negative *-rí-*, imperfective negative *-ŋɔ̀:-*). The suffix *-rá* undergoes Nasalization-Spreading to *-rⁿá* under the influence of a preceding nasal or nasalized segment, as does perfective negative *-rí-*. For allomorph *-ndà:* with longer stems, see below.

The plural prohibitive adds plural-addressee *-ndì*, sporadically reduced to *-nì*, to the singular prohibitive.

Examples with monosyllabic stems are in (365). The lexical tone melody, /H/ versus /LH/, is respected in the prohibitive.

(365)

gloss	bare stem	imperative	
		singular addressee	plural addressee
'go out'	*gǒ:*	*gǒ:-rá*	*gǒ:-rá-ndì*
'drink'	*nɔ̌:*	*nɔ̌:-rⁿá*	*nɔ̌:-rⁿá-ndì*
'bring'	*jě:*	*jě:-rá*	*jě:-rá-ndì*
'see'	*yǐ:*	*yǐ:-rá*	*yǐ:-rá-ndì*
'reply'	*sá:*	*sá:-rá*	*sá:-rá-ndì*
'lay (mat)'	*tɛ́:*	*tɛ́:-rá*	*tɛ́:-rá-ndì*

Since the plural-addressee form is always easily predictable from the singular, I will omit the plurals in the remaining tables.

For bisyllabics with just two vocalic moras (no long vowel), the stem-final vowel is replaced by *i* (366a-b). The *i* is usually syncopated when the syllabic and segmental conditions permit, i.e., after certain unclustered sonorants, especially semivowels and *r* (366c). The suffix is usually heard as *-ndá* after a rhotic (366c). A syllable-final /iy/ resulting from syncope contracts phonetically to a long [i:] (366d) by Monophthongization. Likewise, a syllable-final /uw/ resulting from syncope contracts to a long [u:], though in one case ('bite') my assistant preferred a variant with [uj] ('bite', 366e). Throughout (366), the lexical tone is respected in the prohibitive.

(366) Prohibitive of light non-*i*-final verb

	gloss	bare stem	prohibitive	
a.	'tie'	*págí-*	*págí-rá*	
	'cut'	*kɛ́sɛ́-*	*kɛ́sí-rá*	
	'build'	*kɛ́mɛ́-*	*kɛ́mí-r^{n}á*	
	'throw'	*gìsɛ́-*	*gìsí-rá*	
	'run'	*yɔ̀gɔ́-*	*yɔ̀gí-rá*	
	'fall'	*yɛ̀gɛ́-*	*yɛ̀gí-rá*	
	'go back'	*bìndɛ́-*	*bìndí-rá*	
	'nibble'	*jɔ̀mbɔ́-*	*jɔ̀mbí-rá*	
	'dig'	*gùnjó*	*gùnjí-rá*	
b.	'go'	*ńné-*	*ńní-r^{n}á*	
	'go up'	*ǹdɛ́-*	*ǹdí-rá*	
c.	'work'	*bìrɛ́-*	*bǐr-ndá*	
	'begin'	*tɔ́rɔ́-*	*tɔ́r-ndá*	
	'sell'	*túrɔ́-*	*túr-ndá*	
	'skin'	*úrɔ́-*	*úr-ndá*	
	'hit'	*súyɔ́-*	*súy-rá*	
	'buy'	*ɛ́wɛ́-*	*ɛ́w-rá*	
	'look'	*ŋìr^{n}ɛ́-*	*ŋìr^{n}í-ndá*	
	'give birth'	*nàr^{n}á-*	*nàr^{n}í-ndá* ~ *nǎn-dá*)	
d.	'kill'	*gìyɛ́-*	*gǐy-rá*	[gǐːɾá]
	'lie down'	*bìyɛ́-*	*bǐy-rá*	[bǐːɾá]
e.	'fan'	*jùwó-*	*jǔw-rá*	[dʒǔːɾá]
	'brush'	*bùwɔ́-*	*bǔw-rá*	[bǔːɾá]
	'bite'	*kúwó-*	*kúy-rá*	
			(*kúw-rá* OK but dispreferred)	

Heavy stems, those with three or more vocalic moras (*Cv:Cv-*, *CvCvCv-*), that end in a non-high vowel are in (367). All have +ATR vowels. The prohibitive suffix in this case is *-ndà:*, which is heard in L-toned form word-finally. It combines with the plural suffix as *-ndǎ:-ndì*, bringing out a latent rising tone that is also heard when a clause-final particle is added. The final vowel of the stem is not shifted to *i*.

(367) Prohibitive of heavy non-*i*-final verb

	gloss	bare stem	prohibitive
a.	‘do well’	*ké:ndé-*	*ké:ndé-ndà:*
b.	‘dream	*mònjúró-*	*mònjúró-ndà:*
	‘hiccup’	*bègíré-*	*bègíré-ndà:*
c.	‘screw in’	*pígíré-*	*pígíré-ndà:*
	‘poke’	*dùsúró-*	*dùsúró-ndà:*

i-final stems are in (368). The tonology and suffixal allomorphy are consistent with those seen above for non-*i*-final verbs. The suffix is *-rá-* (nasalized to *-r^{n}á-* after a nasal syllable) occurs with light stems, including *CvCCv-*, but *-ndà:* after heavy stems, including *Cv:Cv-*. Causative *-mí-* tends to be reduced to segmental zero before *-ndà:*, though a fuller pronunciation as *-m-dà:* is also possible (368g).

(368) Prohibitive of *i*-final verbs

	gloss	bare stem		prohibitive
a.	‘give’	*ńdí-*		*ńdí-rá*
b.	‘speak’	*tíŋí-*		*tíŋí-r^{n}á*
	‘perpetrate’	*bɔ̀gí-*		*bɔ̀gí-rá*
c.	‘cover’	*dɛ̀wí-*	[dɛ̌w]	*dɛ̌w-rá*
	‘go in’	*núy^{n}í-*	[núj^{n}]	*núy^{n}-r^{n}á*
	‘hear’	*nùy^{n}í-*	[nǔj^{n}]	*nǔy^{n}-r^{n}á*
d.	‘open wide’	*gɔ̀mbí-*		*gɔ̀mbí-rá*
	‘find’	*tɛ́mbí-*		*tɛ́mbí-rá*
e.	‘help’	*bǎ:rí-*		*bǎ:r-ndà:*
	‘stop’	*í:-yí-*	[iː]	*í:-y-ndà:*
	‘gather’	*mɔ̌:ndí-*		*mɔ̌:ndí-ndà:*
	‘open’	*pí:-r^{n}í*		*pí:^{n}-r^{n}í-ndà:*
f.	‘uncover’	*tímbí-rí-*		*tímbí-r-ndà:*
	‘accompany’	*íŋgírí-*		*íŋgír-ndà:*
	‘scrub’	*púgúsí-*		*púgúsí-ndà:*
	‘get ready’	*dàgírí-*		*dàgír-ndà:*
g.	‘make go out’	*gǒ:-mí-*		*gǒ:-m-dà:* ~ *gǒ:-∅-ndà:*

10.6.2 Positive hortatives (*-má*, plural *-mày*^{n})

For singular addressee (speaker and one addressee), the hortative ('Let's …!') is expressed by suffix *-má* added to the non-high stem. For larger numbers (speaker and two or more addressees), the form is *-mày*^{n}. Since this marks addressee (rather than subject) number, subject (usually but not always 1Pl) and addressee must be distinguished. Both imperatives and hortatives have morphologically marked addressees. Hortatives, but not imperatives, may also have an overt subject.

(369)

gloss	hortative	
	singular addressee	plural addressee
'run'	*yɔ̀gɔ́-má*	*yɔ̀gɔ́-mày*^{n}
'go out'	*gǒ:-má*	*gǒ:-mày*^{n}
'buy'	*ɛ́wɛ́-má*	*ɛ́wɛ́-mày*^{n}
'go'	*ńné-má*	*ńné-mày*^{n}

Further examples showing the hortative of verbs with final non-high vowel are in (370). As the singular-addressee form is predictable from the more common plural-addressee hortative, only the latter is shown. The hortative requires the non-high stem, which for non-*i*-final verbs is identical to the bare stem (370).

(370) Hortative of non-*i*-final verb

	gloss	stem	hortative (plural addressee)
a.	'shave'	*ká:-*	*ká:-mày*^{n}
	'drink'	*nɔ̌:-*	*nɔ̌:-mày*^{n}
	'come'	*yɛ̌:-*	*yɛ̌:-mày*^{n}
b.	'go'	*ńné-*	*ńné-mày*^{n}
	'go up'	*ǹdɛ́-*	*ǹdɛ́-mày*^{n}
c.	'steal'	*gùró-*	*gùró-mày*^{n}
	'run'	*yɔ̀gɔ́-*	*yɔ̀gɔ́-mày*^{n}
	'spray'	*písé-*	*písé-mày*^{n}
	'hiccup'	*bègíré-*	*bègíré-mày*^{n}
	'dream'	*mònjúró-*	*mònjúró-mày*^{n}
	'screw in'	*pígíré-*	*pígíré-mày*^{n}

i-final verbs, whether light or heavy, shift to the non-high stem. Stems with only *u* have final *ɔ*, and those with only *i* have final *ɛ* (371). The lexical tone melody is respected.

(371) Hortative of *i*-final verb

	gloss	stem	hortative (plural addressee)
a.	'see'	*yǐ:-*	*yɛ̌:-mày*^{n}

b.	‘give’	*ńdí-*		*ńdɛ́-mày^{n}*
c.	‘go in’	*núy^{n}(í)-*	[núj^{n}]	*núy^{n}ɔ́-mày^{n}*
	‘hear’	*nùy^{n}(í)-*	[nŭj^{n}]	*nùy^{n}ɔ́-mày^{n}*
	‘send’	*tíy(í)-*	[tí:]	*tíyɛ́-mày^{n}*
	‘cover’	*dɛ̀wí-*		*dɛ̀wɛ́-mày^{n}*
	‘perpetrate’	*bɔ̀gí-*		*bɔ̀gɔ́-mày^{n}*
	‘put down’	*dùŋí-*		*dùŋɔ́-mày^{n}*
d.	‘find’	*tɛ́mbí-*		*tɛ́mbɛ́-mày^{n}*
	‘open wide’	*gɔ̀mbí-*		*gɔ̀mbó-mày^{n}*
	‘put lid on’	*tímbí-*		*tímbɛ́-mày^{n}*
e.	‘help’	*bă:rí-*		*bă:rá-mày^{n}*
	‘take away, convey’	*gɛ̌:r^{n}í-*		*gɛ̌:r^{n}ɛ́-mày^{n}*
	‘stop’	*í:-yí-*		*í:-yɛ́-mày^{n}*
	‘gather’	*mɔ̌:ndí-*		*mɔ̌:ndí-mày^{n}*
f.	‘scrub’	*púgúsí-*		*púgúsɔ́-mày^{n}*
	‘have fun’	*kɛ́mír^{n}í-*		*kɛ́mír^{n}ɛ́-mày^{n}*
	‘get ready’	*dàgírí-*		*dàgírá-mày^{n}*

The implied subject is normally the speaker and one or more listeners. However, a subject of another category (expressed overtly by a preverbal subject pronoun) is allowed, as long as the authorization for the event is controlled by the joint will of speaker and listener(s). For example, in K’s turn in (372) we have a 3Sg subject pronoun referring to a song that the interlocutor C has offered to sing. Background note to (372): telling a story or a riddle, or singing a song, is preceded by a request for authorization by the audience.

(372) C: *[nùŋà^{L} nɛ́] nùŋí-m̀-∅*
[song^{L} Def.AnSg] sing-Ipfv-1SgSbj
‘I’ll sing the song.’
K: *â: [nùŋà^{L} nɛ́] ńnɛ́ ńné-mà*
ah! [song^{L} Def.AnSg] **3SgSbj** **go-Hort**
‘Ah, let’s (let) that song go (ahead)!’ (2004.02.02)
[‘song’ can be animate, see beginning of §4.4]

This is not the same as the quoted imperative verb form (§10.6.4), which is used in wishes that involve a distinct agent not directly under the control of the current speech-event participants, and in quoted imperatives.

For quoted hortatives with *-ŋ́* replacing hortative *-má* or *-mày^{n}*, see §10.6.5.

10.6.3 Hortative negative (*-rá-má* and variants, plural *-rá-mày^{n}*)

The prohibitive (i.e. negative imperative) form of the verb, with suffix *-rá-*, *-ndá-*, or *-ndă:-* (word-final *ndà:*), is followed by the (positive) hortative suffix *-má* (singular addressee) or *-mày^{n}* (plural addressee) to form the hortative negative. Some examples showing the morphological connection to the (singular-addressee) prohibitive are in (373).

(373)		gloss	bare stem	prohibitive	hortative negative (plural addressee)
	a.	'go out'	*gŏ:*	*gŏ:-rá*	*gŏ:-rá-mày^n*
		'drink'	*nɔ̌:*	*nɔ̌:-r^{n}á*	*nɔ̌:-r^{n}á-mày^n*
		'tie'	*págí-*	*págí-rá*	*págí-rá-mày^n*
		'go'	*ńné-*	*ńní-r^{n}á*	*ńní-r^{n}á-mày^n*
	b.	'begin'	*tɔ́rɔ́-*	*tɔ́r-ndá*	*tɔ́r-ndá-mày^n*
	c.	'screw in'	*pígíré-*	*pígíré-ndà:*	*pígíré-ndă:-mày^n*

Examples are (374).

(374) a. *ńní-r^{n}á-má*
go-HortNeg-Hort.SgAddr
'Let's-2Sg (= the two of us) not go!'

b. *gŏ:-rá-mày^n*
go.out-HortNeg-Hort.PlAddr
'Let's-2Pl (= all of us) not go out!'

For quoted negative hortatives with *-ndà:* replacing hortative negative *-ndă:-má* or (*-ndă:-mày^n*, see §10.6.5.

10.6.4 Quoted imperative (I-stem)

The quoted imperative (QuotImprt) verb form occurs in imprecations, i.e. wishes, blessings, and curses involving third-person agents, e.g. the type 'may God (Verb) you!' It is also the regular form of the verb in jussive complements (quoted imperatives), as in 'He tells (commands) you/me/him to come'. Imprecations may also be modeled as covert quoted imperatives, with some peculiarities. The quoted imperative (unlike the regular imperative) is often followed by quotative particle *wa*. The tone of *wa* is useful in determining the underlying tone of the final vowel of the verb, as *Cî* becomes *Cí wà*, while *Cí* becomes *Cí wá*, cf. Atonal-Morpheme Tone-Spreading (§3.7.4.4). Actually, the *i* often assimilates and appears as *ú* before *wà* or *wá*.

The subject of a quoted imperative verb may be of any pronominal person, and no distinction is made in the verb between singular or plural (subject or addressee). For example, the quoted imperative can be used to request confirmation or clarification of commands addressed by someone else to the current speaker. If someone signals to X at a distance or makes an unclear verbal command to X, X can inquire: *(ĭ:^{n}) mǎŋgórò jě-y má* '(do you command/request/want) me to bring mangoes?'

The positive quoted imperative consists of the I-stem, but ends in *e* for most nonmonosyllabic +ATR stems. The monosyllabic version is *Cv-y*. For many verbs, the quoted imperative differs segmentally from the regular imperative. The quoted imperative respects the distinction between /LH/ and /H/ melodies. For non-*i*-final verbs, the tonal outputs are {H}, {HL}, {LH}, and {LHL}. {H} is limited to /H/-class monosyllabics of the form *Cv́y*. {LH} is limited to light *Cv̌-y* and *CV̀CÍ* forms, i.e. those where the H-tone

occupied only one mora. Longer stems are {HL} or {LHL} depending on their lexical melody. For these stems, the final syllable is <HL> if preceded by just one H-toned mora, and L if preceded by more than one. All *i*-final verbs have a final L-tone element, so their only possibilities are {HL} and {LHL}, depending on lexical melody. The irregular stem 'bring' has <LHL>-toned imperative *jɛ̏:-y* (375b).

(375) Quoted imperative positive for non-*i*-final verb

gloss	bare stem	QuotImprt
a. *Cv́:-*		
'shave'	*ká:-*	*ká-y*
'spend night'	*ná:-*	*ná-y^n*
'reply'	*sá:-*	*sá-y*
'eat'	*kɔ́:-*	*kɔ́-y*
b. *Cv̌:-*		
'arrive'	*dɔ̌:-*	*dɔ̌-y*
'go out'	*gǒ:-*	*gǒ-y*
'come'	*yɛ̌:-*	*yɛ̌-y*
irregular		
'bring'	*jɛ̌:-*	*jɛ̏:-y* (with enclitic: *jɛ̏: wà*)
c. *nCv-*		
'go'	*ńné-*	*ńnî*
'go up'	*ǹdɛ́-*	*ǹdí*
d. *CvCv-*		
/H/ melody		
'spray'	*písé-*	*písî*
'pound'	*tóró-*	*tórî*
'jump off'	*péré-*	*périî*
/LH/ melody		
'steal'	*gùró-*	*gùrí*
'run'	*yɔ̀gɔ́-*	*yɔ̀gí*
e. *CvCCv-*		
/H/ melody		
'lift up'	*índé-*	*índî*
/LH/ melody		
'go back'	*bìndé-*	*bìndí*
/LH/ melody, syncopated		
'turn over'	*jǔw-ró-*	*jǔw-rî*
/LH/ melody, irregular (old causative)		
'take out'	*gò-ndó-*	*gò-ndê*
f. *Cv:(C)Cv-*		
/H/ melody		
'do well'	*ké:ndé-*	*ké:ndè*

/LH/ melody		
‘stalk’	*yǒ:ró-*	*yǒ:rî*
‘bathe [tr]’	*dǐ:-ré-*	*dǐ:-rê*
g. trisyllabic		
/H/ melody		
‘screw in’	*pígíré-*	*pígírè*
/LH/ melody		
‘hiccup’	*bègíré-*	*bègírê*
‘dream’	*mònjúró-*	*mònjúrê* ~ *mònjírî*

All *i*-final verbs show a final L-tone element (376).

(376) Quoted imperative positive of *i*-final verb

gloss	bare stem	QuotImprt
a. *Ci:-*		
‘see’	*yǐ:-*	*yǐ:* (with enclitic: *yǐ: wà*)
b. *nCi-*		
‘give’	*ńdí-*	*ńdî*
c. *CvCi-*		
/H/ melody		
‘go in’	*núy^{n}í-* [núj^n]	*nûy^n*
‘send’	*tíyí-* [tí:]	*tíyî* [tí:]
‘tie’	*pǎgí-*	*pǎgî*
‘do’	*kár^{n}í-*	*kár^{n}î*
/LH/ melody		
‘hear’	*nùy^{n}í-* [nǔj^n]	*nǔy^n* (with enclitic: *nǔy^n wà*)
‘cover’	*dɛ̀wí-*	*dɛ̀wî*
‘perpetrate’	*bɔ̀gí-*	*bɔ̀gî*
‘put down’	*dùŋí-*	*dùŋî*
d. *CvCCi-*		
/H/ melody		
‘find’	*tɛ́mbí-*	*tɛ́mbî*
‘put lid on’	*tímbí-*	*tímbî*
/LH/ melody		
‘open wide’	*gɔ̀mbí-*	*gɔ̀mbí*
‘go back’	*bìndí-*	*bìndí*
e. *Cv:(C)Ci-*		
/H/ melody		
‘stop’	*í:-yí-*	*í:-yì*

/LH/ melody		
'help'	*bǎ:rí-*	*bǎ:rî*
'take away, convey'	*gɛ̌:r^{n}í-*	*gɛ̌:r^{n}î*
'gather'	*mɔ̌:ndí-*	*mɔ̌:ndî*
f. trisyllabic		
/H/ melody		
'have fun'	*kɛ́mír^{n}í-*	*kɛ́mír^{n}ì*
'scrub'	*púgúsí-*	*púgúsì*
/LH/ melody		
'get ready'	*dàgírí-*	*dàgírî*

Causatives are fairly common in the quoted imperative construction, since wishes like 'let him jump off!' can be expressed as 'may God make him jump off!' (*dɛ̌njê ńné-ŋ́ péré-m-ì*).

The elicited negative counterparts (quoted prohibitive) end in *-rà*, *-ndà*, or *-ndà:* for original singular addressee. The corresponding plural-addressee forms are *-rá-ndì*, *-ndá-ndì*, and *-ndǎ:-ndì*. These forms are related to those of the prohibitive (=imperative negative), but are L-toned in the singular-addressee form, and the stem vocalism differs significantly in the two morphological categories. There is probably dialectal and even idiolect-internal variation in the allomorphy, here as with the prohibitive. For my assistant, quoted prohibitive *-ndà:* occurs with far more types of verbs than does the similar prohibitive allomorph *-ndà:* . Many short stems have quoted imperative *-ndà:* but prohibitive *-rá*. A generous set of forms is given in (377). Note *-ndà:* after all non-*i*-final verbs (377a), as well as with many *i*-final stems (377b). *-rà* was recorded with *CvCi-* and *nCi-* stems (377c), and *-ndà* (note the short vowel) after *CvCvCi-* stems (377d).

(377) Quoted prohibitive (verb ending in non-high vowel)

gloss	bare stem	quoted prohibitive Sg addressee	Pl addressee
a. final non-high vowel			
'shave'	*ká:-*	*ká:-ndà:*	*ká:-ndǎ:-ndì*
'eat'	*kɔ́:-*	*kɔ́:-ndà:*	*kɔ́:-ndǎ:-ndì*
'arrive'	*dɔ̌:-*	*dɔ̌:-ndà:*	*dɔ̌:-ndǎ:-ndì*
'bring'	*jɛ̌:-*	*jɛ̌:-ndà:*	*dɔ̌:-ndǎ:-ndì*
'go'	*ńné-*	*ńné-ndà:*	*ńné-ndǎ:-ndì*
'go up'	*ǹdɛ́-*	*ǹdɛ́-ndà:*	*ńdɛ́-ndǎ:-ndì*
'steal'	*gùró-*	*gùró-ndà:*	*gùró-ndǎ:-ndì*
'pound'	*tóró-*	*tóró-ndà:*	*tóró-ndǎ:-ndì*
'dream'	*mònjúró-*	*mònjúró-ndà:*	*mònjúró-ndǎ:-ndì*
b. final high vowel			
'see'	*yǐ:-*	*yɛ̌:-ndà:*	*yɛ̌:-ndǎ:-ndì*
'go in'	*núy^{n}í-* [núj^{n}]	*núy^{n}ó-ndà:*	*núy^{n}ó-ndǎ:-ndì*
'find'	*tɛ́mbí-*	*tɛ́mbɛ́-ndà:*	*tɛ́mbɛ́-ndǎ:-ndì*
'open wide'	*gɔ̀mbí-*	*gɔ̀mbɔ́-ndà:*	*gɔ̀mbɔ́-ndǎ:-ndì*
'gather'	*mɔ̌:ndí-*	*mɔ̌:ndí-ndà:*	*mɔ̌:ndí-ndǎ:-ndì*

‘take away, convey’	*gɛ̌:rⁿí-*	*gɛ̌:rⁿí-ndà:*	*gɛ̌:rⁿí-ndǎ:-ndì*
‘help’	*bǎ:rí-*	*bǎ:rí-ndà:*	*bǎ:rí-ndǎ:-ndì*

c. *CvCi-* and *nCi-*

‘give’	*ńdí-*	*ńdí-rà*	*ńdí-rá-ndì*
‘cover’	*dɛ̀wí-*	*dɛ̌w-rà*	*dɛ̌w-rá-ndì*

d. trisyllabic

‘scrub’	*púgúsí-*	*púgúsí-ndà*	*púgúsí-ndá-ndì*
‘have fun’	*kɛ́mírⁿí-*	*kɛ́mírⁿí-ndà*	*kɛ́mírⁿí-ndá-ndì*

The variant *-ndà:* is homophonous with quoted hortative negative *-ndà:*, see the following section.

10.6.5 Quoted hortative (*-ŋ́*, negative *-ndà:*)

When a hortative (as opposed to an imperative) is subsequently quoted, it is expressed by *-ŋ́* replacing the original hortative suffix *-má* or *-màyⁿ* (§10.6.2). The form of the verb stem before *-ŋ́* is the same as that found before the hortative suffixes. Thus *ńné-ŋ́ kíyɛ́-sɔ́-∅* ‘he/she said, let’s go!’ (likewise quoted *dɔ̀gɔ́-ŋ́* ‘let’s abandon’, *nɔ̌:-ŋ́* ‘let’s drink!’).

A following quotative particle *wa* takes L-toned form, hence *-ŋ́ wà* (§17.1.3).

It is a good bet that this *-ŋ́* reflects an older *-m, which would have made the connections more transparent. Compare the alternation of *m* and *ŋ* in the imperfective conjugation, with 3Sg *-ŋ̀* versus suffixed forms based on *-m̀-* (e.g. 3Pl *-m-ɛ̀-*). In both cases, word-final *m appears to have lenited to *-ŋ* (which is then often realized as vocalic nasalization).

Care should be taken to distinguish the occasional quoted hortative *-ŋ́* from the very common same-subject anterior subordinator *ŋ́*. I distinguish them orthographically (hyphen versus space), but in transcribing texts they are phonetically identical. Quoted hortative *-ŋ́* is distinct tonally from 3Sg imperfective *-ŋ̀*.

In quoted negative hortatives, *-ndǎ:-má* or plural-addressee *-ndǎ:-màyⁿ* is likewise reduced to invariant *-ndà:* .

The abbreviation in interlinears is QuotHort. A textual example is (378). Further examples (positive and negative) are in §17.1.4.2.

(378) *ńné-ŋ́* *ńnɛ́* *kíyɛ́* *nà,*
go-**QuotHort** 3SgSbj say and.DS,
ńní-ŋɔ̀:-∅ *kìyɛ̀-∅* *ndè,* *gɔ̀-gɔ̌:* *jíyɛ́-ŋ̀*
go-IpfvNeg-3SgSbj say.Pfv-3SgSbj if, Rdp-stab kill-Ipfv.3SgSbj
‘When he (=Fulbe) says, “let’s go!,” if he (=Dogon) says that he won’t go, he (Fulbe) will stab (him) to death.’ (2004.01.10)

11 VP and predicate structure

11.1 Regular verbs and VP structure

11.1.1 Verb types (valency)

Since Nanga clearly distinguishes subjects (clause-initial NPs, pronominal-subject agreement on verbs) from direct objects (accusative case suffix on animate nouns and pronouns), the prototypical transitive verbs are clearly identifiable from their morphosyntactic behavior. These include the usual impact verbs ('hit', 'cut'), but also perception verbs ('see', 'hear'), as in (379).

(379) a. *ńnɛ́-ŋ́* *súyɔ́-só-ý*
3Sg-Acc hit-Pfv2-1SgSbj
'I hit him/her.'

c. *ńnɛ́-ŋ́* *yǐ:-só-ý*
3Sg-Acc see-Pfv2-1SgSbj
'I saw him/her.'

Basic motion verbs ('go', 'come') are intransitive. Sentences like *[ìsɛ́ gó] ńnɛ́-ɛ̀rɛ̀-ỳ* 'I went [to the village]' have adverbial (e.g. PP) rather than simple NP complements, usually with locative *ga* or allomorph (*go*, etc.). Toponyms omit the locative postposition, so sentences like *mó:tì ńnɛ́-ɛ̀rɛ̀-ỳ* 'I went [to Mopti]' mimic transitives, but the adverbial nature of these place names is suggested by the fact that they correspond to 'where?' (*àrⁿáŋá*) rather than to 'what?' in questions, and by the fact that the place name cannot be replaced by an accusative pronominal.

ńdí- 'give' takes two direct objects, either or both of which may show accusative *-ŋ*. In the usual case where the recipient is animate and the theme is inanimate, accusative marking is much more common on the recipient than on the noun denoting the theme (380a), following the usual pattern with the accusative morpheme. When both NPs are animate, double accusative marking is common (380b).

(380) a. *[bǎ:* *yɛ̃:-ŋ̀]* *kɛ̌:rɛ̂* *ńdí-só-ý*
[father 1SgPoss.AnSg-**Acc**] money **give**-Pfv2-1SgSbj
'I gave some money to my father.'

b. *pɛ̀rgɛ́-ŋ́* *ú-ŋ́* *ńdí-só-ý*
sheep.Sg-Acc 2Sg-**Acc** **give**-Pfv2-1SgSbj
'I gave you-Sg a sheep.'

c. *[ńdó* *gó]* *á* *yè:-sè* *gù-ndè,*
[house Loc] 3ReflSgSbj come-Ppl.Pfv and.then.Past,
ɲă: *ńné=ŋ́* *ńdí* *ŋ́↑,*
meal 3Sg-**Acc** **give** and.SS,
nî: *ńné=ŋ́* *ńdí* *ŋ́↑,*
water 3Sg-**Acc** **give** and.SS,
ńdí *á* *jè-sè* *gù-ndè, …*
give 3ReflSgSbj RecPrf-Ppl.Pfv and.then.Past, …
'When she (=girl) had come to the house, she (=woman) gave her a meal, she gave her water. When she (=woman) had finished giving (them to her), …' (2004.02.03)

kɛ́:rí- 'show X to Y' has similar syntax.

kíyɛ́- 'say (sth, to sb)' can take a direct object referring to a quotation ('I didn't say that'). The person addressed can appear with the dative postposition *bay* (381a), but in texts it is usually accusative.

(381) a. *[[bă:* *yɛ̌:]* *bày]*
[[father 1SgPoss.AnSg] **Dat**]
ŋ̀gú-ŋ́ *kìyɛ̀-rí-ý*
Dem.InanSg-Acc **say**-PfvNeg-1SgSbj
'I didn't say that to my father.'

b. *[ǹnɛ̌n* *nɔ̀* *gày]* *á-ŋ́* *kíyɛ́-s-ɛ́* *wà*
[name 3SgPoss Topic] 3LogoSg-**Acc** **say**-Pfv2-3PlSbj Quot
'(She) said: uh-huh, they told me her name.' (2004.02.03)

Verbs of putting like *kúrⁿú-* 'put (object) in (a container)', *gàrⁿí-* 'put (e.g. liquid, grain) in (container)', and *náŋí-* 'put (object) up on (something)' normally take a direct object and a locational expression, though the latter is sometimes obvious and can be omitted ('I put the tea kettle on [i.e. up on the burner]').

Except for basic motion verbs and deadjectival inchoatives, which are simple intransitives, the boundary between intransitive and transitive is blurred by the existence of many activity-denoting verbs that take a conventional or pro-forma complement, usually a cognate nominal. Syntactically, the cognate nominal can function as a direct object; see §11.1.6.2. However, it does not normally allow accusative *-ŋ* and in some cases it does not allow determiners or quantifiers.

There are also some fixed subject-verb combinations whose subject NP does not to have full subject properties; see §11.1.4, below.

11.1.2 Valency of causatives and mediopassives

The subject (agent) of an intransitive clause becomes a direct object when the clause is causativized, and may therefore take accusative *-ŋ̀*.

(382) *[dèré* *yɛ̌:-ŋ̀]* *yɛ̌:-m-só-ý*
[elder.sibling 1SgPoss.AnSg-**Acc**] come-**Caus**-Pfv2-1SgSbj
'I made/had my older sibling come.'

When an already transitive clause is causativized, the result is two direct objects, either or both of which may take accusative *-ŋ* (383).

(383) *[dèré* *yɛ̃ː-ŋ̀]* *pɛ̀rgɛ́-ŋ́*
[elder.sibling 1SgPoss.AnSg-**Acc**] sheep-**Acc**
sɛ́mɛ́-m-só-ý
slaughter-**Caus**-Pfv2-1SgSbj
'I had my older brother slaughter a sheep.'

The mediopassive (MP) with suffix *-yí-* and variants cuts across transitivity lines, as the relevant verbs are not only classic middles like 'be hung up', but also syntactic transitives denoting actions that create a state for the agent (verbs of carrying, clothing, etc.). A mediopassive verb, even if syntactically transitive, (384a) is often paired with a counterpart with "transitive" suffix *-rí-* that adds an external agent (384b). See §9.3.1 for more on these derivational suffixes.

(384) a. *yîː-ŋ̀* *bàmbí-ý-só-ý*
child-**Acc** carry.on.back-**MP**-Pfv2-1SgSbj
'I carried/held a child on my back.'

b. *yîː-ŋ̀* *ńnɛ́-ŋ́* *bàmbí-rí-só-ý*
child-**Acc** 3Sg-Acc put.on.back-**Tr**-Pfv2-1SgSbj
'I put a child on him/her up on his/her back.'

11.1.3 Verb Phrase

The notion of VP is useful in connection with VP-chains, which are essentially chains of clauses with a shared subject; see §15.1. Verbal-noun complements (similar to English infinitival complements), however, are rather main-clause-like in Nanga. They are usually subjectless, so they constitute VPs, but objects are not forced into compound-initial form, and it is possible to add an overt subject (§17.3.1).

Quoted sentences are optionally divided into the subject (sometimes addressee) versus the remainder of the clause (VP including AN inflections), with quotative particle *wa* after both (§17.1.3).

11.1.4 Fixed combinations of verb and (pseudo-)subject

Fixed combinations of a subject NP and a verb are mainly found with meteorological and seasonal expressions (385a-b) and some emotional and medical expressons (385c).

(385) a. involving *ùsí* 'sun' or variant (cf. *ùsì-dɛ́rⁿí* 'daytime')
ùsí *síyɛ́-* 'day break'
ùsí *dɛ̀rⁿɛ́-* 'night fall' (cf. *dɛ̀rⁿɛ́-* 'spend mid-day')
ùsíyɛ́ *bàrⁿá-* 'be summer' (*bàrⁿá-* 'become red')

b. rain and rainy season

yàrí	*dɔ̌:-*	'rainy season be about to start' ("sky arrive")
yàrí	*gɔ̌:-*	'be just after the harvest' ("sky go.out")
bòndí	*wɔ̌:-*	'rain fall'

c. emotions and medical

kɛ́ndɛ̀	*bàrⁿá-*	'get angry' (*kɛ́ndɛ̀* 'heart/liver', *bàrⁿá-* 'redden; blaze')
kìrⁿɛ̀-dɛ̀rⁿí	*gɔ̌:-*	'have a nosebleed' (*kírⁿɛ̂* 'nose', *gɔ̌:-* 'go out')
kìrⁿɛ̀-dɛ̀rⁿí	*dɛ̀rⁿɛ́-*	'have a nosebleed' (cognate verb)

The nouns in these constructions tend not to have full subject properties, and may be referred to as pseudo-subjects. The noun usually occurs close to the verb, following spatiotemporal adverbs, whereas fully referential subject NPs often precede such adverbs. However, these are tendencies rather than strict rules.

The seasonal and meteorological expressions can occur in same-subject constructions containing two clauses denoting sequenced events (§15.2.7). This is possible since some cyclical sequences can be expressed by pairing combinations sharing a conventionalized subject (386).

(386) *[yàrí dɔ̌: ŋ́] bìndé-ɛ̀rɛ̀-∅*
[**sky** arrive **and.SS**] go.back-Pfv1a-3SgSbj
'The sky (=cloudy weather of rainy season) arrived and left.'

With the emotional and medical expressions in (385c), the pseudo-subject (a bodily term) co-occurs with a human true subject. The construction suggests "possessor raising," as the choice of verb makes most sense if selected by the bodily term (pseudo-subject). *kɛ́ndɛ̀ bàrⁿá-* by itself would mean 'heart/liver (seat of emotions) blaze (=be burning)', and *kìrⁿɛ̀-dɛ̀rⁿí gɔ̌:-* would mean 'nosebleed (nose blood) go out'. These would make good sense with if the subject were phrased as a possessed NP: 'my heart became red', 'my nose-blood came out'. However, the actual constructions have human true subjects, not possessors. The verb agrees with this true subject (the human). The bodily term appears with its lexical tone melody, not with the overlay typical of possessums, and functions as a pseudo-subject, here a kind of adjunct (not a direct object).

(387) a. *kɛ́ndɛ́* *bàrⁿá-só-y*
heart/liver **blaze**-Pfv2-**1SgSbj**
'I got angry.'

b. *á:mádù* *kɛ́ndɛ̀* *bàrⁿá-só-∅*
A **heart/liver** get.red-Pfv2-3SgSbj
'Amadou got angry.'

c. *kìrⁿɛ̀-dɛ̀rⁿí* *gɔ̌:-só-y*
nose-bleed **go.out**-Pfv2-**1SgSbj**
'I had a nosebleed.'

11.1.5 Idiomatic and cognate objects

Many verbs are regularly combined with a default nominal, usually functioning as a default direct object, but omitted if a more concrete object NP is overt. In (388), the default object and the verb are non-cognate.

(388)	noun	verb	gloss of combination
	ɲǎ:	*kɔ́:-*	'eat (a meal)'
	nî: ('water')	*dìyé-*	'bathe'
	nî:	*nɔ̌:-*	'drink (water)'

11.1.5.1 Formal relationships between cognate nominal and verb

Many verbs have a lexicalized cognate nominal from the same word family. The present focus is on the relationship among the nominal and verbal forms. For the grammatical functions of the cognate object, see §11.1.5.2, below.

Any verb that does not have a lexicalized cognate nominal can simply use its regular verbal noun in *-ndɛ́*. Example: *játí-ndɛ́ jàtí-* 'do a calculation'. Such cases are not at issue in the present section since verbal nouns are predictable in form.

A generous set of examples of cognate noun-verb pairs is in (389). Since the tone melody is closely associated with its initial consonant for verbs, but not nouns, it seems most useful to organize the data around the tone melody (and syllable count) of the noun. Of interest is the distinction between *dùrî dùró-* 'let out a groan' (389e) and *dúrî dùró-* '(lion etc.) roar' (389d), distinguished by the tone of the noun.

(389)	noun	verb	gloss of combination
a. monosyllabic			
/LH/ noun			
	tǎ:ⁿ	*tá:ⁿ-*	'build a shed (shelter)'
	tǎ:ⁿ	*tá:ⁿ-*	'avoid, respect (a taboo)'
	mɔ̌:	*mɔ̌:-*	'tie a knot'
/HL/ noun			
	pô:	*pɔ́:-*	'give out a whistle'
b. bisyllabic, /H/ noun			
	bírá	*bìré-*	'work, do a job'
	gírⁿá	*gìrⁿɛ́-*	'harvest millet, do the millet harvest'
	dɛ́rⁿí	*dɛ̀rⁿɛ́-*	'spend the mid-day'
	dómbó	*dòmbí-yé-*	'roll turban (on head)'
	má:ndí	*mǎ:ndí-*	'think a thought'
c. bisyllabic, /LH/ noun			
	tùwá	*túwɛ́-*	'(a) death occur'
	òró	*óró-*	'make a heap'
	èré	*éré-*	'be rivals, have a rivalry'
	gìyé	*gìyé-*	'dance'

gìy^{n}é	*gìy^{n}é-*	'fart, let out a fart'
sùgɔ́	*súgɔ́-*	'defecate, take a shit'
dàmá	*dàmá-*	'speak'
pɛ̌w	*pɛ́wɛ́-*	'give a reprimand'
tìr^{n}í	*tír^{n}í-*	'go search for firewood'
tɔ̀ŋɔ́	*tɔ́ŋí-*	'write, do some writing'
nùŋá	*nùŋí-*	'sing, perform a song'
pɔ̀mbɔ́	*pɔ́mbí-*	'compete, be in a race'
sàmbá	*sámbí-*	'do the second round of weeding'
jìmbí	*jìmbí-*	'double up, have two'

d. bisyllabic, /HL/ noun

síbâ	*síbɛ́-*	'give a description'
bígâ	*bìgɛ́-*	'chew cud'
bógî	*bògó-*	'(dog) bark'
dúrî	*dùró-*	'(lion, hyena, elephant) roar'
jíŋâ	*jìŋí-*	'(plant stem) split into two'
gɔ́r^{n}ɔ̂	*gɔ̀r^{n}ɔ́-*	'be stronger (than)'
gósô	*gòsó-*	'divide into halves'
ísê	*ìsé-*	'sneeze'
tíŋâ	*tíŋí-*	'speak'
jígâ	*jìgí-*	'belch, emit a belch'
úrô	*úró-*	'vomit'
máŋî	*màŋí-*	'cook a dish including cottonseed'
bɛ́rɛ̂	*bɛ̀rɛ́-*	'gain, make a profit'
pútɔ̂	*pútɔ́-*	'foam, be frothy'
púdɛ̂	*púdɛ́-*	'foam up'
jáyrɛ̀	*jǎyrɛ́-*	'poke fun at'
bɛ́mbɛ̀	*bɛ̀mbɛ́-*	'stutter'
jáŋgɛ̀	*jàŋgí-*	'study, go to school'
sándì	*sándí-*	'pray, perform the Muslim prayer'
tómbì	*tómbó-*	'jump, take a jump'
tí:nà	*tí:ní-*	'make a profit'
wá:jɛ̀	*wá:jí-*	'preach a sermon'
wɛ́:tɛ̀	*wɛ́:tí-*	'spend a half-day (morning)'
wá:tɛ̀	*wá:tɛ́-*	'swear an oath' (< Fulfulde)
tɛ́:njɛ̀	*tɛ́:njí-*	'tell a story'

e. bisyllabic, /LHL/ noun

tɔ̀sɔ̂	*tɔ́sí-*	'make a payment'
kòyô	*kóyó-*	'weep'
lùgô	*lúgó-*	'count (recite numbers)'
bɔ̀gɔ̂	*bɔ̀gí-*	'be deceptive, trick'
dùyâ	*dùyɔ́-*	'make an insult'
dùwâ	*dùwɔ́-*	'forge (tools)'
ìyâ	*í:-yí-*	'stand/ stop in a position'
kàgâ	*kágá-*	'clear one's throat'
ùsâ	*úsí-*	'ask a question'

pàrâ	*párá-*	'cook *pàrâ* (dish with cow-peas, or millet mixed with roselle leaves)'
à:njâ	*á:njí-*	'yawn, make a yawn'
dùrî	*dùró-*	'let out a groan'
ɔ̀njî	*ɔ́njí-*	'urinate'
tɔ̀njî	*tɔ́njí-*	'spit, emit a spit'
jìnjâ	*jìnjí-*	'make noise'
tà:rî	*tá:rí-*	'lay egg'
sɛ̀:r^{n}î	*sɛ́:r^{n}í-*	'(woman) emit cry of joy'

f. trisyllabic, /HL/ noun

kɛ̀mìr^{n}ɛ́	*kɛ́mír^{n}í-*	'have fun, stage festivities'
ɛ̀mìr^{n}ɛ́	*ɛ́mír^{n}í-*	'converse, chat'
sàlàmí	*sálmí-*	'utter a formal greeting'
bèrèmbí	*bèrémí-*	'take animals to pasture'

(often syncopated to *bèrěm bèrémí-*)

g. trisyllabic, /HL/ noun

sámár^{n}ì	*sámár^{n}í-*	'do wage labor (by the day)'
sógínè	*sógíní-*	'take cows out at night'
yímbɛ́rɛ̀	*yìmbírí-*	'(beggar) sing koranic verses'
jóríyè	*jòríyé-*	'fight, engage in a fight'
mónjórò	*mònjúró-*	'dream a dream'

h. trisyllabic, /LHL/ noun

gɔ̀rɔ̀ndɔ̂	*gɔ̀rɔ́ndí-*	'snore; (lion) roar'
tɔ̀sɔ̀rɔ̂	*tɔ́sírí-*	'have a discussion'
nèmbìrê	*némbíré-*	'request, beg'
bɔ̀gɔ̀rɔ̂	*bɔ̀gírí-*	'make loud noises'
bògòrô	*bògóró-*	'(animal) bellow'
tìŋgìrî	*tíŋgírí-*	'formally counsel (a young person)'
ùgìrî	*ùgúró-*	'perfume with incense'
sùmùr^{n}î	*súmúr^{n}í-*	'have a rest'

Some of the trisyllabic examples above show distinctions between the noun and the verb in the treatment of the medial stem syllable (raised *i* versus a repeated non-high vowel); see '(beggar) sing koranic verses' and 'dream a dream' in (389g), and 'have a discussion', 'make loud noises', and '(animal) bellow' in (389h).

In a few cases, there is an irregular vocalic change affecting the initial vowel. Some examples involve switches between +ATR {*e o*} in the noun, likely influenced by a following high vowel or semivowel, and -ATR {*ɛ ɔ*} in the verb (390a). There are also several cases of {*o ɔ*} in the noun versus *a* in the verb (390b). The example in (390c) is similar but likely involves syncope of *g in addition to the vocalic change.

(390) Vocalic changes in cognate verb/noun pairs

	noun	verb	gloss
a. ATR alternations *o* ~ *ɔ*, *e* ~ *ɛ*			
noun ends in i			
	jòŋí	*jɔ̀ŋí-*	'treat (medically), provide care to'
	yégî	*yèɡɛ́-*	'fall down, take a fall'
	ségí	*sɛ́ɡí-*	'pay dues, make a contribution'
	yógî	*yɔ̀ɡɔ́-*	'run'
	yémbí	*yèmbí-yí-*	'cover oneself with blanket'
noun formerly ended in a high vowel or *y			
	jéw	*jɛ̀wɛ́-*	'curse, utter a curse'
			cf. Donno So *jébù*, etc.
	tǒ:	*tɔ́:-*	'sow (seeds); sow the seedstock'
			cf. Jamsay *tǒy*, etc.
b.	*mɔ́ndì*	*màndí-*	'laugh, let out a laugh'
	bó:rì	*bǎ:rí-*	'make an addition (top-off)'
	yórî	*yàrí-yí-*	'take a walk'
	ò:rî	*á:rí-yí-*	'crawl, drag oneself'
	bómbí	*bàmbí-yí-*	'hold or carry on one's back'
	wórî	*wàrá-*	'do (manual) farming (in field)'
c.	*sò:rî*	*sɔ́ɡírí-*	'(sth unseen) make a noise'

In (391), there is a partial cognate relationship. The default object nominal is a compound, whose initial or final is related to the verb.

(391)

	noun	verb	gloss
a. verb related formally to the final of a nominal compound			
	yè-kǔ:	*kúwó-*	'perform black magic'
	gìrè-níy^{n}ê	*níy^{n}é-*	'sleep' (< *gìré* 'eye')
	àr^{n}à-bó:rì	*bǎ:rí-*	'provide assistance to'
	àr^{n}à-tɔ̌:	*tɔ́:-*	'scold'
	àr^{n}à-pǎ:^{n}	*pá:^{n}-*	'take a step'
	nɔ̀:-já:rà	*jǎ:rí-*	'emit some slobber, drool' (< *nɔ̌:* 'mouth')
	gɔ̀:-kòndùgó	*kɔ́ndúgó-*	'build a (Jamsay-style) conical granary roof' (cf. Jamsay *gɔ̌:* 'granary')
	nà:-pérê	*péré*	'clap, applaud' (< *nǎ:* 'hand')
	nà:-tìnjí	*tínjé-*	'draw a line (with the hand)'
b. [noun adjective] combination, verb based on adjective			
	ɲà: pírí	*pírɛ́-*	'cook *ɲà: pírí* (lit. "white meal," a dish)
c. noun arguably with frozen *an- not included in verb (§4.1.8)			
	àntá:rí ~ *àtá:rí*	*tá:rí-*	'hunt, go on a hunt'

d. verb based on final …*CvCv* of trisyllabic noun

ná:pílà	*pílɛ́-*	'perform an individual prayer' (< Arabic root √nfl)

e. verb related formally to the initial of a nominal compound

bègìrè-bê:	*bègé-*	'hiccup', see (35) in §4.1.6
kòyò-kè:sí	*kóyó-*	'give out a shout'

Some of the pairs of related noun and (arguably denominal) verb listed in §9.6 are also relevant, to the extent that the noun and verb occur in collocations. This is especially true for 'chant the ancestry', 'cook the sauce', and 'tell a lie'.

11.1.5.2 Grammatical status of cognate nominal

Often the cognate nominal is rather pro forma, as in 'dance (a dance)' or 'stutter (a stuttering)'. However, the cognate nominal may be quantified over or modified adjectivally where this makes sense semantically. If the activity is divisible into bounded units, these can be quantified over (392a). Evaluative or other adverbial modification normally takes the form of adding a modifying adjective to the nominal (392b).

(392) a. *[nùŋá tà:ndǐ:] nùŋí-só-∅*
[song **three**] sing-Pfv2-3SgSbj
'He/She sang three songs.'

b. *[nùŋà*[L] *èsí] nùŋí-só-∅*
[song[L] **good**] sing-Pfv2-3SgSbj
'He/She sang well ("sang a good song").'

11.2 'Be', 'become', 'have', and other statives

11.2.1 'It is' clitics

11.2.1.1 Positive 'it is' enclitic (*=m-*, *=ŋ-*, *=yɛ̀*, *=w*)

The enclitic *=m-* 'it is' is added to NPs. It can be conjugated, and has the paradigm (393). The distinct postconsonantal forms are rare, see below, so for practical purposes the postvocalic paradigm is what one will find in texts. Except for 3Pl *=yɛ* and the special inanimate form *=w*, both of which suggest adjectival morphology, the paradigm resembles that of the imperfective suffix *-m̀-* (and 3Sg portmanteau *-ŋ̀*) with regular verbs (§10.2.2.1). However, the pronominal endings with the imperfective suffix are shortened, e.g. 1Sg imperfective *-m̀-∅* ~ *-m-ì* versus 1Sg 'it is' clitic *=mi-y*, phonetic [mi:]. Some forms in (393) are atonal, acquiring surface tones from the left as explained below.

(393)	category	postvocalic		postconsonantal (uncommon)
	1Sg	*=mi-y*	[mi:]	[same as postvocalic]
	1Pl	*=mi-y.:*	[mìíì]	[same as postvocalic]
	2Sg	*=mu-w*	[mu:]	[same as postvocalic]
	2Pl	*=mu-w.:*	[mùúù]	[same as postvocalic]
	3Sg	*=ŋ* ~ *:=*^{n} ~ *:=∅*		*=yɛ̀* ~ *=yɛ*
	3Pl	*=yɛ̀* ~ *=yɛ*		*=yɛ̀* ~ *=yɛ*
	Inan	*=w*		*=yɛ̀* ~ *=yɛ*

I normalize the transcription of the 3Sg form to *=ŋ*. However, it may be realized phonetically as nasalization (and brief lengthening) of the final vowel, and (especially in an already nasal context) it may reduce segmentally to zero.

3Sg *=ŋ* and inanimate *=w* each consist only of one consonant, and these forms do not occur in postconsonantal position. However, postconsonantal position is rare for the 'it is' clitic since noun and adjective stems are essentially all vowel-final. Even nouns (borrowed from Fulfulde) like *álâl* 'Sunday' that are usually heard with final sonorant can be treated as vowel-final, with a final high vowel that is apocopated in word-final position but that reappears before an enclitic. The result is 'it is' forms like *álâlù=ẁ* 'it's Sunday'. 'Woman' (Sg *yǎ-ŋ*, unmarked plural *yǎ:*), the only common noun with singular *-ŋ*, drops this suffix before the clitic, as in *yǎ=mí-ý* 'I am a woman'.

True postconsonantal position is therefore effectively restricted to NPs ending in a numeral *wǒy* 'two', in a consonant-final determiner (*wǒ-ŋ* 'this-Animate', *yěy* 'these-Inanimate', definite plural *ý*), or in particle *sǎy* 'only'. After these true consonant-final elements, *=ŋ* and inanimate *=w* are replaced by the syllabic morpheme *=yɛ̀* ~ *=yɛ*, which is otherwise (i.e. postvocalically) a 3Pl form.

The fact that nonmonosyllabic nouns and adjectives do not end in *u* (§3.4.4) is very helpful in recognizing the presence of the 'it is' enclitic, since *=w* is easily audible after other vowels. Stem-final *i*, which is quite common in nouns, combines with *=w* as [u:], as in *bòndú=ẃ* 'it is rain' (< *bòndí*).

The 1Pl and 2Pl forms have their usual dying-quail intonation with [LHL] pitch on the enclitic syllable, at least in careful pronunciation. This is most easily heard when the 'it is' form is followed by a particle, such as interrogative *ma*.

The 1Sg, 2Sg, 3Sg, and inanimate 'it is' forms are atonal. They acquire a surface tone by spreading from the preceding host word. Thus *ànsá:rá=mí-ý* 'I am a white person' with final H-tone, but *dɔ́gɔ̂=mì-y* 'I am a Dogon' with final L-tone; likewise *ànsá:rá=ŋ́* 'he/she is a white person', *dɔ́gɔ̂=ŋ̀* 'he/she is a Dogon', *ɲǎ:=ẃ*^{n} 'it is a meal', and *tà:rû=ẁ* 'it is an egg' (< *tà:rî*).

3Sg *=ŋ* and inanimate *=w* are atonal in most combinations as just stated. However, when added to third person pronouns, demonstrative pronouns, and interrogative pronouns, they are L-toned even when the preceding form ends in an H-tone: *kɔ̀-ɲɛ́=ẁ*^{n} 'what is it?' (< *kɔ̀-ɲɛ́*), *ńnɛ́=ŋ̀* 'it's him/her' (< *ńnɛ́*), *ŋ̀gú=ẁ* 'it's this/that' (< *ŋ̀gú*). This can be interpreted in two ways: the relevant hosts end in an otherwise covert L-tone that is revealed by the 'it is' enclitic, or the enclitic itself has a tonally specified allomorph required by these hosts.

The tonal behavior of 3Pl *=yɛ* is equivocal in my data. After a final-H-toned noun, I have recorded both *=yɛ́* and *=yɛ̀* (the latter includes surface *=yɛ̂* after a rising-toned syllable, whose final H-tone element spills over), with *=yɛ̀* predominating. For 'it's women'

(stem *yǎ:*), *yǎ: = yɛ̂* is more common than *yǎ: = yɛ́*, though my assistant accepts both. For 'it's white people' (stem *ànsá:rá*), only *ànsá:rá = yɛ̀* was accepted. For 'it's sheep-Pl' (*pèrgɛ́*), both *pèrgɛ́ = yɛ́* and *pèrgɛ́ = yɛ̀* were recorded.

3Pl *= yɛ* (like inanimate *= w*) also occurs in the inflection of stative verbs (§10.4.1). In that paradigm, *= yɛ* (like *= w*) is atonal, and therefore appears with H-tone when following a final-H-toned stem, as in *m̀bá = yɛ́* 'they love' (§11.2.5.3). Incidentally, in these stative paradigms, the 3Sg form is zero (not *= ŋ*).

3Pl *= yɛ* is not subject to Nasalization-Spreading: *nǔ: = yɛ́* 'they are people'. It is also not subject to ATR harmony with the preceding stem.

For occasional extensions of *= yɛ̀* to 1Pl and 2Pl subjects (*= yɛ́ = mì-y.∴*, *= yɛ́ = mù-w.∴*), see §11.2.1.4, below.

Examples with animate subjects are in (394). An initial independent pronoun (topicalized) is possible but not required.

(394) a. *(ĩ:ⁿ)* *dɔ́gɔ̂ = mì-y*
(1Sg) Dogon=it.is-1SgSbj
'I am (a) Dogon.'

b. *(î:)* *dɔ́gɔ̂ = mì-y.∴* [...mìíì]
(1Pl) Dogon=it.is-1PlSbj
'We are Dogon.'

c. *(ńné)* *dɔ́gɔ̂ = ŋ̀*
(3Sg) Dogon=it.is.3SgSbj
'He/She is Dogon.'

d. *(bû:)* *dɔ́gɔ̂ = yɛ̀*
(3Pl) Dogon=it.is.3PlSbj
'They are Dogon.'

e. *pèrgɛ́ = ŋ́*
sheep=it.is.3SgSbj
'It is a sheep'

f. *ǎ-ŋ = ∅*
who?.AnSg=it.is.3SgSbj
'Who is it?' (from /ǎŋ = ŋ̀/)

g. *[á:mádù* *sǎy] = mí-y*
[Amadou only]=**it.is**-1SgSbj
'I am (= it's) just Amadou.'

h. *ńné* *[fàtùmátâ* *sǎy] = yɛ̂*
3Sg [Fatoumata only]=**it.is**.3SgSbj
'She is (= it's just) Fatoumata.'

i. *bû:* *[yù:-wàrí* *sǎy] = yɛ̂*
3Pl [millet-farm.Agent only]=**it.is**.3SgSbj
'They are only millet farmers.'

In identificational predicates with an animate pronoun (even a first or second person pronoun) as predicate, as in 'it's me' (in answer to e.g. 'who eats meat?' or 'who is that knocking at the door?'), the relevant pronominal category appears as the subject (expressed by pronominal-subject suffix) as well as the predicate (expressed as independent pronoun), hence literally 'I am me', etc. Recall the comment above that third person pronouns and demonstratives have a final L-tone in the 'it is' form; this accounts for 3Sg *ńné=ŋ̀* (395d). The 3Pl is *bû:=∅* with no overt clitic (395e).

(395) a. *ǐ:ⁿ=mí-ý*
1Sg=it.is-1SgSbj
'It is me.'

b. *ú=mú-ẃ*
2Sg=it.is-2SgSbj
'It is you-Sg.'

c. *î:=mì-ỳ.:*
1Pl=it.is-1PlSbj
'It is us.' (phonetic [îìmìíì])

d. *ńné=ŋ̀*
3Sg=it.is.3SgSbj
'It is he/she.'

e. *bû:=∅*
3Pl=it.is.3PlSbj
'It's them.'

Examples with inanimate subjects are in (396). *=w* is nasalized to *=wⁿ* by regular Nasalization-Spreading when preceded by a nasal syllable.

(396) a. *nàmâ=ẁⁿ*
meat=it.is.InanSbj
'It's meat.' (*nàmâ*)

b. *pòrú=ẃ*
knife=it.is.InanSbj
'It's a knife.' (*pòrí*)

c. *kúrⁿô=ẁⁿ*
stone=it.is.InanSbj
'It's a stone.' (*kúrⁿô*)

d. *tùmá=ẃⁿ*
tree=it.is.InanSbj
'It's a tree.' (*tùmá*)

e. *kɔ̀-ɲɛ́=ẁⁿ* *mà*
what?=it.is.InanSbj Q
'What is it?

f. *ŋ̀gú* *[nɛ̌:m* *sǎy]=yɛ̂*
Dem.InanSg [salt only]=it.is.3SgSbj
'That is just salt.' (*nɛ̀:mí*)

Identificational predicates with inanimate pronoun or demonstrative as predicate have *=ŋ̀*, i.e. 3Sg as subject, rather than the specifically inanimate *=w*. The same is true of interrogative pronouns. As noted above, some of these combinations are also irregular in having L-toned *=ŋ̀* after an H-tone. Perhaps the substitution was originally a device to avoid adding *=w* to any of the high-frequency grammatical morphemes already ending in *u*.

(397) a. *kú=ŋ̀*
InanSg=it.is.3SgSbj
'It is (= that is) it.'

b. *kû:=yɛ̀*
InanPl=it.is.3PlSbj
'It is (=that is) them-Inan.'

c. *àrⁿáŋá=ŋ̀*
where?=it.is.3SgSbj
'It is where?' (compare *àrⁿáŋá bù-∅* 'Where is he/she/it?')

d. *ŋ̀gú=ŋ̀*
Dem.InanSg=it.is.3SgSbj
'it's this'

11.2.1.2 'It is not' (*=ndǒ:, =ndǒ-*)

The negative counterpart of *=m-* 'it is' is *=ndǒ(:)-* 'it is not'. It has the same form after consonants and after vowels. It does not co-occur with plural *-yɛ* (cf. the following section). It is slightly distinct in tone and vowel length from stative negative *=ǹdó-* (§10.4.2, §11.5.1). It does not control tone-dropping on the preceding noun.

=ndǒ(:)- 'it is not' can be conjugated; the paradigm is (398). 3Sg (including inanimate) *=ndǒ:-∅*, with long vowel, is the unmarked category. 3Pl form *=nd-ɛ̌:* is arguably from suffixed /=ndǒ-ɛ́/, but in effect *=nd-ɛ̌:* represents an ablaut-like vocalic mutation from the 3Sg form (compare 3Pl *=ǹd-ɛ́* from stative negative *=ǹdó-*). The 1st/2nd person forms are based on *=ndǒ-* with short vowel. The nasal in *=ndǒ:-* gets its tone (not marked in the transcription) from the preceding stem, which is not tone-dropped.

(398)

category	form	
1Sg	*=ndǒ-y*	
1Pl	*=ndǒ-y.˸*	[ndòóòj]
2Sg	*=ndǒ-w*	
2Pl	*=ndǒ-w.˸*	[ndòóòw]
3Sg, Inan	*=ndǒ:-∅*	
3Pl	*=nd-ɛ̌:*	

Examples are in (399).

(399) a. *dɔ́gɔ̂=ndǒ-y*
Dogon-**it.is.not**-1SgSbj
'I am not a Dogon.' (*dɔ́gɔ̂*)
phonetic [dɔ́gɔ́ǹdòj́]

b. *wǒ-ŋ* *nàŋá=ndǒ:-∅*
Dem-AnSg cow=**it.is.not**-3SgSbj
'That is not a cow.'
phonetic [nàŋáńdòó]

c. *ŋ̀gú* *[nɛ̌:m* *sǎy]=ndǒ:-∅*
Dem.InanSg [salt only]=**it.is.not**-3SgSbj
'That is not just salt.' (*nɛ̀:mí*)
phonetic [sàj́ńdòó]

d. *[ànsá:rá* *sǎy]=nd-ɛ̌:*
[white.person only]=**it.is.not**-3PlSbj
'They are not only white people.'
phonetic [sàj́ńdɛ̀ɛ́]

In prepausal position, the final rise of the tone is usually not heard. One could therefore follow the phonetic pitch and transcribe 3Sg *=ndò:*, 1Sg *=ndò-y*, and so forth, in this position. The rising tone is clearly audible in nonprepausal position, for example before the question particle *ma*. I therefore normalize the transcription as *=ndǒ:*, *=ndǒ-y*, etc.

11.2.1.3 Historical background to postconsonantal *=yɛ* to 1Pl and 2Pl subject

(393) above shows *=yɛ* as an allomorph of the 'it is' clitic, postconsonantally (a rare position) for all third person subjects, and in all positions for 3Pl subject (§11.2.1.1). Another example is (400).

(400) *[bû:* *gày]* *[ànsá:rá* *sǎy]=yɛ́*
[3Pl Topic] [white.person only]=**it.is.3SgSbj**
'Them, they're only white people.'

Since *=yɛ* is strictly 3Pl in the much more common postvocalic position, one might infer that it has spread from 3Pl to 3Sg and inanimate as a repair mechanism, in a phonological environment (postconsonantal) that did not permit the usual 3Sg and inanimate 'it is' forms.

However, there is comparative evidence that *yɛ originally doubled as plural (either general, or just inanimate) and as animate singular. The Nanga possessive classifier ^{HL}*yɛ̂* ~ ^{L}*yɛ̀* still has this broad distribution, covering all plurals and animate singular, i.e. everything except inanimate singular, see (115) in §6.2.1.3. The Najamba cognates are animate singular or inanimate plural (but not animate plural). Therefore the use in Nanga of *=yɛ* as general third person form of the 'it is' enclitic in postconsonantal position may be an archaism.

11.2.1.4 Extensions of *=yɛ́=m-* to 1Pl and 2Pl subject

There are occasional attestations of *=yɛ́-* with a following *=m-* 'it is' and either a 1Pl or 2Pl pronominal-subject suffix. The combinations are 1Pl *=yɛ́=mì-y.:* and 2Pl *=yɛ́=mù-w.:* . (401b) is therefore an optional variant of (401a). My assistant rejected *=yɛ-* with 1Sg and 2Sg suffixes.

(401) a. *[î:* *ànsá:rá* *săy]=mí-y.:*
[1Pl white.person only]=it.is-1PlSbj
'We are only white people.'

b. *î:* *ànsá:rá* *săy=yɛ́=mì-y.:*
1Pl white.person only=it.is=it.is-1PlSbj
[= (a)]

11.2.2 Existential and locative 'be' quasi-verbs and related particles

Quasi-verbs are defective stative-only predicates that have minimal paradigms, without aspectual distinctions, though they can be negated. They include 'be (somewhere)' and 'have', which are unusual in being L-toned in indicative main clauses. Loosely, the term can also be applied to the 'it is' clitic described above. 'Want' is expressed by either of two active (i.e. aspect-marking) verbs, though one (*nàmà-*) is usually in stative form, but a stronger sense 'love, be very fond of (someone)' is expressed by a quasi-verb *m̀bá* and variants (§11.2.5). 'Know' (§17.2.1) is an active verb in Nanga.

11.2.2.1 Existential (*yá*)

This proclitic particle occurs with statives, immediately preceding the predicate. It is required (except as specified below) before *bù-* 'be (somewhere)' (§11.2.2.2) and with locational stative 'be (put) in/on' verbs (§11.2.3), unless another locational expression is overt. It is also required before *sò-* 'have' (§11.5.1), regardless of whether a locational is co-present. With other statives, either *yá* or a reduplicant is required, but the two do not co-occur.

In all these cases, *yá* is strictly limited to positive non-relative clauses that have no focalized non-verb constituent. It is absent from negative clauses, from positive relative clauses, and from positive main clauses with a focalized constituent.

The distribution of *yá* suggests that it functions as a mix of default locational, notably with 'be' and other locational predicates, and verb/predicate focalizer. The two functions are closely related, assuming that any other overt locational is understood as focalized in the 'be (somewhere)' construction.

Cognates (*yá*, *yɛ́*, *yó*) are found in many other Dogon languages with similar syntax. It is likely that the particle originated long ago as a discourse-definite 'there' adverb, cf. Togo Kan *yɛ̂* 'there'.

11.2.2.2 Locational quasi-verb (*bù-*, negative *ŋ̀gó-*)

The 'be' quasi-verb used in positive contexts with an overt or implied locational expression ('be in the village', 'be here', 'be present', etc.), or in general existential sense ('exist, be somewhere'), is *bù-*.

(402)

category	form	
1Sg	*bù-ỳ* ~ *bì-ỳ*	
1Pl	*bù-ỳ.ː* ~ *bì-ỳ.ː*	[bùúùj] ~ [bìíì(j)]
2Sg	*bù-w*	
2Pl	*bù-w.ː*	[bùúù]
3Sg	*bù-∅*	
3Pl	*b-ɛ̀*	

Examples with specific locationals are in (403).

(403) a. *[bǎ:* *yɛ̃:]* *[ìsɛ̀*^{L} *gó]* *bù-∅*
[father 1SgPoss.AnSg] [village^{L} Loc] **be**-3SgSbj
'My father is in (the) village.'

b. *ŋ̀gà-gá* *bù-ẁ* *mà*
there **be**-2SgSbj Q
'Are you-Sg over there?'

When there is no other locational complement, existential *yá* obligatorily precedes *bù-*. In effect, *yá* here functions as a default locational.

(404) a. *yá* *bù-ẁ* *mà*
Exist **be**-2SgSbj Q
'Are you-Sg present (here/there)?'

b. *nàmâ* *yá* *bù-∅*
meat **Exist** **be**-3SgSbj
'There is some meat.'

With the past clitic the form is *bù-m=bɛ̀-* 'was (somewhere)' including imperfective *-m̀-* (in cases like these extended to stative function), see §10.5.1.2.

The participle in relative clauses is *bú-mì* and variants, see §14.1.7.5. The closely related 'while' form, in backgrounded imperfective clauses, is *bú-mɔ̀*, see the end of §15.2.1. Note the H-toned *bú-* in these forms. The other occurrences of H-toned *bú-* in my data are in the pseudo-conditional phrase *bú ndè*, which belongs to the *Vb*^{H} *ndè* subtype of the uninflected pseudo-conditional (§15.2.8.3).

The negative counterpart of *bù-* is *ŋ̀gó-* 'not be (somewhere)'. Its paradigm is (405). The initial nasal is normally L-toned, but in the 1Pl and 2Pl it is high-pitched as part of a particularly complex realization of the dying-quail effect. The final syllable of the 1Pl and 2Pl forms is LHL-pitched in careful pronunciation, but can also be heard as more or less flat L-pitch; see (29) in §3.8.3.

(405)

category	form	
1Sg	*ŋ̀gó-ý*	
1Pl	*ŋ̀gó-ý.˸*	[ŋ́gòóòj]
2Sg	*ŋ̀gó-ẃ*	
2Pl	*ŋ̀gó-ẃ.˸*	[ŋ́gòóòw]
3Sg	*ŋ̀gó-∅*	
3Pl	*ŋ̀g-ɛ́:* ~ *ŋ̀gɛ́-yɛ́*	

Existential *yá* is disallowed in negative clauses, including those with *ŋ̀gó-*.

Examples of *ŋ̀gó-* with and without an overt locational complement are in (406).

(406) a. *nàmâ* *ŋ̀gó-∅*
meat **not.be**-3SgSbj
'There is no meat.'

b. *[ńdó* *gó]* *ŋ̀gó-ý*
[house Loc] **not.be**-1SgSbj
'I am not in the house.'

11.2.3 'Be put in/on' (*kùr^{n}ò-*, *gàr^{n}à-*, *nàŋà-*)

To say that a person, animal, or a large or whole object (e.g. a grain spike) is 'in' a container or, metaphorically, 'in' a situation (such as being in post-partum quarantine), but not e.g. being in a village or in a house, the stative verb *kùr^{n}ò-* 'be in' (also 'be put in') is used instead of *bù-*. It is the stative form of active transitive verb *kúr^{n}í-* 'put (something) inside (a container)'. It occurs with an explicit locational in (407a), in which case existential *yá* is only optional. As default locational, *yá* is required in the absence of another marked locational (407b), except in syntactic environments that exclude *yá* (preceding section).

(407) a. *nàmâ* *[sà:g*^{L} *gá]* *(yá)* *kùr^{n}ò-∅*
meat [sack^{L} Def.InanSg.Loc] (Exist) **be.put.in**.Stat-3SgSbj
'The meat is in the sack.' (*sá:gì*)

b. *nàmâ* *yá* *kùrⁿò-∅*
meat Exist **be.put.in**.Stat-3SgSbj
'The meat is within (it).'

To say that a liquid or granular substance (water, millet grain, flour, granulated sugar or salt), i.e. something that could be poured, is 'in' a container (waterjar, grain sack), a different stative verb *gàrⁿà-* is put to use. The corresponding transitive is *gàrⁿí-* 'put, place', which puts less emphasis on the 'inside' element. The syntax is the same as for *kùrⁿò-*.

(408) a. *nî:* *[jìnjà*^{L} *gá]* *(yá)* *gàrⁿà-∅*
sugar [waterjar^{L} Def.InanSg.Loc] (Exist) **be.put**.Stat-3SgSbj
'The water is in the waterjar.' (< *jínjá*)

b. *yû:* *[sà:g*^{L} *gá]* *(yá)* *gàrⁿà-∅*
millet [sack^{L} Def.InanSg.Loc] (Exist) **be.put**.Stat-3SgSbj
'The millet (grain) is in the (grain) sack.' (< *sá:gì*)

c. *sígɔ́rɔ̀* *yá* *gàrⁿà-∅*
sugar Exist **be.put**.Stat-3SgSbj
'The sugar is in (it).'

To say that an object is '(up) on' another object or raised surface, the stative verb used is *nàŋà-* 'be (put) up on'. Contexts include putting a tea-kettle on a burner, putting a cooking pot on a raised (three-stone) hearth with fire underneath, and putting anything (mattress, peanuts) on a roof. The syntax is as before.

(409) a. *màtìlâ:* *[dɛ̀w*^{L} *gá]* *(yá)* *nàŋà-∅*
sugar [roof^{L} Def.InanSg.Loc] (Exist) **be.put.up.on**.Stat-3SgSbj
'The mattress is up on the roof.' (< *dɛ̀wí*)

b. *tê:* *yá* *nàŋà-∅*
tea Exist **be.put.up.on**.Stat-3SgSbj
'The tea (kettle) is up (on the burner).'

The three stative locational verbs described here are the most important alternatives to *bù-* 'be'. However, the derived stative is fairly productive and many other such verbs occur to describe more specific positions ('be hanging up', 'be lying down', etc.)

11.2.4 Morphologically regular verbs

These verbs have some semantic connection to the 'be' quasi-verbs covered in this chapter. However, they are active (aspect-marking) verbs rather than defective stative quasi-verbs.

11.2.4.1 'Remain, happen' (*bə̌ː-*)

This active verb has a full set of AN stems including perfective-1a *bə̌-ə̀rə̀-*, perfective negative *bə̀ː-rí-*, and imperfective *bə̀-bə́ː-m̀-*. For present time (semantically stative), the perfective is used (410a).

(410) a. *kɛ́-kɛ́w* *bə̌-ə̀r-à*
Rdp-same remain-Pfv1a-3PlSbj
'They remain (= are) the same.'

b. *kɛ́-kɛ́w* *bə̀-bə́ː-m-ɛ̀*
Rdp-same Rdp-remain-Ipfv-3PlSbj
'They will remain (= be) the same.'

In addition to the sense 'stay, remain', *bə̌ː-* is also used as an auxiliary verb to make inchoative predicates ('become X') out of expressive adverbials, see §8.4.7. In the same vein, *bə̌ː-* can mean 'be done' or 'happen, take place'. 'It can happen' (hence 'it is possible') is *bə̌ː bɛ́rɛ́-ŋ̀* (§17.5.1).

11.2.4.2 'Become, happen' (*táŋí-*)

This active verb has perfective-1a *táŋí-ə̀rə̀-* (or *táŋy-ə̀rə̀-*), perfective negative *tàŋà-r^{n}í-*, and imperfective *tà-táŋí-m̀-*. In the sense 'become X', the X is most often a noun or NP, but it can also be an adjective or a descriptive adverbial.

(411) a. *yǎ-ŋ* *táŋí-ə̀rə̀-∅*
woman-Sg **become**-Pfv1a-3SgSbj
'He/She has become a woman.'

b. *[kìyǎ-w* ^{HL}*kɔ̂* ^{L}*gù]* *mày^{n}]*
[previously ^{HL}thing ^{L}Def.InanSg] like]
táŋí-ə̀rə̀-w
become-Pfv1a-2SgSbj
'You-Sg have become like before.' (lit. "like before's thing")

For 'become A' with adjective A, the inchoative derived verb is common; see §9.5.

11.2.4.3 'Want, like' (*jɔ̀rɔ́-*, *nàmà-*)

'X want Y' denoting a momentary wish may be expressed by the morphologically regular verb *jɔ̀rɔ́-* . This verb may also (in other contexts) be translated 'like, love', denoting an enduring attitude. An alternative is a verb that usually occurs in stative form as *nàmà-*, though imperfective stem *námá-m̀-* is also attested.

(412) a. *kɔ̀-ɲɛ́* *nàmà-w^{n}* *mà*
what? want.Stat-2SgSbj Q
'What do you-Sg want?'

b. *kɔ̀-ɲɛ́* *jɔ́rɔ̀-m̀-^{w}* *mà*
what? want-Ipfv-2SgSbj Q
'What do you-Sg want?' (or: 'What do you-Sg like/love?')

In positive utterances, stative *nàmà-* may be preceded by existential *yá*, or it may be reduplicated (*ná-nàmà-*), but not both. The combination with *yá* can only be used when the desire is specific in time in place, while *ná-nàmà-* can be used gnomically (generalizing across times and situations). In the negative, *nàmà-* takes stative negative *=ǹdó-*, without *yá* or the reduplication.

(413) a. *nî:* *yá* *nàmà-ỳ^{n}*
water Exist want.Stat-1SgSbj
'I want (some) water.'

b. *bú:dì* *ná-nàmà-y^{n}*
money Rdp-want.Stat-1SgSbj
'I (perhaps generally) want money.'

c. *nî:* *nàmà=ndó-ý*
water want=StatNeg-1SgSbj
'I don't want water.'

For negative 'not want' blending into 'dislike', see *m̀bùrǎ* in §11.2.5 below.

11.2.4.4 'Fear' (*ú:-yí*, *ùwà-*)

'X fear Y', 'X be afraid of Y' may be expressed by the morphologically regular verb *ú:-yí-*. It is syntactically transitive but it contains mediopassive *-yí-*.

(414) a. *ńnɛ́-ŋ́* *ù:-yɛ̀-rí-ý*
3Sg-Acc fear-MP-PfvNeg-1SgSbj
'I was not afraid of him/her.'

b. *ǹjí-∅* *ú:-y-ɛ̀rɛ̀-∅*
1Sg-Acc fear-MP-Pfv1a-3SgSbj
'He/She was afraid of me.'

The stative form is *ùwà-*. It may be reduplicated as *ú-ʔùwà-* (§10.4), or it may be preceded by existential *yá*, but not both. The combination with *yá* suggests an immediate source of danger, while *ú-ʔùwà* can be used to denote a generalized or chronic fearfulness. The negative has the regular stative negative suffix, and does not allow the existential particle or the reduplication. These stative forms are used for time intervals that encompass the present.

(415) a. *ǹjí-∅* *yá* *ùwà-yɛ̀*
1Sg-Acc Exist fear.Stat-3PlSbj
'They are afraid of me.'

b. *ǹjí-∅* *ùwà=nd-ɛ́*
1Sg-Acc fear=StatNeg-3PlSbj
'They are not afraid of me.'

The related noun *ùwá* 'fear' resembles (in vocalism) the stative verb form. For 'fear' with a complement clause, see §17.3.9.

11.2.5 'Love, be very fond of (someone) (*m̀bá*, negative *m^{b}ùrá-*)

For ordinary 'want' see §11.2.4.3 above. In the stronger sense 'love, be very fond of (someone)', a stative quasi-verb *m̀bá* ~ *m̀^{b}á* ~ *ùmbá* is also recorded: *ú-ŋ́ m̀bá=m-í* 'I love you-Sg', *ǹjí m̀bá-∅* 'he/she loves me', *ǹjí m̀bá=yɛ́* 'they love me'. The paradigm, which has some unusual tonal features, is (416).

(416) *m̀bá-* 'love'

category	form	
1Sg	*m̀bá=mí-y^{n}*	[m̀bámí:]
1Pl	*m̀bá=mí-y^{n}.˸*	[m̀bámì:]
2Sg	*m̀bá=mú-w^{n}*	[m̀bámú:]
2Pl	*m̀bá=mú-w^{n}.˸*	[m̀bámù:]
3Sg/Inan	*m̀bá-∅*	
3Pl	*m̀bá=yɛ́*	

The regular stative negative of this is *m̀bà=ndó-* 'not love'. A distinct, irregular negative stem *m^{b}ùrá-* ~ *m̀bùrǎ-* is more common, often being used as the negation of *jɔ̀rɔ́-*, but tending toward a lexically separate sense 'dislike, hate' rather than the mere absence of liking. A segmentation as *m̀bù-rǎ-* is possible but not transparent. The final syllable is H-toned *rá* as its own syllable, becoming rising-toned with a syllabic coda semivowel (1Sg, 2Sg). The initial H-tone on the nasal in the 1Pl and 2Pl (dying-quail) forms is shared with 'not be', see (30e-f) in §3.8.3.

(417) *m̀bùrǎ-* 'not want; dislike'

category	form	
1Sg	*m̀bùrà-ý*	
1Pl	*m̀bùrà-ý.˸*	[m̀búɾáàj]
2Sg	*m̀bùrà-ẃ*	
2Pl	*m̀bùrà-ẃ.˸*	[m̀búɾáàw]
3Sg/Inan	*m̀bùrá-∅*	
3Pl	*m̀bùrá=yɛ́*	

11.3 Quotative verb

11.3.1 'Say' (*kíyɛ́-*)

The fully inflectable active verb 'say' is *kíyɛ́-*.

(418) a. *[yɛ̀bùmbà*[L] *wǒ-ŋ],* *kɔ̀-kɔ̀sí* *kíyɛ̀-m-ɛ̀*
[snake[L] Dem-AnSg], viper **say**-Ipfv-3PlSbj
'This snake, they call it "viper".'

b. *[kɔ̀*[L] *kámâ]* *kìyɛ̀-rí-y*
[thing[L] any] **say**-PfvNeg-1SgSbj
'I didn't say anything.'

c. *[ńnɛ́* *kìyɛ̀-sɛ̀-∅*[L] *gú*↓ *pú→]*
[3SgSbj **say**-Ppl.Pfv[L] Def.InanSg all]
kà-kàrú=ẃ
Rdp-lie(n)=it.is.Inan
'Everything he/she said, it is false.'

In normal perfective positive use ('X said that …'), a common form of the verb is *kìyɛ̀-sɛ̀ ẁ-ndé* or variant *kìyɛ̀-sɛ̀ gù-ndè*. It is treated syntactically as a relative-clause participle, and therefore takes preverbal subject pronouns. For the morphology and syntax of this construction, see §15.2.8.3.

For quotative complements, see §17.1. For jussives (embedded imperatives), see §17.1.4.

For unconjugatable quotative particle *wa*, a high-frequency alternative to an inflectable 'say' verb, see §17.1.3.

11.4 Adjectival predicates

The predicates discussed here are aspectually stative in nature 'X is heavy', etc. Inchoatives ('become heavy') and factitives ('make it heavy') are expressed by fully inflectable derived verbs; see §9.5.

Negative predicates are the clearest way to distinguish adjectives (stative negative clitic *=ǹdó-*, §10.4.2) from nouns ('it is not' clitic *=ǹdǒ(:)*, §11.2.1.2) and from expressive adverbials (*ŋ̀gó-* 'not be', §8.4.7). In positive predicates, adjectives and nouns overlap partially in form, but are distinct from expressive adverbials.

11.4.1 Positive adjectival predicates

11.4.1.1 Simple adjectives as 3Sg subject predicates

Some adjectives have a simple form, either identical to the modifying adjectival form or differing only by switching final *i* to *u*, that is used as a predicate with 3Sg subject. See §4.5.1.1 for a list. Even these adjectives switch to an alternative construction with a conjugated form of the 'it is' clitic when the subject is other than 3Sg.

11.4.1.2 With ‘it is’ clitic

When the pronominal-subject category is other than 3Sg, and for some stems even in the 3Sg, an adjective is made into a positive predicate by adding the appropriate conjugated form of the (positive) ‘it is’ clitic (§11.2.1). Positive adjectival predicates are therefore like nominal predicates.

3Sg subject predicates (for animate or inanimate subject) are of two types, depending on the adjective. In one, there is no suffix or clitic, but if the adjective ends in *i* it shifts to *u*. In the other type, the 3Sg ‘it is’ clitic, animate *=ŋ* or inanimate *=w*, is added to the stem. For color adjectives, both patterns are attested for inanimate 3Sg, while the ‘it is’ clitic is required for animate 3Sg. Fuller details and stem lists for the different types are given in §4.5.1-3. The basic predicative patterns are illustrated in (419).

(419)		stem	gloss	1Sg	3AnSg	InanSg	3Pl
	a.	*dúsî*	‘heavy’	*dúsû=m-ì*	{ *dúsû* }		*dúsû=yè*
	b.	*pĕ:*	‘old’	*pĕ:=m-í*	*pĕ:=ŋ́*	*pĕ:=ẃ*	*pĕ:=yɛ́*
	c.	*pírí*	‘white’	*pírí=m-í*	*pírí=ŋ́*	*pírí=ẃ* ~ *pírû*	*pírí=yɛ́*

The shift of final *i* to *u* in stems like ‘heavy’ (419a) suggests that the 3Sg predicative form (here *dúsû*) historically reflects one or more forms with suffixed or enclitic *{w m}, which have disappeared segmentally but left behind a souvenir in the form of backing and rounding of the stem-final vowel. The logical candidates are the inanimate ‘it is’ clitic *=w* still seen with the adjectives of type (419b), and the animate ‘it is clitic’ *=ŋ*, which may itself reflect earlier *=m.

3Pl ‘it is’ clitic *-yɛ* tends to contract with stem-final *ɛ*, resulting in a final *ɛ̂:* (420b).

(420) a. *(bû:)* *dúsû-yè*
(3Pl) heavy-it.is.3PlSbj
‘They are heavy.’

b. *(bû:)* *èwrɛ́-yè*
(3Pl) small-it.is.3PlSbj
‘They are small.’ [variant *èwrɛ̂:-∅*]

Some adjectives can take complements in predicative function. *ɛ́rî* ‘sweet, sharp’ can mean ‘pleasing (to X)’ as predicate, in which case it takes an accusative complement.

(421) *[kàr^{n}á* *[ú* ^{HL}*gɔ̀]]* *ǹjí-ŋ* *ɛ́rû*
[action [2Sg ^{HL}Poss.InanSg]] 1Sg-**Acc** **sweet**.Pred
‘Your act(ion) pleases me.’

11.4.1.3 Deadjectival expressive adverbial plus *bù-*

In this construction, the adjective is converted into an expressive adverbial (§8.4.7) by modifying the final vowel. Then *bù-* 'be' can be added, as it can be to any predicative EA. The modification from adjective to EA involves intonational prolongation (→) of variable duration, and in some cases a shift in vowel quality to *i* or addition of *-y*. (422a) shows adjectives whose corresponding EAs do not require stem-iteration. Variants with the stem iterated, not shown in (422a), are also possible. (422b) shows adjectives for which my assistant accepted only iterative EAs. A slightly irregular EA occurs in (422c). For some adjectives my assistant rejected any predicative construction with *bù-* (422d).

(422)	adjective	EA predicate	gloss
	a. uniterated stem possible		
	wàgá	*wàgá-y→ bù-*	'be distant'
	ɛ̀wrɛ́	*ɛ̀wrɛ́-y→ bù-*	'be small'
	nɔ̀mî	*nɔ̀mí→ bù-*	'be difficult'
	déŋî	*déŋ-í→ bù-*	'be short'
	dúsî	*dús-í→ bù-*	'be heavy'
	pírí	*pírí→ bù-*	'be white'
	mɔ̀sí	*mɔ̀sí→ bù-*	'be nasty, ugly'
	b. stem must be iterated		
	ɔ̀wɔ́	*ɔ̀wɔ̀-ʔɔ̀wɔ́y→ bù-*	'be big'
	gâw	*gàw-gàwí→ bù-*	'be spacious'
	nà:rⁿá	*nà:rⁿà-nà:rⁿáyⁿ→ bù-*	'be easy, cheap'
	c. form irregular		
	kó:mbó	*kòmbɔ̌y→ bù*	'be lean'
	d. not acceptable		
	kɛ̀:sí	—	'be raw'
	mǎ:	—	'be dry'
	kándà	—	'be new'

This construction was not the first form offered for adjectival predicates in elicitation. After it was stumbled upon, it was possible to elicit it for quite a few adjectives. It is presumably more expressive than the usual predicates, but its discourse functions and frequency are not well understood.

11.4.2 Negative adjectival and stative predicates (*=ndó-*)

Negative counterparts of the positive adjectival predicates with *bù-* 'be', illustrated above, are formed by adding a conjugated form of stative negative clitic *=ǹdó-* (§10.4.2) to the adjective stem, which drops its tones.

(423) a. *(ńnɛ́)* *dùsù=ndó-∅*
(3Sg) heavy=**StatNeg**-3SgSbj
'He/She/It is not heavy.'

b. *(bû:)* *ɛ̀wrɛ̀=nd-ɛ́*
(3Pl) small=**StatNeg**-3PlSbj
'They are not small.'

c. *(ĩ:ⁿ)* *dùsù=ndó-ý*
(1Sg) heavy=**StatNeg**-1SgSbj
'I am not heavy.'

d. *[kàrⁿá* *[ú* *HLgɔ̂]]* *ǹjí-ŋ* *ɛ̀r=ndó-∅*
[action [2Sg HLPoss.InanSg]] 1Sg-Acc sweet=**StatNeg**-3SgSbj
'Your act(ion) doesn't please me.'

11.5 Possessive predicates

11.5.1 'Have' (*sò-*, negative *sò-ndó-*)

Positive '(X) have Y' is expressed as *Y yá sò-*, with existential particle *yá* and defective quasi-verb *sò-*. The latter takes pronominal subject suffixes but allows no overt marking of aspectual categories. Like other statives, it does combine with past *=bɛ̀-*, which in this combination requires "imperfective" *-m-* (424b) except in the 3Sg, see §10.5.1.2, above.

(424) a. *lɛ̀gɛ̀sô:* *yá* *sò-ỳ*
bicycle Exist have-1SgSbj
'I have a bicycle.'

b. *lɛ̀gɛ̀sô:* *yá* *sò-m=bɛ̀-ỳ*
bicycle Exist have-Ipfv=Past-1SgSbj
'I had (= used to have) a bicycle.'

c. *yǎ:* *[ǹdòL* *dùgí]* *yá* *s-ɛ̀*
woman.Pl [houseL big] Exist have-3PlSbj
'The women have a big house.'

sò- can be relativized on. The form of the participle is *só-mì*. This is the only instance where it appears in H-toned form (*só-*). Existential *yá* is omitted. For examples see §14.1.7.5. For *só-m-sɛ̀ gà* 'when/while (X) had', see (560c) in §15.2.3.

The negative of *sò-* is *sò-ndó-*, cf. stative negative clitic *=ǹdó-*. Existential *yá* is not allowed in negatives (425). (425b) is one of the most common utterances in Nanga speech.

(425) a. *lɛ̀gɛ̀sô:* *sò-ndó-y*
bicycle have-StatNeg-1SgSbj
'I don't have a bicycle.'

b. *dǎy^{n}* *sò-ndó-∅*
limit have-StatNeg-3SgSbj
'It has no limit (= is abundant).'

The positive and negative paradigms are in (426).

(426)

category	'have'	'do not have'
1Sg	*(yá) sò-ỳ*	*sò-ndó-ý*
1Pl	*(yá) sò-ỳ.:* [sòóòj]	*sò-ndó-ý.:* [sòńdòòj]
2Sg	*(yá) sò-ẁ*	*sò-ndó-ẃ*
2Pl	*(yá) sò-ẁ.:* [sòóòw]	*sò-ndó-w.:* [sòńdòòw]
3Sg/Inan	*(yá) sò-∅*	*sò-ndó-∅*
3Pl	*(yá) s-ɛ̀*	*sɛ̀-nd-ɛ́*

The conjugated past clitic is regularly used with 'have', like other statives, to specify a past time frame: *sò-ndó=bɛ́-y* 'I didn't have'.

11.5.2 'Belong to' predicates (^{HL}*kɔ̂=ŋ̀* ~ ^{HL}*gɔ̂=ŋ̀*, ^{HL}*yɛ̂=ŋ̀*)

'X belongs to Y' is expressed as 'X, it is Y's thing (possession)'. The X NP is optional, and normally preposed (like a topic) when overt. Y appears in possessor form. If the possessed NP is inanimate singular, the inanimate singular possessive classifier ^{HL}*kɔ̂* ~ ^{HL}*gɔ̂* is used. Whereas the ^{HL}*gɔ̂* variant is predominant in NP-internal pronominal possessives (except for 1Sg), in predicates the ^{HL}*kɔ̂* variant is common. For animates, and usually for inanimate plurals, the classifier ^{HL}*yɛ̂* is used. For these possessive classifiers see §6.2.1.3.

In predicates, the 3Sg 'it is' clitic *=ŋ̀*, often reduced to a faint nasalization of the vowel, follows ^{HL}*kɔ̂* ~ ^{HL}*gɔ̂* and (in animate singular reference) ^{HL}*yɛ̂*. For plural reference, we would expect #^{HL}*yɛ̂=yɛ̀* ending with the 3Pl subject 'it is' clitic, or rather elided #^{HL}*yɛ̂:-∅*, cf. the optional contraction in (420b) in §11.4.1.2. The form I actually hear is just ^{HL}*yɛ̂* (427f).

(427)

a. *ŋ̀gú* *[ǎ-ŋ* ^{HL}*kɔ̂]=ŋ̀*
Dem.InanSg [who?-AnSg ^{HL}**Poss**.InanSg]=it.is.3SgSbj
'That is whose (= belongs to whom)?'

b. *[nàkɔ̀mbɔ̀*^{L} *gú]* *[á:mádù* ^{L}*kɔ̀]=ŋ̀*
[shoulder.bag^{L} Def] [Amadou ^{L}**Poss**.InanSg]=it.is.3SgSbj
'The shoulder bag is Amadou's.'

c. *[nɛ̀r^{n}ì*^{L} *nɛ́]* *[ǎ-ŋ* ^{HL}*yɛ̂]=ŋ̀*
[dog^{L} Def.AnSg] [who?-AnSg ^{HL}**Poss**.AnSg]=it.is.3SgSbj
'The dog belongs to who(m)?'

d. *ŋ̀gú* *kɔ̌:=ŋ*
Dem.InanSg 1Sg**Poss**.InanSg=it.is.3SgSbj
'That is mine.'

e. *[ǹdò*^{L} *yěy]* *yɛ̌:*
[house^{L} Dem.InanPl] 1Sg**Poss**.InanPl
'Those houses are mine.'

f. *[nèr*^{n}*ì*^{L} *wɛ̌:]* *[ú* ^{HL}*yɛ̂]*
[dog^{L} Dem.AnPl] [2Sg ^{HL}**Poss**.AnPl]
'Those dogs are yours-Sg.'

11.6 Verb iteration

This section covers iterated sequences of bare verb stems. See §15.2.1 for iterated *-mɔ̀* clauses.

11.6.1 Verb iteration with lexical tones

Verb stems may be iterated as though directly chained to each other, to indicate temporal prolongation or repetition of an event type. In such iterations the stem may retain its usual bare-stem tones. Normally the sequence is backgrounded, and the whole iterated sequence is nonfinal in the chain.

(428) a. *[dòríyé-dòríyé* *bû:* *láwá-mɔ̀]*
[**go.through-go.through** 3PlSbj pass-while]
[ńné *ŋ́]* *tɛ̀mbì-∅* *wà*
[go and.SS] find.Pfv-3SgSbj Quot
'She went and found two young men going back and forth through the hole (=eye) of a needle, it is said.' (2004.02.03)

b. *[bòró* *ńné-ŋ́* *gùnjó-gùnjó-gùnjó-gùnjó] …*
[pit 3Sg-Acc **dig-dig-dig-dig**] …
'(We) kept digging pits (and …)' (2004.01.01), cf. (567) in §15.2.5.2

In (429), the first two iterations of *gǎ:-* are unmodified, while the third is heard with L-tone. This may just be a phonetic variant of unmodified iteration.

(429) *[[gògòrò-gɔ̌:* *gò]* *ńné* *ŋ́]* *gǎ:-gǎ:-gà:*
[[sickle Loc] go and.SS] **slash-slash-slash**
[[dá: *gá]* *ńné* *tùyì-ỳ.:* *ndè]*
[[flat.stone Loc] go put.in.pile.Pfv-1PlSbj if
'We go with the sickle, we keep cutting (fonio stems, by slashing), and we put (the stems) on the flat rock, (then …).' (2004.01.04)

11.6.2 Verb iteration of tonal type [$\hat{v}_1$-$\grave{v}_1$(-$\grave{v}_1$ …)]

In this construction (which also occurs in Jamsay), the first occurrence of the verb stem has {HL} tone overlay. It is optionally reduced to {H} on monosyllabic stems, including *Cvy*

syncopated from *Cvyi*. Noninitial iterations are {L}-toned. There is no suffixal inflection for aspect or pronominal-subject.

Examples are *kémè* ^{HL}-^{L}*kèmè* and *kémè* ^{HL}-^{L}*kèmè*-^{L}*kèmè*-^{L}*kèmè* '(they) kept building and building' from *kémé-*, *jɔ́rɔ̀* ^{HL}-^{L}*jɔ̀rɔ̀*-^{L}*jɔ̀rɔ̀*-^{L}*jɔ̀rɔ̀* '(he) was looking and looking' from *jɔ̀rɔ́-*, and *yê:* ^{HL}-^{L}*yè:* '(as they) were coming' from *yĕ:-*. The latter is optionally pronounced *yé:-yè:* . Facing superscripts ^{HL} and ^{L} at the first internal boundary show that there is no controller external to the word. In ordinary transcription in texts I often omit superscripts in such combinations.

With a trisyllabic or longer verb, the H-tone of {HL} is limited to the first syllable, resulting in an H.L.L syllable sequence: *bégìrì* ^{HL}-^{L}*bègìrì*-^{L}*bègìrì* '(they) kept winnowing' from verb *bègírí-*. Another trisyllabic example is in (430). Elsewhere the usual realization of /HL/ melody or {HL} overlay on trisyllabics is H.H.L (§3.7.3.2).

(430) *[úwâ* *késé-késé]* *gɔ́ŋìrⁿì* ^{HL}-^{L}*gɔ̀ŋìrⁿì*
[leaf cut-cut **go.around**^{HL}-^{L}**go.around**
î: *lă:rá-mɔ̀-yⁿ]* *ǹnè-∅*
1PlSbj chase.away-while] go.Pfv-3SgSbj
'We were cutting off leaves (=leafy branches) and going around chasing them (=locusts), and they went (away).' (2004.01.01)

Monosyllabics are in (431). The tone of the first iteration can flatten from <HL> to H, and transcription of rapidly spoken textual examples is difficult.

(431) a. *áy*^{HL}-^{L}*ày* *[ńdó* *gó]* *jê:*^{HL}-^{L}*jè:*
hold^{HL}-^{L}**hold** [house Loc] **bring**^{HL}-^{L}**bring**
[dámbí *gá]* *sɔ́gɔ́-sɔ́gɔ́*
[courtyard Loc] dump-dump
'(We) keep picking up (stems) and bringing them to the house(s), bringing them and dumping (from head baskets) in the courtyard.' (2004.01.03) (< *àyí-*, *jĕ:-*)

b. *[ńné* *yó]* *úwâ* *pɔ́:*^{HL}-^{L}*pɔ̀:* *kúwò* ^{HL}-^{L}*kùwò*
[3Sg and] leaf **pick**^{HL}-^{L}**pick** **eat**^{HL}-^{L}**eat**
[kû: *nɔ̀]* *ká* *làwè-∅*
[head 3SgPoss] there pass.Pfv-3SgSbj
'He would keep picking tree leaves and eating them, he would get by with it (in a famine).' (2004.01.07) (< *pɔ́:*, *kúwó*)

For chains of such iterations with following verbs, and for discourse functions and further examples, see §15.1.7.

12 Comparatives

12.1 Asymmetrical comparatives

12.1.1 Simple adjective with *dĕ:rê = ẁ* 'more than' and comparandum

In the first comparative construction to be considered, the predicate is adjectival. The comparandum precedes the predicate, followed by *dĕ:rê = ẁ* 'more than'. This is an irregular form related to a conjugated predicate *dĕ:rê-* 'be better, be more' (§12.1.4). the final semivowel in *dĕ:rê = ẁ* resembles the inanimate form *= w* of the 'it is' clitic (§11.2.1.1), but the formation is nontransparent.

For first and second person subject, the predicative adjective is followed by the appropriate conjugated form of *= m-* 'it is' clitic.

(432) a. *[ńnɛ́ dĕ:rê = ẁ] gàwá = mí-y*
[3Sg **more.than**] long=it.is-1SgSbj
'I am taller than he/she (is).'

b. *ĭ:ⁿ [ú dĕ:rê = ẁ] dúsû = mì-y*
1SgSbj [2Sg **more.than**] heavy=it.is-1SgSbj
'I am heavier than you-Sg.'

c. *[î: dĕ:rê = ẁ] dùgú = mú-w.:*
[1Pl **more.than**] fat=it.is-2PlSbj
'You-Pl are fatter than we (are).'

For 3Pl subject, the verb lacks *= m-* but is inflected with clitic *= yɛ* (433). This is the regular (non-comparative) 3Pl predicative form (as in 'they are fat/heavy').

(433) a. *[ĭ:ⁿ dĕ:rê = ẁ] dùgú = yɛ́*
[1Sg **more.than**] fat=3PlSbj
'They are fatter than I (am).'

b. *[ĭ:ⁿ dĕ:rê = ẁ] dúsû = yɛ̀*
[1Sg **more.than**] heavy=3PlSbj
'They are heavier than I (am).'

For 3Sg subject, the bare adjective form is used. This is again the regular (non-comparative) predicative form. Arguably the adjective is predicative, with zero 3Sg subject. It could also be taken as an abstractive nominal that is zero-derived from the modifying adjective, see (43b) in §4.2.5.

(434) a. *pà:ŋgŏ: [tà-tã̌: dĕ:rê = ẁ] dùgú*
elephant [Rdp-hyena **more.than**] big
'An elephant is bigger than a hyena (is).'

b. *[ĭ:ⁿ* *dě:rê=ẁ]* *gùrɔ́*
[1Sg **more.than**] long
'He/She is taller than I (am).'

For past time, the conjugated past clitic *=bɛ-* is added. For first or second person subject, the result is either *=bɛ-* or *=m=bɛ-* plus the correct pronominal-subject inflection. *=bɛ-* (as well as the optional *=m-*) acquires its tone from the final tone of the preceding morpheme. For 3Sg, the form is *=bɛ-∅* without *=m-*. For 3Pl, the form is *(=yɛ) =b-à*, where *=yɛ-* gets its tone from the left but where *=b-à* is always L-toned. A variant *=yɛ=m=bà* was recorded at one point but was later rejected by the same speaker. Excluding this doubtful variant, the paradigm is (435).

(435) Past of comparative adjectival predicate

category	suffix-clitic complex (after adjective stem)	
	after H-tone	after L-tone
1Sg	*(=ḿ)=bɛ́-ý*	*(=m̀)=bɛ̀-ỳ*
1Pl	*(=ḿ)=bɛ́-ý.˸*	*(=m̀)=bɛ̀-ỳ.˸*
2Sg	*(=ḿ)=bɛ́-ẃ*	*(=m̀)=bɛ̀-ẁ*
2Pl	*(=ḿ)=bɛ́-w.˸*	*(=m̀)=bɛ̀-w.˸*
3Sg	*=bɛ́-∅*	*=bɛ̀-∅*
3Pl	*(=yɛ́)=b-à*	*(=yɛ̀)=b-à*

Examples of the past-time positive comparative are in (436).

(436) a. *kìyǎ-w* *[ńnɛ́* *dě:rê=ẁ]* *dùgú(=ḿ)=bɛ́-y*
previously [3Sg **more.than**] fat(=it.is)=**Past**-1SgSbj
'I used to be fatter than he/she (was).'

b. *[ĭ:ⁿ* *dě:rê=ẁ]* *gùrɔ́=bɛ́-∅*
[1Sg **more.than**] long=**Past**-3SgSbj
'He/She was taller than I (was).'

c. *[î:* *dě:rê=ẁ]* *jɛ́mí(=yɛ́)=b-à*
[1Pl **more.than**] black(=it.is.3Pl)=**Past**-3PlSbj
'They were blacker (=darker) than we (were).'

d. *[ńnɛ́* *dě:rê=ẁ]* *dúsû(=m̀)=bɛ̀-ỳ*
[3Sg **more.than**] heavy(=it.is)=**Past**-1SgSbj
'I used to be heavier than he/she (was).'

e. *[ĭ:ⁿ* *dě:rê=ẁ]* *dúsû=bɛ̀-∅*
[1Sg **more.than**] heavy=**Past**-3SgSbj
'He/She used to be heavier than I (was).'

f. *[ĭ:ⁿ* *dĕ:rê=ẁ]* *dúsû(=yè(=m̀))=b-à*
[1Sg **more.than**] heavy(=it.is.3Pl(=it.is))=**Past**-3PlSbj
'They used to be heavier than I (was).'

The adjective may be directly negated with conjugatable stative negative *=ǹdó-*, which requires an L-toned stem. For the paradigm of *=ǹdó-*, see §10.4.2. The stem-final H-tone in the 1Pl and 2Pl forms before *=ǹdó-* is part of the dying-quail effect (437c), see §3.8.3.

(437) a. *[ĭ:ⁿ* *dĕ:rê=ẁ]* *gàwà=ndó-∅*
[1Sg **more.than**] tall=**StatNeg**-3SgSbj
'He/She is not taller than I (am).'

b. *[ú* *dĕ:rê=ẁ]* *dùgù=ndó-ý*
[2Sg **more.than**] fat=**StatNeg**-1SgSbj
'I am not fatter than you-Sg (are).'

c. *[û:* *dĕ:rê=ẁ]* *dùgù=ndó-ý.˸* pronounced [dùgúndòóòj]
[2Pl **more.than**] fat=**StatNe**g-1PlSbj
'We are not fatter than you-Pl (are).'

d. *[ĭ:ⁿ* *dĕ:rê=ẁ]* *dùsù=nd-ɛ́*
[1Sg **more.than**] heavy=**StatNeg**-3PlSbj
'They are not heavier than I (am).'

The past negative is *=ndó=bɛ́-* with the usual morphology of past *=bɛ-*. The paradigm is (438).

(438) Past negative of comparative adjectival predicate

category	suffix-clitic complex (after adjective stem)
1Sg	*=ndó=bɛ́-ý*
1Pl	*=ndò=bɛ́-y.˸*
2Sg	*=ndó=bɛ́-ẃ*
2Pl	*=ndò=bɛ́-w.˸*
3Sg	*=ndó=bɛ́-∅*
3Pl	*=nd-ɛ́=b-á*

Examples of the past negative are (439).

(439) a. *[ĭ:ⁿ* *dĕ:rê=ẁ]* *gàwà=ndó=bɛ́-∅*
[1Sg **more.than**] tall=**StatNeg=Past**-3SgSbj
'He/She was not taller than I (was).'

b. *[î:* *dĕ:rê=ẁ]* *dùsù=nd-ɛ́=b-á*
[1Pl **more.than**] heavy=**StatNeg**-3PlSbj=**Past**-3PlSbj
'They were not heavier than we (were).'

12.1.2 Verbal predicate plus *dě:rê = ẁ* 'more than'

In (440), the predicate is a verb, imperfective (440a) or perfective (440b). *dě:rê = ẁ* 'more than' follows the comparandum. The unmarked interpretation is 'X VP's more (than) Y'.

(440) a. *[ú dě:rê = ẁ] kɔ́:-ŋ̀*
[2Sg **more.than**] eat-Ipfv.3SgSbj
'He/She eats more than you (eat).'

b. *[ú dě:rê = ẁ] ǹjí-ŋ́ ǹdì-∅*
[2Sg **more.than**] 1Sg-Acc give.Pfv-3SgSbj
'He/She gave me more than you-Sg (gave me).'
or: 'He/She gave me more than (he/she gave) to you.'

The comparandum may take the form of a PP, such as the dative in (441a), which is followed by *dě:rê = ẁ*. Accusative *-ŋ̀* is optional before *dě:rê = ẁ* when the form functions as direct object (441b). This theoretically allows the speaker to distinguish (441b) from (441c), but accusative *-ŋ* is optional in (441b) as elsewhere, so this cue is far from reliable.

(441) a. *[[ú báy] dě:rê = ẁ] bàrⁿí kíyɛ́-sɔ́-∅*
[[2Sg **Dat**] **more.than**] 1SgDat say-Pfv2-3SgSbj
'He/She said more to me than to you.'

b. *[ú-ŋ dě:rê = ẁ] ǹjí-ŋ́ súyɔ́-sɔ́-∅*
[2Sg-**Acc** **more.than**] 1Sg-Acc hit-Pfv2-3SgSbj
'He/She hit me more than (he/she hit) you-Sg.'

c. *[ú dě:rê = ẁ] ǹjí-ŋ́ súyɔ́-sɔ́-∅*
[2Sg **more.than**] 1Sg-Acc hit-Pfv2-3SgSbj
'He/She hit me more than you-Sg (hit me).'

12.1.3 'Surpass' (*láwá-*)

láwá- 'pass (by)' can be used in the sense 'surpass, exceed'. It specifically denotes the transition from equality or inferiority to superiority in the relevant dimension. The latter is specified by a nonfinal adjective (442a) or by a nonfinal chained verb or VP (442b).

(442) a. *ǹjí-ŋ́ gàwá láwá-ɛ̀rɛ̀-∅*
1Sg-Acc be.tall **pass**-Pfv1a-3SgSbj
'He/She has surpassed me in tallness (= has become taller than me).'

b. *lì:gí ǹjí-ŋ gìyɛ́ láwá-sɔ́-∅*
bird 1Sg-Acc kill **pass**-Pfv2-3SgSbj
'He/She has surpassed me in killing birds.'

12.1.4 'Be better, more' (*dě:rê-*)

In this construction, *dě:rê-* itself is conjugated by adding the 'it is' clitic *=m-* with first or second person inflection, or 3Sg *=w* or 3Pl *=yɛ*. If the other comparandum is pronominal, it takes independent (not accusative) form, see especially 1Sg *ǐ:ⁿ* in (43c).

(443) a. *ú* *dě:rê=mì-y*
2Sg **better**=it.is-1SgSbj
'I am better than you-Sg (are).'

b. *mǎŋgórò* *kùró* *dě:rê=ẁ*
mango wild.grape **better**=it.is.3SgSbj
'Mangoes are better than wild grapes (are).'

c. *ǐ:ⁿ* *dě:rê=yɛ̀*
1Sg **better**=it.is.PlSbj
'They are better than I (am).'

For past time reference, the forms take past clitic *=bɛ̀-*, but there is some variation in the morphological construction in my data. My assistant preferred the paradigm in (444). However, for the first and second person forms, variants with *=m̀=* instead of *=m̀=* were also recorded.

(444) 'Was better than'

1Sg	*dě:rê=ẁ=bɛ̀-ỳ*	
1Pl	*dě:rê=ẁ=bɛ̀-ỳ.˸*	[...bɛ̀ɛ́ɛ̀j]
2Sg	*dě:rê=ẁ=bɛ̀-ẁ*	
2Pl	*dě:rê=ẁ=bɛ̀-ẁ.˸*	[...bɛ̀ɛ́ɛ̀w]
3Sg	*dě:rê=ẁ=bɛ̀-∅*	
3Pl	*dě:rê=ẁ=b-à*	

An example is (445).

(445) *ú* *dě:rê=ẁ=bɛ̀-ỳ*
2Sg **better**=it.is=Past-1SgSbj
'I used to be better than you-Sg.'

12.1.5 'Best' (*kǎy*)

The noun *kǎy* indicates that the referent in question is the best (of a set). The conjugation is the same as for *dě:rê-* except that 3Sg *=w* is not pronounced after the stem-final semivowel. The paradigm therefore consists of conjugated forms of *=m-* 'it is' for first or second person, zero for 3Sg, and *=yɛ* for 3Pl. Thus *kǎy=m-íy* 'I am the best', *kǎy=∅* 'he/she is the best', *kǎy=yɛ́* 'they are the best'.

Past forms: *kǎy=ḿ=bɛ́-ý* 'I was the best', *kǎy=bɛ́-∅* 'he/she was the best', *kǎy=yɛ́=b-à* 'they were the best'.

When the reference set is specified, it functions as possessor of *kǎy*, which therefore takes possessed-noun tone overlay, {HL} or {L} depending on whether the possessor ends in an H- or L-tone.

(446) *ĭ:ⁿ* *[[wòrì-wàrí* *pú→]* HL*kây]=mì-ỳ*
1SgSbj [[farming-do.farming.Agent all] HL**best**]=it.is-1SgSbj
'I am the best of all the farmers.'

12.1.6 *gárá* 'more'

The adverb *gárá* 'more' (in context also 'bigger' or 'better'), preceding the predicate, is optionally present when the domain of comparison is nonadjectival. It is unattested in the presence of *dĕ:rê=ẁ* or any explicitly comparative predicate. (447b) shows that it may co-occur with a distinct 'than Y' expression with postposition *dèrⁿí* (elsewhere purposive-causal).

(447) a. *[[tò:*L *gú]* *té́:-ŋ̀]*
[seedsL Def.InanSg] sprout-Ipfv.3SgSbj]
*[[yù:*L *gú]* *kú* *gárá* *ké:ndé-ŋ̀*
[[milletL Def.InanSg] InanSgSbj **more** be.well.done-Ipfv.3SgSbj
'those seeds will sprout, the millet will turn out better (because of the manure).'
(2004.01.03)

b. *[àlî:* *dèrⁿì]* *mú:sà* *gárá* *yû:* *wárá-ŋ̀*
[A **than**] M **more** millet cultivate-Ipfv.3SgSbj
'Moussa grows more millet than Ali (does).'

12.2 Symmetrical comparatives

12.2.1 'Equal; be as good as' (*bǎ:-*)

The verb *bǎ:-* 'equal, be as much as' most often occurs in negative sentences ('not be as much as' = 'be less than') (448a). When the domain of comparison is specified in a following expression, negation is expressed on the latter rather than on *bǎ:-* itself, which then morphs into the adverbial *bǎ→* (448b)

(448) a. *[á* HL*bâ:]* *bâ:-ŋɔ̀:-∅*
[ReflP HLfather] **equal**-IpfvNeg-3SgSbj
'He/She isn't as good as his father.'

b. *[á* HL*bâ:]* *bǎ→* *gáwà-ŋɔ̀:-∅*
[ReflP HLfather] **from** be.tall-IpfvNeg-3SgSbj
'He/She is not as tall as his/her father.'

12.2.2 'Same (equal)' (*kêw*)

Another way to indicate equality of two entities along a scalar dimension is to use *kêw* 'equal(ly)' (§6.1.1, §6.6.2) as a predicate. It is related to the adverb *ké-kɛ́w* 'same, equal(ly)'. The predicative form is always *kêw=yè*. I am inclined to take the ending as the postconsonantal third-person (including 3Pl) form of the 'it is' clitic. This seems more reasonable that identifying the final morpheme as adjectival plural *-yè*.

(449) a. *[î:* *wǒy]* *ígírí* *kêw=yè*
[1Pl two] height **equally**=it.is.3PlSbj
'We two are of the same height.'

b. *[sèŋì*^{L} *ý]* *[â:* *wǒy]* *gùrɔ́* *kêw=yè*
[rope^{L} Def.InanPl] [3ReflPl two] long **equally**=it.is.3PlSbj
'The two ropes are of the same length.'

12.2.3 'Arrive, come up to; equal' (*dɔ̌:-*)

dɔ̌:- 'reach, arrive at, come up to (a place)' can be used in the abstract sense 'attain the level of (someone, in some respect).' It denotes the transition from inferiority to equality. The domain of comparison may be specified by a chained VP or verb.

(450) *ǹjí-ŋ́* *dùsú-ndíyé* *dɔ̌-èrè-∅*
1Sg-Acc heavy-Inch **reach**-Pfv1a-3SgSbj
'He/She has become equally heavy as me.'

The 3Sg imperfective form *dɔ́:-ŋ̀*, literally 'it arrives/reaches', can be combined with a phrase denoting an extended time span. A free translation like 'up to' or 'as long as', emphasizing the considerable duration, is appropriate.

(451) *[àmây*^{n} *gà:rdè* *gáy]*
[how? keep and.then.SS]
[àr^{n}*á* *wǒy* *má→* *tà:ndǐ:]* *dɔ́:-ŋ̀*
[year two or three] **reach**-Ipfv.3SgSbj
'How does it (=stored fonio grain) keep for up to two or three years?' (2004.01.04)

12.3 'A fortiori' (*sákô*, *yê:*)

The 'a fortiori' expression (i.e. 'much less …', 'not to mention …', or 'never mind …' as part of a comparison) is either *sákô* (regional, likely from Fulfulde) at the end of the second phrase, or *yê:* (shared with Jamsay) at the beginning of the second phrase. This phrase may also contain the possessed noun *dàmá* 'talk (of …)' or some similar expression (cf. local French *ne parlons pas de* ... as an 'a fortiori' expression). With *yê:* the second phrase specifies a far greater or more difficult task (452a). With *sákô* the second phrase may be of this type, or it may simply describe a less likely or less appropriate task (452b).

(452) a *[[kɛ̀:rɛ̀*[L] *bɛ́rî* *ɛ́wɛ̀-mì]* *sò-ndó-ý]*
[[money[L] goat buy-Ppl.Ipfv] have-Neg-1SgSbj]
[yê: *[nàŋá* [HL]*dámâ]=ẁ*[n]*]*
[**a.fortiori** [cow [HL]**talk(n)**]=it.is.Inan]
'I don't have the money to buy a goat, much less (talk of) a cow.'

b. *[kɔ̃:* *ɛ́wɛ́* *bɛ̀rɛ̀-rí-ý]*
[1SgPoss.InanSg buy get-PfvNeg-1SgSbj]
[[ú [HL]*gɔ̂]* *sákô]*
[[2Sg [HL]Poss.InanSg] **a.fortiori**]
'I couldn't (even) buy one for myself, never mind (me buying) one for you.'

13 Focalization and interrogation

13.1 Focalization

When a focalized constituent is present, it occurs in its normal position in the clause. The verb also retains its usual subject-pronominal inflection even under subject focalization. Therefore focalization is not marked by sharply etched morphosyntax.

WH interrogatives ('who?', 'what?', etc.) are intrinsically focal. So are independent subject pronouns (other than topics) which would not be needed in corresponding unfocalized clauses (since subject category is marked by suffixes on verbs). PPs and objects other than WH interrogatives are not obviously focalized or unfocalized. However, the fact that some overt preverbal constituent is at least weakly focalized is implied by verb defocalization.

Verb defocalization is indicated by the features in (453).

(453) Verb defocalization

a. the simple perfective (with all-L tones) replaces the suffixally marked perfective-1a/b and perfective-2;
b. verbs with perfective negative *-rí-* and imperfective negative *-ŋɔ̀:-* often drop all tones to {L};
c. existential particle *yá* and initial reduplication of the verb are omitted (§13.1.5)

Verb defocalization is easily detected in positive perfective clauses that have the simple perfective rather than a suffixally marked perfective. It is also easily recognized in positive stative clauses (including those with 'be [somewhere]', 'have', and other quasi-verbs) by the absence of *yá* and of reduplication. With other inflectional categories, including all negative clauses and positive imperfective clauses, the distinction between defocalized and regular verbs is difficult to make. Tone-dropping in negative verbs (453b) is the only relevant clue, and it may be gradient (i.e. a semi-grammaticalized downdrift). This is not a big problem since focalization is pragmatically awkward under negation ('It was <u>you</u> [focus] who I didn't see'). In positive imperfective examples like *ɛ́:ŋí yɛ̂:-m̀-∅* 'I will come tomorrow', we cannot determine whether *ɛ́:ŋí* 'tomorrow' is focalized ('It is <u>tomorrow</u> [focus] that I will come') or unfocalized ('I will come tomorrow').

The simple perfective does not require that there be a strong focus of the sort expressed by heavy emphatic stress in English. In texts, the simple perfective is common in clauses that would be translated with unfocalized clauses, as long as there is at least one overt constituent preceding the verb.

Verb defocalization implies that there is another overt constituent that is at least somewhat focal, but does not tell us which one. If there is only one preverbal constituent, it is the only candidate for focus. If there are two or more, not including a subject pronoun or an interrogative, the listener must use context and native wit to infer which is focal.

13.1.1 Subject focalization

The verb has its usual pronominal subject suffix. Subject pronouns are easiest to identify as focalized, since bare independent pronouns (without topic marker) do not ordinarily occur in subject function in unfocalized main clauses (454a-b), except as part of a topic phrase with a particle (§19.1.1-3). In positive perfective clauses, the simple perfective is a reinforcing indicator that the verb is defocalized (454c-d).

(454) a. *ǐ:ⁿ* *sɛ́mbì-m̀-∅*
1Sg sweep-Ipfv-1SgSbj
'It's I [focus] who will sweep.'

b. *î:* *sɛ́mbì-mì-y.:*
1Pl sweep-Ipfv-1PlSbj
'It's we [focus] who will sweep.'

c. *ú* *yɛ̀gɛ̂-w*
2SgSbj fall.Pfv-2SgSbj
'It's you-Sg [focus] who fell.'

d. *ǐ:ⁿ* *ú-ŋ́* *sùyɔ̀-ỳ*
1SgSbj 2Sg-Acc hit.Pfv-1SgSbj
'It was I [focus] who hit you-Sg.'

A nonpronominal subject NP does has no overt mark of focalization, so in the absence of overt verb defocalization there is no indication that the subject is focalized. One way to insure expression of focalization, especially useful in positive imperfective clauses, is to topicalize the subject NP and resume it with a subject pronoun (455).

(455) *yì-tɛ̀gɛ̂,* *bû:* *bírɛ̀-m-ɛ̀*
child-Pl, 3Pl work-Ipfv-3PlSbj
'The children, it's they [focus] who work.'

13.1.2 Object focalization

The object NP or pronoun remains in its regular linear position. Object pronouns occur in unfocalized as well as focalized clauses. Therefore object focalization (other than in content interrogatives) is difficult to recognize, unless the verb is overtly defocalized and there is no other candidate for focus.

In (456a-b), only context and perhaps articulatory emphasis indicate object focalization. In (456c-d), the verb defocalization (simple perfective) implies that the object is focal.

(456) a. *ŋ̀gú* *jɔ́rɔ̀-sò-ỳ*
Dem.InanSg look.for-Prog-1SgSbj
'That [focus] is what I'm looking for.'

b. *ú-ŋ́* *ɲírⁿɛ̀-mì-y∴*
2Sg-Acc look.at-Ipfv-1PlSbj
'It's <u>you-Sg</u> [focus] that we will look at.'

c. *ńnɛ́-ŋ* *sùyɔ̀-ỳ*
3Sg-Acc hit.Pfv-1SgSbj
'It is <u>him/her</u> [focus] that I hit.'

d. *ǹjí-ŋ́* *sùyɛ̀-∅*
1Sg-Acc hit.Pfv-3SgSbj
'It was <u>me</u> [focus] that he/she hit.'

In elicitation, my assistant did suggest that the form of the object could be used to indicate focalized status at least probabilistically, in that "optional" accusative suffix *-ŋ* is typical of focalized objects. He therefore distinguished focalized (457a) with *-ŋ* from unfocalized (457b) without it. However, the simple perfective occurred in both, and I doubt that overt versus covert accusative marking really correlates well with focalization. In any event, *-ŋ* is not always audible due to phonetic attrition.

(457) a. *á:mádù* *ǹjí-ŋ* *sùyɛ̀-∅*
A 1Sg-Acc hit.Pfv-3SgSbj
'I was <u>me</u> [focus] that Amadou hit.'

b. *á:mádù* *ǹjí* *sùyɛ̀-∅*
A 1SgAcc hit.Pfv-3SgSbj
'Amadou hit me.'

13.1.3 Focalization of PP or other adverbial

Adverbs including PPs can be focalized. (458a-b) show spatial and temporal adverbs, which in their respective discourse contexts were clearly focal but which have no overt marker of focalization since the verb is imperfective. Because linear order is not systematically correlated with focalization, (458b) could also be used with 'to the field(s)' rather than 'tomorrow' as focus.

(458) a. *[ò:*^{L} *gó]* *ńní-m̀-∅*
[field^{L} Loc] go-Ipfv-1SgSbj
'It's <u>to the fields</u> [focus] that I am going.'

b. *ɛ́:ŋí* *[ò:*^{L} *gó]* *ńní-m̀-∅*
tomorrow [field^{L} Loc] go-Ipfv-1SgSbj
'It's <u>tomorrow</u> [focus] that I will go to the field(s).'

A dative example is (459a), and an instrumental example is (459b). The simple perfective is consistent with focalization of the PPs.

(459) a. *[ú* *báy]* *kìyɛ̀-ỳ*
[2Sg Dat] say.Pfv-1SgSbj
'It's <u>to you-Sg</u> [focus] that I said (it).'

b. *[ŋ̀gú* *yàŋà]* *bìrɛ̀-ỳ*
[Dem.InanSg Inst] work.Pfv-1SgSbj
'It was <u>with this</u> [focus] that I worked.'

13.1.4 Focalization of postpositional complement

A PP is focalized as an intact unit. There is no way to overtly distinguish focalization of a PP from focalization of just its NP complement. In the examples of focalized PPs in the preceding section, the context usually involves NP complement focalization.

13.1.5 Reduplication and existential *yá* omitted

Two fairly common extensions of unfocalized positive main clause verbs are initial *Cv-* reduplication (§10.2.1.6, §10.2.2.2, §10.4.1) and the existential particle *yá*. One or the other occurs with unfocalized positive stative verbs in main clauses. Elsewhere, *yá* is required in 'have' predicates and (in the absence of a locational) with 'be (somewhere)' predicates.

Reduplication and *yá* disappear when another constituent is focalized. This suggests that reduplication and *yá* are associated with verb (or clause) focalization, and that when another constituent (a NP or adverb) is focalized, the predicate is ipso facto defocalized (and trimmed). In 'be (somewhere)' constructions, any overt locational can function as focalized for this purpose.

The stative form for 'sit (down)' is usually reduplicated *é-ʔèwò-* 'be sitting, be seated', though *yá ɛ̀wò-* is also possible. If there is a focalized constituent, the form is just *èwò-* (460a). Likewise, stative 'fear' is usually reduplicated *ú-ʔùwà-*, but it reduces to *ùwà-* if a constituent is focalized (460b).

(460) a. *ɩ̌:ⁿ* *èwò-y*
1Sg **sit.Stat**-1SgSbj
'It's <u>I</u> [focus] who am sitting.'

b. *yàrá=ŋ́* *ùwà-y*
lion-Acc **fear.Stat**-1SgSbj
'It's <u>lions</u> [focus] that I am afraid of.'

Existential *yá* is absent before 'be (somewhere)' and 'have' because of the focalized constituents in (461a-c).

(461) a. *ɩ̌:ⁿ* *bù-y*
1Sg **be**-1SgSbj
'It's <u>I</u> [focus] who am here.'

b. *ǎ-ŋ* *ńdô* *sò-∅*
who?-AnSg house **have**-3SgSbj
'Who [focus] has a house?'

c. *gúrî* *sò-y*
hut **have**-1SgSbj
'It's a hut [focus] (not a house) that I have.'

13.2 Interrogatives

Several of the content (WH) interrogative stems begin with *à(:)*, which may have originally been an interrogative morpheme. The relationship, if any, to a classifier-like initial *a(n)-* in a few nouns (§4.1.8) is unclear.

13.2.1 Polar (yes/no) interrogatives (*ma*)

Interrogative particle *ma* is added at the end of an otherwise indicate sentence. It is optionally prolonged (symbol →). It is of variable pitch because of intonational effects (see below on parallelistic constructions).

When it is clause-final, its phonological tone (before intonational embellishment) is copied from the final tone of the preceding word. It is heard as *mà* with L-tone after verbs, adjectives, and anything else that ends in an L-tone. Interestingly, it also has L-tone after verb forms containing perfective-2 *-só-* in spite of their H-tones, like 2Sg *-só-ẃ* in (462c). The perfective-2 is the only positive indicative inflection with a final H-tone on the suffix, so one can generalize that all positive indicative verbs are followed by L-toned *mà*. The perfective-2 suffix has a similar tonal effect on quotative particle *wa*, see (614c) in §17.1.3.

(462) a. *ɛ́:ŋí* *yê:-m̀-ʷ* *mà*
tomorrow come-Ipfv-2SgSbj Q
'Are you-Sg coming tomorrow?'

b. *ɛ́:ŋí* *yê:-mù-w.:.* *mà*
tomorrow come-Ipfv-2PlSbj Q
'Are you-Pl coming tomorrow?'

c. *yě:-só-ẃ* *mà*
come-Pfv2-2SgSbj Q
'Did you come?' (likewise 1Sg *yě:-só-ý mà*, 3Sg *yě:-só-∅ mà*)

d. *dúsû* *mà*
be.heavy Q
'Is he/she heavy?'

e. *yê:-ŋɔ̀-ẁⁿ* *mà*
come-IpfvNeg-2SgSbj Q
'You-Sg will not come?'

H-toned *má* occurs clause-finally after all other words ending in an H-tone. For example, it occurs after final-H-toned words containing (or ending in) any of the H-toned negative morphemes: perfective negative *-rí-*, *ŋ̀gó-* 'not be', stative negative *=ǹdó-* (with adjectives or stative verbs), and *=ndǒ:-* 'it is not' (with nouns).

(463) a. *yè:-rí-∅* *má*
come-PfvNeg-3SgSbj Q
'Did he/she not come?'

b. *ɲǎ:* *kɔ̀:-rú-ẃ* *má*
meal eat-PfvNeg-2Sg Q
'Have you-Sg not eaten?'

c. *ŋ̀gá* *ŋ̀g-é:* *má*
here not.be-3PlSbj Q
'Are they not here?'

d. *dùsù=ndó-∅* *má*
heavy=StatNeg-3SgSbj Q
'Is he/she not heavy?'

e. *dɔ́gɔ̀=ndǒ:-ẃ* *má*
Dogon=it.is.not-2SgSbj Q
'You-Sg are not a Dogon?'

H-toned *má* also occurs after H-final predicative adjectives: *dùgú má* 'is he/she big?'

The split into *mà* and *má* based on the final tone of the preceding word is limited to clause-final (prepausal) position. This is the normal position, but when a polar interrogative is quoted, *ma* is followed by quotative clitic *wa*. Both clitics are elsewhere atonal, but in this combination they are H-toned, even after an L-tone. A reasonable interpretation is that when protected by a following morpheme, the latent underlying H-tone of *ma* is expressed.

(464) *[ńné* *wá] …* *[ǹněn* *nɔ̀]* *júgɔ́-ŋ̀* *má→* *wá*
[3Sg Quot] … [name 3SgPoss] know-Ipfv.3SgSbj Q Quot
'(She was asked): hey you, do you know her name?' (2004.02.03)

In (464) original addressee is expressed as third person in a quotation (§17.1.1). Another example of *má→ wá* is in (684) in §17.6.3 below.

When both polar alternatives are overt, *ma* appears after the first segment with pitch raised (symbol ˈ), a common nonterminal clause-final intonation effect, and often with its vowel prolonged (→). The second segment may be complete in form, structurally parallel to the first, but ending in *ma* without much intonational modification (465a). Alternatively, the second segment may omit *ma* (this is rather common), and it may also show other simplifications (465b).

(465) a. *ńní-m̀-ʷ* *mà→,* *bê:-m̀-ʷ* *mà*
go-Ipfv-2SgSbj **Q**, stay-Ipfv-2SgSbj **Q**
'Will you-Sg go, (or) will you-Sg stay?'

b. *nìmî* *jɔ́rɔ̀-m̀-ʷ* *mà→↑,* *nàmâ* *jɔ́rɔ̀-m-ʷ*
cow.peas want-Ipfv-2SgSbj **Q**, meat want-Ipfv-2SgSbj
'Do you like cow-peas, (or) meat?'

In embedded 'whether' clauses, the L- or H-tone of *ma* is overridden by a variant of the dying-quail effect (§3.8.3). In such cases I transcribe *má.∴* or *mà.∴*, showing the "correct" phonological tone which depends on the preceding tone. As usual, addition of *.∴* signals that the dying-quail effect modifies the phonological tone, in this case resulting in [màáà], combining lengthening with pitch movement. Examples are in (641) in §17.2.1 and (660e) in §17.3.7.

I did not observe any tag question constructions, except for a rhetorical tag-question with *là* (§13.2.9).

As also noted in (§7.2), there is no clear distinction between interrogative *mà* and the 'or' disjunctive particle *mà* in such parallel polar interrogatives.

13.2.2 'Who?' (*ă-ŋ*, *ă:-yè*)

In WH-interrogatives, the interrogative particle *mà* occurs optionally (but redundantly) at the end of the clause. The WH-word is pragmatically focal, with implications for the form of a following perfective positive or stative positive verb (§13.1).

The 'who?' word is *ă-ŋ*, ending in one of the few vestiges of an original animate singular suffix *-ŋ* (cf. *yă-ŋ* 'woman'), likely from earlier *-m. It is (less often) expanded as *nù:*ᴸ *ă-ŋ*, with the preadjectival form of *nŭ:* 'person'. The *ŋ* is subject to assimilation to the position of a following consonant, hence [ăm], [ăn], and [ăjⁿ] before various following consonants. In isolation it can be pronounced [ăŋ] or [ă:ⁿ] with vowel nasalization. I normalize transcription as *ă-ŋ*.

(466) a. *[kɛ̀:rɛ̀*ᴸ *gú]* *[ă-ŋ* *báy]* *ǹdì-ẁ*
[moneyᴸ Def.InanSg] [**who?-AnSg** Dat] give.Pfv-2SgSbj
'To who(m) did you-Sg give the money?

b. *ă-ŋ* *yè:-∅* *mà*
who?-AnSg come.Pfv-3SgSbj Q
'Who came?'

c. *ăŋ* *nàŋá* *jè:-∅* *mà*
who?-AnSg cow bring.Pfv-3SgSbj Q
'Who brought the cow?'

d. *ăŋ* *ŋ̀gà-gá* *yì:-w* *mà*
who?-AnSg there see.Pfv-2SgSbj Q
'Who(m) did you-Sg see there?'

e. *[[nù:*ᴸ *ăŋ]* *yàŋà]* *y-ò:*
[[personᴸ **who?-AnSg**] Comit] come.Pfv-3PlSbj
'Who did they come with?'

Predicative function ('who is …?') is expressed by *ă-ŋ=ŋ̀* (pronounced [ăŋ̀]). This presumably includes a 3Sg form of the 'it is' clitic (§11.2.1.1). One cannot reliably hear the second velar nasal segment. The only reliably audible indicator of predicative status is the <LHL> tone of the syllable, and there is evidence (see below) that a final L-tone element is the real morphological feature here.

(467) a. *ă-ŋ=ŋ̀*
who?-AnSg=it.is.3SgSbj
'Who is he/she?'

b. *ă-ŋ=ŋ̀* *mà*
who?-AnSg=it.is.3SgSbj Q
'Who is it?' (pronounced [àḿmà])

If an overt "subject" NP is present, *ă-ŋ* is topicalized.

(468) *wŏ-ŋ* *[ă-ŋ=ŋ̀* *mà]*
Dem-AnSg [**who?-AnSg**=it.is.3SgSbj Q]
'This/that (person), who is it?' (= 'Who is that?')

There is a plural 'who-Pl is/are …?' form *ă:-yè*. Again, note the final L-tone. In predicative function with 3Pl subject, expected *ă:-yè=yè* is simplified (by haplology) to *ă:-yè=∅*.

(469) *ă:-yè=∅* *mà*
who?.Pl-Pl=it.is Q
'Who-Pl is it?

With first or second person "subject," we get forms like those in (470), where conjugated clitic *=m-* 'it is' is added to *ă-ŋ*. The *nù:*^{L} in (470a) is optional. Note especially the final falling tone in the 2Sg (470a) and 1Sg forms (470c), which are therefore followed by L-toned *mà*. So there are clear indications that a final L-tone is characteristic of predicative forms of 'who?'. For similar cases of unexpected L-tones before a clitic, see §11.2.1.1.

(470) a. *ú* *[nù:*^{L} *ă-ŋ]=mû-w* *mà*
2Sg [person^{L} **who?-AnSg**]=it.is-2SgSbj Q
'Who are you-Sg?'

b. *û:* *ă:-yè=mù-w.:.* *mà*
2Pl **who?.Pl**-Pl=it.is-2PlSbj Q
'Who are you-Pl?'

c. *ĭ:*^{n} *ă-ŋ=mî-y* *mà*
1Sg **who?-AnSg**=it.is-1SgSbj Q
'Who am I?'

d. *î:* *ă:-yè=mì-y.:.* *mà*
1Pl **who?.Pl**-Pl=it.is-1PlSbj Q
'Who are we?'

13.2.3 ‘What?’ (*kɔ̀-ɲɛ́*, *ǹɲɛ́*), ‘with what?’, ‘why?’

‘What?’ is *kɔ̀-ɲɛ́* (471). The first syllable is presumably related to *kɔ́* ~ *kɔ́ŋ* ‘thing’, leaving *-ɲɛ́* as the real interrogative element (diachronically). The combination is rather frozen synchronically.

(471) a. *kɔ̀-ɲɛ́* *bírɛ̀:-sɔ̀-ẁ*
what? work-Prog-2SgSbj
‘What are you-Sg doing?’

b. *kɔ̀-ɲɛ́* *kɔ̂:-mì-y.:*
what? eat-Ipfv-1PlSbj
‘What are we going to eat?’

‘With what?’ (instrumental) is *kɔ̀-ɲɛ́ ỳŋà*, contracted from *kɔ̀-ɲɛ́ yàŋà.

(472) *[kɔ̀-ɲɛ́* *ỳŋà]* *wárà-m̀-^{w}*
[what? Inst] farm-Ipfv-2SgSbj
‘With what do you-Sg grow (cultivate)?’

‘For what?’ = ‘why?’ is *kɔ̀-ɲɛ́ dɛ̀r^{n}í*, with purposive postposition.

(473) *[kɔ̀-ɲɛ́* *dɛ̀r^{n}í]* *yè-w*
[what? Purp] come.Pfv-2SgSbj
‘Why did you-Sg come?’

ǹɲɛ́ by itself can be used as the plural ‘what (things)?’, but it is fairly uncommon (474). The initial *ɲɲ* cluster is likely from *ìn; see §3.3.8.1.

(474) *[ǹɲɛ́* *ỳŋà]* *wárà-m̀-^{w}*
[what?.Pl Inst] farm-Ipfv-2SgSbj
‘With what (tools-plural) do you-Sg farm?’

The predicative form is illustrated in (475).

(475) *kɔ̀-ɲɛ́=ẁ^{n}* (*mà*)
what?=it.is.Inan (Q)
‘What is it?’

The ending in *kɔ̀-ɲɛ́=ẁ^{n}* is the inanimate conjugated form of the ‘it is’ clitic, namely *=w*, which elsewhere gets its tone from the preceding morpheme (§11.2.1.1). The fact that it appears as L-toned *=ẁ^{n}* in *kɔ̀-ɲɛ́=ẁ^{n}* is more evidence for a final L-tone feature in predicative interrogatives; compare the predicative forms of ‘who?’ discussed in the preceding section.

13.2.4 'Where?' (*àrⁿáŋá*)

'Where?' is *àrⁿáŋá*. It is arguably unsegmentable synchronically, but the final *ŋá* may have originated as the locative postposition (§8.2.3), and native speakers might still discern this segmentation. Adverbial examples are in (476).

(476) a. *àrⁿáŋá* *ńní-m̀-ʷ*
where? go-Ipfv-2SgSbj
'Where are you-Sg going?'

b. *[yì-tɛ̀gɛ̀* ᴸ *bû:]* *àrⁿáŋá* *yɛ̀g-à*
[child-Plᴸ Def.AnPl] where? fall.Pfv-3PlSbj
'The children [topic], where did they fall?'

Predicative '(someone/something) be where?' is the same *àrⁿáŋá* plus the regular form of locational 'be' (§11.2.2.2), as in (477a-b). 'Where is it?' with unspecified topic is *àrⁿáŋá=ŋ̀*, with the by-now familiar final L-tone element (477c).

(477) a. *bòndí* *àrⁿáŋá* *bù-∅*
rain(n) where? be-3SgSbj
'The rain [topic], where is it?' (='Where is the rain?)

b. *àrⁿáŋá* *bù-w*
where? be-2SgSbj
'Where are you-Sg?'

c. *àrⁿáŋá=ŋ̀*
where=it.is.3SgSbj
'Where is it?'

13.2.5 'When?' (*[àŋgú* ᴴᴸ*tû:] gò*, *wàgàtì àrⁿáŋá*)

'When?' is expressed as *[àŋgú* ᴴᴸ*tû:] gò*, which ends in locative *gò*. It begins with *àŋgú* 'which?', which however is elsewhere an adjective that follows its modified noun. This analysis suggests that *tû:* (perhaps a possessed noun?) should mean 'time', but no such noun with this meaning occurs elsewhere in Nanga. (Compare, however, Toro Tegu *tùwɔ́* 'time'.)

(478) a. *á:mádù* *[[àŋgú* ᴴᴸ*tû:]* *gò]* *yé:-ŋ̀*
A [[which? ᴴᴸtime] Loc] come-Ipfv.3SgSbj
'When is Amadou coming?'

b. *[[àŋgú* ᴴᴸ*tû:]* *gò]* *tɔ̀-ɔ̀*
[[which? ᴴᴸtime] Loc] sow.Pfv-3PlSbj
'When did they sow (= plant the seeds)?'

An alternative 'when?' interrogative is *wàgàtì*ᴸ *àrⁿáŋá*, which consists of an L-toned form of *wágátì* 'time, moment', an Arabic loan that is widespread in languages of the zone (Fulfulde, Songhay, etc.), plus *àrⁿáŋá* 'where?'.

(479) a. *[wàgàtì*^{L} *àr*^{n}*áŋá]* *bòndí* *wɔ̀è-∅*
[time^{L} where?] rain(n) rain.fall.Pfv-3SgSbj
'When did the rain fall?'

b. *[wàgàtì*^{L} *àr*^{n}*áŋá]* *á:ndé* *ńní-m-*^{w}
[time^{L} where?] Anda go-Ipfv-2SgSbj
'When are you-Sg going to Anda (village)?'

13.2.6 'How?' (*àmây*^{n}, *àmây*^{n}*-àmây*^{n} ~ *àmá-mây*^{n})

'How?' can be expressed by the interrogative adverb *àmây*^{n}, or its iteration *àmây*^{n}*-àmây*^{n}. The iterated form allows for multiple answers ('in what ways?'). These forms are subject to phonetic attrition in sentential context; the *y*^{n} is often elided, and the iteration may be reduced to *àmây*^{n}*-mây*^{n} or *àmá-mày*^{n}.

(480) a. *àmây*^{n} *ńní-m̀-*^{w}
how? go-Ipfv-2SgSbj
'How will you-Sg go?'

b. *tóndí* *àmây*^{n}*-àmây*^{n} *ké:ndè-m̀-*^{w}
basket how?-how? fix-Ipfv-2SgSbj
'How are you-Sg going to fix the basket?'

àmây^{n} is often combined with *kár*^{n}*á* 'do' in the sense 'do what?' This phrase as a whole can be used in 'how?' interrogatives, in the same-subject subordinated forms *kár*^{n}*í ŋ́* (for past time) or *kàr*^{n}*ì gáy* (for imperfective contexts).

(481) a. *[àmây*^{n} *kàr*^{n}*ì* *gáy]* *úmî* *lă:rà-mì-y.:.*
[**how?** **do** and.then.SS] mosquito chase.away-Ipfv-1PlSbj
'How (= [by] doing what?) will we chase away the mosquitoes?'

b. *[àmây*^{n} *kár*^{n}*í* *ŋ́]* *[yě:* *ŋ́]* *èw-yè-∅*
[**how?** **do** and.SS] [come and.SS] sit-MP.Pfv-3SgSbj
'Hw did it (=our village) come and settle?' (2004.01.05)

àmây^{n} is obscurely related to *may*^{n} 'like' (§8.4.1).

13.2.7 'How much/many?' (*à:ŋgǎy*)

'How much?' or 'how many?' is *à:ŋgǎy*. It function like a numeral, following a noun (without plural marking) that keeps its normal tones (482a). It can also be used absolutely (482b).

(482) a. *[pèrgé* *à:ŋgǎy]* *sò-w*
[sheep how.many?] have-2SgSbj
'How many sheep do you-Sg have?'

b. *à:ŋgǎy* *jɔ́rɔ̀-m̀-ʷ*
how.much? want-Ipfv-2SgSbj
'How much (or: how many) do you-Sg want?'

A complement may also be expressed by a topicalized NP (483).

(483) *nàŋá* *yɛ̃:,* *à:ŋgǎy* *màrà-∅*
cow 1SgPoss.AnPl, how.many? be.lost.Pfv-3SgSbj
'My cows, how many (of them) were lost?'

The distributive iteration, used in markets to indicate price per unit of sale, is *à:ŋgǎy-à:ŋgǎy*.

(484) *[ɛ́wɛ́* *gá]* *mǎŋgórò* *à:ŋgǎy-à:ŋgǎy* *túrɔ̀-m-ɛ̀*
[market Loc] mango how.much?-how.much? sell-Ipfv-3PlSbj
'They sell mangoes for how much apiece in the market?'

13.2.8 'Which?' (*àŋgú*)

As interrogative modifying adjective, 'which?' is expressed as *àŋgú* (485a). It may also be used absolutely (485b). Before a *Cv* onset it optionally syncopates to *ǎŋ*, and the velar nasal may then assimilate (485c).

(485) a. *[màŋgòrò*^{L} *àŋgú]* *jɔ́rɔ̀-m̀-ʷ*
[mango^{L} **which?**] want-Ipfv-2SgSbj
'Which mango do you-Sg want?'

b. *àŋgú* *jɔ́rɔ̀-m̀-ʷ*
which? want-Ipfv-2SgSbj
'Which (one) do you-Sg want?'

c. *[nàŋá* *[ú* ^{HL}*yɛ̂]]* *ǎŋ* *túrɔ̀-m̀-ʷ*
[cow [2Sg ^{HL}Poss.AnPl]] **which?** sell-Ipfv-2SgSbj
'Which of your cows are you-Sg selling?'
(can also mean 'You will sell your cows to whom?')

àŋgú gets some competition from other interrogatives. In (486a), *àrⁿáŋá* 'where?' is used as a modifier (or perhaps compound final), with preceding L-toned noun, since a fixed location is involved. In (486b), a possessive construction is used with *kɔ̀-ɲɛ́* 'what?' as the possessor, since the question concerns the substance (i.e. fruit) from which the possessed noun is constituted.

(486) a. *[ú* ^{HL}*tíyâ]* *[ǹdò*^{L} *àrⁿáŋá]* *sígé-ŋ̀*
[2SgPoss ^{HL}friend] [house^{L} **where?**] go.down-Ipfv.3SgSbj
'In which house does your-Sg friend go down (=lodge)?'

b. *[kɔ̀-ɲɛ́* ^{HL}*nî:]* *kárⁿì-mì-y.:*
[**what?** ^{HL}water] make-Ipfv-1PlSbj
'Which juice (=juice of what) will we make?'

13.2.9 Rhetorical tag question (*là*)

Clause-final *là*, probably related at least historically to negative morphemes (cf. *=ndǒ:* 'it is not', §11.2.1.2), is a rhetorical tag question marker. Usually no response from the listener is expected. *là* could be considered an enclitic, but I know of no phonological interactions with the preceding word.

(487) *pír-à:ndì* *[kú* *mày^{n}]* *gɔ̀ŋɔ́r^{n}ɔ̀-m̀=bɛ̀-∅* *là*
Fulbe [DiscDef like] go.around-Ipfv=Past-3SgSbj tagQ
'Fulbe used to go around (acting) like that, did they not?' (2004.01.10)

13.2.10 Embedded interrogatives

Embedded WH-interrogatives can take the same form as unembedded ones, with the original WH-interrogative word and with the interrogative particle, which is typically pronounced with some prolongation and with low or falling pitch in this construction.

(488) a. *[ǎ-ŋ* *yè:-∅* *mà→]* *yɛ̀-rí-y*
[who?-AnSg come.Pfv Q] see-PfvNeg-1SgSbj
'I didn't see who came.'

b. *[à:ŋgǎy* *ɛ̀wɛ̀-∅* *mà→]* *júgɔ̀-ŋɔ̀-y*
[how.much? pay.Pfv-3SgSbj Q] know-IpfvNeg-1SgSbj
'I don't know how much he/she paid.'

c. *[àr^{n}áŋá* *ǹnɛ̀-∅* *mà→]* *júgɔ̀-ŋɔ̀-y*
[where? go.Pfv-3SgSbj Q] know-IpfvNeg-1PlSbj
'I don't know where he/she went.'

The construction gets some competition from relative clauses, such as the object relative clause in (489). For *-m̀-sɛ̀*, see the temporal adverbial clause type with *-m̀-sɛ̀ gà* (§15.2.3, below), which may be historically related to the progressive inflection (§10.2.2.4).

(489) *[kɔ̀^{L}* *ɩ̌:^{n}* *jɔ́rɔ̀-m̀-sɛ̀* *^{L}gù]*
[thing^{L} 1SgSbj look.for-Ipfv-Ppl.Pfv ^{L}Def]
ìrɛ́ *bɛ̀sì-y*
forget bury.Pfv-1SgSbj
'I have forgotten the thing which (=forgotten what) I was looking for.'

14 Relativization

14.1 Basics of relative clauses

Relative clauses have the features in (490).

(490) a. the core of the head NP, maximally Poss-N-Adj-Num, occurs in its clause-internal position (**internal head**)
b. the internal head, except a preposed possessor, is **tone-dropped**;
c. the verb (functioning as a **participle**) is marked for a reduced set of AN categories, and may differ in form from a main-clause verb; participles **usually do not agree** morphologically with either the subject or the head NP; however, there is optional 3Pl subject agreement in imperfective positive participles, and optional but frequent animate plural head-NP agreement on negative participles;
d. the head NP is (seemingly) **bifurcated**, i.e. determiners and non-numeral quantifiers follow the participle;
e. if the overall NP (DP) is semantically definite, as it usually is, the **verb-participle is followed by a determiner**, agreeing in animacy and number with the head noun, and tone-dropping the verb-participle;
f. pronominal subjects in nonsubject relatives are expressed by **proclitics** identical in form to independent pronouns but immediately preverbal;
g. there is **no relative marker** as such, whether in the clause-internal head NP or at either edge of the clause.

The apparent bifurcation of the head is (I maintain) the result of movement of the pre-relative part of the overall NP into the relativization site within the relative clause. This assumes that the overall NP has the maximal form is Poss-N-Adj-Num-**RelCl**-Det-DiscFunct, where "RelCl" is the relative clause containing the coindexed copy. After tone-dropping, the Poss-N-Adj-Num string slides into the position of the coindexed copy. This analysis works for most Dogon languages; the case for it is stronger in Ben Tey where there is supporting morphological evidence.

14.1.1 Coordinated relatives with a shared head

In (491), the head noun (*nŭ:* 'person') appears once, but is understood to be the unexpressed head of the second relative clause ('who go') as well. The first relative clause is structurally complete, including a final definite morpheme. Plurality is indicated only by the definite morpheme. The second clause contains a resumptive 3Pl subject pronoun (*bû:*) .

(491) *[nù:*^{L} *ŋ̀gá* *nà:-mì*^{L} *bû:]*
[**person**^{L} here spend.night-**Ppl**.Ipfv^{L} Def.AnPl]
[kòr^{n}*óŋòy*^{n} *bû:* *ńní-mì]*
[morning AnPl go-**Ppl**.Ipfv]
jɔ́rɔ̀-m̀-∅
want-Ipfv-1SgSbj
'I like people who spend the night here and who go (away) in the morning.'

In (492), even the main-clause verb ('I dislike') is adjacent to the first relative clause, suggesting a kind of extraposition of the second relative clause (or else gapping of a second 'I dislike').

(492) *[kìr*^{n}*á* *nù:*^{L} *gísè-mì]* *m̀bùrà-ý*
[bone person^{L} throw-**Ppl**.Ipfv] dislike-1SgSbj
[[tùndú *gó]* *kìr*^{n}*á* *nù:*^{L} *sɛ́mì-ŋɔ̀:]*
[[rear Loc] bone person^{L} sweep-**Ppl**.IpfvNeg]
'I dislike people who throw bones and (who) don't sweep up afterwards.'

A simpler construction occurs when the two co-events are merged into a chain, since here only the final verb is participialized.

(493) *nù:*^{L} *tómbó* *sígè-mì*
person^{L} jump go.down-**Ppl**.Ipfv
'a person who jumps down'

For relatives with conjoined NPs as head, see §14.1.4, below.

14.1.2 Tone-dropping on final word(s) of internal head NP

The regular NPs in the left column in (494) are converted into the relative-clause head NPs in the right column.

(494)		regular NP	relative head NP	gloss
	a.	*nǔ:*	*nù:*^{L}	'person'
		ńdô	*ǹdò*^{L}	'house'
	b.	*nù:*^{L} *mɔ̀sí*	*[nù: mɔ̀sì]*^{L}	'bad person'
		ǹdò^{L} *èsí*	*[ǹdò èsì]*^{L}	'good house'
	c.	*nú wǒy*	*[nù wòy]*^{L}	'two people' (§4.1.3)
		ńdô kúrê	*[ǹdò kùrè]*^{L}	'six houses'
	d.	*[nù:*^{L} *mɔ̀sí] wǒy*	*[nù: mɔ̀sì wòy]*^{L}	'two bad people'
		[ǹdò^{L} *èsí] kúrê*	*[ǹdò èsì kùrè]*^{L}	'six good houses'

In (494a-b), whether the NP is a simple noun or a noun-adjective pair, the final word has its regular tones when the NP is independent. In (494c-d), the last two words of the NP have

their regular tones. When the NP functions as relative head, everything from the noun to the final modifier is tone-dropped. In (494b,d) the noun is also tone-dropped by the adjective, so in the relative-clause versions one might argue for cyclical tone-dropping. My bracketing and superscripts are based on an alternative one-step model where the relative clause (as outermost or highest controller) imposes {L} in one fell swoop on the noun and its following modifiers. These tonosyntactic facts are parallel to those seen in Jamsay, Ben Tey, and several other Dogon languages.

It is also necessary to consider how possessed NPs behave when they function as head NPs. When the possessor is postnominal (i.e. a pronominal possessor plus possessive classifier, §6.2.1.3), the possessum is not tone-dropped, either as independent NP or as relative head. Rather, the possessive classifier (originally a noun meaning 'thing' or 'animate being') is tone-dropped in relative heads, if not already L-toned. The tone-dropping is easiest to hear in the 1Sg forms, where the 1Sg possessor fuses with the classifier (adding only an initial L-tone to the basic {HL} possessum overlay of the classifier). The actual 1Sg possessor forms are *kɔ̌ɔ:* and *yɛ̌:*, dropping to *kɔ̀ɔ:*^{L} and *yɛ̀:*^{L} (495d) at the end of relative heads. However, even possessors like 2Sg *ú gɔ̂* in (495a) undergo tone-dropping as relative heads, in this case to *ú gɔ̀*^{L} (495b). Since niether the possessum nor the 2Sg pronoun *ú* are tone-dropped, I indicate **tonosyntactic islandhood** (preventing tone-dropping) by ⊂…⊃ in these examples, though I usually omit these brackets in text transcriptions.

(495) a. *ńdô* *[ú* ^{HL}*gɔ̂]*
house [2Sg ^{HL}Poss.InanSg]
'your-Sg house'

b. *[⊂ńdô* *[ú⊃* *gɔ̀*^{L}*]]* *yɛ̀gɛ̀-sɛ̀*^{L} *gú*
[⊂house [2Sg⊃ **Poss.InanSg**^{L}]] fall-Ppl.Pfv^{L} Def.InanSg
'your house that fell'

c. *pɛ̀rgɛ́* *yɛ̌:*
sheep 1SgPoss.AnSg
'my sheep-Sg'

d. *[⊂pɛ̀rgɛ́⊃* *yɛ̀:*^{L}*]* *yɛ̀gɛ̀-sɛ̀*^{L} *nɛ́*
[⊂sheep⊃ 1SgPoss.**AnSg**^{L}] fall-Ppl.Pfv^{L} Def.AnSg
'my sheep-Sg that fell'

e. *[[⊂bùró* *[û:⊃* *yɛ̀*^{L}*]]* *sɛ̌→* *bù-mì*^{L} *ý]*
[[⊂pants [2Pl⊃ **Poss.InanPl**^{L}]] dangling be-Ppl.Ipfv^{L} Def.InanPl
'Those pants (=loincloths) of yours-Pl that are dangling down' (2004.01.09)

The island consists in each case of the possessum and the pronoun preceding the possessive animacy-number classifier (495b,e). There is no separate pronoun in the 1Sg possessor case (495d), but again the possessum is tonosyntactically free. The classifier, on the other hand, is exposed and is tone-dropped by the relative clause.

A prenominal possessor may be any nonpronominal NP, and it may be a pronoun in the case of inalienable possession (kin terms). The data in (496) show that the entire possessor-possessed NP is a tonosyntactic island with respect to relativization. Neither the possessor NP nor the possessum drops its tones. In (496a), 'house' is already tone-dropped within the possessed NP, since the possessor ends in an L-tone (§6.2). Therefore its L-tone is not

attributable to the relative construction. In the other examples in (496), the possessum has {HL} overlay since the possessor ends in an H-tone, and there is no change when the entire NP functions as relative-clause head.

(496) a. *[á:dámà* ^{L}*ǹdò]* *yègè-sɛ̀*^{L} *gú*
[A ^{L}house] fall-Ppl.Pfv^{L} Def.InanSg
'Adama's house that fell.'

b. *⊂[yǎ-ŋ* ^{HL}*pɛ́rgɛ̀]⊃* *yègè-sɛ̀*^{L} *nɛ́*
⊂[woman-Sg ^{HL}sheep]⊃ fall-Ppl.Pfv^{L} Def.AnSg
'a/the woman's sheep-Sg that fell'

c. *⊂[[àr^{n}à*^{L} *wǒ-ŋ]* ^{HL}*pɛ́rgɛ̀]⊃* *yègè-sɛ̀*^{L} *nɛ́*
⊂[[man^{L} Dem-AnSg] ^{HL}sheep]⊃ fall-Ppl.Pfv^{L} Def.AnSg
'this man's sheep-Sg that fell'

d. *⊂[ú* ^{HL}*dɛ́rɛ̀]⊃* *bàmàkɔ̂:=∅* *bù-mì*^{L} *nɛ́*
⊂[2SgPoss ^{HL}elder.sib]⊃ B=Loc be-Ppl.Stat^{L} Def.AnSg
'your-Sg elder sibling who is in Bamako'

We now consider what happens when modifying adjectives and/or numerals are added. If a postnominal pronominal possessor is present, a modifying adjective is adjacent to the noun, so e.g. 'your big house' is expressed by the linear sequence [[house^{L} big] [2Sg Classifier]]. Since 'big' is tightly bound to the noun, it is included in the tonosyntactic island and is not tone-dropped in relatives (497a). A numeral may precede or follow a postnominal possessor. If the numeral precedes the possessor, it is internal to the tonosyntactic island and surfaces with lexical tones, like 'six' in (497b). If it follows the possessor, it is not protected and it is tone-dropped as part of the relative head (497c).

(497) a. *[⊂ǹdò*^{L} *ɔ̀wɔ́* *[ú⊃* *gɔ̀*^{L}*]]* *yègè-sɛ̀*^{L} *gú*
[⊂house^{L} **big** [2Sg⊃ Poss.InanSg^{L}]] fall-Ppl.Pfv^{L} Def.InanSg
'your-Sg big house that fell'

b. *[⊂ńdô* *kúrê* *[ú⊃* *yɛ̀*^{L}*]]* *yègè-sɛ̀*^{L} *ý*
[⊂house **six** [2Sg⊃ Poss.InanPl^{L}]] fall-Ppl.Pfv^{L} Def.InanPl
'your-Sg six houses that fell'

c. *[⊂ńdô* *[ú⊃* *yɛ̀*^{L}*]* *kùrè*^{L}*]* *yègè-sɛ̀*^{L} *ý*
[⊂house [2Sg⊃ Poss.InanPl^{L}]] **six**^{L}] fall-Ppl.Pfv^{L} Def.InanPl
[=(b)]

When an adjective is part of a possessed NP with a prenominal possessor (whether nonpronominal or pronominal), i.e. in Poss $^{(H)L}$[N Adj], the adjective is already tone-dropped as an extension of the {HL} or {L} possessum overlay controlled by the possessor. Therefor (498a,c) already end in an {L}-toned adjective, and no further tone-dropping is possible when these NPs function as relative heads (498b,d). I somewhat arbitrarily indicate the right edge of the island after the adjective in (498b,d), though it is quite possible that the relative clause would have tone-dropped at least the adjective if the latter were not already {L}-toned.

(498) a. *wǒ-ŋ* ^{HL}*[ńdô* *ɔ̀wɔ̀]*
Dem-AnSg ^{HL}[house big]
'a big house of this (person)' (*ɔ̀wɔ́*)

b. *⊂[wǒ-ŋ* ^{HL}*[ńdô* *ɔ̀wɔ̀]]⊃* *yɛ̀gɛ̀-sɛ̀*^{L} *gú*
⊂[Dem-AnSg ^{HL}[house **big**]]⊃ fall-Ppl.Pfv^{L} Def.InanSg
'the big house of this (person) that fell'

c. *ú* ^{HL}*[dérè* *mɔ̀sì]*
2SgPoss ^{HL}[elder.sibling bad]
'your nasty (older) brother'

d. *[⊂ú* ^{HL}*[dérè* *mɔ̀sì]]⊃* *yɛ̀gɛ̀-sɛ̀*^{L} *nɛ́*
[⊂2SgPoss ^{HL}[elder.sibling **bad**]]⊃ fall-Ppl.Pfv^{L} Def.AnSg
'your nasty (older) brother who fell'

When a numeral follows a noun that has a prenominal possessor, whether the numeral must be tone-dropped under the influence of the possessor depends on whether the possessor is nonpronominal (obligatory tone-dropping, §6.2.2.2) or pronominal (optional tone-dropping, §6.2.2.4). In the former case, whether any further tone-dropping would occur when the NP is a relative head is moot. In the latter case, tone-dropping on the numeral is obligatory, not merely optional. An example is (499), where 'six' might have been tone-dropped by virtue of being part of the possessum (top mark-up), but would definitely be tone-dropped in a relative head (bottom mark-up, also followed in the interlinear). The notation follows the second interpretation (relative clause tone-drops numeral).

(499) *⊂[ú* ^{HL}*[dérè* *kùrè]]⊃* *yɛ̀gɛ̀-sɛ̀*^{L} *bû:*
[⊂ú ^{HL}*dérè⊃* *kùrè]*^{L} *yɛ̀gɛ̀-sɛ̀*^{L} *bû:*
[⊂2SgPoss ^{HL}elder.sibling⊃] **six**]^{L} fall-Ppl.Pfv^{L} Def.AnPl
'Your-Sg six older brothers who fell' (*kúrê*)

Determiners and non-numeral quantifiers are not relevant to this section, since they follow the verbal participle; see §14.1.9-10, below.

14.1.3 Restrictions on the head noun in a relative clause

A pronoun may not directly head a relative clause. Instead, *nǔ:* 'person' (for humans) occurs as head NP (L-toned *nù:*^{L}), and the pronoun is preposed, in apposition.

(500) *î:* *[ŋ̀gá* *nù:*^{L} *b-ɛ̀-m*^{L} *bû:]*
1Pl [here **person**^{L} be-3Pl-Ppl.Stat^{L} Def.AnPl]
'we who are here' (lit. "we [the people who are here]")

14.1.4 Relative clause with conjoined NP as head

A conjoined NP (§7.1.1) is a tonosyntactic island with respect to relative-clause tone-dropping, so there is no audible effect in cases like (501). However, the conjunction *yò* is

already L-toned, so I cannot exclude the possibility that it is (covertly) tone-dropped as relative head.

(501) *[[[yǎ:* *yò]* *[ár^{n}à* *yò]]* *jòrìyè-sɛ̀*^{L} *bû:]*
[[[woman **and**] [man **and**]] fight-Ppl.Pfv^{L} Def.AnPl]
àr^{n}áŋá *b-ɛ̀*
where be-3PlSbj
'Where are the men and the women who squabbled?'

14.1.5 Headless relative clause

In idiomatic Nanga, a relative head NP that is understood to refer to an animate or inanimate object is normally expressed by at least a semantically light noun, such as *nǔ:* 'person', *kɔ́* 'thing', or *yɛ́* 'things; critter' (in L-toned form as *nù:*^{L}, *kɔ̀*^{L}, *yɛ̀*^{L}). However, relative clauses with no overt head are acceptable. In a case like *jòrìyè-sɛ̀ bû:* 'the ones who squabbled', the definite animate plural determiner at the end gives clues to the identity of the omitted head.

Headless relatives may also function as adverbial clauses, with a (sometimes vaguely) understood head like 'time', 'place', 'manner', or 'situation'; see §15.5.3.

14.1.6 Preverbal proclitic subject pronominal in nonsubject relative

In nonsubject relative clauses, if the subject is a pronoun, it is expressed by an independent pronoun proclitic to the verb-participle. There are no phonological interactions between the clitic and the verb. In (502c), the subject pronoun follows a direct-object pronoun, confirming that the subject pronoun is proclitic to the verb. In (502d) the proclitic intervenes between two directly chained verbs, 'fall' and 'go down'. The proclitics include 1Sg *ǐ:^{n}* and 3Sg *ńnɛ́*, which are unmistakably independent pronouns in form.

(502) a. *kɔ̀*^{L} *ú* *júgɔ̀-ŋɔ̀:*
thing^{L} **2SgSbj** know-Ppl.IpfvNeg
'something that you-Sg do not know'

b. *ùsì*^{L} *ǐ:^{n}* *yè:-sɛ̀*^{L} *gú*
day^{L} **1SgSbj** come-Ppl.Pfv^{L} Def.InanSg
'the day (when) I came'

c. *ùsì*^{L} *ǹjí-ŋ* *ńnɛ́* *sùyɔ̀-sɛ̀*^{L} *gú*
day^{L} 1Sg-Acc **3SgSbj** hit-Ppl.Pfv^{L} Def.InanSg
'the day (when) he/she hit me'

d. *ùsì*^{L} *yègɛ́* *ú* *sìgè-sɛ̀*^{L} *gú*
day^{L} fall **2SgSbj** go.down-Ppl.Pfv^{L} Def.InanSg
'the day you-Sg fell down'

The ability of a preverbal subject pronominal to intervene between two words is a useful syntactic test in some contexts. See §14.1.8, below for more examples and discussion. In

§10.1.1, this is brought to bear on the issue of whether certain AN morphemes in the (positive) perfective system are suffixes or chained auxiliary verbs.

14.1.7 Verb-participle

As explained in §4.6, the term "participle" is less compelling for Nanga than for some other Dogon languages such as Jamsay, where relative-clause verb-participles show explicit suffixal agreement with head NPs in intrinsic nominal features (animacy/humanness and number). In Nanga, by contrast, nouns and adjectives have virtually no marking of such features even in isolation. Instead, the burden of expressing intrinsic features within NPs is borne by determiners. So to the extent that participles are nominal or adjectival syntactically, we would not expect them to be directly marked for intrinsic features of the head NP.

In relative clauses, determiners (definite, demonstrative) follow the participle. In Nanga these determiners are tonosyntactic controllers, so the participle is subject to tone-dropping.

Nanga participles make more or less the same AN distinctions that we find in main clause verbs, specifying aspect (perfective/imperfective) and polarity (positive/negative). There is some morphological reduction in relative clauses, and reduplication is disallowed. For the most part, participles cannot agree with subjects. The exception is that negative participles do agree with animate plural head NPs. With the possible exception of perfective participial suffix *-sɛ̀*, whose relationship to perfective-2 *-só-* is synchronically unclear, the participial endings and stem-tones are identical or similar to those for the corresponding main-clause AN suffixes.

(503) Participles (four basic suffixes)

category	suffix	related AN suffix
perfective		
positive	*-sɛ̀*	perfective-2 *-só-* (?)
negative	*-rí*	perfective negative *-rí-*
imperfective		
positive	*-mì* (~ *-m̀*)	imperfective *-m̀-* (~ *-mì-*)
[for *-m̀-sɛ̀*, see discussion of (510) below]		
negative	*-ŋɔ̀:*	imperfective negative *-ŋɔ̀(:)-*

Perfective participial *-sɛ̀* corresponds to the amalgamation the simple perfective (unsuffixed), perfective-1a *-ɛ̀rɛ̀-*, perfective-1b *-tì-*, and perfective-2 *-só-*. It may also be added to recent perfect *jɛ̀-* to produce the sequence *jɛ̀-sɛ̀*, and to experiential perfect *tá:-* to produce *tá:-sɛ̀*.

(Positive) imperfective participial suffix *-mì* (~ *-m̀*) likewise has a broader range than its inflectable counterpart. It is used with stative verbs and quasi-verbs, as well as with active verbs in imperfective aspect. It may also be added to a verb already containing progressive suffix *-sò-* to produce the suffix complex *-só-mì* (note the change in tone).

Including these combinations, and some similar ones with negative participial suffixes, (503) can be expanded as (504).

(504) Participles (all categories of active verbs)

category	suffix(es)	similar AN morpheme
perfective	*-sɛ̀*	perfective-2 *-só-* (?)
recent perfect	*jɛ̀-sɛ̀*	recent perfect *jɛ̀-*
experiential perfect	*tá:-sɛ̀*	experiential perfect *tá:-*
perfective negative	*-rí*	perfective negative *-rí-*
recent perfect negative	*jɛ̀-rí*	recent perfect negative *jɛ̀-rí-*
experiential perfect Neg	*tà:-rí*	experiential perfect negative *tà:-rí-*
imperfective	*-mì* ~ *-m̀*	imperfective *-m̀-*
progressive	*-só-mì*	progressive *-sò-*
imperfective negative	*-ŋɔ̀:*	imperfective negative *-ŋɔ̀(:)-*
progressive negative	*-sò-ndó*	progressive negative *-sò-ndó*

14.1.7.1 Participles of positive perfective-system verbs (*-sɛ̀*)

Before getting into examples, it is necessary to point out that the participle is very frequently tone-dropped by a following determiner. Therefore the tones described here as basic are often overridden.

Examples of verbs with the basic perfective participial suffix *-sɛ̀* are in (505). The suffix is added to the bare stem (showing lexical vocalism and tone melody). When followed by a definite morpheme or other determiner, all tones in the participle including the verb stem drop, as in *nù:*^{L} *yɛ̀:-sɛ̀*^{L} *nɛ́* 'the person who came' (<*yɛ̌:-sɛ̀*).

Perfective participial *-sɛ̀* is the relative-clause counterpart of the simple perfective, perfective-1a, perfective-1b, and perfective-2 forms in main clauses. In practice it is also the usual counterpart of recent perfect *jɛ̀-* as well.

In texts, it is distinguished by tone from main-clause 3Pl perfective-2 *-s-ɛ́* (§10.2.1.3). On the other hand, the participial suffix is homophonous to main-clause 3Pl progressive *-s-ɛ̀* (§10.2.2.4). At word-level, the progressive can be recognized by the L- or <HL>-tone of the stem-final vowel, often accompanied by final-vowel lengthening and/or initial reduplication. The perfective participial has a stem ending in an H-toned vowel, does not lengthen final short vowels, and does not allow reduplication.

(505) Perfective participles

bare stem	Pfv participle	gloss
yɛ̌:-	*yɛ̌:-sɛ̀*	'come'
gɔ̌:-	*gɔ̌:-sɛ̀*	'go out'
yǐ:-	*yǐ:-sɛ̀*	'see'
núy^{n}*-*	*núy*^{n}*-sɛ̀*	'go in'
ńné-	*ńné-sɛ̀*	'go', for the vowels cf. (274)
yɛ̀gɛ́-	*yɛ̀gɛ́-sɛ̀*	'fall'
kár^{n}*í-*	*kár*^{n}*í-sɛ̀*	'do'

bǎ:rí-	*bǎ:rí-sɛ̀*	'help'
bɛ̀gírí-	*bɛ̀gírí-sɛ̀*	'winnow'

Examples are in (506). (506b) illustrates tone-dropping on the participle before a determiner.

(506) a. *nàŋà*[L] *bû:* *ɛ́mɛ́-sɛ̀*
cow[L] 3PlSbj milk(v)-**Ppl.Pfv**
'a cow (or: cows) that they milked'

b. *nàŋà*[L] *ǐ:*[n] *ɛ̀mɛ̀-sɛ̀*[L] *nɛ́*
cow[L] 1SgSbj milk(v)-**Ppl.Pfv**[L] Def.AnSg
'the cow that I milked'

Recent perfect *jɛ̀-* has participial *jɛ̀-sɛ̀*. It is used sparingly, since perfective participial *-sɛ̀* is often used as a relative-clause counterpart of *jɛ̀-* in main clauses. Like inflected *jɛ̀-*, the participial complex *jɛ̀-sɛ̀* follows the bare stem with its lexical tones. When a determiner is added, there is no overt change to the tones. In other words, the tone-dropping effect of the determiner does not reach beyond the *jɛ̀-*, which is already L-toned. This is evidence that *jɛ̀-* is treateed as a chained auxiliary verb, rather than a simple suffix. This view is reinforced by the fact that a subject pronominal intervenes between *jɛ̀-* and the preceding verb (507c).

(507) a. *àrⁿà*[L] *ɲǎ:* *kɔ́:* *jɛ̀-sɛ̀*
man[L] meal eat **RecPrf**-Ppl.Pfv
'a man who has already eaten (or: who has finished eating)'

b. *àrⁿà*[L] *ɲǎ:* *kɔ́:* *jɛ̀-sɛ̀*[L] *nɛ́*
man[L] meal eat **RecPrf**-Ppl.Pfv[L] Def.AnSg
'the man who has already eaten (or: who has finished eating)'

c. *àrⁿà*[L] *súyɔ́* *ǐ:*[n] *jɛ̀-sɛ̀*[L] *nɛ́*
man[L] hit **1SgSbj** **RecPrf**-Ppl.Pfv[L] Def.AnSg
'the man who(m) I have already hit (or: whom I have finished hitting).'

Experiential perfect *tá:-* with its long vowel is prosodically even more clearly a chained auxiliary verb. A simple example of a participle is (508a). If a determiner is added, *tá:-* is tone-dropped but the preceding verb is not (508b). A pronominal subject intervenes between the two verbs (508c).

(508) a. *yà:*[L] *[ìsɛ̀*[L] *gó]* *ńné* *tá:-sɛ̀*
woman[L] [village[L] Loc] go **ExpPrf**-Ppl.Pfv
'a woman who has (once/ever) gone to the village'

b. *yà:*[L] *[ìsɛ̀*[L] *gó]* *ńné* *tà:-sɛ̀*[L] *nɛ́*
woman[L] [village[L] Loc] go **ExpPrf**-Ppl.Pfv[L] Def.AnSg
'the woman who has (once/ever) gone to the village'

c. *yà:*[L] *yǐ:* *ǐ:*[n] *tà:-sɛ̀*[L] *nɛ́*
woman[L] see **1SgSbj** **ExpPrf**-Ppl.Pfv[L] Def.AnSg
'the woman whom I have (once/ever) seen'

Although perfective-1b *-tì-* was not observed in spontaneously produced relative clauses, it was possible with some effort to elicit *-tì-* in relatives. In nonsubject relatives, my assistant tended to allow a preverbal subject pronominal to intervene between the main verb stem and *tì-*, suggesting that the latter is a separate word (i.e. a chained auxiliary verb) rather than a suffix (509). However, he sometimes repeated such elicited sentences with the subject pronominal preceding the main verb. The construction does not seem to be productive and it is not surprising that its syntax is inconsistent.

(509) *[wàgàdì*[L] *ǹjí-ŋ́* *súyɔ́* *ńné* *tì-sè]* *gà*
[time[L] 1Sg-Acc hit **3SgSbj** **Pfv1b**-Ppl.Pfv] Loc
'at the time when he/she hit me'

Perfective participial *-sè* can be added to an imperfective form with *-m̀-* to form a perfect version of the imperfective (510). This participial form appears to have no exact counterpart among main-clause verb forms, which do not distinguish the perfect of the imperfective from a simple past imperfective (*-m̀ = bè-*).

(510) *pírâ* *èsí→* *nù:*[L] *jíyè-m̀-sè* [L]*bù:*
Fulbe a.lot person[L] kill-Ipfv-**Ppl.Pfv** [L]Def.AnPl
'people who had been killing lots of Fulbe' (2004.01.10)

14.1.7.2 Participles of positive imperfective-system and stative verbs (*-mì*)

Here the basic participial suffix is *-mì* with variants *-mù* and *-m*. The syllabic allomorphs are usual in simple participles not followed by a determiner. The nonsyllabic allomorph is usual before a determiner. *-m-è* is an optional marked form for 3Pl subject (whether or not it is also the head NP).

Examples showing the stem-shapes of imperfective participles derived from verbs that end in a non-high vowel are in (511). The stem is segmentally identical in main-clause and participial forms. However, the participle is never reduplicated. The participles in (511) are also tonally identical to the regular imperfective stem, except when tone-dropped by a following determiner. In this combination, *-mì* also reduces to *-m*.

(511) Imperfective participles for non-*i*-final verb

bare stem	imperfective participle	gloss
yě:-	*yê:-mì*	'come'
gǒ:-	*gó:-mì*	'go out'
yègé-	*yégè-mì*	'fall'

For bisyllabic verb stems that end in *i* in the imperfective participle, the *i* shifts to a non-high vowel when a determiner is added, in addition to the tone-dropping (512a). This applies to *i*-final stems like like 'go in' and 'do', as well as to 'go' which is partially *i*-final. The shifted variant is the non-high stem described in §3.4.8. I therefore add a second participial column in (512). Heavier verbs (those of more than two vocalic moras) whose stem ends in *i* have already shifted the *i* to a non-high vowel in the simple form of the imperfective participle, so for these verbs the stems have identical vocalism in the two participial columns (512b).

(512) Imperfective participles (stem ends in *i*)

bare stem	imperfective participle simple	imperfective participle before determiner	gloss
a. two vocalic moras			
monosyllabic			
yǐ:-	*yî:-mì*	*yì:-m*^{L}	'see'
bisyllabic			
núy^{n}*-*	*nûy*^{n}*-mì*	*nùy*^{n}*ɔ̀-m*^{L}	'go in'
ńné-	*ńní-mì*	*ǹnɛ̀-m*^{L}	'go'
kár^{n}*í-*	*kár*^{n}*í-mì*	*kàr*^{n}*à-m*^{L}	'do'
b. heavy stems (more than two vocalic moras)			
bǎ:rí-	*bǎ:rà-mì*	*bà:rà-m*^{L}	'help'
bɛ̀gírí-	*bɛ̀gírɛ̀-mì*	*bɛ̀gìrɛ̀-m*^{L}	'winnow'

Examples are in (513). Two of them (513b,d) end in determiners.

(513) a. *nàŋà*^{L} *ǐ:*^{n} *ɛ́mɛ̀-mì*
cow^{L} 1SgSbj milk(v)-**Ppl.Ipfv**
'a cow (or: cows) that I will milk'

b. *nàŋà*^{L} *bû:* *ɛ̀mɛ̀-m*^{L} *bû:*
cow^{L} 3PlSbj milk(v)-**Ppl.Ipfv**^{L} Def.AnPl
'the cows that they will milk'

c. *àr*^{n}*à*^{L} *núy*^{n}*-mì*
man^{L} go.in-**Ppl.Ipfv**
'a man who goes in'

d. *àr*^{n}*à*^{L} *nùy*^{n}*ɔ̀-m*^{L} *nɛ́*
man^{L} go.in-**Ppl.Ipfv**^{L} Def.AnSg
'the man who goes in'

The same imperfective participial suffix is used with stative verbs, which are (in other respects) aspect-neutral but generally include present-time reference (in the absence of the past clitic). Representative forms are in (514). Variant *ɛ́wɛ̀-mì* 'who is sitting' has medial *ɛ* from /o/ by assimilation to the flanking front vowels.

(514) Stative participles

bare stem	stative	stative participle	gloss
ɛ́w-yɛ́-	*ɛ́-ʔɛ̀wò-*	*ɛ́wɛ̀-mì ~ ɛ́wò-mì*	'be sitting'
í:-yí-	*í-ʔìyà-*	*íyà-mì*	'be standing'
sɔ́w-yɛ́-	*sɔ́-sɔ̀wò-*	*sɔ́wò-mì*	'be squatting'
ú:-yí-	*ú-ʔùwà-*	*úwà-mì*	'be afraid'

Examples are in (515). A determiner controls tone-dropping on the participle including the verb stem (515b).

(515) a. *àrⁿà*[L] *úwà-mì*
man[L] fear.**Stat**-Ppl.Ipfv
'a man who is afraid'

b. *àrⁿà*[L] *ùwà-m*[L] *nɛ́*
man[L] fear.**Stat**-Ppl.Ipfv[L] Def.AnSg
'the man who is afraid.'

Representative progressive participle forms are in (516). The stem has the same form as in the inflected progressive. Reduplication, which is normal in main clauses if the progressive verb is clause-initial, is disallowed in participles. The suffix *-sò-* shifts to H-toned *-só-* in the participle.

(516) Progressive participles

bare stem	progressive	progressive participle	gloss
yɛ̌:-	*yɛ̀-yɛ̂:-sò-*	*yɛ̂:-só-mì*	'come'
gɔ̌:-	*gò-gô:-sò-*	*gô:-só-mì*	'go out'
yǐ:-	*yì-yî:-sò-*	*yî:-só-mì*	'see'
núyⁿ-	*nù-nûyⁿ-sò-*	*nûyⁿ-só-mì*	'go in'
ńné-	*ì-ńnî:-sò-*	*ńnî:-só-mì*	'go'
yɛ̀gɛ́-	*yɛ̀-yɛ́gɛ̀(:)-sò-*	*yɛ́gɛ̀(:)-só-mì*	'fall'
kárⁿí-	*kà-kárⁿì(:)-sò-*	*kárⁿì(:)-só-mì*	'do'
bǎ:rí-	*bà-bǎ:rà(:)-sò-*	*bǎ:rà(:)-só-mì*	'help'
bɛ̀gírí-	*bɛ̀-bɛ̀gírɛ̀(:)-sò-*	*bɛ̀gírɛ̀(:)-só-mì*	'winnow'

Examples are in (517). Tone-dropping forced by a determiner applies to *-só-* (which reverts to *-sò-*[L]) but not to the preceding verb stem (517b). A subject proclitic in a nonsubject relative does not intervene between the stem and *-só-mì*, rather it precedes both (517c).

(517) a. *yà:*[L] *gô:-só-mì*
woman[L] go.out-**Progr**-Ppl.Ipfv
'a woman who is going out'

b. *yà:*[L] *gô:-[sò-m]*[L] *nɛ́*
woman[L] go.out-[**Progr**-Ppl.Ipfv][L] Def.AnSg
'the woman who is going out.'

c. *ɔ̀:*[L] *ɩ̌:ⁿ* *gô:-[sò-m]*[L] *kú*
place[L] 1SgSbj go.out-[**Progr**-Ppl.Ipfv][L] Def.InanSg
'the place where I am going out'

14.1.7.3 Participles of negative perfective-system verbs

The basic perfective negative suffix *-rí-* occurs in participles, but without a pronominal-subject suffix. As with the inflectable suffix (in the 1Sg, 2Sg, and 3Sg), the corresponding participles have an L-toned stem, and shift a stem-final *i* to a non-high vowel. As usual, the *r* is nasalized to r^n after a nasal syllable. When a determiner follows, the suffix *-rí* drops its tones (the stem is already L-toned so we cannot tell whether the determiner would have also dropped any H-tones on the stem). Some examples are in (518).

(518) a. *nàŋà*^{L} *ǐ:*^{n} *èmè-r*^{n}*í*
cow^L 1SgSbj milk-**Ppl.PfvNeg**
'a cow that I didn't milk'

b. *nàŋà*^{L} *î:* *èmè-r*^{n}*ì*^{L} *bû:*
cow^L 1Pl milk-**Ppl.PfvNeg**^{L} Def.AnPl
'the cows that we didn't milk'

c. *yà:*^{L} *nùy*^{n}*ɔ̀-r*^{n}*í*
woman^L go.in-**Ppl.PfvNeg**
'a woman who didn't go in'

d. *àr*^{n}*à*^{L} *sóy* *ǹdɛ̀-rí*
man^L all give-**Ppl.PfvNeg**
'a man who didn't give anything' (*ńdí-* 'give')

In the main-clause perfective negative, the 3Pl subject form is rather irregular, replacing *-rí-* by a 3Pl perfective negative portmanteau *-(à)ndú*, as in *èm-à:ndú* 'they didn't milk (cow)', cf. *èmè-rí-∅* 'he/she didn't milk (cow)'. This peculiarity extends to the corresponding participles, but here the unusual form is associated with an animate plural head NP (whether subject or not). Compare the participial forms in (519a), where the participle does not agree with a 3Pl subject, to (519b), where it does agree with an animate plural non-subject head NP.

(519) a. *nàŋà*^{L} *bû:* *èmè-r*^{n}*í*
cow^L 3PlSbj milk-**Ppl.PfvNeg**
'a cow that they didn't milk'

b. *nàŋà*^{L} *bû:* *èm-à:ndú*
cow^L 3PlSbj milk-**Ppl.PfvNeg.AnPl**
'cows that they didn't milk'

These are object relatives, but specifically animate plural forms of the perfective negative participle also occur in subject relatives; see 'the people who didn't hit me', (539b) in §14.2 below.

There is no similar suffixal switch with inanimate head NPs. Therefore (520a) is ambiguous as to number, in the absence of a final determiner. (520b) adds an inanimate plural determiner and tone-drops the participle.

(520) a. *kùr^{n}ò*^{L} *ǐ:^{n}* *gìsè-r^{n}í*
stone^{L} 1SgSbj throw-**Ppl.PfvNeg**
'a stone (or: stones) that I didn't throw'

b. *kùr^{n}ò*^{L} *ǐ:^{n}* *gìsè-r^{n}ì*^{L} *ý*
stone^{L} 1SgSbj throw-**Ppl.PfvNeg**^{L} Def.InanPl
'the stones that I didn't throw'

The recent perfect negative *jɛ̀-rí-*, which often means 'has not finished VP-ing' (§10.2.3.3), can be participialized. The form of the stem is the same as in the main-clause paradigm; in particular, *-rí-* (which forces tone-dropping on a preceding stem) does not affect the tones of the main verb preceding *jɛ̀-* (521a). (521b) has a final determiner, which tone-drops the animate plural form (elsewhere *jà:-ndú*) of the participle.

(521) a. *nù:*^{L} *ɲǎ:* *kɔ́:* *jɛ̀-rí*
person^{L} meal eat RecPrf-**Ppl.PfvNeg**
'a person who has not finished eating'

b. *nù:*^{L} *ɲǎ:* *kɔ́:* *jà:-ndù*^{L} *bû:*
person^{L} meal eat RecPrf-**Ppl.PfvNeg.AnPl**^{L} Def.AnPl
'the people who have not finished eating'

The experiential perfect negative including the chained auxiliary verb *tá:-* (§10.2.3.2) has a similar pattern. The negative inflectable form is *tà:-rí-*, including perfective negative *-rí-*, and this is copied in participial *tà:-rí*. The participle also follows the unusual tone-dropping pattern seen in main clauses, by which *-rí-* induces tone-dropping not only on *tá:-* but also on the preceding verb stem (522a). I express this in (522a) by bracketing the preceding verb with the experiential perfect morpheme, though elsewhere I avoid word-internal superscrips. In (522b) the determiner accounts for (at least) the tone-dropping from *-rí* to *-rì*.

(522) a. *yà:*^{L} *[ìsè*^{L} *gɔ́]* *[ǹnè* *tà:]*^{L}*-rí*
woman^{L} [village^{L} Loc] [go ExpPrf]-**Ppl.PfvNeg**
'a woman who has never gone to the village'

b. *yà:*^{L} *[ìsè*^{L} *gɔ́]* *[ǹnè* *tà:-rì]*^{L} *nɛ́*
woman^{L} [village^{L} Loc] [go ExpNeg-**Ppl.PfvNeg**]^{L} Def,AnSg
'the woman who has never gone to the village'

14.1.7.4 Participles of negative imperfective-system and stative verbs

The imperfective negative suffix *-ŋɔ̀:* is used in participles, with the same stem-shapes as with the inflected stems. A few examples are in (523). The participles show the same irregularities with 'hear', 'see', and 'go' that occur in the inflected forms, see (328) in §10.2.3.4. Agreement with an animate plural head NP is discussed below.

(523) Imperfective negative participles

bare stem	imperfective negative main clause	imperfective negative participle	gloss
gǒ:-	*gô:-ŋɔ̀:-*	*gô:-ŋɔ̀:*	'go out'
ńné-	*ńné-ŋɔ̀:-*	*ńné-ŋɔ̀:*	'go'
gɛ̌:r^{n}í-	*gɛ̌:r^{n}ɛ̀-ŋɔ̀:-*	*gɛ̌:r^{n}ɛ̀-ŋɔ̀:*	'take away, convey'
nǔy^{n}-	*nù-ŋɔ́-*	*nù-ŋɔ́*	'hear'
yǐ:-	*ɲù-ŋɔ́-*	*ɲù-ŋɔ́*	'see'

An example is (524a). When a determiner is added, the verb stem is tone-dropped (524b).

(524) a. *nàŋà*^{L} *ú* *ɛ́mɛ̀-ŋɔ̀:*
cow^{L} 2SgSbj milk-**Ppl.IpfvNeg**
'a cow that you-Sg do/will not milk'

b. *nàŋà*^{L} *û:* *ɛ̀mɛ̀-ŋɔ̀:*^{L} *bû:*
cow^{L} 2PlSbj milk-**Ppl.IpfvNeg**^{L} Def.AnPl
'the cows that you-Pl do/will not milk'

As with the perfective negative participle, there is a special form used for animate plural head-NP agreement with the imperfective negative participial. In the inflected paradigm, the 3Pl form of *-ŋɔ̀:-* is *-ŋ-ɛ̀:-*, as in *yɛ́:-ŋ-ɛ̀:* 'they don't/won't come'. The form *-ŋ-ɛ̀:* is optionally used in the participles for animate plural head NPs.

(525) a. *nàŋà*^{L} *ú* *ɛ́mɛ́-ŋ-ɛ̀:*
cow^{L} 2SgSbj milk(v)-**Ppl.IpfvNeg-AnPl**
'cows that you-Sg will not milk'

b. *nàŋà*^{L} *ú* *ɛ̀mɛ̀-ŋ-ɛ̀:*^{L} *bû:*
cow^{L} 2SgSbj milk(v)-**Ppl.IpfvNeg-AnPl**^{L} Def.AnPl
'the cows that you-Sg will not milk'

Likewise, in a subject relative, 'the people who don't hit me', (539d) in §14.2 below.

Stative negative *=ǹdó-* also has a participial counterpart with the identical ending, though without pronominal-subject agreement (*=ǹdó*). This allows participles to be created from negative forms of stative verbs (526a) and of predicate adjectives (526b). Similarly, a participle can be directly constructed from 'not be (NP)' clitic *=ndǒ:-* (526c).

(526) a. *àr^{n}à*^{L} *èwò=ndó*
man^{L} sit.Stat=Ppl.StatNeg
'a man who is not sitting'

b. *àr^{n}à*^{L} *gàwà=ndó*
man^{L} tall=Ppl.StatNeg
'a man who is not tall'

c. *àrⁿà*[L] *dɔ́gɔ̂=ndǒ:*
man[L] Dogon=Ppl.it.is.not
'a man who is not a Dogon (person)'

The counterparts of (526a-c) with animate plural head NP are in (527). They show the usual imitation of the 3Pl subject form of the main-clause constructions.

(527) a. *àrⁿà*[L] *èwè=nd-ɛ́*
man[L] sit.Stat=Ppl.StatNeg-AnPl
'men who are not sitting'

b. *àrⁿà*[L] *gàwà=nd-ɛ́*
man[L] tall=Ppl.StatNeg-AnPl
'men who are not tall'

c. *àrⁿà*[L] *dɔ́gɔ̂=nd-ɛ̌:*
man[L] Dogon=Ppl.not.be-AnPl
'men who are not Dogon (people)'

The progressive negative main-clause form ends in stative negative *=ńdó* and is participialized accordingly (528). *sò-ndó-* 'not have' and other negative forms of stative verbs and quasi-verbs are also participialized in the same way.

(528) *àrⁿà*[L] *sɛ́mí-ndɛ́* *sɛ́mbì-sò=ndó*
man[L] sweep-VblN sweep-Progr=Ppl.StatNeg
'a man who is not sweeping'

14.1.7.5 Participles of quasi-verbs ('be', 'have')

Like statives derived from regular verbs, quasi-verbs 'have' and 'be' have participles with "imperfective" *-mì* (here extended to stative function). The suffix is often shortened to *-m̀* before a clitic or determiner. The variant with optional agreement to a 3Pl subject is again *-m-ɛ̀*, as in *nù:*[L] *só-m-ɛ̀* 'people who have' versus *nù:*[L] *só-mì* 'a person who has' or 'people who have'.

Participles of *sò-* 'have' and *bù-* 'be' are H-toned before *-mì sɛ̀* unless tone-dropped by a following determiner, in which case *-mì* usually shortens to *-m̀*. The ending *-mì* combines with past clitic *=bɛ-* to form *-mì=bɛ̀-sɛ̀*, which is variably reduced to *-m̀=bɛ̀-sɛ̀*, *-m̀=∅-sɛ̀*, or *-m̀=bɛ̀-s*. A determiner following the past clitic drops its own tones and does not control tone-dropping on the participle, as with definite inanimate singular [L]*gù* in (530c) below.

Existential *yá*, which in unfocalized main clauses is obligatory for 'have', and is obligatory with 'be' unless there is another explicit locational, does not occur in relative clauses.

For *bù-* 'be (somewhere)' (§11.2.2.2) the participles are *bú-mì* and, for past time, *bú-m̀=bɛ̀-sɛ̀* or variant thereof. (529a) is a subject relative, (529b) is a nonsubject relative. (529c) is another subject relative, and also shows that *bú-mì* is realized as *bù-m*[L] before a determiner. (529d) is a textual example including the past clitic.

(529) a. *àrⁿà*ᴸ *bú-mî*
man^L be-Ppl.Ipfv
'a man who is present (here/here)'

b. *ɔ̀:*ᴸ *ǐ:ⁿ* *bú-mî*
place^L 1SgSbj **be-Ppl.Ipfv**
'(the) place where I am'

c. *àrⁿà*ᴸ *bù-m*ᴸ *nɛ́*
man^L **be-Ppl.Ipfv**^L Def.AnSg
'the man who is here'

d. *[dàyⁿ*ᴸ *û:* *bú-m̀ = bɛ̀-sɛ̀]*
[manner^L 2PlSbj **be-Ipfv**=Past-Ppl.Pfv]
yá *bù-m̀ = bɛ̀-∅*
Exist be-Ipfv=Past-3SgSbj
'There was a way for you-Pl to be (=to live).' (2004.01.07)

For *sò-* 'have' (§11.5.1) the participle is *só-mì*, becoming *sò-m̀*ᴸ before a determiner. With past clitic we get *só-mì = bɛ̀-sɛ̀-*, which usually contracts to *só-m̀ = bɛ̀-sɛ̀*, *só-m̀ = ∅-sɛ̀-*, or *só-m̀ = bɛ̀-s*. It does not drop its tones before a determiner, rather the determiner drops its own tones (530c), cf. §6.5.4.

(530) a. *[àrⁿà*ᴸ *[ńdô* *wǒy]* *só-mì]* *ɔ̀gɔ̀-yî: = ŋ̀*
[man^L [house two] **have**-Ppl.Ipfv] chief-child=it.is.3SgSbj
'A man who has two houses is a rich person.'

b. *ɔ̀:*ᴸ *ńdô* *ǐ:ⁿ* *só-mî*
place^L house 1SgSbj **have**-Ppl.Ipfv
'(the) place where I have a house'

c. *àrⁿà*ᴸ *ńdô* *ǐ:ⁿ* *só-m̀ = ∅-sɛ̀* ᴸ*gù*
year^L house 1SgSbj **have**-Ppl=Past-Ppl ᴸ**Def**.InanSg
'the year when I had a house'

14.1.7.6 Participle of past *= bɛ-*

Since everything else can be participialized, it is no surprise that verbs and other predicates with past clitic *= bɛ-* can be participialized.

For positive categories, the relationship between the main-clause stem and the participle is summarized in (531). These are rather uncommon in actual use.

(531)

AN category	main clause	participle
positive		
past imperfective	*-m̀ = bɛ̀-*	*-m̀ = bɛ̀-sɛ̀* ~ *-m̀ = ∅-sɛ̀* ~ *-m̀ = bɛ̀-s*
past progressive	*-sò = bɛ̀-*	*-só-ḿ = bɛ̀*
past perfect	*= bɛ́-*	*-yɛ́-∅ = bɛ́*
past perfective-1b	*-tí = bɛ́-*	*-tí = bɛ́*
past perfective-1a	*-ɛ̀rɛ̀ = bɛ̀-*	*-ɛ̀rɛ̀ = bɛ̀*
past perfective-2	*-só = bɛ́-*	*-só = bɛ̀*
past recent perfect	*jɛ̀ = bɛ̀-*	*jɛ̀ = bɛ̀*

For negative forms of *= bɛ-*, the participial forms in (532) were recorded. The special animate plural head NP forms are in the far right column.

(532)

AN category	inflected	participle	
		unmarked	animate plural
negative			
past perfect	*-rí = bɛ́-*	*-rí = bɛ́*	*-àndú = b-á*
past imperfective	*-ŋɔ̀: = bɛ̀-*	*-ŋɔ̀: = bɛ̀*	*-ŋ-ɛ̀: = b-à*

14.1.8 Relative clause involving verb- or VP-chain

When verbs (and VPs) are chained, only the final verb is participialized. In direct chains (those without a subordinating morpheme), the nonfinal verbs have their usual bare-stem form with lexical vocalism and tones. In a nonsubject relative, if a pronominal-subject proclitic is present, it intervenes between the penultimate verb in the chain and the final participle. In (533), *ɛ́wɛ́* 'buy' is the nonfinal verb, chained to 'bring', and the 1Sg subject proclitic intervenes.

(533) *nàŋà*^{L} *ɛ́wɛ́* *ǐ:*^{n} *jɛ̀:-m*^{L} *nɛ́*
cow^{L} **buy** 1SgSbj **bring**-Ppl.Ipfv^{L} Def.AnSg
'the cow that I will buy and bring.'

A nonpronominal NP does not intervene between the verbs of a direct chain. However, in nonsubject relatives involving directly chained verbs (the final verb, therefore, being a participle), if the subject is a nonpronominal NP, it is optionally (but often) resumed by a 3Sg or 3Pl subject pronoun that directly precedes the final verb. In (534a-c) the optional pronouns shown in parentheses are coindexed with the subject NPs of the relative clause ('the man', 'the women', 'the man' again).

(534) a. *nàŋà*^{L} *[àr*^{n}*à*^{L} *nɛ́]* *ɛ́wɛ́* *(ńnɛ́)*
cow^{L} [**man**^{L} Def.AnSg] buy (**3SgSbj**)
jɛ̀:-sɛ̀^{L} *nɛ́*
bring-Ppl.Pfv^{L} Def.AnSg
'the cow that the man purchased and brought'

b. *nàŋà*^{L} *[yà:*^{L} *bû:]* *ɛ́wɛ́* *(bû:)*
cow^{L} [**woman**^{L} Def.AnPl] buy (**3PlSbj**)
jɛ̀:-sɛ̀^{L} *nɛ́*
bring-Ppl.Pfv^{L} Def.AnSg
'the cow that the women purchased and brought'

c. *[àr*^{n}*à*^{L} *nɛ́]* *ùsù*^{L} *nàŋá* *ɛ́wɛ́* *(ńnɛ́)*
[**man**^{L} Def.AnSg] day^{L} cow buy (**3SgSbj**)
jɛ̀:-sɛ̀^{L} *gú*
bring-Ppl.Pfv^{L} Def.InanSg
'the day the man purchased and brought a cow'

14.1.9 Determiners following the participle

If the head NP (and therefore the entire NP including the relative) is definite, the relevant definite morpheme is added after the participle. Definite morphemes control tone-dropping on preceding words within simple NPs. This is also usually the case in relative clauses, where definite morphemes control tone-dropping on the immediately preceding participle. Examples of relative clauses with and without definite morphemes are given in the subsections of §14.1.7 above.

Less often, the definite marker (elsewhere H or HL-toned) surfaces in L-toned form, and the participle itself is not tone-dropped; cf. §6.5.4. An example of this is (530c) above.

Definite determiners are of course very common with relative clauses, which in Nanga are restrictive rather than parenthetical. Demonstratives ('this', 'that') are less common with relatives, but do occur. A demonstrative has the same tonosyntactic effects as a definite morpheme. In (535), the demonstrative has tone-dropped the participle.

(535) *àr*^{n}*à*^{L} *ú* *yɛ̀:-m*^{L} *wǒ-ŋ*
man^{L} 2SgSbj see-Ppl.Ipfv^{L} Dem-AnSg
'this man whom you-Sg see'

14.1.10 Non-numeral quantifiers following the participle

Universal and distributive quantifiers ('all', 'each') also occur in postparticipial position. *kérɛ́w* 'all' may be separated from the participle by a determiner (536a). *kérɛ́w* is not a tonosyntactic controller. Distributive quantifier *kámâ* 'each' directly follows the participle, and does control tone-dropping on it (536b-c).

(536) a. *[nàŋà*^{L} *ú* *èmɛ̀-r*^{n}*ì*^{L} *bû:* *kérɛ́w]* *jô:*
[cow^{L} 2SgSbj milk(v)-Ppl.PfvNeg^{L} Def.AnPl **all**] bring.Imprt
'Bring-2Sg all the cows that you-Sg have not milked!'

b. *[ǹdò*^{L} *yègɛ̀-sɛ̀*^{L} *kámâ],*
[house^{L} fall-Ppl.Pfv^{L} **each**]
[mílyɔ́ *wòy]* *jɔ́rɔ̀-mì-y.:*
[million two] look.for-Ipfv-1PlSbj
'(For) each house that fell, we are seeking two million (francs).'

c. *nù:*[L] *ɲă:* *kɔ́:* *jɛ̀-rì*[L] *kámâ*
person[L] meal eat RecPrf-**Ppl.PfvNeg**[L] each
'any/each person who has not finished eating'

14.1.11 Indefinite relatives

These relatives have no determiner and therefore normally end with the participle.

(537) a. *[nàŋà*[L] *ú* *ɛ̀mɛ̀-r^{n}í]* *jɔ́rɔ̀(:)-sɔ̀-y*
[cow[L] 2SgSbj milk(v)-Ppl.PfvNeg] look.for-Prog-1SgSbj
'I'm looking for a cow that you-Sg haven't milked.'

b. *[[nàŋà* *wǒy]*[L] *ú* *ɛ̀mɛ̀-r^{n}í]* *jɔ́rɔ̀(:)-sɔ̀-y*
[[cow two][L] 2SgSbj milk(v)-Ppl.PfvNeg] look.for-Prog-1SgSbj
'I'm looking for two cows that you-Sg haven't milked.'

14.1.12 Doubling of head noun after relative clause

The noun *dǎy^{n}* has two meanings, 'manner' and 'boundary' (e.g. of a field). In the first sense, it can occur as the head (overt or covert) of a relative clause, followed by postposition *may^{n}* 'like'. See (596b) and (597b) in §15.5.2-3 for the headed and headless versions, respectively.

In the main clausal 'since …' construction (§15.3.1), a headless nonsubject perfective relative clause is followed by [L]*dày^{n}*. A 'since …' clause may be followed by a complementary 'until …' clause, which has exactly the same structure except that the participle is imperfective rather than perfective. The combination specifies beginning and ending points that bookend some eventuality, matching the semantics of *dǎy^{n}* 'boundary', applied here to time rather than to space. See (589) in §15.3.1 for a simple 'since …' adverbial clause, and (598) in §15.5.4 for the two-clause construction.

In the 'since …' and 'until …' temporal adverbial relatives, the post-relative [L]*dày^{n}* functions almost like a postposition, as suggested by the English glosses with 'since' and 'until'. In other words, [L]*dày^{n}* functions in temporal adverbials the same way *may^{n}* functions in manner adverbials, and the same way the locative postposition functions in spatial adverbials headed by 'place'. The only difference is that [L]*dày^{n}* is recognizably an L-toned form of a noun, while *may^{n}* and other simple postpositions have no nominal counterparts.

The tone-dropping of [L]*dày^{n}* in post-relative position suggests that it is syntactically a possessum, "possessed" by the relative construction (which is really an NP). Therefore 'since they came', (589) in §15.3.1, is phrased in Nanga as something like [(the temporal boundary at which) they came]'s boundary'. Insofar as the overt [L]*dày^{n}* can be construed as being coindexed with the covert head of the relative, the construction can be analysed as an instance of head-doubling.

Similar doubling phenomena are more productive in some other Dogon languages such as Togo Kan. Doubling occurs there not only in adverbial relative clauses (time, space, manner) but also others with, for example, 'person' (in Togo Kan replaced by 'owner') as doubled head.

14.2 Subject relative clause

To summarize the comments scattered across several preceding sections, a subject relative is characterized by the following: a) the head NP is clause-internal but is marked by tone-dropping; b) no preparticipial subject pronominal is present; c) the verb is participialized and shows no subject or head-NP agreement, with some exceptions (animate plural ageement with head NP in negative participles); d) determiners and non-numeral quantifiers that have scope over the internal head NP follow the participle.

(538a-h) have positive participles. The internal head is bolded in the interlinears.

(538) a. *[ɛ́wɛ́ gá] àrⁿà*^{L} *ǹjí-ŋ́ yì:-sɛ̀*^{L} *nɛ́*
[market Loc] **man**^{L} 1Sg-Acc see-Ppl.Pfv^{L} Def.AnSg
'the man who saw me in the market'

b. *[ɛ́wɛ́ gá] àrⁿà*^{L} *ǹjí-ŋ́ yǐ:-sɛ̀*
[market Loc] **man**^{L} 1Sg-Acc see-Ppl.Pfv
'a man/some men who saw me in the market'

c. *[kùrⁿò*^{L} *ǹjí-ŋ́ bàrⁿìmì-sɛ̀*^{L} *gú]*
[**stone**^{L} 1Sg-Acc injure-Ppl.Pfv^{L} Def.InanSg]
àrⁿáŋá bù-∅
where? be-3SgSbj
'Where is the stone that injured me?'

d. *[kùrⁿò*^{L} *ǹjí-ŋ́ bàrⁿìmì-sɛ̀*^{L} *ý]*
[**stone**^{L} 1Sg-Acc injure-Ppl.Pfv^{L} Def.InanPl]
àrⁿáŋá b-ɛ̀
where? be-3PlSbj
'Where are the stones that injured me?'

e. *nù:*^{L} *ǹjí-ŋ́ súyɔ́-sɛ̀*
person^{L} 1Sg-Acc hit-Ppl.Pfv
'a person/people who hit me'

f. *nù:*^{L} *ǹjí-ŋ́ sùyɔ̀-sɛ̀*^{L} *bû:*
person^{L} 1Sg-Acc hit-Ppl.Pfv^{L} Def.AnPl
'the people who hit-Past me'

g. *nù:*^{L} *ǹjí-ŋ́ sùyɔ̀-m*^{L} *nɛ́*
person^{L} 1Sg-Acc hit-Ppl.Ipfv^{L} Def.AnSg
'the person who hits me'

h. *nù:*^{L} *ǹjí-ŋ́ súyɔ̀-mì*
person^{L} 1Sg-Acc hit-Ppl.Ipfv
'a person (or: people) who hits me'

Negative participles have a distinctive form agreeing with an animate plural head NP, as in perfective (539b) and imeprfective (539d). Factoring out tone-dropping controlled by a

following determiner, this animate plural form is identical to the 3Pl subject form of a main-clause perfective negative.

(539) a. *nù:*^{L} *ǹjí-ŋ́* *sùyɔ̀-rì*^{L} *nɛ́*
person^{L} 1Sg-Acc hit-Ppl.PfvNeg^{L} Def.AnSg
'the person who didn't hit me'

b. *nù:*^{L} *ǹjí-ŋ́* *sùyɔ̀-ndù*^{L} *bû:*
person^{L} 1Sg-Acc hit-Ppl.PfvNeg.AnPl^{L} Def.AnPl
'the people who didn't hit me'

c. *nù:*^{L} *ǹjí-ŋ́* *sùyɔ̀-ŋɔ̀:*^{L} *nɛ́*
person^{L} 1Sg-Acc hit-Ppl.IpfvNeg^{L} Def.AnSg
'the person who doesn't hit me'

d. *nù:*^{L} *ǹjí-ŋ́* *sùyɔ̀-ŋ-ɛ̀:*^{L} *bû:*
person^{L} 1Sg-Acc hit-Ppl.IpfvNeg-AnPl^{L} Def.AnPl
'the people who don't hit me'

14.3 Object relative clause

Again the verb is participialized. The head NP is tone-dropped, and any determiners or non-numeral quantifiers that have scope over the internal head NP follow the participle. There is no accusative marking on the head NP. If the subject is pronominal, it is expressed by an independent pronoun procliticized to the participle. This subject proclitic is optional after an overt nonpronominal subject (clause-initially). Positive examples are in (540). The internal head NP is bolded. (540g) has a covert head.

(540) a. *[ɛ́wɛ́* *gá]* *àrⁿà*^{L} *ǐ:ⁿ* *yì:-sɛ̀*^{L} *nɛ́*
[market Loc] **man**^{L} 1SgSbj see-Ppl.Pfv^{L} Def.AnSg
'the man who(m) I saw in the market'

b. *[ɛ́wɛ́* *gá]* *àrⁿà*^{L} *ǐ:ⁿ* *yì:-sɛ̀*^{L} *bû:*
[market Loc] **man**^{L} 1SgSbj see-Ppl.Pfv^{L} Def.AnSg
'the men who(m) I saw in the market'

c. *[ɛ́wɛ́* *gá]* *màŋgòrò*^{L} *ǐ:ⁿ* *yì:-sɛ̀*^{L} *gú*
[market Loc] **mango**^{L} 1SgSbj see-Ppl.Pfv^{L} Def.InanSg
'the mango that I saw in the market'

d. *[ɛ́wɛ́* *gá]* *màŋgòrò*^{L} *ǐ:ⁿ* *yì:-sɛ̀*^{L} *ý*
[market Loc] **mango**^{L} 1SgSbj see-Ppl.Pfv^{L} Def.InanPl
'the mangoes that I saw in the market'

e. *[lègè-sò*[L] *ú* *èwè-sɛ̀*[L] *gú]*
[**bicycle**[L] 2SgSbj buy-Ppl.Pfv[L] Def.InanSg]
ɲàmá-èrè-∅
be.ruined-Pfv1a-3SgSbj
'The bike that you-Sg bought has malfunctioned.'

f. *[lègè-sò*[L] *ɩ̌:*[n] *èwè-m*[L] *kú]* *ŋ̀gú* *kú=ŋ̀*
[**bicycle**[L] 1SgSbj buy-Ppl.Ipfv[L] Def] Dem.InanSg DiscDef=it.is
'This is the bike that I will buy.'

g. *[î:* *kɔ̀:-sɛ̀*[L] *gú]* *nàmâ=ẁ=ndɔ̌:*
[1PlSbj eat-Ppl.Pfv[L] Def] meat=it.is=it.is.not
nìmî=ẁ[n] *nà*
cow.pea=it.is rather
'What we ate was not meat, rather it was cow-peas'.
(headless relative)

Negative examples are (541).

(541) a. *kɔ̀*[L] *û:* *kɔ̂:-ŋɔ̀:*
thing[L] 2PlSbj eat-Ppl.IpfvNeg
'what you-Pl do not eat'

b. *nàŋà*[L] *ɩ̌:*[n] *tùrɔ̀-ndù*[L] *bû:*
cow[L] 1SgSbj sell-Ppl.PfvNeg.AnPl[L] Def.AnPl
'the cows that I did not sell'

14.4 Possessor relative clause

The possessor (always nonpronominal and always preceding the possessum) is tone-dropped as relative head. This frees the possessum from the tonosyntactic control of the possessor, so the possessum reverts to its unpossessed tonal form. This is the case with 'house' and 'cow' in (542a-b). Especially with kin and other inalienable relationship terms, a resumptive pronominal possessor may also appear following the possessed noun (542c-d). The possessor as head noun is bolded.

(542) a. *àr*[n]*à*[L] *ńdô* *yègè-sɛ̀*[L] *nɛ́*
man[L] house fall-Ppl.Pfv[L] Def.AnSg
'the man whose house fell'

b. *àr*[n]*à*[L] *nàŋá* *sà:dì-sɛ̀*[L] *bû:*
man[L] cow die.unslaughtered-Ppl.Pfv[L] Def.AnPl
'the men whose cow died (naturally)'

c. *àr*[n]*à*[L] *[bǎ:* *nɔ̀]* *ǹnè-sɛ̀*[L] *nɛ́*
man[L] [father 3SgPoss] go-Ppl.Pfv[L] Def.AnSg
'the man whose father has gone'

d. *àrⁿà*[L] *[bǎ:* *[bû:* [L]*yɛ̀]]* *ǹnè-sɛ̀*[L] *bû:*
man [father [3Pl [L]Poss.AnPl]] go-Ppl.Pfv[L] Def.AnPl
'the men whose fathers have gone'

14.5 Relativization on the complement of a postposition

In (543a), the head NP is logically the dative indirect object, but there is no sign of the dative postposition *bay*. Likewise, in (543b), 'daba' (native hoe) is logically instrumental, but the instrumental postpostion *yàŋà* is absent. And in (543c), 'honey' is purposive, cf. (543a) in §8.3, above, but purposive postposition *dɛ̀rⁿí* is nowhere to be seen. Clearly the regular way to form a relative clause with the complement of a basic postposition as head NP is to delete the postposition entirely and then treat the head NP in the usual way.

(543) a. *yà:*[L] *ŋ̀gú* *ǐ:ⁿ* *kìyɛ̀-sɛ̀*[L] *nɛ́*
woman[L] Dem.InanSg 1SgSbj say-Ppl.Pfv[L] Def.AnSg
'the woman to whom I said that'

b. *wàrà*[L] *yû:* *ǐ:ⁿ* *wàrà-m̀*[L] *gú*
daba[L] millet 1SgSbj do.farming-Ppl.Ipfv[L] Def.InanSg
'the daba (hoe) with which I do farming' (*wárâ*)

c. *ò:ndò*[L] *bû:* *yè:-sɛ̀*[L] *gú*
honey[L] 3PlSbj come-Ppl.Pfv[L] Def.InanSg
'the honey for which they came'

15 Verb (VP) chaining and adverbial clauses

I use the term **chain** to denote a sequence of two or more verbs, or VPs, where the nonfinal verbs are not inflected for pronominal subject. **Direct chains** have nonfinal verbs in their bare form (with lexical tone and vocalism), usually directly adjecent to the following (often final) verb in the chain, except that in nonsubject relative clauses a subject pronominal may intervene. Looser chains, often involving more complete VPs or clauses, make use of VP-final chaining morphemes, which to some extent distinguish same-subject from different-subject clause sequences (switch-reference).

15.1 Direct chains (without chaining morpheme)

Direct chaining of verbs is fairly productive in Nanga. A direct chain in Nanga may correspond to a single clause with an adverbial phrase in English. Prototypically, the two verbs express simultaneous co-events abstracted from a single, well-integrated event scenario. An intransitive example is 'fall' plus 'descend' in *tómbó sígé* 'fall down', as in the fourth Nanga line in (738) in the sample text. A transitive example is 'cut the throat of' and 'kill' in *sɛ́mɛ́ jìyɛ́* 'slaughter (animal, by cutting its throat)', as in the penultimate Nanga line in (743).

Some chains attested in texts stretch this by juxtaposing verbs that denote consecutive rather than simultaneous co-events, though they are still closely connected. *X gò-ndó kúwó* 'take out and eat X' occurs in the last line of (747). This is in effect a transitive version of the chain type including a motion verb (§15.1.6.1-3 below). Other sequential direct chains in the sample text include *bàrá jɛ̌:* 'gather and bring' and *wɔ̌: kúwó* 'catch and eat', both in (759). A more extreme and rather atypical example is the triplex *párá-gí yɔ̀gɔ́ màrá* 'snap (it) and run (away) and disappear' in (757).

A special case of direct chain, with *bɛ̀rɛ́-* 'get' in the sense 'be able to', is discussed in §17.5.1. For an occasional direct-chain construction with 'begin', see (665) in §17.3.10.

15.1.1 Verbal noun of directly chained verbs

When a direct verb chain is converted into a verbal noun, the verbal noun suffix *-ndɛ́* is added to the final verb only. The nonfinal verbs have their regular form (there is no tone-dropping). Thus *tómbó sígé-ndɛ́* 'fall(ing) and going down' = 'falling down'.

15.1.2 Presence of AN suffix in nonfinal verb in direct chains

In a direct chain, a nonfinal verb is normally in bare-stem form, so it does not separately mark aspect or negation. Overt AN marking is therefore absent on the nonfinal verbs. Perfective negative *-rí-* and imperfective negative *-ŋɔ̀:-* do not occur in nonfinal verbs in chains.

In loose chains, an overt subordinator on the nonfinal clause or VP can mark temporal relations (as well as switch-reference category). Main-clause imperfective *-m̀-* (3Sg subject form *-ŋ̀*) corresponds to an imperfective subordinator *-ŋ̀* used in durative clauses (§15.2.2,

below). Chronological sequence between nonfinal and final event is expressed by subordinators that are not closely related to main-clause perfective inflectional suffixes.

Some of the main-clause positive perfective "suffixes" are better analysed as auxiliary verbs, combining with the main verb in a kind of direct chain. See §10.1.1 for discussion.

15.1.3 Arguments of directly chained verbs

Consider the chain consisting of two transitive verbs, with a shared direct object (bolded), in (544).

(544) *pèrgɛ́-ŋ́* *súyɔ́* *jìyɛ̀-∅*
sheep-Acc hit kill.Pfv-3SgSbj
'He/She hit and killed the sheep.'

In effect, 'hit' and 'kill' fuse into a single event scenario, and it may not be meaningful to ask whether 'sheep' should be bracketed with 'hit' or with 'kill'. My assistant rejected a version of (544) with 'sheep' intervening between the verbs (which would require bracketing specifically with 'kill'). Replacing 'sheep' by a pronoun results in no change in order (*ú-ŋ́ súyɔ́ jíyɛ́-ŋ̀* 'he/she will hit and kill you-Sg').

For combinations of an intransitive motion verb with a following transitive verb, see §15.1.6 below.

15.1.4 Negation of direct verb chains

Morphologically, a direct verb chain is negated as a whole. The negative AN inflection appears on the final verb, but usually has scope over the entire chain. For example, (545) does not mean #'they jumped (but) didn't go down'.

(545) *tómbó* *sùgò-ndú*
junp go.down-**PfvNeg**.3PlSbj
'They didn't jump down.'

15.1.5 Direct chains including *dɔ̀gɔ́-* 'leave'

As usual in Dogon languages, the transitive verb 'leave, abandon' is often added after another verb that states (or implies) fixing the position of the object NP. In a free English translation, 'leave' would usually be omitted.

(546) a. *[jìnjà*[L] *gú]* *ŋ̀gá* *dŭŋ* *dɔ̀g-ɔ̀*
[water.jar[L] Def.InanSg] here put.down **leave**.Pfv-3PlSbj
'They put down and left the water jar.' (*dùŋí*)

b. *nàŋá* *págí* *dɔ̀gɔ́-só-ý*
cow tie **leave**-Pfv2-1SgSbj
'I tied up and left the cow.'

See also (679b), the third Nanga line in (747), and the fifth Nanga line in (750).

15.1.6 Direct chains including a motion verb

'Come/go and VP' can be expressed by a nonfinal motion verb plus a directly chained VP. The motion verb precedes the final verb, and if the latter is transitive the complements occur to the left of the two-verb chain. This construction is common in imperatives and hortatives, and in imperfective (future or generalized) contexts.

15.1.6.1 Chains with *ńné* 'go'

Direct chains with nonfinal *ńné* 'go' are exemplified in (547).

(547) a. *pèrgɛ́-ŋ* *ńné* *sɛ́mâ*
sheep-Acc **go** slaughter.Imprt
'Go slaughter (the) sheep-Sg!'

b. *pèrgɛ́-ŋ́* *ńné* *sɛ́mɛ́-mày*^{n}
sheep-Acc **go** slaughter-Hort.PlAddr
'Let's-2Sg go slaughter (a/the) sheep-Sg!'

c. *ɛ́:ŋí* *pèrgɛ́* *ńné* *sɛ́mɛ̀-m̀-∅*
tomorrow sheep **go** slaughter-Ipfv-1SgSbj
'Tomorrow I will go and slaughter (a/the) sheep-Sg.'

In texts it can be difficult to distinguish simple chained *ńné* from the overtly subordinated *ńné ŋ́*, given that *ŋ́* can be weakly articulated (e.g. as vowel nasalization) and can be indistinct in an already nasalized syllable. However, the distinction can be made in careful transcription, since the duration of the syllable nucleus in *ńné ŋ́* is longer even when *ŋ́* is reduced to vocalic nasalization.

15.1.6.2 L-toned *yè*^{L} 'come'

yɛ̌:- 'come' takes the L-toned, short-voweled form *yè* in this type of chain.

(548) a. *ɲǎ:* *yè*^{L} *kɔ̂:*
meal **come**^{L} eat.Imprt
'Come eat (a meal)!'

b. *hà:* *yè*^{L} *láw(í)* *wá*
well **come**^{L} pass.QuotImprt Quot
'(They) said: well, come and pass (through)!' (2004.02.03)

This is easily distinguished from *yɛ̌: ŋ́*, as in (574a) in §15.2.7.

Examples of *yè*^{L} in the sample text involve a following motion verb. See segments (740), (741), and (742), all with following 'go', and (758) with following 'go down'.

15.1.6.3 *yě: dɔ̀:* 'come and arrive'

In this combination, *yě:* 'come' has its lexical tone. *dɔ̌:* 'arrive, approach' is heard as L-toned prepausally, but with lexical rising tone before other particles such as different-subject subordinator *nà*. The *dɔ̌:* may be followed by same-subject (SS) anterior subordinator *ŋ* (§15.2.7) as in (549a). 'Come and arrive' denotes movement to the immediate presence of a person, to the gate or door of a dwelling, or to the edge of a place. English *come up to* as in *they came up to me* (not in the vertical sense) gives the idea.

(549) a. *[yě: dɔ̌: ŋ́] [bû:-ŋ̀ pó:-mí ŋ́]*
[**come** **arrive** and.SS] [3Pl-Acc greet and.SS]
'(She) came up (to where they were), (she) greeted them, …' (2004.02.03)

b. *[íyê [ɔ̀:^{L} tùmâ] yě: dɔ̀:^{L}] sóró=ẃ,*
[again [place^{L} one] **come** **arrive**^{L}] wilderness=it.is.Inan,
[sòrò^{L} gá] yě: dɔ̀:^{L} bû: kán nà,
[wilderness^{L} Def.Loc] **come** **arrive**^{L} 3PlSbj do then.DS,
ɔ̀gɔ̀-jèmí ńné bíyé-mɔ̀
cobra 3SgSbj lie.down.Stat-while
'Again, they came up to a place, it was a remote wilderness. When they arrived in the wilderness, a spitting cobra was lying (there).' (2004.02.03)

c. *[yě: jè→ gà] [sóró gó]*
[come while.SS Topic] [wilderness Loc]
yě: dɔ̀:^{L}-s-ɛ̀ [nî: ŋ̀gó→]
come **arrive**^{L}-Pfv2-3PlSbj [water not.be]
'As they were coming (=going), they came and arrived at a wilderness. There was no water.' (2004.02.03)

15.1.7 Backgrounded durative verb-iterations [$\hat{v}_1$-$\grave{v}_1$(-$\grave{v}_1$ …)]

One type of durative adverbial clause (or its functional equivalent) is constructed by iterating the uninflected verb stem, with {HL} overlay on the first occurrence and {L} on the second and any later iterations. The {HL} can reduce to {H} on monosyllabic verbs. For the tonal patterns of this [$\hat{v}_1$-$\grave{v}_1$(-$\grave{v}_1$ …)] iteration, and for further examples, see §11.6.2.

The iterated verbs are chained to a following verb that denotes either a subsequent event or a simultaneous co-event, and usually has the same subject.

In (550), the initial *gìyé* is a cognate nominal and is not part of the iteration, which begins with the following verb stem.

(550) *[gìyé gíyè-gìyè] yè:-∅*
[dance(n) **dance**^{HL}-^{L}**dance**] come.Pfv-3SgSbj
'He/She came (while) dancing.'

(551) is another example.

(551) *[[kú* *mày^{n}]* *túy(í)-tùy(ì)* *kàr^{n}ì-ỳ.:* *ndè*
[[DiscDef like] **put.down$^{H(L)}$-^{L}put.down** do.Pfv-1PlSbj if
[[dúmbó *nɔ̀]* *gà]* *yû:* *tɔ́:-tɔ́:* *gàr^{n}í-mì-ỳ*
[[base 3SgPoss] Loc] millet sow-sow put-Ipfv-1PlSbj
'In that way we keep putting (stems down), then at the base of (=beside) it (=stems), we will be planting millet.' (2004.01.03) (*túyí-*, pronounced as monosyllabic *túy*)

Further examples are (430) and (431a-b) in §11.6.2.

15.1.8 Chains including *mɔ̌:ndí-yí-* 'be/do together'

By itself, *mɔ̌:ndí-yí-* [mɔ̌:ndí:] is an intransitive verb meaning 'get together, assemble'. It occurs chained with another VP to translate adverbial 'together'. Thus 'work together' is expressed as 'get together and work'.

(552) a. *mɔ̌:ndí-yí* *bírɛ̀-m-ɛ̀*
gather-MP work-Ipfv-3PlSbj
'They work together.'

b. *mɔ̌:ndí-yí* *ńní-m-ɛ̀*
gather-MP go-Ipfv-3PlSbj
'They will go together.'

15.1.9 Chaining with *jɛ́jɛ̀→* go with'

jɛ́jɛ̀→ is a specialized element (cf. Jamsay *jíjɛ̀*) that functions syntactically like a transitive verb with a sense on the order of 'have/take (something) with oneself, in one's custody'. It occurs only in nonfinal position in chains, before motion verbs, so it cannot be directly inflected. It may take a direct object (denoting anything from an inanimate object to a human) that is not otherwise part of the argument structure of the following verb. The object may be marked accusative (553b).

(553) a. *sùmǎylâ* *pèrgɛ́* *jɛ́jɛ̀→* *ǹnɛ̀-∅*
S sheep **go.with** go.Pfv-3SgSbj
'Soumaila went with (a/the) sheep.'
or: 'Sumaila took (a/the) sheep along with him.'

b. *[ńnɛ́-ŋ́* *jɛ́jɛ̀→]* *ǹn-ò*
[3Sg-Acc **go.with**] go.Pfv-3PlSbj
'They took him/her along.'

jɛ́jɛ̀→ is not transparently segmentable, nor is its syntactic status (verb, adverb) clear. A connection with same-subject subordinator *jɛ̀→*, which is likewise associated with following motion verbs (§15.2.4), is probable. If so, either *jɛ̀→* is a reduced form of *jɛ́jɛ̀→*, or *jɛ́jɛ̀→* consists of an otherwise unattested (and phonologically irregular) verb *jɛ́-* 'take' plus the subordinator. Cognates of *jɛ́-* 'take' include Bankan Tey *zɛ́* and Najamba *jɛ́* with the same

meaning. Nanga's own recent perfect auxiliary *jɛ̀-* (§10.2.1.5) may also belong to this set etymologically.

15.1.10 Chains with perfective-1b *tí-* and perfective-1a *(-)ɛ́rɛ́-*

H-toned *tí-*, morphologically a verb but functioning more as a perfective aspectual element (cf. L-toned perfective-1b suffix *-tì-*), can be chained to certain preceding verbs. In (554), it emphasizes finality and definitiveness. In this construction, *tí-* is attested only with imperfective inflections.

(554) *ńnɛ́* *ɛ̀:*[L] *ndɛ̀,* *[dɔ̀gɔ́* *tí-m̀-*[w]*]*
3SgSbj be.tight.Pfv if, [leave **Pfv1b**-Ipfv-2SgSbj]
[náy[n] *kɛ̀-kɛ̃:* *núy*[n]*-ŋɔ̀:-∅]*
[now beetle go.in-IpfvNeg-3SgSbj]
'It (=cow-peas covered in earth) becomes tightly packed. You-Sg (can) leave (it) once and for all, now the bugs won't get into it.' (2004.01.04)

tí- can also be elicited with its own perfective-1b suffix: *Vb*$_1$ *tí-tì-*. It is not clear that this would have more than a slightly more emphatic sense than the perfective-1b added directly to the main verb, and I have no textual examples.

tí- at the end of such a chain has a bisyllabic form *tíyɛ́-* in hortatives, e.g. *ńné sá: tíyɛ́-mày*[n] 'let's go and completely uproot (=destroy)!' and quoted hortative *ńné sá: tíyɛ́-ŋ́*. The imperative stem is just *tí*. In Nanga there is no clear synchronic connection between this *tí-* and the transitive verb *tíy(í)-* 'send', but the two are likely related etymologically. (The connection is more obvious in Donno So.)

Perfective-1a *-ɛ̀rɛ̀-* has a similar {H}-toned form *(-)ɛ́rɛ́-* in chain-like constructions with following imperfective suffix. It occurs twice in (555). However, *(-)ɛ́rɛ́-* contracts with the stem-final vowel under the same conditions as does suffixed perfective-1a *-ɛ̀rɛ̀-*, as in *kɔ̀-kɔ́y-ɛ́rɛ́-ŋ́* from *kɔ́yɔ́-* in this example. Such sandhi does not occur in true verb chains.

(555) *[kú* *màyⁿ]* *tùmbò-rú-ẃ* *ńdɛ́,*
[DiscDef like] knock-PfvNeg-2SgSbj if,
kɔ̀-kɔ́y-ɛ́rɛ́-ŋ́
Rdp-be.infested-**Pfv1a**-Ipfv.3Sg
[kɔ̀yɔ̀-∅ *ndɛ́]* *náy*[n] *ɲàmá-ɛ́rɛ́-ŋ́*
[be.infested.Pfv-3SgSbj if] now be.ruined-**Pfv1a**-Ipfv.3Sg
'If you-Sg don't knock it (=tamp it down) like that, it will become infested (=bored into by bugs). If it is infested, now it will become ruined.' (2004.01.04)

For the more general analysis of perfective-1a and -1b suffixes as possible chained auxiliary verbs, see §10.1.1.

15.2 Adverbial clauses with overt chaining or subordinating morpheme

This section begins with a number of durative or imperfective VP or clause types. See also the direct chain type with iterated uninflected verb (§15.1.7, above). After covering these

constructions, we look at others involving a temporal separation between the chained eventualities.

15.2.1 Backgrounded imperfective and stative clauses (*-mɔ̀*) 'while'

-mɔ̀ is a variant form of the imperfective participial *-mì*. *-mɔ̀* occurs instead of *-mì* in backgrounded imperfective clauses. An apparent variant *-mɔ̀-y*^{n} occurs in (430) in §11.6.2.

The eventuality denoted by the *-mɔ̀* clause is prolonged, and persists through a time interval (T) that leads up to or overlaps a following foregrounded event. With 'come' and 'go' it generally denotes a prolonged backgrounded motion event that leads up to (but does not overlap) the next event (see below). However, in complements of some verbs, e.g. with 'find/see (sth happening)', it is a simple imperfective complement. Examples with 'see' and 'find' are in §17.2.2.3 and §17.2.3.2. I will gloss *-mɔ̀* in interlinears as 'while', though this does not always capture the contextual sense.

The *ɔ* vowel is somewhat obscure grammatically. *-mɔ̀* is added directly to the same form of the stem used before imperfective *-m̀* (3Sg *-ŋ̀*). Some examples showing the stem form are in (556). As in the imperfective, /LH/ melody is raised to {H} in prosodically light (i.e. bimoraic) verb stems.

(556)

bare stem	with *-mɔ̀*	gloss
a. bimoraic		
yě:-	*yé:-mɔ̀*	'come'
yǐ:-	*yí:-mɔ̀*	'see'
ńné-	*ńní-mɔ̀*	'go'
yègé-	*yégé-mɔ̀*	'fall'
b. heavier		
gùnjó-	*gùnjó-mɔ̀*	'dig'
bǎ:rí-	*bǎ:rá-mɔ̀*	'help'
bègírí-	*bègírɛ́-mɔ̀*	'winnow'

In elicited examples, the subjects of the *-mɔ̀* clause and the following clause may or may not be coindexed. If they are, the subject is not repeated in the *-mɔ̀* clause (557a). If the two subjects are disjoint, the subject of the *-mɔ̀* clause is expressed overtly. If this subject is pronominal it takes the form of an independent pronoun (557b).

(557) a. *yé:-mɔ̀* *yèbúmbà* *yǐ:-só-ý*
come-**while** snake see-Pfv2-1SgSbj
'On my way (= while coming) here, I saw a snake.'

b. *[î:* *yé:-mɔ̀]* *[bòndí* *wɔ̀ɛ̀-∅]*
[1PlSbj come-**while**] [rain(n) rain.fall.Pfv-3SgSbj]
'As we were on our way here, it rained.'

In the sample text, *-mɔ̀* is associated with specific narrative contexts. An activity verb (such as a motion verb) is introduced in one clause (with its subject NP or pronominal), then from two to four iterated *-mɔ̀* clauses occur with flat high-pitched background-clause intonation to

indicate prolongation of this activity (usually with no repetition of the subject pronominal), then a new foregrounded event is introduced. The free translations of two passages are given here; for full markup see the relevant excerpts from the text appended to this grammar.

'The two of them were coming; come-*mɔ̀*, come-*mɔ̀*, come-*mɔ̀* [= they kept coming and coming]. (Then) a storm arose.' (740)

'The two of them come-*mɔ̀*, come-*mɔ̀* [= were coming and coming], (and) when they had gone a little way, he (= hyena) said to hare: …' (744).

Like the regular imperfective participial *-mì*, *-mɔ̀* is used with statives in addition to imperfectives of active verbs. For example, it can be added to stative quasi-verb *bù-* 'be' to form *bú-mɔ̀* when 'be' functions as an auxiliary verb, following another imperfective verb. A pronominal subject is again expressed by an independent pronoun. In the sample text we find *básá-ŋ̀ ńnɛ́ bú-mɔ̀* 'while he (= hyena) was pulling' (followed by: 'the goat lay down motionless') (741, repeated in 743).

15.2.2 Imperfective *-ŋ̀* as subordinator

The L-toned *ŋ̀* described in the subsections below is distinct from the atonal same-subject anterior subordinator *ŋ* (§15.2.7). The latter gets its tone by spreading from a preceding verb in bare-stem form and is therefore usually H-toned. It is L-toned after a perfective auxiliary like recent perfect *jɛ̀-*, but imperfective *-ŋ̀* is incompatible with such auxiliaries.

15.2.2.1 Imperfective *-ŋ̀* on activity verb plus time-of-day verb

A time-of-day verb ('spend the night', 'spend the mid-day', etc.) may be chained to a preceding activity VP. The verb of the activity VP takes imperfective subordinating suffix *-ŋ̀*, which is not inflected for pronominal subject. The verb stem has the same segmental and tonal form as in the inflected imperfective.

(558) a. *[gìyé* *gíyé-ŋ̀]* *nàɛ̀-∅*
[dance(n) dance-**Ipfv**] **spend.night**.Pfv-3SgSbj
'He/She spent the night dancing.' (= 'danced all night')

b. *[gìyé* *gíyé-ŋ̀]* *nà:-y*
[dance(n) dance-**Ipfv**] **spend.night**.Pfv-1SgSbj
'I spent the night dancing.' (= 'danced all night')

c. *[wórî* *wárá-ŋ̀]* *dìrⁿɛ̀-∅*
[farming do.farming-**Ipfv**] **spend.midday**.Pfv-3SgSbj
'He/She spent the (mid-)day farming.'

15.2.2.2 Imperfective *-ŋ̀* (*-m̀*) plus *bù-* 'be'

This combination does not seem to be common, since there is a more productive progressive verb form with *sò-* (§10.2.2.4). However, it was elicitable. From my assistant's comments, the *bù-* here has its literal sense 'be present, be (in a place)', so the *-m̀* clause can be taken as subordinated.

An example is (559a). When directly preceding *bù-*, the imperfective subordinator is always pronounced [m], which I take to reflect assimilation to the following labial. The negative counterpart has [ŋ] before *ŋ̀gó-* 'not be', and the two velar nasals contract. This too could be a point-of-articulation assimilation. In view of the clear *-ŋ̀* in the time-of-day construction (§15.2.2.1, just above) I normalize the transcription as *-ŋ̀*.

(559) a. *[[tìyá yɛ̌:] ɲǎ: kɔ́:-ŋ̀] bù-∅*
[[friend 1SgPoss.AnSg] meal eat-**Ipfv]** **be**-3SgSbj
'My friend is (present) eating a meal.' phonetic […kɔ̂:mbu]

b. *[ɲǎ: kɔ́:-ŋ̀] ŋ̀gó-ý*
[meal eat-**Ipfv**] **not.be**-1SgSbj
'I am not (present) eating a meal.'

15.2.3 Past imperfective adverbial clause with *-m̀-sɛ̀ gà* (*-m̀ = bɛ̀-sɛ̀ gà*)

In this construction, the verb has imperfective-type tone overlay and ends in imperfective *-m̀*, followed by *-sɛ̀ gà*. The less common full form is *-m̀ = bɛ̀-sɛ̀ gà*, which reveals the origin of the formation as a participle of the past imperfective. The clause is otherwise in relative-clause form, with *wágádí* (or *wágátí*) 'time' in L-toned form as the head NP. A pronominal subject is expressed as a preverbal pronoun.

The clause can be translated as 'while', with a progressive, stative, or other durative VP understood as referring to a past time frame. The *-sɛ̀ gà* clause and the main clause may have coindexed or disjoint subjects. Morphologically, *gà* is presumably the locative postposition, here 'at (the time when…)'.

A synchronic identification of *-sɛ̀* with the perfective participial might explain why *-m̀-sɛ̀ gà* is associated with past time frames ('while I was farming'), rather than being an all-purpose progressive or durative adverbial clause ('while I am farming'). Moreover, the fact that *-m̀-sɛ̀ gà* can be used with aspectually challenged stative quasi-verbs, like 'have' in *só-m̀-sɛ̀ gà* 'when I had …' (560c), shows that it does not behave like a progressive synchronically.

I will gloss *-m̀-sɛ̀* as "-Ipfv-while.Past."

(560) a. *wàgàdì*^{L} *yû: ĭ:*^{n} *wárá-m̀-sɛ̀* *gà,*
time^{L} millet 1SgSbj do.farming-**Ipfv-while.Past** Loc,
bòndí *wɔ̀ɛ̀-∅*
rain(n) rain.fall.Pfv-3SgSbj
'While I was (in the fields) farming millet, it rained.'

b. *[tègɛ́ gá] ú bú-m̀-sɛ̀ gà,*
[childhood Loc] 2SgSbj be-**Ipfv-while.Past** Loc,
ŋ̀gá *yɛ́:-m̀ = bɛ̀-ẁ*
here come-Ipfv=Past-2SgSbj
'When you were a child, you used to come here (often).'

c. *[wàgàtì*[L] *lɛ̀gɛ̀sô:* *ĭ:*[n] *só-m̀-sɛ̀* *gà]*
[time[L] bicycle 1SgSbj have-**Ipfv-while.Past** Loc]
[àsú→ *á:ndɛ̂=∅* *ńní-m̀=bɛ̀-y]*
[always Anda go-Ipfv=Past-1SgSbj]
'When I had a bicycle, I used to go to Anda all the time.'

-m̀-sɛ̀ is also attested without *gà*, as in (489) in §13.2.10, above. Historically, *-m̀-sɛ̀* may have originated as a participial (i.e. relative-clause) form of the progressive. The latter is now expressed by a suffix *-sò-* following a form of the verb stem with lengthened final stem vowel with a final L-tone element, with a less common variant *-ŋ-sò-* that retains an audible variant of imperfective *-m* ~ *-ŋ* (§10.2.2.4). However, the progressive now has a distinct participial form in *-só-mì* (§14.1.7.2), so there is no clear synchronic connection between it and *-m̀-sɛ̀*.

15.2.4 Same-subject 'while' subordinator *jɛ̀→* before motion verb

A construction with *jɛ̀→* added to a VP with its verb in bare-stem form, followed by a motion verb, denotes simultaneous co-events with the same subject. *jɛ̀→* has a segmental resemblance to recent perfect *jɛ̀-* (§10.2.1.5), which also follows the bare stem, but it cannot be identified with any specific form of *jɛ̀-*. There is no obvious perfect-like semantics, since the co-events are simultaneous.

(561) a. *[hálî* *mó:tí=yè]* *[yɔ̀gɔ́* *jɛ̀→]* *ǹnɛ̀-∅*
[all.the.way.to M=Loc] [run **while.SS**] go.Pfv-3SgSbj
'He/She ran all the way to Mopti.'
(lit. "He/She went all the way to Mopti while running.")

b. *[bàrkô* *dàmbí* *jɛ̀→]* *yè-y*
[gas.drum push **while.SS**] come.Pfv-1SgSbj
'I came (here) pushing a gas drum (large metal barrel).'

c. *[[ɔ̀r*[n]*ɔ̀nɔ̀-ǹjà*[L] *gú]* *àgí-yí* *jɛ̀→]*
[[scrub.acacia-seed[L] Def.InanSg] hold.MP **while.SS**]
ńní *wà*
go.QuotImprt Quot
'(They said:) keep the scrub-acacia seed and go with it!' (2004.02.03)

tɛ́wɛ́-jɛ̀→ 'striding, walking fast' is a lexicalized expressive adverbial that may have originated as a subordinated verb with *jɛ̀→*. Another possible case of this type is *jɛ́jɛ̀→* 'have/take (something) with oneself', which is also associated with motion verbs (§15.1.9).

In one textual example, the actions are not simultaneous co-events. Instead, they are sequenced, at least as I interpret the narrative. In this example, *jɛ̀→* clearly has the sense of *jɛ́jɛ̀→* (accompanied motion).

(562) *[ńnɛ́* *wá]* *[[pɔ̀ndì*[L] *ŋ̀gú]* *wɔ̀gɔ́* *jɛ̀→]*
[3Sg Quot] [[clay[L] Dem.InanSg] scoop **go.with**]
ńní *wà*
go.QuotImprt Quot
'(He said): hey you, scoop up (some of) this wet clay and go with it!' (2004.02.03)

My assistant rejected combinations of *jɛ̀→* with following non-motion verbs.

15.2.5 Durative clauses with prolonged final vowel

15.2.5.1 Durative *-ɛ́:* ~ *-é:* ~ *-í:* ~ *-∅* in complement of *dɛ̌:-* 'be tired'

The usual verb 'become tired (weary)' (or more generally 'suffer physically') is *áyá-*. Another verb, *dɛ̌:-*, is used in contexts like 'I worked until I got tired', or more freely 'I worked a very long time', and it is this verb that interests us here.

In (563), from the sample text, the complement of *dɛ̌:-* is a verb with apparent suffix *-ɛ́:* . As we will see, the suffix is actually based (segmentally) on the E/I-stem (§10.1.3), which also occurs in the 3Sg subject form of the simple perfective (§10.2.1.1). This stem ends in {*ɛ e i*} depending on the verb, and can be broken down into the E-stem {*ɛ e*) of non-*i*-final verbs and the I-stem (identical to the bare stem) of *i*-final verbs. The complement of 'be tired' preserves lexical tone melodies, although these are neutralized to {L} in the simple perfective. For verb stems of one or two syllables, the final vowel is also lengthened. No lengthening occurs for trisyllabic and longer stems, whose complement form is therefore homophonous with the bare stem (I do, however, transcribe the complement verb with *-∅*). The interlinear gloss is "Dur[ative]."

(563) *[tà-tã̂:* *[bɛ̂r* *[á* *yɛ̂]]*
[hyena [goat [3ReflSg Poss.AnSg]]
bàs-ɛ́: *ńnɛ́* *dɛ̌:* *nà]* *ńní-ŋɔ̀:-∅*
pull-**Dur** 3SgSbj **be.tired** then.DS] go-IpfvNeg-3SgSbj
'Hyena tugged on his goat until he (= hyena) was exhausted (= for a long time), (but) it wouldn't go.'

I have found no construction other than that with *dɛ̌:-* that elicits this form of the complement. However, with *dɛ̌:-* it was easy to elicit similar examples with a wide range of complement verbs denoting activities. They show that a pronominal subject is expressed by an independent pronoun in the complement, not as a pronominal-subject suffix on the *dɛ̌:-* verb (564). This suggests that even in (unsubordinated) main clauses, *dɛ̌:-* in this construction is impersonal, rather than constituting a typical verb-chain (with coindexed subjects).

(564) *[ĩ:ⁿ* *bírá* *bìr-ɛ́:]* *dɛ̀:-∅*
[1Sg work(n) work-**Dur**] **be.tired**.Pfv-3SgSbj
'I worked until getting tired (= for a very long time).'

Forms of the complement verb are in (565). The lexical tone melody, /H/ or /LH/, of the stem is always preserved in the onset. The final vowel is lengthened in mono- and bisyllabic stems (565a-f), but not in trisyllabic and longer stems (565g-h).

(565)	stem	3Sg perfective	before *dɛ̌:-*	gloss
a. bisyllabic, final *ɛ́:*				
	bàsá-	*bàsɛ̀-∅*	*bàs-ɛ́:*	'pull'
	bìrɛ́-	*bìrɛ̀-∅*	*bìr-ɛ́:*	'work'
	súyɔ́	*sùyɛ̀-∅*	*súy-ɛ́:*	'hit'

b. bisyllabic, final *é:*

kóyó-	*kòyè-∅*	*kóy-é:*	'weep'
péré-	*pèrè-∅*	*pér-é:*	'jump off'
gùnjó-	*gùnjè-∅*	*gùnj-é:*	'dig'

c. bisyllabic, final *í:*

págí-	*pàgì-∅*	*pág-í:*	'tie'
kɔ́:sí-	*kɔ̀:sì-∅*	*kɔ́:s-í:*	'scratch'
dɛ̀wí- [dɛ̌w]	*dɛ̀wì-∅*	*dɛ̀w-í:*	'cover'

d. monosyllabic

kɔ́:-	*kɔ̀ɛ̀-∅*	*kɔ́-ɛ́:*	'eat (meal)'
ká:-	*kàɛ̀-∅*	*ká-ɛ́:*	'shave'
nɔ̌:-	*nɔ̀ɛ̀-∅*	*nɔ̀-ɛ́:*	'go in'
gɔ̌:-	*gɔ̀ɛ̀-∅*	*gɔ̀-ɛ́:*	'go out'
tɛ́:-	*tɛ̀:- ∅*	*tɛ́:-∅*	'lay out (mat)'
yǐ:-	*yì:- ∅*	*yǐ:-∅*	'see'

e. *Cvy*

nǔy^n-	*nùy^n-∅*	*nǔy^n-∅*	'hear'
núy^n-	*nùy^n-∅*	*núy^n-∅*	'go in'

f. *nCv*

ńné-	*ǹnɛ̀-∅*	*ńn-ɛ́:*	'go'
ńdí-	*ǹdì-∅*	*ńd-í:*	'go'
ǹdɛ́-	*ǹdɛ̀-∅*	*ǹd-ɛ́:*	'go'

g. trisyllabic with final *i*

bɛ̀gírí-	*bɛ̀gìrì-∅*	*bɛ̀gírí-∅*	'winnow by shaking'
yàgíbí-	*yàgìbì-∅*	*yàgíbí-∅*	'shake (grain)'

h. trisyllabic with final *e*

bɔ̀góró-	*bɔ̀gɔ̀rɔ̀-∅*	*bɔ̀góré-∅*	'bellow'
mɔ̀njúró-	*mɔ̀njùrɔ̀-∅*	*mɔ̀njúré-∅*	'dream'

A negative counterpart can be formed by adding the same 3Sg perfective *dɛ̀:-* 'be tired' to a pronominally conjugated perfective negative verb.

(566) *[nàmâ* *kùwò-rí-ý]* *dɛ̀:-∅*
[meat eat-**PfvNeg**-1SgSbj] be.tired.Pfv-3SgSbj
'I didn't eat meat for a long time.'
(= 'I went a long time without eating meat.')

15.2.5.2 Other cases of prolonged final vowel of verb

In (567), which completes (428b) in §11.6.1 above, *dɛ̀ŋí→* is intonationally prolonged and accompanied by a preverbal subject pronoun. This construction is possible with any

pronominal-subject category. My assistant accepted a version of this example with 3Sg *ńné* in place of 1Pl *î:* .

(567) *[bòró* *ńné-ŋ́* *gùnjó-gùnjó-gùnjó-gùnjó]*
[pit 3Sg-Acc dig-dig-dig-dig]
[î: *dèŋí→]* *[î:* *dèŋí→]* *[î:* *dèŋí→]* *dìmè-r^{n}í-∅*
[1PlSbj **stamp**] [1PlSbj **stamp**] [1PlSbj **stamp**] end-PfvNeg-3SgSbj
'We kept digging (pits) and kept stamping on (the locusts), (but) they (=locusts) did not end.' (2004.01.01)

When asked to adapt this construction to another verb, like *súyɔ́* 'hit' or *pógó* 'tap', my assistant used the *-ŋ̀* subordinator (§15.2.2), e.g. *î: súyɔ́-ŋ̀* 'we kept hitting'.

dèŋí→ in (567) resembles durative *-é:* ~ *-é:* ~ *-í:* ~ *-∅* described in the preceding section, but (567) differs as follows: extra intonational prolongation, triple iteration, and a proclitic subject pronoun.

ná:-mí→ in (568) also shows final prolongation, but there is no iteration and no proclitic pronoun. There is also a shift in quoted speaker immediately after *ná:-mí→.*

(568) *bû:-ŋ̀* *kǎwrû* *wà,* *bû:-ŋ̀* *ná:-mí→,*
3Pl-Acc excuse.me! Quot, 3Pl-Acc **spend.night-Caus.Pfv**,
hà: *ósî=ẁ* *wà*
well road=it.is.Inan Quot
'(She) said: she said: "pardon me!" She said good day to them. (He) said: "well, it's the road." ' (2004.02.03)

15.2.6 Different-subject anterior 'and then'

Under this rubric I treat *nà* ~ *ná-ŋà* (§15.2.6.1) and *nâ:y^{n}* ~ *ná-ŋày^{n}* 'and then' (§15.2.6.2).

15.2.6.1 *nà* ~ *ná-ŋà* 'and then' (different subject) or 'rather (than)'

This clause-final subordinator is usually heard as *nà*, but an extended variant *ná-ŋà* is also attested.

Clauses ending in *nà* denote eventualities that precede in time the temporal reference point (in the main clause). The subject of the *nà* clause is referentially disjoint from that of the main clause. This different-subject ("DS") subordinator follows a bare verb stem with lexical vocalism and tone, hence *yǐ: nà* 'see and …', *ńné nà* 'go and …', *bǎ:rí nà* 'help and …', etc. A pronominal subject is required, even if a fuller subject NP is present, in the form of an preverbal proclitic pronoun. Examples are in (569); others are in the sample text.

(569) a. *[á:mádù* *[sèŋ^{L}* *gú]* *ńné* *bàsá* *nà]*
[A [rope^{L} Def.InanSg] 3SgSbj pull **and.DS**]
pàrè-∅
snap.Pfv-3SgSbj
'Amadou pulled the rope and (then) it snapped.' (*sèŋ́*)
(lit. "Amadou having pulled the rope, it snapped.")

b. *[[ńné* *báy]* *ú* *ńné* *nà]*
[[3Sg Dat] 2SgSbj go **and.DS**]
[ú-ŋ́ *ǹdɛ̀-rí-∅*]
[2Sg-Acc give-PfvNeg-3SgSbj]
'You-Sg went to him, but (then) he didn't give (it) to you.'

c. *[kú* *ńné-ŋ]*
[InanSg go-and.SS]
[yû: *ńné* *íré* *nà]*
[millet 3SgSbj ripen **and.DS**]
níŋ̂ɛ̂y^{n} *yɛ̀:-∅*
now come.Pfv-3SgSbj
'They (=locusts) went (away), but when the millet had ripened, now (=right then) they came back.' (2004.01.01)

In (569c), the first clause ('they went') is marked as same-subject since it has the same subject as the third clause ('they came'). That is, the first and second clauses are both treated as independently subordinated to the final main clause.

The *nà* form is of considerable interest syntactically. Although it is normally preceded by a bare verb stem, it also allows combinations of bare stems plus independent forms of certain perfective auxiliaries ("suffixes"). These combinations are more emphatically perfective aspectually, and favor free translations of the type 'after X had VPed'. The forms are shown in (570). For the perfective-1a, and (with marginal exceptions in relative clauses) for the perfective-1b, this is the only situation where the perfective suffix is separable from the stem.

(570)

category	in main clause	with *nà*
perfective-1a	*-ɛ̀rɛ̀-*	Vb PRON *(y)ɛ̀ré nà*
perfective-1b	*-tì-*	Vb PRON *tí nà*

Textual example (571a) is interesting since simple main clause perfective-1a *túw-ɛ̀rɛ̀-* is repeated as a subordinated clause with divided *túwɛ́ … yɛ̀ré nà*. (571b) is my only textual example involving the perfective-1a.

(571) a. *[yà:*^{L} *né]* *túw-ɛ̀rɛ̀-∅,*
[woman^{L} Def.AnSg] die-Pfv1a-3SgSbj,
[yà:^{L} *né]* *túwɛ́* *ńné* *yɛ̀ré* *nà,*
[woman^{L} Def.AnSg] **die** **3SgSbj** **Pfv1a** **then.DS**,
[yì:^{L} *né]* *wá* *[yì*^{L} *nàr^{n}ìyɛ́]=ŋ́* *wà*
[child^{L} Def.AnSg] Quot [child^{L} orphan]=it.is Quot
'The woman died. When the woman had died, the child (=girl) was an orphan, it is said.' (2004.02.03)

b. *jìyɛ́* *î:* *tí* *nà* *gày,*
kill **1PlSbj** **Pfv1b** **then.DS** Topic,
íyê *bìndé* *yɛ̀:-∅*
again return come.Pfv-3SgSbj
'After we had killed (some locusts), they (the rest) came back.' (2004.01.01)

A somewhat similar example involving the recent perfect is in (741) in the sample text, where main-clause *dě: jè-∅* 'was calm' is repeated as subordinated *ńné dě: jé nà* (3Sg subject *ńné*). Here, however, the subject pronominal precedes the main verb.

Instead of simple [… verb *nà*], a subject switch can also be made by chaining the main verb to *kár^{n}í nà* with the semantically light verb *kár^{n}í-* 'do' separated from the main verb by the subject pronoun. *kár^{n}í nà* usually contracts slightly to *kán nà*. Excerpt (572) begins a tale with such a construction, and ends with another example of *yèré nà* as in (571a) above.

(572) *bɛ́rî, [dě: nɔ̀] ńné-ŋ́ nàr^{n}á ńné kán nà,*
goat, [mother 3SgPoss] 3Sg-Acc **bear** **3SgSbj** **do** **then.DS**,
[dágáy bèrí kɛ́rɛ́-sò→], túw-èrè-∅,
[a.little fodder begin.to.eat-Pfv2], die-Pfv1a-3SgSbj,
[dè:^{L} nɛ́] túwɛ́ ńné yèré nà, …
[mother^{L} Def.AnSg] **die** **3SgSbj** **Pfv1a** **then.DS**, …
'A goat, after his mother gave birth (to him), he had begun (eating) a little grass (=had recently been weaned). She died. After the mother died, (he …)' (2004.02.02)

An unusual feature of *kán nà* is that it can be added to a negative verb. An example is *yɛ́:-ndɛ́ àwà-rí ńné kán nà* 'when (=after) it did not consent (=refused) to come' in (743) in the sample text.

Clause-final *nà* can also be used to distinguish a correct proposition (usually an identificational predicate) from an incorrect one. In this construction, the relationship between the two eventualities is not sequential, rather mutual exclusivity. Free translations with 'instead' or 'rather' convey the basic idea. In (540g) in §14.3 ('What we ate was not meat, rather it was cow-peas'), one proposition is negated, then corrected by a positive clause. A similar passage in (751) in the sample text also involves correcting a misidentification (sun rather than fire). In that example, *nà→* is prosodically lengthened since here the positive clause precedes the negated one.

15.2.6.2 *nây^{n}* ~ *nâ:y^{n}* or *ná-ŋày^{n}* '(and) then' (different subject)

Less common than *nà*, but attested in texts, are variants *nây^{n}* ~ *nâ:y^{n}* and bisyllabic *ná-ŋày^{n}*. All of these seem to be interchangeable. *nây^{n}* occurs in, but is not limited to, narrative contexts where a clause is repeated as background for a new, chronologically sequenced event.

(573) *[dúrâ [bû: ^{L}gɔ̀]] kǎw kɛ̀sɛ̀-∅,*
[tail [3Pl ^{L}Poss.InanSg]] with.one.chop cut.Pfv-3SgSbj,
[dùrà^{L} gú] kǎw ńné kɛ́sɛ́ nây^{n},
[tail^{L} Def.InanSg] with.one.chop 3SgSbj cut **then.DS**,
yámjá wǔ:! ìrì-y-à
giraffe hubbub get.up-MP.Pfv-3PlSbj
'She cut off their tail(s) (with one stroke). After she cut off the tail(s) (with one stroke), the giraffe(s) got up with a hubbub.' (2004.02.03)

15.2.7 Clauses with *ŋ* (same-subject, anterior)

ŋ appears at the end of a clause whose time frame precedes that of the main clause. It is atonal, getting its tone from the preceding verb, which has the bare stem form. Since bare verb stems always end in an H-tone, *ŋ* is (almost) always H-toned *ŋ́*. However, it can also be added to recent perfect *jɛ̀*, in which case we get *jɛ̀ ŋ̀*, as in (574c) below. By contrast, imperfective subordinator *-ŋ̀* is always L-toned and does not combine with *jɛ̀*.

The subjects are coindexed, and the interlinear gloss is 'and.SS' (for "same subject"). The subject is normally expressed only once in the two-clause sequence. *ŋ* is extremely common and it is clearly the basic same-subject subordinator involving chronologically sequenced past-time events.

yɛ̌: 'come' has a regular form *yɛ̌: ŋ́*. This verb also has an L-toned form *yɛ̀* in nonfinal position in some verb chains (§15.1.6.2). Aside from 'come', verbs show no tone changes or vocalic irregularities: *wàrá ŋ́* 'do farming …', *bǎ:rí ŋ́* 'help and …', *yǐ: ŋ́* 'see and …', *ńné ŋ́* 'go and …'. Examples are in (574). There are many others in the sample text, including four in (747) in that text. In (574c) the two subjects overlap referentially.

(574) a. *[yɛ̌:* *ŋ́]* *ɛ̀w-y-à*
[come **and.SS**] sit-MP.Pfv-3PlSbj
'They came and sat.'

b. *[[ńné* *báy]* *ńné* *ŋ́]* *[ńné-ŋ* *tɛ̀mbɛ̀-rú-ẃ]*
[[3Sg Dat] go **and.SS**] [3Sg-Acc find-PfvNeg-2SgSbj]
'You-Sg went to him (= to his place), and (= but) you didn't find him (there).'

c. *kìwárî* *[â:* *wòy]* *kár^{n}í* *jɛ̀* *ŋ̀,*
greeting [3ReflPl two] do **RecPrf** **and.SS**,
[ńné *wá]*
[3Sg Quot]
'The two of them finished the greetings, then he said: hey you-Sg, …'
(2004.02.03)

d. *[[gɔ̀r^{n}í* *[á* *yɛ̂]]* *bàrá* *ŋ́]*
[[geat [3ReflSg Poss.AnPl]] gather **and.SS**]
[kú *mày^{n}]* *làw-à* *wà*
[DiscDef like] pass.Pfv-3PlSbj Quot
'Having gathered her baggage, they went past (the cobra) at that point, it is said.'
(2004.02.03)

15.2.8 Same-subject anterior subordinators for future time reference

15.2.8.1 *gáy* 'and then' (same-subject, future)

gáy is another same-subject subordinator. It can be glossed 'and then', and specifies that the events of the two chained clauses are temporally sequenced (but not separated by a lengthy interval). In elicitation, my assistant allowed it only in future contexts, above all when the subsequent clause is an imperative or hortative, but he also accepted indicative clauses as in (575b). See also (227) in §8.4.6.2 and (481a) in §13.2.6.

The verb in the *gáy* clause is in bare-stem form segmentally, but it drops its tones.

(575) a. *[ɲǎ:* *kɔ̀:*^{L} *gáy]* *ńné-má*
[meal eat^{L} **then.SS**] go-Hort.SgAddr
'Let's eat and then go!' (< *kɔ́:*)

b. *[wàrà*^{L} *gáy]* *ńní-ŋ̀*
[do.farming^{L} **then.SS**] go-Ipfv.3SgSbj
'He/She will work (= worked in the field) and then go.' (< *wárá*)

c. *[ŋ̀gá* *sɛ̀mbì*^{L} *gáy]* *ǹnò*
[here sweep^{L} **then.SS**] go.Imprt
'Sweep up here and then go!' (< *sɛ́mbí*)

Verbs that show irregularities elsewhere have regular forms here: *yì:*^{L} *gáy* '(will) see and then …', *ǹnè*^{L} *gáy* '(will) go and then …'.

Textual examples are in (576a-b). Another example is (749) in the sample text.

(576) a. *[[ò:*^{L} *gó]* *[ùwá* *gá]* *yû:* *wàrà*^{L} *gáy* *nàỳ]*
[[field^{L} Loc] [fear Loc] millet farm(v)^{L} **then.SS** now]
[ɲǎ: *bɛ̀rɛ́* *[[ú* *námâ-∅]* *ŋ̀à]*
[meal get [[2SgSbj want-Ppl.Ipfv] Loc]
bɛ̀rɛ́ *kɔ̀-kɔ̂:-m̀-*^{w} *mà*
get(=be.able.to) Rdp-eat-Ipfv-2SgSbj Q
'After cultivating millet in the fields in (a state of) fear (of marauding Fulbe), would you-Sg (be able to) get meals as you-Sg would like?' (2004.01.07)
[*námâ-∅* for *námá-m̀*, stative participle with imperfective *-m̀*]

b. *[ńnɛ́* *bày]* *ńné* *[kò:-m*^{L} *gáy]*
[3Sg Dat] go [sew-Caus^{L} **then.SS**]
yɛ̌-y *wá*
come-QuotImprt Quot
'(Someone) said: "Go to her, have (her) sew it up, and come (back)!" '
(2004.02.03)

gáy competes to some extent with the pseudo-conditional *ndé* constructions to be described below. Both occur in nonfinal chained clauses in imperfective contexts. The main difference is that *gáy* occurs in brief single clauses tightly embedded into the higher clause, while pseudo-conditionals can be longer and more loosely chained. *gáy* is also more strict in requiring subject coindexation.

15.2.8.2 Conjugated imperfective anterior (pseudo-conditional) with *ndé*

In this construction, an {L}-toned inflected form of the {L}-toned simple perfective with its regular pronominal-subject suffixes is followed by *ndé*, so the formula is *Vb*^{L} *ndé*. The H-tone on *ndé* is heard when the clause in question is quickly followed by the next clause with no conspicuous pause, otherwise (prepausally) it may have L-tone (or pitch).

This construction superficially resembles the usual conditional antecedent with *nde* 'if' added to a verb (often in one of the perfective-system inflections). The differences between the two constructions are summarized in (577). Both kinds of *nde* are cliticized or suffixed to the preceding predicate and may be transcribed accordingly. In addition to the two constructions compared here, there is also a third, namely a version of the pseudo-conditional with no pronominal-subject conjugation (§15.2.8.3 below).

(577) conditional antecedent clause
- a. any main-clause predicate is allowed;
- b. *nde* 'if' gets its tones by spreading from the left;
- c. there is a causal and/or sequential relationship ('if/when') between the antecedent and consequent clauses;
- d. the overall time frame may be past or non-past;
- e. the modal and aspectual category of the consequent clause does not have scope over the antecedent clause;
- f. there is no restriction on the subject of either clause, and no coindexation requirement.

conjugated pseudo-conditional clause
- a. the predicate is an {L}-toned verb stem plus pronominal-subject suffix;
- b. *nde* is H-toned after a 1Sg or 2Sg form, L-toned after a 1Pl or 2Pl form (with their dying-quail intonation);
- c. this clause and the following clause denote closely spaced sequential events;
- d. the time frame as defined primarily by the next main clause is imperfective (future, generalized time, or past imperfective/habitual);
- e. the aspectual and modal category of the following clause has scope over the pseudo-conditional clause;
- f. the subject of the pseudo-conditional clause is a first or second person pronominal category, and this subject is usually coindexed with that of the following clause (and often the preceding clause).

In (578), for example, a pseudo-conditional clause with suffixally marked 2Sg or 2Pl subject is followed by an imperative. (One can also use *gáy* instead of the pseudo-conditional.) It is understood that the first event is included in the scope of the imperative. In effect, the pseudo-conditional functions like a chained VP, so that the inflection of the following main-clause verb has scope over the pseudo-conditional as well. Likewise, in (578e), the first clause is included in the scope of the final negation.

(578) a. *[yè:-ẁ* *ndé]* *bíndò*
[come-2SgSbj **then**] go.back.Imprt
'Come-2Sg (here) and then go back!'

b. *[ǹnè-ẁ^{n}* *ndé]* *yô:*
[go-2SgSbj **then**] come.Imprt
'Go-2Sg and then come (back)!'

c. *[ŋ̀gá* *dɔ̀gɔ̀-ẁ* *ndé]* *bíndò*
[here leave-2SgSbj **then**] go.back.Imprt
'Leave-2Sg (it) here then go back!'

d. *[tòrò-ẁ.∴* *ndé]* *ńnô-ndì*
[pound-2PlSbj **then**] go.Imprt-PlAddr
'Pound-2Pl (in a mortar) and then go!'

e. *[yè:-ẁ* *ndé]* *bìndí-ndá*
[come-2SgSbj **then**] go.back-Proh]
'Don't come-2Sg (here) and then go back!'

See also (183) in §7.1.3. If the same constructions occurred in a past-time narrative, the first clause would take same-subject anterior *ŋ* (§15.2.7) rather than *gáy* or pseudo-conditional *ndé*.

The pseudo-conditional can also be used with first person subjects in imperfective contexts. It is common in texts describing recurrent activities such as farming that involve several sequenced actions. Excerpt (579) contains four occurrences (bolded). In such passages, a paragraph-like group of clauses is structured as one or more pseudo-conditionals culminating in a regular imperfective or deontic modal verb. In this passage the speaker pauses after the individual pseudo-conditional clauses, and *ndè* is heard with low pitch. The passage also includes one true conditional (*dɔ̀:-∅ ndè*, underlined not bolded).

(579) *ńné* *dǔ:-yì* *jê:-jè:* *[dámbí* *gá]* *gàrⁿí-mì-y.∴,*
go carry-MP bring^{HL}-bring^{L} [courtyard Loc] put.in-Ipfv-1PlSbj,
[[dámbí *gá]* *gàrⁿì-ỳ.∴* *ndè]*
[[courtyard Loc] **put.in-1PlSbj** **then**]
[yàr-dɔ́ɛ̀ *ńné* *dɔ̀:*^{L} *ndè],*
[rainy.season.onset 3SgSbj <u>arrive.Pfv</u> <u>if</u>],
[dámbí *gá]* *dìrⁿè-ỳ.∴* *ndè,*
[courtyard Loc] **slash.earth-1PlSbj** **then**,
[dù:-yì-ỳ.∴ *ndè]*
[**carry.on.head-MP-1PlSbj** **then**]
[[ò:^{L} *ká]* *jè:rⁿì-ỳ.∴* *ndè]*
[[field^{L} Def.InanSg.Loc] **convey-1PlSbj** **then**]
túyì-mì-y.∴,
put.down.in.pile-Ipfv-1PlSbj,
yû: *[dúmbó* *nɔ̀]* *[kú* *mày*^{n}*]* *tɔ̂:-mì-y.∴*
millet [base 3SgPoss] [DiscDef like] sow-Ipfv-1PlSbj
'We will carry them and bring them and we will go put them in the courtyard (of the house). After we put them in the courtyard, once the beginning of the (next) rainy season has arrived, we will dig up the stems (which have been trampled into the ground) in the courtyard, we will carry them (on our heads) and bring them (back) to the field there (where they were cut), and put them down (as fertilizer). We will plant millet (seeds) at the base (=beside the old stems) like that.' (2004.01.02)

In all of the 1st/2nd person examples given so far, the verb in the pseudo-conditional clause has exactly the same form as the simple perfective, namely, an {L}-toned form of the bare stem plus the pronominal-subject suffix. However, the true simple perfective occurs in sentences with a more or less focal preverbal constituent, while the pseudo-conditional may occur without any preverbal constituent whatever.

The fact that the inflected pseudo-conditional verb is not really the simple perfective is brought out when we look at third person subjects. The simple perfective uses the E/I-stem

for 3Sg (e.g. *gòè-∅* 'he/she went out', *tùwɛ̀-∅* 'he/she died'), and ends in a back or low vowel for 3Pl (*g-ò:* 'they went out', *tùw-à* 'they died'). Such forms do not occur in the pseudo-conditional, which instead has the {L}-toned bare stem for both 3Sg and 3Pl (*gò: ndé* 'go out and…', *tùwɛ̀ ndé* 'die and …'). In other words, while 1st/2nd person subjects are compatible with either the inflected or uninflected versions of the pseudo-conditional, third person subjects require the uninflected version, which is described in the following section.

15.2.8.3 Unconjugated imperfective anterior (pseudo-conditional) with *nde*

A variation on the pseudo-conditional as described just above is a version without the suffixal pronominal-subject conjugation on the predicate. Instead, a pronominal subject is expressed by a preverbal subject pronoun, as in nonsubject relative clauses. The pronoun may occur even when the subject is also expressed as a full NP, but there are some examples in the texts without the pronoun. The unconjugated version is required with third person subjects, and occurs as an optional alternative to the conjugated version for first and second persons.

Simple third-person examples are in (580a-b).

(580) a. *ńnɛ́* *dɔ̀:*^{L} *ndé* *níyⁿɛ́-ŋ̀*
3SgSbj arrive^{L} **then** sleep-Ipfv.3SgSbj
'He/She will arrive (there) and then sleep.'

b. *bû:* *dɔ̀:*^{L} *ndé* *níyⁿɛ̀-m-ɛ̀*
3PlSbj arrive^{L} **then** sleep-Ipfv-3PlSbj
'They will arrive (there) and then sleep.'

Here the verb 'arrive' is {L}-toned, and *nde* is H-toned. This is the same tonal configuration we saw for the conjugated pseudo-conditional, in the absence of dying-quail intonation for 1Pl or 2Pl subject suffixes (which are not relevant to the unconjugated version). The formula is therefore subject pronoun plus *Vb*^{L} *ndé*.

The temporal and discourse context is the same as for the conjugated pseudo-conditional. For first and second persons, which have a choice between conjugated and unconjugated versions, the unconjugated version seems to be preferred in clauses that are more clearly backgrounded in the discourse.

Backgrounding (defocusing) can be of two types. In one, several events are run together, with no single event standing out much. This is illustrated by a passage with several *Vb*^{L} *ndé* clauses leading up to a final quoted imperative in (756) in the sample text: *pàgì*^{L} *ndé … jè:*^{L} *ndé … dɔ̀:*^{L} *ndé … kúwí* ('tie … bring … roast … devour').

Another type of backgrounding is echoing the content of a just uttered clause, now serving as background to the next highlighted event. (581a) is a good example, with two unconjugated pseudo-conditionals of this repetitive type. (581b) is similar, with a number of unconjugated pseudo-conditionals interspersed among three regular imperfectives.

(581) a. *[yù:*^{L} *gú]* *nàrⁿá* *nárⁿá-ŋ́,*
[millet^{L} Def.InanSg] fruit bear-Ipfv.3SgSbj,
nàrⁿá *ńné* *nàrⁿà*^{L} *ndé,*
fruit **3SgSbj** **bear**^{L} **then.SS**,
yù:-dǒ: *kìyá* *íré-ŋ́,*
early.millet first ripen-Ipfv.3SgSbj,
[yù:-dò:^{L} *gú]* *ńné* *ìrè*^{L} *ndé,*
[early.millet^{L} Def.InanSg] **3SgSbj** **ripen**^{L} **then.SS**,
[yù:-dò:^{L} *gú]* *téŋgé* *jè-ỳ.:* *ndè,*
[early.millet^{L} Def.InanSg] hand.harvest RecPrf-1PlSbj if,
'The millet will bear fruit. When it bears fruit, The early millet ripens first. When the early millet has ripened, we hand-harvest that early millet, …' (2004.01.03)

b. *[jínjá* *gá]* *gàn*^{L} *ndé,*
[waterjar Loc] **put.in**^{L} **then**,
[pɔ̀:ⁿ^{L} *gú]* *dàŋí-m-è* *ndè,*
[fonio^{L} Def.InanSg] cook-Ipfv-3PlSbj if,
yǎ: *kú-ŋ́* *gò-ndò*^{L} *ndé,*
woman InanSg -Acc **go.out-Caus**^{L} **then**,
[túndí *gó]* *pésè-m-è,*
[mortar Loc] pound-Ipfv-3PlSbj,
bû: *pèsè*^{L} *ndé,*
3PlSbj **pound**^{L} **then**,
[[kò-kǒm *nɔ̀* ^{L}*gù]* *lèrè-gèrěw→* *gò:*^{L} *ndé]*
[[chaff 3SgPoss ^{L}Def.InanSg] all **go.out**^{L} **then**]
*[ér*ⁿ*íy*ⁿ*í-tì-yà* *ndè]* *[pìrì*^{L} *gú]*
[winnow-Pfv1a-3PlSbj if] [white^{L} Def.InanSg]
ńné *wàsà*^{L} *ndè,*
3SgSbj **be.left**^{L} **then**,
ɲǎ: *[kú* *mày*ⁿ*]* *dàŋí-m-è*
meal [DiscDef like] cook-Ipfv-3PlSbj
'After putting it in jars, if they are going to cook the fonio, the women take it out, they pound it in a mortar. When they pound it, all of its chaff comes off. When they have winnowed it (in the wind), the white part (=inner grains) remains. At that point they cook a meal.' (2004.01.04)

The tonal pattern *Vb*^{L} *ndé* is not consistent. Other tonal patterns that occur in texts in clauses that otherwise have characteristics of unconjugated pseudo-conditionals are (questionably) *Vb*^{L} *ndè* and (definitely) *Vb*^{H} *ndè*.

Vb^{L} *ndè* tonally splits the difference between the standard pseudo-conditional *Vb*^{L} *ndé* and true conditional antecedents. It may also be grammatically transitional between them. The presence of a (nonfocal) preverbal subject pronoun points to the pseudo-conditional rather than the true conditional. However, in (582a-b) the usual interclausal subject coindexation in pseudo-conditionals is absent. A clause of this type arguably functions as a kind of conditional antecedent in a strongly imperfective (e.g. habitual) environment. However, to be honest, transcription of tones in textual occurrences, which requires factoring out intonational effects, is not always reliable, and I am not certain that *Vb*^{L} *ndè* is really distinct from *Vb*^{L} *ndé*.

(582) a. *[ér^{n}íy^{n}í-tì-yà* *ndè]*
[winnow.in.wind-Pfv1b-3PlSbj if]
[pìrì^{L} *gú]* *ńné* *wàsà*^{L} *ndè,*
[white^{L} Def.InanSg] **3SgSbj** **remain**^{L} **if/then,**
ɲă: *[kú* *mày^{n}]* *dàŋí-m-è*
meal [NonhSg like] cook-Ipfv-3PlSbj
'When they have winnowed it in the wind, the white part (=inner grains) remains. At that point they cook a meal.' (2004.01.04)

b. *tò:-bòró* *tà:ndí-tà:ndí-tà:ndí* *tɔ̀:-mì-y.:,*
seed-hole three-three-three sow-Ipfv-1PlSbj,
[bòndí *ńné* *wɔ̀:*^{L} *ndè]*
[rain(n) **3SgSbj** **rain.fall**^{L} **then**]
[[tò:^{L} *gú]* *tɛ́:-ŋ̀]*
[[seeds^{L} Def.InanSg] sprout-Ipfv.3SgSbj]
'We plant (seeds) in three spots for seeds (per area). After it rains, those seeds will sprout.' (2004.01.03)

The remaining tonal type, *Vb*^{H} *ndè*, puts more emphasis on the temporal prolongation of the denoted activity. Shifting the H-tones to the left in this construction may be compared to the {HL}-{L} or monosyllabic {H}-{L} overlays on verb iterations denoting prolongation (§11.6.2). In (583a), the verb glossed 'cultivate' refers to the first round of weeding around and thinning out the planted crops, an arduous process that may take two weeks or longer. It occurs first in a regular imperfective clause, and I suspect that the repetition of the clause as a pseudo-conditional suggests prolongation. This tonal pattern also occurs when the pseudo-conditional clause is itself iterated to express prolongation, as with 'beat/thresh' in (583b). These passages additionally include a true conditional (underlined) with 'finish' in (583a), an inflected pseudo-conditional with 'take' in (583b), and a regular uninflected pseudo-conditional of the type *Vb*^{L} *ndé* with 'remain' in (583b). (583c) illustrates H-toned *bú*^{H} from *bù-* 'be'.

(583) a. *wà-wárá-mì-y.:,* *[î:* *wárá*^{H} *ndè]*
Rdp-cultivate-Ipfv-1PlSbj, [**1PlSbj** **cultivate**^{H} **then**],
wórî *dìmɛ́-ɛ̀rɛ̀-∅* *ndè,* *sàmbá,*
<u>farming</u> <u>finish-Pfv1a-3SgSbj</u> <u>if</u>, second.round,
íyê *[nà*^{L} *wònjɔ̌w]* *sámbì-mì-y.:*
again [time^{L} second] do.second.round-Ipfv-1PlSbj
'We cultivate (=do the first round of weeding). When we have cultivated (for a long time) and the (first round of) cultivating is finished, again a second time we do the second (and final) round of cultivating.' (2004.01.02)

b. *béré* *àyì-ỳ.:* *ndè,*
stick take-1PlSbj then,
[î: *súyɔ́*^{H} *ndè]* *[î:* *súyɔ́*^{H} *ńdè]*
[1PlSbj **beat**^{H} **then]** **[1PlSbj** **beat**^{H} **then]**
[[pɔ̀:^{n}-ńjà^{L} *gú]* *wàsà*^{L} *ndé]*
[[fonio-seed^{L} Def.InanSg] remain^{L} then]
'We take a stick and we keep beating and beating (=threshing the fonio). The fonio grains will remain (there) (and …)' (2004.01.04)

c. *… sámbí-tì-ỳ.˙* *ndè,*
… do.second.round-Pfv1b-1PlSbj if,
[ná *gây],* *î:* *bú*^{H} *ndè,*
[now Topic], **1PlSbj** **be**^{H} **then**,
[yù:^{L} *gú]* *nàr*^{n}*á* *nár*^{n}*á-ŋ̀*
[millet^{L} Def.InanSg] fruit bear-Ipfv.3SgSbj
'When we have done the second round of cultivating, now, we (just) stay (=wait), the millet will bear fruit.' (2004.01.03)

15.2.8.4 *-sɛ̀ gù-nde* 'and then' (past)

This rather frozen combination is common in narrative texts. It appears to contain perfective participial *-sɛ̀*, plus a mysterious element *gù-* and an L- or H-toned variant of *nde* 'if' (conditional) or 'and then' (pseudo-conditional, see the preceding section). The verb stem is tone-dropped. The verb stem is tone-dropped. This suggests (faintly) that *gù-nde* might be synchronically parsable as definite plus 'if; and then'. However, the construction is rather opaque morphologically (see below on etymology). I will gloss it as 'and.then.Past' in interlinears.

As in relative clauses and in unconjugated pseudo-conditionals, pronominal subjects are expressed by preverbal pronouns, , for example 1Sg *ɩ̌:*^{n} or 2Pl *û:*, rather than by suffixes. If the subject is third person, the pronoun is **always 3Reflexive** (identical to logophoric) in form: *á* (Sg) or *â:* (Pl). This supports the view that *-sɛ̀ gù-nde* is a relative clause syntactically, and further suggests that the subject is coindexed to that of another clause, see §18.2.2. Indeed, *-sɛ̀ gù-nde* usually does occur in sequences of clauses (e.g. describing a complex activity) with the same subject. However, there is no hard requirement that the subject of *-sɛ̀ gù-nde* be coindexed with the subject of the following clause. Instead, the coindexation is more systematic with the preceding clause, as will be shown just below. One frequent use of *-sɛ̀ gù-nde* clauses in narrative is to echo, now in backgrounded form, the content of a previously uttered clause, as the narrator catches his or her breath before moving on to the next highlighted event (which may or may not have a different subject NP). However, *-sɛ̀ gù-nde* may also be used in unrepeated clauses within narrative sequences.

There are two instances of *-sɛ̀ gù-ndé* in textual excerpt (584) below. The protagonist who is indexed by the reflexive subject *á* in the *-sɛ̀ gù-ndé* clauses is referred to twice by the nonanaphoric 3Sg pronoun *ńné* elsewhere in the passage; this shows that the excerpt as a whole is not logophoric. The second *-sɛ̀ gù-ndé* clause in the passage is an otherwise verbatim echo of the preceding perfective main clause; even the referent-introducing 'a man' is repeated as suuch, rather than being converted to discourse-definite 'the man'. The female subject of this second *-sɛ̀ gù-ndé* clause is coindexed to the subject of the preceding clauses, not to the (male) subject of the following clause.

(584) *[[kú* *mày^{n}]* *ńné* *ŋ́]*
[[DiscDef like] go and.SS]
gɔ̀r^{n}í-ŋ́ *bàrá* *á* *mɔ̀:ndì-sɛ̀* *gù-ǹdɛ́,*
gear-Acc gather **3ReflSgSbj** assemble-**Ppl.Pfv** **and.then.Past,**
ńné *ńní-mɔ̀,* *[àr^{n}à^{L}* *tùmâ]* *[ósú* *gó]* *sɛ̀:rɛ̀-∅,*
3SgSbj go-while, [man^{L} one] [road Loc] meet.Pfv-3SgSbj,
[àr^{n}à^{L} *tùmâ]* *[ósú* *gó]* *á* *sɛ̀:rɛ̀-sɛ̀* *gù-ǹdɛ́,*
[man^{L} one] [road Loc] **3ReflSgSbj** meet-**Ppl.Pfv** **and.then.Past,**
[ńné-ŋ́ *pó:-mí* *ŋ́]*
[3Sg-Acc greet and.SS]
'Thus she went and gathered the (broken) houseware together. As she was going along, she encountered a man on the road. When she had encountered a man on the road, he greeted her, and …' (2004.02.03)

Example (585) is from the same text. It contains two more occurrences of *-sɛ̀ gù-ndɛ.*

(585) *[[gɔ̀r^{n}í* *[á* *yɛ̂]]*
[[gear [3ReflSg Poss.InanPl]
á *bàrà-sɛ̀* *gù-ǹdɛ́]* *gɔ̀ɛ̀-∅,*
3ReflSgSbj gather-**Ppl.Pfv** **and.then.Past**] go.out.Pfv-3SgSbj
[ńné *ńní-mɔ̀]* *[ńné* *ńní-mɔ̀]* *[ńné* *ńní-mɔ̀]*
[3SgSbj go-while] (repetitions…)
[sàtàrà-ké:sí *[bû:* *wòy]],* *[[mɛ̀sír^{n}ɛ̂* ^{L}*tɔ̀g]* *gɔ̀],*
[young.man [3Pl two]], [[needle ^{L}hole] Loc],
[dòríyé-dòríyé *bû:* *láwá-mɔ̀]*
[go.through-go.through 3PlSbj pass-while]
[ńné *ŋ́]* *tɛ̀mbì-∅* *wà,*
[go and.SS] find.Pfv-3SgSbj Quot,
bû:-ŋ̀ *á* *tɛ̀m(bì)-sɛ̀* *gù-ndɛ̀,*
3Pl-Acc **3ReflSgSbj** find-**Ppl.Pfv** **and.then.Past**,
[bû: *wà]* *[kǎwrû* *kár^{n}i]* *wà*
[3Pl Quot] [pardon do.QuotImprt] Quot
'She gathered up her baggage and left. She kept going, she went and found two young men going back and forth through the hole (=eye) of a needle. When she found them, she said: hey you-Pl, please pardon (me, for going past you).' (2004.02.03)

In elicitation, *kìyɛ̀-sɛ̀ ẁ-ndɛ́* and variant *kìyɛ̀-sɛ̀ gù-ndɛ̀* are common forms of the 'say' verb *kíyɛ́-* (§11.3.1). These forms occur in clauses that precede the actual quotation, see §17.1.2.

The key to the historical origin of the synchronically opaque *-sɛ̀ gù-ndɛ* construction is the original morphemic identity of *gù-*. The only similar morpheme in Nanga is definite inanimate singular *gú*. This morpheme does indeed have an L-toned variant *gù*, at the end of NPs that include a possessor, see (155a) and (156a-c) in §6.5.1 above. *gù* also occurs, infrequently, at the end of relative clauses, as in (489) and (530c). It makes sense for a definite morpheme to follow perfective participial *-sɛ̀*, and there are many quite transparent definite perfective relative clauses in texts with ('the day when I ran', etc.). However, the *-sɛ̀ gù-ndɛ* construction has no obvious semantic connection with definite participial *-sɛ̀ gú*, and *ndɛ* (either conditional or pseudo-conditional) is normally added to a verb stem or an inflected verb rather than to a relative clause or other NP. So the literal glossing "-Ppl.Pfv Def-if/then" makes no compositional sense.

One historical possibility worth considering is that *gù-nde* originally meant 'say (and then)'. Throughout Dogon, forms of 'say' verbs routinely develop specialized functions as clausal subordinators (sequential, purposive). In Nanga, *gù-* is admittedly a poor phonological match for *kíyɛ́-* 'say'. However, the connection looks better when we bring in the two languages most closely related genetically to Nanga. Ben Tey *gŭy^{n}-* 'say' and Bankan Tey *gùn* 'said' are likely cognates to the mysterious *gù-* in Nanga *gù-nde*. Furthermore, Ben Tey has complex subordinators *-ẁ kù dè* and *-ẁ dè* that strikingly resemble Nanga *gù-nde*. The most likely historical scenario is that Nanga *gù-nde* and Ben Tey *kù dè* both derive from pseudo-conditional forms of 'say' (perhaps *gùn dé), but that the combination became morphologically opaque already in their common ancestor and was subject to contamination with phonologically similar definite markers (Nanga *gú* ~ *gù*, Ben Tey *kù*, cf. Jamsay *kù^{n}*).

15.2.8.5 *-ẁ* clause with H-toned proclitics

Here *-ẁ* is not the 2Sg subject suffix, as is shown by the presence of a preverbal proclitic subject pronominal of any category. The construction is therefore syntactically a type of nonsubject relative clause, though it translates as an ordinary backgrounded clause. I take *-ẁ* to be a specialized participial ending (cf. Ben Tey inanimate perfective participial *-ẁ*).

Unusually, the proclitic pronominals are **H-toned** in this construction: 1Sg *í:^{n}* (not *ĭ:^{n}*), 1Pl *í:* (not *î:)*, 2Pl *ú:* (not *û:*), 3ReflPl *á:* (not *â:*), as well as 2Sg *ú* and 3ReflSg *á* which are already H-toned. The other case I know of where H-toned pronouns are required is in subject position in subject-object reciprocals (§18.3.1).

(586) occurs at the beginning of a typical Malian cruel-stepmother tale. A man has two wives, one of whom dies, leaving her orphaned child to be raised (and tormented) by the surviving co-wife.

(586) *[àr^{n}à^{L} tùmâ] [yǎ: wǒy] á jɛ́:-ẁ*
[man^{L} one] [woman two] **3ReflSgSbj** **marry-Ppl**
'(Once) one man had married two women.' (2004.02.03)

In (586), the third person subject ('one man') is resumed as a 3Reflexive preverbal subjcct pronominal, as though coindexed to the subject of an adjacent main clause. There happens to be no adjacent clause with the same male referent as subject, but in my other textual examples the *-ẁ* clause is part of a string of clauses with the same subject. All *-ẁ* clauses with third-person subjects in my data have 3Reflexive pronouns exactly as in (586). Another example of this is (587a). First and second person subjects are also attested, as in (587b), where 1Pl *í:* from *î:* illustrates the H-toned pronoun.

(587) a. *á:ndɛ̀ mândê á gó:-ẁ,*
Anda Mande **3ReflSgSbj** **go.out-Ppl**,
[yɛ̌: jɛ̀→ [yɛ̌: jɛ̀→] [yɛ̌: jɛ̀→]
[come while.SS] (repetitions)
[nî: á dímbí-ẁ],
[water **3ReflSgSbj** **follow-Ppl**],
[ŋ̀gá yɛ̌: ŋ́] gòè-∅
[here come and.SS] go.out.Pfv-3SgSbj
'Anda (village), it (=its founding group) came from Mande. It kept coming, it followed the water (=river). It came out here.' (2004.01.05)

b. *[ó:ndí=yè* *[nî:* *dìmbí-yí* *ŋ́]* *yě:* *ŋ́]*
[Old.Anda=Loc] [water follow-MP and.SS] come and.SS]
[í: *púsó-ẁ],*
[**1PlSbj** **gush.out-Ppl**]
ó:ndí=yè *éw-yé* *î:* *dè:-sè* ^{L}*gù, …*
Old.Anda=Loc sit-MP 1PlSbj be.tired-Ppl.Pfv ^{L}Def.InanSg …
'We followed (=were carried along by) the water and came and gushed out (like a spring) at Old Anda. We stayed ("sat") at Old Anda until we were tired (=for a long time), (then …)' (2004.01.06)

Also noteworthy is the fact that mediopassive *-yí-* is omitted after a bisyllabic stem, therefore *dímbí-ẁ* in (587a) above from *dìmbí-yí-* 'follow', which itself occurs in (587b). Compare stative *dí-dìmbà* 'be following, tagging along', also without the mediopassive suffix.

(588)

stem	with *-ẁ*	gloss
a. monosyllabic		
lexical /H/ melody		
ná:-	*ná:-ẁ^{n}*	'spend night'
lexical /LH/ melody		
jɛ̌:-	*jɛ́:-ẁ*	'(man) marry (woman)'
b. bisyllabic		
lexical /H/ melody		
túwɛ́-	*túwɛ́-ẁ*	'die'
ńdí-	*ńdí-ẁ*	'give'
kár^{n}í-	*kár^{n}í-ẁ^{n}*	'do'
lexical /LH/ melody		
dɔ̀gɔ́-	*dɔ́gɔ́-ẁ*	'leave, abandon'
bìndé-	*bíndé-ẁ*	'go back'
dùŋí-	*dúŋú-ẁ*	'put down'
bǎ:rí-	*bá:rú-ẁ*	'help'
c. trisyllabic		
lexical /H/ melody		
pígíré-	*pígíré-ẁ*	'screw in'
kɛ́mír^{n}í-	*kɛ́mír^{n}í-ẁ^{n}*	'have fun'
lexical /LH/ melody		
mònjúró-	*mónjúró-ẁ*	'dream'
gɔ̀ŋír^{n}í-	*gɔ́ŋúr^{n}ú-ẁ^{n}*	'go around'

Two possible etymological sources suggest themselves for *-ẁ*. One is an inanimate agreement suffix, cf. the inanimate 'it is' clitic *=w* (§11.2.1.1). In Neighboring Ben Tey, suffix *-ẁ* occurs on inanimate modifying adjectives, and (more relevantly here) as an inanimate perfective participial suffix. Some combination of adverbial perfective and perhaps stative participles, with covert inanimate head ('situation' or the like), could work as immediate prototypes for the Nanga construction. A less likely etymological possibility is the 'say' verb that I suspect survives as *gù-* in *-sè gù-ndè* (§15.2.8.3). Aside from phonological difficulties,

it would be difficult to explain how a bare ‘say’ verb came to be suffixed to another verb stem.

15.3 Other temporal adverbial clauses

15.3.1 ‘Since …‘ clauses (*-sɛ̀* ^{L}*dày*^{n})

The usual ‘since’ clause is a nonsubject perfective positive relative clause. The main verb has perfective participial suffix *-sɛ̀*. The verb-participle is optionally followed by ^{L}*dày*^{n} (cf. noun *dǎy*^{n} ‘limit, boundary, bounds’). The ‘since’ clause is positive in form. A negative ‘since’ clause can be constructed in back-door fashion, by combining an unconjugated perfective negative main verb with a positive ‘do’ participle (589c).

(589) a. *[[bû: yɛ̌:-sɛ̀] dày*^{n}*] [nî: dìyò-ndú]*
[[3PlSbj come-**Ppl.Pfv**] ^{L}**limit**] [water bathe-PfvNeg.3PlSbj]
‘Since they came, they have not bathed.’

b. *[[mùr*^{n}*á ńnɛ́-ŋ́ wɔ̌:-sɛ̀] ^{L}dày*^{n}*] gò:-rí-∅*
[[sickness 3Sg-Acc catch-**Ppl.Pfv**] ^{L}**limit**] go.out-PfvNeg-3SgSbj
‘Since she got sick (“sickness caught her”), she has not gone out.’

c. *[[làwà-rí*
[[pass-PfvNeg
â: kár^{n}*í-sɛ̀] ^{L}dày*^{n}*] gò:-ndú*
3LogoPlSbj do-**Ppl.Pfv**] ^{L}**limit**] go.out-PfvNeg.3PlSbj
‘Since (the day when) they did not pass (= they failed exams), they haven’t gone out.’

For parallelistic ‘since/from the time that …, until …’, both clauses ending in ^{L}*dày*^{n}, see §15.5.4 below.

‘Since X’ with a temporal NP as X is expressed as *X bǎ:* or (less often) *X* $^{(H)L}$*dày*^{n}. Thus *yéŋìr*^{n}*ì: bǎ:* ‘since yesterday’, less often *yéŋìr*^{n}*ì:* ^{L}*dày*^{n}. *bǎ:* may be intonationally prolonged as *bǎ→*.

15.4 Noun-headed temporal clause (‘the time when …‘)

wágádí ~ *wágátí* ‘time, moment in time’ (a regional word ultimately from Arabic) can be used as the (L-toned) head of a relative clause that functions as a temporal adverbial clause. The relative clause as a whole takes the locative postposition, which fuses with a definite morpheme if there is one (e.g. /gú gá/ > *gá*, see §8.2.3.2). The tone-dropping on the participle is controlled by the definite morpheme.

(590) *[wàgàdì*^{L} *ńnɛ́ yɛ̀gɛ̀-sɛ̀*^{L}*] gá*
[**time**^{L} 3SgSbj fall-Ppl.Pfv^{L}] Def.InanSg.Loc
‘at the time when he/she fell’ (= ‘when he/she fell’)

Of course any temporal noun such as ‘day’, ‘morning’, ‘month’, or ‘year’ can also be the head of a temporal adverbial relative clause.

15.4.1 Reverse anteriority clause with final *múgò* ‘before …‘

‘Before’ clauses are expressed by clause-final *múgò*, with tone-dropping on the preceding bare verb stem. Although I struggle to segment or parse it, my assistant’s intuition is that *múgò* is the combination of imperfective participial *-mí* on the verb followed by locative *gò*. This makes sense semantically (‘at the time when X was about to VP’ = ‘before X VP’ed’), but all of the tones are wrong (tone-dropped verb, H-tone on *-mí* ~ *-mú*, L-tone on locative postposition). The morphology is non-transparent, and I transcribe *múgò* as an unsegmentable word.

The subject may be expressed by a preverbal independent pronoun, like *bû:* ‘they’ in (591a). The subject is usually omitted when the subject of the ‘before’ clause and that of a juxtaposed main clause are coindexed (591b).

(591) a. *[bìndé bû: yè:*^{L} *múgò] dàwí-yí-èrè̀*
[go.back 3PlSbj **come**^{L} **before**] hide-MP-Pfv1a-1SgSbj
‘Before they came back, I hid (myself).’

b. *[ɲă: kɔ̀:*^{L} *múgò] bírè̀-mì-y.:*
[meal **eat**^{L} **before**] work-Ipfv-1PlSbj
‘We will work before eating.’

c. *[[ĭ:*^{n} *yè:*^{L} *múgò] ńné-èrè̀-∅] tèmbì-ỳ*
[[1SgSbj **come**^{L} **before**] go-Pfv1a-3SgSbj] find.Pfv-1SgSbj
‘I found that he had left before I came.’

15.4.2 ‘No sooner …, than …‘ (*bú→*, *pú→*, *fú→*)

In (592), the particle *bú→* (variant *pú→* or *fú→*) with H-tone is added to a headless definite adverbial relative clause ending in definite inanimate singular *gú*. *pú→* varying with *fú→* (less often *bú→*) is elsewhere one of the ‘all’ quantifiers (§6.6.1). The pronominal subject of the ‘as soon as’ clause is expressed as an independent pronoun. The subjects of the two clauses may be coindexed (592a-b) or disjoint (592c).

In this construction, definite *gú* itself is pronounced with relatively low pitch. This could be interpreted as the L-toned variant of *gú* that is occasionally attested in some types of relative. But it may simply be an anticipatory intonational downstep on an element immediately preceding the emphatically pronounced *bú→*.

(592) a. *[î: yè:-sɛ̀*^{L} *gù bú→]*
[1Pl come-Ppl.Pfv^{L} Def.InanSg **all**]
bí-bìyè-y.:
Rdp-lie.down.Pfv-1PlSbj
‘As soon as we came (= arrived), we went to bed.’

b. *[ňǎ:* *ǐ:ⁿ* *kɔ̀:-sɛ̀*[L] *gù* *bú→]* *ǹnɛ̀-yⁿ*
[meal 1Sg eat-Ppl.Pfv[L] Def.InanSg **all**] go.Pfv-1SgSbj
'As soon as I had eaten the meal, I went away.'

c. *[î:* *yɛ̀:-sɛ̀*[L] *gù* *bú→]*
[1Pl come-Ppl.Pfv[L] Def.InanSg **all**]
[bɔ̀ndí *wɔ̀ɛ̀-∅]*
[rain(n) rain.fall.Pfv-3SgSbj]
'As soon as we came, the rain fell.'

In (593), *bú→* (*pú→*) occurs at the end of a temporal clause with bare verb stem and different-subject subordinator *nà*. The pronominal subject of the 'as soon as' clause is expressed by an independent pronoun. This construction is only used when the subjects are disjoint and the time reference is past.

(593) *[búrâ:* *ǐ:ⁿ* *táwá* *nà* *pú→]* *kɔ̀yɛ̀-∅*
[B 1SgSbj touch and.DS **all**] weep.Pfv-3SgSbj
'As soon as I touched Boura (man's name), he wept (=began weeping).'

In (594a-b), *bú→* with L-tone follows a regular inflected verb (perfective aspect). The subjects of the two clauses may be coindexed (594a,c) or disjoint (594b). This construction is used when the time frame is in the future or is gnomic/habitual (denoting a recurrent event).

(594) a. *[sɛ́wá:ré* *dɔ̌-ɛ̀rɛ̀-y.:.* *bú→]* *bìyé-mì-y.:.*
[S arrive-Pfv1a-1PlSbj **all**] lie.down-Ipfv-1PlSbj
'As soon as we arrive in Sevare, we will go to bed.'

b. *[búrâ:* *táwá-tù-w* *bú→]* *kóyó-ŋ̀*
[B touch-Pfv1b-2SgSbj **all**] weep-Ipfv.3SgSbj
'As soon as you-Sg touch Boura, he will weep.' (warning)

c. *[fántà* *ɛ́w-yé-ɛ̀rɛ̀-∅* *bú→]* *níyⁿɛ́-ŋ̀*
[F sit-MP-Pfv1a-3SgSbj **all**] sleep-Ipfv.3SgSbj
'As soon as Fanta sits down, she falls asleep.' (general statement)

Other 'all' quantifiers (*kéréw*, *bɛ́:ndɛ̀*) are more common in postnominal position than in clausal constructions. Variants of *pú→* or *fú→* occur in other languages of the zone in both 'as soon as' and 'all' functions (Jamsay, Fulfulde, etc.).

A less common 'as soon as' construction is with final *tán* (§16.2.2).

15.5 Spatial and manner adverbials

15.5.1 Spatial adverbial clause ('where …')

The noun *ɔ̂:* 'place' occurs in L-toned form as the relative head. In adverbial function, the relative is followed by a locative postposition. In (595b) the relative construction is subject of the higher clause.

(595) a. *[[bèrèmbí* *ɔ̀:*^{L} *bèrè-mbè-m̀*^{L}*]* *gá]*
[[herder **place**^{L} graze-Caus-Ppl.Ipfv^{L}] Def.InanSg.**Loc**]
ńnô
go.Imprt
'Go to the place where the herders are having (the livestock) graze!'

b. *[[ɔ̀:*^{L} *ńné* *yègè-sè*^{L} *gú]* *wàgá*
[[**place**^{L} 3Sg fall-Ppl.Pfv^{L} Def.InanSg] be.far
'The place where he/she fell is far away.'

15.5.2 Manner adverbial clause ('how …')

A relative clause with *dǎy*^{n} 'manner' may function as an NP (596a). With *may*^{n} 'like' this can become a manner adverbial clause (596b).

(596) a. *[dày*^{n}^{L} *ńné* *bírè-m]* *èsù=ndó-∅*
[**manner**^{L} 3SgSbj work-Ppl.Ipfv] be.good=it.is.not-3SgSbj
'The way he/she works isn't good.'

b. *[[dày*^{n}^{L} *ńné* *bírè-m]* *mày*^{n}*]* *bírɛ́-m̀-∅*
[[**manner**^{L} 3SgSbj work-Ppl.Ipfv] **like**] work-Ipfv-1SgSbj
'I work 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 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. In cases like (597a), my assistant preferred a temporal reading even though 'be far' might have hinted at a spatial reading. In (597b), the 'like' postposition forces a manner adverbial reading.

(597) a. *[[ńné* *yègè-sè*^{L} *gú]* *wàgá*
[[3Sg fall-Ppl.Pfv^{L} Def.InanSg] be.far
'(The time) when he/she fell is far away (= was long ago).'

b. *[[ńné* *bírè-m̀]* *mày*^{n}*]* *bírè-m̀-∅*
[[3SgSbj work-Ppl.Ipfv] **like**] work-Ipfv-1SgSbj
'I work like (the way) he/she works.'

15.5.4 'From/since X, all the way to/until Y'

Parallel adverbial relatives ending with *dày*^{n} (possessed, L-toned form of *dǎy*^{n} 'limit, outer bound') can be used to specify initial and terminal points of an extended duration. We have already seen 'since …' clauses of this type, with perfective participles (§15.3.1). *hálè* 'all the

way to' is optional at the beginning of the second clause. The regular 3Pl pronoun in the 'since …' clause binds a coindexed third-person reflexive subject in the second (§18.2.2-3).

(598) *[[bû:* *bû:-ŋ̀* *nàr^{n}á-sè]* ^{L}*dày^{n}]*
[[3PlSbj 3Pl-Acc bear.child-Ppl.Pfv] ^{L}**limit**]
[[(hálè) *â:* *túwè-m̀]* ^{L}*dày^{n}]*
[[(**until**) 3ReflPl die-Ppl.Ipfv] ^{L}**limit**]
mɔ̀sí-yɛ́
be.bad-3PlSbj
'From when they (= their mothers) bear them$_{x}$, until when they$_{x}$ die, they are wicked.'

15.5.5 'As though …' clause

A clause may be followed by *may^{n}* 'like' (§8.4.1) in an 'as though' manner adverbial. Since there is no subjunctive in Nanga, there is no distinction between 'as/like …' clauses and 'as though …' clauses (with the pragmatic implications of the latter). If the manner adverbial has a pronominal subject, it appears as an independent pronoun, and there is no pronominal-subject suffix on the verb (599a), except for 3Pl subject (599b). The independent pronoun need not be immediately preverbal, so this is not exactly a nonsubject relative clause.

(599) a. *[[ú* *ɲă:* *kɔ̀:-rí]* *máy]* *kóyò-sò-ẁ*
[[2SgSbj meal eat-PfvNeg] **like**] weep-Progr-2SgSbj
'You-Sg are crying as though you hadn't eaten.'

b. *[[ɲă:* *kɔ̀:-ndú]* *máy]* *kóyò-s-ɛ̀*
[[meal eat-PfvNeg.3PlSbj] **like**] weep-Progr-3PlSbj
'They are crying as though they hadn't eaten.'

16 Conditional constructions

16.1 Hypothetical conditional antecedent with *nde* 'if'

In a hypothetical conditional, the antedecent clause ends in atonal *nde* 'if', following the verb or other predicate. *nde* is arguably an enclitic or suffix. When it follows any negative predicate ending in an H-toned vowel (forms of perfective negative *-rí-*, stative negative clitic *=ǹdó-*, *ŋ̀gó-* 'not be (present)', or clitic *=ǹdǒː-* 'it is not'), the H-tone spreads to *nde*, as in *yèː-rú-ẃ ndé* 'if you don't come' and *yǎ-ŋ=ǹdǒː-∅ ndé* 'if he/she is not a woman'. However, when *nde* is added to a positive predicate, *nde* has L-tone even when the predicate ends in an H-tone. The relevant cases are forms of perfective-2 *-só-*, as in *kíyɛ́-só-ẃ ndè* 'if you-Sg say' (perfective-2), and some combinations with 'it is' enclitic, like *yǎ-ŋ=ŋ́ ndè* 'if he/she is a woman'.

The 3Sg subject simple perfective, which elsewhere takes the form of an E/I-stem (final *e*, *ɛ*, or *i*), reverts to lexical vocalism before *nde* (§10.2.1.1). An example is *kɔ̀yɔ̀-∅ ndé* 'if it is infested' in (555) in §15.1.10, compare *kɔ̀yɛ̀-∅* 'it became infested'.

True conditional *nde* 'if' added to a fully inflected predicate is distinct from imperfective anterior *ndé* ~ *ndè* added to an uninflected verb stem, specifying sequential rather than causal relationships (§15.2.8.2). However, "true" conditional clauses can be interspersed with imperfective anterior clauses in texts.

nde 'if' should not be confused with phonologically similar but unrelated morphemes, including verbal noun suffix *-ndɛ́* (§4.2.2.1) and the irregular causative suffix in *síː-ndé-* 'take/bring down' (§9.2.2).

16.1.1 Regular antecedent clause with fully inflected predicate

In simple hypothetical conditionals, the usual consequent clause is an imperative as in (600a), a hortative, or an imperfective clause as in (600b-c). The scope of the imperative or hortative is limited to the consequent clause.

(600) a.

[ɛ́wɛ́	*gá]*	*áːmádù*	*yǐː*	*jɛ̀-ẁ*	*ndè,*
[market	Loc]	Amadou	see	**RecPrf**-2SgSbj	**if**,
yɔ́gɔ̂					
flee.**Imprt**					

'If you-Sg see Amadou in the market, flee!'

b.

[ɛ́wɛ́	*gá]*	*áːmádù*	*yǐː*	*jɛ̀-ỳ*	*ndè,*
[market	Loc]	Amadou	see	**RecPrf**-1SgSbj	**if**
yɔ̀-yɔ́gɔ́-m̀-∅					
Rdp-run-**Ipfv**-1SgSbj					

'If I see Amadou in the market, I will flee.'

c. *háwâ* *ɲǎ:* *kɔ̂:-ŋɔ̀:-∅* *ndè,* *túwɛ́-ŋ̀*
H meal eat-**IpfvNeg**-3SgSbj **if**, die-**Ipfv**.3SgSbj
'If Hawa doesn't/won't eat, she will die.'

The verb of the antecedent clause is most often in one or another AN category from the perfective-system arsenal, including the simple perfective (601a), perfective-1a *-èrè-*, perfective-1b *-tì-* (601b), recent perfect *jè-* (601e), and (for verbs like 'see' and 'say' that prefer this form) perfective-2 *-só-*. The verb may also be stative, for example with quasi-verb 'be' or 'have' (601c-d). (600c) above has an imperfective negative antecedent; in this example there is no clean temporal break between antecedent and consequent eventualities.

(601) a. *á:mádù* *yì:-w* *ndè*
Amadou see.**Pfv**-2SgSbj **if**
'if you-Sg see Amadou'

b. *yî:* *súyɔ́-tì-w* *ndè*
child hit-**Pfv1b**-2SgSbj **if**
'if you-Sg strike the child'

c. *nàŋá* *yá* *sò-w* *ndè*
cow Exist **have**-2SgSbj **if**
'if you-Sg have a cow'

d. *yá* *b-è* *ndè*
Exist **be**-3PlSbj **if**
'if they are (there)'

e. *ǹjí-ŋ̀* *yǐ:* *jè-ẁ* *ndè*
1Sg-Acc see **RecPrf**-2SgSbj **if**
'if you-Sg have just seen me'

f. *[kɔ̀*[L] *kámâ]* *sò-ndó-ẃ* *ndé*
[thing[L] any] **have**-Neg-2SgSbj **if**
'if you-Sg have nothing'

g. *dɔ́gɔ̀=ǹdǒ:-∅* *ndé*
Dogon=**it.is.not**-3SgSbj **if**
'if he/she is not a Dogon (person)'

As usual, pronominal-subject suffixes consisting of a semivowel (1Sg *-y*, 1Pl *-y.:*, 2Sg *-w*, 2Pl *-w.:*) monophthongize with a preceding homorganic vowel (*i*, *u*). In addition, before *nde* 'if', 1Sg *-y* is sometimes monophthongized with a preceding {*e ɛ*}, resulting in a long vowel with no clearly articulated upglide. The fact that *ynd* would be a rare triple cluster (§3.3.8.5) is undoubtedly behind this. In (602), 1Sg *ńné-èrè-y ndè* varies with monophthongized *ńné-èrè:-∅ ndè*. The latter is still audibly distinct both from 3Sg *ńné-èrè-∅ ndè* 'if he/she goes' and from 1Pl *ńné-èrè-y.:. ndè* 'if we go'.

(602) *á:ndê=∅* *ńné-èrè:-∅* *ndè,*
Anda=Loc go-Pfv1a-1SgSbj **if**,
[[ámbérì *^{L}ndò]* *gò]* *sígé-m̀-∅*
[[chief ^{L}house] Loc] go.down-Ipfv-1SgSbj
'If I go to Anda (village), I will go down (= lodge) at the chief's home.'

16.1.2 *ndé yáŋá* 'even if/when' (pseudo-conditional)

An extended form *ndé yáŋá*, with (atonal) *yaŋa* 'also, even' (§19.1.3), means 'even if/when'. My textual example of this is really a pseudo-conditional (§15.2.8.3), with tone-dropped verb 'go down' and with preverbal proclitic subject pronoun.

(603) *[gèr^{n}é* *ńné* *sìgè^{L}* *ndé* *yáŋá]*
[rainy.season 3SgSbj go.down^{L} **if** **also**]
[[kú *mày^{n}]* *ńné* *só* *ńdè, …*
[[DiscDef like] 3SgSbj have if, …
'Even when the rainy season comes down (=begins), in that way he (still) has (millet), …' (2004.01.03)

See §16.2.1 below for 'even if' clauses that include postposition *dèr^{n}ì*.

16.1.3 'Unless' antecedent

This is simply a regular hypothetical conditional in which the antecedent clause is negative.

(604) a. *[bòndí* *èsí→* *wɔ̀:-rí-∅* *ndé],*
[rain(n) very.much rain.fall-**PfvNeg**-3SgSbj **if**],
tŏ: *tɔ́:* *bérè-ŋɔ̀-y^{n}.:*
sowing(n) sow can-IpfvNeg-1PlSbj
'Unless the rain falls ("if the rain didn't fall") heavily, we cannot sow (millet).'

b. *[ámbérì* *ŋ̀g-é* *ndé]* *[pèrgɛ́* *sɛ́mɛ́* *bérè-ŋɔ̀-y^{n}.:]*
[chief **not.be**-3PlSbj **if**] [sheep slaughter can-IpfvNeg-1PlSbj]
'Unless the chiefs are here ("if the chiefs are not present"), we cannot slaughter a sheep.'

c. *[wàrà-rú-w* *ndé]*
[do.farming-**PfvNeg**-2SgSbj **if**]
[ú *àmây^{n}* *ɲă:* *kɔ̂:-m̀-^{w}]*
[2Sg how meal eat-Ipfv-2SgSbj]
'Unless you-2Sg do ("if you-2Sg don't do") the farming, how will you eat?'

16.2 Alternative 'if' particles

16.2.1 'Even if …' (*dèrⁿì*, *dèrⁿí yáŋá*)

Elicited 'even if …' examples have (what looks like) purposive postposition *dèrⁿí* at the end of the 'if' clause, replacing the usual 'if' morpheme. In 'even if' clauses, *dèrⁿí* is optionally extended by adding *yaŋa* 'also'. The verb of the 'even if' clause has regular pronominal-subject conjugation (605a-c).

(605) a. *[yĕ:-só-∅ dèrⁿì] [ŋ̀gá ɲă: kɔ̂:-ŋɔ̀:-∅]*
[come-Pfv2-3SgSbj **even**] [here meal eat-IpfvNeg-3SgSbj]
'Even if he/she comes, he/she won't eat here.'

b. *[yĕ:-s-ɛ́ dèrⁿì] [ŋ̀gá ɲă: kɔ̂:-ŋ-ɛ̀:]*
[come-Pfv2-3PlSbj **even**] [here meal eat-IpfvNeg-3PlSbj]
'Even if they come, they won't eat here.'

c. *[yĕ:-só-ẃ dèrⁿì] [ŋ̀gá ɲă: kɔ̂:-ŋɔ̀-wⁿ]*
[come-Pfv2-2SgSbj **even**] [here meal eat-IpfvNeg-2SgSbj]
'Even if you-Sg come, you won't eat here.'

d. *[bòndí wɔ̌:-só-∅ dèrⁿí (yáŋá)] ńní-mì-y.:*
[rain rain.fall-Pfv2-3SgSbj **even** **(also)**] go-Ipfv-1PlSbj
'Even if it rains, we'll go.'

For a distinct pseudo-conditional 'even if' construction, see §16.1.2 above.

16.2.2 'As soon as …' (*tán*)

tán (variant *táŋ*) is a Fulfulde particle meaning 'only'. It is used in some nearby Dogon and Songhay languages, mainly as an alternative clause-final 'if' particle. It does not appear to be very common in Nanga, but examples were elicited, with the meaning 'as soon as'. In this function it combines with preceding same-subject subordinator *ŋ́* or different-subject subordinator *nà*, depending on whether the two clauses have coindexed or disjoint subjects.

(606) *[ú yĕ: nà tán]*
[2SgSbj come **and.DS** **as.soon.as**]
[bòndí wɔ́:-ndɛ́ tɔ̀rɛ̀-∅]
[rain(n) rain.fall-VblN begin.Pfv-3SgSbj]
'As soon as you-Sg came, the rain began to fall.'

The more common 'as soon as' construction has clause-final *bú→* 'all' (§15.4.2).

16.3 Willy-nilly and disjunctive antecedents ('whether X or Y …')

In this construction, two mutually incompatible conditions (both irrelevant to the consequent) are spelled out, sometimes with a final *kɛ̂w* 'each/all' as right-edge marker. (607a) is a simple

example where the second condition is the negation of the first. In (607b), the two conditions are understood to be thought quotations from the reported agent's perspective, and each of the conditions is framed by 'he looks (= considers)'.

(607) a. *[bòndí* *wɔ́:-ŋ̀* *wɔ̂:-ŋɔ̀:-∅* *kɛ̂w]*
[rain(n) rain.fall-Ipfv.3SgSbj rain.fall-**IpfvNeg**-3SgSbj **all**]
ńní-mì-y.:
go-Ipfv-1PlSbj
'Whether it rains or not, we are going.'

b. *[[nǔ:* ^{HL}*gɔ̂]* *ɲírⁿɛ̀-ŋɔ̀:-∅]*
[[person ^{HL}Poss.InanSg] look-**IpfvNeg**-3SgSbj
[[á ^{HL}*gɔ̂]* *ɲírⁿɛ̀-ŋɔ̀:-∅]*
[[3LogoSg ^{HL}Poss.InanSg] look-IpfvNeg-3SgSbj
[ńnɛ́ *gà]* *kéréw* *kɔ̀-kɔ́:-ŋ̀*
[3Sg Topic] all Rdp-eat-Ipfv.3SgSbj
'He doesn't look at (= care whether) "it's somebody (else)'s," he doesn't look at "it's mine," as for him, he eats everything.'

16.4 Counterfactual conditional

In this construction, the antecedent clause has *nde* 'if' as with hypothetical conditionals. However, now both the antecedent and the consequent have past clitic *=bɛ-*. For active (nonstative) verbs, the antecedent is normally past perfect (§10.5.1.3), positive or negative, as in (608b), but it may also be a past stative (608a) or a past imperfective (608c). The consequent is usually past perfect (608a), but it may be past imperfective (608b-c).

(608) a. *dɔ̀gɔ̀tɔ́rɔ̂* *yá* *bù-m=bɛ̀-∅* *ndɛ̀,*
doctor Exist be-Stat=**Past**-3Pl **if**,
bàyá-ɛ̀-rɛ̀=bɛ̀-ỳ
be.cured-Pfv=**Past**-1SgSbj
'If the doctor had been there, I would have been cured.'

b. *kà-kǎ:* *yò:-ndú=b-á* *ndɛ̀,*
Rdp-grasshopper come-**PfvNeg**.3PlSbj=**Past**-3PlSbj **if**,
[tàrá *gá]* *yû:* *ɛ̀sí→* *bɛ́rɛ́-m̀=bɛ̀-y.:*
[granary Loc] millet very.much get-**Ipfv**=**Past**-1PlSbj
'If the locusts hadn't come, we would have gotten (= were going to get) a lot of millet in the granary.'

e. *[kɔ̀mbɔ́* *yá* *bù-m=bɛ̀-∅]* *júgɔ̀-m̀=bɛ̀-y* *ndɛ̀,*
[war Exist be-Ipfv=Past-3SgSbj] know-**Ipfv**=**Past**-1SgSbj if,
bàmàkɔ́ *ńní-ŋɔ̀:=bɛ̀-y*
Bamako go-**IpfvNeg**=**Past**-1SgSbj
'If I had known that there was a war, I would not have gone to Bamako.'

17 Complement and purposive clauses

17.1 Quotative complement

Quotations are marked as such by up to three distinct features:

(609) a. inflectable **'say' verb** (*kíyɛ́-*), preceding or following the quotation, §17.1.2;
b. invariable **quotative particle** *wa* (i.e. *wà* or *wá*) following the quotation (or segments thereof), §17.1.3;
c. **logophoric** pronouns substituting for (original) first person pronouns, §18.2.

17.1.1 Direct versus indirect in quotative complements

Direct quotation is not normal. Instead, quotations make systematic replacements of categories used in simple, unquoted clauses.

Quoted imperatives have their own morphological verb form, which is also used in wishes ('may God [Verb] you!'). Quoted hortatives also have a special inflected form with suffix *-ŋ*. See §17.1.4-1-2 for these constructions.

A 1Sg or 1Pl pronoun in the original direct speech is normally replaced by corresponding logophoric pronouns, unless the quoted speaker (or thinker) is also the current speaker or listener. For logophorics, see §18.2.1.

An original 2Sg or 2Pl is normally replaced by regular (nonanaphoric) 3Sg or 3Pl, provided the original addressee is not the current speaker or addressee. In quoted imperatives and hortatives, these third person pronouns function as pro forma vocatives.

Schematically, direct speech [X said "I will see you-Sg tomorrow"] is expressed as indirect [X said 3LogoSg will see him/her tomorrow]. Similarly, [X said, "pick up your stick!"] comes out as indirect [X said, (hey) him/her!, may he/she pick up his/her (own) stick!]. Aspectual categories are unchanged from direct to indirect, and shifty adverbs need not be replaced ('tomorrow' can be stretched to mean 'the following day').

17.1.2 'Say that …' with inflectable 'say' verb (*kíyɛ́-*)

kíyɛ́- 'say' (§11.3.1) may precede or follow the quotation. When it precedes, it is set off prosodically from the quotation. When it follows, there is no obligatory prosodic break.

In elicitation, one common form of this verb, when it occurs in a clause preceding the quoted matter, is *kìyɛ̀-sɛ̀ ẁ-ndé* and variant *kìyɛ̀-sɛ̀ gù-ndè*. This is a specialized perfective relative-clause form, and takes preverbal subject pronominals rather than suffixes. For this construction, see §15.2.8.3.

This 'say' form is preceded by an independent pronoun, even when this pronoun merely resumes an immediately preceding nonpronominal NP. This suggests that the nonpronominal NP is topicalized, and provides further evidence that *kìyɛ̀-sɛ̀ ẁ-ndé* at least originated as a nonsubject relative (cf. 'what I said [was]: …').

(610) a. *[mò:dìbò*[L] *bû:]* *bû:* *kìyè-sè ẁ-ndé*
[holy.man[L] Def.AnPl] 3PlSbj **said**
kà-kǎ: *yê:-ŋ-è:* *wà*
Rdp-grasshopper come-IpfvNeg-3PlSbj Quot
'The holy men (= clerics) said that the locusts won't/wouldn't come (back).'

b. *ńnɛ́* *kìyè-sè ẁ-ndé,* *á* *ɛ́:ŋí* *ńní-ŋ̀* *wà*
3Sg **said**, 3LogoSgSbj tomorrow go-Ipfv.3SgSbj Quot
'He$_x$ said that he$_x$ is going tomorrow/would go the next day.'

c. *ǐ:*^{n} *kìyè-sè ẁ-ndé,* *ńní-ŋɔ̀-y*^{n}
1SgSbj **said**, go-IpfvNeg-1SgSbj
'I said that I am not going.'

In imperfective positive (e.g. present or future) contexts, the morphologically regular imperfective of *kíyɛ́-* is used (611). If a subject NP for 'say' is present, there is no resumptive subject pronoun (611b).

(611) a. *ńnɛ́* *kì-kíyɛ́-ŋ̀,* *á* *mùr*^{n}*á=ŋ́* *wà*
3SgSbj Rdp-**say**-Ipfv.3SgSbj, 3LogoSgSbj sick.one=it.is.3SgSbj Quot
'She$_x$ will say that she$_x$ is sick.'

b. *nǔ:* *kì-kíyè-m-è,* *â:* *bàyá-èrè* *wà*
person Rdp-**say**-Ipfv-3PlSbj, 3LogoPlSbj be.cured-Pfv1a Quot
'(The) people will say that they are cured.'

The 'say' verb may also follow the quoted clause. This is usual when the 'say' verb itself is negated or hypothetical.

(612) a. *[kà-kǎ:* *í:-yɛ́-ḿ* *bɛ́rè-m̀-∅]* *kìyè-rí-ý*
[Rdp-grasshopper stand-MP-Caus can-Ipfv-1SgSbj] **say**-PfvNeg-1SgSbj
'I didn't say that I can stop the locusts.'

b. *bû:* *[ǐ:*^{n} *wá]* *[ú* *dě:rê-w]* *kíyè-ŋ-è:*
3PlSbj [1SgSbj Quot] [2Sg more] **say**-IpfvNeg-3PlSbj
'They don't say that I am better than you-Sg.'

c. *[íyé* *ŋ̀gá* *kɔ̂:-ŋɔ̀-y*^{n}*]* *[ńnɛ́* *báy]* *kíyâ*
[today here eat-IpfvNeg-1SgSbj] [3Sg Dat] **say**.Imprt
'Tell him/her that I will not eat here today.'

d. *ńnɛ́* *[á* *sír*^{n}*ɛ́-só-∅]* *kíyɛ́-só-∅* *ndè,*
3SgSbj [3LogoSgSbj be.sated-Pfv2-3SgSbj] **say**-Pfv2-3SgSbj if
kà-kǎr *kárá-ŋ̀*
falsehood lie(v)-Ipfv.3SgSbj
'If he says that he is full (of food), he is lying.' (*kà-kàrí*)

e. *yé:-m-ɛ̀* *kìyɛ̀-rí-∅*
come-Ipfv-3PlSbj **say**-PfvNeg-3SgSbj
'He$_x$ didn't say that they$_y$ will come.'

The complement of *kíyɛ́-* 'say' may also be an NP such as interrogative 'what?' or a demonstrative. In this case, the 'say' verb follows the complement, and behaves like a normal transitive.

(613) a. *kɔ̀-ɲɛ́* *kìy-à*
what? **say**.Pfv-3PlSbj
'What did they say?'

b. *ŋ̀gú* *kìyɛ̀-rú-ʼ́*
Dem.InanSg **say**-PfvNeg-2SgSbj
'You-Sg didn't say that.'

The 'say' verb *kíyɛ́-* is often omitted when the quotative particle *wa* (see below) is present. When entire back-and-forth conversations are quoted, as happens often in tales, *kíyɛ́-* is largely absent, while *wa* recurs constantly.

17.1.3 Quotative clitic *wa*

This enclitic particle is very common when the quoted speaker is a third person. When the embedded quotation is propositional in nature, the particle can therefore have 'hearsay' evidential quality, suggesting that the present speaker does not vouch for the truth of the quoted proposition. The particle is also used with jussive complements (embedded imperatives), where truth is not at issue. It is also common in requests for confirmation or clarification: *X wa* ? '(did you say/mean) X?'

The particle occurs at the end of the quotation, with no prosodic break. It is atonal and acquires its tone from the final tone of the preceding word, by Atonal-Morpheme Tone-Spreading (§3.7.3.4). The two known exceptions, where L-toned *wà* follows an H-tone, are inflected forms of perfective-2 *-só-* (the only H-toned positive indicative suffix) and quoted hortative *-ŋ́*. This is illustrated for the 3Pl subject form of *-só-* in (614c) below; see also §10.2.1.3. For the quoted hortative, see e.g. *yè* ^{L} *ńné-ŋ́ wà* in the penultimate Nanga line in (742) in the sample text. The perfective-2 induces similar tonal behavior in interrogative *ma*, see (462c) in §13.2.1.

(614) a. *ńné* *kìyɛ̀-sɛ̀ ʼ̀w-ndé,*
3SgSbj **said**,
á *síkɔ́rɔ̀* *sò-ndó-∅* *wá*
3LogoSgSbj sugar have-Neg-3SgSbj **Quot**
'He/She$_x$ said that he/she$_x$ has no sugar.'

b. *á* *síkɔ́rɔ̀* *yá* *sò-∅* *wà*
3LogoSgSbj sugar Exist have-3SgSbj **Quot**
'(He/She$_x$) said that he/she$_x$ has some sugar.'

c. *á:mádù* *ńné* *kìyè-sè ẁ-ndé,*
Amadou 3SgSbj **said**,
[nù:[L] *bû:]* *tǒ:* *tɔ́:-s-é* *wà*
[person[L] Def.AnPl] sowing(n) sow-Pfv2-3PlSbj **Quot**
'Amadou said that the people have sown (the millet).'

Although both quotative *wa* and interrogative *ma* are lexically atonal, normally getting their tone by spreading from the left, when they co-occur in the order *ma wa* (i.e. quoting a question), the combination is realized as *má→ wá* regardless of the final tone of the preceding word, see §13.2.1.

Within a quoted clause, *wa* is optionally repeated after an overt subject, if any. This is analogous to the **quotative-subject** particles in languages like Ben Tey, though this construction is less systematic in Nanga. In addition, many quotations, especially but not only of imperatives, begin with an initial quoted vocative of the '(hey) you!' type, converted to third person pronoun (unless the original addressee is also a participant in the present speech act). This quoted vocative is obligatorily followed by *wa*. The effect is to indicate to whom the original quotation was directed. It is also used to highlight a switch in speaker in narratives reporting back-and-forth conversations, taking advantage of the narrative convention that each speaking turn begins with a vocative.

In (615a), *wa* occurs at the end of both quoted clauses, and optionally following the overt subject NP 'the people' in the first clause. In (615b), since 'you-Pl have' is conjugated, the clause-initial 2Pl *û:* is interpreted as a quoted vocative. The conversion to third person does not take place here, indicating that the original addressees are also the addressees in the current speech event. Therefore such a vocative makes it unnecessary to specify the original addressee in a dative complement to the 'say' verb ('He said, hey you, …' = 'He said to you, …'). In (615c), the original addressee is not a participant in the current speech event, so the original 'hey you!' is expressed with a 3Sg pronoun. There are many examples like this in the sample text. The alternative is to quote the actual appellation of the original addressee as the quoted vocative (615d).

(615) a. *ńné* *kìyè-sè ẁ-ndé,*
3SgSbj said,
[nù:[L] *bû:* *(wà)]* *yé:-m-è* *wà*
[person[L] Def.AnPl] **(Quot)**] come-Ipfv-3PlSbj **Quot**
ŋ̀gá *ɲǎ:* *kɔ̂:-ŋ-è:* *wà*
here meal eat-IpfvNeg-3PlSbj **Quot**
'He/She said that the people will come, (but that) they won't eat here.'

b. *ńné* *kìyè-sè ẁ-ndé,*
3SgSbj said,
[û: *(wà)]* *síkɔ́rɔ̀* *sò-ndó-ẃ.:* *wà*
[2PlSbj **(Quot)**] sugar have-Neg-2PlSbj **Quot**
'He/She$_x$ said (to you-Pl) that you-Pl [topic] have no sugar.'

c. *tà-tǎ:* *[jɔ̀mɔ́* *báy]* *ńné* *kìyè-sè ẁ-ndé,*
hyena [hare Dat] 3SgSbj said,
[ńné *wá]* *ńní* *wà*
[3Sg **Quot**] go.QuotImprt **Quot**
'Hyena said to hare: hey you (lit. "he"), go!'

d. *tà-tã:* *ńné* *kìyè-sè ẁ-ndé,*
hyena 3SgSbj said,
[jɔ̀mɔ́ *wá]* *ńní* *wà*
[hare **Quot**] go.QuotImprt **Quot**
'Hyena said: hey hare, go!'

The particle *wa* is omitted (because redundant) when it would otherwise be adjacent to the 'say' verb, i.e., when the latter immediately follows the quotation (616a). Even an intervening subject pronominal is enough to allow both the particle and the 'say' verb to appear (616b). Of course *wa* may co-occur with the 'say' verb when one quotation is embedded in another (616c).

(616) a. *á:mádù* *[[nù:*^{L} *bû:* *(wà)]* *tŏ:* *tɔ́:-s-ɛ́*
Amadou [[person^{L} Def.AnPl (Quot)] sowing(n) sow-Pfv2-3PlSbj
(#*wà*) *kíyɛ́-sɔ́-∅*
(**#Quot**) **say**-Pfv2-3SgSbj
'Amadou said that the people have sown (the millet).'

b. *[nù:*^{L} *bû:]* *tŏ:* *tɔ́:-s-ɛ́* *wà]*
[person^{L} Def.AnPl] sowing(n) sow-Pfv2-3PlSbj **Quot**]
ńnɛ́ *kíyɛ́-sɔ́-∅*
3SgSbj **say**-Pfv2-3SgSbj
'He said that the people have sown (the millet).'

c. *[… yĕ-y* *kìy-à]* *wà*
[… come-QuotImprt say.Pfv-3PlSbj] Quot
' "They told (me) to … and come," (she) said.' (2003.02.03)

The quotative particle is also omitted when the 'say' verb is negated, even when the 'say' verb is (atypically) preposed, so that adjacency of 'say' verb and quotative particle is not possible (617a). The particle is also omitted when the 'say' clause is a polar interrogative (617b). In other words, when the fact that the quoted speech was uttered (or thought) is not asserted, the quotative particle is not added to the quotation. A possible factor in this is that hearsay evidentiality is irrelevant in this context.

(617) a. *á:mádù* *ńné* *kìyè-rí-∅,*
Amadou 3SgSbj **say**-PfvNeg-3SgSbj,
[nù:^{L} *bû:]* *tŏ:* *tɔ́:-s-ɛ́* (#*wà*)
[person^{L} Def.AnPl] sowing(n) sow-Pfv2-3PlSbj (**#Quot**)
'Amadou did not say that the people have sown (the millet).'

b. *ńnɛ́* *kíyɛ́-sɔ́-∅* *mà*
3SgSbj **say**-Pfv2-3SgSbj Q
[nŭ: *tŏ:* *tɔ́:-s-ɛ́* (#*wà*)*]*
[person sowing(n) sow-Pfv2-3PlSbj (**#Quot**)]
'Did he say that the people have sown (the millet)?'

When the quoted material takes the form of a factive complement (§17.2), with final definite morpheme *gú*, the quotative particle is not used.

(618) *ńné* *kìyè-sè ẁ-ndé,* *[[nù:*^{L} *bû:]*
3SgSbj **said**, [[person^{L} Def.AnPl]
tǒ: *tɔ̀:-sè*^{L} *gú* (#*wá*)*],* *kà-kàrú = ẃ*
sowing(n) sow-Ppl.Pfv^{L} Def.InanSg (**#Quot**)], Rdp-lie-it.is.3SgSbj
'If he says (= claims) that the people have sown (the millet), it's false.'

Quotative *wa* is possible, but less systematic, when the quotation is attributed to the current addressee (619a). In ordinary contexts (with no special modal attributes), it is absent when the addressee is also the subject of the quoted clause (619b). The particle can be used in repetitions of what the addressee has just said if the speaker needs confirmation, but in this case there is usually no overt 2Sg pronominal.

(619) a. *[ńné* *báy]* *kíyâ,* *á:mádù* *ńné-èrè-∅* *(wà)*
[3Sg Dat] say.Imprt, Amadou go-Pfv1a-3SgSbj (**Quot**)
'Tell her that Amadou has gone.'

b. *[bàr*^{n}*í* *ú* *kìyè-sè ẁ-ndé]*
[1SgDat 2SgSbj said]
ú *yègè-ẁ* (?# *wà*)
2SgSbj fall.Pfv-2SgSbj (?# **Quot**)
'You-Sg told me that it was <u>you</u> [focus] who fell down.'

c. *ɛ́:ŋí* *wá*
tomorrow Quot
'(Did you say) "tomorrow"?'

The quotative particle is generally not used in citations of the speaker's own previous speech.

(620) *[fǎntà* *bày]* *kíyɛ́-só-y,*
[Fanta Dat] say-Pfv2-1SgSbj,
á:mádù *ńné-èrè-∅* (?# *wà*)
Amadou go-Pfv1a-3SgSbj (?# **Quot**)
'I told Fanta that Amadou has gone.'

In (621a), presence of *wa* is possible (though not obligatory). If the subject of the quoted proposition is switched to first person (621b), absence of *wa* is preferred.

(621) a. *[ńné* *báy]* *kíyâ,* *á:mádù* *ńné-èrè-∅* *wà*
[3Sg Dat] say.Imprt, Amadou go-Pfv1a-3SgSbj **Quot**
'Tell her that Amadou has gone.'

b. *[ńné* *báy]* *kíyâ,* *ńné-èrè-ỳ* (?# *wà*)
[3Sg Dat] say.Imprt, go-Pfv1a-1SgSbj (?# **Quot**)
'Tell her that I have gone.'

The difference is undoubtedly due to the different epistemic status of the quoted proposition in the two cases, rather than an automatic effect of subject type. If the context in (621b) above is adjusted so that it involves telling a falsehood, e.g. to escape arrest as in (622), *wa* reappears.

(622) *[gendarme* *bày]* *kíyâ,* *ńné-èrè-ỳ* *wà*
[policeman Dat] say.Imprt, go-Pfv1a-1SgSbj **Quot**
'Tell the policeman that I have gone away.'

Similar nuances have been found with second person (=current addressee) as subject of the quoted proposition. (623a) was elicited in the following context: the addressee has been injured in an accident, and is being informed that help is on the way. Quotative *wà* was usually absent, though possible, in this context. Here the speaker and especially the addressee are quite well aware of the injury having occurred. When the context was changed, so that the injury report was in fact a lie, presence of *wà* was consistent (623b).

(623) a. *á:mádù* *[dɔ̀gɔ̀tɔ́rɔ̂* *bày]* *kíyɛ́* *jè-∅,*
Amadou [doctor Dat] say RecPrf-3SgSbj
[ú *(wá)* *bár^{n}ímí-y^{n}-èrè-ẁ* (?#*wà*)*]*
[2SgSbj (Quot) be.hurt-MP-Pfv1a-2SgSbj (?#**Quot**)]
'Amadou has already told (= informed) the doctor that you-Sg are injured.'

b. *á:mádù* *[dɔ̀gɔ̀tɔ́rɔ̂* *bày]* *kíyɛ́-só-∅,*
Amadou [doctor Dat] say-Pfv2-3SgSbj,
[ú *bár^{n}ímí-y^{n}-èrè-ẁ* *wà]*
[2SgSbj be.hurt-MP-Pfv1a-2SgSbj **Quot**]
'Amadou has told the doctor (falsely) that you-Sg are injured.'

17.1.4 Jussive complement (reported imperative or hortative)

17.1.4.1 Quoted imperative and prohibitive

When the quoted material represents an original positive imperative, the verb is not in the original imperative form (§10.6.1). Instead, the verb takes a special quoted imperative form, which are also found in wishes of the 'may God [Verb] you!' type. The quoted imperative is expressed by the I-stem, for non-*i*-final as well as *i*-final verbs (for the latter, the I-stem and bare stem are identical). There are also some tonal changes. For the forms, see (375-376) in §10.6.4.

When imperatives are reported, this quoted imperative form is used regardless of the original addressee number. The quotative particle *wa* is added clause-finally, without a prosodic break, and it constitutes part of the phonological environment for syncope of the stem-final *i* in forms like *gùrí*.

An overt pronominal within the jussive clause itself, referring to the original addressee, is not obligatory. It is absent in (624), where the addressee has already been identified in the 'say' clause.

(624) *[ńné* *báy]* *kíyâ,*
[3Sg Dat] say.Imprt,
[tè:^{L} *gú]* *náŋ* *wá*
[tea^{L} Def.InanSg] put.up.**QuotImprt** **Quot**
'Tell him to put the tea (kettle) up (on the burner)!' (*náŋí-*)

Often, however, the original addressee is indexed in the form of a quotative-subject phrase. This is a somewhat pro forma quoted vocative ('hey you!'), converted to the appropriate pronoun in the current speech event's deictic structure (hence usually converted from second to third person, unless it refers to the current speaker or listener).

(625) a. *[yì-tɛ̀gɛ̀*^{L} *bû:* *bày]* *kíyɛ́-só-y,*
[child-Pl^{L} Def.AnPl Dat] say-Pfv2-1SgSbj,
[bû: *wà]* *[gǒ-y* *wá]*
[3Pl **Quot**] [go.out-**QuotImprt** **Quot**]
'I told the children to go out.'
(lit.: "I told the children: '[hey] them! May … go out" ')

b. *[ńnɛ́* *báy]* *kíyâ,* *[ńnɛ́* *wá]* *yě-y* *wá*
[3Sg Dat] say.Imprt, [3SgSbj **Quot**] come-**QuotImprt** **Quot**
'Tell him/her to come.'

c. *ńnɛ́* *kìyɛ̀-sɛ̀ ẁ-ndɛ́,* *[ĩ:*^{n} *wá]* *[yě-y* *wá]*
3SgSbj said, [1Sg **Quot**] [come-**QuotImprt** **Quot**]
'He/She told me to come.'

d. *[bû:* *bày]* *kíyɛ́-só-ý*
[3Pl Dat] say-Pfv2-1SgSbj
[bû: *wà]* *yû:* *tór* *wá*
[3Pl Quot] millet pound.**QuotImprt** **Quot**
'I told them them to pound the millet!.' (< /tórí/ from stem *tóró-*)

In a quoted prohibitive, the verb appears in singular-addressee prohibitive (i.e., negative imperative) form, regardless of original addressee number. An independent pronoun denoting the original addressee, ostensibly a quoted vocative but somewhat pro forma, is often present, as in quoted positive imperatives. (626a) has a singular embedded addressee, (626b) a plural one. (626c) is a textual example.

(626) a. *[ńnɛ́* *báy]* *kíyâ,*
[3Sg Dat] say.Imprt,
(ńnɛ́ *wá)* *[tè:*^{L} *gú]* *náŋí-r*^{n}*á* *wá*
(3Sg **Quot**) [tea^{L} Def.InanSg] put.up-**Proh]** **Quot**
'Tell him not to put the tea (kettle) up (on the burner)!'

b. *[bû:* *bày]* *kíyâ,*
[3Pl Dat] say.Imprt,
(bû: *wà)* *[tè:*^{L} *gú]* *náŋí-r*^{n}*á* *wá*
(3Pl **Quot**) [tea^{L} Def.InanSg] put.up-**Proh]** **Quot**
'Tell them not to put the tea (kettle) up (on the burner)!'

c. *[â:* *^{L}nù:]* *á:ndɛ̀* *ńnɛ̀-sɛ̀^{L}* *bû:,*
[3LogoPlPoss ^{L}person] Anda go-Ppl.Pfv^{L} Def.AnPl,
[bû: *wà]* *bû:-ŋ̀* *gɔ̌y^{n}-ndá:* *wá*
[3Pl **Quot**] 3Pl-Acc wait.for-**Proh]** **Quot**
'He said: hey you-Pl, our people who went to Anda, don't wait for them!'
(2004.01.10)

17.1.4.2 Quoted hortative (positive *-ŋ*, and negative)

In quoted positive hortatives attributed to a third person speaker, the originally imperative verb appears with quoted hortative (QuotHort) suffix *-ŋ́*, regardless of original first-person inclusive number. See §10.6.5 for the form.

Examples are in (627), along with the singular- and plural-addressee hortatives for comparison. The vocalism and tones of the stem are identical in the three cases. It is therefore reasonable to think of *-ŋ́* as historically a reduction of one of the hortative suffixes, probably via *-m̀ (the L-tone shifting onto the following quotative particle).

(627)

gloss	hortative		quoted hortative
	Sg addressee	Pl addressee	
'run'	*yɔ̀gɔ́-má*	*yɔ̀gɔ́-mày^{n}*	*yɔ̀gɔ́-ŋ́ (wà)*
'go out'	*gɔ̌:-má*	*gɔ̌:-mày^{n}*	*gɔ̌:-ŋ́ (wà)*
'buy'	*ɛ́wɛ́-má*	*ɛ́wɛ́-mày^{n}*	*ɛ́wɛ́-ŋ́ (wà)*
'go'	*ńné-má*	*ńné-mày^{n}*	*ńné-ŋ́ (wà)*
'give'	*ńdɛ́-má*	*ńdɛ́-mày^{n}*	*ńdɛ́-ŋ́ (wà)*
'go in'	*núy^{n}ɔ́-má*	*núy^{n}ɔ́-mày^{n}*	*núy^{n}ɔ́-ŋ́ (wà)*
'scrub'	*púgúsɔ́-má*	*púgúsɔ́-mày^{n}*	*púgúsɔ́-ŋ́ (wà)*

For the velar nasal, compare the *m* ~ *ŋ* alternation in the imperfective verb paradigm (with *ŋ* word-finally in the zero 3Sg form), or in the conjugated 'it is' clitics. However, a morphemic equation of quoted hortative *-ŋ́* with the imperfective morpheme, or with same-subject anterior subordinator *ŋ́*, would make no grammatical or semantic sense.

The quotative hortative suffix is followed by the quotative particle *wa*, which has L-tone in spite of the H-tone of *ŋ́* itself. This detail suggests that quoted hortative *-ŋ́* is a reduced form of L-toned plural-addressee hortative suffix *-mày^{n}*, rather than of the less common H-toned singular-addressee hortative *-má*.

There is usually no preverbal independent pronoun. Examples of the quoted hortative are in (628).

(628) a. *ńné* *kìyɛ̀-sɛ̀ ẁ-ndé,* *[ńné-ŋ́* *wà]*
3SgSbj said, [go-**QuotHort** **Quot**]
'He/She said, let's go!'

b. *ńné* *kìyɛ̀-sɛ̀ ẁ-ndé,* *[pɛ̀rgɛ́* *ɛ́wɛ́-ŋ́* *wà]*
3SgSbj said, [sheep buy-**QuotHort** **Quot**]
'He/She said, let's buy a sheep!'

c. *á:mádù* *bàrⁿí* *ńné* *kìyè-sè ẁ-ndé,* *[gǒ:-ŋ́* *wà]*
Amadou 1Sg.Dat 3Sg said, [go-**QuotHort** **Quot**]
'Amadou said to me, let's (= Amadou and me) go out!'

If the quoted speaker is also the current addressee, the construction is the same, provided that the original first inclusive did not include the current speaker.

(629) *[á:mádù* *bày]* *ú* *kìyè-sè ẁ-ndé* *[ńné-ŋ́* *wà]*
[Amadou Dat] 2Sg said, [go-**QuotHort** **Quot**]
'You-Sg said to Amadou, let's (= you and Amadou) go!'

In self quotations, the quoted speaker is coindexed with the current speaker and is also included in the original first inclusive. In this case, instead of quoted hortative *-ŋ́*, the original full hortative verb form occurs, with suffix *-má* for singular addressee and *-màyⁿ* for plural addressee. Quotative *wa* is absent, presumably since it would have no evidential value.

(630) a. *[á:mádù* *bày]* *ǐ:ⁿ* *kìyè-sè ẁ-ndé* *ńné-má*
[Amadou Dat] 1Sg said go-**Hort.SgAddr**
'I said to Amadou, let's (= the two of us) go!'

b. *[yì-tɛ̀gɛ̂* *bày]* *ǐ:ⁿ* *kìyè-sè ẁ-ndé* *ńné-màyⁿ*
[child-Pl Dat] 1Sg said go-**Hort.PlAddr**
'I said to the children, let's (= all of us) go!'

When the quoted speaker is also the current addressee, if the original first inclusive included the current speaker, we again revert to the full hortative form used in direct speech. Therefore (631a) has the (unembedded) hortative form. By contrast, (631b) with third person quoted speaker has the quoted hortative *-ŋ́* suffix.

(631) a. *bàrⁿí* *ú* *kìyè-sè ẁ-ndé* *ńné-mà*
1Sg.Dat 2Sg said go-**Hort.SgAddr**
'You-Sg said to me, let's (= you and me) go!.'

b. *bàrⁿí* *ńné* *kìyè-sè ẁ-ndé* *ńné-ŋ́* *wà*
1Sg.Dat 3Sg said go-**QuotHort** Quot
'He said to me, let's (= him and me) go!.'

Hortative negative *-ndǎ:-má* and plural-addressee *-ndǎ:-màyⁿ*, and any of their variants *-rá-má* ~ *-rá-màyⁿ* and *-ndá-má* ~ *-ndá-màyⁿ*, are merged as invariant *-ndà:* when quoted. I gloss *-ndà:* as quoted hortative negative (QuotHortNeg in interlinears). It is followed by the quotative particle *wà*. This *-ndà:* form appears under the same syntactic conditions as the reported positive hortative in *-ŋ́* (632a-b). With e.g. first person attributed speaker (self-quotation), the original full hortative form is used (632c).

(632) a. *tà-tǎ:* *ńné* *kìyè-sè ẁ-ndé*
hyena 3SgSbj said
[jɔ̀mɔ́ *wá]* *ńné-ndà:* *wà*
[hare Quot] go-**QuotHortNeg** **Quot**
'Hyena said: hey hare, let's not go!'

b. *bàrⁿí* *ńné* *kìyè-sè ẁ-ndé* *ńné-ndà:* *wà*
1Sg.Dat 3SgSbj said go-**QuotHortNeg** **Quot**
'He/She said to me, let's (= the two of us) not go!'

c. *ǐ:ⁿ* *kìyè-sè ẁ-ndé* *ńné-ndǎ:-má*
1SgSbj said go-**HortNeg-Hort.SgAddr**
'I said (to one other person), let's not go!'

17.2 Factive (indicative) and related complements

A factive complement (as the term is used here) has a verb with regular AN (aspect-negation) inflection, but without pronominal-subject marking (except for 3Pl). If the subject is pronominal, it is expressed as a preverbal subject pronoun, as in nonsubject relative clauses. A factive clause as a whole functions as an NP argument inside a higher clause.

Depending on the construction, a factive clause proper is followed by a pronominal possessor agreeing with the subject of the complement clause (with inanimate singular possessive classifier), or by inanimate singular definite *gú*. The type with a pronominal possessor is found with 'know' (§17.2.1 just below) and in one construction with 'see' (§17.2.2.1). Unpossessed factive clauses with definite *gú* can be used in one type of quoted clause, see (618) in §17.1.3.

17.2.1 'Know that …' complement clause

An example with imperfective negative verb is (633). A literal gloss would be "I know [your [you not coming]]."

(633) *[ú* *yê:-ŋɔ̀:* *[ú* *^{HL}gɔ̂]]* *júgɔ̀-m̀-∅*
[2SgSbj come-IpfvNeg [2Sg ^{HL}Poss.InanSg]] **know**-Ipfv-1SgSbj
'I know that you-Sg are not coming.'

If we replace the 2Sg subject in (633) with other pronominal categories, we get the factive complements in (634) below. The forms shown are those that would occur subordinated to a 'know' matrix clause (not shown). The various first and second person categories, and 3Sg, have their usual postnominal possessor forms, in these examples based on inanimate singular possessive classifier ^{HL}*gɔ̂* ~ ^{HL}*kɔ̂*. The 3Pl has an L-toned, short-voweled form *bù* ^{L}*gɔ̀*, distinct from the usual 3Pl possessor combination *bû:* ^{L}*gɔ̀* seen in e.g. *ńdô [bû:* ^{L}*gɔ̀]* 'their house'. 3Pl subject also has subject agreement on the verb (*-ŋ-ɛ̀:*), whereas all other categories have invariant *-ŋɔ̀:* .

(634) a. *[ǐ:ⁿ yê:-ŋɔ̀: kɔ̌:]* 'that I am not coming'
[î: yê:-ŋɔ̀: [î: ^{L}*gɔ̀]]* 'that we are not coming'
[û: yê:-ŋɔ̀: [û: ^{L}*gɔ̀]]* 'that you-Pl are not coming'

b. *[ńné yê:-ŋɔ̀: nɔ̀]* 'that he/she is not coming'

c. *[bû: yê:-ŋ-ɛ̀: [bù* ^{L}*gɔ̀]]* 'that they are not coming'

An example with the perfective negative (*-rí*) is (635).

(635) *[ú yè:-rí [ú* ^{HL}*gɔ̂]] júgɔ̀-m̀-∅*
[2SgSbj come-PfvNeg [2Sg ^{HL}Poss.InanSg]] **know**-Ipfv-1SgSbj
'I know that you-Sg did not come.'

Replacing 2Sg by other pronominal-subject categories, we have the data in (636). Again, the 3Pl is the only category requiring its specific pronominal-subject suffix on the verb.

(636) a. *[ĭ:^{n} yè:-rí kɔ̌:]* 'that I did not come'
[î: yè:-rí [î: ^{L}*gɔ̀]]* 'that we did not come'
[û: yè:-rí [û: ^{L}*gɔ̀]]* 'that you-Pl did not come'

b. *[ńné yè:-rí nɔ̀]* 'that he/she did not come'

c. *[bû: yè:-ndú [bù* ^{L}*gɔ̀]]* 'that they did not come'

An example with (positive) reduplicated imperfective verb is (637). The imperfective ending is *-m̀* (not *-ŋ̀*).

(637) *[ú yè-yé:-m̀ [ú* ^{HL}*gɔ̂]] júgɔ̀-m̀-∅*
[2SgSbj come-Ipfv [2Sg ^{HL}Poss.InanSg]] **know**-Ipfv-1SgSbj
'I know that you-Sg will come.'

With the other pronominal categories, the outputs are in (638). The 3Pl form again has its inflection on the verb.

(638) a. *[ĭ:^{n} yè-yé:-m̀ kɔ̌:]* 'that I will come'
[î: yè-yé:-m̀ [î: ^{L}*gɔ̀]]* 'that we will come'
[û: yè-yé:-m̀ [û: ^{L}*gɔ̀]]* 'that you-Pl will come'

b. *[ńné yè-yé:-m̀ nɔ̀]* 'that he/she will come'

c. *[bû: yè-yé:-m-ɛ̀ [bù* ^{L}*gɔ̀]]* 'that they will come'

A (positive) perfective-2 example is (639). With pronominal categories other than 2Sg, the forms are shown in (640). Again, the 3Pl form stands out.

(639) *[ú yĕ:-só [ú* ^{HL}*gɔ̂]] júgɔ̀-m̀-∅*
[2SgSbj come-Pfv2 [2Sg ^{HL}Poss.InanSg]] **know**-Ipfv-1SgSbj
'I know that you-Sg came.'

(640) a. *[ĭ:^{n} yĕ:-só kɔ̌:]* 'that I came'
[î: yĕ:-só î: ^{L}*gɔ̀]* 'that we came'
[û: yĕ:-só û: ^{L}*gɔ̀]* 'that you-Pl came'

b. *[ńné yĕ:-só nɔ̀]* 'that he/she came'

c. *[bû: yĕ:-s-ɛ́ bù* ^{L}*gɔ̀]* 'that they came'

Other AN inflections beyond the four illustrated above can also be used in this construction. I have verified this for the perfective-1a (*-ɛ̀rɛ̀*), perfective-1b (*-tì*), and the progressive (*-sò*), in each case without pronominal-subject suffixation except in the 3Pl.

In English, there is a basic distinction between *X know that P* and *X know whether P* for some proposition P. In the first case, but not the second, the current speaker presupposes the truth of P (cf. also *X realize that P*). In Nanga, as generally in languages of the region, this distinction is not made. Therefore e.g. 'X doesn't know that [Y is sick]' (when Y is in fact sick) is expressed by the same construction that translates 'X doesn't know whether [Y is sick]'. In this construction, the factive complement is followed by polar interrogative particle *ma*. The philosophical significance of this distinction between English and Nanga is evident; in Nanga, one simply reports the state of mind of X, while in English the speaker superimposes his/her own knowledge on X's state of mind.

(641) *ńnɛ́* *[ú* *sɛ̀llɛ̀-rí* *má˸]*
3SgSbj [2SgSbj be.healthy-PfvNeg Q]
júgɔ̀-ŋɔ̀:-∅
know-IpfvNeg-3SgSbj
'He/She doesn't know whether (= that) you-Sg are sick.'
(*má˸* pronounced [màáà] with dying-quail effect, §3.8.3)

17.2.2 Complement clauses for 'see' and 'hear'

17.2.2.1 Factive complement clause

In (642), the speaker (who expected the addressee to take the motorcycle away), arrives and sees that the motorcycle is still in its previous location. Here we get a factive complement of the same type used with 'know' (§17.2.1, above).

(642) *[ú* *[mòtò:*^{L} *gú]* *gɛ̀:r^{n}ì-r^{n}í*
[2SgSbj [motorcycle^{L} Def.InanSg] take.away-PfvNeg
[ú ^{HL}*gɔ̀]]* *yǐ:-só-ý*
[2Sg ^{HL}Poss.InanSg] **see**-Pfv2-1SgSbj
'I saw (= see) that you-Sg didn't take the motorcycle away.'

In (643), the speaker reports what he/she has heard from others. Again, the complement is factive in form.

(643) *[ú* *bàmàkɔ̂=∅* *ńní-m̀* *[ú* ^{HL}*gɔ̀]]*
[2SgSbj B=Loc go-Ipfv [2Sg ^{HL}Poss.InanSg]]
nǔy^{n}-só-ý
hear-Pfv2-1SgSbj
'I heard (= hear) that you-Sg are going to Bamako.'

17.2.2.2 Resultative complement with passive *-yɛ́*

When the agent sees that an event has already taken place, the passive construction with *-yɛ́* after an H-toned verb stem, and with tone-dropped subject NP (§9.3.2), may be used. In

(644), what the agent sees is a distressed cow on the ground in a position other than the usual resting position.

(644) *[nàŋà*[L] *yɛ́gɛ́-yɛ́]* *yǐ:-só-ý*
[cow[L] fall-**Pass**] see-Pfv2-1SgSbj
'I saw the fallen cow.'

This can of course shade into a factive sense: 'I saw that a cow had fallen', since the resulting situation implies a constitutive event.

17.2.2.3 Imperfective complement with *-mɔ̀*

When the complement of 'see' denotes a durative activity (or an imminent event at the point where it is/was about to happen) that was actually viewed by the agent, a construction with durative subordinator *-mɔ̀* 'while' (§15.2.1) occurs instead of a factive complement.

(645) a. *[nàŋá* *yɛ́gɛ́-mɔ̀]* *yǐ:-só-ý*
[cow fall-**while**] see-Pfv2-1SgSbj
'I saw (a/the) cow falling (or: about to fall).'

b. *[yì-tɛ̀gɛ̂* *gìyé* *bû:* *gíyé-mɔ̀]* *yǐ:-só-ý*
[child-Pl dance(n) 3PlSbj dance(v)-**while**] see-Pfv2-1SgSbj
'I saw the children dance (= dancing).'

17.2.3 Indicative main clauses

In some constructions, the "complement" clause has the form of an indicative main clause, with no sign of subordination. One can argue that the apparent higher predicate is really a parenthetical juxtaposition, cf. English parenthetical *you know* or *you see*.

17.2.3.1 After *tílây=∅* 'it is certain'

tílây=∅ 'it is certain' may precede an ordinary indicative clause (not factive in form), denoting a future event that is (all but) certain, or a situation or a past event that one infers from strong evidence or reasoning. *tílây* is a regionally ubiquitous form.

(646) a. *tílây=∅* *á:ndɛ̂=∅* *ńnî-m-∅*
certainty=it.is Anda=Loc go-Ipfv-1SgSbj
'It's certain (definite) that I will go to Anda.'

b. *tílây=∅* *séwá:rì=yè* *gǒ-ɛ̀rɛ̀-∅*
certainty=it.is S go.out-Pfv1a-3SgSbj
'He/She has certainly left Sevare (by now).'

17.2.3.2 With *témbí-* 'find (that …)'

témbí- 'find, encounter' occurs in contexts such as 'I arrived in Mopti only to find that my house had burned'. That is, an eventuality (often an unexpected fact or situation) is discovered by the protagonist after a motion event. The complement is an ordinary indicative clause with no sign of subordination.

(647) a. *ńné-èr-à* *tèmbì-ỳ*
go-Pfv1a-3PlSbj find.Pfv-1SgSbj
'I found that they had gone.'

b. *[[ǹdò*[L] *gú]* *gǒ:* *kúwó-tì-∅]*
[[house[L] Def.InanSg] fire burn-Pfv1b-3SgSbj]
yě: *tèmbì-ỳ*
come find.Pfv-1SgSbj
'I came and found that fire had burned the house (=the house had burned down).'

If the situation found is an event in progress or about to happen, a durative complement with *-mɔ̀* 'while' is used (648), as with 'see' in (645a-b) above.

(648) *[[bɛ́rî* *bû:* *gár*[n]*á-mɔ̀]* *yě:* *tèmbì-∅]*
[[goat 3PlSbj be.put.in.Stat-while] come find.Pfv-3SgSbj
'He came and found that goats were inside.' (2004.02.02)

17.3 Verbal noun (and other nominal) complements

17.3.1 Structure of verbal noun phrase

Subjects, objects, and other preverbal phrases are unchanged from main clauses to verbal-noun clauses. There is no compounding (or incorporation) of object nouns. Accusative marking is obligatory for 1Sg objects (649b). For other objects, whose accusative marking is subject to phonetic attrition, it is optional or in some cases just not clearly audible. A subject NP may also be present, in its usual form (649d).

(649) a. *[yî:* *súyɔ́-ndɛ́]* *ɛ̀sì=ǹdó-∅*
[child hit-**VblN**] good=it.is.not-3SgSbj
'Hitting a child is not good.'

b. *[ǹjí-ŋ́* *súyɔ́-ndɛ́]* *ɛ̀sì=ǹdó-∅*
[1Sg-**Acc** hit-**VblN**] good=it.is.not-3SgSbj
'Hitting me isn't good.'

c. *[nàmá* *kúwó-ndɛ́]* *jɔ́rɔ́-m̀-∅*
[meat eat.meat-**VblN**] want-Ipfv-1SgSbj
'I want to eat some meat.'

d. *[ár^{n}à* *yǎ-ŋ* *súyɔ́-ndɛ́]* *èsì=ǹdó-∅*
[man woman-Sg hit-**VblN**] good=it.is.not-3SgSbj
'A man's hitting a woman isn't good.'

In constructions involving disjoint subjects in the main and subordinated clauses, other than those of the rather abstract type (649a-d), the verbal-noun clause is additionally followed by a pronominal possessor, as with 'prevent' (see just below).

Other nouns denoting actions, such as cognate nominals, may be substituted for the verbal noun proper, as in (650b) below.

17.3.2 'Prevent' (*kɛ́sɛ́-*, *gǎ:ndí-*)

The verb *kɛ́sɛ́-* 'cut' can be used in the sense 'prevent (motion), block', and more abstractly 'prevent (an activity)'. The complement is expressed as a verbal-noun clause, with the agent appearing as a postnominal possessor. The possessed NP as a whole is optionally followed by definite inanimate singular ^{L}*gù* (L-toned form).

(650) a. *[[wàgárî=yè* *ńnɛ́-ndɛ́]* *kɔ̌:* ^{L}*gù]*
[[W=Loc go-**VblN**] 1SgPoss.InanSg ^{L}Def.InanSg]
bòndí *kɛ̀sɛ̀-∅*
rain(n) **cut**.Pfv-3SgSbj
'The rain prevented me from going (= blocked my going) to Wakara (village).'

b. *[yù:-wɔ́rî* *kɔ̌:* ^{L}*gù]*
[millet-**farming(n)** 1SgPoss.InanSg ^{L}Def.InanSg]
ùsú *kú-ŋ́* *kɛ̀sɛ̀-∅*
sun InanSg-Acc **cut**.Pfv-3SgSbj
'My farming millet, the (hot) sun blocked it (= farming).'

Another 'prevent' verb is *gǎ:ndí-*, which also takes verbal-noun complements ending in a possessor (651).

(651) *á:mádù* *[níy^{n}ɛ́-ndɛ́* *nɔ̀]* *bû:* *gà:nd-à*
A [sleep-**VblN** 3SgPoss] 3PlSbj **prevent**.Pfv-3PlSbj
'They prevented Amadou from sleeping.'

17.3.3 'Dare' (*dǎ:rí-*)

This verb takes verbal noun complements. The subjects of the two clauses are coindexed. There is no possessor following the verbal noun.

(652) a. *sígɛ́-ndɛ́* *dǎ:rá-ŋ-ɛ̀:*
go.down-VblN **dare**-IpfvNeg-3PlSbj
'They don't dare go down.'

b. *[pà:ŋgǒ:* *báy]* *béré-ndíyé-ndɛ́* *dǎ:rá-m̀-^{w}* *mà*
[elephant Dat] approach-Inch-VblN **dare**-Ipfv-2SgSbj Q
'Do you-Sg dare to get close to the elephant(s)?'

c. *[bǎr^{n}* *tíŋ-ndɛ́]* *dǎ:r-só-∅*
[1SgDat speak-VblN] **dare**-Pfv2-3SgSbj
'He/She dared to speak to me.' (*bàr^{n}í*)

17.3.4 'Consent' (*àwá*)

The verb *àwá-* 'accept, receive, take (sth given)' is also used in the sense 'consent, give one's agreement' with a clausal complement. In (653), the complement's subject is coindexed with that of the higher clause, and there is no possessor of the verbal noun.

(653) *ámbérì* *yé:-ndɛ́* *àwá* *jɛ̀-∅*
chief come-**VblN** **accept** RecPrf-3SgSbj
'The chief has agreed to come.'

In (654), the two subjects are not coindexed. In one construction, the lower-clause is a verbal noun with following possessor (654a). In another, which has the form of a headless relative (covert head roughly 'the fact'), the complement takes imperfective participial *-mì* on the verb (654b).

(654) a. *[î:* *^{L}bà:]*
[1PlPoss ^{L}father]
[síkásò *î:* *ńné-ndɛ́* *[î:* *^{L}gɔ̀]]*
[Sikasso 1PlSbj go-**VblN** [1Pl ^{L}Poss.InanSg]]
àwá *jɛ̀-∅*
accept RecPrf-3SgSbj
'Our father has consented to our going to Sikasso.'

b. *[yà:jǐ:* *î:* *kár^{n}í-m̀i]* *àwà-rí-∅*
[marriage 1PlSbj do-**Ppl.Ipfv**] **accept**-PfvNeg-3SgSbj
'He did not agree that we do the marriage.'

17.3.5 'Cease' (*dɔ̀gɔ́-*)

dɔ̀gɔ́- 'leave, abandon' can also mean 'cease, stop (an activity)'. In many contexts it implies an abrupt or definitive abandonment of the activity, as opposed to 'finish, complete'. It takes a verbal-noun complement, without a possessor (655a). In the perfective positive, the preferred inflection is perfective-1a *-tì-* rather than perfective-2 *-só-*. This construction gets some competition from a monoclausal transitive construction with the cognate nominal of a verb, like 'song' from 'sing' (655b).

(655) a. *[nàmá* *kúwó-ndɛ́]* *dɔ̀gɔ́-tì-∅*
[meat eat-**VblN**] **leave**-Pfv1b-3SgSbj
'He/She has ceased to eat meat.'

b. *nùŋá* *dɔ̀-dɔ́gɔ̀-m̀-∅*
song Rdp-**leave**-Ipfv-1SgSbj
'I will stop singing.'

17.3.6 'Want' (*jɔ̀rɔ́*)

For the different 'want' and 'like, love' verbs and quasi-verbs, see §11.2.4.3 above. *jɔ̀rɔ́-* 'want' takes verbal-noun as well as NP complements. In (656), the lower-clause subject is coindexed with the higher-clause subject.

(656) a. *ńné-ndɛ̀* *jɔ́rɔ́-m̀-∅*
go-**VblN** **want**-Ipfv-1SgSbj
'I want to go.'

b. *[ńné-ŋ́* *yí:-ndɛ́]* *jɔ́rɔ̀-ŋɔ̀-y.:*
[3Sg-Acc see-**VblN**] **want**-IpfvNeg-1PlSbj
'We don't even want to see him/her.'

In (657), the two clauses have different subjects, so the lower-clause subject is expressed as the possessor of a verbal noun.

(657) *[ú* *HLbâ:]* *[ŋ̀gá* *yé:-ndɛ́* *[ú* *HLgɔ̂]]*
[2SgPoss HLfather] [here come-**VblN** [2Sg HL**Poss**.InanSg]]
jɔ́rɔ̀-ŋɔ̀:-∅
want-IpfvNeg-3SgSbj
'Your-Sg father doesn't want you-Sg to come here.'

17.3.7 'Forget' (*ìrɛ́*)

A partial paradigm of this verb is (658). It is transitive as a simple verb, taking an accusative object. The perfective form in common use is the perfective-1a.

(658) 'Forget'

perfective-1a	*ìrɛ́-ɛ̀rɛ̀-*
perfective negative	*ìrɛ̀-rí-*
imperfective (3Sg)	*ì-ʔírɛ̀-ŋ*
imperfective negative	*írɛ̀-ŋɔ̀:-*
imperative	*írâ*
prohibitive	*ìrì-ndá*

In the perfective positive, this verb is commonly chained with a following simple perfective *bɛ̀sì-* 'buried' (659a,c). The verb *bɛ̀sí-* elsewhere ranges from 'bury' to 'set down (for storage)', implying that the item in question will be not be removed from its storage place any time soon.

The ‘forget’ verb takes verbal noun complements when the lower-clause subject is coindexed to the higher-clause subject and the complement denotes an action that was intended to be carried out (659a,c). ‘Buried’ is omitted in the prohibitive example (659b).

(659) a. *[[bìdɔ̀:*$^{n\,L}$ *gú]* *témbí-rí-ndɛ́]*
[[jug^{L} Def.AnSg] become.wet-Tr-**VblN**]
ìrɛ́ *bèsì-ỳ*
forget **bury**.Pfv-1SgSbj
‘I forgot to moisten the jug.’

b. *[[sá:gù* *[ú* ^{HL}*gɔ̀]]* *jé:-ndɛ́]* *ìrí-ndá*
[[sack [2Sg ^{HL}Poss.InanSg]] bring-VblN] **forget**-Proh]
‘Don’t forget to bring your sack.’

c. *yé:-ndɛ́* *ìrɛ́* *bèsì-∅*
come-**VblN** **forget** **bury**.Pfv-3SgSbj
‘He/She forgot to come.’

When the complement denotes a fact that the agent has forgotten, as opposed to an intended action that has slipped his or her mind, ‘forget’ takes different types of complement. In one construction, the complement is a headless relative clause ending in inanimate singular definite *gú*, which forces tone-dropping on the verbal participle (660a). In another, the complement-clause verb has an AN suffix but no pronominal-subject conjugation, as in relatives, but ends in a postnominal possessor expressing the subject (660b-c). This pattern is possible even when the subject of the complement clause is coindexed with the possessor (660d). For similar factive complements see §17.2.2.1. A third construction (660e) is translatable ‘forget whether P’ rather than ‘forget that P’, and the complement contains polar interrogative *ma* (§13.2.1).

(660) a. *[ńnɛ́* *sèllè-rì*^{L} *gú]*
[3SgSbj be.healthy-**Ppl**.PfvNeg^{L} Def.InanSg]
ìrɛ́ *bèsì-ỳ*
forget **bury**.Pfv-1SgSbj
‘I forgot that he/she was sick.’ (lit. “was not healthy”)

b. *[sèllè-rí* *nɔ̀]* *ìrɛ́* *bèsì-ỳ*
[be.healthy-PfvNeg 3SgPoss] **forget** **bury**.Pfv-1SgSbj
[= (a)]

c. *[bû:* *sèllà-ndú* *[bû:* ^{L}*gɔ̀]]*
[3PlSbj be.healthy-PfvNeg.3PlSbj [3Pl ^{L}Poss.InanSg]]
ìrɛ́ *bèsì-ỳ*
forget **bury**.Pfv-1SgSbj
‘I forgot that they were sick.’

d. *[sèllè-rí* *kɔ̃:]* *ìrɛ́* *bèsì-ỳ*
[be.healthy-PfvNeg 1SgPoss.InanSg] **forget** **bury**.Pfv-1SgSbj
‘I forgot that I am sick.’

e. *[ú* *yĕ:-só-w* *mà∴]* *ìrɛ́* *bèsì-ỳ*
[2SgSbj come-Pfv2-2SgSbj **Q**] **forget** **bury**.Pfv-1SgSbj
'I forget whether/that you-Sg came.'
(*mà∴* pronounced [màáà] with dying-quail effect, §3.8.3)

'Remember' is *ìllí-rí-* (an irregular reversive of 'forget'), or a phonologically unrelated verb *náŋgírí-*. The more general verb *mă:ndí-* 'think' can also be used in the sense 'remember' (cf. English *think of*). Yet another expression for 'remember' is *ìrɛ́ bèllí-*, where *ìrɛ́-* 'forget' is chained to what appears to be an irregular reversive of *bèsí-* 'bury'.

17.3.8 Obligational (*wá:jíbì* 'duty')

The noun *wá:jíbì* 'duty, obligation, ultimately from Arabic and familiar in languages of the zone, indicates that the agent in question has a duty to carry out the activity. The free translation is of the type 'X must VP'. In Nanga, the complement is expressed by a verbal-noun clause, the agent appearing as a possessor. The NP headed by the verbal noun can be taken as the subject (or topic) of *wá:jíbì=ŋ̀* 'it is a duty' (661a). Alternatively, *wá:jíbì* can take the purposive postposition to form an adverbial phrase within a larger indicative clause. This construction is useful when the event in question has already transpired (661b).

(661) a. *[séwá:rì=yè* *ńnɛ́-ndɛ́* *kɔ̃:]* *wá:jíbì=ŋ̀*
[S=Loc go-**VblN** 1SgPoss.InanSg] **duty**=it.is
'I must go to Sevare.' ("My going to Sevare is a duty.")

b. *[ò:*^{L} *gó]* *[wá:jíbì* *dèr^{n}í]* *ǹnɛ̀-y^{n}*
[field^{L} Loc] [**duty** Purp] go.Pfv-1SgSbj
'I had to go to the field.' ("I went to the field [because of a duty].")

17.3.9 'Fear, be afraid to' (*ú:-yí-*)

When the complement denotes a hypothetical act whose subject is coindexed with the subject of 'fear' ('be afraid to …'), the complement is based on a verbal noun (662a-b), or on some other nominal denoting the action, such as the cognate nominal *yégî* in (662c), which also has an overt possessor. For the forms of the 'fear' verb see §11.2.4.4.

(662) a. *[ŋ̀gá* *yé:-ndɛ́]* *ú:-y-ɛ̀rɛ̀-∅*
[here come-**VblN**] **fear**-MP-Pfv1a-3SgSbj
'He/She was afraid to come here.'

b. *[ká* *ńnɛ́-ndɛ́* *ú-ʔùwà-y*
[there go-**VblN**] Rdp-**fear**.Stat-1SgSbj
'I am afraid to go there.'

c. *[yî:* ^{L}*yègì]* *ú-ʔùwà-y*
[child ^{L}**fall(n)**] Rdp-**fear**.Stat-1SgSbj
'I am afraid of the child's falling (=that the child will fall).'

When the complement denotes any other type of eventuality, it takes the form of an imperfective relative complement. A pronominal-subject (if any) is expressed as an independent pronoun.

(663) a. *[ǹjí-ŋ́* *bû:* *súyɔ̀-mì]* *ú-ʔùwà-ỳ*
[1Sg-Acc 3PlSbj hit-**Ppl.Ipfv**] Rdp-**fear**.Stat-1SgSbj
'I'm afraid he/she will hit me.'

b. *[ńnɛ́-ŋ́* *ǐ:^{n}* *súyɔ̀-mì]* *ú-ʔùwà-∅*
[3Sg-Acc 1SgSbj hit-**Ppl.Ipfv**] Rdp-**fear**.Stat-3SgSbj
'He$_{x}$'s afraid I will hit him$_{x/y}$.'

c. *[nǔ:* *ǹjí* *yǐ:-mì]* *ú-ʔùwà-y*
[person 1SgAcc see-**Ppl.Ipfv**] Rdp-**fear**.Stat-1SgSbj
'I am afraid that the person will see me.'

d. *[ńnɛ́* *yɛ́gɛ̀-mì]* *ú-ʔùwà-y*
[3SgSbj fall-**Ppl.Ipfv**] Rdp-**fear**.Stat-1SgSbj
'I am afraid that he/she will fall.'

17.3.10 'Begin' (*tɔ́rɔ́-*)

The 'begin' verb is *tɔ́rɔ́-*. In (664) it is paired with its antonym *dìmɛ́-* 'finish' (which is covered in the following section just below).

(664) *wàgàtì*^{L} *àr^{n}áŋá* *tɔ́rɔ́-m̀-^{w},*
time^{L} where? **begin**-Ipfv-2SgSbj
wàgàtì^{L} *àr^{n}áŋá* *dímɛ́-m̀-^{w}*
time^{L} where? **finish**-Ipfv-2SgSbj
'What time do you-Sg begin, (and) what time do you end?'

An overt complement clause sometimes ends in a bare verb stem that is directly chained with the 'begin' verb (665).

(665) *[ɲǎ:* *kɔ́:]* *tɔ́rɔ́-sɔ́-∅*
[meal **eat.meal**] **begin**-Pfv2-3SgSbj
'He/She began to eat (the meal).'

However, the bulk of my examples involve a verbal-noun or other nominal complement. If there is a cognate nominal associated with a verb, the cognate nominal by itself is sufficient as complement of 'begin' (666a). A compound including an incorporated object can also serve as the complement (666b); see §5.1.3 for the {L}-{HL} tone combination. The verbal noun in *-ndɛ́* can be used with any verb (666c-e).

(666) a. *kòyô* *tɔ́rɔ́-tì-∅*
weeping(n) **begin**-Pfv1b-3SgSbj
'He/She began to weep.' (cognate nominal, cf. *kòyô kóyó-* 'weep')

b. *ńné* *pèrgè* ^{L} - ^{HL}*sɛ́mê* *tɔ́rɔ́-só-∅*
3SgSbj sheep^{L}-^{HL}slaughter.**Nom** **begin**-Pfv2-3SgSbj
'He/She began to slaughter the sheep-Sg/Pl', cf. (e) below

c. *[ɲă:* *kɔ́:-ndɛ́]* *tɔ́rɔ́-tì-∅*
[meal eat-**VblN**] **begin**-Pfv1b-3SgSbj
'He/She began to eat (the meal).'

d. *[nùŋá* *núŋú-ndɛ́]* *tɔ́rɔ́-tì-∅*
[song sing-**VblN**] **begin**-Pfv1b-3SgSbj
'He/She began to sing (a song).'

e. *[ńné* *pèrgɛ́* *sɛ́mɛ́-ndɛ́]* *tɔ́rɔ́-só-∅*
[3SgSbj sheep slaughter-**VblN**] **begin**-Pfv2-3SgSbj
'He/She began to slaughter the sheep-Sg/Pl', cf. (b) above

17.3.11 'Finish' (*dìmɛ́-*)

The complements are parallel to those of 'begin' (just above). Verbal-noun complements are exemplified in (667).

(667) a. *[ɲă:* *kɔ́:-ndɛ́]* *dímɛ̀-ŋɔ̀:-∅*
[meal eat-**VblN**] **finish**-IpfvNeg-3SgSbj
'He/She doesn't stop (= keeps on) eating.'

b. *[bû:* *wárá-ndɛ́]* *dìmɛ́-ɛ̀r-à*
[3PlSbj do.farming-**VblN**] **finish**-Pfv1a-3PlSbj
'They have finished farming (=weeding).'

c. *[tɔ̀ŋɔ́* *tɔ́ŋ-ndɛ́]* *dìmɛ̀-r^{n}í-ý*
[writing(n) write-**VblN**] **finish**-PfvNeg-1SgSbj
'I havent' (yet) finished writing.'

It is also possible to express similar concepts using a possessed verbal noun or other nominal that functions as the subject of 'finish'.

(668) *[wórî* *[bû:* ^{L}*gɔ̀]]* *dìmɛ́-ɛ̀rɛ̀-∅*
[**farming(n)** [3Pl ^{L}**Poss**.InanSg]] **finish**-Pfv1a-3SgSbj
'Their farming work is finished.' (= 'They have finished farming.')

Recent perfect *jɛ̀-* (§10.2.1.5) is sometimes used in senses approaching 'finish VP-ing', as in *kɔ́: jɛ̀-y.:*, which can mean 'we have (already) eaten' or 'we have (recently) finished eating'.

gò-ndó 'cause to go out, take out' appears to be used in the sense 'complete' (building a house) as a directly chained verb at the end of (718) in the sample text.

17.4 Locative verbal noun or other nominal complement

17.4.1 'Help' (*bă:rí-*)

This verb normally takes nominal complements with final locative postposition *gá* 'in' or variant (§8.2.3), added to a verbal noun (which allows complements), or to some other nominal. This use of the locative might be compared with the pseudo-locative in purposive clauses §17.6.3. Regular verbal-noun examples are in (669).

(669) a. *[éw-yé-ndɛ́ gá] ǹjí-ŋ́ bă:rí-só-∅*
[sit-MP-**VblN** **Loc**] 1Sg-Acc **help**-Pfv2-3SgSbj
'He/She helped me to sit down.'

b. *á:mádù [ú-ŋ jóŋ-ndɛ́ gá] ǹjí-ŋ́ bă:rí-só-∅*
Amadou [2Sg-Acc treat-**VblN** **Loc**] 1Sg-Acc **help**-Pfv2-3SgSbj
'Amadou helped me to treat you-Sg (medically)'

c. *[nàŋá págí-ndɛ́ gá] ǹjí-ŋ́ bă:rí-só-∅*
[cow tie-**VblN** **Loc**] 1Sg-Acc **help**-Pfv2-3SgSbj
'He/She helped me to tie up a/the cow.'

In (670), the complement is a locative PP containing a nominal compound with incorporated object. For the compound pattern, see §5.1.3.

(670) a. *[lɛ̀:tɛ̀rɛ̀*^{L}*-*^{HL}*tɔ́ŋɔ̂ ŋɔ̀] ú-ŋ bă:rá-m̀-∅*
[letter^{L}-^{HL}write.**Nom** **Loc**] 2Sg-Acc **help**-Ipfv-1SgSbj
'I will help you-Sg to write a/the letter.'

b. *[pɛ̀rgɛ̀*^{L}*-*^{HL}*sɛ́mɛ̂ ŋà] ǹjí-ŋ́ bă:râ*
[sheep^{L}-^{HL}slaughter.**Nom** **Loc**] 1Sg-Acc **help**.Imprt
'Help-2Sg me to slaughter a/the sheep!'

c. *[nàŋà*^{L}*-*^{HL}*págâ gà] ǹjí-ŋ́ bă:rí-só-∅*
[cow^{L}-^{HL}tie.**Nom** **Loc**] 1Sg-Acc **help**-Pfv2-3SgSbj
'He/She helped me to tie up a/the cow.'

A noun *wórî*, elsewhere used mainly as cognate nominal for *wàrá-* 'do farming', is the complement in (671).

(671) *á:mádù [wór gó] ú-ŋ́ bă:r-só-∅*
Amadou [**farming(n)** **Loc**] 2Sg-Acc **help**-Pfv2-3SgSbj
'Amadou helped you-Sg do the farming.'

17.5 Capability and possibility

17.5.1 'Be able to, can' (*bèré-*)

The verb *bèré-* 'get, obtain' readily combines with a preceding chained VP ending with a verb in bare-stem form (§15.1).. The sense is 'can, be able to'. The two verbs have the same subject, which (if overt) appears to the left of the nonfinal chained VP. This is a direct chain in the sense of §15.1.

(672) a. *[bírá* *bìré]* *bɛ́rɛ̀-ŋɔ̀:-∅*
[work(n) work(v)] **can**-IpfvNeg-3SgSbj
'He/She cannot work.'

b. *ǹdɛ́* *bɛ́rɛ̀-m-^{w}* *mà*
go.up **can**-Ipfv-2SgSbj Q
'Can you-Sg go up?'

c. *[ɛ́:ŋí* *yɛ̌:]* *bɛ́rɛ̀-ŋɔ̀-y^{n}*
[tomorrow come] **can**-IpfvNeg-1SgSbj
'I can't come tomorrow.'

d. *[kúr^{n}ô* *írí-yɛ́-mí]* *bɛ́rɛ̀-m-^{w}* *mà*
[stone rise-MP-Caus] **can**-Ipfv.2SgSbj Q
'Can you-Sg lift the stone?'

e. *[ǹjí-ŋ́* *bǎ:r]* *bɛ́rɛ̀-m-^{w}* *mà*
[1Sg-Acc help] **can**-Ipfv.2SgSbj Q
'Can you-Sg help me?' (*bǎ:rí*)

A relative-clause example is (673), confirming that a subject pronoun in a nonsubject relative has its usual position just before the final verb-participle, as expected in a direct chain.

(673) *ùsù^{L}* *yɛ̌:* *ú* *bɛ́rɛ̀-mì*
day^{L} come **2SgSbj** can-Ppl.Ipfv
'the day you-Sg can come'

17.5.2 'Be possible to VP'

17.5.2.1 *-yɛ́-* 'be possible'

This auxiliary verb is suffixed (or cliticized) to the main verb in (impersonal) 3Sg subject forms. It is usually imperfective, and is translated as 'be possible'. The negation 'be impossible' is very common. Perfective forms are elicitable (with difficulty). The perfective negative is interesting in that it controls tone-dropping on the main verb as well as on *-yɛ́-* (674d). This is possible evidence for suffixal rather than chained-verb status for *-yɛ́-*. However, a similar tone-dropping pattern is also found in the experiential perfect negative (§10.2.3.2), although in some other respects the experiential perfect morpheme patterns as a separate auxiliary verb.

(674) a. *dɔ̀gɔ́-yɛ̀-ŋɔ̀:-∅*
leave-**be.possible**-IpfvNeg-3SgSbj
'It is impossible to leave (it).'

b. *[tàgá yàŋà] [tùmá ŋá] ǹdɛ́-yɛ̀-ŋɔ̀:-∅*
[shoe Inst] [tree Loc] go.up-**be.possible**-IpfvNeg-3SgSbj
'It's impossible to go up a tree with (=wearing) shoes.' (2004.02.01),

c. *ǹdɛ́-yɛ́-ŋ̀*
go.up-**be.possible**-Ipfv.3Sg
'It's possible to go up.'

d. *ǹdɛ̀-yɛ̀-rí-∅*
go.up-be.possible-PfvNeg-3SgSbj
'It was/become impossible to go up.'

e. *kúrⁿô* *bùyó-yɛ̀-ŋɔ̀:-∅*
stone break.rock-be.possible-IpfvNeg-3SgSbj
'The rock is impossible (=too hard) to break.'

The historical relatiionship between inflectable *-yɛ́-* 'be possible' and the adjective-like passive *-yɛ́* (§9.3.2) is unclear. They are quite distinct grammatically.

17.5.2.2 *-só-* 'be possible to VP'

Another minor 'be possible' construction is attested (675). The stem-final vowel shifts to long *í:* before suffixed *-só-∅*. No other inflected forms, and no negative counterparts, were accepted. Only a handful of verbs allow this formation, which is not widely used. The suffix resembles *sò-* 'have' and ordinary AN suffixes *-só-* (perfective-2) and *-sò-* (progressive). It is possible that all four elements are etymologically related. It is also possible that the long *í:* reflects a contraction of the stem-final short vowel with *-yɛ́-* (preceding section).

(675) a. *ǹdí:-só-∅*
go.up-be.possible-3SgSbj
'It is/was possible to go up (climb).' (*ǹdɛ́-*)

b. *sígí:-só-∅*
go.down-be.possible-3SgSbj
'It is/was possible to go down.'

c. *í:-yí:-só-∅*
stand-MP-be.possible-3SgSbj
'It is/was possible to stand.'

17.6 Purposive, causal, and locative clauses

17.6.1 Purposive clauses with postposition *dèrⁿí* 'for'

17.6.1.1 Positive purposive clause with imperfective *-m̀* and *dèrⁿí*

The basic purposive-clause construction has an unconjugated imperfective form, ending in invariant *-m̀*. This is consistent with an imperfective positive relative clause with participial *-mì* ~ *-m* (§14.1.7.2), functioning as complement of the postposition *dèrⁿí* 'for'. The subjects of the two clauses may be disjoint or coindexed. The clause is often headless, but it may alternatively be headed by L-toned *dàyⁿ*[L] from noun *dǎyⁿ* 'limit, boundary' or 'manner', as in (678b) below, cf. also (681a-b) farther below. A literal translation of the construction is 'for [(a) limit/goal that …]', cf. English *to the end that* ...

In the frequent case where the two clauses have the same subject, the subject is not overtly expressed in the purposive clause. Therefore the purposive clause *[[ńdô pó:-m̀] dèrⁿí]* 'in order to replaster the house' in (676) remains unchanged when the pronominal category of the subject (expressed on 'go up' at the end) is changed to 3Sg, 1Pl, or whatever.

(676) *[[ńdô* *pó:-m̀]* *dèrⁿí]* *[[bàrkô:* *gò]* *ńdè-m-è]*
[[house replaster-**Ppl.Ipfv**] **Purp**] [[barrel Loc] go.up-Ipfv-3PlSbj]
'They will go up (and stand) on the barrel in order to replaster the house (= ceiling).'

Another example of this construction is (677).

(677) *[[ámbérì* *bày]* *dàmá* *dámá-m̀]* *dèrⁿí]*
[[chief Dat] speaking(n) speak-**Ppl.Ipfv**] **Purp**]
yè-ỳ.:
come.Pfv-1PlSbj
'We have come in order to speak with the chief.'

When the main clause and the purposive clause have distinct subjects, if the subject of the purposive clause is pronominal, it is expressed as a proclitic, as in nonsubject relatives (678a-b).

(678) a. *[[ɲǎ:* *bû:* *kɔ́:-m̀]* *dèrⁿí]*
[[meal **3PlSbj** eat-**Ppl.Ipfv**] **Purp**]
[[bàrmàᴸ *gú]* *dùŋì-ỳⁿ]*
[[potᴸ Def.InanSg] put.down.Pfv-1SgSbj]
'I put the pot down, so that they (could) eat.'

b. *[[á:ndê=∅* *dàyⁿ*[L] *î:* *ńní-m̀]* *dèrⁿì]*
[[Anda=Loc mannerᴸ **1PlSbj** go-**Ppl.Ipfv**] **Purp**]
[lègèsô: *[á* [HL]*gɔ̀]]* *î:-ŋ̀* *ńdí-só-∅*
[bicycle [3ReflSg [HL]Poss.InanSg]] 1Pl-Acc give-Pfv2-3SgSbj
'He$_x$ gave us his$_x$ bicycle, so that we (could) go to Anda.'

17.6.1.2 Negative clause with *dèrⁿí* and prohibitive *-rá*

Purposive *dèrⁿí* may follow a prohibitive (i.e. negative imperative) clause to produce a negative purposive clause. The verb has *-rá* suffix or variant, which (in this construction) is used for plural as well as singular addressee. Prohibitive plural *-rá-ndì* does not occur in such clauses.

In (679a-b), the subjects of the two clauses are distinct. In (679b), note suffix *-rá* even with (animate) plural subject.

(679) a. *dèwí* *ké:ndè-mì-y.:*
roof fix-Ipfv-1PlSbj
[[gǎ:ⁿ *yègí-rá]* *dèrⁿí]*
[[beam fall-**Proh**] **Purp**]
'We'll fix the roof, so the roof beam(s) won't fall.'

b. *[ǹdò-nɔ̀:*ᴸ *gú]* *kɛ́sɛ́* *dɔ̀gɔ̀-y.:,*
[house-mouthᴸ Def.InanSg] cut leave.Pfv-1PlSbj,
*[[pèrgɛ̀*ᴸ *bû:]* *[màŋgòrò*ᴸ *gú]*
[[sheepᴸ Def.AnPl] [mangoᴸ Def.InanSg]
kɔ́:-rá] *dèrⁿí]*
eat-**Proh**] **Purp**]
'We (have) blocked the doorway, so that the sheep-Pl will not eat the mango(es).'

A same-subject example is (680).

(680) *[ɲǎ:* *áyà-mì-y.:]* *[[[ósú* *gó]* *túy-rá]* *dèrⁿí]*
[meal take-Ipfv-1PlSbj] [[[road Loc] die-**Proh**] **Purp**]
'We'll take food (along), so as not to die (= starve) on the way.'

17.6.1.3 Negative clause with imperfective negative *-ŋɔ̀:* and *dèrⁿí*

Another negative purposive clause type has unconjugated imperfective negative suffix *-ŋɔ̀:* on the verb. The form is consistent with a relative clause, headed by L-toned *dàyⁿ*ᴸ 'manner' or 'limit', cf. (678b) above. If the subject is pronominal, it is expressed as a preverbal pronoun. This construction is an alternative to the type with prohibitive *-rá*, discussed just above. The subjects of the two clauses may be disjoint (681a) or coindexed (681b). Literal translations might be "in such a way (or: to such an extent) that you-Sg do not sleep," etc.

(681) a. *[[gìrè-níyⁿɛ̂* *dàyⁿ* ᴸ *ú* *níyⁿɛ̀-ŋɔ̀:]* *dèrⁿí]*
[[sleeping(n) mannerᴸ 2SgSbj sleep-**Ppl.IpfvNeg**] **Purp**]
jìnjâ *jìnjí-m̀-∅*
noise make.noise-Ipfv-1SgSbj
'I will make noise, so that you-Sg do not sleep.'

b. *[chaise gà] ná:-m̀-∅,*
[chair Loc] spend.night-Ipfv-1SgSbj
[[gìrè-níy^{n}ê dày^{n}^{L} ǐ:^{n} níy^{n}è-ŋ̀:] dèr^{n}í]
[[sleeping(n) manner^{L} **1SgSbj** sleep-**Ppl.IpfvNeg**] **Purp**]
'I will spend the night in a chair, so as not to sleep.'

17.6.2 Purposive-like imperfective participial clause (*-mì*) without *dèr^{n}í*

A clause with unconjugated imperfective *-mì*, without postposition *dèr^{n}í*, also occurs in contexts allowing a purposive construal. However, in cases like (682) it is difficult to tease apart the specifically purposive element ('sit in order to eat') from the mere temporal simultaneity of 'be siting' (stative) and 'eat', in the absence of an explicit purposive morpheme.

(682) *[ɲǎ: kɔ́:-mì] èw-yè-yɛ̀*
[meal eat-**Ppl.Ipfv**] sit-MP.Stat-3PlSbj
'They are sitting in order to eat.'

For imperfective relative complements of 'fear', see §17.3.9.

17.6.3 Purposive clause with motion verb and pseudo-locative *gó*

In the purposive clause-type favored with main-clause motion verbs (especially 'go' and 'come'), assuming a positive purposive clause and coindexation of the subjects ('X went in order to VP'), the verb of the purposive clause occurs in its bare stem, but is tone-dropped, and is followed by *gó*. This construction has no negative counterpart.

(683) a. *[[á ^{HL}bâ:] jè:^{L} gó] ǹnɛ̀-∅*
[[3ReflSgPoss ^{HL}father] **bring**^{L} **Purp**] go.Pfv-3SgSbj
'She$_{x}$ went to in order to bring her$_{x}$ father.' (< *jɛ̌:*)

b. *[gɔ̌: gìyɛ̀^{L} gó] ǹnɛ̀-ỳ^{n}*
[fire **kill**^{L} **Purp**] go.Pfv-1SgSbj
'I went in order to put out the fire.'

c. *[nî: nɔ̀:^{L} gó] y-ò:*
[water **drink**^{L} **Purp**] come.Pfv-3PlSbj
'They came in order to drink the water.'

d. *á [kú kò:-mì^{L} gó] ńnî:-sò-∅ wà*
3LogoSgSbj [InanSg **sew-Caus**^{L} **Purp**] go-Prog-3SgSbj Quot
'(She said:) I am going in order to have that sewn.' (2004.02.03)

Here is a hypothesis, far from certain, about the origin of this construction. Consider a sequence meaning *'in/at/on the drinking of water' in the case of (683c). This would have been something like *nî: ^{L}nɔ̀:-X kú gó/gá, with *nî:* 'water' as possessor, some nominal based on *nɔ̌:* 'drink' in L-toned form due to the possessor-controlled {L} and also due to the

following determiner, then an inanimate singular definite marker and an allomorph of the locative suffix. Elsewhere, inanimate singular definite *kú* ~ *gú* ~ *ẃ* combines with the otherwise highly variable locative postposition as invariant *gá* (§8.2.3.2), so this scenario would require a divergent contraction to invariant *gó* in this case. However, both *gá* and *gó* occur as simple (indefinite) locative allomorphs. Or perhaps an archaic purposive postposition, distinct from the locative, occurred in the present construction. Possible purposive postposition cognates include Ben Tey *gǐn* and Jamsay *jɛ̀*, which are offshoots of a 'say' verb. In any event, a definite-locative contraction analysis would explain why *gó* is invariant in this construction, unaffected by the phonological form of the nominalized verb, whereas the simple locative has a range of variants, reflecting the vocalism and nasality of the noun (§8.2.3.1).

The possessor-possessum portion of this reconstruction receives unexpected support from a mysterious linking morpheme *mɔ̀*, not otherwise attested, found between the object NP and the verb in one textual passage (684). It may be related to genitive linkers in some other Dogon languages, the most productive of which are Tommo So *mɔ̀* and Jamsay *mà*.

(684) *[ńnɛ́ wá] [gɔ̀r^{n}ì^{L} yěy] mɔ̀ kò:-mì^{L} gó]*
[3Sg Quot] [gear^{L} Dem.InanPl] **Poss(?)** **sew-Caus^{L}** **Purp**]
yè:-rí-∅ má→ wá
come-Pfv.Neg-3SgSbj Q Quot
'(She asked:) Hey you-Sg, did you-Sg not come in order to have that houseware there sewn up?' (2004.02.03)

This diachronic speculation has some obstacles to overcome, but it is not entirely fanciful.

This apparent use of the locative postposition might be compared with its occurrence in complements of 'help' (§17.4.1).

17.6.4 Causal ('because') clause (*ságù*)

ságù comes at the end of the 'because' clause, which has the form of a normal main clause.

(685) *ósî èsì=ǹdó-∅ ságù,*
road good=StatNeg-3SgSbj **because**,
[ìsè^{L} gó] ńné bɛ́rɛ̀-ŋɔ̀-y.:
[village^{L} Loc] go can-IpfvNeg-1PlSbj
'We can't go to the village because the road isn't good.'

Nanga *ságù* might reflect a cross between some combination of the following ingredients. First, 'because of X' adverbials and 'because …' clauses in Dogon and other Malian languages contain forms like *sábù* and *sábá:bù*, going back to Arabic *sabab-* 'reason, cause'. Nanga has a noun *sábá:bì* 'reason', and clause-initial *sábù* 'because' is common in neighboring languages like Jamsay and Bankan as well as Fulfulde. Second, there is a form *sàgú (e.g. Ben Tey *sǎw*, Jamsay and Toro So *sàgú*) that occur in formulaic expressions like '(I put X) in God's trust and in your trust'. Third, Jamsay and Togo Kan *sógò*, whose relationship to the two earlier sets is unclear, means 'because of' or 'for the sake of' in some contexts. So one possibility is that Nanga *ságù* is a hybrid of some sort.

17.6.5 'Because of (NP)' (*dɛ̀r^{n}í*)

The purposive postposition *dɛ̀r^{n}í* (§8.3) usually means 'for X', but in some contexts it can be glossed 'because of X', as in (686). The difference is prospective 'for' versus retrospective 'because of'.

(686) *[ńdó* *gó]* *[bòndí* *dɛ̀r^{n}í]* *nù-y^{n}.:*
[house Loc] [rain(n) **Purp**] go.in.Pfv-1PlSbj
'We went into the house because of the rain.'

18 Anaphora

The most important anaphoric morphemes are singular *á* and plural *â:* . They can be third-person reflexive (generally coindexed to a clausemate subject), or logophoric (coindexed to the author of a quoted utterance or thought). Their functions are covered in this chapter, along with reciprocals and certain emphatic pronoun.

18.1 Reflexive

18.1.1 Third person reflexive object (*á-ŋ́*, plural *â:-ŋ̀*)

If the subject is first or second person, the regular object form of the pronominal is used for a coindexed direct object, with no explicit reflexive marking (687). As always, the accusative suffix *-ŋ́* may or may not be audible, except in the distinctive 1Sg accusative form (contrast independent 1Sg pronoun *ǐ:ⁿ*).

(687) a. *ǹjí-ŋ́* *kɛ́sɛ́-só-ý*
1Sg-Acc cut-Pfv2-1SgSbj
'I cut myself.'

b. *î:-ŋ̀ kɛ́sɛ́-só-ý.˸* 'We cut ourselves.'
c. *ú-ŋ́ kɛ́sɛ́-só-ẃ* 'You-Sg cut yourself.'
d. *û:-ŋ̀ kɛ́sɛ́-só-ẃ.˸* 'You-Pl cut yourselves.'

If the subject is third person (pronoun or NP), the coindexed direct object is the accusative form of 3Reflexive singular *á* or 3Reflexive plural *â:*, depending on grammatical number (688a-c). In (688d), the 3Reflexive pronoun could alternatively be either reflexive or logophoric, or both simultaneously, since both coindexation relationships are present. In nonlogophoric contexts, I gloss *á* and *â:* as "3ReflSg" and "3ReflPl," respectively, in interlinears.

(688) a. *á-ŋ́* *kɛ́sɛ́-só-∅*
3ReflSg-Acc cut-Pfv2-3SgSbj
'He cut himself.' or 'She cut herself.'

b. *â:-ŋ̀* *kɛ́sɛ́-s-ɛ́*
3ReflPl-Acc cut-Pfv2-3PlSbj
'They cut themselves.'

c. *á:mádù* *á-ŋ́* *kɛ́sɛ́-só-∅*
A **3ReflSg-Acc** cut-Pfv2-3SgSbj
'Amadou cut himself.'

d. *á:mádù* *ńné* *kìyè-sè ẁ-ndé*
A 3SgSbj said
[á-ŋ́ *késé-só-∅]* *wà*
[**3ReflSg-Acc** cut-Pfv2-3SgSbj] Quot
'Amadou said that he cut himself.'

18.1.2 Third person reflexive PP complement (*á*, *â:*)

(689a-c) involve dative complements that are coindexed to the clausemate subject. With a first or second person pronominal, like 1Sg in (689a), the regular dative form is used. When a third person pronominal is coindexed to the subject, the regular 3Sg *ńné* is replaced by 3Reflexive singular *á* (689b), and the regular 3Pl *bû:* is replaced by 3Reflexive plural *â:* (689c).

(689) a. *kĕ:rê* *bàrⁿí* *tíy-só-ý*
money **1Sg.Dat** send-Pfv2-1SgSbj
'I sent the money to myself.'

b. *á:mádù* *kĕ:rê* *[á* *báy]* *tíy-só-∅*
Amadou money [**3ReflSg** Dat] send-Pfv2-3SgSbj
'Amadou sent the money to himself.'

c. *kĕ:rê* *[â:* *bày]* *tíy-s-é*
money [**3ReflPl** Dat] send-Pfv2-3PlSbj
'They sent the money to themselves.'

The same third person reflexive forms occur with other postpositions (adpositions), like 'under' in (690). However, in such compound postpositions the pronominal may better be taken as a possessor (see the following section).

(690) *á:mádù* *[dòsí* *[á* *HLgô]]* *sùŋgɔ́* *bèrè-∅*
Amadou [under [**3ReflSg** HLPoss.Inan]] boubou get.Pfv-3SgSbj
'Amadou found (a/the) boubou under himself.'

18.1.3 Third person reflexive possessor (*á*, *â:*)

When the possessor of a direct object or other nonsubject NP is coindexed to the clausemate subject, if the possessor is pronominal we get the same patterns seen for accusatives. For first or second person, the regular possessor forms are used (691). As a reminder, some pronominal possessors precede the possessed noun if it is a kin term (§6.2.2) as in (691a), otherwise the pronominal possessor combines with a possessive classifier and follows the noun (§6.2.1) as in (691b).

(691) a. *[ú* *HLbâ:]* *yĭ:-só-ẃ*
[**2SgPoss** HLfather] see-Pfv2-2SgSbj
'You-Sg saw your father.'

b. *[nɛ̀r^{n}î* *yɛ̌ɛ:]* *yǐ:-só-ý*
[dog **1SgPoss**.AnSg] see-Pfv2-1SgSbj
'I saw my dog.'

If a third person possessor is coindexed to the clausemate subject, 3Reflexive pronouns (*á*, *â:*) function as possessors. The positioning of the reflexive-possessor pronoun is the same as for those other pronominals (1Pl, 2Sg, 2Pl, and 3Pl) that precede kin terms but follow other nouns.

(692) a. *[nɛ̀r^{n}î* *[á* ^{HL}*yɛ̂]]* *yǐ:-só-∅*
[dog [**3ReflSg** ^{HL}Poss.AnSg]] see-Pfv2-3SgSbj
'She saw her (own) dog.'

b. *[nɛ̀r^{n}î* *[â:* ^{L}*yɛ̀]]* *yǐ:-s-ɛ*
[dog [**3ReflPl** ^{L}Poss.AnPl]] see-Pfv2-3PlSbj
'They saw their (own) dog.'

c. *[á* ^{HL}*bâ:]* *yǐ:-só-∅*
[**3ReflSgPoss** ^{HL}father] see-Pfv2-3SgSbj
'She saw her (own) father.'

d. *[â:* ^{L}*bà:]* *yǐ:-s-ɛ́*
[**3ReflPlPoss** ^{L}father] see-Pfv2-3PlSbj
'They saw their (own) father(s).'

e. *[ńdô* *[á* ^{HL}*gɔ̂]]* *yǐ:-só-∅*
[house [**3ReflSg** ^{HL}Poss.InanSg]] see-Pfv2-3SgSbj
'He saw his (own) house.'

f. *[ńdô* *[â:* ^{L}*yɛ̀]]* *yǐ:-s-ɛ́*
[house [**3ReflPl** ^{L}Poss.InanPl]] see-Pfv2-3PlSbj
'They saw their (own) houses.'

18.1.4 Emphatic pronouns

18.1.4.1 With *màr^{n}á* 'self'

Emphatics with adverbial *màr^{n}á* following an independent pronoun are in (693a-b). When the referent is spelled out by a name or other nonpronominal NP, it is topicalized. It is followed by a resumptive pronoun with *màr^{n}á* (693c). The specific type of emphasis here is exclusionary. Where it might have been expected that X would perform the activity with the help of others, he/she does it without help. For this exclusionary sense, see also the construction with *tùmâ* (following section). Or, where it might have been expected that X would have someone else perform the activity, he/she does it in person. Regular (not anaphoric) third-person pronouns, e.g. 3Sg *ńné*, occur in this construction.

(693) a. *[yî:* *[á* *yɛ̂]]* *tìyɛ̀-rí-∅,*
[child [3ReflSg Poss.AnSg]] send-PfvNeg-3SgSbj,
[ńnɛ́ *màrⁿá]* *yɛ̀:-∅*
[3SgSbj **self**] come.Pfv-3SgSbj
'He didn't send his son, (rather) he came himself.

b. *[î:* *màrⁿá]* *wárà-mì-y.:*
[1Pl **self**] farm-Ipfv-1PlSbj
'We will do the farming ourselves.'

c. *hàmídû* *[ńnɛ́* *màrⁿá]* *ǹnɛ̀-∅*
Hamidou [3Sg **self**] go.Pfv-3SgSbj
'Hamidou went himself (in person).'

Most examples involve subjects, but this is not a syntactic requirement. In (694), the relevant pronoun is an accusative functioning as direct object.

(694) *[yî:* *yɛ̂:]* *ɲà:rⁿà-rⁿí-∅,*
[child 1SgPoss.Anim] call-PfvNeg-3SgSbj
[ǹjí-ŋ́ *màrⁿá]* *ɲà:rⁿì-∅*
[1Sg-Acc **self**] call.Pfv-3SgSbj
'She didn't call my son, she called me myself (i.e. directly).'

18.1.4.2 With *tùmâ* or variant *tùmáyⁿ* 'one/alone'

The stem *tùmâ* 'one', in context also 'single, sole' or 'alone, solitary', elsewhere patterns as a modifying adjective (§4.7.1.1). It can also function adverbially in a construction meaning 'X alone', 'X by him/herself' (i.e. without accompaniment or assistance). In one pattern, *tùmâ* follows an independent pronoun. Here it is optionally followed, somewhat redundantly, by *sǎy* 'only'. In this adverbial construction, *tùmâ* has a variant *tùmáyⁿ* (695b) that is not used as a simple numeral. See also *tùmá(-yɛ́)* 'nothing but, exclusively' in §19.4.3.

(695) a. *[ú* *tùmâ* *(sày)]* *kɛ́sɛ́* *bɛ́rɛ̀-ŋɔ̀-wⁿ*
[2Sg **alone** (only)] cut.up can-IpfvNeg-2SgSbj
'You can't cut up the meat alone.'

b. *[ǐ:ⁿ* *tùmáyⁿ]* *[jìnjà*[L] *gú]*
[1Sg **alone**] [water.jar[L] Def.InanSg]
ǎy *írí-yɛ́-m* *bɛ́rɛ̀-ŋɔ̀-yⁿ*
take rise-MP-Caus can-IpfvNeg-1SgSbj
'I can't lift the water jar by myself.'

If the subject is nonpronominal, it is treated as a topicalized NP and resumed by a 3Reflexive pronoun (696).

(696) a. *[yì-tègè*^{L} *bû:]* *[â:* *tùmâ]*
[child-Pl^{L} Def.AnPl] [**3ReflPl** **alone**]
[jìnjà^{L} *gú]* *ǎy* *bérè-ŋ-è:*
[water.jar^{L} Def.InanSg] take can-IpfvNeg-3PlSbj
'The children can't pick up the water jar by themselves (=without help).'

b. *[bǎ:* *yɛ̌:]* *[á* *tùmáy*^{n}*]* *wàrá*
[father 1SgPoss.AnSg] [**3ReflSg** **alone**] do.farming
bérè-ŋɔ̀:-∅
can-IpfvNeg-3SgSbj
'My father cannot do the farming by himself.'

18.1.4.3 With *kû:* 'head'

Possessed forms of 'head' are used as emphatic alternatives to ordinary pronominal possessors (including third person reflexive possessors) when coindexed to the clausemate subject. 'Head' is singular in this construction even with plural possessor. In (697a-b), the possessed noun is a cognate nominal associated with the verb.

(697) a. *[[kû:* *[î:* ^{L}*gɔ̀]]* ^{L}*bìrà]* *bírè-mì-y.:*
[[**head** [1Pl ^{L}Poss.InanSg]] ^{L}work(n)] work-Ipfv-1PlSbj
'We work for ourselves.' (lit.: "we do [the work [of our head]]")

b. *[[kû:* *[â:* ^{L}*gɔ̀]]* ^{L}*bìrà]* *bírè-m-è*
[[**head** [3ReflPl ^{L}Poss.InanSg]] ^{L}work(n)] work-Ipfv-3PlSbj
'They work for themselves.'

c. *[[kû:* *kɔ̌:]* ^{L}*bìrà]* *bírè-m̀-∅*
[[**head** 1SgPoss.InanSg] ^{L}work(n)] work-Ipfv-1SgSbj
'I work for myself.'

18.1.4.4 With *yó*

ǐ:^{n} *yó* 'I myself' is attested only once, in a textual passage where the speaker wonders where he (as opposed to someone else) is being asked to speak on a topic. See (179c) in §7.1.1. This is tonally distinct from *ǐ:*^{n} *yò* 'I and …' with the conjunctive particle (§7.1).

18.2 Logophoric and indexing pronouns

18.2.1 True third person logophoric function

In a quotation (of speech or thought) attributed to one or more third persons (i.e. not the current speaker or addressee), any occurrence of a pronoun coindexed to the attributed speaker(s) takes logophoric form. The forms are singular *á* and plural *â:*, which we have already seen in third-person reflexive function (§18.1). In quotations, *á* represents an embedded 'I', and *â:* an embedded 'we'.

In nonsubject functions, *á* and *â:* have the same forms and linear positions as other pronouns. For example, they have regular accusative and dative forms (accusative *á-ŋ́* and *â:-ŋ̀*, dative *á báy* and *â: bày*, respectively). They pattern with pronouns rather than with nouns as possessors, notably by combining with possessive classifiers and following alienably possessed nouns (i.e. other than kin terms), whereas nonpronominal NPs precede the possessed noun (698).

(698) a. *ńdô [ú* ^{HL}*gɔ̂]* 'your-Sg house'
ńdô [û: ^{L}*gɔ̀]* 'your-Pl house'

b. *ńdô [á* ^{HL}*gɔ̂]* 'his-Logo house'
ńdô [â: ^{L}*gɔ̀]* 'their-Logo house'

c. *á:mádù* ^{L}*ǹdò* 'Amadou's house'
yǎ: ^{L}*ńdô* '(a/the) house of women'

However, logophorics in subject function in main clauses pattern like nouns, preceding the verb and requiring the verb (in a simple main clause) to agree with them. *á* requires a 3Sg suffix (usually zero, but nonzero in the imperfective positive), while *â:* requires a 3Pl suffix on the verb (699b).

(699) a. *nɛ̀r^{n}î súyɔ́-só-ẃ* 'you-Sg hit (a/the) dog.'
nɛ̀r^{n}î súyɔ́-só-ẃ.:. 'you-Pl hit (a/the) dog.'

b. *á nɛ̀r^{n}î súyɔ́-só-∅* 'He/She-Logo hit (a/the) dog.'
â: nɛ̀r^{n}î súyɔ́-s-ɛ́ 'They-Logo hit (a/the) dog.'

c. *á:mádù nɛ̀r^{n}î súyɔ́-só-∅* 'Amadou hit (a/the) dog.'
yǎ: nɛ̀r^{n}î súyɔ́-s-ɛ́ '(The) women hit (a/the) dog.'

Incidentally, (699c) brings out the communicative importance of NP tonosyntax. If *nɛ̀r^{n}î* 'dog' were tone-dropped to ^{L}*nɛ̀r^{n}ì*, *á* and *â:* would be parsed as possessors rather than subjects, e.g. *[á* ^{L}*nɛ̀r^{n}ì] súyɔ́-só-∅* 'he hit [his (own) dog'.

In subject function in nonsubject relative clauses, logophorics do not behave like nonpronominal NPs. The latter precede all verbs in a direct chain, frequently with a resumptive third person subject pronoun immediately preceding the final verb (i.e. the participle); see §14.1.8. Logophorics take the same position as do other subject pronouns in relatives, i.e. immediately preceding the final participle. (700a-c) are main clauses, for comparison. (701a-c) are versions of (700a-c) converted to adverbial (hence nonsubject) relatives. 3Sg *ńné*, either as simple pronominal subject (701a) or as resumptive (701b), and 3Logophoric pronouns (701c), immediately precede *sígé-* 'go down', following the chained verb *tómbó* 'jump'. Therefore 3Logophoric *á* as subject has a different position relative to the nonfinal chained verb in main (700c) and relative (701c) clauses.

(700) main clauses

a. *tómbó sígé-só-∅*
jump go.down-Pfv2-3SgSbj
'He/She jumped down.'

b. *[àrⁿà*[L] *nɛ́]* *tómbó* *sígé-só-∅*
[man[L] Def.AnSg] jump go.down-Pfv2-3SgSbj
'The man jumped down.'

c. *á* *tómbó* *sígé-só-∅* *wà*
3LogoSgSbj jump go-down-Pfv2-3SgSbj Quot
'He$_x$ said that he$_x$ jumped down.'

(701) relative clauses

a. *ùsù*[L] *tómbó* *ńné* *sìgè-sɛ̀*[L] *gú*
day[L] jump **3SgSbj** go.down-Ppl.Pfv[L] Def.InanSg
'the day he/she jumped down'

b. *ùsù*[L] *[àrⁿà*[L] *nɛ́]*
day[L] [man[L] Def.AnSg]
tómbó *(ńnɛ́)* *sìgè-sɛ̀*[L] *gú*
jump **(3SgSbj)** go.down-Ppl.Pfv[L] Def.InanSg
'the day the man jumped down'

c. *[ùsù*[L] *tómbó* *á* *sìgè-sɛ̀*[L] *gú]* *wà*
[day[L] jump **3LogoSgSbj** go.down-Ppl.Pfv[L] Def.InanSg] Quot
'He$_x$ said, the day he$_x$ jumped down, …'

So, overall, 3Logophoric pronouns are treated for syntactic purposes variously like pronouns or like nonpronominal NPs.

A logophoric is not normally used when the attributed speaker is the current speaker or addressee.

(702) a. *yɛ̌:* *bɛ́rɛ̀-ŋɔ̀-yⁿ* *(wà)*
come can-IpfvNeg-**1SgSbj** (Quot)
'(I) said that I can't come.'

b. *yɛ̌:* *bɛ́rɛ̀-ŋɔ̀-wⁿ* *wà*
come can-IpfvNeg-**2SgSbj** Quot
'(You-Sg) said that you-Sg can't come.'

If the pronominal is plural, and its reference includes the attributed speaker (along with at least other person who is not a speech-event participant), the logophoric plural category is valid. In other words, an embedded 'we' in a quotation attributed to a single speaker appears as logophoric plural.

(703) *á:mádù* *ńné* *kìyɛ̀-sɛ̀ ẁ-ndé*
Amadou 3Sg said
[â: *mótì=yɛ̀* *ńní-m-ɛ̀]* *wà*
[**3LogoPlSbj** Mopti=Loc go-Ipfv-3PlSbj] Quot
'Amadou$_x$ said that they$_{xy}$ (e.g. Amadou and Seydou) are going to Mopti.'

18.2.2 Relative clause subject coindexation

The subject of a relative clause can be expressed as a **3Reflexive** pronoun to coindex it to the third-person subject of the main clause. In (704a), the subject of both clauses is 1Sg. As usual in nonsubject relative clauses, a pronominal subject takes proclitic form. When 1Sg is replaced by a singular third person subject, the relative clause has 3Reflexive singular *á* as subject (704b). A plural third person subject requires 3Reflexive plural *â:* (704c).

(704) a. *[dày^{n}*^{L} *ǐ:^{n}* *gɔ́r^{n}ɔ̀-mì]* *kár^{n}ì-m̀-∅*
[limit^{L} **1SgSbj** be.able-Ppl.Ipfv] do-Ipfv-1SgSbj
'I will do as much as I can.'

b. *á:mádù* *[dày^{n}*^{L} *á* *gɔ́r^{n}ɔ̀-mì]* *kárí-ŋ̀*
Amadou [limit^{L} **3ReflSgSbj** be.able-Ppl.Ipfv] do-Ipfv.3SgSbj
'Amadou will do as much as he can.'

c. *[nù:*^{L} *bû:]* *[dày^{n}*^{L} *â:* *gɔ́r^{n}ɔ̀-mì]* *kár^{n}ì-m-ɛ̀*
[person^{L} Def.AnPl] [limit^{L} **3ReflPlSbj** be.able-Ppl.Ipfv] do-Ipfv-3PlSbj
'The people will do what they can.'

Examples showing that the targeted relative-clause subject must be coindexed to the subject, not to some other NP, in the main clause are in (705). The requirement is met in (705a), but not in (705b), which therefore has an ordinary 3Sg subject pronoun in the relative clause.

(705) a. *[lì:gì*^{L} *á* *jìyɛ́-sɛ̀]* *ǹjí-ŋ́* *kɛ́:rí-só-∅*
[bird^{L} **3LogoSgSbj** kill-Ppl.Pfv] 1Sg-Acc show-Pfv2-3SgSbj
'He$_{x}$ showed me a bird that he$_{x}$ (had) killed.'

b. *[ɲàmà*^{L} *ńné* *kàr^{n}ì-sɛ̀*^{L} *gú]*
[damage^{L} **3SgSbj** do-Ppl.Pfv^{L} Def.InanSg]
ńné-ŋ́ *kɛ́:rí-só-ý*
3Sg-Acc show-Pfv2-1SgSbj
'I showed him$_{x}$ the damage that he$_{x}$ (or: she$_{y}$) had made.'

18.2.3 Topic-indexing function

In texts, after a discourse referent is introduced, this referent may subsequently be indexed by singular *á* or plural *â:* in subject or preclausal topic function. For example, in (737) in the sample text, Hare and Hyena are introduced, then referred to as *â: wǒy* 'they two' as topic/subject of the next clause.

18.3 Reciprocal

18.3.1 Simple reciprocals (*tṹ:*) with H-toned pronouns

The reciprocal is used when a plural direct object or other nonsubject NP is coindexed in a distributive fashion with a plural clausemate subject. The reciprocal form is invariant *tṹ:* for

any pronominal category of subject. This form differs (slightly) in tone from the noun *tŭ:* 'agemate'. It behaves like a noun, and may take a postposition or accusative *-ŋ*.

(706) a. *tŭ:* *yĭ:-só-y.˙:*
Recip see-Pfv2-1PlSbj
'We saw each other.'

b. *[tŭ:* *yàŋà]* *jòríyé-s-ɛ́*
[**Recip** Comit] fight-Pfv2-3PlSbj
'They fought with each other.'

c. *tŭ:-ŋ̀* *súyɔ́-só-ý.˙:*
Recip-Acc hit-Pfv2-1PlSbj
'We hit each other.'

The reciprocal pronoun is optionally preceded by a plural pronominal possessor. A preposed pronominal possessor is grammatically correct for possession of a kin term or similar relationship term (including *tŭ:* 'agemate'); see §6.2.2.1. The normal forms of such possessor pronouns are 1Pl *î:*, 2Pl *û:*, and 3Reflexive plural *â:*, with {HL} tone. However, in combination with the reciprocal the pronominal is **H-toned**. The reciprocal morpheme is L-toned *tù:*, as it would have been as a possessed noun after an {HL}-toned possessor. In this combination it does not allow the accusative morpheme. Thus first person *í:* ^{L}*tù:*, second person *ú:* ^{L}*tù:*, third person *á:* ^{L}*tù:* . This tonal quirk permits audible distinctions between reciprocals like (707a) and simple combinations of a pronominal possessor with 'agemate', as in (707b). With a pronominal possessor other than 1Pl, 2Pl, or 3Reflexive plural, only the latter reading would be possible anyway, as in (707c).

(707) a. *[í:* ^{L}*tù:]* *yĭ:-só-ý.˙:*
[1Pl ^{L}**Recip**] see-Pfv2-1PlSbj
'We saw each other.'

b. *[î:* ^{L}*tù:]* *yĭ:-só-ý.˙:*
[1PlPoss ^{L}**agemate**] see-Pfv2-1PlSbj
'We saw our agemate(s).'

c. *[bû:* ^{L}*tù:]* *yĭ:-s-ɛ́*
[3PlPoss ^{L}**agemate**] see-Pfv2-3PlSbj
'They$_x$ saw their$_y$ (another group's) agemate(s).'

18.3.2 'Together' (*bèndèy*)

This is expressed with a morpheme *bèndèy* preceded by a pronominal denoting a nonsingular set. It is used in intransitive and transitive clauses where the subjects acted in concert. Since the subject is coindexed with the 'together' pronominal, the 3Reflexive plural form of the pronominal is required for third persons. The forms are irregular and are given in (708). One expects #*î: bèndèy*, #*û: bèndèy*, and #*â: bèndèy*, with the usual long vowel and HL-tone of these pronouns. Instead, the vowel is H-toned (as in reciprocals, preceding section), and it is optionally shortened. The L-tone on *bèndèy* is consistent with an original *HL tone on a

preceding possessor. In other contexts, the shortened versions 2Pl *ú* and 3Reflexive plural *á* would be confused with the corresponding singulars, but since *bèndèy* is used only in the context of collective action, no mis-parsing is possible. The fact that the first person form has *í(:)* from 1Pl *î:* rather than from nasalized 1Sg *ĭ:ⁿ* confirms this analysis.

(708)

category	form
1Pl	*í(:)* ^{L}*bèndèy*
2Pl	*ú(:)* ^{L}*bèndèy*
Reflexive Pl	*á(:)* ^{L}*bèndèy*

Examples are in (709).

(709) a. *[í(:)* ^{L}*bèndèy]* *yè-ỳ.:*
[1Pl ^{L}**together**] come.Pfv-1PlSbj
'We came together.'

b. *[nù:*^{L} *bû:]* *[á(:)* ^{L}*bèndèy]*
[person^{L} Def.AnPl] [3ReflPl ^{L}**together**]
yû: *wàr-à*
millet farm(v).Pfv-3PlSbj
'The people farmed (= raised) millet together.'

c. *[yĕ:* *dɔ̀:*^{L} *ŋ̀]* *[bû:-ŋ̀* *pó:-mí* *ŋ́]*
[come arrive^{L} and.SS] [3Pl-Acc greet and.SS]
[á(:) ^{L}*bèndèy]* *kìwárî* *kárⁿí* *jɛ̀* *ŋ̀*
[3ReflPl ^{L}**together**] greetings do RecPrf and.SS
'She came up (to where they were), she greeted them, she and they finished (their) mutual greetings, (and …).' (2004.02.03)

The construction can also be used when the antecedent is the direct object, like 'leaves and onions' in (710).

(710) *[[úwâ* *yò]* *[gâ:ⁿ* *yò]]*
[[leaf and] [onion and]]
[â: ^{L}*bèndèy]* *lògò-ỳ.:*
[3ReflPl ^{L}**together**] pound.Pfv-1PlSbj
'We pounded leaves and onions together.'

18.4 Restrictions on reflexives

18.4.1 No antecedent-reflexive relation between coordinands

Parallel to 'I and my father' (711a), we have the third person pattern 'Amadou$_x$ and his$_x$ father' in (711b), where (in the primary reading intended) the possessor of the right coordinand is coindexed with the left coordinand. (711b) uses the ordinary 3Sg possessor form *nɔ̀*, which does not specifically coindex the possessor to a particular antecedent. Therefore (711b) also has a reading involving a possessor for 'father' other than Amadou.

(711) a. *[ĭ:ⁿ yò] [bă: yɛ̆: yò]*
[1Sg and] [father 1SgPoss.AnSg and]
'I and my father'

b. *[á:mádù yò] [bă: nɔ̀ yò]*
[Amadou and] [father **3SgPoss** and]
'Amadou$_x$ and his$_x$ father.'
(or: 'Amadou$_x$ and her$_y$ father')

19 Grammatical pragmatics

19.1 Topic

19.1.1 Topic (*gây* ~ *gày* and variants, *ŋ́gôy* ~ *ŋ̀gòy*)

gây ~ *gày* is especially common with pronouns, but it may occur after other NPs and adverbials: *[[ú* ^{HL}*dê:] gày]* 'as for your mother', *[[àrⁿà*^{L} *nɛ́] gây]*. The final *y* is often omitted in allegro speech, resulting in variants *gây* ~ *gày*, but the full pronunciation is normal in careful styles. Other regional languages have counterparts with *k*, like *kày*, and I have heard *k* occasionally in Nanga (either as an archaism or as a borrowing). The tone of the particle is <HL> after a final high (including rising) tone on the preceding word, L-tone after a final low (including falling) tone.

The topicalized constituent may be presentential, in which case it is resumed by a pronoun in the clause proper. Or the topicalized constituent may be clause-internal. It is difficult to make the distinction with an NP that functions as subject of the clause, since in this situation there is no change in linear position, and since the "resumptive" pronoun is just the obligatory pronominal-subject suffix on the verb.

Combinations with independent pronouns are in (712).

(712)

category	independent (e.g. subject)
1Sg	*ǐ:ⁿ gây*
1Pl	*î: gày*
2Sg	*ú gây*
2Pl	*û: gày*
3Sg	*ńné gây*
3Pl	*bû: gày*
InanSg	*kú gây*
InanPl	*kû: gày*
3LogoSg	*á gây*
3LogoPl	*â: gày*

The topic particle can also follow accusative nouns and pronouns. This is easiest to hear with 1Sg object, which has a distinctive accusative form. It shows clearly that the NP containing the topic particle can function as a clause-internal argument.

(713) *ńné* *[tìyá* *yɛ̌:]* *súyɔ́-só-∅* *mɛ̀:,*
3SgSbj [friend 1SgPoss.AnSg] hit-Pfv2-3SgSbj but,
[ǹjí-ŋ́ *gây]* *sùyɔ̀-rí-∅*
[1Sg-Acc **Topic**] hit-PfvNeg-3SgSbj
'He/She hit my friend, but me he/she didn't hit.'

Another particle, *ŋgôy*, occurs once in a text and appears to have the same function. Forms include 1Sg *ǐ:ⁿ ŋ́gôy* and 1Pl *î: ŋ̀gòy*.

19.1.2 'Now' (*náyⁿ*)

The temporal adverb 'now' is *níŋèyⁿ*. However, a shorter form *náyⁿ* (always H-toned) is used, in close conjunction with a preceding NP (often a pronoun), as an alternative to the topic particle *gây*. Thus 1Sg *ǐ:ⁿ náyⁿ* '(as for) me now, …', 1Pl *î: náyⁿ* '(as for) us now, …', and so forth. This form is common in narratives.

When the 'now' particle functions as a topical element by itself, it appears in the form *náyⁿ gây*, with variants *ná gây*, *néyⁿ gây*, and *néyⁿ gâ*.

19.1.3 'Also, even' (*yaŋa*)

This atonal particle can follow any NP or adverbial constituent. It is distinct from invariably L-toned instrumental *yàŋà* ~ *ỳŋà* (§8.1.2).

When added directly to a noun or pronoun, the 'also, even' particle gets its tones by spreading from the left, see Atonal-Morpheme Tone-Spreading (§3.7.3.4). This H- or L-tone extends across both syllables: *ǐ:ⁿ yáŋá* 'me too', *î: yàŋà* 'us too', *ɛ́:ŋí yáŋá* 'tomorrow too'. This justifies the analysis of *yaŋa* as lexically atonal. However, it is also unexpectedly L-toned after the accusative suffix *-ŋ*, even when the latter is H-toned due to spreading from its left (714). This suggests a possible underlying or etymological L-tone for the accusative morpheme (§3.7.3.4).

(714) *[ńné-ŋ́* *ńdí-tì-ẁ* *ndè]* *[ǹjí-ŋ́* *yàŋà]* *ńdî*
[3Sg-Acc give-Pfv1b-2SgSbj if] [1Sg-Acc **too**] give.Imprt
'If you give (some) to him/her, give (some) to me too!'

The particle may follow a PP, including one with the (partially) homophonous instrumental postposition *yàŋà*.

(715) *[nàŋá* *yàŋà]* *wárà-m̀-∅,*
[cow Inst] farm(v)-Ipfv-1SgSbj,
[[ɔ̀gɔ̀ŋɔ̀ŋɔ́ *yàŋà]* *yàŋà]* *wárà-m̀-∅*
[[camel **Inst**] **too**] farm(v)-Ipfv-1SgSbj,
'I do farming with an ox, (and) I do farming with a camel also.'

For *yaŋa* 'also' after each NP (including the first) in an extended list, as an alternative to the usual 'and' conjunction, see §7.1.2.

My assistant did not allow *yaŋa* after verbs, e.g. with clausal scope. Since most verbs have a natural complement, often a referentially unspecific cognate nominal, it is normally

possible to find a nominal to serve as the immediate scope of *yaŋa*. In (716), note 'meal' and 'place' in the interlinears (omitted from the free English translation).

(716) *ɲă:* *dáŋí-ŋ̀,* *[ɔ̂:* *yàŋà]* *sɛ́mbí-ŋ̀*
meal cook-Ipfv.3SgSbj, [place **also**] sweep-Ipfv.3SgSbj
'He/She cooks, and he/she sweeps (the place) too.'

yaŋa can also function in the emphatic sense 'even X', which is closely related logically to 'also, too'.

(717) a. *[[yì-tɛ̀gɛ̀* *ɛ̀wrɛ̀]*^{L} *bû:* *yàŋà]* *wórî* *wárà-m-ɛ̀*
[[child-Pl small]^{L} Def.AnPl **even**] farming(n) farm-Ipfv-3PlSbj
'Even the little kids will do farming (= weeding).'

b. *[pŏ:* *yáŋá]* *pò:-mɛ̀-r*^{n}*í-∅*
[greeting(n) **even**] greet-Caus-PfvNeg-3SgSbj
'He/She didn't even say hello.'

19.2 Presentential discourse markers

19.2.1 'As much as …' (*hálì* ~ *hálɛ̀*)

This particle, omnipresent in languages of the zone, may occur at the beginning of a constituent phrase (NP or adverbial). The clause itself may be negated, resulting in the sense 'not as much as' (hence 'not even').

(718) a. *[hálì* *ǹjí-ŋ́* *pŏ:]* *kìyɛ̀-rì-∅*
[**as.much.as** 1Sg-Acc greeting] say-PfvNeg-3SgSbj
'He/She didn't say so much as hello to me.'

b. *[hálì* *bú:dù* *wŏy]* *ǹjí-ŋ́* *ǹdɛ̀-rì-∅*
[**as.much.as** riyal two] 1Sg-Acc give-PfvNeg-3SgSbj
'He/She didn't give me so much as a red cent.'

c. *[hálì* *nà* *tùmâ* *yàŋà]* *yɛ̀:-rí-∅*
[**as.much.as** time one even] come-PfvNeg-3SgSbj
'He/She didn't come so much as (=even) once.'

d. *[hálì* *nùŋá]* *nùŋí-só-∅*
[**as.much.as** song] sing-Pfv2-3SgSbj
'He/She even sang (a song).'

19.2.2 'Well, …' (*háyà*)

This is the common 'well, …' expression, giving the speaker time to formulate a clause. This is a regional form also common in e.g. Fulfulde and Jamsay.

19.2.3 ‘So, …‘ (*wálà:*)

French *voilà* appears in the form *wálà:*, also in regional use.

(719) *wálà:* *ɲǎ:* *bèré* *jè-ẁ*
so meal get RecPrf-2SgSbj
‘So you have gotten a meal!’

19.2.4 Clause-initial emphatic particle (*péy*, *pés*)

péy can be used with positive and negative clauses. *pés* is used with negative clauses only (‘not at all’).

(720) a. *péy* *séllé-só-y*
Emph be.healthy-Pfv2-1SgSbj
‘I’m perfectly healthy.’

b. *péy* *ɲǎ:* *kɔ̀:-rì-y*
Emph meal eat-PfvNeg-1SgSbj
‘I haven’t eaten at all.’

c. *pés* *ɲǎ:* *kɔ̀:-rì-y*
[= (b)]

19.2.5 ‘But …‘ (*mɛ̌:*)

The attested form is *mɛ̌:*, It is French *mais*, also now used in many other Malian languages. Unlike the French original, *mɛ̌:* is pronounced at the end of the preceding clause.

(721) *yɛ̌:-só-∅* *mɛ̌:* *bɛ̀:-rí-∅*
come-Pfv2-3SgSbj but remain-PfvNeg-3SgSbj
‘He/She came but did not stay.’

In prepausal position the particle is usually heard as L-toned *mɛ̀:*, as in (713) above.

19.2.6 ‘Lo, …‘ (*jágà→*)

This particle, which occurs in various forms in most local languages, is used in narrative at the beginning of a clause introducing a dramatic or surprising new event.

19.3 Pragmatic adverbials or equivalents

19.3.1 ‘(Not) again’, ‘on the other hand’

‘Again’, i.e. ‘one more time’ or ‘a second time’, is expressed by the adverb *íyê* (contrast *íyé* ‘today’, §8.4.6.1). It can also be expressed by the adverb *bèndí* (also the adjective ‘other’) or by the chained verb *bìndé-* ‘go back, return’. *bèndí* is preferred in negative or irrealis contexts (722a-b), while *bìndé* is usual in positive indicatives (722c).

(722) a. *bèndí* *òmbòrí=yê* *ńní-ŋɔ̀-y^{n}*
other Hombori=Loc go-IpfvNeg-1SgSbj
‘I won’t go to Hombori again.’

b. *bèndí* *ŋ̀gá* *yè:-ẁ* *ndè,* *há:jè* *bɛ́rɛ̀-m̀-^{w}*
other here come.Pfv-2SgSbj if, problem get-Ipfv-2SgSbj
‘If you-Sg come here again, you’ll get trouble.’

c. *[ɲă:* *[á* *báy]* *kɔ́:-ŋ́]*
[meal [3ReflSg Dat] eat-and.SS]
[bìndé *ŋ̀gá* *kɔ̀ɛ̀-∅]*
[**go.back** here eat.Pfv-3SgSbj]
‘Having eaten at home, he ate here again.’

19.4 ‘Only’ particles

19.4.1 ‘Only’ (*săy*)

The usual ‘only’ particle is *săy* (as in Jamsay). It follows the constituent (X), either an NP or an adverb, that it has scope over. It is often heard as L-toned *sày*, especially prepausally.

(723) *[tɛ́:mdɛ́rɛ̀* *săy]* *sò-y*
[hundred **only**] have-1SgSbj
‘I have only one hundred (riyals).’

săy can indirectly have scope over a VP by being added to a cognate nominal or other conventionalized object associated with the verb.

(724) *bírɛ̀-ŋɔ̀:-∅,* *[gìrɛ̀-níy^{n}ɛ̂* *săy]* *níy^{n}ɛ́-ŋ̀*
work-IpfvNeg-3SgSbj, [eye-sleeping(n) **only**] sleep-Ipfv.3SgSbj
‘He/She doesn’t work, he/she just sleeps.’

As is true in all languages of the zone, ‘only X’ or ‘none other than X’ can also be expressed by a negated clause combined with an ‘if not’ (i.e. ‘unless’) conditional (725a). A somewhat similar nuance can be expressed by a construction with *dó:mó* ~ *dó:ŋó*, attested once in a textual passage talking about an episode in the past when there were only occasional scraps to eat (725b).

(725) a. *búrà* *[ò:ndó* *ǹdò:-∅* *ndè]*
B [honey **not.be**-3SgSbj **if**]
[kɔ̀[L] *bèndí]* *mùrá-∅*
[thing[L] other] not.want-3SgSbj
'Boura wants nothing other than honey.'
(lit. "Boura, if it isn't honey, he doesn't want anything else.")

b. *[ɲà:*[L] *èwrɛ́]* *bèrɛ́* *nɛ̀mɛ̀-ẁ*^{n} *ndè,*
[meal[L] small] get taste.Pfv-2SgSbj if,
[kú=ŋ̀ *dó:mó]*
[DiscDef=it.is **otherwise**]
[ɲǎ: *táy*^{n}*→* *kɔ́:* *sírⁿɛ́-ndɛ́]* *ŋ̀gó-∅*
[meal fully.sated eat be.sated-VblN] not.be-3SgSbj
'(Except) if you-Sg got and tasted a little bit of food, other than that there was no eating enough food and being full (of food).' (2004.01.07)

19.4.2 'Just (one)', 'a mere' (*léŋ* ~ *lék*)

léŋ ~ *lék* is a colorful intensifier for *tùmâ* 'one' (726a). Its stylistic flavor is along the lines of colloquial English 'I have one lousy cow', where 'lousy' deprecates 'one' (expressing the meager number of cows) rather than the unfortunate animal. It can occasionally extend to higher numbers (§8.4.3.2).

Less emphatic is *déndè* (726b). Like a second adjective, it controls tone-dropping on the noun and on the adjective-like numeral.

(726) a. *[nàŋà*[L] *tùmâ* *léŋ]* *sò-y*
[cow[L] single **mere**] have-1SgSbj
'I have a single (=only one) cow.'

b. *[[nù* *tùmà]*[L] *déndè]* *núyⁿí* *nà*
[[person one][L] **only**] go.in then.DS
'Only one person goes in (the granary), …' (2004.02.03)

19.4.3 *tùmá(-yɛ́)* 'nothing but, exclusively'

tùmá (related to *tùmâ* 'one', but homonymous with *tùmá* 'tree') can be used adverbially to mean 'nothing but, exclusively'. It is optionally extended as *tùmá-yɛ́*.

(727) *[dàrⁿà*[L] *kú* *pú→]*
[outside[L] Def.InanSg all]
pír-à:ndì *tùmá* *bíyé-yɛ̀*
Fulbe-Collective **exclusively** lie.down.Stat-3PlSbj
'Throughout the open area there were none but Fulbe lying down.' (2004.01.10)

19.5 Phrase-final emphatics

19.5.1 Phrase-final *já:dì* 'exactly'

This emphatic, common in Fulfulde and (through borrowing) some other languages of the zone in the form *já:tì*, is often a single-word confirmation of a proposition uttered by an interlocutor ('Exactly!'). It may also be added to a phrase or clause with similar sense.

(728) a. *kɔ̀-kɔ̀sú = ŕ* *já:dì*
Rdp-viper=it.is.InanSg **exactly**
'Yes, indeed it is a viper.'

b. *ú* *já:dì*
2Sg **exactly**
'precisely you-Sg' (confirming)

For 'precisely, exactly' without the confirmational context, see the particles described in §8.4.3.2.

19.5.2 Clause-final *kòy*

This clause-final emphatic particle is used to give strong assent to a proposition by an interlocutor, or to give a confident answer to a polar interrogative. Often it can be translated colloquially as adverbial *sure* in responses like *it sure was!*

(729) *kɛ̌:rɛ̂* *nǒm* *kòy*
money difficult **Emph**
'Money sure is hard to come by.' (*nòmí*)

This particle is regional (Jamsay, Fulfulde, Humburi Senni, etc.).

19.5.3 Clause-final *dè*

This clause-final emphatic particle is more adversative or admonitive than *kòy*, suggesting that the addressee needs to be made aware or reminded of something. (730a) could be said to someone who has just announced plans to mount an expensive project.

(730) a. *kɛ̌:rɛ̂* *nǒm* *dè*
money difficult **Emph**
'(But) money is hard to come by!'

b. *[gùrí* *báy]* *ú-ŋ́* *háybà* *dè*
[thief Dat] 2SgSbj-Acc watch.over.Imprt **Emph**
'Watch out for the thief (or: thieves) now!'

c. *[[nù* *tùmà]*^{L} *déndè]* *núy*^{n}*í* *nà*
[[person one]^{L} only] go.in then.DS
[[nù:^{L} *bèndí]* *núy*^{n}*-ŋɔ̀:-∅* *dè]*
[[person^{L} other] go.in-IpfvNeg **Emph**]
'Only one person goes in (the granary). No-one else goes in, mind you.'
(2004.02.03)

19.6 Backchannel and uptake checks

Backchannel support from the listener to the speaker who has the floor, especially during a narrative or other extended speaking turn, can take the form of *uh-huh* type utterances (not easily transcribed phonologically). The more formal *nâ:m* is used, for example, to punctuate an imam's sermon.

Before narrating a tale, the narrator requests audience permission with the phrase *tɛ́:njɛ̀→ ǹ(d)ì→* (obscurely related to the noun *tɛ́:njɛ̀* 'tale'), as in (736) below. The audience responds with *yáwò→*, and the tale begins.

The speaker may initiate backchannel with a question like *pá:mí-só-ẃ mà* 'did you understand?' Often such questions are pro forma and no actual reply is required.

19.7 Greetings

19.7.1 Time-of-day greetings

Time-of-day related greetings ('good morning!' etc.) and their responses (R) are in (731). The unmarked *pɔ̌:* is used in the middle of the day. The greetings presented early in the day and at night have a retrospective time perspective: the 'good morning!' expressions are based on *ná:-* 'spend (the) night', while the 'good night' expressions are based on *dɛ̀r*^{n}*ɛ́-* 'spend (the) mid-day'. By contrast, the late-afternoon greeting uses the term for 'late afternoon' (*dɛ̀ndɛ̀sî*). The imperative plural suffix *-ndì* on the plural-addressee versions of the greetings suggests that all the greetings are imperative in form. *àwâ:* is only used as a greeting response and therefore has no "literal" meaning.

(731)		greeting	situation
		náy^{n}	morning 6-9 AM (singular addressee)
		ná:-ndì	(plural addressee)
	R:	*àwâ:*	
	R:	*ná:-kɔ̀:*	(archaic)
		pɔ̌:	mid-day 9AM to 4PM (singular addressee)
		pɔ̌:-ndì	(plural addressee)
	R:	*àwâ:*	
	R:	*pɔ̌: bɛ̀rɛ̀-mì*	(archaic)

	dèndèsî pǒ:	late afternoon 4PM to sunset (singular addressee)
	dèndèsî pǒ:-ndì	(plural addressee)
R:	*àwâ:*	
R:	*dèndèsî pǒ: bèrè-mì*	(archaic)
	dèr^{n}éy^{n}	sunset to 4 AM (Sg addressee)
	dèr^{n}éy^{n}-ndì	(plural addressee)
R:	*àwâ:*	
R:	*dér^{n}í bèrè-mì*	(archaic)

The '(have a) good night!' expressions are in (732). They may be addressee-directed (imperative), or hortative and inclusive ('let's …'). *jáŋâ* is another word meaning 'health'. *à:mí:^{n}* is the 'amen!' word and functions to acknowledge a blessing or wish.

(732)		*jáŋâ nâ:*	final 'good night!' (singular addressee)
		jáŋâ ná:-ndì	(plural addressee)
	R:	*à:mí:^{n}*	
		jáŋâ ná:-má	final 'good night!' hortative (singular addressee)
		jáŋâ ná:-mày^{n}	hortative (plural addressee)
	R:	*à:mí:^{n}*	

Also using the verb *ná:-* 'spend night' are the questions in (733), which can be added to a 'good morning!' greeting.

(733)		*jáŋâ nà:-w^{n} mà*	'Did you sleep well?' (Sg addressee, familiar)
		jáŋâ nà:-w^{n}	(Sg addressee, respectful)
		(û:) jáŋâ nà:-w^{n}.˸	(Pl addressee), for *.˸* see §3.8.3
	R:	*ná:-só-ý*	'I slept well' (said by a friend)
	R:	*ná:-só*	'I slept well' (respectful)
	R:	*ná:-s-ɛ́*	'we slept well' (respectful)

19.7.2 Situation-specific greetings

Activity- and/or place-specific greetings and their responses are of two basic structures. One type is based on the locative form (postposition *gó*, *gá*, etc.) of a noun like 'field(s)', 'market', 'well', or 'work' (734). These greetings are primarily used when the addressee is at the relevant location or is performing the indicated activity, though *[ò: gó] pǒ:* can also be addressed to someone returning from the fields.

(734)		*[ò: gó] pǒ:*	(at, or returning from, fields)
	R:	*àwâ:*	
		[ɛ́wɛ́ gá] pǒ:	(at the market)
	R:	*àwâ:*	
		[ɛ̌: gá] pǒ:	(at the well)
	R:	*àwâ:*	

[bírɛ́ gá] pǒ: (at work) (with *bírɛ́*, not *bírá*)
R: *àwâ:*

The greetings in (735) are of the form 'you and {fields, work, market, water}' and are generally addressed to someone returning from the place and activity in question.

(735) *[ú yò] [ǒ: yò]* (at, or returning from, fields)
R: *àwâ:*

[ú yò] [bírá yò] (coming back from work)
R: *àwâ:*

[ú yò] [ɛ́wɛ́ yò] (returning from the market))
R: *àwâ:*

[ú yò] [nî: yò] (coming back from well, with *nî:* 'water')
R: *àwâ:*

A traveler arriving at a house is greeted with *[[ńdó gó] dô:]* 'arrive at (or: approach) the house!', an invitation to come in and deposit one's baggage. One who is leaving on a long trip is sent off with the phrase *[jáŋâ dô:]*, literally 'arrive (there) in health!'. The reply is *à:mí:*^{n} 'amen!'.

One gives condolences to a survivor of a deceased person with the phrase *[[pɔ̀r*^{n}*ɔ́ ŋɔ́] pǒ:]*, literally 'greetings in high worth'. The visitor who has presented condolences and is about to leave is told: *[dɛ̌njê [ú* ^{HL}*gɔ̂] gùrɔ́-ndíyé-mì* 'may God lengthen your (life)', and/or *[dɛ̌njê [í bèndéy* ^{L}*kɔ̀] wàgá-ndíyé-mì]* 'may God put distance between us (i.e. us and the dead person)'. On returning home from giving condolences in another village, one is greeted with *[yógí gó] pǒ:*, literally 'greetings in running'.

19.7.3 Islamic greetings

The usual Islamic greetings and similar formulaic phrases, from Arabic, are present, since the Nanga-speaking zone is now largely Muslim. *ásàlâ:màlé:kùm* (Arabic 'peace to you-Pl') is the formal greeting, especially on entering the presence of a group of men. The reply is *wǎ:lékùmàsàlâ:m*. The Islamic formula for inviting someone to come in, to join in a meal, etc., is *bìsímílà* (Arabic 'in God's name'). *àlbárkà* 'thank you!' (Arabic 'blessing') is used to thank someone for a meal or a gift, and in markets as a polite refusal to accept an offer to buy or sell.

Text

Text recorded in 2007 (reference Nanga 2007.01.01). Phrases spoken by hyena in Jamsay, see (744-45, 754-55, and 759), are in green and their free translations are italicized.

(736) *té:njɛ̀→ ǹdì→,*
[formulaic story opening phrase, cf. *té:njɛ̀* 'tale'; audience should respond *yáwò→*]

(737) *[jɔ̀mɔ́ yò] [tà-tã̄: yò] [sàmàrⁿì-bírá gá] ǹn-ò,*
[hare and] [Rdp-hyena and] [day.labor-work(n) Loc] go.Pfv-3PlSbj,
[â: wɔ̌y] [sàmàrⁿì-bírá gá] ńné ŋ́,
[3ReflPl two] [day.labor^{L}-work Loc] go and.SS,
[sàmàrⁿì-bírá gá] bû:-ŋ̀ ày-à,
[day.labor-work Loc] 3Pl-Acc receive.Pfv-3PlSbj,
lɔ̀gɔ̀rɔ̀-mɛ́ kɛ́mɛ̀-mù,
apiary build-Ppl.Ipfv,
'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, (for them) to build apiaries (man-made beehives).'
[*X yò Y yò* 'X and Y' §7.1.1; topic-indexing 3Reflexive plural *â:* §18.2.3; *ŋ* 'and.SS' in same-subject VP chains §15.2.7]

(738) *donc [lɔ̀gɔ̀rɔ̀-mɛ́ kɛ́mɛ̀^{HL}-^{L}kɛ̀mɛ̀] [nǎ: dɛ́gɛ̀-ŋ-ɛ̀: wà],*
so [apiary build^{HL}-^{L}build] [hand lick-IpfvNeg-3PlSbj Quot],
wó:tì-yô: wà, [lɔ̀gɔ̀rɔ̀-mɛ́ kɛ́mɛ̀^{HL}-^{L}kɛ̀mɛ̀]
all.right Quot, [apiary build^{HL}-^{L}build]
tà-tã̄: [nǎ: [á kɔ̂]] dɛ̀gɛ̀-∅,
Rdp-hyena [hand [Refl Poss.InanSg]] lick.Pfv-3SgSbj
lɔ̀gɔ̀rɔ̀-mɛ́ yɛ̀gɛ́ sìgɛ̀-∅,
apiary fall go.down.Pfv-3SgSbj,
donc [ńné wá] [bɛ̀ndí dɛ̀gí-rá wá]
so [3Sg Quot] [other lick-Proh Quot]
[wó:tì-yô: wà], [kú mày^{n}]
[all.right Quot], [DiscDef like]
kɛ́mɛ̀^{HL}-^{L}kɛ̀mɛ̀-^{L}kɛ̀mɛ̀-^{L}kɛ̀mɛ̀
build^{HL}-^{L}build-^{L}build-^{L}build
[ǹdò^{L} kú] kɛ́mɛ́ gò-nd-ò,
[house^{L} Def.InanSg] build go.out-Caus.Pfv-3PlSbj
'So (the bosses) said, when building the apiary, they (= hare and hyena) will (= must) not lick their hands. They said, all right. When building the apiary, hyena licked his hand. The apiary fell down (= collapsed). (The bosses) said, "hey you (= hyena), don't lick (your hand) again!" In that way they kept building and building, and they finished building that house (= apiary).

[iterated verb stem with {HL} then {L} overlay §11.6.2; 'fall' and 'go down' in verb chain §15.1; 3Sg pronoun for original 2Sg vocative 'hey you!' §17.1.1; 'cause to go out' here in the unusual sense 'complete']

(739) *kɛ́mɛ́ gò-ndó ŋ́, donc [sàrâ [bû: ^{L}gɔ̀]],*
build go.out-Caus and.SS, so [pay(n) [3Pl ^{L}Poss.InanSg]],
ńnɛ́ dɔ̌: nà,
3SgSbj arrive then.DS,
[ńnɛ́ wá] [tà-tã̌: wà] [nǎ: dɛ̀gɛ́=bɛ́-∅ wá],
[3Sg Quot] [Rdp-hyena Quot] [hand lick=Past-3SgSbj Quot],
[tà-tã̌:-ŋ̀ bɛ̂r sárá ŋ́]
[Rdp-hyena-Acc goat pay(v) and.SS]
[[jɔ̀mɔ́-ŋ́] nàŋá ǹd-à],
[[hare-Acc] cow give.Pfv-3PlSbj],

'Having finished building, their pay (= wages), when it (= payday) arrived, (they) said: "hey you, hyena, you licked your hand previously." (So) having paid hyena (with) a goat, they gave (= paid to) hare a cow.'

[Hyena was paid less because of his having licked; *nà* 'then.DS' in different-subject clause §15.2.6.1; past clitic §10.5.1]

(740) *[â: wǒy] yê:^{HL}-^{L}yè: [ńdô ^{L}òsì] wǒ: ŋ́,*
[3ReflPl two] come^{HL}-^{L}come [house ^{L}road] catch and.SS,
[â: wòy] yê:-yè:, yé:-mɔ̀ yé:-mɔ̀ yé:-mɔ̀,
[3ReflPl two] come^{HL}-^{L}come, come-while come-while come-while,
bòndì-úsúr^{n}ɔ̀ ìrì-y-∅,
rain-wind get.up-MP.Pfv-3SgSbj,
bòndì-úsúr^{n}ɔ̀ ńnɛ́ írí-y nà,
rain-wind 3SgSbj get.up-MP then.DS,
jɔ̀mɔ́ [nàŋá [á yê]] nòŋgìyè-∅,
hare [cow [3ReflSg Poss.AnSg]] mount.Pfv-3SgSbj,
[tà-tã̌: [bɛ̂r [á yê]]
[Rdp-hyena [goat [3ReflSg Poss.AnSg]]
bàs-ɛ́: ńnɛ́ dɛ̌: nà] ńní-ŋɔ̀:-∅,
pull-Dur 3SgSbj be.tired then.DS] go-IpfvNeg-3SgSbj
[jɔ̀mɔ́ [ńnɛ́ wá] màr^{n}ándí-yé yè^{L} ńné-ŋ́ wà]
[hare [3Sg Quot] have.courage-MP come^{L} go-QuotHort Quot]
[wó:tì-yô: wà],
[all.right Quot]

'As the two of them were coming (back), they took the road of (= to) the houses (= village). The two of them were coming. They kept coming and coming, (then) a rain storm arose. When the storm arose, hare mounted his cow. Hyena tugged on his goat until he (= hyena) was exhausted (= for a long time), (but) it wouldn't go. Hare said: "hey you, have courage, come and (let's) go!" He (= hyena) said, "all right." '

[*mɔ̀* in durative background clause §15.2.1; *-ɛ́:* §15.2.5; verb-verb chain with L-toned nonfinal verb *yè*^{L} 'come' §15.1.6.2; *ńné-ŋ́ wà* quoted hortative §10.6.5]

(741) *básá-ŋ́ ńné bú-mɔ̀]*
pull-Ipfv 3SgSbj be-while]
[bèr[L] *né] bìyé dě: jè-∅,*
[goat[L] Def.AnSg] lie.down be.calm finish.Pfv-3SgSbj,
bìyé ńné dě: jɛ́ nà,
lie.down 3SgSbj be.calm RecPrf then.DS,
[[bèr[L] *né] bìyé ńné dě: jɛ́ nà]*
[[goat[L] Def.AnSg] lie.down 3SgSbj be.calm RecPrf then.DS]
[jɔ̀mɔ́ [ńné wá] [yè[L] *ńní-ŋɔ̀: ndè]*
[hare [3Sg Quot] [come[L] go-IpfvNeg if]
[á ńné-ŋ́ dɔ̀gɔ́-tì kày] ńní:-[n] *wà],*
[3LogoSg 3Sg-Acc leave-Pfv1b Top] go-Ipfv.3SgSbj Quot]
[wó:tì-yô: wà],
[all.right Quot]

'As he (= hyena) was pulling, the goat lay down motionless (refusing to budge). When it lay down motionless—, when the goat lay down motionless, hare said: "hey you (= hyena), if you (= hyena) won't come and go (with me), I (= hare) will leave you (here) and go." He (= hyena) said: "all right." '

[imperfective *-ŋ́* (*-m̀*) plus *bú* 'be' §15.2.2.2; *dě: jɛ́-* is a fixed collocation; logophoric pronoun indexing author of quotation §18.2.1; perfective-1b *-tì* indicates a temporal gap between 'leave' and 'go'; L-toned *ndè* 'if' §16.1]

(742) *[bàsá ńné kán nà]*
[pull 3SgSbj do then.DS]
[[bèr né] yê:-ŋɔ̀: ńné kán nà]
[goat Def.AnSg] come-IpfvNeg 3SgSbj do then.DS]
[[bèr[L] *né]* [HL]*[lɔ́sɔ̀ tùmà]] [gùwà*[L] *tùmâ]*
[[goat[L] Def.AnSg] [HL][leg one]] [front.leg[L] one]
álá kùwè-∅, [álá kúwó ŋ́]
yank.off eat.meat.Pfv-3SgSbj, [yank.off eat.meat and.SS]
[yè[L] *ńné-ŋ́ wà], jɔ̀mɔ́ [ńné wá] íyê encore,*
[come[L] go-QuotHort Quot], hare [3Sg Quot] again still,
ńní-ŋɔ̀:-∅ wà,
go-IpfvNeg-3SgSbj Quot,

'When he (= hyena) had pulled and the goat wouldn't come, he (= hyena) yanked off and ate one of the goat's legs, one front leg. Having yanked it off and eaten it, (hare) said, "come and (let's) go!" Hare said, "hey you, once again!" He (= hyena) said: "I am not going." '

[bare verb stem plus *kár*[n]*í nà* ~ *kán nà* 'do' for subject switch, see (572) in §15.2.6.1; 'one of goat's legs' possessed core NP with tonosyntactic control over noun and adjective §6.2.1.2]

(743) *[básá-ŋ́ básá-ŋ́ básá-ŋ́ ńné bú-mɔ̀]*
[pull-Ipfv pull-Ipfv pull-Ipfv 3SgSbj be-while]
[[bèr[L] *né] yé:-ndé àwà-rí-∅],*
[[goat[L] Def.AnSg] come-VblN accept-PfvNeg-3SgSbj],
[yé:-ndé àwà-rí ńné kán nà]
[come-VblN accept-PfvNeg-3SgSbj] 3SgSbj do then.DS]

[bèr-dè:^{L} *né-ŋ́]--*
[goat-mother^{L} Def.AnSg-Acc]—
íyê *[gùwà*^{L} *tùmâ]* *álá* *kùwè-∅,*
again [front.leg^{L} one] yank.off eat.meat.Pfv-3SgSbj,
[néy *gày]* *[lɔ̀sɔ̂* *wǒy]* *wàsè-∅,*
[now Top] [foot two] remain.Pfv-3SgSbj,
[[lɔ̀sɔ̂ *tà:ndǐ:]* *ǹdǒ:]* *[néy* *gày]* *[lɔ̀sɔ̂* *wǒy]* *wàsè-∅,*
[[foot three] not.be] [now Top] [foot two] remain.Pfv-3SgSbj,
[[[lɔ̀sɔ̀ *wòy]*^{L} *gú]* *ńné* *wàsá* *nà]*
[[[foot two]^{L} Def.InanSg] 3SgSbj remain then.DS]
[bèr-dè:^{L} *né* *màr*^{n}*á]* *sémé* *jìyé* *ŋ́,*
[goat-mother^{L} Def.AnSg entire] cut.throat.of kill and.SS,
[bèr-sùŋùr^{n}*ì*^{L} *tùmâ]* *jɔ̀mɔ́-ŋ́* *ǹdì-∅,*
[goat-ear^{L} one] hare-Acc give.Pfv-3SgSbj,

'As he (= hyena) was pulling and pulling, the goat did not consent (=refused) to come. When (=after) it did not consent (=refused) to come, he (= hyena) again yanked off and ate the whole goat— (or rather) one (= the other) front leg (of the goat). Now two legs (i.e. the hind legs) remained. Not three legs, now (just) two remained. When the two legs remained, he (= hyena) cut its throat to kill it, and he gave one goat-ear to hare.'

[*àwá* 'accept, consent' with verbal-noun complement §17.3.4; negative clause plus *kán-* 'do' §15.2.6.1; "goat-mother" = 'entire goat' §5.1.9]

(744) *[néy* *gày]* *[á* ^{HL}*gɔ̂]*
[now Top] [3ReflSg ^{HL}Poss.InanSg]
[bèr-dè:^{L} *né]* *kúwó* *jè* *ŋ̀]*
[goat-mother^{L} Def.AnSg] eat.meat RecPerf and.SS]
[[â: *wòy]* *yé:-mɔ̀* *yé:-mɔ̀]*
[[3ReflPl two] come-while come-while]
[dɛ́mì→ *ńné* *nà]*
[a.little go then.DS]
[jɔ̀mɔ́ *wá]* *[bèr-súŋúr*^{n}*ì* *á* ^{HL}*gɔ̂]]* *ńdí* *wà],*
[hare Quot] [goat-ear [3LogoSg ^{HL}Poss.InanSg]] give.QuotImprt Quot],
[jɔ̀mɔ́ *wá]* *[kúwó* *jè]* *mà:ndì-∅* *wà]*
[hare Quot] [eat.meat RecPerf] think.Pfv.SgSbj Quot]
[jɔ̀mɔ́ *gò-ndó* *ńné-ŋ́* *ǹdì-∅],*
[hare go.out-Caus 3Sg-Acc give.Pfv-3SgSbj],
hà: *[níŋ* *kè]* *dɔ̂m* *gá:jè* *kún-á:r*^{n}*à-m* *wà,*
hah! [now Top] up.to.now joking do-Ipfv-1SgSbj Quot,
wó:tì-yô: *wà,*
all.right Quot,

'Now, when he (= hyena) had finished eating his thing (= meal), (eating) the whole goat, the two of them (= hyena and hare) were coming, (and) when they had gone a little way, he (hyena) said: "hey hare, give me (= hyena) (back) my goat-ear!" He (= hyena) thought (= assumed) that hare had already eaten (it), (but) hare took (it) out and gave it to him (= hyena). (Hyena) said (in Jamsay): *"I am just kidding now!"* (Hare) said: "all right." '

[QuotImprt in jussive, i.e. in quoted command, §10.6.4 and §17.1.4.1]

(745) *[â:* *wòy]* *yé:-mɔ̀* *yé:-mɔ̀* *yé:-mɔ̀* *yé:-mɔ̀*
[3ReflPl two] come-while come-while come-while come-while
íyê *tà-tâ:* *[jɔ̀mɔ́* *wá]*
again Rdp-hyena [hare Quot]
[súŋúr^{n}ì *[á* HL*gɔ̂]]* *ńdí* *wà,*
[ear [3LogoSg HLPoss.InanSg]] give.QuotImprt Quot,
jɔ̀mɔ́ *íyê* *ńné-ŋ́* *gò-ndó* *ǹdì-∅,*
hare again 3Sg-Acc go.out-Caus give.Pfv-3SgSbj,
dɔ̂m *gá:jɛ̀* *kún-á:r^{n}à-m* *wà,*
up.to.now kidding do-Ipfv-1SgSbj Quot,
yé:-mɔ̀ *yé:-mɔ̀* *yé:-mɔ̀* *yé:-mɔ̀* *yé:-mɔ̀,*
come-while come-while come-while come-while come-while
'The two of them were coming and coming. Again hyena said: hey hare, "give (me) my (goat-)ear!" Hare again took (it) out and gave it to him. (Hyena) said (in Jamsay): *"I am just kidding now!"* (They were) coming and coming.'

(746) *[[kú* *mày^{n}]* *yɛ̌:* *ŋ́]* *[[ńdó* *gó]* *d-ɔ̀:],*
[[DiscDef like] come and.SS] [[house Loc] arrive.Pfv-3PlSbj],
[ńdó *gó]* *yɛ̌:* *dɔ̌:* *ŋ́—,*
[house Loc] come arrive and.SS—,
[ńdó *gó]* *yɛ̌:* *dɔ̌:* *ŋ́,*
[house Loc] come arrive and.SS,
[jɔ̀mɔ́ *wá]* *[bɛ̀r-nàmá* *[á* HL*gɔ̂]]* *ńdí* *wà,*
[hare Quot] [goat-meat [3LogoSg HLPoss.InanSg]] give.QuotImprt Quot,
[jɔ̀mɔ́ *ńné-ŋ́* *gò-ndó* *ǹdì-∅]*
[hare 3Sg-Acc go.out-Caus give.Pfv-3SgSbj]
[á *[níŋɛ̀y* *ỳŋà]* *gá:jɛ̀* *kúr^{n}ì-sò* *wà],*
[3LogoSg [now Inst] kidding do-Prog Quot],
'In that way they came and arrived at the houses (= village). Having come and arrived at the houses—. Having come and arrived at the houses, (hyena) said: "hey hare, give (me) my goat meat (= ear)!" Hare took (it) out and gave it to him, saying "now I (= hare) am kidding (= joking)." '
[Hare speaks in Nanga]

(747) *[[kú* *mày^{n}]* *[ùsú* *wɔ̌y]* *dɔ̌:* *ŋ́]*
[[DiscDef like] [day two] arrive and.SS]
[jɔ̀mɔ́ *[[[á* HL*dê:]* L*sɛ̀:mbɛ̀-bì:^{n}]* *ŋɔ̀]*
[hare [[[3ReflSgPoss HLmother] Lcotton.basket] Loc]
[ńné *ŋ́]* *kún* *dɔ̀gɛ̀-∅,*
[go and.SS] put.in leave.Pfv-3SgSbj,
[[sɛ̀:mbɛ̀-bɛ̌:^{n} *ŋɔ̀]* *kún* *dɔ̀gɔ́* *ŋ́]*
[[cotton.basket Loc] put.in leave and.SS]
[jɔ̀mɔ́ *gɔ̌:* *ńné* *ɛ̀ré* *nà],*
[hare go.out 3SgSbj Pfv1a then.DS].
jɔ̀mɔ́ *[[ǹjó* *nò]* *yɛ̌:* *ŋ́]*
hare [[younger.sibling 3SgPoss] come and.SS]
*[[sùŋùr^{n}ì*L *kú]* *gò-ndó* *kùwè-∅],*
[[earL Def.InanSg] go.out-Caus eat.meat.Pfv-3SgSbj],

'When two days had arrived (= elapsed) in that way, hare went and put and left (the goat-ear) in his mother's cotton-gear basket. When hare had put and left (it) in the cotton-gear basket, and had gone out (completely), hare's younger brother came and took out the (goat) ear and ate (it).'

[*(y)èré* as linking equivalent of perfective-1a *-èrè-* in chains with *nà*, §15.2.6.1; 'hare$_x$ [his$_x$ younger sibling]' with topicalized possessor, cf. the simpler phrasing *jɔ̀mɔ́* ^{HL}*ńjò* 'hare's younger sibling']

(748) *gò-ndó* *ńné* *kúwó* *nà,*
go.out-Caus 3SgSbj eat.meat then.DS,
tà-tã: *[yĕ:* *ŋ́]*
Rdp-hyena [come and.SS]
[bèr-súŋúr^{n}ì *[á* ^{HL}*gɔ̂]]* *ńdí* *wà,*
[goat-ear [3Refl ^{HL}Poss.InanSg]] give.QuotImprt Quot,
[jɔ̀mɔ́ *[yĕ:* *ŋ́]* *ŋìr^{n}é* *ńné* *kán* *nà]*
[hare [come and.SS] look 3SgSbj do then.DS]
kùr^{n}ɔ̀=ndó-∅, *donc* *[ńné* *wá]*
be.put.in=StatNeg-3SgSbj, so [3Sg Quot]
[bèr-súŋúr^{n}ì *[á* ^{HL}*gɔ̂]]* *tɔ́sí* *wà,*
[goat-ear [3LogoSg ^{HL}Poss.InanSg]] pay.QuotImprt Quot,
jɔ̀mɔ́ *wó:tì-yô:* *wà,*
hare all.right Quot,
jɔ̀mɔ́ *[[nàŋá* *[á* *yê]]* *bàsá* *ŋ́]*
hare [[cow [3ReflSg Poss.AnSg]] pull and.SS]
[[â: *wŏy]* *[ò:^{L}* *gó]* *ńné* *ŋ́]—,*
[[3ReflPl two] [fields^L Loc] go and.SS]—,
[[â: *wŏy]* *[ò:^{L}* *gó]* *ńné* *ŋ́],*
[[3ReflPl two] [fields^L Loc] go and.SS],
jɔ̀mɔ́ *[tà-tã:* *wà]* *[ùsì^L* *túmbó* *yè:-mì^L* *gú]*
hare [Rdp-hyena Quot] [sun^L sun.rise come-Ppl.Ipfv^L Def.InanSg]
yî:-sò *mâ→* *wà,*
see-Prog Q Quot,

'After he took (it) out and ate (it), hyena came and said: "give (me) my goat-ear!" Hare came and looked, (but) it (= ear) wasn't in (the basket). (Hyena) said: "so, hey you, pay for (= replace) my goat-ear!" Hare said, "all right." Hare pulled his cow, the two of them (= hare and hyena) went to the field—. The two of them went to the field, and hare said: "hey hyena, do you see that sun which is rising (and coming)? Do you see it?" '

[*kùr^{n}ɔ̀-ndó-*, negation of stative *yá kùr^{n}ɔ̀-* 'be (put) in' §11.2.3; same-subject *ŋ* §15.2.7 in 'went to the field' with partial coindexation of subjects, singular versus plural; imperfective relative clause 'sun which is rising and coming' §14.1.7.2]

(749) *é* *tà-tã:* *[á* *yî:-sò]* *wà,*
yes Rdp-hyena [3LogoSgSbj see-Ipfv] Quot,
donc *[ńné* *wá]* *[ùsì^L* *túmbó* *yè:-mì^L* *gú]*
so [3Sg Quot] [sun^L sun.rise come-Ppl.Ipfv^L Def.InanSg]
[[ùsì^L *gú]* *gõ:=∅* *wà]*
[[sun^L Def.InanSg] fire=it.is Quot]
[ńné *wá]* *[kú-ŋ́* *ńné* *jè:^{L}* *gáy]*
[3Sg Quot] [DiscDef-Acc go scoop.coals^L then.SS]

yě-y *wá,*
come-QuotImprt Quot,

'Hyena said, "yes, I saw (it)." (Hare) said, "that sun which is rising, the sun is fire; you (= hyena) go get that (= fire, i.e. hot coals) and come!" '

[*gáy* 'and then' after tone-dropped verb §15.2.6; *jě:* here denotes the action of scooping up hot embers in a pottery shard, commonly done to transport live coals to another location to start a fire or boil tea]

(750) *tà-tǎ:* *[gò:*^{L} *gú]* *[jè:*^{L} *gó]* *ńné* *ńné* *nà,*
Rdp-hyena [fire^{L} Def.InanSg] [scoop.coals^{L} Purp] 3SgSbj go then.DS,
jɔ̀mɔ́, *jɔ̀mɔ́* *[[nàŋá* *[á* *yê]]* *sémé* *ŋ́],*
hare, hare [[cow [3ReflSg Poss.AnSg]] cut.throat.of and.SS]
[[nàmà^{L} *ý]* *úrɔ́* *jè* *ŋ̀]*
[[meat^{L} Def.InanPl] skin&butcher RecPrf and.SS]
[[[nàmà *èsì]*^{L} *ý]* *gò-ndó* *ŋ́]* *[símbí* *ŋ́],*
[[[meat good]^{L} Def.InanPl] go.out-Caus and.SS] [roast and.SS]
[[tùmà-pómbó *gó]* *ǹdɛ́* *ŋ́]* *[kɔ́r* *dɔ̀gɔ́* *ŋ́],*
[[tree-hole Loc] go.up and.SS] [hang.up leave and.SS]
[[bìndì^{L} *ý→]* *[kù:*^{L} *ý]* *bìy*^{n}*í* *ŋ́],*
[[entrails^{L} Def.InanPl] [head^{L} Def.InanPl] bury and.SS],
kírâ *kɛ̌:y* *dɔ̀gɛ̀-∅,*
horn sticking.out leave.Pfv-3SgSbj

'When hyena had gone in order to get fire (= hot coals), hare—, hare slaughtered his cow, he finished skinning and butchering the meat cuts (= sections), he took out and roasted the choice meat cuts, he went up into a tree hollow, (and) he hung up and left (the choice meat cuts). He buried the entrails (and) the heads, and left the horns sticking out (of the ground).'

[purposive clause with pseudo-locative *gó* §17.6.3]

(751) *[kɛ̌:y* *dɔ̀gɔ́* *ŋ́],*
[sticking.out leave and.SS]
tà-tǎ: *[[ńné* *ŋ́]* *gɔ̀ŋír*^{n}*í-∅* *dɛ̀:-∅]*
Rdp-hyena [[go and.SS] go.around-Dur be.tired.Pfv-3SgSbj]
[gɔ̌: *bèrɛ̀-rí-∅]*
[fire get.PfvNeg-3SgSbj]
[ùsí *nà→]* *[gɔ̌:=ndɔ̌:* *yè],*
[sun rather] [fire=not.be rather.than]
[kú *mày*^{n}*]* *tà-tǎ:* *[yě:* *ŋ́]*
[DiscDef like] Rdp-hyena [come and.SS]
[á *kòy]* *gɔ̌:* *bèrɛ̀-rí* *wá,*
[3LogoSg Top] fire get-PfvNeg Quot,
jɔ̀mɔ́ *wó:tìyô:* *wà,*
hare all.right Quot,
bèndí *déy*^{n}*→* *[kɔ̀*^{L} *kámâ]=ǹdɔ̌:* *wá,*
other apart [thing^{L} any]=not.be Quot,

'He (= hare) left (the horns) sticking out. Hyena went walking around until he was exhausted (i.e. trying in vain to get fire from the sun), (but) he didn't get any fire. It was the sun, not fire. In that way hyena came and said: "as for me, I haven't gotten any fire." Hare said, "all right, it's nothing special (= it doesn't matter)." '

[ŋ́ 'and.SS' at end of same-subject clause sequence; trisyllabic durative *gɔ̀ŋírⁿí-∅*, (565g) in §15.2.5.1; *[[X nà→] [Y ǹdǒ: (yè)]]* 'it is X, rather than Y' §15.2.6.1]

(752) *donc [[ńné wá] [kìrà^{L} bù-mù^{L} gú]*
so [[3Sg Quot] [horn^{L} be-Ppl.Ipfv^{L} Def.InanSg]
kɛ̌y→ yî:-sò mà] [é yî:-sò wà],
sticking.out see.Prog Q] [yes see-Prog Quot],
[donc [[kú ^{HL}námà ^{L}gù] kéréw]
[so [[DiscDef ^{HL}meat ^{L}Def.InanSg] all]
ká yá kùrⁿɔ̀ wà]
there.Def Exist be.put.in Quot]
[ńné wá] [gò-ndê wà] wó:tìyô:,
[3Sg Quot] [go.out-Caus.QuotImprt Quot] all.right,
'(Hare) asked him: "so, do you see those horns that are (there) sticking out?" (Hyena) said: "yes, I see it." (Hare) said: "so, all that meat is in there (= underground), you (= hyena) should take it out." (Hyena) said, "all right." '
[combination of preposed possessor, noun, and L-toned definite morpheme §6.5.4; existential particle *yá* §11.2.2.1; quoted imperative *gò-ndê* (375e)]

(753) *[[kú mày^{n}] ńné kán nà]*
[[DiscDef like] 3SgSbj do then.DS]
[[bòndì^{L} dùgí] yè:-∅], [[bòndì^{L} dùgí] ńné yɛ̌: nà]
[[rain^{L} big] come.Pfv-3SgSbj], [[rain^{L} big] 3SgSbj come then.DS]
[jɔ̀mɔ́ [á gây] [témbɛ̀ gà] ńdé-ŋ̀ wà],
[hare [3LogoSg Top] [above Loc] go.up-Ipfv.3SgSbj Quot],
[wò:tìyô: wà] tà-tã:
[all.right Quot] Rdp-hyena
[á gày] [[dósú gó] bé:-ŋ̀ wà],
[3LogoSg Top] [[below Loc] stay-Ipfv.3SgSbj] Quot],
'After it happened like that, a big (=heavy) rain came. Hare said: "as for me, I will go up above (= into the tree)". (Hyena) said, "all right." Hyena said: "as for me, I will stay below." '

(754) *[jɔ̀mɔ́ [témbɛ̀ gà] ǹdɛ́ ŋ́]*
[hare [above Loc] go.up and.SS]
[nàmá [á ^{HL}gɔ̂]] kùwò ndé,
[meat [3ReflSg ^{HL}Poss.InanSg]] eat.meat if,
[kìrⁿà^{L} gú] [[tà-tã: ^{L}kù:] gà] gísé-ŋ̀,
[bone^{L} Def.InanSg] [[Rdp-hyena ^{L}head] in] throw-Ipfv.3SgSbj,
wò→-wôy [íyé ké] [àrⁿà^{L} démbéré] mìrⁿá:-rⁿà-∅ kòy,
ouch! [today Top] [rain^{L} big] rain.fall-Ipfv-3SgSbj Emph,
[dé jùmɔ̀] ɛ̌:-rà-w mà,
[elder.sibling hare] see-Ipfv-2SgSbj Q,
ɔ̀ⁿhɔ́ⁿ jɔ̀mɔ́ [á yî:-sò] wà,
uhhuh hare [3LogoSgSbj see-Prog] Quot,
jɔ̀mɔ́ [nàmá [á ^{HL}gɔ̂]] kùwò^{L} ndé,
hare [meat [3ReflSg ^{HL}Poss.InanSg]] eat.meat^{L} and.then,
[kìrⁿà^{L} gú] [[kû: nò] gà] tác! gísé-ŋ̀,
[bone^{L} Def.InanSg] [[head 3SgPoss] Loc] thud! throw-Ipfv.3SgSbj

éy→ *[àrⁿà*[L] *démbéré]* *mìrⁿá:-rⁿà-∅* *wà,*
hey! [rain[L] big] rain.fall-Ipfv-3SgSbj Quot,
ɔ̀ⁿhɔ́ⁿ *jɔ̀mɔ́* *á* *yî:-sò* *wà,*
uhhuh! hare 3LogoSgSbj see-Prog Quot,

'Hare went up above, and when he would eat his meat, he threw the bones (down) on hyena's head. (Hyena thought [in Jamsay]:) "woo-woo, today a big (=heavy) rain sure is falling!" (Hyena) said: "elder brother hare, do you see?" "Uh-huh," hare said, I see (it)." When hare would eat his meat, threw the bone(s) down with a thud on his (= hyena's) head. (Hyena) said, "hey, a big rain is falling!" "Uh-huh," hare said, "I see (it)." '

[Hyena mistakes the bones for hailstones; H-toned anterior *ndé* 'then' after L-toned verb in imperfective contexts §15.2.8.2]

(755) *[[kú* *màyⁿ]* *kúwó* *ŋ́]*
[[DiscDef like] eat.meat and.SS]
[[kìrⁿà *dèmbìrè]*[L] *gú]* *[tùndú* *gó],*
[[bone big][L] Def.InanSg] [down Loc],
[[tà-tã: [L]*kù:]* *gà]* *tây* *ńné* *gìsé* *nà,*
[[Rdp-hyena [L]head.] Loc] thud! 3SgSbj throw then.DS,
tà-tã: *ɔ́ⁿ→* *[dé* *jɔ̀mɔ́]*
Rdp-hyena oh! [elder.sibling hare]
[ú=ỳ *mí* *kám-á:rⁿà-wⁿ* *mà→]* *wà,*
[2Sg=Foc 1SgObj throw-Ipfv-2SgSbj Q] Quot,
é→ *wá,* *d'accord* *[yèré* *sígé* *wà]*
yes Quot, okay [come go.down.QuotImprt Quot]
[ńné *wá]* *yì-yí:-ŋ̀* *wà,*
[3Sg Quot] Rdp-see-Ipfv Quot,

'In that way he ate, and at the end (of the meal) he threw the big bone down hard on hyena's head. Hyena said: "oh, elder brother hare, is it <u>you</u> [focus] who is throwing (bones) on me?" (Hare) said: "yes." (Hyena) said: "all right, come down (here)! You (= hare) will see!" '

[*yèré* *sígé* is a mix of Jamsay and Nanga; *yì-yí:-ŋ̀* reduplicated imperfective §10.2.2.3]

(756) *[kú* *màyⁿ]* *jɔ̀mɔ́* *sígé* *ńné* *yě:* *nà,*
[DiscDef like] hare go.down 3SgSbj come then.DS,
á *ńné-ŋ́* *kúwó-ŋ̀,*
3LogoSgSbj 3Sg-Acc eat.meat-Ipfv.3SgSbj,
[ńné *wá]* *m̀mǎyⁿ* *á-ŋ́* *kùwò*[L] *ndé,*
[3Sg Quot] like.this 3LogoSg-Acc eat.meat[L] and.then,
[á *[dòsù*[L] *ká]* *á* *yègè-∅* *ndè]*
[3LogoSg [down[L] Def.Loc] 3LogoSgSbj fall.Pfv-3SgSbj if]
[ńné *wá]* *á-ŋ́* *mɔ̀nè-rⁿí* *wá* *quoi,*
[3Sg Quot] 3LogoSg-Acc get.even-PfvNeg Quot Emph,
donc *[ńné* *wá],*
so [3Sg Quot],
[ńné *wá]* *[[pà:ndì*[L] *sìrídî]* *gò]*
[3Sg Quot] [[thread[L] thin] Loc]
á-ŋ́ *págí* *wà* *quoi,*
3LogoSg-Acc tie.QuotImprt Quot Emph,

[[pà:ndì^{L} *sìrídî]* *gò]* *á-ŋ́* *pàgì*^{L} *ndé,*
[[thread^{L} thin] Loc] 3LogoSg-Acc tie^{L} then,
[[tìr^{n}*ì*^{L} *èsí]* *ńné* *jè:*^{L} *ndé]*
[[firewood^{L} good] 3SgSbj bring^{L} then]
á-ŋ́ *dɔ̀:*^{L} *ndé]*
3LogoSg-Acc roast^{L} then]
kúwí *wà* *quoi,*
eat.QuotImprt Quot Emph,

'In that way, when hare came down, (hyena said:) "I will devour you (= hare)." (Hare) said: "if you devour me like that, if I fall down there, you won't have gotten (back at) me. So, you there, tie me up with thin thread! Tie me up with thin thread, bring some good firewood, roast me, and then eat me!'

[the final string of pseudo-conditional clauses, §15.2.8.2, is completed by a quoted imperative; pragmatically the entire sequence is imperative]

(757) *tà-tã:* < *[[tìr*^{n}*ì*^{L} *èsí]* *jɔ̀rɔ̀*^{L} *gó]—* >
Rdp-hyena < … >
[ńné-ŋ́ *págí* *dɔ̀gɔ́* *ŋ́]*
[3Sg-Acc tie leave and.SS]
[[[tìr^{n}*ì*^{L} *èsí]* *jɔ̀rɔ̀*^{L} *gó]* *ńné* *ńné* *nà]*
[[[firewood^{L} good] look.for^{L} Purp] 3SgSbj go then.DS]
[jɔ̀mɔ́ *párá-gí-tì-∅],* *párá-gí* *yɔ̀gɔ́* *màrè-∅,*
[hare snap-Caus-Pfv1b-3SgSbj], snap-Caus run be.lost.Pfv-3SgSbj,
tà-tã: *encore* *íyê* *ńné-ŋ́* *[jɔ̀rɔ́* *ŋ́]* *yì:-∅,*
Rdp-hyena again again 3Sg-Acc [look.for and.SS] see.Pfv-3SgSbj
ńné-ŋ́ *jɔ̀rɔ́* *ŋ́]* *yǐ:* *ŋ́,*
[3Sg-Acc look.for and.SS] see and.SS,
[ńné-ŋ́ *jɔ́rɔ̀*^{HL}*-*^{L}*jɔ̀rɔ̀-*^{L}*jɔ̀rɔ̀-*^{L}*jɔ̀rɔ̀]*
[3Sg-Acc look.for^{HL}-^{L}look.for-^{L}look.for-^{L}look.for]

'Hyena tied up and left him, then he (= hyena) went in search of good firewood. Hare snapped (the rope). He snapped (it) and ran (away) and disappeared. Hyena looked for him (= hare) again and saw (him). He looked for him and saw (him). He kept looking and looking and looking for him.'

[*jɔ́rɔ̀-jɔ̀rɔ̀-*… iteration of verb with HL then all-L-tones §11.6.2 (on the tape the speaker began with the lexical /LH/ melody but corrected this during transcription)]

(758) *[yá* *ńné* *ŋ́]* *[[ńdò-pìré* *gó]* *ńné* *ŋ́]*
[there go and.SS] [[house-inside Loc] go and.SS]
[jɔ̀mɔ́ *[séwrè* *gà]* *ńné* *énjá-mɔ̀]*
[hare [ceiling.pole Loc] 3SgSbj be.slipped.in.Stat-while]
[ńné-ŋ́ *tèmbì-∅* *quoi],*
[3Sg-Acc find.Pfv-3SgSbj Emph],
[séwrè *gà]* *ńné* *énjá-mɔ̀]*
[ceiling.pole Loc] 3SgSbj be.slipped.in.Stat-while]
[dé *jɔ̀mɔ́* *wá]* *[yè*^{L} *sígí* *wà],*
[elder.sibling hare Quot] [come^{L} go.down Quot]
jɔ̀mɔ́ *á* *sígè-ŋɔ̀:* *wà,*
hare 3LogoSgSbj go.down-IpfvNeg Quot,

'He (= hyena) went there, he went inside a house, and found him (= hare) slipped in among the thin ceiling poles. While he (= hare) was in among the thin ceiling poles, (hyena) said: "elder brother hare, come down!" Hare said: "I won't go down." '

[stative form of verb 'be slipped in' §10.3]

(759) *[ńné wá] [níŋèy^{n} á ùmǎy yègɛ́ sìgè^{L} ndé]*
[3Sg Quot] [now 3LogoSgSbj like.this fall go.down^{L} if]
[[nàmá [á ^{HL}gɔ̂]] ɲàmá-èrè-∅]
[[meat [3LogoSg ^{HL}Poss.InanSg]] be.ruined-Pfv1a-3SgSbj]
[ńné wá] dùyá ńné bàrá jè:^{L} ndé,
[3Sg Quot] ashes go gather bring^{L} if,
[dòsù gá] ńné tìy^{L} ndé,
[below Def.Loc] 3SgSbj dump^{L} if,
[á [dùyà^{L} gá] yɛ́gɛ́-ŋ̀]
[3LogoSgSbj [ashes^{L} Loc] fall-Ipfv]
[á-ŋ́ bàr^{n}ùmè-r^{n}í-∅] [ńné wá]
[3LogoSg-Acc wound-PfvNeg-3SgSbj [3Sg Quot]
[nàmá [á ^{HL}gɔ̂]] wǒ: kúwó-ŋ̀ wà,
[meat [3LogoSg ^{HL}Poss.InanSg]] catch eat.meat-Ipfv Quot,
wó:tìyô: [kò ké] tɔ̀y^{n}ɔ́=ỳ^{n} wà
all.right [Nonh Top] truth=it.is Quot

'(Hare) said: "hey you, if I fall down like that now, my flesh will have been ruined. When you (= hyena) have gone and gathered some ashes and brought them, and when you have dumped them down below (on the ground), (then) I will fall (= land) on the ashes and it will not have injured me, (then) you will catch me and eat my meat." (Hyena) said (in Jamsay): a"ll right, that's true." '

(760) *donc tà-tã: [ńné ŋ́] [dùyá [ńné ŋ́]*
so Rdp-hyena [go and.SS] [ashes [go and.SS]
jɔ̀rɔ́ jě: ŋ́]
look.for bring and.SS]
[dùyá [ǹdò-pìrè gá] mâ: tíy ŋ́],
[ashes [house.inside Loc] pouring.lots dump and.SS],
[jɔ̀mɔ́ gày] [séwrè gà] yá nàŋà-∅,
[hare Top] [ceiling.poles Def.Loc] Exist be.up.on.Stat-3SgSbj,
[ńné wá] kûŋgà yè^{L} sígí wà,
[3Sg Quot] all.clear come go.down.QuotImprt Quot,
jɔ̀mɔ́ [dùyà gá] pûy ńné kán nà,
hare [ashes Def.Loc] thud! 3SgSbj do then.DS,
[[[tà-tã: ^{L}gìrè] gò] dùyá yɛ́gí→ kàr^{n}ì-∅]
[[[Rdp-hyena ^{L}eye] Loc] ashes powder.get.in do.Pfv-3SgSbj]
[jɔ̀mɔ́ ká yɔ̀gɔ́ màrè-∅],
[hare there.Def run be.lost.Pfv-3SgSbj]

'So, hyena went and looked for ashes, and brought (them), and dumped (them) all around inside the house. Hare for his part was (still) up among the ceiling poles. (Hyena) said: "hey hou, the coast is clear, (now) come (= drop) down!" When hare made a thud (falling) on the ashes, the dust (kicked up from the ashes) got into hyena's eyes (half-blinding him). Hare ran (from) there and disappeared.'

[*kûŋgà*, used in contexts like 'the coast is clear', is obscurely related to *kú=ŋ̀* 'it's that']

(761)	*[tɛ́:njɛ̀*	*mélèm]*	*[dùmá*	*mélèm]*	*quoi*
	[story	submerged]	[finish(n)	submerged]	Emph
	[story-closing formula]				

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Abbreviations and symbols

Abbreviations

Acc	accusative, §6.7
Adj	adjective
Addr	addressee (in SgAddr and PlAddr)
Agent	agentive nominal
An	animate
ATR	advanced tongue root (vowel feature)
C	consonant (in e.g. *CvCv*)
Caus	causative, §9.2
Char	characteristic (nominal derivative), §4.2.1
Comit	comitative, §8.1.2
Dat	dative, §8.1.1
Def	definite, §4.4.1
Dem	demonstrative
Det	determiner (demonstrative or definite)
DiscFunct	discourse-functional elements (e.g. 'only')
DiscDef	(strong) discourse-definite, §4.4.1.3
DS	different-subject (subordinator), §15.2.6
Dur	durative (§15.2.5.1)
EA	expressive adverbial, §8.4.7
Emph	emphatic (various clause-final particles), §19.5
Exist	existential particle, §11.2.2.1
ExpPrf	experiential perfect, §10.2.1.4
Fact	factitive ('cause to become' with adjective), §9.5
Foc	focus
H	high (tone)
Hort	hortative, §10.6.2
Imprt	imperative
Inan	inanimate
Inch	inchoative ('become' with adjective), §9.5
Inst	instrumental, §8.1.2
Ipfv	imperfective
L	low (tone)
Loc	locative
Logo	logophoric, §18.2
MP	mediopassive, §9.3
N	noun
(n)	noun (in interlinear glosses)
Neg	negative
Nom	nominalization
Nonh	nonhuman (e.g. in Jamsay)

NP	noun phrase
Num	numeral
Obj	object
Pass	passive, §9.3.2-3
Pl	plural
Prf	perfect (in ExpPrf, RecPrf)
Pfv	perfective
Pl	plural
Poss	possessor, possessive, §6.2.3
PP	postpositional phrase
Ppl	participle
Pss	possessor
Prog	progressive
Pron	pronoun
Proh	prohibitive
Purp	purposive
Q	question
QTop	interrogative topic (‘what about X?’), §19.1.4
Quot	quotative particle, §17.1.3-4
Rdp	reduplication
Recip	reciprocal, §18.3
Refl	reflexive, §18.1
RelCl	relative clause
Rev	reversive (verb derivation, §9.1
Sbj	subject (in e.g. “2PlSbj”)
SFoc	subject-focus
Sg	singular
SS	same subject (subordinator), §15.2.4-8
Stat	stative, §10.4 (derived), §11.2-4 (lexical)
Top	topic
Tr	transitive, §9.3
V	verb (in e.g. S-O-V)
(v)	verb (as part of a gloss)
v	vowel (in e.g. *CvCv*)
VblN	verbal noun, §4.2.2
VP	verb phrase

Symbols

*	reconstructed
#	ungrammatical, unacceptable, unattested
á, à, â, ǎ, ã	tones on vowels (or syllables), §3.7
x̄, x̀, x́, x̂, ^{p}x	tone changes on stem in compounds, chapter 5
<…>	a) contour tones on a single syllable, e.g. <HL> and <LH>
	b) false starts in texts (omitted from translations), e.g. (665)
/…/	a) lexical tone melody, e.g. /LH/, /H/
	b) underlying or lexical representation, e.g. /gàrá/
{…}	a) tone overlay, e.g. {HL}, {H}, {L}
	b) enclosing any set, e.g. {*u a i*}
[…]	a) phonetic (IPA) representation, e.g. [bŭ:]
ꜜ	downstep
[…]^{L}	{L} tone overlay controlled by an element to the right, §6.1.4
[…]$^{L+H}$	like preceding but with extra H-tone on final syllable/mora
^{HL}[…], ^{H}[…]	{H} or {HL} tone overlay controlled by a possessor to the left, §6.2.1
^{L}[…]	{L} on demonstrative or numeral in certain combinations, §3.7.3.5, §4.6.1.4
→	"intonational" prolongation of final vowel or sonorant, §3.8.3
∴	dying-quail terminal intonation effect, §3.8.4
=	clitic boundary, §3.6
&	conjunction (in interlinears, e.g. X.& Y.& 'X and Y')

Index

1. prosody (grammatical)

a. tone patterns

b. intonation

2. selected morphemes

3. grammar