

A Grammar of Yanda Dom (Dogon, Mali)

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1 Introduction

1.1 Dogon language family

The Dogon languages as a whole are thought to constitute a very early branch of the huge Niger-Congo superfamily. In some current models, Dogon and Ijoid are ancient, independent branches, while Gur, Kwa, and Benue-Congo (including Bantu) are later branches. One relevant point is that Dogon and Ijoid lack noun-class systems of the type found in the more recent branches.

Dogon languages are spoken in a single continuous geographical block centered on the cliff-lined Dogon plateau, along with the sandy plains that spread out northward, eastward, and westward from the bases of the cliffs, and (in the northeast) the inselbergs that crop up among the plains. How many Dogon “languages” or “dialects” exist is a frequent question with no simple answer. Pending further research the Toro So group, outlying varieties of the Jamsay group, the southeastern group (including Tengou Kan), the Najamba-Kindigué-Bondu group, and the Mombo-Ampari group, a tentative position is that there are about 80 locally named lects that can be grouped into 20-25 languages on the basis of mutual unintelligibility. Because of extensive inter-Dogon contact, even unintelligibility is difficult to demonstrate reliably.

It is becoming clear that there is an east-west split within Dogon, as first suggested by Kirill Prokhorov. It roughly follows the western versus eastern cliffs of the main plateau. Diagram (1) aligns western with nearby eastern languages horizontally in a manner suggesting contact relationships. The more northerly eastern languages (Toro Tegu, Ben Tey, Bankan Tey) and the most southerly one (Tomo Kan) have little contact with western Dogon. Yanda Dom and its close neighbor Tebul Ure, which are not necessarily a genetic subgroup within western Dogon, are mainly in contact with Jamsay and Tommo So.

(1)	western	eastern
		Toro Tegu
		Ben Tey, Bankan Tey
	Najamba-Kindigué-Bondu	Jamsay group, Nanga
	Yanda Dom, Tebul Ure	
	Tiranige	Tommo So
	Dogul Dom	Donno So, Toro So group
	Mombo, Ampari, Bunoge, Penange	Tengou-Togo group
		Tomo Kan

Tommo So villages separate Yanda Dom and nearby Tebul Ure from the main western block which runs southwestward from Najamba-Kindigué-Bondu through Tiranige and Dogulu to the southwestern subgroup including Mombo.

The abbreviation YD for Yanda Dom is used frequently in this grammar.

1.2 Yanda Dom language

Based on the Dogon languages that we have studied, Yanda Dom (abbreviation YD) appears to have specific affinities with the Najamba-Kindigé (aka Bondu) language and arguably with YD's immediate neighbor Tebul Ure, and with Dogulu farther afield in the high plateau north of Bandiagara. The relationship to Najamba-Kindigé is evident especially in the morphology of verbs and demonstratives, as well as in some lexical and phonological features.

The people refer to themselves as *yàndá-[bòlò-mù]* 'Yanda people' (singular *yàndá-bòlò*) and to their language as *yàndá-dòm* 'Yanda language' (cf. *dòm* 'talk, speech, language').

Chapter 2 is a brief sketch of the major typological features of the language.

1.3 Geography and environment

Yanda (*yàndá*) is the name of a small zone containing several villages. The term can also be used for a cluster of three villages in the center, excluding Ogol and Ana.

The old Yanda villages were located in flat spots on the slopes of the mountain separating the high plateau from the sandy plains that stretch eastward. One village was originally on the summit, i.e. on the high plateau. Around 1960 many of the people in the cliffside villages relocated to the lower slopes and base of the cliffs, in some cases not far away. These are collectively known as *yàndà-dú* (Lower Yanda), while the villages that remain on top (abandoned or sparsely inhabited) are called *yàndà-témbè* (Upper Yanda).

Upper Yanda contains the villages named *dènèlù*, *dàmzà*, *tógù*, and *kùlmàl*, which are still occupied. Cliffside villages that have mostly or entirely relocated down to the foot of the cliffs, can be geographically grouped as in (2). The three villages of Yanda proper are nearly continuous, strung along the base of the mountain. A short distance away is the Ogol village cluster. Anana is somewhat apart from the other villages physically; it located at the base of the cliffs not far from the track leading up to the Tebul Ure villages overlooking Bamba.

I have taken GPS readings for several of the villages that are at or near the base of the mountain. Coordinates are in degrees, minutes, and decimal fractions (.000 to .999) of minutes.

(2)	official name	native name	N latitude	W longitude
a.	Ana			
	Ana (Anana)	<i>ánà</i>	14 40.234	03 07.134
b.	Yanda village cluster			
	Yanda-Songo	<i>yàn zòŋ</i>	14 09.058	03 08.323
	Yanda-Tourougo	<i>túl</i>	14 38.999	03 08.605
	Yanda-Guinedia	<i>gìnèndíyá ~ gínàndiyá</i>	14 38.831	03 08.890
c.	Ogol	<i>?ówá:l</i>		
	Ogol-Komaga	<i>(?òwà:l-)kómâ:</i>	14 38.418	03 09.995
	Ogol-Nimba	<i>(?òwà:l-)nímbá</i>	14 38.067	03 10.403
	Ogol-Ongo	<i>(?òwà:l-)ô:n</i>	14 38.811	03 09.855
	Ogol-Pepe	<i>(?òwà:l-)pépêy</i>	14 38.982	03 10.003

There is also a cluster of villages known collectively as Yanda-Kou, on top of the mountain ridge overlooking the main Yanda villages. It is currently in the administrative district (commune) of Mori, whereas the villages listed in (2) are in the district of Bamba.

I am aware of no recent census reports on the population of Yanda. As reported by Hochstetler et al. (2004), the official 1987 census figure was 1400. Blench's recent suggestion of 2000 to 3000 is reasonable, given the rate of population growth throughout the Dogon region especially since the eradication of smallpox in 1980.

Most Dogon are farmers. The fields are in the flat plains below the cliffs, since the plateau just above the cliffs is quite rocky. The few people who still live in Upper Yanda come down during the growing season (June-October) to work their fields. Millet (*Cenchrus spicatus*, formerly *Pennisetum glaucum*) is the primary crop. Two cultivars of sorghum (*Sorghum bicolor*) are also grown. Rice is grown in one small area where water accumulates. Supplementary crops are cow-pea (*Vigna unguiculata*, local French *haricot*), sesame, roselle (*Hibiscus sabdariffa*, local French *dah* or *oseille*), peanut, and ground nut (*Vigna subterranea*, local French *pois de terre*).

There is a small amount of cash-crop gardening during the dry season, and some new irrigated gardens have been established for this purpose. Ogol has well-developed gardens, being blessed with year-round rock ponds (including a few crocodiles!). Dry-season cash crops include onion, tobacco, sweet potato, chili pepper, tomato, and African eggplant (*Solanum aethiopicum*). Gourds are also grown here and there.

The major weekly market is that of Bamba Dégéré, which is held on Saturday. This village, only 3 km from the main Yanda villages, also has a school, a medical center, and a government office (*mairie*). Bamba is a collective term for a large cluster of physically separated villages including this one. This Bamba (Jamsay *bámá*) is not to be confused with the Songhay-speaking town Bamba on the Niger River that is known throughout Mali for its tobacco.

As of our first visit in 2009, there were primary schools (*premier cycle*) in Tourougo, Ginendiya, and Ogol. Before these schools were built, some pupils walked to Bamba Dégéré

to attend its primary school, and current pupils who have finished primary school can attend the middle school (*deuxième cycle*) in Bamba. High schools (*lycées*) are farther away in the large towns, for example Koro and Bandiagara.

The Yanda area can be reached by 4x4 or bush motorcycle from Douentza, Koro, or Sangha. Some vans and trucks from these towns make the weekly market in nearby Bamba. Bamba is also a stop for the vehicles that ply the Douentza-Koro route.

1.4 Contact languages

Three other Dogon languages occur in the area. Jamsay is the major Dogon language of the plains from Douentza to Koro and is useful as a lingua franca throughout this area. Tebul Ure is a local Dogon language spoken in Upper Bamba villages, and nowadays in a few satellite villages at the base of the cliffs. A major language on the plateau, extending far to the north and west, is Tommo So. Contact of Yanda people with Tommo So speakers has slowly declined lately, as villagers and entire villages have moved down to the cliff bases.

Adult YD speakers typically speak Jamsay and Tommo So and understand Tebul Ure. Those who live at the base of the cliffs also know some Fulfulde from their contacts with Fulbe people, who are not numerous in the zone but do occupy some hamlets in the plains and enter Dogon villages on a daily basis to sell fresh or curdled milk. Some Dogon own cattle, goats, and sheep that are tended for them by Fulbe.

Bambara is not (yet) much of a factor locally. However, many young people head to Bambara-speaking southern Mali for work after the farming season, so knowledge of this language is growing.

1.5 Previous and contemporary study of Yanda Dom

1.5.1 Previous work

There has been no substantial previous linguistic study of this language.

Calame-Griaule's early survey of Dogon varieties (1956) mentioned YD and suggested that it had a lexical affinity to Dogulu. Some basic geographic and population data for YD are included in the SIL survey of Dogon languages (Hochstetler et al. 2004). A 1987 census figure of 1400 was cited.

Roger Blench's report (2012) on YD is one of several valuable ones on lesser-known Dogon languages that he has disseminated on his website in the hope of stimulating field research by others (in this case and a few others, it worked!). He summarized the geographical and population information previously given by Calame-Griaule and Hochstetler et al., added his own information (including native names and GPS coordinates for the villages), and presented a wordlist recorded in two days in March 2005. Although my Yanda assistants consider Ana (Anana) village to belong to the YD-speaking zone, Blench indicated that Ana had a "distinct lect" and made it the subject of another section of his website. To date I have done no fieldwork on the Ana variety.

1.5.2 Fieldwork

My Jamsay-speaking assistant and factotum Minkailou Djiguiba did an initial reconnaissance of the area by bush motorcycle in 2008. He and I went to Tourougo (=Turgo) village in May 2009 and remained for three days. As is my usual practice I began with plants and animals, showing images and giving descriptions of local species to a group of elders, with many children watching. We then returned to Douentza with an assistant for several weeks of basic elicitation. The work continued off and on during my fieldwork stint January to August 2010, both in Douentza and Yanda. In subsequent years I was able to work on YD from time to time in short bursts, transcribing texts, filling out lexicon, and drafting the grammar. Final corrections were made in early 2017.

1.5.3 Acknowledgements

The work on YD is part of a project on Dogon languages that aims eventually to describe the entire family. The chronology to date has been as follows:

- 2004-6 fieldwork by me on Jamsay supported by NEH grant PA-50643-04
- 2006-9 NSF grant BCS 0537435, Linguistics program
- 2009-13 NSF grant BCS 0853364, DEL program
- 2013-17 NSF grant BCS-1263150, DEL program

NEH = National Endowment for the Humanities; NSF = National Science Foundation; DEL = Documenting Endangered Languages program jointly administered by NEH and NSF.

Reference grammars of Jamsay (Heath 2008) and Tommo So (McPherson 2013) have appeared in print. Reference grammars by me of Ben Tey, Nanga, Toro Tegu, Dogul Dom, Donno So, Togo Kan, and Penange have been permanently published in open-source online form at Language Description Heritage Library, with backup copies at Deep Blue (University of Michigan). Texts are either included at the end of the grammar, or appear in separate works at the same websites. Grammars of Yorno So (Toro So group), Bunoge, Najamba, Tiranige, and Tebul Ure are in progress.

Drafts of the unfinished grammars, and extensive supporting materials, are available online at the project site: : www.dogonlanguages.org. The supporting materials include images, videos, flora-fauna, geography, and short Dogon-wide typological and historical-linguistic summaries. The videos are divided into short clips illustrating verbs, and documentary-style videos ranging from a 4 to 20 minutes, mostly on Dogon but also a few involving Songhay (Hombori), Bangime, and Fulbe.

Of specific relevance to Yanda is a short documentary video called “Yanda huntfest.” It records an annual event late in the dry season (around April) consisting of overnight hunting in the bush by individuals, followed by a day of festivities in Yanda including firing of ceremonial muskets by young men, dancing, horsemen, and presentation of the hunters’ booty to the chiefs. The Yanda huntfest is a kind of mirror image, on a smaller scale and shifted from water to land, of the famous Antogo fishfest held annually at nearby Jamsay-speaking Bamba village, which is captured in another documentary called “Bamba fishfest.” Both

videos were shot in 2010. Also shot in Yanda (in 2011) was a video on “Brewing millet beer”.

My assistant and I have fond memories of the days and nights we spend in Yanda, and of the dozens of children who sat on the sand or stood each evening to watch our documentary videos (and a few spaghetti westerns) projected from my laptop.. We especially thank the hogon (traditional chief) Ambouka Telly, and Hamidou Telly.

2 Sketch

A few highlights of Yanda Dom will be given here, emphasizing points of divergence with other Dogon languages.

2.1 Phonology

2.1.1 Segmental phonology

YD has a fairly standard Dogon consonant and vowel inventory. There are the usual seven vowel qualities, including the \pm ATR feature for mid-height vowels, distinguishing +ATR *e* and *o* from -ATR *ɛ* and *ɔ*. Vowels have long and short forms. Nasalized vowels are present but not very common. Consonants include nasalized $\{r^n y^n\}$ (§3.3.7).

There are a few twists in comparison with other Dogon languages. YD distinguishes *j* and *z*. Its intervocalic *d* corresponds to *r* in several other languages and may be an important archaism. Of special interest is the occurrence of numerous stems of the shape $?əCv$, with initial glottal followed by a faint schwa, then a regular *Cv* syllable (§3.3.5).

2.1.2 Tones

As in other Dogon languages, there are two tone levels. Using angled brackets for single-syllabic contoured tones, syllables are H, L, <HL>, <LH>, and infrequently bell-shaped <LHL>. The bell-shaped tone occurs in some past imperfective negative forms like *mã: = bá-li-* (§10.2.1.10). Lexical tone **melodies** for non-verb stems are similar: /H/, /L/, /HL/, /LH/, /LHL/, plus one noun stem (likely a borrowing) with /HLH/, *háyèndé* ‘index finger’. Apparent /HLHL/ nouns like *sátèl-iyè* ‘tree sp. (*Bauhinea*)’ are segmentable.

Unlike most Dogon languages, which require at least one lexical H-tone in each stem, the /L/ melody is not only allowed but rather common in YD with noun and other non-verb stems. It could be argued that they are lexically /L/+H with a final floating H-tone that is realized on certain following morphemes, namely animate plural suffix *-mù* and the ‘it is’ enclitic *= : .*. The latter prolongs the word-final vowel and adds a terminal pitch decline (§11.2.1.1). There are actually two tonal subtypes of animate nouns, only one of which raises plural *-mù* to *-mú* (§3.7.1.3). Both subtypes show a pitch rise in the prolonged vowel before the terminal low pitch in the ‘it is’ form, resulting in a bell-shaped pitch contour. The analytical difficulty is deciding whether to posit lexical /L/+H with floating H-tone for one or both of the L-toned subtypes, or to account for at least some of the suffixal/enclitic H-tones by Rhythmic Tone-Raising.

Verbs have several lexical melodic classes, defined by the relationship between the tone of the bare stem and that of certain inflected forms, prototypically the perfective negative.

The classes defined in this fashion are /H ~ H/ associated with initial voiceless consonant, plus a remarkable range of at least partially L-initial classes: /LH ~ LH/ associated with stem-initial {*l n*}, /LH ~ L/ associated with other initial voiced consonants, and /H ~ L/ associated with stems that are either very light (*Cv*) or very heavy (e.g. *Cv:Cv*) and that begin with a voiced consonant. It may be possible to reduce /H ~ L/ to /LH ~ L/ by proposing phonological rules that flatten <LH> syllables to H-toned (§3.7.5.1-2). However, there is no persuasive way to reduce all verbal classes to simple lexical melodies like those of nouns, i.e. /H/, /L/, and so forth.

As in other Dogon languages, lexical tone melodies of all stem-classes are subject to partial modification or complete erasure by superimposed tone **overlays**. For example, possessums (i.e., possessed nouns) preceded by a possessor have an overlay, usually {L} but sometimes {H} or {LH}, depending on the type of possessor and (for kin terms) lexical features of the possessum. This is **tonosyntax**, where a categorially defined controller imposes a tone overlay on a targeted word or word string, based primarily on the syntactic categories (noun, adjective, possessor, etc.) of the controller and target. Tonosyntax is most developed within NPs, including relative constructions. Dogon NP tonosyntax is analysed in detail from several angles in Heath & McPherson (2013), McPherson & Heath (2016), and Heath (2015). There is also a considerable amount of **tonomorphology** especially in verbs, insofar as inflectional categories (suffixal or not) modify lexical melodies of verb stems.

In addition to the possible presence of /L/ melodies, there are two other features of YD that challenge the Dogon-wide model of NP tonosyntax presented in the articles referenced above. The first is the fact that the individual words in multi-word NPs, including nouns, adjectives, and numerals, are more complex morphologically and are heavier prosodically (e.g. trisyllabic as opposed to bisyllabic) in YD than comparable words in NPs in other Dogon languages. This makes it more difficult in YD than in other Dogon languages to pronounce multi-word NPs such as N-Adj-Num sequences in a prosodically seamless fashion. The effect is that YD multi-word NPs can be articulated in a prosodically chunky fashion. In particular, YD numerals (which have syllabic prefixes not found in other Dogon languages) are somewhat resistant to being tone-dropped.

More importantly, YD has a process of **Rhythmic Tone-Raising** (§3.8.4.2) whereby the first syllable of an L-toned stem or morpheme shifts to H-tone after an L-toned word or morpheme, schematically $L\#LL \rightarrow L\#HL$. This process frequently conflicts with Dogon-style tonosyntax, which otherwise favors long L-toned sequences.

I have done my best to indicate how Rhythmic Tone-Raising interacts with tonosyntax, but further work on this subject is desirable. The other Dogon language known to have a similar mix of rhythmical tone patterns and categorially-controlled tonosyntax is Tomo Kan, well to the south and not closely related genetically to YD.

2.1.3 ATR harmony

I refer to the opposition of {*e o*} to {*ɛ ɔ*} in Dogon languages as ATR (advanced tongue root). This may or may not be phonetically correct; an alternative possibility is that the difference is

one of height. Dogon languages generally require ATR harmony within stems, and often within words (including suffixes).

ATR harmony in YD is not so absolute. In particular, especially in the speech of older persons, when the medial consonant is a nasal *N* there is a three-way opposition of *CeNe*, *CɛNe*, and *CeNẽ*, and likewise of *CoNo*, *CɔNɔ*, and *CoNɔ̃* stems. The unusual, disharmonic member of each trio has a +ATR vowel before the medial nasal but a -ATR vowel following it (*CeNẽ*, *CoNɔ̃*). There is a diachronic explanation for the divergence of YD from the normal Dogon harmonic requirement for stems; see §3.4.5.

Other Dogon languages in which nasal consonants have disrupted ATR-harmony are Toro So varieties, including Yorno So of Yendouma village, but the details are quite different and the developments may have been independent.

2.2 Inflectable verbs

In addition to underived verb stems, there are stems derived from other verbs by a *-Cv* suffix: reversive *-lv*, causative *-mv*, mediopassive *-yv*, transitive *-dv* (chapter 9). “v” here represents a variable short vowel. Many verbs occur with paired mediopassive and transitive forms, others have just simple verbs and mediopassive derivatives (§9.3).

Verbal inflectional categories (chapter 10) are indicative and (deontic) modal. Indicative categories are expressed by AN (aspect-negation) suffixes, which follow any derivational suffixes. The core of the indicative system is a four-way split: perfective positive, imperfective positive, perfective negative, and imperfective negative. Perfective positive is unmarked (no AN suffix) but has a distinct vocalic form (E-stem), and it is usually preceded by realis proclitic *yà*. The other categories have overt AN suffixes. For example, the mediopassive verb ‘sit (down)’ has perfective *óbí-yé-*, imperfective (3Sg) *óbì-yò-m-ù-*, perfective negative *óbí-yó-lì-*, and imperfective negative *òbì-yò-nán-*. A final pronominal-subject suffix is added.

Two perfect categories (experiential, recent) are associated with the perfective, and an immediate future is associated with the imperfective. Progressive is expressed by a periphrasis with ‘be’, ‘have’, or ‘hold’ as auxiliaries (§10.5.2).

Some active (i.e. aspect-marking) verbs, including stance verbs, have stative forms, derived by vocalic changes and by deletion of a mediopassive suffix, that are aspectually neutral (§10.5). For ‘sit (down)’ the stative is *òbò* ‘be sitting (=seated)’. There are also some defective, stative-only quasi-verbs (‘be’, ‘have’, ‘be in’, ‘want’) (chapter 11).

Active verbs have the following modal forms: imperative, prohibitive (=negative imperative), hortative, and hortative negative. For example, ‘sit’ has imperative *óbí-yó* ‘sit down!’ and hortative *óbí-yó-mà* ‘let’s sit down!’ These forms are also used, without morphological change, as quoted modals (e.g. ‘X told Y to sit down’), and in imprecations.

2.3 Noun phrase (NP)

For unpossessed NPs, the basic linear order is Poss-N-Adj-Num-Rel-Det-‘all’. For the way the NP is reconfigured in a relative clause (-Rel-), see §2.7 below.

Within NPs, adjectives and demonstratives control {L} tone overlay on preceding words, but numerals, definite markers, and the ‘all’ quantifier do not. This fits the typical Dogon tonosyntactic distinction between reference restrictors (i.e. intersective modifiers) and other modifiers. For example, *ʔóló* ‘house’ drops its tones (superscript ^L) before a controller in *ʔàlò^L pèy* ‘old house’, but not before a non-controller in *ʔóló gè* ‘the house’ or in *ʔóló yè-kúlé* ‘six houses’.

There is a morphosyntactic distinction between kin terms (inalienable) and other nouns (alienable). Pronominal possessors precede possessed kin terms, as in *mì^H ní:* ‘my mother’. Nonpronominal possessors require a resumptive pronominal possessor before a kin term: *sǎydù [nà^H ní:]* ‘Seydou’s mother’. Alienable nouns usually just juxtapose a preceding nonpronominal possessor, but these nouns have special postposed pronominal possessors that include an animacy-number classifier (§6.2.2): *sǎydù^L ʔàlò* ‘Seydou’s house’, *ʔóló ó-ŋ* ‘your-Sg house’. Preposed, but not postposed, possessors control tone overlays on the possessum, indicated by superscripts at the left edge of the possessum. A genitive marker *ŋ* follows preposed nonpronominal possessors, obligatorily when the possessum is blank and under limited conditions when the possessum is overt (§6.2.1.2).

See chapter 6 for detailed analysis of NPs.

2.4 Case-marking and PPs

There is no case-marking of subject NPs, but there is a postposition-like accusative marker especially for definite animate objects *-ì: ~ -ỹ* (§6.7), realized as a suffix (or enclitic) on the NP-final word.

Postpositions include dative *bèrⁿà*, instrumental-comitative *mì ~ mí:* ~ *mí*, locatives *nà* and *bà* distinguished by distance, benefactive *-ŋ*, and purposive *dàn*. More precise spatial relationships are expressed as composite postpositions, as in *[X jìdè] nà* or *[X jìdè] bà* ‘in front of X’. Chapter 8 has full details.

2.5 Main clauses and constituent order

Linear order is SOV when both subject and object are nonpronominal NPs. For example, ‘a child hit my dog’ is expressed as ‘child [dog my Def] hit-Pfv-3SgSbj’, for markup see (715b) in §18.1.4.1. Adverbs and adverbial phrases occur in various preverbal positions. Verbs have suffixal marking of aspect (perfective-imperfective plus several subcategories thereof), plus negation and mood (indicative, imperative, hortative). In main clauses, verbs are also marked by final-position suffixes for subject pronominal category. For relative clauses, see §2.8 below.

2.6 Verbal nouns

There are two morphological verbal nouns, one in *-lé* and one in *-y ~ -u* (§4.2.2). Verbal-noun phrases can function as complements of certain higher verbs with senses like ‘dare’, ‘cease’, and ‘forget’ (§17.3). Verbal noun complements may include non-subject NPs such as direct objects, either in their main-clause form or incorporated as compound initials.

2.7 Focalization

Each AN category has a special verb form for subject focus. The subject-focus form is similar to the corresponding conjugatable stem, but it is L-toned and it lacks the usual pronominal-subject suffix. There are no participial suffixes (§13.1.2).

Nonsubject focus is much less clearly marked, but there are some clues that it is present: L-toned form of verb (this time with pronominal-subject suffix), and absence of realis particle *yà*.

2.8 Relative clauses

The main part of the head NP, consisting maximally of a Poss-N-Adj-Num, appears inside the relative clause and is subject to tone-dropping. The head NP is seemingly bifurcated, as its determiners and non-numeral quantifiers follow the verb of the relative clause. A better analysis is that NPs have the maximal structure Poss-N-Adj-Num-Rel-Det-‘all’, where “-Rel-” is a clause containing an NP coindexed to the higher NP. The string (maximally Poss-N-Adj-Num) that precedes the relative clause moves into the relativization site.

Instead of the usual main-clause verb, a special relative form of the verb occurs in relatives. In most inflectional categories, there is no actual agreement with either the head NP or the subject, so I do not label it as a participle. However, the imperfective positive relative verb form (§14.1.7.2) does show agreement with third person categories (animacy, number). Since pronominal subjects are not expressed on the relative verb, they are expressed by separate pronominal forms proclitic to the verb.

There is no relative morpheme in the clause-internal head NP or at the end of the clause, except for the special morphological features of the relative verb.

2.9 Interclausal syntax

VPs are easily chained. There are direct chains, where nonfinal verbs (perhaps with complements or adjuncts) occur as bare stems that are followed by a single inflected verb, forming what amount to verb-verb compounds (§15.1). Some verbs, like *bèlé* ‘get’ in the sense ‘be able to, can’, are specialized as final stems in direct chains and can combine with a wide range of preceding VPs (§17.4).

Various subordinators occur in looser combinations of two VPs or entire clauses. The subordinators specify whether two eventualities are chronologically sequenced or

simultaneous, and whether the entire sequence has been completed or is off in the future. There is also a partial distinction between same- and different-subject subordinators. For example, the same-subject nonpast anterior subordinator *-é: ~ -é:* (§15.2.3) occurs in textual passages that describe multiple sequenced actions by the same agent in the future.

Other complement clause types include verbal-noun phrases as mentioned in §2.6 above, purposive clauses, and ordinary main clauses as factive complements (chapter 17).

2.10 Anaphora and quotations

Third person anaphoric pronoun *á* can function as a third-person reflexive coindexed with the clausemate subject (§18.1), as a logophoric coindexed with the quoted speaker/thinker (§18.2.1), or to mark coindexation of the subjects of a relative clause and a higher main clause (§18.2.2). Anaphoric pronouns are not widely used with 1st/2nd person antecedents.

Quoted clauses keep the original indicative or modal category in verbal morphology, but make changes in pronominal-subject marking of indicatives (§18.2.1.2). These clauses have no real pronominal-subject suffixation on the verb. Instead, the subject (even pronominal) is expressed by an overt clause-initial pronoun, followed by a quotative particle. Instead of regular pronominal-subject suffixation, the verb has just two possibilities: logophoric-subject *-m* (pseudo-1Sg) and, when the subject is not coindexed to the quoted speaker/thinker, a zero-suffix form (pseudo-3Sg) (§18.2.1.2).

3 Phonology

3.1 Internal phonological structure of stems and words

3.1.1 Syllables

In native Dogon vocabulary, most syllables are *Cv* with a short vowel; word-initially the *C* position may be empty. I use “v” for any short vowel and *v:* for any long vowel; there is no *v* consonant (voiced labial fricative) in the language so hopefully there will be no confusion.

CvC syllables typically end in a sonorant {*m n l*}. Word-final *Cvm*, *Cvn*, *Cvŋ*, and *Cvl* can in some cases be shown to derive synchronically from /*Cvmu*/ etc. with a final /*u*/ that apocopes. A good example of this is the bare-stem form of *u*-final verbs, where e.g. *sál* (</*sálu*/) ‘grind coarsely’ is parallel to e.g. *ábú* ‘accept, receive’, showing that apocope of a final /*u*/ is sensitive to the preceding consonant (§10.2.2.4).

Long *Cv:* syllables are rare in native vocabulary except in monosyllabic stems and postpositions. Unsuffixed bisyllabic *Cv:Cv* stems are typically loanwords, especially from Fulfulde (directly or via Jamsay). There are also some suffixally derived *Cv:-Cv* and *Cv:-NCv* verb stems that reflect contraction of **CvCv-* to *Cv:-* after deletion of an intervocalic consonant (§3.5.4.6, §9.3.1.5).

3.1.2 Metrical structure

In the sequence *CvCvCv*, the medial syllable from the left may be metrically weak. This is most evident in some types of trisyllabic verbs, whose second vowel is a short high vowel (§10.2.3.1). It may also be at work in syncope (§3.5.3.4) and truncation (§3.5.4.7) in suffixed /*CvCv-Cv*/ derivatives of verb stems. In many syncope-truncation examples it is difficult to determine whether weak metrical position or simple stem-final position is the trigger, since they often coincide. However, the syncope of *i* between *g* and *y* in *táj-jé* ‘put on (shoes)’, compare *tágí-lé* ‘take off (shoes)’, combined with the failure of syncope to apply to the same /*giy*/ sequence in *wèzú-gí-yé* ‘become crazy’, suggest that metrical weakness is a factor in syncope. See discussion of (31) in §3.5.3.4 below.

Rhythmic Tone-Raising (§3.7.4.2) is also “metrical” in a sense, but it occurs at morpheme and word boundaries rather than in, say, alternate syllables within a word. Its most powerfully rhythmical effects occur when it applies recursively left to right in sequences of verbal suffixes and enclitics, which seemingly polarize to each other, e.g. *-zé = bè* after L-tone versus *-zè = bé* after H-tone in recent perfect subject relatives (577b,d).

3.1.3 Prosodic weight

Prosodic weight (light versus heavy stems) is not a major factor in YD morphophonology. It is true that *Cv*, *Cv̄*, *CvCv̄*, *Cv̄NCv̄*, and *CvCv̄Cv̄* stems (for example) behave differently in their manifestations of lexical tone melodies and grammatical tone overlays, but this is largely attributable to the fact that contoured melodies and overlays may run out of moras and syllables capable of bearing their component tones in the shorter stems, so the full pattern is only observable with longer ones. A complicating factor is that initial heavy syllables, as in *Cv̄NCv̄*, may reject syllable-level rising tones that would otherwise be expected, so that where we might expect LH-toned the actual form is entirely H-toned.

Derived statives have a strong bimoraic target, typically *CvCv̄* or *Cv̄NCv̄*. This target is not too short, and not too long, a kind of “Goldilocks” prosodic weight. Derived statives either drop or keep input mediopassive suffixes in order to achieve this norm (§10.5). The nonpast durative subordinated clause with verbal suffix *-n* has a similar bimoraic target (§15.3.5).

3.2 Consonants

The consonants of YD are in (3). Parentheses and double parentheses indicate marginal and very marginal segments, respectively. The inventory is similar to that of other Dogon languages such as Jamsay, except for the presence of *z* and *ʔ*. There is no *v* consonant (voiced labial fricative); the symbol *v* is used throughout this work to denote a variable vowel.

(3) Consonants

	1	2	3	4	5	6	7	8	9	10
labial	<i>p</i>	<i>b</i>	<i>m</i>	<i>(f)</i>			<i>w</i>	<i>((wⁿ))</i>		
alveolar	<i>t</i>	<i>d</i>	<i>n</i>	<i>s</i>	<i>z</i>	<i>l</i>	<i>r</i>	<i>rⁿ</i>		
alveopalatal	<i>c</i>	<i>j</i>	<i>ɲ</i>	<i>((š))</i>	<i>((ž))</i>		<i>y</i>	<i>yⁿ</i>		
velar	<i>k</i>	<i>g</i>	<i>ŋ</i>							
laryngeal									<i>(h)</i>	<i>ʔ</i>

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

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

All full-fledged consonants except glottal stop *ʔ* occur intervocalically within stems. The taps {*r rⁿ*} only occur intervocalically. Other sonorants except *yⁿ* occur syllable-initially and to some extent syllable-finally, as well as intervocalically.

3.2.1 Alveopalatals (*c, j*)

I found no consistent distinction between *c* and *k*, or between *j* and *g*, before front vowels {*i e ε*}. I generally heard an affricated release in words like *jìdè* ‘eye’ and *cìn* ‘stone’, and therefore favor the “affricate” symbols {*c j*} in transcription. However, the affrication is often slight.

Before other vowel qualities the difference between {*c j*} and {*k g*} is clear. *c* is rare before non-front vowels; it appears mainly in loanwords (e.g. from Fulfulde). *j* is common at stem-suffix boundaries in verbal derivation, where it represents fortition of /y/ in mediopassive *-yV-* after a nasal or stop (a pre-surface cluster resulting from syncope), as in *táj-jé* ‘put on shoes’, cf. reversive *tàgí-lé* ‘take off shoes’.

Intervocalic affricates *j* and *c* are not common, especially in *CvCv* stems. Intervocalically, *jj* rather than ungeminated *j* is typical. However, the phonetic difference between *Cvjv* and *Cvjv* is slight because of the fortis pronunciation of even ungeminated *j*, and the same is true of *Cvcv* versus *Cvccv* with voiceless affricate *c*. *hácè* ‘sin’ (< Fulfulde *hakke*) and *wéjù* ‘change (noun), money back’ (< Fulfulde *wecc-*) appear to have degeminated their medial affricates. The only geminated/ungeminated minimal pair that I know is *pòjù* ‘cross-poles’ and *pòjjù* ‘act of brushing against’ (verb *pójjó*). Other bisyllabic stems with ungeminated medial *j* are *íjé* ‘be used up’ and *zòjì* ‘sprain (n)’. Medial geminate *jj* occurs in *pójjó* ‘brush against’, *kójjó* ‘cling to’, and *éjjé* ‘reappear’. One suspects that these cases of *jj* reflect original suffixal derivatives, as they do in e.g. *ój-jé* ‘get hot’ and *gój-jó* ‘carry on/over shoulder’.

3.2.2 Spirantization *g* → *y* (absent)

I did not observe noticeable spirantization of *g* to [ɣ] between back/low vowels, as in *wágà* ‘leather baggage container’ and *ógó* ‘umbilical cord’. This is consistent with YD’s retention of intervocalic voiced stops like *d*.

3.2.3 Nasals (*ŋ n*)

Velar *ŋ* and palatoalveolar *n* are distinct before {*i e ε*} as well as before back and low vowels. Examples of this opposition before *i*: *áníí-yé* ‘became small’ versus *ʔání-yé* ~ *ʔí:ní-yé* ‘stop (halt)’. Before *e*: *dèné* ‘chop’ versus *cì-ʔèné* ‘what?’. Before *ε*: *tíné-* ‘become’ or ‘pass’ versus *ʔéné-* ‘ate’.

n occurs initially in several words, e.g. *něm* ‘reins’. I know of no words with initial *ŋ*.

Intervocalic *n* at the beginning of a second syllable from the left, as in *pánú* ‘skin and butcher (animal)’, is often articulated with a little extra duration. I initially transcribed such cases with *nn* but revised the transcription to *n* after finding no oppositions and after an assistant denied lengthening. Intervocalic *n*, especially in *Cvny*, is usually from **nd* via **nn*, while original intervocalic **n* is usually realized as *rⁿ*. For *pánú* ‘skin and butcher’, compare Nanga and Bankan Tey *pándí* and Ben Tey *pálí*.

3.2.4 Voiceless labials (*p f*)

p occurs in numerous basic words, generally stem-initially, e.g. *pè:* ‘sheep’, *púlá* ‘Fulbe (=Pullo) person’, *pòndò* ‘earth’, *pílé* ‘fall (v)’, *pílè* ‘white’, and *píyé* ‘ten’.

f occurs in a few loanwords like *furnô:* ‘burner’ (French *fourneau*). The regionally widespread emphatic ‘all’ particle is usually pronounced *pú→* rather than *fú→* (§6.6.1).

3.2.5 Laryngeals (*h ʔ*)

h is limited to a few loanwords, chiefly from Fulfulde. It occurs only word-initially: *hámpé* ‘put wad of chewing tobacco into one’s mouth’, *hédá-li-* ‘pass away’ (negative in form), *hókkò* ‘livestock’s night quarters in the bush’, and *hó:lâl* ‘trust (n)’.

Glottal stop *ʔ* occurs word-initially in a number of bisyllabic stems and in one bisyllabic pronominal possessor morpheme (4). This is a distinctive feature of YD within Dogon.

(4)	form	gloss
	a. H-toned syllable	
	<i>ʔóló</i>	‘house’
	<i>ʔəpé</i>	‘eat (meal)’
	<i>ʔəpé</i>	‘right (hand)’
	<i>ʔənè</i>	‘goat’
	<i>ʔəjí-yé</i>	‘stop’ (~ <i>ʔí:jí-yé</i>)
	<i>ʔólé</i>	‘go up’
	<i>ʔəwá:l</i>	‘Ogol’ (village name)
	<i>ʔənárⁿà</i>	‘iron, metal’
	b. L-toned syllable	
	<i>ʔəlè</i>	‘ripe, cooked’ (cf. verb <i>ʔəlè</i> ‘ripen, be cooked’)
	<i>ʔəyⁿàyⁿ</i>	‘hard’
	c. pronominal	
	<i>ʔəmó</i>	‘1Sg possessor’

These forms can be pronounced with a brief schwa-like vowel between the glottal stop and the following consonant, which is always a sonorant. Alternatively the glottal stop may be essentially clustered with the following consonant, as in the *ʔló* variant of *ʔóló* ‘house’. In the common 1Sg possessor form *ʔəmó*, which follows the possessed noun, the glottal syllable is often elided in allegro speech.

I use a bisyllabic transcription since the glottal syllable can carry a tone distinct from that of the following syllable. This is the case in imperfective forms of the verbs in (4a-b), e.g. *ʔəpà-m-ù* ‘he/she eats (meal)’ (§10.2.2.2).

3.2.6 Sibilants (*s*, *z*)

s and *z* are distinct phonemes, contrasting both stem-initially and intervocalically.

Examples of stem-initial *s* are *sá:gè* ‘8’, *sòm* ‘horse’, and *símbó* ‘roast’.

Examples of stem-initial *z* are *záŋ* ‘fight (n)’, *zòji* ‘sprain (n)’, and *zí* ‘discussion’.

Examples of intervocalic *s* are *àsògò* ‘splinter-like young millet chaff’, *ín-kòsì* ‘buck teeth’, and *isìyà* ‘sneeze (v)’.

Examples of intervocalic *z* are *tázù* ‘straw basket’, *izà-é* ‘grain of millet’, and *sózôŋ* ‘lumps in porridge’.

Medial clusters *nz* (and *nj*) occur, but not *#ns*. An example of *nz* is *dànzó* ‘re-open (wound)’.

z is absent from most Dogon languages. The languages other than YD that do have it are Toro Tegu, Bankan Tey (Walo village), Gourou (Jamsay dialect), and Tebul Ure. *z* in these languages often corresponds to affricated *j* in the other languages. For example, ‘fight (n)’ begins with *z* in Toro Tegu *zòŋgò*, Bankan Tey and Gourou *záy*, Tebul Ure *zégé*, and YD *záŋ*. It begins with *j* in Ben Tey *jáy*, Nanga *jóriyè*, Jamsay *jéy* (Pergué dialect *jáy*), Tommo So *jáw*, Donno So *jâw*, Yorno So *jây*, Togo Kan *já*, Dogul Dom *já:lù-g*, Najamba *já:ŋí-n*, Mombo *jó:ⁿ*, and Penange *jòyⁿ*. The initial consonant is *n* in Bunoge *nòŋgò*, and *y* in Tiranige *yàŋù*. The *z/j* split cuts across normal intra-Dogon genetic subgroups.

I did not observe [ʃ] as a regular allophone of *s*, or [ʒ] as a regular allophone of *z*, before front vowels.

3.2.7 Nasalized sonorants (*rⁿ*, *yⁿ*, *wⁿ*)

Nasalized sonorants do not occur word-initially.

Suffixal *-y* and *-w* do not noticeably nasalize after a nasal-plus-vowel syllable. Thus perfective *dèŋé-y* (1Pl) and *dèŋé-w* (2Sg) ‘chopped’ do not significantly nasalize the suffixal semivowels independently of the influence of *ŋ*.

3.2.7.1 *wⁿ* is rare and doubtful

This phoneme is quite rare and even the two candidates I have are compromised. The bird name *kàngàrⁿâwⁿ* ‘black-bellied bustard’ is onomatopoeic, and its *wⁿ* is the coda of a syllable that begins with another nasalized consonant. The verb *só:ⁿ* ‘douse (fire)’ has an A/O-stem that I have transcribed *sówⁿa*, as in perfective negative *sówⁿá-lì-*, but it might be better transcribed *sóⁿa:-*, parallel to e.g. A/O-stem *sóá:-* ‘peck’ (§10.2.1.11).

3.2.7.2 r^n

r^n (nasalized tap) is autonomous of other nasals in some words. In others it has arguably been secondarily nasalized from oral tap r to r^n due to a preceding Nv with some nasal or nasalized consonant N (§3.5.1.1-2 below). r^n is always intervocalic (5).

(5) Examples of r^n

form	gloss
a. autonomous	
<i>bèrⁿà</i>	‘middle, interior’ (cf. §8.2.5)
<i>zèrⁿà</i>	‘rainy season’
<i>dàrⁿá</i>	‘head’
<i>dèrⁿé</i>	‘spend day’
<i>à:rⁿá</i>	‘when?’
<i>tèw-sé:rⁿè</i>	‘falcon’
b. after another nasal	
<i>nà:rⁿà</i>	‘easy, cheap’
<i>nèrⁿá</i>	‘paternal aunt’
<i>mìrⁿé</i>	‘swallow(v)’
<i>tóŋòrⁿò</i>	‘tree sp. (<i>Bombax</i>)’
<i>ìzù-céŋèrⁿè</i>	‘catfish sp. (<i>Synodontis</i>)’

Alternations between n and r^n reflect the fact that / r^n / is forced to shift to n in syllable-final (i.e. preconsonantal or word-final) position, after syncope.

An example of this is the common verb ‘go’. Some of its forms are based on a segmental sequence $un-$, either word-finally or preceding a C -initial suffix: bare stem $ún$, perfective negative $ún-lì-$ ‘did not go’. However, whenever the stem consonant is intervocalic, as in perfective $úrⁿé-$ ‘went’ (§10.2.1.8), r^n usually appears instead of n . Other verbs with similar $n \sim r^n$ alternations are $zín$ ‘take away’ and $sín$ ‘become sated (=full after eating)’. See §10.2.1.12 for more data and discussion.

The adjective for ‘red’ is $băn$ (animate plural $băn-mù$). It belongs to a word family that includes the inchoative verb $băn$ ‘become red’, a stem of the u -final verb class. The lexical form of this verb is / $bàrⁿú$ /, whose / u / apocopates to produce $băn$. Other paradigmatic forms bring out the underlying $CvCv$ shape, e.g. perfective negative $bàrⁿà-lí-$ ‘did not become red’. Even the adjective $băn$ occurs in 1Sg and 2Sg subject predicative forms like $bàrⁿú=m$ ‘I am red’ that show r^n between vowels. The historically compound noun $ìzù-bàrⁿà$ ‘hot season’ contains a final that is related to the ‘red’ word family.

In the **imperfective negative** form of verbs, an assistant fluctuates between $-nán-$ and $-rán-$ in all cases where the verb ends in a vowel. Only for the two n -final verbs did he insist on the $-nán-$ variant ($ùn-nán-$ ‘will not go’, $zín-nán-$ ‘will not take away’); this is predictable since r (like r^n) cannot occur as second member of a cluster. The n/r

alternation here may have originated as an alternation between *-nán- and *-rⁿán-. If so, the *-rⁿán- variant lost its initial nasalization feature, which may have been difficult to hear in view of the following *n*.

3.2.7.3 *yⁿ*

yⁿ can occur syllable-finally (hence word-finally) as well as intervocally within a word, whether or not there is a preceding nasal consonant. Indeed, *yⁿ* is mostly word-final (6a-b), though it also occurs in a number of pronominal and demonstrative forms as a partially segmentable final animate singular or inanimate plural morpheme *-yⁿè* (6c).

(6) Examples of *yⁿ*

form	gloss
a. autonomous	
<i>tòyⁿ</i>	‘deep’
<i>ʔàyⁿàyⁿ</i>	‘hard’
<i>déyⁿ gà</i>	‘apart’ (§8.4.7.2)
<i>gòyⁿè</i>	‘elephant’
<i>wàyⁿ</i>	‘spacious’
<i>bàndéyⁿ</i>	‘sparrow, finch’
<i>àyⁿ</i>	‘Nile monitor lizard’
<i>èndèkúyⁿò</i>	‘striped ground squirrel’
<i>bàràmatònzòyⁿ</i>	‘tiny mouse sp.’
<i>cěyⁿ-càyⁿ</i>	‘tree sp. (<i>Cassia</i>)’
<i>wàyⁿà</i>	‘tree sp. (<i>Pterocarpus</i>)’
b. after another nasal	
<i>màyⁿ</i>	‘dry’
c. grammatical	
<i>ɔ-yⁿè</i>	‘your-Sg’ (animate singular, §6.2.2)

In perfective *màyé-* from verb *mă:* ‘make (brick)’, the *y* is essentially epenthetic and phonetically faint. It is not nasalized, but I am reluctant to consider it a true counterexample to the tendency for *y* to nasalize to *yⁿ* after a nasal.

3.2.8 Consonant clusters

3.2.8.1 Word- and morpheme-initial CC clusters

Three complex onset types are discussed here: a) nasal plus consonant initials (*nC...*), b) glottal initials, and c) *Cw...* initials.

Some cases of nasal plus homorganic stop (hereafter **nC-initial** stems) are attested as variants, perhaps reflecting historical loss of initial *i. *ńdɛ́* ‘give’ has no other variant, and some of its cognates likewise begin with *nd* (Tebul Ure *ńdì*, Najamba *ńdɛ́*, Nanga *ńdí*, cf. Ben Tey and Bankan Tey *ńí*). The nasal is capable of carrying a tone distinct from that of the following full syllable, as in ‘water’ and in the imperative of ‘give’.

- (7) a. verbs
- | | |
|-------------------------|---------------------------------|
| <i>ńdɛ́</i> | ‘give’ (imperative <i>ńdí</i>) |
| <i>ńgílɛ́ ~ ńngílɛ́</i> | ‘get up’ |
- b. nouns
- | | |
|------------------|---------|
| <i>ńjú ~ ńjú</i> | ‘water’ |
| <i>ńjê ~ ńjê</i> | ‘dog’ |

Glottal-initial stems like *ʔóló* ‘house’ might also be analysed as beginning with a cluster (*/ʔlól/*), since the schwa is probably epenthetic and is not always heard (§3.2.5, above). However, the glottal syllable may carry a tone distinct from that of the following full syllable in certain paradigmatic forms of glottal-initial verbs.

Some bisyllabic *nCv* and *ʔəCv* verb stems, along with some vowel-initial *vCv* verb stems, have paradigms that appear to mix /H/ and /LH/ lexical melodies. This pattern may be associated with **marginal bisyllabicity**, i.e. with (a subset of) verbs with a noncanonical initial syllable. See discussion of *ńdɛ́*- ‘give’ (§10.2.2.1), *ʔólɛ́* ‘go up’ (§10.2.2.2), and *úbó* ‘pour’ (10.2.2.3).

Cw-initial stems, most of which are actually *Cɔ̃*-initial, include *gɔ̀à:* ‘granary’ and arguably *ʔà:* ‘grass, herbs’. The *ɔ̃* is more open than *w* in e.g. *wàjú* ‘distant’. Several monosyllabic verbs have the shape -ATR *Cɔ̃ɛ(:)-* or +ATR *Cɔ̃ɛ(:)-* in the perfective (§10.2.1.7, §10.3.1.1).

3.2.8.2 Medial geminated CC clusters

Geminated clusters are uncommon except for a few like *ll*, *jj*, and less often *yy* that occur at morpheme boundaries (especially between verb stem and derivational suffix). Within uncompounded stems I can cite the cases in (8). The “n=” column indicates number of examples in my working lexicon. The examples of *gg* and *kk* are loanwords. There are a few native Dogon stems with {*ll mm*}. Since *n* tends to be slightly lengthened phonetically in the position *Cv_v* (which facilitates recognition vis-à-vis *rⁿ*), it would be difficult to hear an opposition of *n* to *nn*. The only clear case of *nn* in ‘here it is!’ is in variation with *mn* and is

semi-opaquely composite. For *mm* versus *m*, note *sómó* ‘impoliteness (e.g. eating before others)’ versus *sómmó* ‘praise, congratulate’.

(8) Geminated *CC*

cluster	n=	example
<i>gg</i>	1	<i>bággàm</i> ‘slightly soured milk’
<i>kk</i>	1	<i>hókkò</i> ‘livestock night quarters’
<i>ll</i>	10+	<i>tíllé</i> ‘exchange’
<i>mm</i>	4	<i>sómmó</i> ‘praise, congratulate’
<i>nn</i>	1	<i>ǎnnà ~ ǎmnà</i> ‘here it is!’
<i>jj</i>	5	see §3.2.1

3.2.8.3 Medial non-geminate *CC* clusters

(9) Medial *CC* clusters

	example	gloss
a. homorganic nasal-stop		
<i>mb</i>	<i>sǎ:mbò</i>	‘Abdim’s stork’
<i>nd</i>	<i>kóndó</i>	‘rock dassie (mammal)’
<i>nj</i>	<i>cènjù</i>	‘agama lizard’
<i>nc</i>	<i>bìncèndè</i>	‘tree sp. (<i>Sarcocephalus</i>)’ (compound?)
<i>ng</i>	<i>àṅgùṅgùrù</i>	‘giant tortoise (<i>Centrochelys</i> , previously <i>Geochelone</i> or <i>Testudo</i>)’
other nasal-obstruent		
<i>md</i>	<i>zámdé</i>	‘termite’
<i>nz</i>	<i>òyè-sènzú</i>	‘shrew (<i>Crocidura</i>)’
<i>ms</i>	<i>yámsà</i>	‘giraffe’
<i>mz</i>	<i>àⁿgùmzò</i>	‘tree sp. (<i>Hexalobus</i>)’
nongeminate nasal-nasal		
<i>mn</i>	<i>ǎmnò</i>	‘monkey’
<i>mp</i>	<i>ámpá</i>	‘aardvark’
<i>nj</i>	<i>bánjò</i>	‘barbet (bird)’ (variant)
<i>l</i> plus consonant		
<i>lb</i>	<i>tà:-célbà</i>	‘bush sp. (<i>Solanum incanum</i>)’
<i>ly</i>	<i>ùlyèm</i>	‘tree sp. (<i>Vachellia (=Acacia) sieberiana</i>)’

consonant plus semivowel

<i>kw</i> (= <i>kɔ̃</i>)	<i>àrⁿàkɔ̀à:</i>	‘bateleur hawk’
<i>ly</i>	<i>pólyám</i>	‘bush sp. (<i>Pergularia</i>)’ (< Fulfulde)
<i>nw</i>	<i>sìnwâ:r ~ sìnwá:</i>	‘eucalyptus’ (loanword)

other

<i>bz</i>	<i>cíbzù</i>	‘tick’
<i>pt</i>	<i>sàptêrè</i>	‘chili pepper’

3.2.8.4 Medial triple *CCC* clusters

I can cite *lmb* in *gǔlmbà* (variant *gùlúmba*) ‘pigeon’, *kǎlmbà* ‘tree sp. (*Piliostigma*)’, and *kólmbó* ‘burrgrass (*Cenchrus biflorus*)’. The other *CCC* clusters are *wnd* in *céwndé* ‘shape (sth) into a faceted form’ and *ynd* in *záyndé* ‘(surface) be shiny’, both of which sound like Fulfulde loanwords although I cannot identify a specific source.

3.2.8.5 Final *CC* clusters

Within a stem, I can cite only *ɲɲ* in *nàɲɲ* ‘(entire) night’. Its antonym *dènùɲ* ‘day’ also ends in *ɲ*, making me suspect that *nàɲɲ* is syncopated from /*nàɲùɲ*/. A similar example is *mì*^{LH} *lǎl-ɲ* ‘for my friend’ with benefactive suffix *-ɲ* (arguably an encliticized postposition, §8.3.1), which can also be pronounced *mì*^{LH} *lǎl-úɲ*. The *u* is synchronically epenthetic, but historically it is what’s left of a stem-final suffix, compare Najamba *mí nǎlè* ‘my friend’.

Suffixally conjugated adjectives can produce more word-final combinations involving 1Sg *-m*, like *gòlòyⁿ-m* ‘I am bigger’ (§12.1.4).

The clusters *lm* and *yⁿm* in adjectival predicates listed in (469c-d), e.g. *tèl-ím bò-* ‘be fast’, are word-final in my transcription. However, the *m* likely syllabifies with the *b* of the auxiliary, and a revised transcription *tèl í(-)bò-* would not be unreasonable.

3.3 Vowels

The vowel inventory is the usual one for Dogon languages: seven short vowels (including a \pm ATR opposition in mid-height vowels only), their long counterparts (much less common), and long nasalized vowels (fairly rare).

(10) short oral long oral nasalized (long)

<i>u</i>	<i>u:</i>	—
<i>o</i>	<i>o:</i>	<i>o:ⁿ</i>
<i>ɔ</i>	<i>ɔ:</i>	<i>ɔ:ⁿ</i>
<i>a</i>	<i>a:</i>	<i>a:ⁿ</i>
<i>ɛ</i>	<i>ɛ:</i>	<i>ɛ:ⁿ</i>
<i>e</i>	<i>e:</i>	<i>e:ⁿ</i>
<i>i</i>	<i>i:</i>	<i>i:ⁿ</i>

There is a tendency to merge short *ɛ* into *e*, and *ɔ* into *o*, in the presence of a nasal(ized) consonant. This tendency may be spreading from Jamsay (where it is rampant) into the speech of younger Yanda people. As an example, I was told that older people carefully pronounce ‘tree’ as *t̃imè*, while many younger people pronounce it *t̃imè* (compare Jamsay *t̃iwⁿé*, Pergué *t̃iwⁿé*). Nasal consonants are also responsible for some unusual mixed-ATR stems, especially verbs (§3.4.1.4).

3.3.1 Short and (oral) long vowels

There is a distinction between *Cv* and *Cv:* monosyllabic stems, though stem-class and vowel quality partially skew the vowel-length possibilities. In (11) the possibilities for verbs are shown; only one example per attested vowel is given.

(11) *Cv* and *Cv:* verb stems

a. *Cv*

<i>wɔ</i>	‘see’	(A/O stem <i>wa-</i>)
<i>gɔ</i>	‘go out’	
<i>yé</i>	‘weep’	(A/O stem <i>ya-</i>)

b. *Cv:*

<i>ká:</i>	‘shave’	
<i>tó:</i>	‘spit’	
<i>té:</i>	‘sprout (v)’	(behaves like / <i>téyé</i> /)

For non-verb stem-classes the attested data are in (12). Short-voweled *Cv* nouns are uncommon and seem to be limited to high-frequency, semantically light stems.

(12) *Cv* and *Cv:* stems (noun, verb, numeral)

a. *Cv*

<i>kí</i> ~ <i>cí</i>	‘thing’
<i>zá</i>	‘meal’
<i>yè</i>	‘woman’
<i>nò</i>	‘person’

b. *Cv:*

<i>nà:</i>	‘foot’
<i>nà:</i>	‘cow’
<i>kà:</i>	‘roan antelope’
<i>kà:</i>	‘grasshopper (generic)’
<i>tà:</i>	‘hyena or leopard’
<i>kó:</i>	‘head’
<i>pè:</i>	‘sheep’
<i>sè:</i>	‘jackal’
^H <i>dé:</i>	‘father (possessed)’
^H <i>ní:</i>	‘mother (possessed)’
<i>kũ:</i>	‘yam (<i>Dioscorea</i>)’ (< Bambara)

In uncompounded stems of two or more syllables, long vowels are generally in nonfinal syllables. Bisyllabic examples are *kè:zù* ‘cold’, *ká:ŋà* ‘pied crow’, *ù:rⁿù* ‘grey monitor lizard’, *bǎ:là* ‘tree sp. (*Vachellia (=Acacia) nilotica*)’, *sé:ndé* ‘balanzan tree’, *pi:zù* ‘mistletoe’, *bò:rò* ‘beetle sp. (*Trachyderma*)’. Examples involving the penult of four syllables (compound or compound-like segmentation): *èrà-sá:rⁿá* ‘earwig’, *ànàsá:rⁿá* ‘white person’ (loanword). Trisyllabic: *àⁿsá:rⁿà* ‘striped tree snake (*Psammophis elegans*)’, *nà-nà:rⁿà* ‘pond scum; spider’.

A few nonmonosyllabic stems do end in a long vowel: *jàbí:* ‘henna’ (loanword), *ǰém-[sì-sí:]* ‘jacana (bird)’ (frozen compound?), *ól-sò:* ‘viper sp.’ (compound < Tommo So), *ènà:* ‘frog’, *sà:yú:* ‘wild fonio grass’. *tùmá* → ‘one’ (§4.7.1.1) has an “intonationally” prolonged final vowel (§3.8.1).

3.3.2 Nasalized vowels

Nasalized vowels are relatively uncommon. The examples in (13) are basic lexical items (including a local toponym) that have a long nasalized vowel. Those in (13b) are loanwords. *bǰ-ê:ⁿ* ‘their’ in (13c) is one of several similar pronominal possessor forms (§6.2.2) that end in *ê:ⁿ*, likely as a result of contraction from e.g. /bó-yⁿè/.

(13) Long nasalized vowels

- a. *zâ:ⁿ* ‘normal, proper’ (§8.4.4.2)
pâ:ⁿ ‘bamboo (*Oxytenanthera*)’
gâ:ⁿ ‘cat’
sâ:ⁿzíyà ‘piapiac (magpie)’
ô:ⁿ ‘crocodile’
ʔəwà:l ò:ⁿ (village name)
sí:ⁿ ‘sharp (blade)’
bì:ⁿ ‘tree sp. (*Sclerocarya*)’
- b. *mílyð:ⁿ* ‘million’
- c. *bɔ̃-ê:ⁿ* ‘their’ (</bó-yⁿê/)

Following a cross-linguistic trend, nasalization is most common with open vowel qualities like {*a ɔ ε*}. Stems with nasalized long *i:ⁿ* like *sí:ⁿ* ‘sharp’ (13a) are glaring exceptions, but this vowel could perhaps be analysed as /iyⁿ/ in these stems.

Possible cases of **short nasalized vowels** involve position before a homorganic sibilant, where there is no phonological distinction between e.g. *vnzv* and *vⁿzv*. I transcribe these phonemically with *n* plus sibilant, but the nasalization is realized on the preceding vowel. Because these sequences occur medially within stems, their phonological structure may not be transparent to native speakers. Examples are in (14), where for example *ðnzð-ðnzð* is heard as [ðⁿzððⁿzð].

(14) Short nasalized vowels

- ðnzð-ðnzð* ‘tree sp. (*Grewia flavescens*)’
mìnzù ‘shea tree (*Vitellaria*)’
sénzà ‘tree sp. (*Cola laurifolia*)’
pénzà ‘vetiveria grass’
òyè-sènzù ‘shrew (*Crocidura*)’

3.3.3 Initial vowels

Stems may begin with vowels. Examples are in (15).

(15) a. short vowels

- àpàn* ‘bird’
ún ‘go’
ízù ‘fish (generic)’
èné ‘child’
émé ‘milk’

<i>óbí-yé</i>	‘sit’
<i>òbà</i>	‘spitting cobra’

b. long vowels

<i>ù:rⁿù</i>	‘grey monitor lizard’
<i>ô:ⁿ</i>	‘crocodile’
<i>è:rⁿè</i>	‘tree sp. (<i>Spondias</i>)’
<i>è:rè</i>	‘wild-pea bush (<i>Boscia senegalensis</i>)’

Initial *i* is sometimes dropped before a nasal-stop cluster in *ínjú* ~ *íjú* ‘water’ and *íngílé* ~ *íngílé* ‘get up’. An initial short high vowel **i* or **u* may have been originally present in the noun *ʔóló* ‘house’ and in glottal-initial verbs like *ʔólé* ‘go up’, to judge by cognates in other Dogon languages.

3.3.4 Stem-final vowels

There is no ban on any stem-final vowel quality at the lexical level. See §3.5.3.3 on Stem-Final *u*-Deletion under certain phonological conditions.

3.3.5 Vocalic harmony (ATR)

Typically in Dogon languages, a stem may have +ATR vowels {*e o*}, -ATR vowels {*ɛ ɔ*}, or neither, but not a mixture of both. Except as noted below, this constraint is valid in YD for non-borrowed verb stems (including some suffixal derivatives), and is generally true of uncompounded non-verb stem-classes. However, many nouns (especially those with three or more syllables) likely originated as compounds, so the constraint does not hold in any strong way for multisyllabic nouns.

An important development in YD is that stems of the original shape **CɛNɛ* and **CɔNɔ*, with -ATR vowels and a medial nasal, have become *CeNe* and *CoNo*. That is, the first vowel has shifted to +ATR under the influence of the nasal, but the final vowel remains -ATR. This cannot now be captured by a synchronic phonological rule, since some new *CeNe* and *CoNo* stems have arisen (generally from proto-forms with medial clusters). So there is now a three-way lexical contrast between *CeNe*, *CɛNɛ*, and *CeNe*, and a similar lexical contrast between *CoNo*, *CɔNɔ*, and *CoNo*. At the lexical level, there are fully +ATR, fully -ATR, and mixed-ATR stems. For the verbs, these lexical contrasts then feed into, and are partially neutralized by, ATR stem modifications required by derivational or inflectional morphology.

In the rules for vowel sequencing possibilities in verb stems, high vowels {*i u*} may co-occur with vowels of either ATR class. Therefore high vowels are taken here as extraharmonic. Readers are free to attribute covert ATR values to them in particular stems, based on which other vowels occur. However, this seems rather circular and I avoid it.

The relationship of *a* to the ATR system is complex. In some respects, *a* tilts toward +ATR. For example, verbs have an A/O-stem such that stem-final -ATR {*ɛ ɔ*} converge as *a*,

while +ATR {*e o*} remain unaffected or converge as *o*. One interpretation of this is that stem-final vowels shift to +ATR and toward the back/low region. This suggests an association between *a* and +ATR.

More concrete evidence for the +ATR association of *a* is the fact that the E-stem of verbs, which ends in *ε* or *e* depending on the lexical [ATR] class of the stem, appears as +ATR *e* rather than *ε* (unless shifted from *e* to *ε* by a preceding nasal) in stems with *a*-vocalism. This applies to *Ca*: stems and to *u*-final stems with shapes like *CaCu*, arguably /*CaCa*/ with the final /*a*/ shifted to *u*. Thus perfective *káyé* ‘shaved’ from *ká:*, and *námé* ‘stepped on’ from *u*-final *námú*. There are no stems with all high vowels, so the E-stem test cannot be applied to high vowels.

However, the same *u*-final stems have suffixal derivatives with -ATR vowels {*ε ɔ*} in the suffix. This applies even to those derivational suffixes whose vocalism elsewhere harmonizes with the ATR value of the input stem. Thus mediopassive *bàmbí-yé* ‘carry on back’ (stem /*bàmbá-*/) rather than #*bàmbí-yé* (compare *sé:-yé* ‘flip [intr]’), transitive *tá:-dé* ‘put shoes on (someone)’ (stem /*tágá*/) rather than #*tá:-dé* (compare *sé:-dé* ‘flip [tr]’), and reversive *tál-lé* ‘(something affixed) be removed’ (stem /*tágá*/) rather than #*tál-lé* (compare *míl-lé* ‘unbraid’).

Therefore while high vowels {*u i*} are truly neutral (extraharmonic), *a* seems to play both sides in different morphological contexts.

3.3.6 Vocalic sound symbolism

As in other Dogon languages, there are some cases where vowel-quality shifts in an otherwise constant consonantal and syllabic frame are suggestive of size symbolism, with *e* and *ε* favoring diminution or reduced intensity. The examples involve verb stems and expressive adverbials. A detailed study has not been made specifically of YD sound symbolism. Among regular verbs, I can cite *pólló* ‘pull off (e.g. head of seared chicken); break apart (two joined objects)’ versus *péllé* ‘pull off (twig)’ and *péllé* ‘break up (meat, bread) by hand’, which resemble Jamsay forms. For expressive adverbials, *pétè→* and *pátà→* both mean ‘flat and broad’ with different nuances (281e); these too have Jamsay counterparts. Among onomatopoeic expressive adverbials, see *kàyàw-kàyàw kán* and *kòyòw-kòyòw kán*, which represent slightly different crunching sounds, in (288a).

Mention may also be made here of a rhythmically-based vowel-quality alternation, either of an X-A or tripartite X-A-X pattern, where the second element shifts all vowels, or just its first vowel, to *a*. See §8.4.7.6 for examples and discussion.

3.4 Phonology of verb-stem vocalism

3.4.1 Bare stem, E-stem, A/O-stem, U-stem

Verbs take different forms in the various AN categories, the differences being expressed in the stem-final vowel, which I will focus on in this section. First, there is the **bare stem**, which occurs in verb chains before some AN suffixes. There is an **E-stem** in the perfective

(positive) that always ends in *e* or *ɛ*, the choice depending on the ATR-harmonic class of the verb. Finally, there is an **A/O-stem** found in several AN and modal categories. It shifts stem-final -ATR {*ɛ ɔ*} to *a*, and (to varying extents) stem-final *e* to *o*. The latter shift is obligatory in the imperative and the derived stative, both of which are unsuffixed (so the A/O-stem and the tones are the only indicators of the category). The shift *e* to *o* does not occur in the perfective negative, whose suffix (*-li-* with front vowel) is phonetically unfavorable, except in the 3Pl subject form (portmanteau *-ń*). The shift *e* to *o* occurs, but inconsistently, in other suffixed A/O-stem contexts. We could, technically, divide the A/O-stem *sensu latu* into subcategories to recognize this variation in the treatment of *e*. However, I choose not to distinguish them formally.

In earlier drafts of this grammar I recognized a **+ATR-stem** found before *-Ca...* suffixes (imperfective negative *-nán-* and variants, prohibitive *-la*, and hortative *-ma*). The only difference between the bare stem and the +ATR-stem was that lexical -ATR vowels merged with +ATR, i.e. *ɛ* → *e* and *ɔ* → *o*, leaving other vowels unaffected. I now regard the supposed +ATR-stem as just a special case of the bare stem. My first assistant seemed to me to convert -ATR stem-final vowels to +ATR in the presence of the suffixal *a*-vowel, but my second assistant (whose articulation is generally clearer) maintains lexical ATR values in this context.

For a **U-stem** limited to one class of verbs with *a*-vocalism, see the discussion of *u*-final verbs in §3.4.1.6, below.

Most AN and modal categories are expressed by a suffix, so one can say that suffix X “takes” or “controls” a particular stem-vocalization type. There are, however, also some unsuffixed forms (perfective, imperative, derived stative) that are distinguished only by stem vocalism (E-stem for the perfective, A/O-stem for the imperative and derived stative). For purposes of this introductory section, a set of five forms will illustrate the stem-vocalism types in the subsections below: the bare stem used in chains, the imperative, and three stems that can be followed by pronominal-subject suffixes. Tones are not considered in this section.

3.4.1.1 Stem ends in lexical {*o a*}

The verbs in (16) end in {*o o: a:*} in the bare stem. Since these vowel qualities are already +ATR, or (in the case of *a:*) are compatible with +ATR, these stems show no audible change in the A/O-stem. However, since they do not already end in a mid-height front vowel, the E-stem does require an audible change. Monosyllabic *Co:* and *Co* “break” into *Cɔe-* including a desyllabified and shortened *o(:)*. *Ca:* stems become *Caye-* (with arguably epenthetic *y*). The fact that *Caye-* ends in a +ATR vowel suggests that *a(:)* is aligned with +ATR rather than -ATR, at least in this context (§3.3.5 above). The nonmonosyllabic stems with final *o* simply shift this vowel to *e* in the E-stem.

(16)	bare	Pfv E-stem	Imprt A/O-stem	PfvNeg A/O-stem	IpfvNeg bare stem	gloss
	a. <i>Ca:</i>					
	<i>ká:</i>	<i>káyé-</i>	<i>kâ:</i>	<i>ká:-lí-</i>	<i>kà:-nán-</i>	‘shave’
	b. <i>Co</i>					
	<i>gó</i>	<i>gọé-</i>	<i>gó</i>	<i>gò-lí-</i>	<i>gò-nán-</i>	‘go out’
	c. <i>Co:</i>					
	<i>tó:</i>	<i>tọé-</i>	<i>tô:</i>	<i>tó:-lí-</i>	<i>tò:-nán-</i>	‘spit’
	d. nonmonosyllabic with final <i>o</i>					
	<i>óbí-yó</i>	<i>óbí-yé-</i>	<i>óbí-yò</i>	<i>óbí-yó-lí-</i>	<i>òbì-yò-nán-</i>	‘sit’
	<i>gùló</i>	<i>gùlé-</i>	<i>gùló</i>	<i>gùlò-lí-</i>	<i>gùlò-nán-</i>	‘dig’
	<i>tóló</i>	<i>tólé-</i>	<i>tólò</i>	<i>tóló-lí-</i>	<i>tólò-nán-</i>	‘pound’
	<i>dònó</i>	<i>dòné-</i>	<i>dònó</i>	<i>dònò-lí-</i>	<i>dònò-nán-</i>	‘become blunt’

The last verb here, *dònó* ‘become blunt’, should be contrasted to verbs of the shape *CoNo* from etymological **CɔNo* that have stem-final *a* in the A/O-stem, see §3.4.1.4, below.

Verbs with variable stem-final *e ~ o* are covered in the following section. In some cases there is doubt as to whether *e* or *o* is lexical.

3.4.1.2 Stem ends in lexical *e* or in variable *e ~ o*

Some verbs have lexical vocalism *e...e* or *i...e*. The final *e* alternates with *o* in a complex way. The basic patterns, for my first assistant, are summarized in (17).

(17) Stem-final *e ~ o* alternation in nonmonosyllabic verbs

a. E-stem: always has final *e*

b. bare stem:

- unsuffixed bare stem has variable *e ~ o* (perhaps lexicalized);
- suffixed forms based on bare stem normally have *e*;
- imperfective negative always has *e*;
- prohibitive and hortative have variable *e ~ o*.

c. A/O-stem:

- imperative always has *o*;
- stem before suffix-initial *m* (imperfective) favors *o*;
- stem in past imperfective negative has long *o*: (< **o-m*);
- perfective negative has variable *e ~ o* but favors *e*.

There is a suggestion that the unsuffixed bare stem might be gravitating toward the imperative with respect to vocalism. There is also a suggestion that subgroupings can be (faintly) perceived in both the A/O- and bare stems. However, it is difficult to disentangle categorial from phonological factors. For example, the labial *m* of imperfective suffixes might have tilted the stem toward *o*, while the high front vowel of perfective negative *-lí-* may have favored *e*.

Some examples of this type of verb are in (18). Here again it is possible that the medial labial consonants in ‘roast, grill’ and ‘catch’ are at work.

(18)	stem	gloss
	<i>símbé (símbó)</i>	‘roast, grill’
	<i>íbé (íbó)</i>	‘catch’
	<i>cézó (cézé)</i>	‘cut (by slicing)’
	<i>pídé</i>	‘shut’
	<i>dèṅé</i>	‘fell (tree)’

My impression is that some verbs have gone farther than others in shifting from stem-final *e* to *o*, especially in the unsuffixed bare stem. For example, I heard final *o* frequently in *cézó* ‘cut (by slicing)’ but less often with *pídé* ‘shut’. The situation is further complicated by the existence of another set of stems of the shape *CeNe* but from original **CeNε* that still have stem-final *a* in the A/O-stem, see §3.4.1.4, below.

Sample partial paradigms for verbs with *e ~ o* alternation are in (19). Some further variants are possible, in theory, but are not attested at present.

(19) Paradigms of *cézó* ‘cut (slice)’, *pídé* ‘shut’, and *símbé* ‘roast’

‘cut’	‘shut’	‘roast’	category
E-stem			
<i>cézé-</i>	<i>pídé-</i>	<i>símbé-</i>	perfective
unsuffixed bare stem			
<i>cézó</i> ~ <i>cézé</i>	<i>pídé</i>	<i>símbé</i> ~ <i>símbó</i>	bare stem
suffixed form based on bare stem			
<i>cézè-zè-</i>	<i>pídè-zè-</i>	<i>símbè-zè-</i>	recent perfect
<i>cèzè-nán-</i>	<i>pìdè-nán-</i>	<i>sìmbè-nán-</i>	imperfective negative
<i>cézó-là</i>	<i>pídó-là</i>	<i>símbé-là</i>	prohibitive
A/O-stem: imperative			
<i>cézò</i>	<i>pídò</i>	<i>símbò</i>	imperative

§9.3.1). Causative derivatives in *-mé* ~ *-mó* do not harmonize to the ATR quality of the input stem and always have -ATR suffix, as shown by *jé-mé* ‘make dance’ (§9.2.1).

3.4.1.4 Mixed-ATR *CeNe* or *CoNo* stem with final *a* in A/O-stem

This discussion is based on the speech of my older assistant who belongs to the chiefly clan. See the end of this section for comments on variations.

The verbs in (21) are of the bimoraic type *CeNe* or *CoNo*, where *N* is a nasal (or nasalized) consonant (the initial *C* may be vacant). In their vocalism, these verbs combine +ATR with -ATR vowels. They are intermediate between the pure +ATR type *dónó* ‘become blunt’ and *dèŋé* ‘fell (tree)’ in §3.4.1.1-2 on the one hand, and the pure -ATR type *cédé* ‘gather (wood)’ and *dǒgó* ‘leave, abandon’ in §3.4.1.3 on the other. The A/O-stem of the mixed-ATR stems ends in *a*, showing that the choice between *a* and *o* in this stem is determined by the vowel of the final syllable, and disregards the ATR value of preceding vowels.

(21) Mixed-ATR bisyllabic stems

bare	Pfv E-stem	Imprt A/O-stem	PfvNeg A/O-stem	IpfvNeg bare stem	gloss
a. <i>CeNe</i> from * <i>CeNe</i>					
	<i>démé</i>	<i>démá</i>	<i>dèmə-lí-</i>	<i>dèmè-nán-</i>	‘hit’
	<i>nèrⁿé</i>	<i>nèrⁿá</i>	<i>nèrⁿá-lì-</i>	<i>nèrⁿè-nán-</i>	‘hone (blade)’
	<i>pérⁿé</i>	<i>pérⁿá</i>	<i>pérⁿá-lì-</i>	<i>pèrⁿè-nán-</i>	‘trim (beard)’
b. <i>CoNo</i> from * <i>CoNo</i>					
	<i>gòŋó</i>	<i>gòŋá</i>	<i>gòŋà-lí-</i>	<i>gòŋò-nán-</i>	‘go around’
	<i>dòrⁿó</i>	<i>dòrⁿá</i>	<i>dòrⁿà-lí-</i>	<i>dòrⁿò-nán-</i>	‘sell’
	<i>gòrⁿó</i>	<i>gòrⁿá</i>	<i>gòrⁿà-lí-</i>	<i>gòrⁿò-nán-</i>	‘be stronger’

In the phrase *dǒn dòrⁿó* ‘sell (=make) a sale’, the noun has *ɔ*. The agentive compound (§5.1.5) based on this phrase is *dǒn-dǒn* ‘seller’.

One relevant pair of nearly homophonous verbs is *gòmó* ‘rot’ with A/O-stem *goma-* (perfective negative *gòmà-lí-*), versus *gómó* ‘pull in (stomach)’ with A/O-stem *gomo-* (perfective negative *gòmò-lí-*). Cognates of ‘rot’ include Najamba *gòmé* and Bankan Tey *gòmó* with -ATR vowels and unclustered medial *m*. Cognates of ‘pull in (stomach)’ include Nanga *gòmbó*, Pergue *gòmmó*, and Bey Tey *gòmó* with +ATR vowels, and in some languages medial *mb* or *mm*.

Another instructive pair is *émé* ‘milk (v), draw milk from (e.g. a cow)’ with perfective negative *émá-lì-* (**émé*, cf. Nanga *émé*), versus *émé* ‘hold by squeezing (pinching)’ with perfective negative *émá-lì-* (**émbé*, cf. Nanga *émbí*). This pair adds further evidence that synchronic YD *CeNe* and *CoNo* stems that still have full -ATR lexical vocalism may have

formerly had a medial cluster. This suggests that the shift of the first vowel from -ATR to +ATR was limited to stems with precisely *CεNε and *CɔNɔ shapes at the time, with unclustered nasal consonant, and did not affect stems that acquired these shapes later due to simplification of a medial cluster.

The historically most puzzling near-minimal pair is *kóŋɔ* ‘collect (last bit of food in bowl, with hand)’ with A/O-stem *koŋa-*, versus (*gìdè-kóŋ*) *kóŋɔ* ‘frown’ with A/O-stem *koŋo-*. *kóŋɔ* ‘collect’ ought to reconstruct as **kóŋɔ* by the reasoning presented above. However, several cognates have medial clusters (Pergue *kóŋgɔ*, Nanga *kóŋjí*, Bey Tey *céŋgé*), suggesting a reconstruction **kóŋgɔ*, which should have produced YD #*kóŋɔ* with full -ATR vocalism, not the mixed-ATR *kóŋɔ*. Could YD have borrowed this from Jamsay or Toro So (Yorno So) *kóŋɔ*?

kóŋɔ ‘frown’ should reconstruct as **kóŋɔ* with +ATR vocalism. This is incompatible with one apparent cognate set: Pergue and Bey Tey *kówⁿɔ*, Nanga *kóŋú*, and Bankan Tey *kó:*, which point to **kóŋɔ*. The YD reflex of this should be mixed-ATR #*kóŋɔ*, not +ATR *kóŋɔ*. Blessedly, there is also a second set for ‘frown’, including Bey Tey *kómó* and Jamsay *kómɔ*, so there is some hope of making historical sense of the YD form. Another possibility is that the verb ‘frown’ is secondarily derived from the nominal *gìdè-kóŋ* which it is collocated with.

The inventory of -ATR *CεNε* and *CɔNɔ* stems from my working lexicon is given in (22), with selected cognates especially from languages with conservative medial consonantism. Except as noted, there is evidence for an original **CvNCv* shape.

(22) -ATR *CεNε* and *CɔNɔ* verbs

stem	gloss	cognates
a. <i>CεNε</i>		
<i>good evidence for original *CεNCε</i>		
<i>émé</i>	‘hold by squeezing’	Nanga <i>émbí</i> , Najamba <i>émbé</i> , Tommo So <i>émmé</i>
<i>zèné</i>	‘pick up’	Tommo So <i>jèŋŋé</i> , Najamba <i>jènŋé</i>
<i>mèné</i>	‘roll up, fold’	Nanga <i>mùndó</i> , Bankan Tey <i>mìndé</i>
<i>péŋé</i>	‘rebalance’	Tommo So <i>péŋŋé</i> , Nanga <i>pínjí</i>
<i>nèŋé</i>	‘spur’	Ben Tey <i>néŋgí</i> , Mombo <i>nóŋgé</i>
<i>zèné</i>	‘pick up’	Najamba <i>jènŋé</i> , Tommo So <i>jènŋé</i>
<i>original *CaCa</i>		
<i>sérⁿé</i>	‘dredge out’	Bey Tey <i>sání</i> , Pergue <i>sána</i> , Najamba <i>sáy</i> , Nanga & Tommo So <i>sá:</i>
b. <i>CɔNɔ</i>		
<i>good evidence for original *CɔNCɔ</i>		
<i>tónɔ</i>	‘lengthen (thread)’	Nanga <i>tóndí</i> , Tommo So <i>tónnó</i>
<i>zòŋɔ</i>	‘treat (medically)’	Pergue <i>jòŋgɔ</i> , Mombo <i>jóŋgé</i>
<i>original mediopassive *CɔN-yɔ</i>		
<i>ŋɔ</i>	‘be tired’	Tommo So <i>ŋní-yé</i> , Dogul Dom <i>ŋŋ-jè</i>

historically problematic cases

<i>śrⁿś</i>	‘(well) be eroded’	Tommo So <i>śdś</i> , Yorno So <i>śrⁿś</i> , Nanga <i>wǎrś</i> , Jamsay & Bankan Tey <i>wǎ:rⁿś</i>
<i>śrⁿś</i>	‘purge (with enema)’	Nanga, Bey Tey, & Pergue <i>śrⁿś</i> , Najamba <i>śné</i>

Some further comments on the more difficult cases.

sérⁿé ‘dredge out’ (22a) does not derive from *CvNCv, but it probably shifted from *CaCa to CeCe, arriving at the latter vocalism via a quite different route than in the other examples.

śnś ‘be tired’ (22b) has cognates both with and without mediopassive *-ye. Assuming that the mediopassive form is older, its form in pre-YD after syncope would have been via *śn-ŋś or *śn-jś, in either case with *CǝCCǝ shape. If it had this shape at the time when *CǝNǝ verbs shifted to *CoCǝ, it would have escaped the shift.

The cognate sets for the two homophonous verbs *śrⁿś* in (22b) are messy, and inter-Dogon borrowing may have complicated their evolution.

To complement this historical analysis it is necessary to show that the mixed-ATR *CeNe* and *CoNǝ* verbs with final *a* in the A/O-stem derive from *CvNv rather than *CvNCv. In practice this means finding cognates in Dogon languages and dialects that, in other stems, do preserve medial clusters (Pergue, Nanga, Tommo So, Ben Tey, Bankan Tey, Najamba, but not Jamsay and Togo Kan). As can be seen by comparing the YD forms with cognates (23), the verbs in question generally reconstruct as *CvNv. Where the evidence is mixed, I give priority to Najamba on grounds of likely genetic subgrouping with YD.

(23) Mixed-ATR *CeNe* and *CoNǝ* verbs with final *a* in A/O-stem

stem	gloss	cognates
a. <i>CeNe</i> with A/O-stem <i>CeNa-</i>		
<i>good evidence for original *CeNe</i>		
<i>cémé</i>	‘pinch’	Tommo So <i>kémé</i>
<i>sémé</i>	‘cut throat of; saw’	Najamba & Nanga <i>sémé</i>
<i>némé</i>	‘hit (target)’	Nanga <i>némé</i> , Pergue <i>néwⁿé</i>
<i>nèrⁿé</i>	‘hone (blade)’	Nanga <i>nèrⁿí</i> , Najamba <i>nǎr</i>
<i>dèrⁿé</i>	‘spend day’	Ben Tey <i>dèrⁿé</i> , Najamba <i>dèné</i>
<i>bèrⁿé</i>	‘become giddy’	Ben Tey & Nanga <i>bèrⁿé</i>
<i>yèŋé</i>	‘sift’	Najamba <i>ŋèŋé</i> , Ben Tey & Pergue <i>yìgé</i> , but Tommo So <i>yèŋgé</i>
<i>reconstruction uncertain</i>		
<i>cérⁿé</i>	‘(moon) appear’	no known cognates
<i>pérⁿé</i>	‘trim (beard)’	no known cognates
<i>démé</i>	‘hit’	possible cognates are Bankan Tey <i>démé</i> and Nanga <i>dùmó</i> ‘butt with head’

b. *CoNo* with A/O-stem *CoNa-*

*good evidence for original *CɔCɔ*

<i>gòmó</i>	‘rot’	Najamba <i>gòmé</i> , Bankan Tey <i>gòmó</i>
<i>tómó</i>	‘wrap up’	Tommo So <i>tómó</i> , Pergue <i>tó:ⁿ</i>
<i>tóyó</i>	‘hobble (animal)’	mixed: Najamba <i>téyé</i> , Tommo So <i>tééⁿ</i> , Nanga <i>téyí</i> , Bey Tey <i>téyⁿí</i> , but Pergue <i>tóyógó</i> , Bankan Tey <i>tóyígí</i>
<i>gòyó</i>	‘carry on side’	Tommo So <i>gòyó</i>
<i>tórⁿó</i>	‘turn on (flashlight)’	Pergue, Nanga, and Bey Tey <i>tórⁿó</i>
<i>kórⁿó</i>	‘pick (fruit)’	Nanga <i>kórⁿó</i> , Toro Tegu <i>kóró</i> , Tommo So <i>kóé</i>
<i>dòrⁿó</i>	‘sell’	Pergue <i>dòrⁿó</i> , Tommo So <i>dònó</i>
<i>gòrⁿó</i>	‘be stronger’	Nanga, Bey Tey, and Pergue <i>gòrⁿó</i>

*evidence mixed but closely related Najamba supports *CɔCɔ*

<i>tóyó</i>	‘write’	Najamba <i>tóyé</i> , Tommo So <i>tóyó</i> , Nanga <i>tóyí</i> , Bankan Tey <i>tówⁿ</i> , but Bey Tey <i>tóyígú</i> , Pergue <i>tóyógó</i>
<i>tóyó</i>	‘(fire) be lit’	Najamba <i>tóyé</i> , Tommo So <i>téyé</i> , Nanga <i>táyí</i> , but Bey Tey <i>táyígí</i> , Pergue <i>táyógá</i>
<i>gòyó</i>	‘go around’	Najamba <i>gòyé</i> , Tommo So <i>gòyó</i> , Nanga <i>gòyí</i> , but Pergue <i>gòyógó</i> , Bankan Tey <i>gòyígí</i> , Bey Tey <i>gòyígú</i> ~ <i>gòyígú</i>

denominal

<i>tóyó</i>	‘do (business)’	probably denominal from noun <i>tòy</i> , cf. Nanga <i>tòyígí</i>
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reconstruction uncertain

<i>bòmó</i>	‘peek at’	no cognates
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problematic (with medial cluster in some cognates)

<i>nòmó</i>	‘sag’	Najamba <i>nónjé</i> , Nanga <i>nómbí</i> , Bankan Tey <i>lómíbí</i> , Ben Tey <i>nómjí</i> , Pergue <i>lómódó</i> , Tommo So <i>nómmó</i> (set may include suffixal derivatives)
<i>gònó</i>	‘turn (head)’	Tommo So <i>gònnó</i> , Mombo <i>gòndé</i> , but Ben Tey <i>gòlí</i> , Yorno So <i>gònó</i> , Pergue <i>gòlól</i>

I have focused on verb stems, whose vocalic patterns are clearest and most significant. A fuller study would also look at nouns and other substantives. There are two important nouns with *e-e* sequences: *zèmé* ‘blacksmith’ and *jémé* ‘black’. Cognates point to reconstructions like **zèmbè* ‘blacksmith’ and **jémè* ‘black’. My guess is that ‘black’ shows the regular vocalic treatment, and that ‘black’ influenced ‘blacksmith’.

Another problematic noun is *émé* ‘milk’, distinct from the verb *émé* ‘milk (v), draw milk from’ discussed earlier. Some cognates for the noun point to ungeminate medial **m* (Nanga *émê*, Ben Tey *émèyⁿ*), while others point to a geminate or even nongeminate cluster (Tebul Ure *émmé*, Bankan Tey *émmèyⁿ*).

The vocalic distinctions described in this section are phonetically subtle. Since for the most part they make sense historically I currently consider them to be valid for the speech of

older people. My second assistant, however, does not distinguish *CeNe* and *CoNɔ* stems from *CɛNe* and *CɔNɔ* stems, respectively, so for him there is no ATR disharmony. I suspect that this is typical for younger speakers.

3.4.1.5 Stem of shape *Cɛ:* with A/O-stem *Cɛya-*

The set of verbs of the form *Cɛ:* is in (24). The E-stem is regular. Their peculiarity is an A/O-stem *Cɛya-*, with what functions synchronically as an epenthetic *y* separating *ɛ* from *a*. Compare the *y* in E-stem *Caye-* from *Ca:* stems (16a). Historically, the verbs in (24) reflect the merger of old **Cɛyɛ* and **Cɛ:* stems into a single paradigm with features of both original paradigms; see §10.2.1.11 for details.

(24)	bare stem	Pfv E-stem	Imprt A/O-stem	PfvNeg A/O-stem	IpfvNeg bare stem	gloss
	<i>Cɛ:</i> from <i>*Cɛyɛ</i> and <i>*Cɛ:</i>					
	<i>té:</i>	<i>té:-</i>	<i>téyá</i>	<i>téyá-lì-</i>	<i>tè:-nán-</i>	‘sprout (v)’
	<i>sé:</i>	<i>sé:-</i>	<i>séyá</i>	<i>séyá-lì-</i>	<i>sè:-nán-</i>	‘trim (hair)’

3.4.1.6 *u*-final stems with stem-final alternation *a ~ u*

Finally, there is a set of verbs (25) with *a* in the first syllable and a stem-final alternation between *u*, *a*, and (in the E-stem) *e* or *ɛ* (lexical choice). This is the only stem-vocalism class for non-borrowed *CaCv* and *CaCCv* verbs with nonfinal *a*, and the only type of verb stem that ever ends in *u*. I will refer to it loosely as the ***u*-final** class. It does not extend to stem shapes involving a long vowel or more than two syllables. Instead, we get final *ɛ* (or *ɔ*) in suffixal derivatives like *ná:-ndé* ‘cause to go past’ (§9.3.1.3), from the *u*-final stem *nǎŋ* ‘go past’, and in stems like *pá:bé* ‘protect’ (Fulfulde loan).

The *u* is deleted by Stem-Final *u*-Deletion (§3.5.3.3) after most unclustered sonorants. This deletion may result in alternations between syllable-final *n* and intervocalic *rⁿ*, as in ‘do, make’ in (25) below. In the bare stem, no other productive class has *C*-final stems. All stems with final *C* in the bare stem, except for *ún* ‘go’ and *zín* ‘take away, convey’ (§10.2.1.12), have a nonfinal-syllable with *a* and belong to the *u*-final class.

(25) *u*-final verbs

bare stem	Pfv E-stem	Imprt A/O-stem	PfvNeg A/O-stem	IpfvNeg bare stem	gloss
<i>támbú</i>	<i>támbé-</i>	<i>támbà</i>	<i>támbá-lì-</i>	<i>tàmbù-nán-</i>	‘kick’
<i>mànú</i>	<i>màné-</i>	<i>màná</i>	<i>mànà-lí-</i>	<i>mànù-nán-</i>	‘cook (meal)’
<i>kán</i>	<i>kárⁿé-</i>	<i>kárⁿà</i>	<i>kárⁿá-lì</i>	<i>kàn-nán-</i>	‘do, make’

Of course the final *e* is limited to the E-stem. The fact that we get *e* rather than *ɛ* is another indication that *a*-vocalism tilts to the +ATR side of the vowel-harmonic divide (§3.3.5). On the other hand, harmonically sensitive derivatives like reversive *págú-lé* ‘untie’ consistently have suffixal -ATR vowels with *u*-final verbs, so it seems that these stems (i.e. those with lexical *a*-vocalism) can shift between plus and minus values of ATR depending on context.

An assistant at one point claimed a phonetic distinction between the perfectives *námé* ‘stepped on’ (bare stem *námú*, /LH ~ LH/ tone class) and *námé* ‘ground up (millet)’ (bare stem *nám*, /LH ~ L/ tone class). However, no distinction could be heard in spite of many repetitions. The fact that the bare stems and some inflected forms of these two verbs are clearly distinct may have influenced the assistant’s judgement.

The most striking detail in (25) is the stem-final *u* in the bare stem, contrasting with stem-final *a* in the A/O-stem. The apparent “shift” from *a* to *u* is phonologically more drastic than the simple feature shifts seen across the stem-vocalism classes in the A/O-stem; it has more the flavor of the E-stem, which imposes a specific stem-final vowel (subject, however, to ATR-harmony).

One could posit lexical representations of the type /tám^{bá}/ with nothing but *a* vowels, combined with a morphophonological rule replacing stem-final *a* by *u* in the bare stem. The latter could be called the **U-stem**, though functionally it corresponds to the bare stem. Historically, the U-stem is likely a vestige of an older system where a final high vowel was typical of the “bare” stem (i.e. the form of the verb used in chains).

3.4.1.7 Perfective *Cvrⁿe* for expected #*Cvrⁿe*

Certain verbs have perfectives of the shape *Cvrⁿe* where #*Cvrⁿe* would be more regular. The perfective is based on the E-stem, which ends in *ɛ* for -ATR verbs and in *e* for +ATR verbs. The verbs in question have bare stems of the shape *Cvn*, whether underlyingly so or apocopated from /*Canu*/.

For *ún* ‘go’, *zín* ‘take away, convey’, and *sín* ‘become sated (=full after eating)’, most inflected forms are based directly on *un-*, *zin-*, *sin-* (with variable tones). None of these forms reveal an ATR value for the stem, since *u* itself is ATR-extraharmonic. However, the perfectives (E-stems) (*yà*) *úrⁿé-*, (*yà*) *zìrⁿé-* ~ *zìné-*, and (*yà*) *sírⁿé* end in -ATR *ɛ*. The 3PI perfectives are just (*yà*) *ún-Ø* ~ (*yà*) *úrⁿ-ú* ‘they went’, and (*yà*) *zín-Ø* ~ (*yà*) *zìrⁿ-ú* ‘they took away’, and (*yà*) *sín-Ø* ~ (*yà*) *sírⁿ-ú*.

However, the other form for these verbs that is sensitive to ATR is the past imperfective negative, which for these verbs ends in +ATR long *o*:. The forms are *úrⁿò: = bá-lì-*, *zìrⁿò: = bá-lì-*, and *sírⁿò: = bá-lì-*.

The issue is how to reconcile -ATR *ɛ* in the perfectives with +ATR *o*: in the past imperfective negatives. One interpretation is that these verbs are basically +ATR, but that the medial *n* ~ *rⁿ* has favored following *ɛ* over *e* in the E-stem. This would then be another case where a nasal consonant triggers an ATR shift in an adjacent vowel. See §10.2.1.12 for the paradigms of these verbs and preliminary analysis.

Another *Cvn* bare stem is *kán* ‘do’, although in this case there is reason to posit underlying bisyllabic /*kánú*/ before Stem-Final *u*-Deletion. This stem belongs to the *u*-final

class, typical of bisyllabic verbs with vowel *a* in the first syllable. Paradigms of this class normally have +ATR perfective *CaCe*, as in *tábé* ‘touched’, see (353) in §10.2.2.4. Their other forms are based either on the U- or A/O-stems (i.e. *CaCu-* or *CaCa-*), neither of which is ATR-sensitive. *kán* ‘do’ has perfective *káné* ~ *kárⁿé* with -ATR *ε*, and 3Pl perfective *kárⁿ-á*. The past imperfective negative is *kárⁿà: = bá-lì-*.

There is no across-the-boards phonological shift of /e/ to *ε* after *rⁿ*, as shown by *nìḡírⁿé* ‘(pebble under mat) hurt (sb)’. However, nasal consonants tend to disrupt ATR oppositions in some Dogon languages. We have already seen for YD in §3.4.1.3, though there the issue was vowels **preceding** nasals, and the change was from -ATR to +ATR. However, a shift from +ATR to -ATR after a nasal is regular in Yorno So (Toro So group, Yendouma village), which is not far to the south of Yanda. The YD verbs ‘go’, ‘take away’, and ‘do’ are particularly vulnerable to a low-level ATR shift, since the perfective is the only ATR-sensitive form for ‘do’ and one of only two for ‘go’ and ‘take away’, so their +ATR nature (if real) is nearly invisible. This does not apply to *nìḡírⁿé* since each of its forms is overtly +ATR.

3.4.1.8 E-stem *-è-* from a *-Ca* suffix?

In a few suffix combinations, a nonfinal *-Ca-* suffix shifts to *-Cε-* before another *-Ca* suffix. When hortative *-mà* is followed by prohibitive *-là*, the result is hortative negative *-mè-là* ~ *-mè-lá* (§10.7.3). When immediate future *-zà* is followed by hortative *-mà*, the output is *-zè-mà* (§10.3.2.3).

There is no obvious phonological reason for this vocalic shift. However, it would be consistent with a shift by the nonfinal suffix to its E-stem.

3.5 Segmental phonological rules

3.5.1 Transsyllabic consonantal processes

There is not much in the way of productive processes modifying consonants. Some Dogon languages have complex interactions of suffix-initial consonants with the consonant of the stem-final syllable, especially when the stem-final vowel syncopates. Nasalization-Spreading, e.g. from stem to suffixal consonants, is also common in Dogon languages.

What little YD has is confined to verbal derivational suffixation. The reversive derivative is fairly regular, so it provides few alternations, but see ‘be affixed’ (26a). Most of the alternations involve the transitive suffix *-dv* (26b-e). Usually the stem consonant changes (or disappears), but in (26b) the suffixal consonant is what changes. For most of the alternations listed I can cite only one or a handful of examples. If there is a general theme, it is that some coronal sequences are favored (*ll*, *rd*), others are problematic. (26f) is a fortition process.

- (26) a. *d(v)* to *l* before *l* (assimilation)
tádú ‘be affixed’ *tál-lé* ‘(sth affixed) be removed’
 (§9.1)
- b. suffixal *d* (in transitive *-dv*) to *r* after *d* (dissimilation)
kóndí-yé ‘be bent’ *kóndí-ró* ‘bend (e.g. stick)’ (§9.3.1.1)
- c. *dv* or *lv* or *y(v)* to *r* before *d* (dissimilation?)
kódí-yó ‘be hung up’ *kór-dó* ‘hang (sth) up’ (§9.3.1.1)
bùlú-yó ‘put on pants’ *bùrú-dé* ‘put pants on (sb)’ (§9.3.1.1)
gáy-yé ‘lie on back’ *gár-dé* ‘lay (sb) on his/her back’
- d. *dv* or *lv* to zero before *d* (truncation, *Cv-dv* output)
tédí-yé ‘(mat) be laid’ *té-dé* ‘lay out (mat)’ (§9.3.1.1)
dèlí-yé ‘be set’ *dè-dé* ‘set, put down’ (§9.3.1.1)
- e. *j(v)* or *g(v)* to zero before *d* (lenition, *Cv:-dv* output)
gój-jó ‘be inserted’ *gó:-dó* ‘insert’ (§9.3.1.3)
táj-jé ‘put on shoes’ *tá:-dé* ‘put shoes on (sb)’ (§9.3.1.1)
 (cf. *tàgí-lé* ‘take off [shoes])
- f. *y* to *j* after nasal or stop (fortition)
nùnú-ló ‘get undressed’ *nún-jó* ‘put on (clothes)’ (§9.1)
tàgí-lé ‘take off shoes’ *táj-jé* ‘put on shoes’ (§9.3.1.1)

Some even more opaque alternations are seen with transitive allomorph *-ndv*, e.g. *nún-jó* ‘get dressed’ versus *nú:-ndó* ‘dress (sb)’. It is hard to tell whether the *n* of the suffix is consubstantial with the medial nasal; many but not all examples involve stems with a medial nasal. For the data see §9.3.1.2-3.

3.5.1.1 *rⁿ* and *n*

There are alternations of syllable-final *n* with intervocalic *rⁿ*. In these cases I take *rⁿ* as lexically basic, and posit that *rⁿ* becomes *n* syllable-finally (a position that does not allow *rⁿ*). The best examples are from *Carⁿv* verbs that have a bare stem with no final vowel (after apocope), versus presuffixal forms with a final vowel, as before the perfective negative suffix (27a). The verb ‘burn’ shows that true *Canv* verbs keep *n* presuffixally (27b). Historically, ‘burn’ reflects **dàndv* with medial cluster (Nanga *dàndí*, Tommo So *dànná*).

(27)	bare stem	perfective negative	gloss
a.	<i>wǎn</i>	<i>wàrⁿà-lí</i>	‘(vine) spread’
	<i>kán</i>	<i>kárⁿá-lì</i>	‘do’
	<i>bǎn</i>	<i>bàrⁿà-lí</i>	‘become red’; ‘be hot season’
	<i>bǎn</i>	<i>bàrⁿà-lí</i>	‘beat (tomtom)’
	<i>dǎn</i>	<i>dàrⁿà-lí</i>	‘(syrup) thicken’
	<i>pán</i>	<i>párⁿá-lì</i>	‘boil up’
b.	<i>dǎn</i>	<i>dànà-lí</i>	‘burn’

Two consecutive rhotic syllables with *rⁿ* appear to be avoided. Thus *wàrⁿíné* ‘stretch (animal hide)’.

3.5.1.2 Nasalization-Spreading

I did not observe systematic Nasalization-Spreading. If it were present, we should expect mediopassive *-yv* and (deadjectival) inchoative *-yv* to appear regularly as *-yⁿv* after nasal syllables. I hear plain *y*. Mediopassive examples: *pámí-yé* ‘come up beside’, *mùní-yó* ‘coil self up’, *nìní-yé* ‘trip (be tripped)’. Mediopassive data are admittedly sparse, since *Cvn-jv* with syncope then fortition of *y* to *j* is more usual (§9.3.1.2). Inchoative example: *ná:ní-yé* ‘become easy’.

As a consequence, nasalized {*rⁿ yⁿ*} are treated here as independent phonemes (§3.2.7.2-3). One might consider recognizing Nasalization-Spreading, or an effectively equivalent constraint, within *Nvyⁿ(v)* and *Nvrⁿ(v)* stems like *nìyⁿé* ‘drink’, *mìyⁿé* ‘grind into powder’, *mùyⁿó* ‘be patient’, *màyⁿ* ‘dry’, *nàrⁿá* ‘truth’. However, I also recorded a few counterexamples like *tàmòrô* ‘date (fruit)’ (<**tàmbòrô*:).

There is a minimal pair: *màyⁿé* ‘become dry; stiffen’ related to adjective *màyⁿ* ‘dry, hard’, versus plural demonstrative *màyé* ‘those (distant)’. The latter is likely segmentable, compare its singular *màngó* (§4.4.2.1).

3.5.2 Vocalism of suffixally derived verbs

Some derivational verbal suffixes, other than the causative (see below), do show phonological integration with the input stem. For example, reversive suffix *-lv-* (§9.1) has surface forms {-*lé* -*lé* -*ló* -*ló*} depending on the front/back and ATR features of input-stem vocalism. The variant *-lé* also occurs after *u*-final stems (whose lexical vocalism is based on *a*), as in *nàmú-lé* ‘take foot off’ from *nàmú* ‘step on’. The same suffixal vocalism is observed with mediopassive *-yv-* and transitive *-dv-* (§9.3.11). We can think of the stem-suffix combination as subject to the same constraints that apply to unsegmentable *CvCvCv* and similar stem shapes.

The main causative suffix (§9.2.1) appears as *-mé* ~ *-mó*, with *-mé* as unmarked allomorph and *-mó* used inconsistently after back rounded stem vowels. Unlike other verbal derivational suffixes, the causative follows the bare stem of the verb, suggesting an original (but now frozen) verb chain (§15.1), rather than word-internal stem-derivation.

3.5.2.1 Presuffixal V₂-Raising

Bisyllabic stems raise their final vowel to high {*i u*} before reversive *-lv-*, and (subject to some disfiguring consonantal changes) before mediopassive *-yv-* and transitive *-dv-*. In some cases the high vowel is then syncopated (§3.5.3.4), and the raising can be thought of as the first stage of lenition of short vowels in the weak metrical position.

Reversive examples showing the high vowel are *mèné* ‘fold’, *mèní-lé* ‘unfold’, and *sógó* ‘loop’, *sógú-lé* ‘unloop’. More examples are in §9.1. The high vowel is *i* from {*e ε*} and *u* from {*o o*}. There are no examples with stem-final *a*, since in bisyllabic verb stems the final *a* is shifted to *u* even word-finally (*nàmú* ‘step on’).

3.5.3 Vocalic rules sensitive to syllabic or metrical structure

3.5.3.1 *u*-Epenthesis between consonants

u-Epenthesis occurs in certain forms of the *n*-final verbs *ún* ‘go’, *zín* ‘take away, convey’, and *sín* ‘become sated (=full after eating)’. These are the only verbs with full aspectual paradigms that end in *n* (or for that matter in any consonant), see §10.2.1.12 for paradigms. There is also a defective stative quasi-verb *kùn* that also ends in *n*. The conjugated imperfectives of the aspect-marking verbs are, for 3Sg subject, *ún-m-ù* ‘he/she goes’ and *zín-m-ù* ‘he/she takes away’, *sín-m-ù* ‘he becomes sated’. In constructions consisting of an unconjugated imperfective verb before a conjugated auxiliary, the imperfective suffix is just *-m*. This requires insertion of epenthetic *u* to separate the two nasals, resulting in *úrⁿ-úm* and *zín-úm*. The epenthesis triggers resyllabification, which in some cases may then trigger tonal redeployment of contoured tones (§3.7.3.6). The 1Sg conjugated imperfectives (suffix complex *-m-Ø*) are *úrⁿ-ùm-Ø* ‘I go’, *zín-ùm-Ø* ‘I take away’, and *sírⁿ-ùm-Ø* ‘I become sated’. There are similar forms with *-ŋ* (imperfective relative verb with inanimate singular head) added to these verbs: *úrⁿ-úŋ*, *zín-úŋ*, *sírⁿ-ùŋ*. Quasi-verb *kùn* ‘be in’ undergoes *u*-Epenthesis with imperfective (or, as here, stative) subordinator *-m*, as in *kúrⁿ-úm* in (777) in text 1.

However, in three other morphological combinations, each of which involves a suffix that elsewhere consists only of *-n*, some speakers allow the suffix to “grow” an unexpected final vowel after *ún*- ‘go’ and *zín*- ‘take away’, obviating the need for *u*-Epenthesis. For example, plural-addressee suffix *-n* is extended as *-ní* only after these verbs (*ún-ní*, *zín-ní*), while perfective negative 3Pl *-n* is extended as *-nù* only after these same verbs (*ún-nù*, *zín-nù*). See (339) for full data. The generalization is that the two homorganic *n*’s bond into a surface geminate, while nonhomorganic *m* or *ŋ* does not attract *n* and so allows *u*-Epenthesis. Forms

like *ún-nì* are prime evidence that ‘go’ and ‘take away’ do not end synchronically in /u/ at the lexical level, even though there is a rule deleting stem-final /u/ in other verbs (see the following section).

u-Epenthesis like that in *úrⁿ-ùm-Ø* ‘I go’ described above also occurs in conjugated ‘it is’ enclitics when they follow a *C*-final noun or NP. The stem-final consonant is always a sonorant. For example, *mí tól=ùm* ‘I am a pig’ (442) contains the noun *tól* and the 1Sg form of the ‘it is’ enclitic, whose basic form *=m* occurs after a vowel, as in *mí sǎydù=m* ‘I am Seydou’ (441). Again, epenthesis is blocked when the two adjacent sonorants are homorganic: *mí tímê^m=m* pronounced [...tímê^m.:] ‘I am a porcupine’ (442). 2Sg versions *ó tól=ùw* ‘you-Sg are a pig’ and *ó tètêw=w* ‘you-Sg are a hawk’ seem to work in the same way, but in this case it is difficult to distinguish final *ww* from *wuw*.

3.5.3.2 Semivowel-Epenthesis between vowels

The examples of consonantal epenthesis, separating two vowels, involve *y* and *w*. There are two situations, both involving vocalic stem alternations in verbs, where *y* appears to be inserted to separate low vowel *a* from a front unrounded mid-height vowel *ɛ* or *e*. First, *Ca*: verbs have E-stem *Caye*, e.g. *nàyé-* ‘spent the night’ from *nǎ:* and *káyé-* ‘shaved’ from *ká:* (§10.2.1.9-10). Second, *Ce*: verbs have A/O-stem *Ceya* with rather faint *y*. For example, *té:* ‘sprout (v)’ has imperative *téyà*, see (335) for the full paradigm. Synchronically, the *y* might be epenthetic, separating the shortened *ɛ* of the stem proper from the final *a* marking the A/O-stem. Historically, as pointed out in §3.4.1.5, the inventory of YD *Ce*: verbs is a composite of reflexes of **Cɛ:* and of **Ceyɛ*, and the A/O-stem *Ceya* may simply have generalized from the bisyllabic etyma.

One case of apparent epenthetic *w*, parallel to *Ceya* with *y* described above, is A/O-stem *sɔwⁿa* from *só:ⁿ* ‘douse (fire)’, see comments after (336).

A difficulty with all these Semivowel-Epenthesis examples is integrating them into the broader analysis of E-stems and A/O-stems of verbs, which are elsewhere best modeled as final vowel-quality mutations rather than addition of a vocalic suffix (followed by contraction). If the mutation affects only the second mora of a *Cv*: stem, we could posit e.g. E-stem /*kae*/ for ‘shave’ and A/O-stem /*tea*/ for ‘sprout (v)’. Semivowel-Epenthesis would then be a low-level stem-internal phonetic realization rule.

3.5.3.3 Stem-Final *u*-Deletion (*u*-final verbs)

As a productive process producing synchronic alternations, deletion of vowels is confined to loss of short high vowels in verb stems. There is no difference between the way this applies presuffixally (syncope) and word-finally (apocope).

Stem-Final *u*-Deletion applies in stem-final position in verbs, both presuffixal (in some inflections) and word-final (bare stem). There is a large class of *u*-final verbs, defined as stems that have final *u* in the bare stem and related forms. The relevant stem shapes are *CvCv*

and *CvCCv*. Whether this final *u* is lexical, or reflects a morphophonological shift of stem-final /a/ to *u* in these particular stems, is discussed briefly in §3.4.1.6 and §3.5.3.3.

The deletion applies to /u/ following an unclustered sonorant (e.g. *Calu-*). The attested cases involve {*l m ŋ r rⁿ*} as the sonorant, with the further proviso that /rⁿ/ shifts to *n* in syllable-final position after the /u/ is deleted. All examples known to me of this verb type are in (28a). Some verbs with unclustered medial *m*, and all known cases with unclustered medial *n*, retain the *u* (28b). Deletion does not occur after an unclustered obstruent (28c) or a cluster (28d). I know of no *u*-final stem with a medial semivowel {*y w*} or back nasal.

(28) Inventory of *u*-final verb stems

bare	gloss
a. final <i>u</i> deleted after unclustered { <i>l m ŋ r rⁿ</i> }, then /r ⁿ /→ <i>n</i>	
<i>with m</i>	
<i>năm</i> (/nàmú/)	‘grind’
<i>kám</i> (/kámú/)	‘squeeze’
<i>with /rⁿ/ becoming syllable-final n</i>	
<i>băn</i> (/bàr ⁿ ú/)	‘beat (tomtoms)’
<i>kán</i> (/kár ⁿ ú/)	‘do’
<i>wăn</i> (/wàr ⁿ ú/)	‘ramify’
<i>with other sonorants</i>	
<i>sál</i> (/sálú/)	‘grind coarsely’
<i>lăl</i> (/lălú/)	‘bear (child)’
<i>zăl</i> (/zàlú/)	‘irrigate’
<i>zăl</i> (/zàlú/)	‘rake up’
<i>gŭl</i> (/gùlú/)	‘harvest (peanuts)’
<i>wăl</i> (/wàlú/)	‘scoop (water, in hand)’
<i>zăŋ</i> (/zàŋú/)	‘pound (fruit pits)’
<i>dăŋ</i> (/dàŋú/)	‘do spot sowing’
<i>năŋ</i> (/nàŋú/)	‘pass by’
<i>pár</i> (/párú/)	‘cook (soft millet cakes)’
b. exceptions to (a), <i>u</i> not deleted after unclustered { <i>n m</i> }	
<i>with n</i>	
<i>mànú</i>	‘cook (meal)’
<i>dànú</i>	‘hunt (v)’
<i>ánú</i>	‘fry lightly’
<i>ònú</i>	‘not be’ (§11.2.1.2)
<i>with m</i>	
<i>ámú</i>	‘(millet spike) grow flowers (red fuzz)’
<i>ámú</i>	‘tie on (second wrap, to carry child)’
<i>nàmú</i>	‘step on’

c. no deletion of *u* after obstruents

with sibilant

<i>pású</i>	‘press out (oil)’
<i>wàzú</i>	‘be left over’

with stop

<i>ábú</i>	‘accept, receive’
<i>ádú</i>	‘(healer) suck (blood)’
<i>gàbú</i>	‘build (courtyard wall)’
<i>gàbú</i>	‘become tall’
<i>tábú</i>	‘touch’
<i>zàbú</i>	‘slap on (wet earth, on wall)’
<i>bàdú</i>	‘help’
<i>tádú</i>	‘replaster (wall, roof)’
<i>màdú</i>	‘become lost’
<i>kágú</i>	‘be charred’
<i>gàgú</i>	‘rub (sb) into the ground’

d. no deletion of *u* after clusters

<i>dàmbú</i>	‘push’
<i>màndú</i>	‘laugh’
<i>tàmbú</i>	‘kick’
<i>gànzú</i>	‘scratch’

A minimal pair is *nǎm* ‘grind’ (28a) versus *nàmú* ‘step on’ (28b). Most verbs in (28b) that resist deletion of *u* formerly had a medial cluster. For *nàmú* ‘step on’ compare Nanga *nàmbí* and Pergue *námhá*. For *dànú* ‘hunt (v)’ compare Ben Tey *dànní* and Tebul Ure *dàndá*. For *ònú* ‘not be’ compare Najamba *òndí- ~ òndú-*. For *ámú* ‘(millet) grow flowers’ compare Najamba *ámbí* and Dogul Dom related noun *àmmú* ‘flowers (red fuzz) on millet’. Cognates of *ánú* ‘fry lightly’ point to a long vowel that might have had a similar blocking effect, see Dogul Dom *á:nè* and Najamba *ǎ:n*.

Likely related to these alternations, at least historically, are the forms of predicate adjectives in (469a-e).

3.5.3.4 Syncope *CvC(C)v-* to *CvC-* before verbal derivational suffix

Syncope from *CvC(C)v-Cv* to *CvC-Cv* occurs under limited conditions in connection with the suffixation of mediopassive *-yv*, transitive *-dv*, reversive *-lv*, or causative *-mε*. In each case the flanking consonants must be favorable to consonant-cluster formation. Since the suffix-initial consonant is part of this environment, the phonologically defined set of stems that undergo syncope varies from one derivational suffix to another.

Mediopassive suffix *-yv*, which is productive with verb stems (§9.3.1), combines with most *CvC(C)v* stems unproblematically as *CvC(C)v-yv*. In this case the only phonological issues are those due to vowel-sequence and tonal constraints.

However, expected #*Cvɲv-yv* appears as *Cvn-jv*, and expected #*Cvgv-yv* or #*Cvjv-yv* appears as *Cvj-jv*. Only underlying trisyllabic sequences (including the suffix) are affected. The derivation is somewhat tricky; I suggest (29).

(29) Derivation of syncopated *CvC-jv-*

- a. vocalic and tonal constraints for trisyllabic stems apply so that the derived *CvCv-yv* has a medial high vowel {*i u*}
- b. the short high vowel is syncopated in the medial syllable of *CvCv-yv*, with flanking consonants *C₂* and *y* playing a conditioning role
- c. /y/ hardens to *j* after a nasal or stop
- d. velar *C₂* assimilates in position to the following *j*

The known examples involving *Cvɲv* are in (30a). There is one example with a *Cvɲgv* stem (30b).

(30) *Cvɲ(g)v-* to mediopassive *Cvn-jv-*

Mediop	gloss	related form(s)
a. <i>Cvn-jv</i> < <i>Cvɲv-</i>		
<i>zín-jé</i>	‘ride double’	<i>zìɲé</i> ‘have (sb) ride double’
<i>bán-jé</i>	‘hide (self)’	<i>bá:-ndé</i> ‘hide (sth)’, adjective <i>bǎɲ</i> ‘secret’
<i>dín-jé</i>	‘become firm’	adjective <i>dìɲú</i> ‘firm (ground)’
<i>jén-jé</i>	‘be tilted, bent’	<i>jé:-ndé</i> ‘tilt, bend (sth)’, adverb <i>jèɲ</i> ‘tilted’
<i>nún-jó</i>	‘get dressed’	reversive <i>nùɲú-ló</i> ‘undress (self)’
b. <i>Cvn-jv</i> < <i>Cvɲgv-</i>		
<i>pán-jé</i>	‘choke on food’	reversive <i>páɲgí-lí-yé</i> ‘dislodge food causing choking’

I know of no *Cvɲv* or *Cvɲgv* stems that fail to syncopate before the mediopassive suffix. On the other hand, syncope does not apply when the medial vowel is a non-velar nasal: *gìní-yé* ‘slip out of position’, *pámí-yé* ‘be up against’, *kárⁿí-yé* ‘be done, be possible’.

The known examples of *Cvjv-* or *Cvgv-* combining with the mediopassive suffix are in (31). Inchoative ‘become hot’ is mediopassive in form.

(31) *Cvjv-* or *Cvgv-* to mediopassive *Cvj-jv-*

Mediop	gloss	related form(s)
a. from <i>Cvjv-</i> <i>ɔ́j-jé</i>	‘become hot’	<i>ɔ́jú</i> ‘hot; fast’, <i>ɔ́:-dí-yé</i> ‘be fast’
b. from <i>Cvgv-</i> <i>táj-jé</i>	‘put on shoes’	<i>tágí-lé</i> ‘take off shoes’, noun <i>tàjú</i> ‘shoes’
c. isolated <i>gój-jé</i>	‘carry over shoulder’	stative <i>gògá</i>

‘Become hot’ is synchronically best derived from /*ɔ́jú-yé*/. Dogon cognates have *g* rather than *j* in the adjective ‘hot’ and its related inchoative verb. In YD, the *j* in *ɔ́jú* ‘hot’ might have been back-formed from *ɔ́j-jé*, but synchronically it is basic to the word family. ‘Put on shoes’ is more closely related morphophonologically and semantically to the reversive verb than to the related noun, whose *j* (versus *g* in cognates) may again reflect back-formation from *táj-jé* in the frequent collocation *tàjú táj-jé* ‘put on shoes’. I therefore favor /*tágú-yé*/ as underlying form for *táj-jé*. It follows that both *Cvjv* and *Cvgv* are subject to syncope before the mediopassive suffix. I know of no counterexamples.

As noted above, syncope only applies to the second syllable (from the left) in a *CvCv-Cv...* sequence, i.e. in a weak metrical position (§3.1.2). It does not apply in such examples as *wèzú-gí-yé* ‘become crazy’ where the relevant segmental lineup is in the third syllable from the left.

Transitive suffix *-dv*, which is often paired with mediopassive *-yv* to form doublets (§9.3.1.1), also frequently syncopates a preceding *CvC(C)v* stem. However, this time the favored preceding *C(C)* is labial. Specifically, *Cv bv* becomes *Cvb-dv* (32a) and *Cvmv* becomes *Cvm-dv* (32b-c) with one possible exceptional case of *Cvm-nv* (32d). The known examples are in (32). The conversion of *Cvmbv* to *Cvm-dv* could be analysed as a special case of syncope, with intermediate /*Cvmb-dv*/ then simplifying /*mbd*/ to *md*. Alternatively, *Cvm-dv* could be produced directly by truncating the /*bv*/. I know of no cases where an input verb of these three shapes fails to syncopate before *-dv*.

(32) *Cv bv* and *Cvmbv* to transitive *Cvb-dv* and *Cvm-dv*

transitive	gloss	related	gloss
a. <i>Cvb-dv</i> < <i>Cv bv-</i> <i>ób-dó</i>	‘have (sb) sit’	<i>óbí-yó</i>	‘sit’
<i>zíb-dó</i>	‘gird (sb)’	<i>zíbí-yó</i>	‘gird self (with wrap)’
<i>tób-dó</i>	‘wrap turban on (sb)’	<i>tóbí-yó</i>	‘wrap turban on oneself’
<i>íb-dé</i>	‘frighten (sb)’	<i>íbí-yé</i>	‘be afraid’

- b. *Cvm-dv* < *Cvmv-*
pám-dé ‘put beside’ *pámí-yé* ‘come up beside’
- c. *Cvm-dv* < *Cvmbv-*
bám-dé ‘have (sb) carry’ *bàmbí-yé* ‘carry on back’
yám-dé ‘cover (sb)’ *yàmbí-yé* ‘cover (self)’
- d. *Cvm-nv* < *Cvmv-*
yám-né ‘damange, ruin (sth)’ *yám* ‘be damaged, malfunction’

Clearly the conditions for syncope before transitive *-dv* differ from those before mediopassive *-yv*. In particular, the forms in the rightmost column in (32a-b) above show resoundingly that even unclustered medial labials block syncope before mediopassive *-yv*.

A medial *r* allows syncope, apparently optionally, before *-dv* (33). Because *r* is a tap, it is difficult to determine whether the burst of air on its release counts as a vowel.

(33) *Cvrv* to transitive *Cvr-dv*

transitive	gloss	related	gloss
<i>gár-dé</i>	‘lay (sb) on back’	<i>gáy-yé</i>	‘lie on back’
<i>wér-dé</i>	‘teach; accustom (sb)’	<i>wé:-dí-yé</i>	‘be taught; become accustomed’

Transitive *gór-dó* ‘put hat on (sb)’ is omitted here, since it is best interpreted synchronically as a dissimilation from */gòdú-dó/*, see §3.5.4.5 and the related forms in (34a) below.

It is more difficult to determine whether medial velars, which favor syncope before *-yv*, do or do not also allow syncope before *-dv*. Pairs like *gògó* ‘(calabash) be hung’ with transitive *gó:-dó* ‘hang (calabash)’, and *dàgú* ‘turn out well’ with transitive *dá:-ndé* ‘do (sth) well’, suggest that the “regular” treatment of *Cvrv* before transitive *-dv* or allomorph *-ndv* is to delete the */g/* and contract the resulting vowel sequence to a long vowel. The same applies to *Cvjrv*, as shown by several pairs like *nǎŋ* (for */nàŋú/*) ‘go past’ with transitive *ná:-ndé* ‘cause to go past’. One (classic generative-phonological) interpretation of these phenomena is that Velar-Deletion precedes and bleeds syncope, in which case the latter rule does not need to exclude the velar cases. In any event, the morphophonology of transitive *-dv* and especially of the variant *-ndv* is not fully transparent.

Reversive suffix *-lv* (§9.1) does not syncope stems with either a medial velar or a medial labial: *kúmú-ló* ‘untie’, *tóbú-ló* ‘unroll turban’, *págú-lé* ‘untie’, *dìŋí-lé* ‘untie (knot)’. Instead, it syncopates stems with a medial *{d l}* to produce an *ll* cluster (34). For */dl/* to *ll*, see Stop-to-Lateral Assimilation (§3.5.4.2).

(34) *Cvdv* and *CvIv* to reversive *CvI-Iv*

reversive	gloss	related	gloss
a. <i>CvI-Iv</i> < <i>Cvdv</i>			
<i>gól-ló</i>	‘take off (hat)’	<i>gòdí-yó</i>	‘put on (hat)’
		<i>gòdú</i>	‘hat’
		<i>gór-dó</i>	transitive ‘put hat on (sb)’
<i>píl-lé</i>	‘open (door)’	<i>pídé</i>	‘shut (door)’
<i>tál-lá</i>	‘be un-stuck’	<i>tádú</i>	‘become stuck on (e.g. glued)’
<i>gíl-lé</i>	‘de-immobilize’	<i>gìdé</i>	‘immobilize (e.g. car)’
b. <i>CvI-Iv</i> < <i>CvIv</i>			
<i>míl-lé</i>	‘unbraid (rope)’	<i>mílé</i>	‘braid (rope)’

Cvnv- stems do not syncope: *kónú-ló* ‘unroll (mat)’, *mùnú-ló* ‘untangle’. I know of no *Cvrv* or *Cvrⁿv* stems with reversives. However, cognates in several other Dogon languages for the ‘put on hat’ stem (34a) have *r* < **d*.

Syncope is not normal before causative *-mé*. There are some *CvC-mé* causatives that derive from **CvCv-mv*, but since the underived stems are now *CvC* even without a suffix there is no synchronic evidence for syncope. *sín-mé* ‘cause to be sated’ looks like a syncope form but is likely derived from bare sem *sín*.

3.5.3.5 *v*-Shortening

A sequence of the type *Cv:CCv* may be created in a suffixally derived verb stem, either by Medial *C*-Deletion from */CvCv-CCv/* (§3.5.4.6), by syncope from */Cv:Cv-Cv/* (§3.5.3.4), or by Lateral Doubling from */Cv:-Iv/* (§3.5.4.2). If the medial *CC* cluster is a homorganic stop-nasal cluster, i.e. a cluster that allows a preceding long vowel, nothing more happens. This is the case when Medial *C*-Deletion is involved, since the suffix in question is transitive allomorph *-ndv*. Thus *ná:-ndé* ‘cause to go past’ from *nǎŋ* ‘go past’.

However, *ll* does not allow a preceding long vowel, even when the input to a derivational suffix has one (35).

- (35) a. *dé:dé* ‘extend, hold out (e.g. arm)’
dél-lé ‘retract, pull back (extended arm)’
- b. *kó:* ‘cover (calabash) with (animal) hide’
kól-ló ‘remove animal hide from (calabash)’

The phonological derivations are not completely transparent. However, a reasonable derivation of the reversive form in (35a) is from */dé:dé-lé/* via syncope of the medial vowel which might have been raised to a high vowel in the meantime (§3.5.3.4, above) followed by

Stop-to-Lateral Assimilation (§3.5.4.3, below). This would get us to /dɛ:l-lɛ/, whose long vowel must still be shortened to produce *dɛl-lɛ*.

In (35b), the conversion from /Cv:-lv/ to *Cvl-lv* might be done in a single step, if we focus on output constraints (i.e. on allowable shapes for reversible verb stems). Alternatively, we can do it in two steps, with Lateral Doubling getting us to /ko:l-lo/ (one might also segment this as /ko:-llo/), requiring us to then shorten the long vowel before *ll*.

(36) *v*-Shortening

A long vowel is shortened before a *CC* cluster (within the word) other than a homorganic nasal-stop cluster

3.5.4 Local consonant cluster rules

The following sections describe adjustments to consonants depending on their position (intervocalic, syllable-final, in clusters). There are some interactions with the vocalic rules discussed above, and some interactions among the consonantal rules themselves.

3.5.4.1 Derhoticization (/rⁿ/ to *n*)

(37a) presents an alternation between syllable-final (including word-final) *n* produced by Stem-Final *u*-Deletion (§3.5.3.3, above) and intervocalic *rⁿ*, which I take to be lexically basic. The shift from /rⁿ/ to *n* is easily motivated since rhotics do not occur in syllable-final position. The intervocalic *n* in (37b) and many other examples shows that no general rule of the type /n/ to *rⁿ* could be justified synchronically, regardless of whatever the historical situation may have been.

- | | | | |
|------|----|---|--|
| (37) | a. | <i>bǎn</i>
<i>bàrⁿá-m-ù</i> | ‘beat (tomtoms)’
‘he/she will beat (tomtoms)’ |
| | b. | <i>mànú</i>
<i>màná-m-ù</i> | ‘cook (meal)’
‘he/she will cook (meal)’ |

The process in (37a) is formulated as (38).

(38) Derhoticization

/rⁿ/ > *n* in syllable-final position

3.5.4.2 Lateral-Doubling (/Cv:-lv-/ to CvI-lv-)

Consider what happens when a Cv: verb is combined with reversive -lv. The two examples in (39) are the only ones known to me.

- (39) a. *kó:* ‘cover (calabash) with hide (to make a tomtom)’, cf. Nanga *kówró*
kól-ló ‘remove animal hide from (calabash)’
- b. *dǎ:* ‘cover the opening of (jar) with a cloth’, cf. Nanga *dèwí*
dál-lé ‘remove cover from (jar)’

Historically, these reversives were *Cvw-lv- or some modification thereof. Current speakers of course have no evidence for the *w. The most reasonable synchronic analysis is that *Cv:-lv- reversives are disallowed and must be converted into an acceptable shape, with CvI-lv- being the phonologically closest acceptable shape.

(40) Lateral-Doubling

A Cv: stem combines with reversive -lv as CvI-lv.

There are no known counterexamples.

The formulation in (40) is a one-step process aimed at an output target. Another approach would be to separate Lateral Doubling (§3.5.4.2) from v-Shortening (§3.5.3.5, above). The derivation would then be of the form /Cv:-lv/ → /Cv:l-lv/ or, with a different segmentation, → /Cv:-llv/ by Lateral Doubling, then CvI-lv by v-Shortening. The v-Shortening rule is also needed (though rarely) in derivations involving syncope.

3.5.4.3 Stop-to-Lateral Assimilation (/dl/ > ll)

There is evidence from suffixal verb derivation, especially reversives (regular suffix -lv), for assimilation /dl/ to ll. In (41), the reversive is shown below the non-reversive form.

- (41) a. *gòdí-yó* ‘put on (hat)’ (mediopassive)
gól-ló ‘take off (hat)’
- b. *pídé* ‘shut (door)’
píl-lé ‘open (door)’
- c. *tádú* ‘become affixed (e.g. glued on)’
tál-lá ‘be unglued, (something affixed) be taken off’
- d. *gìdè* ‘immobilize (e.g. car, with a stone under a wheel)’
gíl-lé ‘de-immobilize, remove object immobilizing (sth)’

This is the YD counterpart to what I have called “Rhotic Assimilation” in some other Dogon languages, where /rɪ/ surfaces as *ll*. For the prior syncope reducing /Cvdv-lv/ to /Cvd-lv/, creating the conditions for the assimilation, see §3.5.3.4, above.

(42) Stop-to-Lateral Assimilation

/dl/ > *ll*

3.5.4.4 *l*-to-*r* Shift

This shift is attested in one alternation (43).

(43)	transitive	gloss	related	gloss
	<i>bùrú-dé</i>	‘put pants on (sb)’	<i>bùl</i>	‘pants’ (noun)
			<i>bùlú-yó</i>	‘put pants on (self)’ (mediopassive)

I know of no other *Cvlv* stem with a transitive suffixal derivative. The shift to *r* therefore might be considered regular, though only one example is known.

(44) *l*-to-*r* Shift

Stem *Cvlv* combines with transitive *-dv* as *Cvrv-dv*

This alternation suggests that *Cvru-dv* is a favored shape for transitive derivatives, while #*Cvlu-dv* is not. *Cvru-dv* also arises by *dvd*-Dissimilation (§3.5.4.5). These two processes are closely related and might be combined into one, in which case the role of dissimilation as such would be demoted.

There is an alternative treatment of /Cvlu-dv/, namely Medial *Cv*-Truncation to just *Cv-dv* (§3.5.4.7). It is possible that the initial consonant of the stem plays a role in choosing between *l*-to-*r* Shift and Medial *Cv*-Truncation, with an initial alveolar favoring the latter.

3.5.4.5 *dvd*-Dissimilation (/dv-d/ → *rv-d*)

There are two alternations where it appears that a *Cvdv-* stem has shifted to *Cvrv-* by dissimilation to a following *d* in the transitive suffix *-dv*.

(45)	transitive	gloss	related	gloss
	<i>gór-dó</i>	‘put hat on (sb)’	<i>gòdí-yó</i>	‘put hat on (self)’ (mediopassive)
	<i>kór-dó</i>	‘hang (sth) up’	<i>kódí-yó</i>	‘be hung up’ (mediopassive)

There is no reason for *r* to shift to *d* before the mediopassive suffix *-yv*, and so no reason to posit underlying *r*. By contrast, there is a reason (dissimilation) for *d* to shift to *r* in this morphological context. The noun *gòdú* ‘hat’ has *d*, further supporting lexical (underlying) *d*. Therefore the (synchronic) directionality seems clear. *Cvru-dv* is a favored shape for transitive derivatives; this is also the output of *l-to-r* Shift (§3.5.4.4).

There is also one case where the suffixal *d* shifts to *r*. This is transitive *kóndí-ró* ‘bend (e.g. stick)’, cf. mediopassive *kóndí-yé*. Here the *d* in the stem could not shift to *r*, since it is clustered with a preceding nasal (*r* occurs only between vowels). So the next best thing is to dissimilate the suffixal *d* to *r*.

(46) *dvd*-Dissimilation

- a) *Cvdv* stem combines with transitive *-dv* as *Cvru-dv*
- b) *Cvndv* stem combines with transitive *-dv* as *Cvndv-rv*

In one case neither of these dissimilations is applied; instead, the stem-final *dv* is deleted, leaving just one *d*. For *té-dé* ‘lay out (mat)’ versus *tédí-yé* ‘(mat) be laid out’, see Medial *Cv*-Truncation (§3.5.4.7), below.

3.5.4.6 Medial *C*-Deletion

In some verbal derivatives with transitive suffix *-dv* (*-ndv*), an expected #*CvCu-dv* (with raised medial vowel) appears instead as *Cv:-dv* or *Cv:-ndv*. The most straightforward account is that the medial *C* is deleted and that the flanking vowels then contract into a long vowel. It is convenient (but not crucial) to have the *C*-Deletion and *vv*-Contraction precede (and block) the raising of the medial vowel to *u* (or *i*).

The relevant examples are in (47).

(47)	transitive	gloss	related	gloss
	a. <i>-dv</i> suffix with deletion of medial { <i>g j</i> }			
	<i>tá:-dé</i>	‘put shoes on (sb)’	<i>táj-jé</i>	‘put shoes on (self)’ (mediopassive)
			<i>tágí-lé</i>	‘take off (shoes)’ (reversive)
			<i>tàjù</i>	‘shoe’
	<i>pó:-dó</i>	‘lay (cross-poles)’	<i>pój-jó</i>	‘(cross-poles) be laid’ (mediopassive)
			<i>pòjù</i>	‘cross-poles (in roof)’
	<i>lé:-dé</i>	‘insert (as mark)’	<i>lègé</i>	‘insert’
			<i>léj-jé</i>	‘slip oneself in’ (mediopassive)

b. *-ndv* suffix with deletion of medial nasal

<i>bá:-ndé</i>	‘hide (sth)’	<i>bànjí-lé</i>	‘uncover, reveal’ (reversive)
<i>í:-ndé</i>	‘stop (sth)’	<i>?ǎjǐ-yé ~ ǐjǐ-yé</i>	‘(sth) stop’ (mediopassive)
<i>nú:-ndó</i>	‘dress (sb)’	<i>nún-jó</i>	‘get dressed’ (mediopassive)
		<i>nùjǐ-ló</i>	‘undressed’ (reversive)
<i>jé:-ndé</i>	‘tilt (sth)’	<i>jén-jé</i>	‘be tilted’ (mediopassive)
<i>tú:-ndé</i>	‘cause to kneel’	<i>tún-jé</i>	‘kneel’ (mediopassive)
<i>ná:-ndé</i>	‘cause to go past’	<i>nǎj</i>	‘go past’

c. *-ndv* suffix with deletion of medial non-nasal {*g w*}

<i>dá:-ndé</i>	‘do (sth) well’	<i>dàgú</i>	‘turn out well’
<i>sú:-ndó</i>	‘take down’	<i>súwó</i>	‘go down’

A similar process is observed in one deadjectival inchoative: *ǎ:-dí-yé* ‘be fast’, cf. adjective *ǎjú* ‘fast; hot’ (contrast inchoative *ǎj-jé* ‘become hot’, in mediopassive form).

bá:-ndé ‘hide (sth)’ (47b) has a homonym, not directly relevant here, meaning ‘fill (sth)’, from *bǎ:* ‘become full’.

The most straightforward interpretation of the data in (47) is that the medial *C* is deleted and the resulting *vv* cluster contracts to a long vowel.

(48) Medial *C*-Deletion

Stem *CvCv* with medial nasal or {*g j w*} loses its medial consonant before transitive *-dv* (*-ndv*)

This is always followed by *vv*-Contraction.

y can be added to the list of deletable consonants if we analyse *dú:-dé* ‘have (sb) carry (sth) on head’ as derived from mediopassive *dì-yé* ‘carry (sth) on head’. However, this derivation is not transparent because of the vowel-quality alternation. Conceivably *dì-yé* could be derived from */dù-yé/*, but there is no other evidence for */u/* > *i* before *y*, and one might have expected */dù-yé/* to surface as *#dù-yó*.

There is a possible alternative analysis of the phenomena in (47). The majority of cases involving suffix allomorph *-ndv* (as opposed to *-dv*) are those where the deleted medial *C* is a nasal (47b). We should therefore consider the possibility that the suffix-allomorphic *n* is a trace of the deleted nasal. However, aside from the difficulty in formulating such a rule, the counterexamples in (47c), reinforced by *bá:-ndé* in the sense ‘fill’ from *bǎ:* ‘become full’, show that no simple phonological rule can account for all cases of *-ndv* allomorph.

This is the synchronic situation, but comparative evidence suggests that the counterexamples in (47c) once actually did have stem-medial nasals in the transitive form. Compare the YD transitive forms there with Jamsay *súnú-ǎó* ‘take down’ (irregular from *súgó* ‘go down’), and with Jamsay *dànàǎǎ*, Pergue *dàngá*, and Ben Tey *dàngí* ‘get ready’ (especially: ‘arrange one’s baggage for traveling’). The semantic gap between ‘turn out well’ and ‘get ready’ is only apparent. YD *dàgú* has a broad set of contextual senses ‘turn out well’, ‘be well-made’, ‘(garment) fit well’, ‘be acceptable’, and ‘come to an agreement’. Nanga

3.5.5 Vowel-vowel and vowel-semivowel sequences

3.5.5.1 Hiatus between adjacent vowels in reduplications

In compounds whose first element ends in a vowel and whose second element is *-é:* ‘child’ (with various semantic extensions), my assistant strongly prefers a careful pronunciation with the vowels separately articulated, as in *sèmbè-é:* ‘distaff’ and *ànzù-é:* ‘roselle seed(s)’. Similar careful pronunciations occur in other compounds such as *kùdà-ǎn* ‘wild-grape seed mash’, and in iterated (fully reduplicated) forms like intensifier *òró-òrò* ‘(head) completely shaven’. Of course in rapid speech the careful pronunciation is not always respected.

I know of no cases where a vowel-initial stem is preceded by a *(C)v-* reduplicative segment, which would likely also lead to separate pronunciation of the vowels (as in several other Dogon languages).

In verbal morphology no such inter-vowel breaks occur. In the few examples where a *CvCv* stem loses its medial consonant before a derivational suffix, by Medial *C*-Deletion (§3.5.4.6), the resulting vowel sequence contracts to a long vowel.

The E-stem of verbs (as in the perfective) involves a stem-final vowel change. It could be analysed as suffixation of an *e*-like vowel that fuses with the stem-final vowel. The same-subject subordinating suffix *-é:* ~ *-é:* has a similar phonology; indeed, it could be taken as a lengthened form of the E-stem (§15.2.3). The A/O-stem involves more minor stem-final vocalic feature changes and is not readily analysable as the addition of a vocalic suffix.

Derivational and inflectional verbal suffixes begin with consonants.

3.5.5.2 *vv*-Contraction ($v_1v_2 > v_1:$)

If the analysis of Medial-*C* Deletion (§3.5.4.6, above) is accepted, it presents a number of cases where *CvCv-* contracts to *Cv:-* before the transitive suffix by deletion of the medial *C* and subsequent contraction of the two flanking vowels. In all cases, the quality of the first of the two vowels survives.

(50) *vv*-Contraction

v_1v_2 contracts to $v_1:$

If formulated in this way, it does not matter whether *vv*-Contraction precedes or follows the raising of the second vowel in a trisyllabic derivative. The raised vowel will always be the v_2 in the contraction. However, it might be preferable to have *vv*-Contraction precede this raising. Because of the constraints on vowel sequences in verb stems, the two vowels in *CvCv* stems are either identical or differ only in height (high plus mid-height vowel). Deriving contracted *ɛ:* from /*ɛɛ*/ is more natural phonetically than deriving it from /*ɛu*/. However, the latter choice would be technically possible.

3.5.6 Local vowel-consonant interactions

3.5.6.1 /i-m/ > u-m or /u-y/ > i-y

There are few combinations that would tell us whether the assimilations /i-m/ → u-m or /u-y/ → i-y occur at morpheme boundaries. Although there is a 1Sg suffix -m and a 1Pl/2Pl suffix -y on verbs, they are normally preceded by non-high vowels (E-stem or A/O-stem). Imperfective -m- likewise does not follow any stems ending in i, and verbal noun allomorph -y does not follow u.

However, perfective negative suffix -lí- does occur in 1Sg -lu-m ~ -li-m, so /i-m/ → u-m is at least optional. (A different allomorph is used before the 1Pl/2Pl suffix.)

3.5.6.2 Monophthongization (/iy/ to i:, /uw/ to u:)

It is hard to find morphological contexts where an /iy/ or /uw/ would arise in syllable-final position, requiring Monophthongization to i: or u:, respectively. There are no inflectable verb stems ending in a high vowel that would create such sequences when combined with a pronominal-subject suffix -w (2Sg) or -y (1Pl, 2Pl).

However, the verbal noun type with final -u (§4.2.2) is relevant, since the suffixal vowel is deleted after an unclustered sonorant, including y and w. The result is verbal nouns like diy-Ø ‘carrying (on the head)’ from /diy-ù/, and sùw-Ø ‘defecating’ from /sùw-ù/. I prefer the transcriptions just given, since they bring out the morphological structure. However, they are pronounced [dì:] and [sù:].

The same verbal noun morpheme has allomorph -y after a monosyllabic stem, as in nò-y ‘going in’. Combining this with yé ‘weep’ produces an irregular yì-Ø ‘weeping’, presumably via /yì-y/ with irregular assimilation of ε to the flanking semivowels (contrast jè-y ‘killing’). I would have expected a long i: in ‘weeping’, but the vowel in yì-Ø is short.

3.5.6.3 y-Gemination in Cv-yyv stems

A stem shape Cv-yyv arises in two constructions.

First, the diminutive compound final -(i)yè appears as -yyè after shortened stem vowel in nǎ-yyè ‘calf’ or ‘toe’ (< nà: ‘cow’ or ‘foot’) and pě-yyè ‘lamb’ (< pè: ‘sheep’), see §5.1.8.

Second, mediopassive -yv appears as -yyé after shortened (or already short) stem vowel in pá-yyé ‘be joined’ (< pá: ‘join’) and kó-yyé ‘be raised’ (< kó).

In the mediopassive examples it is clear that the y is secondarily geminated and that a preceding Cv: is shortened to Cv. In effect, the second mora of the long vowel is absorbed by a spreading suffixal y. This might also work for the diminutives, but in that case one could argue that the geminated yy derives from desyllabification of the /iy/ in the full -(i)yè variant.

Whether this gemination is involved in mediopassive gáy-yé ‘lie on back’ depends on how we interpret its relationship to transitive gár-dé ‘lay (sb) on back’ (301c) in §9.3.1.1.

In all of these examples, the shortened stem-vowel is nonhigh. No gemination occurs after a high vowel in mediopassive *bì-yó* ‘lie down’ or *pí-yé* ‘become shut’, see (301a) in §9.3.1.1.

3.5.7 Palatalization /n/ → *j* and /l/ → *y* in negative verb paradigms

In the conjugation of negative verbs (perfective negative, imperfective negative, and stative negative), *n* ~ *j* and *l* ~ *y* alternations are observed in the AN suffix, the choice depending on the pronominal category. The palatal variant occurs before the 2Sg and the syncretic 1Pl/2Pl endings and in one case before the 3Pl ending. The palatalization is categorially controlled, does not have a consistent vocalic triggering context, and cannot be attributed to a productive phonological process.

In the perfective negative, see (386) in §10.3.3.1, omitting tones (which vary depending on stem melody), *-li-* in 3Sg *-li-Ø* and in 1Sg *-lu-m* ~ *-li-m* contrasts with palatalized *-y-* in 2Sg *-y-o* and 1Pl/2Pl *-y-e*. The remaining form is 3Pl portmanteau *-n*.

In the imperfective negative, see (391) in §10.3.3.4, omitting variants with *r* for suffix-initial *n*, *-nán-* or *-náj-* in 3Sg *-nán-Ø* ~ *-náj-Ø* contrasts with palatalized *-náj-* in 2Sg *-náj-ú*, 1Pl/2Pl *-náj-í*, and 3Pl *-náj-é*. The remaining form is the contracted 1Sg *-ná-m*.

In the stative negative, see (403) in §10.5.3.1, *n* in 3Sg *-ń-Ø* and 1Sg *-nú-m* contrast with *j* in 2Sg *-j-ú* and 1Pl/2Pl *-j-í*. The remaining form is 3Pl *-jé*.

3.6 Cliticization

There are no clause-level second-position clitics involving movement.

There is no sharp phonological distinction between suffixation and encliticization. This is because of the limited set of phonological processes applying to suffixes that might be used as a criterion.

For nouns and adjectives, animate plural *-mù* is here written as a suffix while definite markers like *gè* and *wò* are written as separate particles. All of these could, however, be reanalysed as **enclitics**. Both the animate plural suffix and the definite markers acquire H-tone after an /L/-toned noun or adjective, but this does not tell us whether the forms are suffixes, enclitics, or particles.

The **enclitics** that I recognize in transcription are the ‘it is’ enclitic *=.:* and its negative counterpart *=lǎ* (§11.2.1), which are attached to the final words of NPs, and conjugated past enclitic *=be-* (§10.6), which is attached to preceding verb forms. I also recognize low-level encliticization in the combination of *-mù* (animate plural suffix on noun or adjective) and definite *wò*, as in *pè:-mú=wò* ‘the sheep-Pl’, as in (73e) below. I use the symbol *=* for the boundary between host and enclitic. Other elements that might be considered enclitics but that I transcribe as suffixes or as separate particles are animate plural suffix *-mù* (§4.1.1), definite markers *gè* and *wò* more generally (§4.4.1), accusative suffix *-i:* ~ *-y* (§6.7), instrumental-comitative postposition *mì* ~ *mí:* ~ *mí* (§8.1.2), locative postpositions *nà* and *bà* (§8.2.4), quotative *wà* (§17.1.3), conditional *dè* ‘if’ (§16.1), and interrogative *mà* (§13.2.1). There is no

sharp distinction between enclitics, suffixes, and monosyllabic particles in YD, though tonal interactions and syllabification are indicators of either enclisis or suffixation.

Good cases for **proclitic** status, on syntactic grounds, can be made for preverbal realis or existential *yà* (§11.2.2.1) and preverbal subject pronominals in relative clauses (§4.3.1). These proclitics occur immediately before the verb; for the pronouns see §14.1.6 and §14.1.8 on this point. However, there is no unusual phonological interaction between proclitics and verbs, and I transcribe them with spaces rather than hyphens or =. Other candidates for proclitic status are the same pronouns functioning as possessors preceding inalienable noun, i.e. kin terms (§6.2.3.1).

3.7 Tones

3.7.1 Lexical tone melodies

I use the term “melody” to describe lexical tone patterns, before they are modified by grammatical overlays and/or by tone sandhi processes. Slashes /.../ enclose melody categories such as /L/, /H/, and /LH/. They can be thought of as autosegments, i.e. representations at a different level whose elements are spread over stems of varying syllable and mora counts. Curley brackets {...} enclose stem-wide tone overlays like {L} and {H}. They too are autosegmental, and are spread over stems, words, or word sequences.

3.7.1.1 At least one H-tone in each stem...(maybe) not!

YD diverges from the usual Dogon pattern whereby each noun, adjective, numeral, and (true) verb stem must have one lexical H-tone (ranging from one mora to stem-wide), so that the lexical melodies include /H/, /HL/, /LH/, and /LHL/, in a few languages also /HLH/, but not */L/. In YD this constraint is true of verbs, but there are numerous noun, adjective, and numeral stems of from one to three syllables that have /L/ melody, at least in isolation. In the case of nouns, there are two subtypes of this melody. Tomo Kan is another Dogon language with /L/ melody.

As will be shown in §3.7.1.3, nouns with apparent /L/ melody are associated, in some contexts, with an H-tone that is realized on definite markers *gè* and *wò*, in the prolonged final vowel of the ‘it is’ enclitic = .:, and (for a subset of animate /L/-melody nouns) on animate plural suffix *-mù*. For example, *nà:* ‘foot’ has a definite form *nà: †wó* with H-toned definite, in contrast to /H/-toned *sún* ‘ear’, whose definite form is *sún wò* with L-toned definite. The upstep symbol † indexes tone-raising. Similarly, /L/-toned nouns shift their own final syllable or mora to H-tone as initials in bahuvrihi compounds (§5.2.1.1). Analytical options are discussed in §3.7.1.5 below. To the extent that the H-tone must be included in the lexical representation (for example, as an associated floating tone), the constraint against /L/ melody can be salvaged for YD.

3.7.1.2 Lexical melodic classes of verbs

Melodic classes for verb stems must be abstracted from the complex tonal patterns associated with various unsuffixed and suffixed verb forms. The tones of a given stem can be adequately characterized by citing two “principal parts,” namely the bare stem and the perfective negative (suffix *-lí-* or *-lí-*). The perfective negative by itself is often, but not always, diagnostic. However, since it is based on the A/O-stem (which alters the vocalism of some verbs), it is not ideal as an all-purpose citation form. The suffix is L-toned *-lí-* after a fully /H/-toned stem, otherwise H-toned.

The classes are labeled after the combination of stem tones in the bare stem and those in the perfective negative. Thus /X ~ Y/-class verbs have /X/ in the bare stem (and the perfective), and /Y/ in the perfective negative. The basic types are illustrated in (51); the perfective (positive) forms shown here are those that are immediately preceded by realis proclitic *yà*. Phonological features of the stem partially, but not totally, predict class membership. There were some discrepancies between my two assistants that require discussion.

(51)	bare	perfective	PfvNeg	gloss	class
	<i>kún-dó</i>	<i>kún-dé-</i>	<i>kún-dó-lí-</i>	‘put’	/H ~ H/
	<i>bèlé</i>	<i>bèlé-</i>	<i>bèlà-lí-</i>	‘get’	/LH ~ L/
	<i>lìgé</i>	<i>lìgé</i>	<i>lìgé-lí-</i>	‘mix by stirring’	/LH ~ LH/
	<i>dómdó</i>	<i>dómdé-</i>	<i>dòmdà-lí-</i>	‘console’	/H ~ L/

Since the tones of the perfective (positive) are predictable from those of the bare stem, I will omit the perfective in the following.

The /H ~ H/ class has stem-wide /H/ melody in both bare stem and perfective negative. The perfective negative suffix is then L-toned. A sample of this verb class is in (52). All verb stems with an **initial voiceless consonant** belong to this class, regardless of syllabic shape (52a). The class also includes the majority (but not all) stems with **no initial consonant** (52b) and with **initial glottal** (52b), contrast (58c) below. There are also a small minority of **sonorant**-initial stems (52d).

(52) /H ~ H/ class: /H/ in bare stem, /H/ in perfective negative

	bare stem	PfvNeg	gloss
a.	initial voiceless consonant { <i>p t k c s h</i> } (includes all such verbs)		
	<i>kó</i>	<i>kɔ́á-lí-</i>	‘raise (child)’
	<i>ká:</i>	<i>ká:-lí-</i>	‘shave’
	<i>tóló</i>	<i>tóló-lí-</i>	‘pound (in mortar)’
	<i>té:dé</i>	<i>té:dé-lí-</i>	‘drain off (water)’
	<i>sál</i>	<i>sálá-lí-</i>	‘grind coarsely’
	<i>kún-dó</i>	<i>kún-dó-lí-</i>	‘put’

<i>támbú</i>	<i>támbá-li-</i>	‘kick’
<i>kégélé</i>	<i>kégéla-li-</i>	‘make incision’
b. no initial consonant		
<i>ún</i>	<i>ún-li-</i>	‘go’
<i>ébé</i>	<i>éba-li-</i>	‘buy’
<i>íngílé</i>	<i>íngíla-li-</i>	‘stand, stop’
<i>óbí-yó</i>	<i>óbí-yó-li-</i>	‘sit’
c. glottal plus schwa		
<i>ʔólé</i>	<i>ʔóla-li-</i>	‘ripen’
<i>ʔéǵé</i>	<i>ʔéǵa-li-</i>	‘eat (meal)’
d. initial sonorant		
<i>yé</i>	<i>yá-li-</i>	‘weep’ (§10.2.1.1)
<i>nó</i>	<i>nǵá-li-</i>	‘go in’ (§10.2.1.7)

For my second assistant, the phonological subtypes in (52a-d) above exhaust the /H ~ H/ class. For my first assistant, certain prosodically heavy stems *n* also belong to this class. These stems are either trisyllabic with medial *NC* cluster, or bisyllabic with a long vowel. The known cases are listed in (53), showing the variant perfective negative tones for assistants 1 and 2. We will see below that initial- $\{In\}$ verbs have other distinctive tonal properties. For the second assistant, the stems in (53) belong to the /H ~ L/-class, see below.

(53) Variably /H ~ H/ or /H ~ L/ (depending on speaker)

bare stem	PfvNeg	gloss
initial $\{n\}$, prosodically heavy <i>Cv:(N)Cv</i> or <i>CvNCvCv</i> shapes		
<i>ná:-ndé</i>	<i>ná:-ndá-li-</i> (1) <i>nà:-ndà-lí-</i> (2)	‘cause to go past’
<i>ná:-rⁿé</i>	<i>ná:-rⁿá-li-</i> (1) <i>nà:-rⁿà-lí-</i> (2)	‘straighten’
<i>nímdí-yé</i>	<i>nímdí-yé-li-</i> (1) <i>nìmdì-yè-lí-</i> (2)	‘become dirty’
<i>nám-dí-yé</i>	<i>nám-dí-yá-li-</i> (1) <i>nàmdì-yà-lí-</i> (2)	‘become difficult’

The second major tone-class of verbs has /LH/ melody in the bare stem, and an L-toned stem before an H-toned suffix in the perfective negative. A representative list is in (54). This class includes all prosodically **light** stems (up to two moras) with initial **voiced obstruent** $\{b d g j z\}$ (54a). Stems of *CvCCv* shape with *NC* clusters can be treated as light (bimoraic); see §10.2.2.5 for details. This tone-class also includes most prosodically light stems with initial **sonorant** (54b), but only a minority when the sonorant is $\{In\}$, on which see (56) below.

(54) /LH ~ L/ class: /LH/ in bare stem, /L/ in perfective negative

bare stem	PfvNeg	gloss
a. initial voiced obstruent { <i>b d g j z</i> }		
<i>prosodically light</i>		
<i>bǎ:</i>	<i>bà:-lí-</i>	‘suffice’; ‘equal’
<i>bèlé</i>	<i>bèlà-lí-</i>	‘get’
<i>gùló</i>	<i>gùlò-lí-</i>	‘dig’
b. initial (voiced) sonorant { <i>m n ŋ l w y</i> }		
<i>prosodically light</i>		
<i>wǎ:</i>	<i>wà:-lí-</i>	‘pull up (sleeve)’
<i>yèmbé</i>	<i>yèmbà-lí-</i>	‘pick out’

This class also contains some prosodically heavy stems (trisyllabic, or bisyllabic with long first syllable). However, a partial shift toward from /LH ~ L/ toward the /H ~ L/ class, which is discussed below, appears to be in progress. Tonal transcriptions for the bare stem and perfective (positive) for my first assistant were inconsistent, with either /LH/ or /H/-tones. My second assistant clearly has /H/-toned perfective (positive) for all verbs in (55). As for the bare stem and several other paradigmatic forms based on the bare stem, the second assistant pronounced /LH/-toned forms of stems with initial-syllable short vowels, but /H/-toned forms of stems with initial-syllable long vowels.

(55) /LH ~ L/ with variably-toned perfective

bare stem	perfective	PfvNeg	gloss
a. initial voiced obstruent { <i>b d g j z</i> }			
<i>trisyllabic, initial short V</i>			
<i>bàmbí-yé</i>	<i>bámí-yé</i> (2)	<i>bàmbì-yà-lí-</i>	‘carry on back’
<i>trisyllabic, initial long V</i>			
<i>bà:líyé</i> (1)	<i>bá:líyé</i> (2)	<i>bà:lìyà-lí-</i>	‘go around’
<i>bá:líyé</i> (2)			
b. initial (voiced) sonorant { <i>m n ŋ l w y</i> }			
<i>trisyllabic, initial short V</i>			
<i>yòdí-yó</i> (1)	<i>yòdí-yé</i> (1)	<i>yòdì-yò-lí-</i> (1)	‘borrow’
<i>nìndí-yó</i>	<i>níndí-yé</i> (2)	<i>nìndì-yò-lí-</i>	‘listen’
<i>trisyllabic, initial long V</i>			
<i>yó:dí-yó</i> (2)	<i>yó:dí-yé</i> (2)	<i>yò:dì-yò-lí-</i> (2)	‘borrow’

Initial voiced obstruents have a natural phonetic depressing effect on the initial pitch of immediately following vowels, and such obstruents have famously created tone oppositions in East Asian and other languages. In eastern Dogon languages and some western languages, the depressing effect has been morphologized (in verbs, though generally not in other stem-classes), and is not a regular phonological process. The /LH ~ L/ verbs have other paradigmatic forms with initial H-tones, and often correspond to cognate nominals with initial H-tone.

The third class has /LH/ melody in both the bare stem and perfective negative. The majority of verbs with initial {*l n*}, excluding nonmonosyllabic stems with long first syllable, belong to this class; a sample is in (56).

(56) /LH ~ LH/ class: /LH/ in bare stem, /LH/ in perfective negative

bare stem	PfvNeg	gloss
initial sonorant { <i>l n</i> }, among other examples		
<i>prosodically light</i>		
<i>lègɛ́</i>	<i>lègá-lì-</i>	‘slip (sth) under’
<i>lìgɛ́</i>	<i>lìgɛ́-lì-</i>	‘mix by stirring’
<i>nǎ:</i>	<i>nǎ:-lì-</i>	‘spend night’
<i>nùzɔ́</i>	<i>nùzá-lì-</i>	‘push with butt of hand’
<i>nòmbó</i>	<i>nòmbó-lì-</i>	‘pound (fruit pits)’
<i>prosodically heavy (causative)</i>		
<i>lògɔ́-mɛ́</i>	<i>lògɔ́-má-lì-</i>	‘make sad, disappoint’

For my first assistant, a large number of non-causative trisyllabic verbs are of this type, but those verbs are /LH ~ L/ for my second assistant. For a list, see (358b) in §10.2.3.1.

Two *m*-initial stems belong to this class for my first assistant, but not for the second (57).

(57) Variably /LH ~ LH/ or /LH ~ L/ stems (depending on speaker)

bare stem	PfvNeg	gloss
initial sonorant { <i>m</i> }, only examples known		
<i>mèndɔ́</i>	<i>mèndá-lì-</i> (1)	‘seal up’
	<i>mèndà-lí-</i> (2)	
<i>mìnɛ́</i>	<i>mìnɛ́-lì-</i> (1)	‘roll (ginned cotton)’
	<i>mìnè-lí-</i> (2)	

The /LH ~ LH/ class has affinities to both the /LH ~ L/ and the /H ~ H/ and classes. The connection to /LH ~ L/ is obvious—the consistent initial L-tone. The bare stem is /LH/ in both classes. However, there is no obvious phonological reason why an initial {*l n*} should induce second-mora H-tone in the perfective negative, whereas other initial voiced sonorants (and voiced obstruents) allow the initial L-tone to extend to the end of the stem.

In this light, consider the possibility that the real affinity of the /LH ~ LH/ class is instead to the /H ~ H/ class. What they have in common is the following: a) the stem tones do not change from the bare stem to the perfective negative; and b) the stem is H-toned after the first mora in both forms. In other words, we could consider the /LH ~ LH/ class to be a variant of /H ~ H/ where the initial {*ln*} depresses the tone of just the immediately adjacent vowel. This is not a regular phonological process in YD, and indeed these same verbs with initial {*ln*} have other inflected forms with initial-syllable H-tones.

The fourth and last major class has /H/-toned bare stem and /L/-toned stem in the perfective negative (which therefore has an H-toned suffix). This class is a historical melting pot, consisting of the following: a) *Cv* and *nCv* stems, which are too short to carry rising tones; b) the remaining glottal- and vowel-initial bisyllabic stems that do not belong to the /H ~ H/-class; c) Fulfulde loanwords ending in *ε*; d) a subset of nonmonosyllabic stems beginning in *CvCCv*; and e) all nonmonosyllabic stems beginning in a long vowel, i.e. in *Cv:C(C)v*. Notably, the otherwise extremely common shape *CvCv* (with nonnull initial consonant) is almost completely absent from this class. I can cite only *wéjé* ‘give change’ (cf. noun *wéjù* ‘change, money back’), a Fulfulde loan whose medial *j* has likely simplified from an earlier geminate (Dogon “cognates” of the noun include Jamsay *wéccè* and Najamba *m̀béccè*). Since all YD verbs that begin with a voiceless obstruent belong to the /H ~ H/-class described above, the /H ~ L/ class contains stems with any other initial consonant.

A representative sample is in (58).

(58) /H ~ L/ class: /H/ in bare stem, /L/-H in perfective negative

bare stem	PfvNeg	gloss
a. initial voiced obstruent { <i>b d g j z</i> }		
<i>lighter than CvCv</i>		
<i>gó</i>	<i>gò-lí-</i>	‘go out’
<i>heavier than CvCv</i>		
<i>gòj-jé</i>	<i>gòj-jà-lí-</i>	‘carry on shoulder’
<i>búl-ló</i>	<i>bùl-là-lí-</i>	‘disinter’
<i>jén-jé</i>	<i>jèn-jà-lí-</i>	‘be bent’
<i>bán-mé</i>	<i>bàn-mà-lí-</i>	‘make (sth) red’
<i>dóm-dó</i>	<i>dòm-dà-lí-</i>	‘console’
<i>dím-dé</i>	<i>dìm-dà-lí-</i>	‘cause to follow’
<i>zĩ:-yé</i>	<i>zì:yè-lí-</i>	‘be flipped’
<i>bú:mbó</i>	<i>bù:mbà-lí-</i>	‘drag’
<i>bé:líyé</i>	<i>bè:líyè-lí-</i>	‘belch’

b. initial sonorant {*m n ŋ l w y*}

lighter than CvCv

<i>nó</i>	<i>nɔ̀à-lí-</i>	‘hear’
<i>ńdẹ́</i>	<i>ńdà-lí-</i>	‘give’

exactly CvCv (rare, see comments above)

<i>wẹ́jẹ́</i>	<i>wẹ̀jà-lí-</i>	‘give change’
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heavier than CvCv

<i>gó:dó</i>	<i>gò:dò-lí-</i>	‘insert (calabash)’
<i>yó:dó</i>	<i>yò:dò-lí-</i>	‘guard’
<i>má:né</i>	<i>mà:nà-lí-</i>	‘think’
<i>yám-dé</i>	<i>yàm-dà-lí-</i>	‘cover (sb)’
<i>yám-né</i>	<i>yàm-nà-lí-</i>	‘ruin’
<i>mú:mbó</i>	<i>mù:mbà-lí-</i>	‘assemble [tr]’

c. initial vowel, or glottal plus vowel

CvCv

<i>?ólẹ́</i>	<i>?əlà-lí-</i>	‘go up’
<i>úbó</i>	<i>ùbà-lí-</i>	‘pour’
<i>íbó (íbẹ́)</i>	<i>ìbè-lí-</i>	‘catch’

The /H ~ L/ class has strong affinities to the /LH ~ L/ class, and the two can be merged into a superclass. Both have an L-toned stem before the perfective negative suffix. Within the superclass, the choice between the two is predictable, as indicated in (59), with the single exception of *wẹ́jẹ́* ‘give change’.

(59) Choice between /LH ~ L/ and /H ~ L/ classes

stem is...	tone-class is...
monomoraic	→ /H ~ L/-class
bimoraic, with initial...	
...voiced consonant	→ /LH ~ L/-class
...vowel or glottal	→ /H ~ L/-class
trimoraic or longer, with initial...	
...short <i>Cv</i> syllable	→ /H ~ L/-class
...long syllable	→ /H ~ L/-class

Suffixal derivation affects the prosodic weight of a stem. This may or may not affect the tone-class assignment of the derivative. In (60a), the transitive derivative is too heavy to remain in the /LH ~ LH/ class and shifts to /H ~ L/. In (60b), the mediopassive is /LH ~ L/ but its transitive counterpart *nú:-ndó* is /H ~ L/; the reversive is tonally variable.

(60) Verbal derivation

bare stem	PfvNeg	gloss	class
a. underived and transitive (§9.3.1.3)			
<i>nǎŋ</i>	<i>nàŋá-lì-</i>	‘go past’	/LH ~ LH/
<i>ná:-ndé</i>	<i>nà:-ndà-lí-</i>	‘cause to go past’	/H ~ L/
b. mediopassive, reversive, and transitive			
<i>nún-jó</i>	<i>nùn-jà-lí-</i>	‘get dressed’	/LH ~ L/
<i>nùŋú-ló</i>	<i>nùŋú-lá-lì-</i> (1)	‘get undressed’	/LH ~ LH/
	<i>nùŋù-là-lí-</i> (2)		/LH ~ L/
<i>nú:-ndó</i>	<i>nù:ndà-lí-</i>	‘dress (sb)’	/H ~ L/

Finally, there are two irregular verbs that are closely related to each other in form and sense, the transitive verbs of transposition ‘bring’ and ‘take away, convey’ (61). Cognates in several other Dogon languages have similar tonal irregularities. For these two verbs, it is appropriate to show the imperfective negative as well as the bare stem and perfective negative. This is because these are the only two YD verbs that have /H/- rather than /L/-toned stem in the imperfective negative (the suffix therefore being L- rather than H-toned). *zó* ‘bring’ could be treated as forming a fourth, slightly irregular subdivision of the /H ~ H/ class just described.

(61) Irregular verbs of conveyance

bare stem	PfvNeg	IpfvNeg	gloss
initial voiced obstruent {z}			
a. <i>zǐn</i>	<i>zín-lì-</i>	<i>zín-nàn-</i>	‘take away, convey’
b. <i>zó</i>	<i>zó-lì-</i>	<i>zó-nàn-</i>	‘bring’

3.7.1.3 Lexical melodies for unsegmentable noun stems

Uncompounded noun stems also have a wide range of melodies. These include /H/, /HL/, /LH/, and for stems of at least three moras also /LHL/. There is one apparent example of /HLH/ in an unsegmentable stem, see (63c) below. Subject to qualms detailed below, we can add /L/ to the list for YD, though this melody is disallowed in other Dogon languages, except Tomo Kan far to the southwest of Yanda.

YD actually has two different kinds of /L/-toned noun, distinguishable only for animates. In the minority subtype, animate plural suffix *-mù* becomes H-toned (62).

(62) /L/-toned animate nouns with H-toned plural *-mú*

singular	plural	gloss
a. animal, uncompounded stem		
<i>èdè</i>	<i>èdè-mú</i>	‘chicken’
<i>pè:</i>	<i>pè:-mú</i>	‘sheep’
<i>àṅàṅ</i>	<i>àṅàṅ-mú</i>	‘bird’
<i>nòmzù</i>	<i>nòmzù-mú</i>	‘snake’
<i>àzègè</i>	<i>àzègè-mú</i>	‘animal’
<i>ògò-ṅòṅò</i>	<i>ògò-ṅòṅò-mú</i>	‘camel’
<i>dùṅyàrà</i>	<i>dùṅyàrà-mú</i>	‘lion’
<i>yùrùgù</i>	<i>yùrùgù-mú</i>	‘pale fox’
<i>nà:-nì:</i>	<i>nà:-nì:-mú</i>	‘cow that has calved’
<i>òy-nàmà</i>	<i>òy-nàmà-mú</i>	‘game animal’
b. animal, compound final		
<i>pè:-gàṅù</i>	<i>pè:-gàṅù-mú</i>	‘uncastrated (animal)’

In all other /L/-toned animate nouns (including, for example, many agentive compounds), animate plural *-mù* remains L-toned like the stem. Thus *nà:-mù* ‘cows’, *yè-mù* ‘woman’, and so forth.

A clever analysis of these would be to posit a floating H-tone at the end of the stems in the minority subclass (62), but not in the majority subclass. For example, ‘chicken’ would be lexically /èdè + H/ while ‘cow’ would be /nà:/. The floating H would be realized on a following /-mù/ suffix, as /-mú/.

However, both subtypes of /L/-toned animate nouns, plus the undifferentiated class of /L/-toned inanimate nouns, require H-toned forms of following definite markers. For example, both *èdè* †*gè* ‘the chicken’ and *nà:* †*gè* ‘the cow’ have an H-toned definite marker. By contrast, nouns with any lexical melody including an H-tone element that is overt in isolation (/H/, /HL/, /LH/, /LHL/) are followed by L-toned definite markers (§6.5.3, §3.7.4.2). /L/-toned nouns also show a pitch peak as part of the “dying quail” effect produced by the ‘it is’ enclitic, see ‘now’ in (439) in §11.2.1.1. Similarly, they have an H-toned final mora when they function as initials in bahuvrihi compounds (§5.2.1.1-2).

These details would suggest another clever analysis whereby all apparently /L/-toned noun stems, including the majority type (‘cow’), have lexical representations with a floating H-tone that is realized, if at all, on a following word: /èdè + H/ and /nà: + H/. But this would mean two conflicting analyses of how the floating H-tone is expressed. If both subclasses of nouns have representations of the type /X + H/, why does a minority subclass have plural /X-mú/ while the majority subclass has /X-mù/ ? And for the majority subclass, how does the H-tone flip over the animate plural suffix, raising the tone of definite plural †*wó*, as in *nà:-mù* †*wó* ‘the cows’, supposedly from /nà: + H-mù wò/? So we should be wary of simple phonological solutions to these problems. For discussion of the phonology, see §3.7.1.5 below.

Among the few irregular nouns (§4.1.2), ‘child’ is tonally as well as affixally irregular: /L/-toned singular *ènè* (with tonally irregular definite *èné gè*), plural *ènè* with tone shift but without *-mù* plural suffix (definite *èné wò*). ‘Woman’ is /L/-toned *yè*, but has definite singular *yé gè* ‘the woman’.

Excluding these irregularities, (63) gives examples of the regular lexical melodies for un-compounded and unpossessed nouns of various syllable counts. The animate plural column is not applicable to inanimate nouns.

(63) Lexical tones of noun stems

stem	animate plural	gloss
a. monosyllabic		
/H/		
<i>kí ~ cí</i>	—	‘thing’
<i>sún</i>	—	‘ear’
<i>tól</i>	<i>tól-mù</i>	‘pig’
/HL/, uncommon		
<i>probable loanwords</i>		
<i>dún</i>	—	‘hornless ram’
<i>wâw</i>	—	‘quarter of carcass’
/LH/		
<i>ǰěm</i>	—	‘reins’
<i>dǰy</i>	—	‘ground’
/L/ with H-toned animate plural suffix		
<i>pè:</i>	<i>pè:-mú</i>	‘sheep’
[fuller list in (62), above]		
/L/ with L-toned animate plural suffix		
<i>nà:</i>	<i>nà:-mù</i>	‘cow’
<i>sòm</i>	<i>sòm-mù</i>	‘horse’
<i>gà:ⁿ</i>	<i>gà:ⁿ-mù</i>	‘cat’
/L/ (inanimate)		
<i>sùŋ</i>	—	‘rope’
<i>dây</i>	—	‘hip’
b. bisyllabic		
/H/		
<i>ʔóné</i>	<i>ʔóné-mù</i>	‘goat’
<i>émé</i>	—	‘milk’
<i>ínjú</i>	—	‘water’
<i>púrⁿá</i>	—	‘flour, powder’
<i>cébzé</i>	—	‘scales (fish)’
<i>kúnzú</i>	—	‘knee’
<i>pídím</i>	—	‘intestines’

/HL/

native (or likely so)

<i>búlò</i>	—	‘top and back of head’
<i>tánà</i>	—	‘stick’
<i>énzèl</i>	—	‘straw’
<i>cémzè</i>	—	‘cooked colostrum’

frozen reduplication

<i>tótò:</i>	—	‘(empty) tin can’
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probable loanwords

<i>bédè</i>	—	‘highway’ (cf. Arabic root $\sqrt{\text{blt}}$).
<i>gábèl</i>	<i>gábèl-mù</i>	‘herder’s favorite animal’ (< Fulfulde)
<i>bú:dù</i>	—	‘money’ (Fulfulde and regional)
<i>kámsèl</i>	—	‘woman’s boubou’ (< French <i>camisole</i>)

/LH/

<i>zèjé</i>	—	‘offshoot’
<i>dùmó</i>	—	‘rear end’
<i>dòrò</i>	—	‘testicles’
<i>sùmzú</i>	—	‘saliva’
<i>bòndúm</i>	—	‘marrow’

/LHL/

<i>nǎ-yyè</i>	<i>nǎ-yyè-mù</i>	‘calf’ (diminutive of <i>nà:</i> ‘cow’)
<i>cě:nè</i>	—	‘balls of pounded peanuts’
<i>cìnzà-gǒmnò</i>	—	‘dry snout’ (<i>cìnzà</i> ‘nose’)
<i>kèpî:</i>	—	‘cap’ (French <i>képi</i>)
<i>bàzâm</i>	—	‘bassam (fabric)’
<i>tèmbên</i>	—	‘brick’

/L/ with H-toned animate plural suffix

<i>èdè</i>	<i>èdè-mú</i>	‘chicken’
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[full list in (62), above]

/L/ with L-toned animate plural suffix

<i>àpàn</i>	<i>àpàn-mù</i>	‘bird’
<i>kìlè</i>	<i>kìlè-mù</i>	‘herder’
<i>ìnjè</i>	<i>ìnjè-mù</i>	‘dog’
<i>ògò</i>	<i>ògò-mù</i>	‘chief, Hogoñ’

/L/ (inanimate)

<i>àà</i>	—	‘grass’
<i>sèrbà</i>	—	‘spur’
<i>cìr"à</i>	—	‘bone’

c. trisyllabic

/H/

<i>tóndóló</i>	—	‘star’
<i>tógóró</i>	—	‘skull’
<i>cégéré</i>	—	‘wood blocks on donkey’

<i>dúnyá</i>	—	‘life’
<i>gá:líyám</i>	—	‘gallbladder’
/HL/, includes many Fulfulde borrowings, realized as H.LL		
<i>jàbèrè</i>	—	‘donkey padding’
<i>dórà:jì</i>	—	‘a breed of goats’
<i>árkàmà</i>	—	‘wheat’
<i>wáynà:rè</i>	—	‘abomasum’
<i>bàràṅgàl</i>	—	‘cart poles’
/HLH/, only known example is likely a borrowing		
<i>héyèndé</i>	—	‘index finger’
/LH/		
realized as L.L.H		
<i>kàlàmbú</i>	—	‘muzzle-guard’
<i>yàmàkú:</i>	—	‘ginger’ (< Bambara)
(~ <i>yàmàkú:</i>)		
<i>bànakúl</i>	—	‘cassava’
realized as L.H.H		
<i>àlcébé</i>	—	‘stirrup’
<i>bàṅkélé</i>	—	‘temple (head)’ (~ <i>bàyⁿkélé</i>)
<i>zàmdúrí</i>	—	‘donkey’ (~ <i>zàmtúrí</i>)
<i>gìnzéla</i>	—	‘comb (of rooster)’
<i>bìnúgú</i>	—	‘roll of fabric’
<i>nì(n)zílú</i>	—	‘fruit pits’
<i>àpóndúl</i>	—	‘baobab flower’
<i>zèmbéré</i>	—	‘wattle (on chicken)’
/LHL/		
<i>sòṅóⁿḍ</i>	—	‘spinal cord’
<i>kàgádà</i>	—	‘armpit’ (~ <i>kà-kádà</i>)
<i>tùgúzù</i>	—	‘peanut balls with wild-date leaves’
<i>kùmbúrù</i>	—	‘baobab seed’
regional words (borrowings)		
<i>làsá:zù</i>	—	‘modern rifle’
<i>pàntàlô:ⁿ</i>	—	‘modern pants’ (< French <i>pantalon</i>)
/L/+H (animate)		
<i>àzègè</i>	<i>àzègè-mú</i>	‘animal’
/L/ (animate)		
(none)		
/L/ (inanimate)		
<i>kàràgà</i>	—	‘circumcision cohort’
<i>tòmòlò</i>	—	‘hole, pit’
<i>àntòṅgò</i>	—	‘sifting residue’
<i>ègèlè</i>	—	‘peanut’

d. quadrisyllabic (all arguably treated prosodically as compounds)

/H/		
	(none)	
/HL/ realized as H.L.L.L		
	<i>kóròbòrò</i>	<i>kóròbòrò-mù</i> ‘Songhay’
	<i>kóròbòrì</i>	<i>kóròbòrì-mù</i> ‘young bull’
/HL-HL/, flora-fauna frozen diminutives (§5.1.8)		
	<i>sátèl-íyè</i>	— ‘tree sp. (<i>Bauhinea</i>)’
	<i>símpàl-íyè</i>	— ‘tree sp. (<i>Boscia angustifolia</i>)’
/LH/ realized as L.L.L.H		
	<i>sòḡòwàlú</i>	— ‘stomach fat’
	<i>àmbàdàrⁿá</i>	— ‘treetop’
/LHL/ realized as L.L.H.L		
	<i>pòrùkíyà</i>	— ‘long boubou (robe)’
	<i>wògòtóro</i>	— ‘cart’ (regional word)
/L/+H (animate)		
	(none)	
/L/ (animate)		
	(none)	
/L/ (inanimate)		
	(none)	

The following points are of interest in comparison to other Dogon languages. First, there are many /L/-toned stems, many of which have cognates with /LH/ melodies. /LH/-toned nouns are correspondingly less numerous, but a fair number of such nouns exist, especially bisyllabics. There is a minimal pair: *dòrò* ‘nape’ versus *dòró* ‘testicles’. /HL/ is uncommon especially for monosyllabics; in particular, there are no attestations of #Cŷ: . Nonmonosyllabic nouns with /HL/ are fairly numerous; most but not all are from the cultural vocabulary and are probably borrowings (mainly from Fulfulde).

The location of tone breaks for bitonal /HL/ and /LH/ stems, and for tritonal /LHL/ stems, is discussed in §3.7.1.6-7 below.

3.7.1.4 Lexical tone patterns for adjectives and numerals

There are no major differences between the tone melodies of adjectives, numerals, and nouns.

Adjective stems can be /L/, /LH/, /LHL/, /H/, or /HL/. Of these, /LHL/ is limited to a few trisyllabic stems. /HL/ is the least common of the other melodies. There is only one type of /L/-toned adjective, unlike the case with nouns; this is because the animate plural suffix *-mù* is always L-toned after adjective stems (as for most, but not all, nouns). For inventories of adjectival stems, arranged by tone melodies, see §4.5, below.

The tones of numerals (§4.7.1) are complicated by the tonal effects of classifying prefixes *yè-*, *á-*, and *bó-*, and by tonal interactions among the morphemes in composite numerals. There is a binary lexical tone-overlay variation in the prefixed forms of the primary ‘2’ to

‘10’ numerals, namely between /H/ and /HL/, as in *yè-píyél* ‘10’ versus *yè-tá:ndù* ‘three’. *tùmá*→ ‘1’ is treated as a modifying adjective rather than like the nonsingular numerals.

3.7.1.5 Phonological options for H-tone with /L/-melody nouns

To summarize facts presented in §3.7.1.1 and §3.7.1.3, a final H-tone appears in some combinations involving apparent /L/-melody nouns, either on the final mora of the noun or on a suffix or definite marker. All /L/-melody nouns also acquire a final H-tone (or pitch peak) in the ‘it is’ enclitic form (which prolongs the final vowel, with terminal pitch fall), and when they function as initials in bahuvrihi compounds (which drop the tones of the adjective or numeral final). All /L/-melody nouns also require a H-toned definite marker *gέ* or *wó*, while other nouns have *gè* or *wò*.

If these were all the relevant facts, we would have three analytic choices. One is to posit an underlying /LH/-melody, as in /*nǎ:/* ‘cow’, whose H-tone would surface as such in bahuvrihis and in the ‘it is’ form, would shift onto a following definite marker, and would be deleted otherwise (including in isolation).

The second is to posit a floating H-tone as part of the lexical representation, as in /*nà:+H/* ‘cow’. The H-tone would be realized on a following definite marker, would shift back onto the final mora of the noun in bahuvrihis, would become the medial pitch peak in the prolonged final vowel of the ‘it is’ form, and would be deleted otherwise (including in isolation).

The third analysis would be to take the /L/ melody as authentic, as in /*nà:/* ‘cow’, and account for the H-tones by tone sandhi, i.e. by phonological processes that do not require a lexical H-tone. The H-toned definites would then be referred to Rhythmic Tone-Raising (§3.7.4.2), which is independently justified. The stem-final H-tone in bahuvrihi initials and the pitch peak in the prolonged vowel in the ‘it is’ form would be accounted for either by a constraint requiring an H-tone in the stem (in these combinations), or by a kind of mirror-image of Rhythmic Tone-Raising, since bahuvrihi finals are tone-dropped and since the ‘it is’ form ends in a pitch drop. Nothing would need to be done in other contexts (including isolation forms).

The first analysis, with /*nǎ:/* ‘cow’, is invalidated by the existence of a distinct true /LH/-melody class, whose final H-tone is stable; see (63) above for *dǎy* ‘ground’ and other examples. The /LH/-melody nouns are heard with rising tones even in isolation, unlike the /L/-melody nouns. This leaves the second and third analyses, with /*nà:+H/* and /*nà:/* ‘cow’ respectively, as reasonably consistent with the data. The choice between them would depend largely on one’s theoretical position with regard to floating tones.

But wait, there’s more! A major complication is that /L/-melody nouns divide into two subclasses based on whether animate plural suffix *-mù* appears as H-toned *-mú* or as L-toned *-mù*. All eleven known cases of *-mú* are listed in (62) above. All other /L/-melody stems have L-toned *-mù*. A few of them are included in (63a-b) above. With this information, a light bulb should light up. Since /L+H/ and /L/, for example /*nà:+H/* and /*nà:/* ‘cow’, passed muster above as viable lexical representations, we could put both types to good use, reserving /L+H/ for nouns with *-mú* and simple /L/ for nouns with *-mù*. ‘Cow’ with plural *nà:-mù*

would then be /nà:/, while ‘sheep’ with plural *pè:-mú* would be /pè:+H/. Inanimate /L/-melody nouns, which do not have a suffixed plural, do not distinguish /L+H/ from /L/, and could be represented in the lexicon with the simpler melody /L/.

This clever solution works in the sense of delivering the correct outputs. However, many languages (think of Arabic) have dozens of lexicalized plurals of nouns, and it would hardly strain the YD lexicon to absorb the eleven *-mú* plurals in (62). If so, we would back in the conundrum described above as to how to handle definites, ‘it is’, and bahuvrihis of /L/-melody nouns.

A further complication is that the secondary H-tones associated with /L/ (or /L+H/) melody do not appear in association with nouns that have had their tones dropped by an {L} overlay. Even /L/-melody nouns behave differently in this respect from their own tone-dropped forms, for example when possessed by a preceding possessor that contains an H-tone (§6.2.1.1). One way to account for this would be to have the {L} overlay include the relevant postnominal morphemes in their scope.

Two mildly irregular *Cv̂* nouns, namely *nò* ‘person’ and *yè* ‘woman’, unexpectedly become H-toned in definite singular *nó gè* and *yé gè* (§4.1.2). However, they disagree in the tone of the animate plural suffix: *nò-mó* ‘people’ but *yè-mù* ‘women’. Since only two high-frequency and atypically short nouns are involved, the handful of forms involved can easily be learned as such, and their tones have no obvious relevance to the analysis of other nouns.

3.7.1.6 Location of tone breaks for bitonal noun stems (/HL/, /LH/)

For fuller lists of the nouns in question, see (63a-d) in §3.7.1.3, above.

As a reminder, many nouns with /HL/ melody are Fulfulde borrowings. The tone break for /HL/ is at the first syllable boundary: *bédè* ‘highway’, *cémzè* ‘cooked colostrum’, *jábèrè* ‘donkey padding’, *kóròbòrì* ‘young bull’. Monosyllabic <HL> is rare. It is of course spread over the single syllable, as in *dūn* ‘hornless ram’.

The tone break for /LH/ is harder to pin down. Unsurprisingly, monosyllabic <LH> is spread out over the syllable (e.g. *dǒy* ‘ground’). For bisyllabics, the break is at the syllable boundary: *dòrǒ* ‘testicles’, *sùmzú* ‘saliva’, *bòndúm* ‘brain’. The number of tri- and quadrisyllabic /LH/ nouns is small, and the attested ones have syllabic and tonal patterns that could suggest compound status (i.e. with a morpheme-like break in the middle). Segmental shapes like *CvCCvCv* and *CvCvCvCv* look prosodically like nominal compounds (*CvC-CvCv*, *CvCv-CvCv*), and the tones of the relevant examples specifically suggest the very common (*ḥ ḥ*) type of compound (§5.1.3). Therefore the nouns *àlcébé* ‘stirrup’ (< Arabic), *bàṅkélé* ‘temple (head)’, *zàmdúru* ‘donkey’, *gìnzéla* ‘comb (of rooster)’, *pòrùkíyá* ‘long boubou’, *àmbàdàrà* ‘treetop’, and *sòṅòwàlú* ‘stomach fat’ could be divided up between *Cv̂C(v̂)-Cv̂Cv̂* and *Cv̂C(v̂)-Cv̂Cv̂* depending on whether the tone break is before the penult or the ultimate. *àpòndúl* ‘baobab flower’ could be taken as beginning with atonal *a-* prefix (§4.1.5) and should also be reduced to a bisyllabic case. This leaves only trisyllabic *CvCvCv* and *CvCvCCv* stems as those unlikely to be automatically (re-)interpreted as compounds for prosodic purposes. The evidence from these types is mixed, even if we allow homorganic nasal-voice stop clusters to “count” as intervocalic *C*. For L.H.H realization of /LH/ I can cite

bínúgú ‘roll of fabric’, *nì(n)zílú* ‘fruit pits’, *gìnzéla* ‘comb (of rooster)’, and *zèmbéré* ‘wattle (on chicken)’. For L.L.H realization I have *kàlàmbú* ‘muzzle-guard’. These data do not unambiguously decide the question, though they tend to favor a tone break at the first syllable boundary.

3.7.1.7 Location of tone breaks for tritonal noun stems (/LHL/, /HLH/)

The only regularly occurring tritonal pattern for nouns is /LHL/. The tone break occurs between the penult and ultimate, or internally in a final heavy syllable. Typical shapes are *Cv̂:Cv̂* (*cě:ně* ‘ball of pounded peanuts’), *Cv̂(C)Cv̂C* (*tèmbên* ‘brick’), *Cv̂Cv̂(:)Cv̂* (*sòḡór"ḡ* ‘spinal cord’, *làsá:zù* ‘modern rifle’), *Cv̂Cv̂Cv̂C* (*bànàkùl* ‘cassava’), *Cv̂Cv̂Cv̂:* (*yàmàkù:* ‘ginger’), and *Cv̂Cv̂Cv̂Cv̂* (*wògòtóro* ‘cart’). However, there is some danger of the latter three being segmented by native speakers as compounds with initial *Cv̂Cv̂-*, at least for prosodic purposes.

For /HLH/, the only example is *héyèndé* ‘index finger’. Nanga *héyyèndé* has the same /HLH/ pattern. I assume this is a loanword since it begins with *h* (typical of Fulfulde loans) but I have not determined its origin.

3.7.2 Grammatical tone patterns

3.7.2.1 Grammatical tones for verb stems

The complex array of lexical tone-melody types for verbs is described in §3.7.1.2, above. That classification was based primarily on the relationship between the bare stem and the perfective negative, thus /H ~ H/, /H ~ L/, /LH ~ L/, and /LH ~ LH/. The tone-melody class is partially predictable from the initial consonant (if any) and from the prosodic weight (syllable and mora count) of the stem. Stem-tones in other inflectional categories can be predicted from these two “principal parts,” except that the two basic verbs of transportation, irregular ‘bring’ and ‘take away, convey’, have additional forms based on /HL/.

The tone of an actual inflected verb form reflects the interface between lexical melodic classes and the tonal requirements of particular AN (aspect-negation) and modal categories. These inflectional categories are expressed by combinations of a vocally defined stem type (bare stem, E-stem, A/O-stem, U-stem) and a suffix, except that the perfective positive and the imperative lack inflectional suffixes. Pronominal-subject suffixes, which follow AN suffixes, have no tonal effects. There are also some combinations involving the conjugated past enclitic =*bε-* that must be considered. Chapter 10 gives extensive AN and modal paradigms for representative verbs. Some highlights from those data will be summarized here.

One category that stands apart tonally from all others is the **imperfective negative**, with suffix *-nán* ~ *-rán* (§10.3.3.4). This is the only AN category that consistently controls {L}-tone overlay on stems of all open tone-melody classes, including /H ~ H/. Exceptionally, ‘bring’ and ‘take away, convey’ have H-toned stem before this suffix, which itself is then L-toned *-nàn* ~ *-ràn*.

Each of the remaining AN categories systematically permits verbs to express at least a binary lexical distinction between H-initial and L-initial. However, H-initial has two variants (except in *Cv* stems), namely H... and HL... . Likewise, L-initial has two variants (except in *Cv* stems), namely L... and LH... . These formulae represent only verb-stem tones, including any derivational suffixes. The AN suffix itself has its own tone, which is sometimes polarized to the final tone of the stem and is sometimes autonomous.

In (64), stem-vocalism classes (e.g. A/O-stem) are disregarded to focus squarely on tones. The groups of categories are ordered in decreasing order of prevalence of H-tones. In (64a-c), there is in effect a binary distinction between H-initial stems, i.e. /H ~ H/ and /H ~ L/, and L-initial stems, i.e. /LH ~ L/ and /LH ~ LH/. The only differences between (64a) and (64b) is that the latter limits the H-tone of /H/ to the first syllable (or mora). (64c) is a variant of (64b) for a category that lengthens the stem-final vowel, with falling tone if not already L-toned.

In (64d-f), the news is that the /H ~ L/ class separates dramatically from the /H ~ H/ class, as the former drops all stem-tones, regardless of whether the /LH ~ L/ and /LH ~ LH/ classes retain a noninitial H-tone in the stem. The difference between (64d), (64e), and (64f) is in the differential conditions for dropping all tones in the /LH ~ L/ and /LH ~ LH/ classes. In (64d), neither class drops tones. In (64e), just the /LH ~ L/ class drops tones (this is the only context where the two tone-melody classes can be distinguished). In (64f), both classes drop all tones, joining with /H ~ L/ to constitute a binary opposition with /H ~ H/.

In (64g), all stems drop tones, so lexical tone melodies are erased.

(64) Tonal effects of AN categories (bisyllabic stems)

		if the stem is of tone-melody class...			
		/H ~ H/	/LH ~ L/	/LH ~ LH/	/H ~ L/
suffix	category	...then the stem-tone in this category is...			
a.		H	LH	LH	H
	<i>no suffix</i>				
	(none) bare stem				
	(none) perfective (after <i>yà</i>)				
	<i>suffix with invariant tone</i>				
	<i>-m̂</i> imperfective before AUX				
	<i>-m̂ = b̂è-</i> past imperfective				
	<i>-zɛ-</i> recent perfect				
b.		HL	LH	LH	HL
	<i>no suffix</i>				
	(none) imperative				
	<i>suffix with invariant tone</i>				
	<i>-m-ù</i> imperfective 3Sg				

- c. HL LHL LHL HL
suffix with invariant tone
 := *bá-li-* past imperfective negative
 [note: (c) is a variant of (b) with an extra L-toned mora]
- d. HL LH LH L
suffix with variable tone
 -zo- perfective-2
- e. H L LH L
initial suffixal syllable has opposite tone to stem-final tone
 -li- perfective negative
 -la prohibitive
 -ma hortative
- f. H L L L
suffix with invariant tone
 -téré-bè- experiential perfect
suffix with variable tone
 = *bε-* past perfect
 -zε = *bè-* past recent perfect
 -za-li- recent perfect negative
- g. L L L L
no suffix
 (none) perfective (defocalized)
initial suffixal syllable has opposite tone to stem-final tone
 -nan ~ -ran imperfective negative
 [exceptions: ‘bring’ and ‘take away’ with H-toned stem]

The formulae in (64) are correct for bisyllabic stems, based on the paradigms of *CvCv* stems, or *má:né* ‘think’ in the case of /H ~ L/. Some details differ for the shorter /H ~ L/ stems, namely those of shapes *Cv*, *?əCv*, and *vCv*, plus *ndé* ‘give’. The discrepancies involve experiential perfect *-téré-bè-*, past perfect = *bε-*, recent perfect *-zè-* and its negation *-za-li-*, and (for *Cv* stems) forms involving imperfective *-m̄*. See the relevant sections in Chapter 10 for details.

Verb forms in relative clauses have additional tonal as well as suffixal complexities, see §14.1.7.

Verb stems {L}-toned as part of certain nominalizations: in the productive verbal noun formation with suffix *-u* ~ *-y* (§4.2.2), and as finals in agentive compounds with the same suffixes (§5.1.5).

3.7.2.2 Grammatical tones for noun stems

Grammatically controlled tone overlays for noun stems occur in compounds and in the syntax of NPs and relative clauses. The most common tonal change is tone-dropping, i.e. the overlay of {L} on the entire stem, erasing the lexical melodies. Unlike lexically /L/-toned nouns, syntactically tone-dropped nouns are not associated with an H-tone that occurs on a following morpheme. Lexical /L/ and tone-dropped {L} can also be distinguished in the ‘it is’ enclitic construction. Therefore an /L/-toned noun can be tonally distinguished from its own tone-dropped form in these specific morphosyntactic contexts.

Tone-dropping occurs in the contexts listed in (65). Intervening words between the noun and the tonosyntactic controller mentioned may also be tone-dropped.

(65) Tone-dropping for noun stems

- a. within unpossessed NPs
 - before a modifying adjective, §6.3.1
 - before a demonstrative (‘this’, ‘that’), §6.5.2
- b. in a relative clause
 - as internal head NP of the relative, §14.1.2
- c. in nominal compounds
 - as compound initial, in the (ḥ ḥ) type of compound (§5.1.2)

Tone-dropping may be overdetermined, as in ‘that red house of Seydou’s that you see there’, where any one of the adjective, the demonstrative, the (definite) possessor, or the relative clause would suffice to drop the tone of ‘house’. Since there is no audible difference between the different kinds of tone-dropping, it is not possible to determine the fine points of tonal bracketing in such cases.

Nouns with a preposed possessor (i.e. all nonpronominal possessors, and inalienable pronominal possessors) have a possessor-controlled overlay. For alienables this is {H(L)} if the possessor has no H-tone, and {L} if it has an H-tone. The {H(L)} overlay is realized as H on a simple possessed noun, so in effect an alienably possessed noun can only be H or L. For examples see §6.2.1-2.

Inalienably possessed nouns always have a preposed pronominal possessor, including third-person pronouns that resume a preceding nonpronominal possessor. The possessed noun has {H} or {LH} overlay if nonmonosyllabic, the choice being lexical, see §6.2.3.

3.7.2.3 Grammatical tones for adjectives and numerals

An adjective is subject to tone-dropping controlled by a demonstrative to its right, or in an N-Adj internal head of a relative clause. The overlay in these cases is {L}.

In alienable Poss-N-Adj sequences (the possessor being necessarily nonpronominal), the possessor controls either {H(L)} or {L} on the N-Adj sequence (§6.2.4.1-2). The adjective surfaces as {L}-toned in either case.

By contrast, in inalienable Poss-N-Adj sequences (the possessor being necessarily pronominal), the possessor has no tonosyntactic effect on the N-Adj sequence. Instead, the adjective controls tones on the noun (and on the pronominal possessor), see §6.4.2.1.

Numerals are also subject to tone-dropping due to an external controller (possessor or demonstrative). The animacy prefix, however, is usually exempted from tone-dropping, so in some combinations we get numeral forms like *á-tà:ndù*^L ‘three’ (animate) with the prefix retaining its H-tone while the numeral drops tones (from *tá:ndù*). Furthermore, in the combination Poss-N-Num, a possessor-controlled overlay affects the noun only (§6.2.4.2).

3.7.3 Tonal morphophonology

3.7.3.1 Autosegmental tone association (verbs)

As in other Dogon languages, verb stems in particular lend themselves to a decomposition into segmental and tonal tiers. One can therefore think of stems like *nìyé* ‘sleep’ and *sízílé* ‘roll (dough) into rolls’ as constituted by a segmental string (*niye, sizile*), onto which is mapped an /LH/ or /H/ melody. Suffixal derivatives would inherit the melody, which would be (re-)mapped onto the stem-suffix combination. The mappings would be straightforward when the melody is monotonal /L/ or /H/, or when it has the same number of tones as there are syllables in the word, as when /LH/ or /HL/ is mapped onto *CvCv*. In cases like /HL/ mapped onto *Cv, Cv*; or *CvCvCv*, the mismatch would require a language-specific mapping system involving spreading, contour tones, and/or deletion of unassociated tones.

YD is somewhat resistant to a clean autosegmental analysis. It is partly unifying, since tone breaks for /HL/ and /LH/ are usually after the first syllable, so adding a suffixal syllable to a *CvCv*-stem would merely stretch out the second tone. It is also partly opaque, due to tone-flattening processes (§3.7.3.3-4 below) which run against the spirit of autosegmental analysis.

3.7.3.2 Phonology of contoured tone melodies and overlays

To summarize §3.7.1.6-7 above, for unsegmentable nouns the break for lexical /HL/ melody is after the leftmost syllable, while that for /LH/ melody may be after the leftmost syllable or occasionally before the rightmost syllable. On the other hand, the tone breaks in /LHL/ are as far to the right as possible.

For verbs, the break for lexical /LH/ in the bare stem is after the leftmost syllable, or between the two moras for *Cv*: stems. Ultra-short *Cv* stems reduce /LH/ to H. Tones of verb forms are subject to modification in various inflected forms which are best left to chapter 10.

The only {LH} tonosyntactic overlay applies onto to a subset of bimoraic kin terms following a possessor. The tone break is, predictably, at the mora boundary (§6.2.3.2, §6.2.3.5).

There is an {H(L)} overlay on alienably possessed nouns after L-toned possessors, but the full form including the L-tone component is audible only on N-Adj sequences in the form ^HN ^LAdj, so neither targeted word is tonally contoured.

3.7.3.3 Initial-Heavy-Syllable <LH> to H Flattening

There are indications in verbal derivational alternations that a nonmonosyllabic lexical /LH/ stem flattens to H when its first syllable is heavy. This does not apply to inflected forms where the stem is fully tone-dropped from /LH/ to {L}, as in the perfective negative. The result is that the affected stems, which would otherwise be of /LH ~ L/ type, constitute a large portion of the aberrant /H ~ L/ tonal class. One way to deal with this is to posit a tone-flattening rule that derives the H part of the inflectional paradigm from /LH/ for the relevant verbs. I flesh out this approach here.

Since the tone break in /LH/ verb stems is near the left rather than right edge, for nonmonosyllabic stems with initial heavy syllable the tone break should be inside the first syllable, as in *Cv̄:Cv̄* or *Cv̄CCv̄*. This happens in other Dogon languages with left-edge tone breaks (e.g. Nanga). If we recognize this as a pre-surface tone pattern for YD, we need a tone-flattening rule that applies to initial heavy syllables.

(66) Initial-Heavy-Syllable <LH> to H Flattening

In a nonmonosyllabic verb stem, in inflections where stem-wide tone-dropping does not occur, an initial heavy syllable flattens <LH> to H

For purposes of this rule, a “heavy” syllable is *Cv̄:* or *Cv̄C*. It is also understood that intervocalic {*mb nd nz ŋg*} are syllabified with the following vowel. Using “.” as a syllable separator, the initial syllables in *Cv̄.mby*, *Cv̄.ndy*, and *Cv̄.ŋgv* are light, while other intervocalic clusters require syllabification as *Cv̄C.Cv̄* with initial heavy syllable.

A more or less equivalent alternative would be to take the lexical /LH/ melody as occurring on a separate autosegmental tier, and to block the L-component from attaching under the circumstances described.

Alternations accounted for by this flattening rule, using the bare stem of each verb, are illustrated in (67). The suffixal derivatives in the right-hand column show the flattening, often in connection with reductions in form of the stem (syncope of final vowel, truncation of final *Cv̄* with subsequent compensatory lengthening).

(67) /LH/ {H}

a. underived stem is /LH/

Cv: stem

<i>bǎ:</i>	‘be full’	<i>bá:-ndé</i>	‘fill (sth)’
<i>dǎ:</i>	‘cover (opening)’	<i>dál-lé</i>	‘uncover (opening)’

CvCv stem (syncopated or truncated)

<i>bǎn</i>	‘become red’	<i>bán-mé</i>	‘make (sth) red’
<i>dàgú</i>	‘turn out well’	<i>dá:-ndé</i>	‘do (sth) well’
<i>bùdó</i>	‘bury’	<i>búl-ló</i>	‘disinter’
<i>gìdè</i>	‘immobilize’	<i>gíl-lé</i>	‘de-immobilize’
<i>lègè</i>	‘stick in between’	<i>lèj-jé</i>	‘slip in between’
"	"	<i>lè:-dè</i>	‘stick in between’
<i>mǎn</i>	‘seal with mud’	<i>mál-lé</i>	‘unseal’
<i>mìlé</i>	‘braid’	<i>míl-lé</i>	‘unbraid’
<i>nǎŋ</i>	‘go past’	<i>ná:-ndé</i>	‘cause to go past’
<i>yám</i>	‘malfunction’	<i>yám-né</i>	‘ruin (sth)’
<i>zǎŋ</i>	‘study’	<i>zám-mé</i>	‘teach’
<i>zǎŋ</i>	‘fight’	<i>zá:-ndé</i>	‘incite (to fight)’
<i>zìdè</i>	‘flip’	<i>zì:-yé</i>	‘be flipped’
<i>zìŋé</i>	‘have (sb) ride double’	<i>zín-jé</i>	‘ride double’

b. another suffixal derivative is /LH/

unsyncopated mediopassive is /LH/

<i>bàmbí-yé</i>	‘carry on back’	<i>bám-dé</i>	‘have (sb) carry on back’
<i>dìgí-yé</i>	‘be joined (arch.)’	<i>díj-jé</i>	‘be joined’
<i>dìmbí-yé</i>	‘follow’	<i>dím-dé</i>	‘cause to follow’
<i>dì-yé</i>	‘carry on head’	<i>dú:-dè</i>	‘have (sb) carry on head’
<i>gòdí-yó</i>	‘put on (hat)’	<i>gól-ló</i>	‘take off (hat)’ (reversive)
"	"	<i>gór-dó</i>	‘put hat on (sb)’
<i>yàmbí-yé</i>	‘cover self’	<i>yám-dé</i>	‘cover (sb)’
<i>zìbí-yó</i>	‘gird oneself’	<i>zìb-dó</i>	‘gird (sb) with a wrap’

unsyncopated reversive is /LH/

<i>bàŋí-lé</i>	‘uncover, reveal’	<i>bá:-ndé</i>	‘hide (sth)’
<i>jèŋú-lé</i>	‘straighten out’	<i>jén-jé</i>	‘be bent’
"	"	<i>jé:-ndé</i>	‘tilt (sth)’
<i>nàŋí-lí-yé</i>	‘be un-caught’	<i>nán-jé</i>	‘be caught (e.g. in tree)’
<i>nùŋú-ló</i>	‘get undressed’	<i>nún-jé</i>	‘put on (clothes)’

Underived stems of similar syllabic shapes might be considered to have undergone this process. In such cases, the evidence for lexical /LH/ is indirect: if the stem drops to L-tones in inflected forms such as the perfective negative, we could assume a lexical /LH/ melody, even if it never surfaces as such. Examples: *dóm-dó* ‘console’, *bé:líyé* ‘belch’, *má:né* ‘think’, *yó:dó* ‘guard’.

CvNCv and *CvNCvCv* verbs with medial {*mb nd nz ŋg*} do not undergo flattening, as suggested above. Examples: *nòmbó* ‘pound (fruit pits)’, *dùn-dó* ‘pile up, set down’, *dànzó* ‘re-open (wound)’, *mèngíré* ‘shape into balls’.

3.7.3.4 *Cv* stem <LH> to H Flattening

A similar flattening of <LH> to H is arguably at work in those *Cv* verbs that are /H/ in the bare stem and in certain suffixal inflections that are based on it, but that are /L/ in the perfective negative. On the basis of this drop, they can be suspected of having a covert /LH/ lexical melody. The stems in question are all *Cv* verbs beginning with a voiced obstruent, plus a subset of those beginning with a sonorant: *wó* ‘come’, *wó* ‘see’, and *nó* ‘hear’ (§10.2). The idea is that the lexical /LH/ melody cannot be realized on a single mora, so it is flattened to H.

3.7.3.5 Stranded-Tone Re-Linking

When a vowel is deleted (syncope, apocope), its tone merges with that of the preceding syllable. This is vacuous when the two tones in question are already identical. If they are different, a contoured tone <HL> or <LH> results. For example, the vowel of animate plural suffix *-mù* on nouns and other NP-words may be apocopated (§4.1.1). For *lòzú-mù* ‘duikers (mammals)’, the output is then *lòzú-m*, which could also be transcribed *lòzú-m̃*. For *pè:-mù* ‘sheep-PI’, the output is *pě:-m*, equivalent to *pè:-m̃*.

3.7.3.6 Contoured-tone redeployment after *u*-Epenthesis and resyllabification

Resyllabification occurs in a handful of verb forms that are subject to *u*-Epenthesis. The relevant examples are unconjugated imperfective *úrⁿ-úm* ‘going’ and *zìn-úm* ~ *zìrⁿ-úm* ‘taking away’, used before conjugated auxiliaries. See (339a-b) in §10.2.1.12 for the data. The inputs to epenthesis, leaving aside *n* ~ *rⁿ* alternations, are /*ún-r̃m̃*/ and /*z̃m̃-r̃m̃*/. There is no reason to think that the bare stems *ún* and *z̃m̃* have underlying stem-final vowels.

After *u*-Epenthesis, the <LH> syllable of /*z̃m̃-r̃m̃*/ dissolves into its tone components. The second tone element (H) merges with the H-tone of the suffixal nasal, resulting in *zìn-úm* ~ *zìrⁿ-úm*. The 1Sg imperfective forms (suffix complex *-m̃-Ø*) are *úrⁿ-ùm-Ø* < /*ún-r̃m̃*/ and *zìn-úm̃-Ø* < /*z̃m̃-r̃m̃*/. In tandem with *u*-Epenthesis, the <LH> stem-tone of /*z̃m̃-r̃m̃*/ splits, and the H-tone is realized on the first mora of the second syllable.

3.7.3.7 Mora addition for /LH/ tone on final *Cv*

The conjugatable stative negative enclitic =*lǎ-* can occur in clause-final (prepausal) position when it has zero 3Sg pronominal-subject suffix. In this position it is realized as =*lǎ-Ø* after

an L-toned stem, and usually as =là:-Ø after an H-toned stem. Examples are *gàbù = lá-Ø* ‘he/she is not tall’ and *síyé = là:-Ø* ‘he/she is not good’, see (474). If a clause-final particle such as emphatic *kòy* is added, so that the stative negative enclitic is nonfinal, the results are *gàbù = lá-Ø kòy* (no change in tone) and *síyé = lá:-Ø kòy*. These data suggest that word-final *Cv̄* is flattened to *Cv̇* after an L-toned stem, and no further change is needed, see §3.7.3.4 above. If this flattening does not occur, the final *Cv̄* adds a mora, lengthening its vowel in order to allow full expression of the rising tone. After this lengthening, a prepausal *Cv̇:* at the end of a stem is optionally dropped to L-tone, essentially by downdrift.

3.7.4 Rhythms and tones

In cases where a stem can appear in both L- and H-toned forms, we must ask which tonal form is basic and which is derived. Either we posit lexical /L/ and a tone-raising rule, or lexical /H/ and a tone-dropping rule. In the case of tone-raising, a distinction should be made between raising that applies only to initial syllables, and raising that applies stem-wide.

3.7.4.1 Tone-raising processes after proclitic pronouns

We will see in the following section that some combinations of L-toned words undergo a rhythmic dissimilation rule of the type ...L#L(L) → ...L#H(L), with just the first syllable of the second word raised to H-tone.

Among other first words (...L#) in the relevant sequences are pronominal proclitics. However, these elements pose analytic problems, since they can trigger not only this rhythmic dissimilation limited to one syllable of the following word, but also a more highly grammaticalized stem-wide {H}-tone overlay on certain following elements.

Words that undergo Rhythmic Tone-Raising after L-toned pronominals (among other L-toned elements) include *tùmà* ‘only’ (§19.4.1) and *kàndà* ‘even’ (§19.1.4). Only the first syllable of these words is tone-raised. The diacritic † preceding the affected word (†*tùmà*, †*kàndà*) indexes the prior application of Rhythmic Tone-Raising. It is not a phonetic diacritic and may be omitted without affecting the pronunciation. In (68), the tone-raising is triggered by preceding L-toned *mì* and *yè* and does not take place after H-toned *ó* or *án* (or any NP containing an H-tone).

(68)	form	gloss	1Sg	2Sg	‘woman’	‘man’
	<i>tùmà</i>	‘only’	<i>mì †tùmà</i>	<i>ó tùmà</i>	<i>yè †tùmà</i>	<i>án tùmà</i>
	<i>kàndà</i>	‘even’	<i>mì †kàndà</i>	<i>ó kàndà</i>	<i>yè †kàndà</i>	<i>án kàndà</i>

Tonal effects of a more highly grammaticalized (i.e. less phonetically grounded) type occur with inalienables (kin terms), which when possessed are always immediately preceded by a pronominal possessor (§6.2.3). Examples are in (69).

(69)	noun	gloss	1Sg possessor	2Sg possessor
a.	<i>dè:</i>	‘father’	<i>mì</i> ^H <i>dé:</i>	<i>ó</i> ^H <i>dé:</i>
b.	<i>ɔ̀zɔ̀</i>	‘younger sib’	<i>mì</i> ^H <i>ɔ̀zɔ̀</i>	<i>ó</i> ^H <i>ɔ̀zɔ̀</i>
c.	<i>lèzù</i>	‘maternal uncle’	<i>mì</i> ^{LH} <i>lèzù</i>	<i>ó</i> ^{LH} <i>lèzù</i>
	<i>nèrⁿà</i>	‘paternal aunt’	<i>mì</i> ^{LH} <i>nèrⁿá</i>	<i>ó</i> ^{LH} <i>nèrⁿá</i>

These tonal alternations belong to tonosyntax, rather than to phonology (tone sandhi). The superscripts ^H and ^{LH} in (69) index the prior imposition of stem-wide tone overlays {H} and {LH}. Rhythmic Tone-Raising would work only for ‘my father’ and would give the wrong results in (69b-c) for three reasons. First, bisyllabic kin terms have a lexical choice between {H} and {LH} possessed overlays, illustrated in (69b) and (69c), respectively. Second, the {H} overlay in (69b) extends to the end of a bisyllabic or longer stem, rather than being confined to the first syllable. Third, even some H-toned pronouns like 2Sg *ó* control the {H} overlay, as in *ó*^H*ɔ̀zɔ̀* ‘your-Sg younger sib’. No word containing an H-tone can trigger Rhythmic Tone-Raising, which requires L-tones on both sides of the boundary.

A few L-toned **particles** and **postpositions** behave tonally like these possessed inalienable nouns. They are L-toned after nonpronominal NPs that contain an H-tone. They become H-toned after L-toned pronominal proclitics like 1Sg *mì*, which could be accounted for by Rhythmic Tone-Raising. However, they also become H-toned after H-toned proclitics like 2Sg *ó* in (70), which rules out Rhythmic Tone-Raising and forces us to recognize categorially controlled tone overlays. Most of the relevant particles and postpositions are monosyllabic, but the dative postposition is bisyllabic (70b). When it follows a pronominal proclitic the H-tone extends to the second syllable, as in 1Sg *mì*^H*bérⁿá* and 2Sg *ó*^H*bérⁿá*, parallel to the possessed forms of ‘younger sib’ in (69b). Inanimate *kó*, see the rightmost column in (70), is treated tonally as a noun (or demonstrative) rather than as a pronominal proclitic like 1Sg *mì* and 2Sg *ò*. *kó* does not raise the tones of a following L-toned particle or postposition.

(70)	particle	gloss	1Sg	2Sg	Inan
a.	particles				
	<i>là</i>	‘also’ (§19.1.3)	<i>mì</i> ^H <i>lá</i>	<i>ó</i> ^H <i>lá</i>	<i>kó là</i>
	<i>wà→</i>	quotative (§17.1.3)	<i>mì</i> ^H <i>wá→</i>	<i>ó</i> ^H <i>wá→</i>	<i>kó wà→</i>
	<i>yèŋ ~ yèyⁿ</i>	‘like’ (§8.4.1)	<i>mì</i> ^H <i>yéŋ</i>	<i>ó</i> ^H <i>yéŋ</i>	<i>kó yèyⁿ</i>
b.	postpositions and conjunctions				
	<i>mì</i>	‘and’ (§8.1.2)	<i>mì</i> ^H <i>mí→</i>	<i>ó</i> ^H <i>mí→</i>	<i>kó mì→</i>
	<i>mì</i>	‘with’ (§8.1.2)	<i>mì</i> ^H <i>mí→</i>	<i>ó</i> ^H <i>mí→</i>	<i>kó mì→</i>
	<i>bèrⁿà ~ bènà</i>	dative (§8.1.1)	<i>mì</i> ^H <i>bérⁿá</i>	<i>ó</i> ^H <i>bérⁿá</i>	<i>kó bèrⁿà</i>

The conclusion is that the particles and postpositions in (70) have the same tonosyntactic properties as kin terms when they are preceded by pronominal proclitics.

Interrogative and disjunctive *mà* → ‘or’, topic marker *kày*, and *sày* ‘only’ are omitted here, since they follow H-toned independent pronouns rather than proclitic pronouns.

Additional idiosyncracies are found with locative postpositions *nà* and *bà*. See discussion following (74) below.

3.7.4.2 Rhythmic Tone-Raising after L-toned constituent

The previous subsection distinguished the {H} tonosyntactic overlay from the operation of Rhythmic Tone-Raising. The latter is the subject of the present subsection. As noted above, its general type is ...L#L(.L) → ...L#H(.L), with the further proviso that the constituent to the left of # is entirely L-toned. This rule is an example of tone **dissimilation**, taking a tonally flat input and giving it an up-and-down rhythm.

(71) Rhythmic Tone-Raising

The first syllable (for some heavy monosyllabics, the first mora) of an eligible L-toned word is raised to H-tone after an eligible L-toned constituent.
(Notation: † preceding the raised syllable indexes a raising process.)

For purposes of this rule, some morphemes transcribed here as suffixes (on verbs) are treated as separate words.

An important analytic difficulty is with cases of the type ...(.L.)H#L(.L) → ...(.L.)L#H(.L). This combination involves an LH-toned word whose final H-tone disappears, just as an H-tone appears at the beginning of the next word. One interpretation is that the H-tone jumps across the boundary # and is realized on the onset of the second word. See the following section on Rightward Tone-Jumping. The other interpretation is that the H-tone is deleted, creating a string ...(.L.)L#L(.L) that is eligible for tonal dissimilation in the form of Rhythmic Tone-Raising. In combinations where there is no evidence for an underlying final H-tone in the first word, Rhythmic Tone-Raising is the only viable option.

Rhythmic Tone-Raising occurs in the combinations listed in (72). X represents the preceding L-toned constituent, and Y represents the L-toned word whose first syllable is raised from L to H (or in one case to <HL>). Some of these same Y elements can elsewhere follow pronominal proclitics, which induce a similar tone-raising on the Y elements, but by virtue of the proclitics’ morphosyntactic category rather than their own tone (see the previous section).

(72) Word or phrase combinations subject to Rhythmic Tone-Raising

X	Y (input)	Y (output)
a. noun or adjective	definite (<i>gè, wò</i>)	† <i>gé, †wó</i>

b.	NP	<i>mâ→</i> ‘or’	[†] <i>mâ→</i>
	NP	<i>tùmà</i> ‘only’	[†] <i>tùmà</i>
	NP	<i>kây</i> topic	[†] <i>kây</i>
	NP	<i>kàndà</i> ‘even’	[†] <i>kàndà</i>
	NP	<i>nà</i> or <i>bà</i> locative	[†] <i>ná</i> , [†] <i>bá</i> (§8.2.3)
	NP	<i>dàn</i> purposive-causal	[†] <i>dán</i>
	NP	<i>yèŋ</i> ~ <i>yèyⁿ</i> ‘like’	
	NP	complex postposition	(§8.2.2)
c.	predicate or NP	<i>mâ→</i> interrogative	[†] <i>mâ→</i>
	predicate	<i>wà</i> clause-final quotative	[†] <i>wá</i>
d.	predicate	<i>dè</i> ‘if’	[†] <i>dé</i>
	predicate	<i>nì</i> subjunctive	[†] <i>ní</i>
	predicate	<i>dàn</i> purposive	[†] <i>dán</i>
e.	verb	verbal suffix	(various)

Of these, only *tùmà* and *kàndà* in (72b) are bisyllabic; they clearly show that Rhythmic Tone-Raising does not extend to their second syllables. For the monomoraic *Cv̂* forms in (72), the tone-raising always results in [†]*Cv̂* ([†]*gέ*, [†]*wó*, [†]*ná*, [†]*bá*, [†]*wá*, [†]*dé*, [†]*ní*). The most interesting cases are heavy monosyllabics [†]*dán* and [†]*kây*, along with intonationally prolonged [†]*mâ→*, since these shapes would permit either H- or <HL>-tone. [†]*dán* has an H-toned raised form, while [†]*kây* and [†]*mâ→* have <HL>.

The groups in (72) above will be illustrated sequentially, beginning with definite markers. Examples are in (73a-e) below. The two morphemes are *gè* (animate singular, inanimate plural) and *wò* (inanimate singular, animate plural). They are raised to [†]*gέ* and [†]*wó*, respectively, after an L-toned noun or noun-adjective combination (73a-c). Raising does not occur if there is an H-tone anywhere in the entire NP (73d-e). It is not sufficient that the final word of the NP be L-toned. In (73d), ‘house’ is L-toned (as a possessed noun) but the possessor contains an H-tone, so the definite marker remains L-toned. In a preceding noun-adjective string, the noun is tone-dropped to {L} by the adjective. In this case, any lexical H-tones in the noun are disregarded, so the suppressed lexical H-tones of *ʔóló* ‘house’ do not block tone-raising of the definite marker in (73b). Low-level encliticization of *wò* to animate plural suffix *-mù* has no effect on tone-raising (73c,e).

- (73) a. *nà:* [†]*gέ*
cow Def.AnSg
‘the cow’
- b. *ʔólò^L* *pèy* [†]*gέ*
house^L old Def.InanPl
‘the old houses’ (*ʔóló* ‘house’)

- c. *nà:-mù* = †*wó*
 cow-AnPl=Def.AnPl
 ‘the cows’ (phonetic [*nà:mǔ:*])
- d. *sáydù* ^L?ǎlò *wò*
 S ^Lhouse Def.InanSg
 ‘Seydou’s house’
- e. *pè:-mú* = *wò*
 sheep-AnPl=Def.AnPl
 ‘the sheep-Pl’

All demonstratives, numerals, and non-numeral quantifiers contain an H-tone, so they are not affected by Rhythmic Tone-Raising even when preceded by a totally L-toned word-string within the NP. In a definite NP, either the definite marker or some preceding word always contains an H-tone, as just shown. Combining these facts, we conclude that any NP containing a determiner or quantifier will contain at least one H-tone, so no such NP can then trigger Rhythmic Tone-Raising on the following element. The only NPs that are entirely L-toned are simple nouns and noun-adjective combinations that happen to contain no H-tone.

Examples of such NPs as conditioning elements are in (74) below. They are followed by the particles and postpositions from (72b) above.

- (74) a. *pè:* †*mâ*→ ?ǎné
 sheep **or** goat
 ‘a sheep or a goat’
- b. *pè:* †*túmà*
 sheep **only**
 ‘just a sheep’
- c. *pè:* †*kây*
 sheep Topic
 ‘as for a sheep’
- d. *pè:* †*kándà*
 sheep **even**
 ‘even a sheep’
- e. *bàmbà* †*ná*
 B **Loc**
 ‘in Bamba (village)’

- f. *pè:* [†]*dán*
 sheep **because**
 ‘because of a sheep’
- g. *pè:* [†]*yéŋ*
 sheep **like**
 ‘like a sheep’
- h. [*gɔ̀à:* [†]*bérⁿà*] *nà*
 [granary **interior**] Loc
 ‘inside a granary’ (see §8.2.2 for discussion)

The distinction between H-toned [†]*dán* (74f) and <HL>-toned [†]*kây* (74c) is problematic, since both have *CvL* shape with final sonorant *L*. The most drastic analytical option would be to declare that [†]*dán* is not the product of Rhythmic Tone-Raising, rather that it is treated like an alienably possessed noun, with stem-wide {H} overlay when preceded by an entirely L-toned NP.

Locative postpositions *nà* and *bà* are tonally parallel and semantically very close to each other. The semantic difference is that *bà* implies spatial displacement (cf. English *over in the house*). Their tonal properties of *nà* and *bà* cannot be fully explored, because they do not take personal pronouns as complements, with the exception of inanimate *kó*, which however does not behave like (other) pronominal proclitics tonally.

The unusual tonal feature of locative *nà* and *bà* is that they take H-toned form not only after L-toned NPs, as in *bɔ̀:rɔ̀* [†]*ná* ‘in a sack’, but also after NPs that **end** in an H-tone, as in *ʔóló* [†]*ná* ‘in a/the house’. Yet they are L-toned after any NP containing a **nonfinal** H-tone, as in *bédè* *nà* ‘in/on the highway’, showing that they are lexically L-toned. See (237) below for the data.

Versatile phrase- and clause-final particles (quotative, interrogative) are also subject to tone-raising (75).

- (75) a. *pè:* [†]*wá*
 sheep **Quot**
 ‘(... said:) a sheep’
- b. *pè:* [†]*mâ→*
 sheep **Q**
 ‘a sheep?’

wà and *mâ→* are somewhat more complex tonally than this suggests. In (76a) below, *wà* remains L-toned although it follows an L-toned word (‘go down’). This could be because ‘go down’ is the final element in a verb chain that includes a preceding verb with an H-tone (‘fall’), on the assumption that the entire verb chain functions as the trigger for Rhythmic Tone-Raising. Or it could be that the perfective verb ‘go down’ in (76a) is ineligible as a conditioning element on the grounds that it has been tone-dropped. In their full forms, which

occur when immediately preceded by realis proclitic *yà*, all perfective verbs contain an H-tone, as in (134a), (199), and many other examples in this grammar. Similar issues arise with *bò-* ‘be’, whose L-toned form is arguably tone-dropped from *bó-* and is always tightly phrased with a preceding locational (76b), see §11.2.2.2. I am unable to find any locational expressions that are entirely L-toned (cf. §4.4.3.1), to confirm that the H-tone of *ìgí* ‘here’ is a factor in (76c).

- (76) a. *yà* *pílé* ^L*sùyè-Ø* *wà*
 Real fall ^Lgo.down.Pfv-3SgSbj **Quot**
 ‘(... said:) he/she fell down’ (cf. *yà sùyé-Ø* ‘he/she went down’)
- b. *ìgí* *bò-Ø* *wà*
 here be-3SgSbj Quot
 ‘(... said:) he/she is here’

Examples (77a-b) exemplify the difficulty of choosing between Rhythmic Tone-Raising and Rightward Tone-Jumping (see the following section). In both cases the relevant first word otherwise ends in LH-tones, but combines with the following particle as L-toned first word plus tone-raised particle. Either the final H-tone jumps across the boundary, or it is deleted, creating the conditions for Rhythmic Tone-Raising. In (77c), on the other hand, the otherwise LH-toned first word retains its LH tones and adds a final L-tone, while leaving the following particle unaffected. This may be due to the heavy *CvC* shape of the imperfective negative suffix.

- (77) a. *síkàrò* *ònú-Ø* [↑]*wá*
 sugar not.be-3SgSbj **Quot**
 ‘(... said:) there is no sugar’ (< *ònú-Ø*)
- b. [*nà* ^H*wá→*] *wò-lì* [↑]*wá*
 [3AnSg ^HQuotSbj] come-Pfv.Neg **Quot**
 ‘(... said:) he/she didn’t come’ (< *wò-lí-Ø* ‘he/she didn’t come’)
- c. [*nà* ^H*wá→*] *wò-rⁿáj* *wà*
 [3AnSg ^HQuotSbj] come-Ipfv.Neg **Quot**
 ‘(... said:) he/she won’t come’ (< *wò-rⁿáj-Ø* ‘he/she won’t come’)

Interrogative *mà→* (arguably identical to the ‘or’ coordinator) behaves in a similar but not identical way. For example, (78a-c) are closely parallel to (74a-c) above. The difference is that the interrogative particle is subject to intonational prolongation, and in examples like these the prolonged vowel preserves its final L-tone (or pitch decline).

- (78) a. *yà* *pílé* ^L*sùyè-Ø* [↑]*mà→*
 Real fall ^Lgo.down.Pfv-3SgSbj **Q**
 ‘Did he/she fall down?’

- b. *síkàrò* *ònú-Ø* [†]*mâ*→
 sugar not.be-3SgSbj **Q**
 ‘Isn’t there any sugar?’
- c. *wò-lì-Ø* [†]*mâ*→
 come-Pfv.Neg **Q**
 ‘Didn’t he/she come?’

Clause-final subordinating particles should in theory also be subject to Rhythmic Tone-Raising. However, for reasons just given it is hard to find an eligible L-toned conditioning element to the left, other than an {LH}-toned perfective negative verb, where one might argue that the final H-tone jumps into the particle. Compare (79a-c) below, with conditional *dè* ‘if’, to the examples in (77a-c) above.

- (79) a. *síkàrò* *ònú-Ø* [†]*dé*
 sugar not.be-3SgSbj **if**
 ‘if is no sugar’ (< *ònú-Ø*)
- b. *wò-lì* [†]*dé*
 come-PerfNeg **if**
 ‘if he/she didn’t come’ (< *wò-lì-Ø*)
- c. *wò-rⁿâŋ* *dè*
 come-Ipfv.Neg **if**
 ‘if he/she won’t come’ (< *wò-rⁿâŋ-Ø*)

The situation is similar with subjunctive *ní*.

- (80) [*síkàrò* *ònú-Ø* [†]*ní*] ^L*ùrⁿè-Ø*
 [sugar not.be-3SgSbj Sbjunct] ^Lgo.Pfv-3SgSbj
 ‘He/She went (away), thinking that there was no sugar.’

I have not been able to find any relevant combinations with clause-final purposive *dàn*, which normally follows a verb containing an H-tone (§17.6.4-5).

Syntactic combinations that do not allow Rhythmic Tone-Raising are listed in (81).

- (81) Word or phrase combinations not subject to Rhythmic Tone-Raising

X	Y
a. NP	predicate (in some cases)
tone-dropped word	(any)
NP (e.g. subject)	NP (e.g. object)

- | | | |
|----|-------------------------|------------------|
| b. | (any, except possessor) | NP |
| | (any) | realis <i>yà</i> |
| | (any) | pronoun |

A few comments on (81) are needed. The fact that tone-dropped words do not raise tones on following words (81a) may be a consequence of other phenomena. Most tone-dropping processes apply within an NP. In the case of right-to-left control, the controlling word (C) is itself adjacent to the target (T), i.e. the tone-dropped word or word-string. It would be strange if C induced tone-dropping on T and then was itself tone-raised to dissimilate from T.

In (81b), the fact that an NP cannot be tone-raised by an element external to its own maximal NP, and the fact that realis *yà* cannot be tone-raised, may reflect phrasal bracketing (they are initial in their phrases). Similarly, the pronouns that occur in linear positions where tone-raising might be possible generally behave as proclitic to the following element, so bracketing with the following element is again a possible explanation.

3.7.4.3 Rightward Tone-Jumping

In (82), the verb ‘listen’ begins with an {L}-toned stem before perfective negative suffix *-lí-*. It is therefore a potential target for Rhythmic Tone-Raising if preceded by an L-toned element. However, (82b-c) show that the verb stem fails to be affected by such a preceding element.

- (82) a. *nùndiyò-lí-Ø*
listen-PfvNeg-3SgSbj
‘He/She/It didn’t listen.’
- b. *pè:* *nùndiyò-lí-Ø*
sheep listen-PfvNeg-3SgSbj
‘A sheep didn’t listen.’
- c. *nà:* *nùndiyò-lí-Ø*
cow listen-PfvNeg-3SgSbj
‘A cow didn’t listen.’

Nevertheless, in relative clauses an L-toned proclitic subject pronominal does have a stem-wide raising effect on the perfective negative verb (83a), contrast (83b) with H-toned pronominal, where the only H-tone on the verb is in the suffix. Since the whole verb stem is tone-raised in (83a), this looks like a hybrid between Rhythmic Tone-Raising and tonosyntax. If a nonpronominal NP is subject, as in (83c), there is no tone-raising on the verb, and even the perfective negative suffix is L-toned, whereupon definite ¹*wó* is raised to H-toned. Either this raising is due to Rightward Tone-Jumping, or it involves deletion of the final H-tone on the verb, followed by Rhythmic Tone-Raising. Overall these data show the considerable influence of proclitic subject pronominals on the tones of the following verb.

- (83) a. *izèn*^L *mì* ^H*núndíyó-lì* *wò*
 day^L 1SgSbj ^Hlisten-PfvNeg.Rel Def.InanSg
 ‘the day (when) I didn’t listen’
- b. *izèn*^L *ó* *nùndiyò-lí* *wò*
 day^L 2SgSbj listen-PfvNeg.Rel Def.InanSg
 ‘the day (when) you-Sg didn’t listen’
- c. *izèn*^L *pè: / ?óné* *nùndiyò-lì* [†]*wó*
 day^L sheep/goat listen-PfvNeg.Rel Def.InanSg
 ‘the day (when) a sheep/goat didn’t listen’
- d. *àn*^L *nùndiyò-l* [†]*gé*
 man^L listen-PfvNeg.Rel Def.AnSg
 ‘the man who didn’t listen’

As adumbrated earlier, there are two ways to account for the tones of the final definite markers in (83c-d). One is to say that the final H-tone in the verb is deleted, whereupon Rhythmic Tone-Raising creates an H-tone on the following definite morpheme. The other is to say that the final H-tone **jumps** rightward and appears on the definite morpheme. On the whole, the latter seems more reasonable in those cases where there is evidence for underlying LH-tones on the first word, so I favor recognizing a rule of Rightward Tone-Jumping.

There are other constructions where a similar process (with the same ambiguous phonological status) occurs. For example, (602b,d-e) in §15.1 illustrates an apparent transfer of the final H-tone of an LH-toned nonfinal chained verb to the following (otherwise L-toned) final chained verb, but only in certain AN inflectional categories (not including the simple perfective).

Another combination is nouns (or their modifiers) plus definite markers *wò* or *gè*, which arguably attract a final H-tone from the NP-final word. Examples are definite adjective *gàbù* [†]*gé* from *gàbú* ‘tall’ in (186a-b). However, nouns do not usually shift their final H-tone onto a definite marker, see (108a), and *Cv̂* nouns can even “grow” an H-tone that prevents the definite marker from getting an H-tone by Rhythmic Tone-Raising, see (109a-b).

For another context where Rightward Tone-Jumping may occur, see (77a-b), where an LH-toned verb or quasi-verb becomes L-toned while a following particle becomes H-toned.

Something like Rightward Tone-Jumping might have occurred in the past in combinations where it is no longer reasonable to recognize it synchronically, or where its original effect can now be ascribed to Rhythmic Tone-Raising or some other mechanism. One example is realis or existential proclitic *yà*, likely once H-toned, which favors the appearance of the lexical melody (which includes an H-tone) in a following verb or quasi-verb (§11.2.2.1). The tone-raising effect of pronominal proclitics on some following words, see (69-70) above, may also have involved ancient tone-jumping, but it would not work as a synchronic analysis.

3.7.4.4 Tone-Raising of pronominal proclitic

While pronominal proclitics sometimes induce tonal changes on following words, in a few combinations the reverse appears to happen: an L-toned pronominal proclitic is raised to H while the following element is unaffected. This clearly happens before certain inalienably possessed kin terms that have diminutive morphology, and in a nonpast durative subordinated clause type. It arguably also happens before topic marker *kày* (but see comments below).

The effect is that L-toned proclitic pronominals like 1Sg *mì* merge tonally with already H-toned proclitic pronominals like 2Sg *ó*. An alternative perspective is that the paradigm of pronominal proclitics (a mix of L- and H-tones) merges with the paradigm of independent pronouns (H-toned).

In the case of topic marker *kày*, a more likely interpretation is that an independent pronoun, rather than a proclitic, is at hand (84a). Independent and proclitic pronouns are segmentally identical, the difference being that all independent pronouns are H-toned while proclitics are a mix of H- and L-toned. If the pronouns before *kày* are independent, no special tone-raising rule is needed. I therefore omit the ^H superscript in this case.

However, three kin terms that are LH-toned both lexically and as inalienable possessums also shift a preceding L-toned pronominal possessor to H (84b). Since proclitic (rather than independent) pronouns occur as possessors of other kin terms, it seems reasonable to assume that the pronominals in (84b) are proclitics. This conclusion forces us to posit a tone-raising process (but see comments below).

(84)	1Sg <i>mì</i>	2Sg <i>ó</i>
a. topic <i>kày</i> ('as for')	<i>mí kày</i>	<i>ó kày</i>
b. composite kin terms (§6.2.3.5)		
‘maternal kinsman’	<i>mí^H LH nì-yé</i>	<i>ó^{LH} nì-yé</i>
‘paternal kinsman’	<i>mí^H LH dǎ:</i>	<i>ó^{LH} dǎ:</i>
‘sister’s child’	<i>mí^H LH sà-yé</i>	<i>ó^{LH} sà-yé</i>

A possible monkey-wrench is thrown into this analysis by adding a modifying adjective to these kin terms. Normally, the combination Poss-N-Adj with pronominal possessor and inalienable noun (i.e. kin term) surfaces as [[Poss N]^L Adj] after tonosyntactic processes. In other words, the adjective controls tone-dropping on the pronominal possessor as well as on the noun. However, this does not happen with the combinations in (84b). The pronominal remains H-toned when an adjective is added, resulting in [Poss^H N^L Adj] where only the noun drops its tones. An example is (189) at the end of §6.2.4.1. This could be used as evidence that in spite of morphosyntactic implausibility we really are dealing with independent rather than proclitic pronouns, and that such independent pronouns cannot be captured tonosyntactically by a postnominal adjective.

The other situation where proclitics appear to undergo tone-raising is in different-subject nonpast durative subordinated clauses, with suffix *-n* on an {L}-toned verb stem. A pronominal subject proclitic is obligatory, and if L-toned it is raised to H, as in (640a-b) and

(641) in §15.3.5. In the same-subject version of the same subordinator, there is no subject proclitic, and the verb with suffix *-n* now shows its lexical /H/ or /LH/ melody. This suggests that in the different-subject version, the H-tone from the verbs lexical melody was somehow transferred leftward onto the subject proclitic. This is plausible historically, and maybe synchronically. There is always the possibility of taking the H-toned proclitic to be in fact an independent pronoun, but there are no other cases in YD where independent pronouns are procliticized to verbs.

3.8 Intonation contours

3.8.1 Expressive adverbials and particles with lexical prolongation (→)

As in other Dogon languages, there are a number of lexical items in YD that end in an intonation-like prolongation of the coda of the final syllable. These elements are expressive adverbials (EAs), clause-final particles, and similar elements external to or at the right edge of clauses and phrases. This prolongation is unbounded, phonetically highly variable, and so cannot be equated with phonological vowel length. It affects final sonorants as well as final vowels, which completely rules out phonological vowel-length. The duration of the prolongation may be exaggerated.

Examples of EAs are *dém*→ ‘straight’, whose *m* rather than *é* is prolonged (§8.4.7.1) and *àsú*→ ‘always’ (§8.4.7.3). Prolongation is also typical of phrase- and clause-final particles *mí*→ ‘and’ (§7.1.1), *mà*→ ‘or’ (§7.2), and quotative particle *wà*(→) after subjects (§17.1.3). See also *tùmá*→ ‘one’ (§4.7.1.1). A subordinated clause type meaning ‘as soon as...’ is formed by prolongation of the coda of an imperfective verb; see (635a-b) in §15.3.2. The *-é:* ~ *-é:* same-subject subordinator also lends itself to prolongation (§15.2.3).

3.8.2 Dying-quail intonation effect ∴

The dying-quail effect occurs in Jamsay in both elements of an NP conjunction (*X ∴ Y ∴*). In Donno So, the dying quail effect occurs on willy-nilly conditional antecedents.

The dying quail effect is expressed by a widely variable (but unbounded) degree of prolongation, and (if the final tone is H) a slow pitch decline. For example, word-final H-toned *ɔ ∴* is realized phonetically as [ʒ̄ɔ̄ɔ̄], with duration depending on rhetorical emphasis, and with a gradual decline from high to low pitch, while word-final L-toned *ɔ ∴* is heard as [ɔ̄ ∴] with audible prolongation but no special pitch change. Final sonorants are also affected; in *cìn = ∴* ‘it’s a stone’, the prolongation applies to the final nasal rather than to the *i* vowel: phonetic [tʃɪ̄n ∴].

In YD, the dying quail effect occurs in the final syllable of an NP combined with the ‘it is’ enclitic (§11.2.1.1), and in the final syllable of the 3Sg form of some adjectival predicates (§11.4.2). It also occurs in the final syllable of willy-nilly conditional antecedents (§16.3), as it does in Donno So. All of these involve clause-final syllables.

The clause-final prolongation of conjugated imperfectives in one of the ‘as soon as ...’ constructions is compatible with dying quail, see (635a-b) in §15.3.2.2. However, these imperfectives already end in an L-tone, so in this case it is not possible to distinguish prolongation from dying quail.

4 Nominal, pronominal, and adjectival morphology

4.1 Nouns

4.1.1 Simple nouns

Three high-frequency noun stems are ultra-short *Cv*, namely *nó* ‘person’, *yé* ‘woman’, and *kí* ~ *cí* ‘thing’ (§4.1.2). All other nouns have at least two moras: *Cv*: , *CvCv*, *CvCCv*, *Cv:Cv*, and various trisyllabic and longer patterns. Many of the longer nouns, if not borrowed, are likely to have originated as compounds or suffixal derivatives, and may reflect this origin by their tonal melodies or (nonharmonizing) vocalism. Even multisyllabic borrowed nouns that were not composite in the source language may now be treated prosodically like compounds.

Animate nouns have an unmarked singular and take a **plural suffix** *-mù*. The singular/plural distinction is obligatory for animates. Examples involving nonhuman animals are in (85). Nouns with lexical melody /L/ split into two tonal patterns in the animate plural, some with H-toned *-mú* (85a), other with L-toned *-mù* (85b); see §3.7.1.5 for discussion. For all stems that contain an H-tone element (85c-f), the animate plural suffix is L-toned *-mù*.

(85) also shows the combination with definite animate singular *gè*. Both (85a) and (85b) have H-toned [†]*gè*, although the two sets differ in the tone of animate plural *-mù*.

(85) Nonhuman animate nouns

stem	DefSg	AnPl	gloss
a. /L/-toned stem with <i>-mú</i> , fuller list in (62a) above			
<i>pè:</i>	<i>pè: †gè</i>	<i>pè:-mú</i>	‘sheep’
<i>nòmzù</i>	<i>nòmzù †gè</i>	<i>nòmzù-mú</i>	‘snake’
b. /L/-toned stem with <i>-mù</i>			
<i>nà:</i>	<i>nà: †gè</i>	<i>nà:-mù</i>	‘cow’
<i>gòyⁿè</i>	<i>gòyⁿè †gè</i>	<i>gòyⁿè-mù</i>	‘elephant’
c. /LHL/-toned stem with <i>-mù</i>			
<i>tètêw</i>	<i>tètêw gè</i>	<i>tètêw-mù</i>	‘sparrowhawk’
d. /LH/-toned stem with <i>-mù</i>			
<i>wĩl ~ wílú</i>	<i>wĩl gè</i>	<i>wĩl-mù ~ wílú-mù</i>	‘gazelle’
<i>lòzú</i>	<i>lòzú gè</i>	<i>lòzú-mù</i>	‘bush duiker’
<i>dìmná:</i>	<i>dìmná: gè</i>	<i>dìmná:-mù</i>	‘ratel’
<i>zàmdúru</i>	<i>zàmdúru gè</i>	<i>zàmdúru-mù</i>	‘donkey’

e. /HL/-toned stem with <i>-mù</i>	<i>díyènè</i>	<i>díyènè gè</i>	<i>díyènè-mù</i>	‘hippo’
f. /H/-toned stem with <i>-mù</i>	<i>?óné</i>	<i>?óné gè</i>	<i>?óné-mù</i>	‘goat’
	<i>kóndó</i>	<i>kóndó gè</i>	<i>kóndó-mù</i>	‘rock hyrax’
	<i>ámǵá</i>	<i>ámǵá gè</i>	<i>ámǵá-mù</i>	‘aardvark’

The animate plural suffix is optionally reduced (apocopated) to *-m* after a vowel. In this case the tone of *-mù* is combined with the tone of the preceding syllable. Thus *lòzù-mù* or variant *lòzù-m* ‘bush duikers’. See Stranded-Tone Re-Linking (§3.7.3.5).

Representative human nouns are in (86). The tonal patterns are comparable to what we saw with animal terms above. For compounds (and other long, prosodically compound-like nouns like ‘white person’), the tones of the final stem are our reference point here.

(86) Human nouns

stem	DefSg	AnPl	gloss
a. /L/-toned			
<i>gòlò-gòl</i>	<i>gòlò-gòl †gè</i>	<i>gòlò-gòl-mù</i>	‘farmer’ (agentive, §5.1.5)
<i>sòŋ-tì:</i>	<i>sòŋ-tì: †gè</i>	<i>sòŋ-tì:-mù</i>	‘weaver’ (agentive)
<i>gùnò</i>	<i>gùnò †gè</i>	<i>gùnò-mù</i>	‘slave’
<i>zàmè</i>	<i>zàmè †gè</i>	<i>zàmè-mù</i>	‘leatherworker’ (caste)
<i>zònjù</i>	<i>zònjù †gè</i>	<i>zònjù-mù</i>	‘healer’
b. /LH/-toned; see also §6.2.3.2)			
<i>zèmé</i>	<i>zèmé gè</i>	<i>zèmé-mù</i>	‘blacksmith’ (caste)
<i>dògò</i>	<i>dògò gè</i>	<i>dògò-mù</i>	‘Dogon (person)’
c. /H/-toned			
<i>púlá</i>	<i>púlá gè</i>	<i>púlá-mù</i>	‘Fulbe (Pullo)’
<i>àná-kázá</i>	<i>àná-kázá gè</i>	<i>àná-kázá-mù</i>	‘Hogon, oldest man’
<i>ànàsá:rá</i>	<i>ànàsá:rá gè</i>	<i>ànàsá:rá-mù</i>	‘white person’

Inanimate nouns do not take animate plural *-mù*, and therefore have only one form. Like other nouns, they may be followed by determiners (definite markers, demonstratives) that distinguish inanimate singular from inanimate plural, e.g. definite *wò* (inanimate singular) versus *gè* (animate plural). Some inanimate nouns are in (87). Definite inanimate singular *wò* has the same tonal patterns. The number value of *wò* and *gè* is inverted between animate and inanimate paradigms (§4.4.1), so the *gè* forms in (87) are definite plural while those in (85-86) above are definite singular.

(87) Inanimate nouns

stem	definite plural	gloss
a. /L/-toned		
<i>nà:</i>	<i>nà: †gɛ́</i>	‘foot’
<i>gɔ̀à:</i>	<i>gɔ̀à: †gɛ́</i>	‘granary’
<i>cìn</i>	<i>cìn †gɛ́</i>	‘stone’
<i>òy</i>	<i>òy †gɛ́</i>	‘field; brousse’
<i>tìmè</i>	<i>tìmè †gɛ́</i>	‘tree’
<i>kùlà</i>	<i>kùlà †gɛ́</i>	‘leaf’; ‘hair’; ‘feather’
<i>nùmà</i>	<i>nùmà †gɛ́</i>	‘hand’
<i>gìdè ~ jìdè</i>	<i>gìdè †gɛ́</i>	‘eye’ (variant <i>gìd-íyè</i>)
<i>pòndò</i>	<i>pòndò †gɛ́</i>	‘earth’
b. /HL/-toned		
<i>tánà</i>	<i>tánà gè</i>	‘stick’
c. /LH/-toned		
<i>dámá</i>	<i>dámá gè</i>	‘village’
d. /H/-toned		
<i>sún</i>	<i>sún gè</i>	‘ear’
<i>séw</i>	<i>séw gè</i>	‘ax’
<i>kó:</i>	<i>kó: gè</i>	‘head’
<i>émé</i>	<i>émé gè</i>	‘milk (n)’
<i>ínjú</i>	<i>ínjú gè</i>	‘water’
<i>ʔóló</i>	<i>ʔóló gè</i>	‘house’
<i>tógú</i>	<i>tógú gè</i>	‘shed, shelter’
<i>kóŋó</i>	<i>kóŋò gè</i>	‘mountain’
<i>énéŋ ~ énéjú</i>	<i>énéŋ(ú) gè</i>	‘wind’

Kin terms have a number of morphological irregularities. These are covered in §6.2.3 since the morphology of kin terms cannot be separated from the expression of possession.

With very few exceptions, YD does not preserve even frozen inanimate singular noun-class suffixes in syllabic form. Such suffixes are synchronically alive in Najamba and Tebul Ure, and occur in frozen form in numerous noun stems in Dogul Dom and southwestern languages like Mombo and Penange. For YD I can cite *izùgè ~ izìgè* ‘sun’, compare suffixed Tebul Ure *ùdù-gó* and Najamba *ùjú-ŋgó*, and unsuffixed Ben Tey and Bankan Tey *ùsú* and Nanga *ùsí*. YD *bàngè* ‘friendship between a man and his friend’s son’ suggests an original segmentation **bàn-gè*, related to *bàrⁿ-yⁿè* ‘father’s friend’. Derivational suffix *-ŋ* (§4.2.4, §4.2.6) and imperfective relative suffix *-ŋ* might be nonsyllabic relics of **-ŋgo*. Suffix *-ŋ* in unpossessed forms of a few kin terms (§6.2.3.4-5) is another possible archaism. However, genitive *ŋ* (§6.2.1.1) is more likely a reduced form of **mà ~ *mò* (Jamsay *mà*, etc.) rather

than of an old noun-class marker. This should warn us that *-ŋ* could be the merger of multiple eroded etyma.

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

The most common and generic human nouns are in (88) along with inanimate ‘thing’. All but ‘man’ have irregularities when compared to the productive nominal morphology described in the immediately preceding section. *gè* is definite singular for animates, definite plural for ‘thing’.

(88)	singular	definite	plural	gloss
	irregular			
	<i>nò</i>	<i>nó gè</i>	<i>nò-mó</i>	‘person’
	<i>ènè</i>	<i>èné gè</i>	<i>èné</i>	‘child’
	<i>yè</i>	<i>yé gè</i>	<i>yè-mù</i>	‘woman’
	regular			
	<i>án</i>	<i>án gè</i>	<i>án-mù</i>	‘man’
	<i>kí ~ cí</i>	<i>kí gè ~ cí gè</i>	—	‘thing’

‘Person’, ‘woman’, and ‘thing’ are the three ultra-short *Cv* noun stems. All three of the stems with L-toned undetermined singular (leftmost column) have an irregular H-tone (for ‘child’ only in the second syllable) before definite *gè*, which therefore remains L-toned. The plural of ‘person’ has suffix *-mó* instead of *-mú*. Synchronically this suggests an irregular assimilation to the *o* of the stem, but historically it is an archaism (matching Najamba *nò-mbó* ‘people’) since YD animate plural *-mù* reflects **-mbo*. ‘Child’ has an irregular plural with a tone change (again, an added final H) instead of a suffix. ‘Man’ and ‘thing’ are already H-toned and have no irregularities.

For ‘child’ see also the human and nonhuman compounds in §5.1.8.

4.1.3 ‘So-and-so’ (*à-mâ:n*)

The noun *à-mâ:n ~ à-má:nù* ‘So-and-so’ (French *un tel*) denotes a variable personal name. It occurs in contexts like this: if I encounter someone from another village, I will say: “hey So-and-so, has it rained in your village?”

4.1.4 Reduplicated noun stems

4.1.4.1 Initial *Cv*-reduplication in nouns

Apparent *Cv*-reduplications in nouns occur mostly in natural-species terms. The examples in (89) are organized by tones and by syllabic shape. Usually the unreduplicated form is unattested; however, *tè-têw* ‘sparrowhawk’ becomes *têw* as compound initial in other hawk terms (*têw-sé:rⁿè* ‘falcon’, *têw-dùbà* ‘eagle’). The formulae in the headings show the tone of the reduplicant (L- or H-) followed by the melody of the base in /.../.

- (89) a. L-/HL/
tè-têw ‘sparrowhawk’
pì-pírù ‘butterfly’
kò-kódù ‘gum-arabic tree (*Acacia senegal*)’
kà-kádà ‘armpit’ (variant *kàgádà*)
wè-wélè ‘swift (bird)’
òbò-[kà-kázà] ‘tree sp. (*Grewia bicolor*)’,
 cf. *òbò-zǎ:là* ‘vine sp. (*Cissus quadrangularis*)’
- b. L-/H/
mè-mén ‘ant(s)’
- c. H-/LH(L)/
pò-pòdólò ‘tree sp. (*Stereospermum*)’
tú-tùmúlò ‘shrub sp. (*Kleinia*)’
sé-sènzé ‘small herb sp. (*Spermacoce*)’
- d. L-/L/
gù-gùzù ‘giant pouched rat (*Cricetomys*)’
bè-bèlè ‘tree sp. (*Pterocarpus lucens*)’
kò-kòzù ‘viper (*Echis*)’
- e. H-/H/
kó-kól ‘tree sp. (*Maerua angolensis*)’
 [totem for Tabasimbe family]
gá-gábú ‘wall’ (cf. verb *gábú* ‘build wall’)
kó-kónó ‘season of hardship before harvest’
- f. L-L (as compound initial, perhaps tone-dropped)
[zàⁿ-zàⁿ]-kálè ‘double grain spike (millet)’

Some terms that have reduplicated cognates in Jamsay and some other Dogon languages have unreduplicated stems in YD: *tà:* ‘hyena’, *kà:* ‘grasshopper’, *cègè* ‘beetle/bug’.

4.1.4.2 Final reduplications in nouns

Final reduplication is not a productive derivational device, but one can cite the grasshopper terms in (90a), which belong to a widespread but minor pattern in Dogon languages (e.g. Jamsay). The hyena term (90b) is more doubtful. The nouns (or compound initials) are *kà:* ‘grasshopper (all spp.)’ and *tà:* ‘hyena (2 spp.)’

- (90) a. *kà: sèḡèrⁿè-sêyⁿ* ‘grasshopper sp. (*Kraussella*)’
kà: pèlèm-pêy ‘grasshopper sp. (*Oedaleus*)’
- b. *tà: kóḡórⁿó-kòyⁿ* ‘spotted hyena (*Crocuta*)’

Two onomatopoeic terms denoting noisy bird spp. have an apparent initial *Cvⁿ*-reduplication (91). The first of these has a variant *kàngàrⁿâwⁿ* that is less transparently reduplicative.

- (91) *kàⁿ-kàⁿâw* ‘white-bellied (Senegal) bustard’
cèⁿ-cèⁿêw ‘black-headed lapwing’

4.1.4.3 Nouns with full-stem iteration

The attested types are classified in (92) by prosodic type and subclassified by whether vocalic shifts take place. In most cases the base is not attested in unreduplicated form. Native speakers may still discern the connection between *dìḡù-díḡù* ‘joint (n)’ and the word-family including *díj-jé* or *díḡ-yé* ‘be connected (joined)’.

- (92) a. *C̀̀C̀̀-Ć́Ć́* (disregarding compound initial)
no vocalic change
dìḡù-díḡù ‘joint (n)’
mid-height vowel to a
ḡòⁿḡmà-[dìḡè-dáḡà] ‘evil dwarf’
kà:-[tòḡò-táḡà] ‘mantis’
- b. *C̀̀C̀̀-Ć́Ć́* (disregarding compound initial)
mid-height vowel to a
tèḡè-táḡá ‘stilt dancers’
- c. *Ć́Ć́-C̀̀C̀̀*
no vocalic change
tím-tìm ‘bush sp. (*Scoparia*)’
- d. *Ć́Ć́-Ć́Ć́*
mid-height vowel to a
cěyⁿ-căyⁿ ‘tree sp. (*Cassia*)’

Similar iterations, with or without the shift to *a* in the second iteration, are common in expressive adverbials, including onomatopoeias (§8.4.7.5-6).

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

Candidates for a more or less segmentable initial formative *a-* or *aN-* (with nasal consonant) are in (93).

- (93) a. *àN-*
- | | |
|------------------|---|
| <i>àntúmùl</i> | ‘evil dwarf’ |
| <i>àṅgùṅgùrù</i> | ‘giant tortoise (<i>Centrochelys</i> , formerly <i>Geochelone</i> or <i>Testudo</i>)’ |
| <i>ànzùkùmà</i> | ‘giant millipede’ |
- b. *à-*
- | | |
|--------------|---|
| <i>à-kâm</i> | ‘wrestling’ (cf. verb <i>kâm</i> ‘squeeze, hold in bear-hug’) |
|--------------|---|

Etymologically spurious cases may also be put in this category synchronically. The main examples are borrowings from Arabic nouns with *al-* (and assimilated variants), e.g. *àràsá:rá* ‘white person, European’.

4.2 Derived nominals

4.2.1 Characteristic derivative (*-jì ~ -jù*)

The suffix *-jì ~ -jù* is added to a noun X to generate a noun or adjective meaning ‘characterized by having X’, cf. English pseudo-participial *-ed* in e.g. *toothed*. The noun denoting X takes the form of a simple (i.e. unquantified) stem, and drops tones. Two examples are in (94).

(94)	noun	gloss	characteristic	gloss
	<i>bìyà-kùlà</i>	‘beard’ (“chin-hair”)	<i>bìyà-jì</i>	‘bearded’
	<i>pàṅà</i>	‘strength’	<i>pàṅà-jì</i>	‘strong, powerful’
	<i>tóm</i>	‘hump’	<i>tóm-jì</i>	‘hunchback’

4.2.2 Verbal nouns (*-lé, -y ~ -ù*)

Verbal nouns are used when the eventuality denoted by a conjugatable verb is referred to abstractly, and as complements of various higher-level verbs such as *dògò* ‘leave’ in the sense ‘cease (doing)’ (§17.3.2). Representative forms of the two productive verbal noun forms are in (95).

One productive verbal noun form is with suffix *-lé*. It is added to the bare stem.

The second verbal noun ends in *-y* after a monosyllabic *Cv(:)* verb, and in *-ù* after most nonmonosyllabic stems. *Cv*: verbs shorten the vowel before *-y*, merging with *Cv* verbs (95a-b). The three weakly bisyllabic verbs of the shapes *nCv* ('give') and *?əCv* ('go up', 'eat meal') have a final *i*-vowel (95d). 'Weep' has a similar form *yì* (95c). These *i*-final forms are difficult to segment morphologically; perhaps we could posit a *-y* suffix that contracts irregularly with a stem-final vowel to *i*. The verbs in (95f) apococate the final /u/ after an unclustered sonorant other than a rhotic or *j*.

(95)	bare stem	VblN <i>-lé</i>	VblN <i>-y ~ -u</i>	gloss
a.	<i>wó</i>	<i>wó-lé</i>	<i>wò-y</i>	'come'
	<i>wó</i>	<i>wó-lé</i>	<i>wò-y</i>	'see'
	<i>jé</i>	<i>jé-lé</i>	<i>jè-y</i>	'kill'
	<i>jé</i>	<i>jé-lé</i>	<i>jè-y</i>	'dance'
	<i>gó</i>	<i>gó-lé</i>	<i>gò-y</i>	'go out'
	<i>nó</i>	<i>nó-lé</i>	<i>nò-y</i>	'go in'
	<i>zó</i>	<i>zó-lé</i>	<i>zò-y</i>	'bring'
b.	<i>tó:</i>	<i>tó:-lé</i>	<i>tò-y</i>	'spit'
	<i>ká:</i>	<i>ká:-lé</i>	<i>kà-y</i>	'shave'
	<i>mǎ:</i>	<i>mǎ:-lé</i>	<i>mà-y</i>	'make (bricks)'
	<i>nǎ:</i>	<i>nǎ:-lé</i>	<i>nà-y</i>	'spend night'
c.	<i>yé</i>	<i>yé-lé</i>	<i>yì-Ø</i>	'weep'
d.	<i>ndé</i>	<i>ndé-lé</i>	<i>ndì-Ø</i>	'give'
	<i>?əné</i>	<i>?əné-lé</i>	<i>?əni-Ø</i>	'eat (meal)'
	<i>?əlé</i>	<i>?əlé-lé</i>	<i>?əli-Ø</i>	'go up'
e.	<i>úbó</i>	<i>úbó-lé</i>	<i>ùb-ù</i>	'pour'
	<i>tábú</i>	<i>tábú-lé</i>	<i>tàb-ù</i>	'touch'
	<i>cémné</i>	<i>cémné-lé</i>	<i>cèmn-ù</i>	'have fun'
	<i>sémbé</i>	<i>sémbé-lé</i>	<i>sèmb-ù</i>	'sweep'
f.	<i>ún</i>	<i>ún-lé</i>	<i>ùn-Ø</i>	'go'
	<i>tóló</i>	<i>tóló-lé</i>	<i>tòl-Ø</i>	'pound (in mortar)'
	<i>dèr"é</i>	<i>dèr"é-lé</i>	<i>dèn-Ø</i>	'spend day'
	<i>dì-yé</i>	<i>dì-yé-lé</i>	<i>dìy-Ø</i>	'carry on head'
	<i>gòló</i>	<i>gòló-lé</i>	<i>gòl-Ø</i>	'do farm work'
	<i>bǎn</i>	<i>bǎn-lé</i>	<i>bàn-Ø</i>	'beat (tomtom)'
	<i>óbí-yó</i>	<i>óbí-yó-lé</i>	<i>óbí-y, óbù</i>	'sit'
	<i>gànú</i>	<i>gànú-lé</i>	<i>gàñ-ù</i>	'obstruct'
	<i>nìndíyó</i>	<i>nìndíyó-lé</i>	<i>nìndiy-Ø</i>	'listen'

In examples like *dìy-Ø*, the word-final /iy/ is not distinguishable audibly from long *i*:. Likewise for word-final /uw/ versus long *u*:, as in *sùw-Ø* ‘defecating’ from stem *súwó*. See Monophthongization §3.5.6.2.

Verbal nouns often incorporate a direct-object nominal. On the syntax of verbal-noun complements, see §17.3.

Agentive compounds (§5.1.5) end in an agentive nominal that is identical in form to the *-y* ~ *-u* verbal noun type.

4.2.3 Deverbal nouns with *-n* suffix (‘dues’, ‘curse’)

I know of the following deverbal nouns with *-n* suffix.

(96)	noun	gloss	related verb
a.	<i>C̀V̇C̀V̇-n</i>		
	<i>zèbù-n</i>	‘(a) curse’	<i>zèbé</i> ‘curse (sb)’
	<i>gàmú-n</i>	‘thunder’	<i>gàmí-yé</i> ‘(thunder) sound’ cf. noun <i>gàm-í</i> : (98a)
b.	<i>C̀V̇C̀i-n</i>		
	<i>sègì-n</i>	‘dues, contribution’	<i>ségé</i> ‘pay dues’

Compare Tebul Ure *zèbì-né* ‘(a) curse’ and *sègì-né* ‘dues’. Najamba has a large number of nominals with *-n*, of multiple types.

4.2.4 Deverbal nouns with *-ŋ* suffix (‘sunrise’, ‘sunset’, ‘satiety’)

From noun *ìzùgè* ~ *ìzìgè* ‘sun’ are formed two complementary compounds whose finals consist of a verb stem plus a nominalizing suffix *-ŋ*.

(97)	compound	gloss	related verb
a.	<i>ìzìgè-[túmó-ŋ]</i>	‘sunrise’	<i>túmó</i> ‘(sun) rise’
b.	<i>ìzìgè-[píló-ŋ]</i>	‘sunset’	<i>pílé</i> ‘fall; (sun) set’

The *-ŋ* may reflect an animate class marker *-(ŋ)go. Compare e.g. Tebul Ure *[ùdù-gò]-[túbù-ŋgò]* and (with a different ‘sun’ noun as initial) Jamsay *[nì-nì:]-[tógú-gú]* ‘sunrise’. For deadjectival nouns with suffix *-ŋ* see §4.2.6 below.

By themselves, *túmó-ŋ* ‘east’ and *píló-ŋ* ‘west’ are cardinal direction terms (§8.4.6.3).

sìrⁿù-ŋ ‘being full (of food), satiety’ is an isolated nominal from verb *sírⁿé* ‘be full (after eating), be sated’.

4.2.5 Apparent derived noun *CVC-í:*

The nouns in (98) are sufficiently similar to each other in form and meaning to constitute a minor pattern *CVC-í:*. The morphological markup is tricky since these stems are associated with *CvCi-yé* verbs including the mediopassive suffix.

(98)	noun	gloss	related verb
a.	<i>gàm-í:</i>	‘thunder’	<i>gàmí-yé</i> ‘(thunder) sound’ cf. noun <i>gàmú-n</i> (96a)
b.	<i>àrⁿùŋ-[cèrⁿ-í:]</i> ~ <i>àrⁿùŋ-[cè:rⁿ-ì:]</i>	‘(flash of) lightning’	<i>cé(:)rⁿí-yé</i> ‘(lightning) flash’

4.2.6 Reduplicated deadjectival nouns of measurable extent (-ŋ)

Adjectives denoting axes of measurement have an {L}-toned reduplicated abstractive nominal. Most examples end in a suffix *-ŋ*, which is not always audible after *l*. For some speakers, the *-ŋ* appears to have fused with a lexical stem-final *y* as *yⁿ*, and in one other case (‘length’) *-yⁿ* now appears to be the suffix. For deverbal nominals with *-ŋ*, see §4.2.4 above.

(99)	nominal	gloss	adjective	gloss
a.	no suffix			
	<i>tù-tùjù</i>	‘weight’	<i>tùjù</i>	‘heavy’
b.	suffix <i>-ŋ</i>			
	<i>zà-zàlè-ŋ</i> ~ <i>zà-zàlà-yⁿ</i>	‘length’	<i>zàlà</i>	‘long’
	<i>bì-bìrⁿì-ŋ</i>	‘size’	<i>bǐn</i>	‘big, fat’
	<i>wà-wày-ŋ</i> ~ <i>wà-wayⁿ</i>	‘width’	<i>wàyⁿ</i>	‘wide’
	<i>tò-tòy-ŋ</i> ~ <i>tò-tòyⁿ</i>	‘depth’	<i>tòyⁿ</i>	‘deep’
	<i>dè-dèmbùl(-ŋ)</i>	‘thickness’	<i>dèmbùl</i>	‘thick’
	<i>yàmà-ŋ</i>	‘stupidity’	<i>yàmà</i>	‘stupid’

4.2.7 Instrument nominals

There are no productive formations. I can cite *dì:zù* ‘file (tool)’, whose tone and final *u* resemble those of agentive compound finals, is related to the verb *dí:zé* ‘file, smooth with a file’.

4.2.8 Agentive nominal

There is an agentive nominal form, derived from verbs. It appears to occur exclusively as an {L}-toned compound final. The initial, also {L}-toned, represents a typical object, or a cognate nominal is used.

In such compounds, the final agentive nominal ends in *-y* if the stem is *Cv-* or *Cv:-*. Heavier stems have an agentive in *-u*, which is subject to apocope after an unclustered sonorant (other than a rhotic or *n*). The segmental form (but not tone) of the agentive nominal is the same as that of the verbal noun in *-u* and *-y*.

For examples of agentive compounds see §5.1.5, below.

4.2.9 *bà-gòló* ‘end of rainy season’ and *bà-dô:* ‘approach of rainy season’

This compound, whose initial is *bá* (roughly ‘cloudy weather’ but occurring in collocations), ends in *-gòló*, a semi-opaque nominal related to the verb *gó* ‘go out’. The collocation *bà-gòló gó* ‘cloudy weather go out’, i.e. ‘be at the end of the rainy season’, is sometimes reshaped as *bà-gòló gòlí-yó*, with a new mediopassive verb back-formed from the nominal. *-gòló* has cognates in eastern Dogon in compounds with the same meaning, e.g. Tommo So *bà:-góló* and (with a different initial) Pergué Jamsay *yàr-gó:ró*. However, Tebul Ure has *bà:-gó:*.

The YD antonym is *bà-dô:* ‘approach of cloudy weather (=rainy season)’, based on the verb *dó* ‘arrive’. This compound final too has cognates, e.g. Pergué Jamsay *yàr-dô:* with the same meaning.

YD *bà-gòló* and *bà-dô:* are either interesting archaisms, or borrowings from nearby eastern Dogon languages.

4.3 Pronouns

4.3.1 Personal pronouns

4.3.1.1 Regular personal pronouns (independent, proclitic, suffixed)

Independent, subject, and object pronominals are in (100). Independent forms are **H-toned**. they occur in isolation (‘me!’), as topics, and as focalized elements. The accusative forms are preverbal proclitics in transitive clauses. They are based on L-toned forms of the monosyllabic pronominal stems, followed (mainly for animates) by accusative *-ý*. The logophoric plural has a more noun-like accusative form, since the animate plural suffix *-mù* is included.

Pronominal subjects are expressed by suffixes in main clauses. However, in relative clauses this suffixal slot is not available for subject-marking. Instead, pronominal subjects are expressed by proclitics. These proclitic forms also occur as pronominal inalienable possessors, and as complements of postpositions. Several of the proclitics (those except 2Sg and logophoric) are **L-toned** and therefore differ audibly from the corresponding H-toned

independent forms. By contrast, the 2Sg and logophoric categories have H-tones in both the independent and the preverbal subject series, so in these cases there is no audible distinction.

(100) Personal pronouns

	independent	accusative	proclitic	subject suffix
1Sg	<i>mí</i>	<i>mì-ý</i>	<i>mì</i>	<i>-m</i>
2Sg	<i>ó</i>	<i>ó-ý</i>	<i>ó</i>	<i>-w</i>
1Pl	<i>yé</i>	<i>yè-ý</i>	<i>yè</i>	<i>-y</i>
2Pl	<i>wó</i>	<i>wò-ý</i>	<i>wò</i>	<i>-y</i>
3Sg	<i>ná</i>	<i>nà-ý</i>	<i>nà</i>	<i>-∅</i>
3Pl	<i>bó</i>	<i>bò-ý</i>	<i>bò</i>	[variable]
InanSg	<i>kó</i>	<i>kó</i>	(=3Sg)	(=3Sg)
	[<i>kó</i> especially discourse-definite]			
InanPl	[either as for InanSg, or as for 3Pl]			
3LogoSg	<i>á</i>	<i>á-ý</i>	<i>á</i>	<i>-m</i> (§18.2.1.2)
3LogoPl	<i>á-(yⁿè-)mù</i>	<i>á-(yⁿè-)mù-y</i>	<i>á</i>	<i>-m</i>

In parsing texts, a difficulty worth mentioning is distinguishing 3Sg *ná* and *nà* from the homophonous locative postpositions *nà* and tone-raised variant ^h*ná* (§8.2.3).

The 3Pl category is mainly animate, but it can extend to inanimates. The 3Sg category can similarly extend to inanimate singular as an alternative to *kó*, and even to inanimate plural.

In fact, *kó* behaves so differently from other pronouns that its apparent pronominal uses are better analysed as cases of the inanimate singular near-distant (and often discourse-definite) demonstrative of the same form, see (110) below and §4.4.2.2 for discourse-definite functions. In the preverbal subject series (used in nonsubject relative clauses), #*kò* was rejected by my assistants, who invariably use 3Sg *nà* in this construction even for inanimates. *kó* also has different tonal effects on following particles and postpositions than do other pronouns (§3.7.4.1).

The preverbal subject proclitics are identical in form to the pronominal possessor proclitics that precede inalienable nouns, i.e. kin terms (§6.2.3.1). Alienable nouns have a distinct construction involving a postnominal complex consisting of a pronominal element and a nominal classifier; see §6.2.2. The preverbal subject proclitics are also identical to the forms of the pronouns before conjunctive particle *mì*→ ‘and’ (§7.1.2).

For pronominals as part of reflexives, as in 1Pl *kó-yè-ŋ* and 3rd person *kó-à-ŋ*, see §18.1.

4.3.1.2 ‘All/together’ nonsingular pronouns (*yâ:*, *wâ:*, *â:*)

This special set of nonsingular pronouns (101) combines a pronominal element, cf. 1Pl *yé*, 2Pl *wó*, and 3Logophoric/3Reflexive *á* (but see comments below), with another morpheme that contracts with it to form a long *â:*.

(101) category ‘all/together’ pronoun

1Pl	<i>y-â:</i>
2Pl	<i>w-â:</i>
3Logo/3Refl	<i>â:</i>

Comparing these forms with the corresponding simple independent pronouns (*yé*, *wó*, *á*, respectively), one suspects an original **yé-Cà*, **wó-Cà*, **á-Cà* with some consonant **C*.

Since *â:* does not have logophoric or reflexive semantics, one might alternatively identify its initial element as the *á*-prefix in animate numerals.

These forms combine with a following universal quantifier (§6.6.1.2) in the sense ‘we/you/they all’ (102). In the absence of the quantifier, the sense is ‘we/you/they (all) together’. This can be made predicative by adding ‘be’ as auxiliary. The morphologically 3Logo/3Refl form in (102a) can extend into nonlogophoric and nonreflexive contexts.

(102) category with *cêm* ‘all’ with *pú*→ ‘all’

a. 1Pl	<i>y-â: cêm</i>	<i>yâ: pú</i> →
2Pl	<i>w-â: cêm</i>	<i>wâ: pú</i> →
3LogoPl	<i>â: cêm</i>	<i>â: pú</i> →
b. 3Pl	<i>bó cêm</i>	<i>bó pú</i> →

For the use of these forms to summarize conjoined pronouns, see §7.1.2.

Examples of them as predicates with ‘be’ auxiliary are (103a-c).

(103) a.	<i>(yé)</i>	<i>y-â:</i>	<i>bò-y</i>
	(1Pl)	1Pl- all.together	be-1PlSbj
		‘We are together.’	
b.	<i>(wó)</i>	<i>w-â:</i>	<i>bò-y</i>
	(2Pl)	2Pl- all.together	be-2PlSbj
		‘We are together.’	
c.	<i>èn = ô:</i>	<i>â:</i>	<i>b-è:</i>
	children-Def.AnPl	3. all.together	be-3PlSbj
		‘The children are together.’ (< <i>èné wò</i>)	

The ‘all/together’ pronominals in YD are of historical linguistic interest since they resemble ordinary plural independent pronouns in some eastern Dogon languages (e.g. Nanga, Ben Tey).

4.3.2 Personal pronouns as complements of postpositions

Examples of pronouns with postpositions are in (104). The dative postposition (§8.1.1) follows a form of the pronoun identical to the preverbal subject pronouns (in relative clauses). Therefore 2Sg and logophoric are H-toned while other pronominals are L-toned. There are no irregular dative forms. Complex postpositions like ‘behind’, of the literal type ‘at [X’s rear]’, are locative PPs with a pronominally possessed noun as complement.

(104)	category	dative	‘behind’
	1Sg	<i>mì</i> ^H <i>bérⁿá</i>	<i>[tùnù ʔámó] nà</i>
	2Sg	<i>ó</i> ^H <i>bérⁿá</i>	<i>[tùnù ó-ŋ] nà</i>
	1Pl	<i>yè</i> ^H <i>bérⁿá</i>	<i>[tùnù yé-ŋ] nà</i>
	2Pl	<i>wò</i> ^H <i>bérⁿá</i>	<i>[tùnù wó-ŋ] nà</i>
	3Sg	<i>nà</i> ^H <i>bérⁿá</i>	<i>[tùnù ná-ŋ] nà</i>
	3Pl	<i>bò</i> ^H <i>bérⁿá</i>	<i>[tùnù bó-ŋ] nà</i>
	Inan	<i>kó</i> ^H <i>bérⁿá</i>	<i>[tùnù kó] nà</i>
	3LogoSg	<i>á</i> ^H <i>bérⁿá</i>	<i>[tùnù á-ŋ] nà</i>
	3LogoPl	<i>á-(yè-)mù bèrⁿà</i>	<i>[tùnù á-(yè-)mù-ŋ] nà</i>

4.3.3 Pronominal possessors

With **alienably** possessed nouns (anything except kin terms), pronominal possessors **follow** the possessed noun and any inner modifiers (adjective, numeral). See §6.2.2 for the syntax. The forms used after L-toned nouns are in (105). Most forms are plainly bimorphemic. Inanimate possessor is usually expressed by animate pronominals (usually 3Sg, occasionally 3Pl). Animate singular and inanimate plural possessors have the same possessive classifiers. (Animate singular and inanimate plural are also syncretized in definite markers.) Postnominal pronominal possessors follow any adjective or numeral that is attached to the possessed noun, see §6.1.1.

(105) Pronominal possessors (after L-toned alienable nouns)

possessor	AnSg/InanPl	AnPl	InanSg
1Sg	<i>mí-yⁿé</i>	<i>mí-yⁿè-mù</i>	<i>?ámó</i> (portmanteau)
2Sg	<i>ó-yⁿé</i>	<i>ó-mù</i>	<i>ó-ŋ</i>
1Pl	<i>y-é:ⁿ</i>	<i>yé-mù</i>	<i>yé-ŋ</i>
2Pl	<i>wó-yⁿé ~ w-é:ⁿ</i>	<i>wó-mù</i>	<i>wó-ŋ</i>
3Sg	<i>ná-yⁿé ~ n-é:ⁿ</i>	<i>ná-mù</i>	<i>ná-ŋ</i>
3Pl	<i>bó-yⁿé ~ bɔ̣-é:ⁿ</i>	<i>bó-mù</i>	<i>bó-ŋ</i>
Inan	[=3Sg throughout]		
3LogoSg	<i>á-yⁿè</i>	<i>á-mù ~ á-yⁿè-mù</i>	<i>á-ŋ</i>
3LogoPl	<i>á-yⁿè</i>	<i>á-mù ~ á-yⁿè-mù</i>	<i>á-ŋ</i>

After a possessed noun containing at least one H-tone, the pronominal possessors are L-toned: *mí-yⁿè*, *y-é:ⁿ*, etc. Even H-toned forms like *mí-yⁿé* are heard with falling tone when an L-toned suffix or determiner follows: animate plural *mí-yⁿè-mù* in the array above, definite *mí-yⁿè gè* ‘mine’ in (169) below.

In (105) the 1Sg, 2Sg, and logophoric forms show a clearly segmentable classifier morpheme *-yⁿè*. Forms with this morpheme are perhaps still analysable as combinations of pronominal possessor plus an appositional noun (‘things’, ‘critter’), structurally similar to inalienable possessives; see discussion in §6.2.2 below. Most other forms in (105) are contractions and therefore less transparent morphemically, e.g. 3Pl *bɔ̣-é:ⁿ* < **bó-yⁿè*. In the inanimate singular paradigm, the 1Sg possessor form *?ámó* is irregular (suppletive), while the remaining combinations end in a morpheme *-ŋ*. Synchronically, this is reminiscent of genitive *ŋ* (§6.2.1.1), but etymologically it is more likely what’s left of old inanimate singular noun-class suffixes **-ŋgo* and **-ŋge* (cf. Najamba *gɔ̣* and *gè* as possessive classifiers); compare *-ŋpè* < **N-yè* in §6.2.1.2 and §14.1.9.

With **inalienably** possessed nouns (chiefly kin terms, see §6.2.3), the pronominal possessor **precedes** the possessed noun. Preposed pronominal possessors contain no possessive classifiers and are therefore not bimorphemic like postnominal possessors. Instead, forms identical to preverbal subject proclitics occur, i.e. H-toned for 2Sg and logophoric, L-toned for the others.

(106) Pronominal possessors before inalienable kin terms

category	form	tone
1Sg	<i>mì</i>	L
2Sg	<i>ó</i>	H
1Pl	<i>yè</i>	L
2Pl	<i>wò</i>	L
3Sg	<i>nà</i>	L
3Pl	<i>bò</i>	L
3LogoSg/Pl	<i>á</i>	H

The proclitic pronominals in (106) are also identical, except for tones, with the uniformly H-toned independent pronouns, see the leftmost data column in (100) above. There are a few kin terms that require H-toned possessor pronominals, as in *mí^{H LH}dě*: ‘my paternal kinsman’, see end of §6.2.3.5. My notation implies that these are tonal modifications of the proclitics that occur with other kin terms, as in the segmentally identical but tonally distinct *mì^Hdě*: ‘my father’. However, the perhaps accidental effect of the tone-raising in *mí^{H LH}dě*: ‘my paternal kinsman’ is to merge proclitic with independent pronouns.

4.4 Demonstratives and definites

4.4.1 Definite markers (*gè*, *wò*)

The definite markers distinguish animacy and grammatical number. The same two morphemes occur in animate and inanimate paradigms, but with inverted grammatical number (107).

(107) Definite markers

	animate	inanimate
Sg	<i>gè</i> ~ † <i>gé</i>	<i>wò</i> ~ † <i>wó</i>
Pl	<i>wò</i> ~ † <i>wó</i>	<i>gè</i> ~ † <i>gé</i>

Comparative evidence suggests that animate plural *wò* ~ †*wó* reflects **bo*, while inanimate singular *wò* ~ †*wó* reflects **ko*. However, the syncretism of animate singular with inanimate plural is old.

Definite markers do not control tone-dropping to {L} on the preceding noun or any intervening words. If the preceding noun and/or its modifiers contain an H-tone, the definite

marker is L-toned; if the preceding noun and any modifiers are entirely L-toned, the definite marker is H-toned. This is consistent with Rhythmic Tone-Raising. Therefore the animate singular definite is L-toned *gè* in (108a), but H-toned [†]*gé* in (108b-c). Likewise, the animate plural definite is L-toned *wò* in (108a), and also in (108b) following an H-toned plural *-mú*, but it is H-toned [†]*wó* in (108c).

(108)	singular	plural	gloss
a.	<i>ʔóné gè</i>	<i>ʔóné-mù wò</i>	‘goat’
	<i>lòzú gè</i>	<i>lòzú-mù wò</i>	‘bush duiker’
	<i>ámǵá gè</i>	<i>ámǵá-mù wò</i>	‘armadillo’
	<i>zémé gè</i>	<i>zémé-mù wò</i>	‘blacksmith’
b.	<i>pè: [†]gé</i>	<i>pè:-mú wò</i>	‘sheep’
c.	<i>gùnò [†]gé</i>	<i>gùnò-mù [†]wó</i>	‘slave’
	<i>nà: [†]gé</i>	<i>nà:-mù [†]wó</i>	‘cow’

In animate plural *-mu wo* (omitting tones), *wo* is frequently encliticized and contraction is common: *nà:-mù [†]wó* can be heard as [nà:mǵ:] or similar.

The three high-frequency L-toned nouns, *nò* ‘person’, *yè* ‘woman’, and *ènè* ‘child’ (§4.1.2), irregularly shift their final or only syllable from L to H-tone (i.e. to *C^ˀ* or *C^ˀC^ˀ*) before animate singular definite *gè* (109a-b). Animate plural definite *wò* can be added to the plural form of the noun with no additional irregularities, other than minor contractions due to encliticization.

(109)	singular	plural	gloss
a.	<i>nó gè</i>	<i>nò-mó wò ~ nò-mó = ò</i>	‘person’
	<i>yé gè</i>	<i>yè-mù [†]wó</i>	‘woman’
b.	<i>éné gè</i>	<i>éné wò ~ ènó = ò</i>	‘child’

4.4.2 Demonstrative pronouns

4.4.2.1 ‘This/that’ (deictic demonstrative pronouns)

The deictic categories are **proximate** (prototypically associated with the space around the speaker), **near-distant** (prototypically associated with the addressee), and **far-distant**.

Near-distant forms can also be used for immediate discourse definiteness, e.g. ‘that (same) X (that we were just talking about)’.

Far-distant forms like *màngó* can also be used in an **obviative** function, i.e. in the sense ‘that other one’, distinguishing one of two equally distant objects (“Should I bring this one?” “No, that other one.”)

The demonstrative pronouns in (110) have inanimate reference. They can function absolutely (‘give me that!’) or as postnominal modifiers. In the latter case, they control tone-dropping on the modified noun and any intervening words.

(110) Inanimate demonstrative pronouns

singular	plural	gloss	label and abbreviation
<i>ḡgó</i>	<i>ě:</i>	‘this’	proximate (Prox)
<i>kó</i>	<i>yě:</i>	‘that’ (with you)’	near-distant (NearDist)
<i>màngó</i>	<i>màyé</i>	‘that (distant)’	far-distant (FarDist)

Segmentation of these forms is not completely transparent, so I omit hyphens. Inanimate singular *kó* ~ *gó* can be glimpsed in the singulars, versus inanimate plural *(y)ě(:)* in the plurals. *mà-* is identifiable as a far-distant morpheme.

kó by itself is often discourse-definite, summarizing preceding discourse (§4.4.2.2 below).

The forms in (111) have human or other animate reference. The plural demonstrative pronoun, when used as a modifier, follows the unsuffixed noun stem, without animate plural suffix: *nà:^L ðmíyè* ‘these cows’, not #*nà:-mù^L ðmíyè*.

(111) Animate demonstrative pronouns

singular	plural	gloss	label
<i>ðḡgé</i>	<i>ðmíyⁿè(-mù)</i>	‘this’	Prox
<i>nà[†]gé</i>	<i>bô: , bógò-mù</i>	‘that’ (with you)’	NearDist
<i>màngé</i>	<i>màmíyⁿè(-mù)</i>	‘that (distant)’	FarDist

Segmentation is again somewhat difficult. The near-distant forms resemble animate pronouns *ná* (3Sg) and *bó* (3Pl). The singular forms appear to contain [†]*gέ* (from definite *gè*). In the plurals, two of the forms appear to contain animate plural *-yⁿè* (<**yè*).

The proximate forms are very similar to animate forms of interrogative ‘which?’, viz., singular *àḡgέ* ~ *àm* and plural *àmíyⁿè*

Ordinarily, demonstratives retain their lexical tones but control {L} on preceding words in the NP in most cases. However, when demonstratives follow postnominal pronominal possessors, the demonstratives drops their own tones to {L} and control no tone overlays on the preceding string. See §6.5.2 for more on the syntax and tonosyntax.

4.4.2.2 *kó* as abstract discourse-definite ‘that’

In several Dogon languages, *kó* or variant is a full-fledged inanimate singular pronoun. In those languages, it can function by itself (absolutely) in abstract discourse-definite sense, resuming a situation that has just been described, compare English *that’s why ...* or *put that in your pipe and smoke it!* In these languages, *kó* or variant is also used as a preposed “possessor” of another noun, in the same discourse-definite context.

In YD, a *kó* that often seems to correspond to these uses is best analysed not as an inanimate pronoun, rather as the inanimate singular near-distant demonstrative, as pointed out in §4.3.1.1 above. Whenever it combines with another noun, it follows rather than precedes the noun, making its demonstrative character obvious.

kó occurs in a number of combinations with particles or postpositions. Locative *kó nà* means ‘in that, therein’. #*kó bà* with the other locative postposition was rejected as such by an assistant, but the adverb *kú-bà* ‘there (discourse-definite)’ may represent this combination etymologically. Purposive *kó dân* ‘for that (reason/purpose)’ is common (§8.3.2), summarizing a just-described situation and connecting it to following discourse, just like English *that’s why ...*. Adverb *kôyⁿ* ‘thus, like that’, whose final semivowel is optionally prolonged (*kôyⁿ→*), has similar summarizing functions as in (645c); it is probably a fusion of *kó* with *yèŋ* ‘like’ (§8.4.1).

4.4.2.3 Anaphoric/logophoric demonstrative pronouns absent

No Jamsay-like demonstrative pronouns related to anaphoric pronouns (reflexive, logophoric) have been observed.

4.4.3 Demonstrative adverbs

4.4.3.1 Locative adverbs

The basic deictic adverbs of spatial position are those in (112). Several are related in form and meaning to inanimate demonstrative pronouns. Like other spatial expressions, they can occur in stative locative (‘here’), progressive (‘this way’), allative (‘hither’), and ablative (‘hence’) contexts, with directionality supplied by verbs or by general context.

- (112) a. *ŋgí ~ ñjí* ‘here’, cf. (788), (856)
kóy ‘just over here, just over this way’ (not far from speaker, pinpointed), cf. (774), (778), (788), (806), (850)
m̀bà ‘around over here’ (approximate), cf. (791)
- b. *m̀ànjí ~ m̀àgí* ‘over there’ (e.g. where the listener is)
m̀àmbá ‘there’ (farther away)

- c. *yá* ‘there (discourse-definite)’, cf. (836), (850)
yǎy ‘there (discourse-definite)’, cf. (697), (753a), (807)
kú-bà ‘there (discourse-definite)’, cf. (671b), (759), (777)

Discourse-definite ‘there’ can also be expressed compositionally as *ǎmǎ*^L *kó* ‘that (same) place’.

These adverbs can also directly modify a preceding noun, in which case they function like adverbially case-marked forms of corresponding demonstratives (§4.4.2.1). In modifying function, the adverbs (like the demonstratives and like modifying adjectives) control tone-dropping on the noun. See, for example, *gòmù*^L *kóy* ‘(in) the courtyard over there’ in (808) in Text 2. Some of the adverbs likely originated as case-marked demonstratives, though the morphology is now rather obscure: compare the apparent endings *-y* and *-ba* with accusative *-y* (§6.7) and locative *bà* (§8.2.3).

4.4.3.2 Emphatic and approximative modifiers of adverbs

The expressive adverbial *té* → ‘specifically’ or its iterated form *té:-té:* (§8.4.3.5) can be combined with any locative adverb: *ǎgí té:-té:* ‘right here’.

For vaguely defined deixis, an inanimate plural demonstrative of the relevant spatial category (§4.4.2.1), with minor tone changes, may be followed by locative postposition *nà*. Thus *é: nà* ‘(somewhere) around here’, *yé: nà* ‘(somewhere) around there (e.g. near the listener)’, *màyé nà* ‘(somewhere) around there (distant)’. With place names and other place descriptions, *bà* replaces *nà*, as in *bàmàkó bà* ‘(somewhere) around Bamako’. For *bà* (displaced) and *nà* as locative postpositions, see §8.2.3.

4.4.4 Presentatives (‘here’s...!’) (*ǎn-nà-* ~ *ǎm-nǎ-* ~ *ǎm-nà-*, *mǎn-nà-*)

There is a distinction between **proximate** (which can extend to near-distant) and **far-distant** presentatives, both of which end in conjugatable *-nà-*. This element, which may appear as *-nǎ-* by assimilation, is preceded by an element resembling the proximate or far-distant demonstrative, see §4.4.2.1 above. However, there is no animacy split. The *-nà-* morpheme may be historically related to the locative postposition *nà*, but presentatives (unlike locative PPs) can be conjugated for pronominal subject.

Proximate *ǎn-nà-* (preferred by younger speakers) or *ǎm-nǎ-* ~ *ǎm-nà-* (older speakers) corresponds to French *voici X* (and sometimes to *voilà X*), and to English *here is/are X*.

- (113) a. *ínjú* *ǎn-nà-Ø*
water Prox-Presntv-3SgSbj
‘Here’s (the) water!’

- b. *săydù* *ǎn-nà-∅*
 S Prox-Presntv-3SgSbj
 ‘Here’s Seydou!’
- c. *ǎn-nà-m*
 Prox-Presntv-1SgSbj
 ‘Here I am!’

For objects outside the scope of ‘here’, far-distant presentative *mǎn-nà-* translates as French *voilà X* and English *there is/are X*.

The pronominal-subject paradigms are in (114). The first person forms are not used with the far-distant presentative.

(114)	category	‘here’s ...’	
		proximate	far-distant
	1Sg	<i>ǎn-nà-m</i>	—
	2Sg	<i>ǎn-nà-w</i>	<i>mǎn-nà-w</i>
	1Pl	<i>ǎn-nà-y</i>	—
	2Pl	<i>ǎn-nà-y</i>	<i>mǎn-nà-y</i>
	3Sg	<i>ǎn-nà-∅</i>	<i>mǎn-nà-∅</i>
	3Pl	<i>ǎn-nà-yè</i>	<i>mǎn-nà-yè</i>

The initial rising tone in *ǎn-nà-* and variants is heard in isolation pronunciations, but the tones may be dropped in the presence of a preceding constituent.

An assistant rejected combinations of these presentatives with other verbs, in the fashion of French *le voilà qui arrive*.

Realis-existential proclitic *yà* can have presentative force when combined with an imperfective verb, see (457) in §11.2.2.1. Clause-final *gà* seems to be presentative in (791) in Text 1.

4.5 Adjectives

This section is about NP-internal modifying adjectives. For adjectival predicates (‘X is red’, etc.) see §11.4. Most adjectives also have related inchoative and factitive verbs (§9.5).

Within an NP, the order is N-Adj, and additional adjectives may be added. Only the final word in the N-Adj(-Adj) sequence, i.e. in the core NP, retains its tones. Nonfinal words are tone-dropped (§6.1.6, §6.3.3.1).

The morphology of modifying adjectives is simple. It is generally consistent with nominal morphology, with fewer irregularities. There is no class suffix for singulars, or for

inanimate plurals. Animate plural suffix *-mù* is added only to the final adjective: *nà:^L bàn^L bín-mù* ‘big brown cows’ (“cow red big-PI”). For more details about how adjectives function within NPs, see §6.3, §6.2.4.1, and §6.5.2.

For all adjectives tested, animate plural *-mù* is L-toned. This is newsworthy only in the case of /L/-toned adjectives. Recall that some /L/-toned noun stems have H-toned animate plural *-mú*. There are no such adjectival examples.

A list of adjectives is presented in (115). The divisions are by tone melody, and within each group by vocalism and syllable shape. Many of the adjectives are used exclusively or primarily with inanimate referents and are not readily elicited with the (animate) plural suffix. I therefore include a column with the readily elicitable definite *gè*, which is animate singular or inanimate plural depending on the animacy of the noun.

Many but far from all adjectives end in *u*, or in a sonorant after which an original **u* would be subject to deletion. Synchronically, *-u* is a common deverbal nominalizer (agentive, verbal noun, or product-of-action).

(115) Modifying adjectives

AnSg/Inan	with <i>gè</i>	AnPl	gloss
a. /L/ melody with H-toned definite			
<i>CvC(u)</i>			
<i>èn</i>	<i>èn †gè</i>	—	‘thin (wall)’
<i>àm</i>	<i>àm †gè</i>	<i>àm-mù</i>	‘in good condition (animal)’
<i>tòyⁿ</i>	<i>tòyⁿ †gè</i>	—	‘deep (hole, well)’
<i>pèy</i>	<i>pèy †gè</i>	<i>pèy-mù</i>	‘old, elderly’
<i>màyⁿ</i>	<i>màyⁿ †gè</i>	—	‘dry’
<i>wàyⁿ</i>	<i>wàyⁿ †gè</i>	—	‘spacious, wide (space)’; ‘wide (passage)’
<i>èmù</i>	<i>èmù gè</i>	—	‘cramped (space)’; ‘narrow (passage)’; ‘thin (wall)’
<i>tèl ~ tèlù</i>	<i>tèl †gè</i>	<i>tèl-mù</i>	‘fast, speedy (person, animal)’
<i>ðl ~ ðlù</i>	<i>ðl †gè</i>	—	‘wet’; ‘fresh (vegetation)’
<i>gàl ~ gàlù</i>	<i>gàl †gè</i>	—	‘bitter (taste)’
<i>mòpù</i>	<i>mòpù †gè</i>	<i>mòpù-mù</i>	‘ugly’
<i>kòpù</i>	<i>kòpù †gè</i>	—	‘curved’
<i>dòpù</i>	<i>dòpù †gè</i>	—	‘blunt (blade)’
<i>dèpù</i>	<i>dèpù †gè</i>	<i>dèpù-mù</i>	‘short (rope, person)’
<i>tùjù</i>	<i>tùjù †gè</i>	<i>tùjù-mù</i>	‘heavy’
<i>kùdù</i>	<i>kùdù †gè</i>	<i>kùdù-mù</i>	‘undiluted’
<i>CvCCu</i>			
<i>kùnzù</i>	<i>kùnzù †gè</i>	—	‘coarse, rough’
<i>mènzù</i>	<i>mènzù †gè</i>	<i>mènzù-mù</i>	‘slender (person, stick)’

<i>Cv:C(u)</i>			
<i>dà:l</i>	<i>dà:l</i> † <i>gɛ́</i>	<i>dà:l-mù</i>	‘nasty’
<i>kè:zù</i>	<i>kè:zù</i> † <i>gɛ́</i>	<i>kè:zù-mù</i>	‘cool, cold’; ‘slow (vehicle, person)’
<i>ʔəCɛ</i>			
<i>ʔəlè</i>	<i>ʔəlè</i> † <i>gɛ́</i>	—	‘curdled (milk)’; ‘cooked (meat)’; ‘ripe (grain etc.)’
<i>CiCɛ</i>			
<i>ìzè</i>	<i>ìzè</i> † <i>gɛ́</i>	—	‘empty (container), empty-handed’
<i>CvCv, CvCCv, and Cv:Cv, two identical non-high vowels</i>			
<i>sèrè</i>	<i>sèrè</i> † <i>gɛ́</i>	—	‘diluted (e.g. milk)’
<i>gòmò</i>	<i>gòmò</i> † <i>gɛ́</i>	<i>gòmò-mù</i>	‘bad, nasty’
<i>kòlò</i>	<i>kòlò</i> † <i>gɛ́</i>	—	‘fresh (milk)’; ‘raw (meat)’; ‘unripe’
<i>zàlà</i>	<i>zàlà</i> † <i>gɛ́</i>	—	‘long (rope)’
<i>kàndà</i>	<i>kàndà</i> † <i>gɛ́</i>	<i>kàndà-mù</i>	‘new’
<i>nà:rⁿà</i>	<i>nà:rⁿà</i> † <i>gɛ́</i>	—	‘easy (work)’; ‘cheap’
<i>CvCvCv with three identical non-high vowels</i>			
<i>àzàlà</i>	<i>àzàlà</i> † <i>gɛ́</i>	—	‘half-ripe (mango)’
<i>other</i>			
<i>ʔàyⁿàyⁿ</i>	<i>ʔàyⁿàyⁿ</i> † <i>gɛ́</i>	—	‘tight’; ‘hard (e.g. stone)’
<i>dèmbùl</i>	<i>dèmbùl</i> † <i>gɛ́</i>	—	‘thick, massive (wall)’

b. /LH/ melody

<i>Cv:</i>			
<i>bǎ:</i>	<i>bǎ:</i> <i>gè</i>	—	‘full (container)’
<i>sǐ.ⁿ</i>	<i>sǐ.ⁿ</i> <i>gè</i>	—	‘sharp (blade)’
<i>CvC(u)</i>			
<i>bǎn</i>	<i>bǎn</i> <i>gè</i>	<i>bǎn-mù</i>	‘red (brown, orange)’; ‘ripe (mango)’
<i>bǐn</i>	<i>bǐn</i> <i>gè</i>	<i>bǐn-mù</i>	‘fat, stocky (tree, mango, person)’
<i>dǎn</i>	<i>dǎn</i> <i>gè</i>	—	‘sour (milk, lemon)’
<i>gǎm</i>	<i>gǎm</i> <i>gè</i>	—	‘rotten (mango, meat)’
<i>nǎm</i>	<i>nǎm</i> <i>gè</i>	—	‘difficult’; ‘expensive’
<i>ěl ~ èlú</i>	<i>ěl</i> <i>gè</i>	<i>ěl-mù</i>	‘sweet; good-tasting’;
	[also L-toned variants <i>èl</i> etc.]		‘funny (person)’
<i>òjú</i>	<i>òjú</i> <i>gè</i>	—	‘hot’; ‘fast (vehicle)’
<i>bèdú</i>	<i>bèdú</i> <i>gè</i>	—	‘near’
<i>wàjú</i>	<i>wàjú</i> <i>gè</i>	—	‘far, distant’
<i>gàbú</i>	<i>gàbú</i> <i>gè</i>	<i>gàbú-mù</i>	‘tall’
<i>yòdú</i>	<i>yòdú</i> <i>gè</i>	—	‘soft’

<i>CvCvC</i>	<i>pèlěl</i>	<i>pèlěl gè</i>	—	‘tasty (fried food)’
<i>CvCvCC(u)</i>	<i>òrⁿòndú</i>	<i>òrⁿòndú gè</i>	<i>òrⁿòndú-mù</i>	‘smooth, sleek’
<i>CiCε ~ CeCε</i>	<i>jìmé</i>	<i>jìmé gè</i>	<i>jìmé-mù</i>	‘black (dark)’
	~ <i>jèmé</i>	~ <i>jèmé gè</i>	~ <i>jèmé-mù</i>	
<i>CvCa</i>	<i>dìyá</i>	<i>dìyá gè</i>	<i>dìyá-mù</i>	‘big’
	<i>dàgá</i>	<i>dàgá gè</i>	<i>dàgá-mù</i>	‘small’

c. /LHL/ melody

<i>CèCéCè</i>	<i>bè-bélé</i>	<i>bè-bélé gè</i>	<i>bè-bélé-mù</i>	‘small’
	<i>dènéle</i>	<i>dènéle gè</i>	—	‘round, circular’

d. /H/ melody

<i>CvCv with two identical non-high vowels</i>				
	<i>kómó</i>	<i>kómó gè</i>	<i>kómó-mù</i>	‘lean, not plump’
	<i>sálá</i>	<i>sálá gè</i>	<i>sálá-mù</i>	‘bad’
<i>CvCvC with two identical non-high vowels</i>				
	<i>nánáyⁿ</i>	<i>nánáyⁿ gè</i>	<i>nánáyⁿ-mù</i>	‘important’
<i>CvCvCv with three identical non-high vowels</i>				
	<i>sátará</i>	<i>sátará gè</i>	<i>sátará-mù</i>	‘young, able-bodied’
	<i>sémélé</i>	<i>sémélé gè</i>	<i>sémélé-mù</i>	‘worn-out’
<i>CiCε</i>	<i>pílé</i>	<i>pílé gè</i>	<i>pílé-mù</i>	‘white (light, bright)’
	<i>síyé</i>	<i>síyé gè</i>	<i>síyé-mù</i>	‘good’

e. /HL/ melody

<i>CvC(u)</i>	<i>únù</i>	<i>únù gè</i>	—	‘dense’
<i>other</i>	<i>kóndà</i>	<i>kóndà gè</i>	<i>kóndà-mù</i>	‘crooked’

The tone melodies are similar to those for nouns. Segmentally, note the frequency of *CvCu* and of *CvC* with final sonorant (sometimes alternating with *CvCu*), along with a few heavier *u*-final stems. Other recurrent patterns include *CvCv(Cv)* with a repeated non-high vowel, and *CiCε*.

4.6 Relative verb form

The forms of verbs that occur in relative clauses (§14.1.7) have limited substantival (nominal or adjectival) morphology, except that the productive animate plural suffix *-mù* can be added (agreeing with the head NP). In the imperfective positive only, inanimate singular agreement is also expressed by a suffix, moving closer to participial status. However, on the whole relative verbs are not especially participial morphologically.

4.7 Numerals

4.7.1 Cardinal numerals

4.7.1.1 ‘One’ = ‘same (one)’ (*tùmá→*) and ‘other’ (*wàná*)

tùmá→ ‘1’ is a modifying adjective, so unlike other numerals it controls tone-dropping on the preceding noun: *án* ‘man’ (H-toned), *án tùmá→* ‘one man’. It ends in a variably prolonged vowel, similar to that of some adverbs (§3.8.1). Related forms are *tùmà* ‘only’ (§18.1.5.1), *tùmò-* in *tùmò-sí*: ‘plus one’ in e.g. ‘21’ in (124), distributive *tù(mày)-túmáy* (§4.7.1.6), verb *tómó* ‘be isolated’, and EA *tómù-tómù* ‘having gaps’ (282c).

tùmá→ is also used to indicate referential identity, as in the common phrase in (116) that specifies full siblinghood.

- (116) *[yé nù] [[dè:^L tùmá→] [ni:^L tùmá→]*
 [1Pl two] [[father^L one] [mother^L one]]
 ‘The two of us are (of) one father (and) one mother.’

Likewise *[yé nù] [dàmà^L tùmá→]* ‘the two of us are (of) one (=the same) village’.

tùmá→ can also introduce a new temporal setting in combination with a noun like ‘day’ or ‘year’ (117). This is common in narrative, marking time shifts.

- (117) *[zèn^L tùmá→] wó-m-ù*
 [day^L one] come-Ipfv-3SgSbj
 ‘One (=some) day he/she will come (back).’

However, *tùmá→* does not function as a nonspecific indefinite marker, so it is absent in (118a). It likewise does not introduce important new discourse topics (‘so this guy comes up to me in a bar, and ...’). It is therefore absent in (118b).

- (118) a. *[zònjù^L síyé] zùwá-m-ùw má*
 [healer^L good] know-Ipfv-2SgSbj Q
 ‘Do you-Sg know a good healer?’

- b. *[[òy^L ná] yè bó-m] púlá^L wè-Ø*
 [[field^L Loc] 1PlSbj be-Ipfv] Fulbe^L come.Pfv-3SgSbj
 ‘When we were in the fields, a Fulbe person came.’

The modifying adjective *wàná* ‘other’ is used to specify distinctness of reference (or kind): *dámá* ‘village’, *dámà^L wàná* ‘another (=a different) village’.

wàná can also be a kind of **obviative** adverb in the sense ‘meanwhile’ or ‘over at the other place’, i.e. to indicate a shift from the currently focal situation to a secondary situation that has been previously mentioned. See (838) and (839) in Text 4. For adverb *wàná* in a negated clause in the sense ‘(not) again’ or ‘(no) longer’, see (753b) in §19.3.1.

4.7.1.2 ‘2’ to ‘10’

The numerals ‘2’ to ‘10’ in are in (119). The forms used in counting from 2 to 10 are in the central column in (119). The same forms are used with inanimate reference (as when quantifying over villages or pots). These forms begin with a classifier *yè-*, followed by a numeral stem beginning with an H-tone (the melodies are /H/ or /HL/ depending on the numeral). The corresponding numerals with animate reference begin with a classifier *á-* or *bó-* followed by an L-toned version of the numeral. These animate classifiers have a suspicious resemblance to logophoric pronoun *á* and to 3Pl pronoun *bó*, respectively.

(119)	gloss	inanimate/counting	animate	unprefixed
‘2’		<i>yè-nó:</i>	<i>á-nó: , bó-nó:</i>	<i>nó:</i>
	or:	<i>yè-nó:</i>	<i>á-nó: , bó-nó:</i>	<i>nó:</i>
‘3’		<i>yè-tá:ndù</i>	<i>á-tá:ndù, bó-tá:ndù</i>	<i>tá:ndù</i>
‘4’		<i>yè-cézó</i>	<i>á-cézó, bó-cézó</i>	<i>cézó</i>
‘5’		<i>yè-nûm</i>	<i>á-nûm, bó-nûm</i>	<i>nûm</i>
‘6’		<i>yè-kulé</i>	<i>á-kulé, bó-kulé</i>	<i>kulé</i>
‘7’		<i>yè-sɔ́é:</i>	<i>á-sɔ́é: , bó-sɔ́é:</i>	<i>sɔ́é:</i>
‘8’		<i>yè-sá:gè</i>	<i>á-sá:gè, bó-sá:gè</i>	<i>sá:gè</i>
‘9’		<i>yè-tɔ́â:</i>	<i>á-tɔ́â: , bó-tɔ́â:</i>	<i>tɔ́â:</i>
‘10’		<i>yè-píyéł</i>	<i>á-píyéł, bó-píyéł</i>	<i>píyéł</i>

After the H-toned prefixes *á-* and *bó-*, the initial H-tone of the numeral may be phonetically downstepped, but it does not become L-toned. The downstep is most conspicuous with monosyllabic numeral stems, as in *á-nó:* ‘2’, phonetic [á⁺nó:]. I do not mark the downstep in ordinary transcriptions.

While several of the numerals (‘2-3’, ‘5-7’, ‘10’) belong to pan-Dogon cognate sets, those for ‘4’ and ‘8’ appear to occur only in western Dogon languages. Overall the YD forms closely resemble those of Najamba in particular.

nó: ~ *nó:* ‘2’ has an irregular reduced allomorph *-nú* in pronominal combinations such as *yé-nú* ‘we 2’, see (226) in §7.1.2, and in *pɔ́:-nú-nò* ‘twentieth’ from cardinal *pɔ́:-nó:* ‘20’

(§4.7.2.2). It also has a strange augmented form in the ordinal *nòzù-nò* ‘second’ (§4.7.2.2). Its *n* changes to *l* in *lò:-sî:* ‘plus two’ in e.g. ‘twenty-two’ (§4.7.1.3), cf. cognates such as Jamsay *lěy* ‘2’.

In full NPs with an inanimate noun and a numeral, the noun has its regular unaffixed form including its lexical melody. It is followed by the numeral including its classifier *yè-*.

(120) Numerals with inanimate nouns

gloss	X	‘three X’s’
‘village’	<i>dámá</i>	<i>dámá yè-tá:ndù</i>
‘stone’	<i>cìn</i>	<i>cìn yè-tá:ndù</i>
‘granary’	<i>gɔ̀à:</i>	<i>gɔ̀à: yè-tá:ndù</i>
‘stick’	<i>tánà</i>	<i>tánà yè-tá:ndù</i>

Before nonsingular numerals, animate nouns take their regular plural suffix *-mù*. The animate classifying prefix on the numeral is then redundant, and it is optionally omitted. The full forms are shown in (121), but e.g. *nà:-mù tá:ndù* ‘three cows’ with unprefix numeral is also possible.

(121) Numerals with regular animate nouns

gloss	X (plural)	‘three X’s’
a. ‘cow’	<i>nà:-mù</i>	<i>nà:-mù á-tá:ndù</i> ~ <i>nà:-mù bó-tá:ndù</i>
b. ‘sheep’	<i>pè:-mú</i>	<i>pè:-mú á-tá:ndù</i> ~ <i>pè:-mú bó-tá:ndù</i>
c. ‘Fulbe’	<i>púlá-mù</i>	<i>púlá-mù á-tá:ndù</i> ~ <i>púlá-mù bó-tá:ndù</i>

For the most common human nouns, the combinations in (122) were preferred. For ‘man’ and ‘woman’, the classifier *á-* or *bó-* is acceptable, but the preferred construction is that without a classifier. For ‘person’, classifier-like prefix *nò-* is not based directly on (irregular) plural *nò-mó* as expected, rather on singular *nò* ‘person’.

(122) Numerals with high-frequency human nouns

gloss	X (plural)	‘three X’s’
a. ‘man’	<i>án-mù</i>	<i>án-mù tá:ndù</i>
‘woman’	<i>yè-mù</i>	<i>yè-mù tá:ndù</i>
b. ‘person’	<i>nò-mó</i>	<i>nò-tá:ndù</i>
‘child’	<i>èné</i>	<i>èné nò-tá:ndù</i>

Animate plural *-mù* on the noun is repeated on the numeral when it is followed by a determiner; see §6.4.

With plural personal pronouns, a numeral may be added directly, or the classifier *nò-* may be used. For example, ‘you three’ = ‘the three of you’ can be expressed as *wó tá:ndù*, or with the classifier as *wó nò-tá:ndù*.

4.7.1.3 Decimal multiples (‘10’, ‘20’, ...) and combinations (‘11’, ‘59’, ...)

The multiples of ‘10’ are in (123). From ‘20’ to ‘70’ they consist of an L-toned initial element vaguely similar to *-píyé* ‘10’, followed by the relevant single-digit numeral, with initial H-tone. ‘80’ has an alternative monomorphemic form *sìŋ*, the famous “Dogon hundred,” alongside the regular derivative. Likewise, for ‘90’, there is an alternative form literally meaning “80 and 10.”

(123)	gloss	form
	‘20’	<i>pò:-nó: ~ pò:-nó:</i>
	‘30’	<i>pò-tá:ndù</i>
	‘40’	<i>pòlò-cézá</i>
	‘50’	<i>pòlò-núm</i>
	‘60’	<i>pòlò-kúlé</i>
	‘70’	<i>pòlò-sǔé:</i>
	‘80’	<i>pòlò-sá:gè</i>
	or:	<i>sìŋ</i>
	‘90’	<i>pòlò-tǔâ:</i>
	or:	<i>sìŋ mí→ yè-píyé</i>

Like other cardinal numerals, these decimal terms follow the nouns they quantify over. Animate plural suffix *-mù* is present with animate nouns. The numeral undergoes tone changes after L-toned nouns: *nà:-mù pò:-nò:* ‘20 cows’, compare *án-mù pò:-nó:* ‘20 men’.

Composite numerals of the type ‘11-19’, ‘21-29’, etc., consist of the decimal numeral as given above (with no further tonal change), then the single-digit numeral in **L-toned form** plus a **final morpheme** *-sî:*. Prefixal classifiers are absent. There are a few segmental irregularities in the single-digit element, especially with ‘2’ and ‘3’. The final vowel of ‘1’ is not prolonged. There is also an archaic variant *tòmò-* of ‘1’. In allegro speech, low-level vocalic harmonization before *-sî:* occurs with ‘4’ and ‘6’. The combinations of the single-digit numeral and the final *-sî:* are in (124).

(124)	gloss	simple forms	with <i>-sî:</i>
		‘1’	<i>tùmá</i> → <i>tùmà-sî:</i> (~ archaic <i>tòmò-sî:</i>)
		‘2’	<i>-nó:</i> ~ <i>-nó:</i> <i>lò:-sî:</i>
		‘3’	<i>-tá:ndù</i> <i>tà:n-sî:</i>
		‘4’	<i>-cézò</i> <i>cèzè-sî:</i>
		‘5’	<i>-nùm</i> <i>nùm-sî:</i> (see text below for ‘15’)
		‘6’	<i>-kúlé</i> <i>kùlò-sî:</i>
		‘7’	<i>-sḡé:</i> <i>sḡè:-sî:</i>
		‘8’	<i>-sá:gé</i> <i>sà:gè-sî:</i>
		‘9’	<i>-tḡá:</i> <i>tḡà:-sî:</i>

An example is *pò:-nó: tḡà:-sî:* ‘29’. There is no classifier before *tḡà:-* ‘9’. The preceding noun, if present, has the same form as it has before a simple decimal numeral: *nà:-mù pò:-nó: tḡà:-sî:* ‘29 cows’.

For the specific combination ‘15’, the expected *píyé! nùm-sî:* is normally contracted to *píyé-m-sî:*.

Before ordinal suffix *-nè, -sî:-* is reduced to *-sî-*, see (129c) below.

4.7.1.4 Higher-order numerals (‘100’, ‘1000’, ...) and their composites

The stems in (125) express higher-order numerals.

(125)	gloss	form
	‘hundred’	<i>témèdèrè</i> (< Fulfulde)
	‘thousand’	<i>mùzò</i>
	‘million’	<i>mílyòⁿ</i> (< French)

‘Million’ is rarely used except in connection with currency, on which see the following section.

These higher-order terms can be followed by a modifying single-digit or other numeral to generate e.g. ‘200’ and ‘2000’. ‘Hundred’ and ‘million’ are treated like inanimate nouns (regardless of the animacy of the referent). Observe the inanimate classifier *yè-* in *témèdèrè yè-nó:* ‘200’ and *mílyò:ⁿ yè-nó:* ‘2 million’. ‘Thousand’ does not use a classifier: *mùzò nó:* ‘2000’.

If an animate noun is present, it has its usual plural form: *nà:-mù témèdèrè* ‘100 cows’.

Any of these higher numerals may be followed by a lower numeral to produce combinations like ‘325’ and ‘3,215’. The conjunction *mì*→ ‘and’ often separates the higher numeral from the lower numeral. In some cases the conjunction is redundant, as in (126a), where ‘25’ could not possibly be misparsed as quantifying over ‘300’. In these cases the conjunction is optionally omitted. By contrast, if the conjunction in (126b) were omitted, the

numeral would be misparsed as ‘300’, so in this case the speaker will normally take pains to pronounce the conjunction.

- (126) a. *nà:-mù* [témèdèrè yè-tá:ndù (mì→)] [pò:-nó: nùm-sí:]
 cow-AnPl [hundred Inan-three (and)] [ten-two five-plus]
 ‘325 cows’
- b. *nà:-mù* [témèdèrè mì→] [bó-tá:ndù]
 cow-AnPl [hundred and] [An-three]
 ‘103 cows’

In combinations like those in (126), i.e. involving numerals of two or more different **orders** (1-99, hundreds, thousands, millions), the noun is optionally repeated at the beginning of each segment. For example, a second occurrence *nà:-mù* ‘cows’ could be added before ‘25’ in (126a) and before ‘3’ in (126b). In any event, the lowest-order segment (1-99) shows animacy agreement with the noun, where morphologically possible. Therefore ‘103 cows’ (126b) has animate *bó-* in the final numeral ‘3’, agreeing with ‘cows’.

4.7.1.5 Currency

In all Malian native languages known to me, the basic currency unit (sometimes called the ‘riyal’) is equivalent to 5 CFA francs. The word for ‘riyal’ in YD is *bú:dù*, as in Fulfulde and other languages of the region. Therefore ‘100 CFA’ is expressed as ‘20 riyals’ (*bú:dù pò:-nó:*), or just as ‘20’ (*pò:-nó:*) if the discourse context involves money. This applies up to ‘1 million CFA’, where the French expression *milyòⁿ* takes over.

4.7.1.6 Distributive numerals

Distributive numerals are **iterations** (full-stem reduplications) of simple cardinal numerals. Distributives are often adverbial in nature, but they may alternatively quantify over a noun.

For *tùmá→* ‘1’, the distributive *tùmày-túmáy* or its shortened variant *tù-túmáy* can mean ‘one by one, singly’, ‘one each’. More generally it suggests a scattered rather than dense distribution (hence pragmatically ‘infrequent, rare, occasional, here and there’). For this sense see also *òmó-òmó* (§8.4.8.1).

For other numerals ‘2’ to ‘10’, the relevant classifier (animate, inanimate) is present on the first occurrence of the numeral.

(127)	gloss	inanimate	animate
	‘2’	<i>yè-nó:-nó:</i>	<i>á- / bó-nó:-nó:</i>
	‘3’	<i>yè-tá:ndù-tá:ndù</i>	<i>á- / bó-tá:ndù-tá:ndù</i>
	‘4’	<i>yè-cézó-cézó</i>	<i>á- / bó-cézó-cézó</i>
	‘5’	<i>yè-nûm-nûm</i>	<i>á- / bó-nûm-nûm</i>
	‘6’	<i>yè-kúlé-kúlé</i>	<i>á- / bó-kúlé-kúlé</i>
	‘7’	<i>yè-sɔ́é:-sɔ́é:</i>	<i>á- / bó-sɔ́é:-sɔ́é:</i>
	‘8’	<i>yè-sá:gè-sá:gè</i>	<i>á- / bó-sá:gè-sá:gè</i>
	‘9’	<i>yè-tɔ́â:-tɔ́â:</i>	<i>á- / bó-tɔ́â:-tɔ́â:</i>
	‘10’	<i>yè-píyéI-píyéI</i>	<i>á- / bó-píyéI-píyéI</i>

An example with a noun is (128). ‘Cows’ takes the same form, with L-toned animate plural *-mù*, as before other cardinal numerals.

(128)	<i>nà:-mù</i>	<i>á-nó:-nó:</i>	^L <i>w-ò</i>
	cow-AnPl	An-two-two	^L come.Pfv-3PlSbj
	‘The cows came two by two.’		

Especially after L-toned prefix *yè-* or without a prefix, the first occurrence of the numeral may have a higher pitch than the second (for distributives from ‘2’ up). However, I do not mark this in transcriptions. After an H-toned prefix, the first occurrence is itself phonetically downstepped, as noted earlier, and in this case there is no noticeable pitch difference between the first and second occurrences.

4.7.2 Ordinal adjectives

In addition to the ordinals presented below, see *àṅà-nè ~ àṅày-nò* ‘how-many-eth?’ (French *quantième*) in §13.2.2.6.

4.7.2.1 ‘First’ (*cèw*) and ‘last’ (*idà*)

The modifying adjective ‘first’ is *cèw*, with animate plural *cèw-mù*. The context is usually definite so these forms are followed by a definite marker, as in *nà:^L cèw †gé* ‘the first cow’ and *nà:^L cèw-mù †wó* ‘the first cows’.

‘Last, final’ is *idà*. Examples: *nà:^L idà †gé* ‘the last cow’ and *nà:^L idà-mù †wó* ‘the last cows’.

4.7.2.2 Other ordinals (suffix *-nò* ~ *-nè*)

Other ordinals are formed by adding *-nò* ~ *-nè* to the numeral, whose tones are dropped. The stem for ‘2’ takes an irregular form *nòzù-* before *-nò*, and a similar irregularity occurs in ‘20’.

The choice between *-nò* and *-nè* is interesting. It can be viewed either in terms of a cardinal cut-off point, with *-nò* confined to ‘2nd’ through ‘5th’ and *-nè* used for higher values, or in terms of assimilation to the [±round] feature of the final vowel of the stem, so that *-nò* is associated with *u* and *-nè* is associated with {*i e e a*}. Rounding assimilation is likely the historical source of the split, but the difference in ATR values suggests that it is not a low-level phonetic phenomenon. *mùzò-nè* ‘thousandth’ is the one case where the two conditioning factors diverge, and suggests that the cardinality cut-off is now the determining factor. One of two assistants tended to fluctuate between *-nò* and *-nè* in repetitions of some of the forms, while the other assistant was more consistent.

(129)	form	gloss
	a. single-digit numeral	
	<i>nòzù-nò</i>	‘second’
	<i>tà:ndù-nò</i>	‘third’
	<i>cèzù-nò</i>	‘fourth’
	<i>nùm-nò</i>	‘fifth’
	<i>kùlè-nè</i> ~ <i>kùlò-nè</i>	‘sixth’
	<i>sɔ̀è:-nè</i>	‘seventh’
	<i>sà:gè-nè</i>	‘eighth’
	<i>tɔ̀à:-nè</i>	‘ninth’
	<i>pìyèl-nè</i>	‘tenth’
	b. decimal	
	<i>pò:-nù-nò</i>	‘twentieth’
	<i>pò-tà:ndù-nò</i>	‘thirtieth’
	<i>sìŋ-nè</i>	‘eightieth’
	c. decimal plus single-digit numeral	
	<i>pìyèl-tùmà-sì-nè</i>	‘eleventh’
	d. hundred	
	<i>tèmèdèrè-nè</i>	‘hundredth’
	<i>mùzò-nè</i>	‘thousandth’
	e. hundred plus ‘1-99’ numeral (two levels)	
	<i>tèmèdèrè mì→pò:-nù-nò</i>	‘hundred and twentieth’

In (129c), the combination of the decimal term (‘10’) and the single-digit term is subject to tone-dropping as a unit. In (129e), however, the numeral contains elements from different

orders (here, hundreds and 1-99), and the tone-dropping applies only to the latter numeral (and to the conjunction *mì→*).

4.7.3 Fractions and portions

The noun *péjèrè* ‘half, fraction’ (< Fulfulde) can denote any significant portion of a larger quantity. Other than French loanwords (like *quart* ‘quarter’) there are no fractional expressions based on numerals.

5 Nominal and adjectival compounds

5.1 Nominal compounds

Noun-noun and similar compounds are classified into types based on tonal changes in the initial or the final, as in (130). In the symbols, \bar{n} means no tonal change (lexical tones appear), \grave{n} means tone-dropped, and \acute{n} means {H}-toned.

- (130) pattern comment
- a. no tonal change in either the initial or the final
 ($\bar{n} \bar{n}$) rare
- b. only the initial has a tonal change
 ($\grave{n} \bar{n}$) initial tone-dropped; common
- c. only the final has a tonal change (similar to possession)
 ($\bar{n} \acute{n}$) final raised to {H}
 ($\bar{n} \grave{n}$) final tone-dropped

5.1.1 Ambiguous tone-defined compound types

There are many lexically /L/-toned nouns, and for these we cannot distinguish \bar{n} (lexical tone) from \grave{n} (tone-dropping). There are similar, though in practice less difficult, issues involving lexically /H/-toned stems vis-à-vis \acute{n} .

Examples of ambiguity patterns are in (131). The most common source of problems is the type in (131a).

- (131) a. ($\bar{n} \grave{n}$) or ($\grave{n} \bar{n}$) or ($\bar{n} \bar{n}$) with initial and final both lexically /L/

<i>jènjù-bòrò</i>	‘blood vessel’	<i>jènjù</i> ‘blood’ <i>bòrò</i> ‘sack’
<i>nùmà-kòlò</i>	‘wrist’	<i>nùmà</i> ‘hand’ <i>kòlò</i> ‘neck’

- b. ($\bar{n} \acute{n}$), ($\grave{n} \bar{n}$), or ($\bar{n} \bar{n}$) with initial lexically /L/ and final lexically /H/

<i>nùmà-cíndá</i>	‘palm of hand’	<i>nùmà</i> ‘hand’ <i>cíndá</i> ‘heart’
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5.1.2 Compounds of type ($\bar{n} \bar{n}$)

In this type, neither the initial nor the final undergoes a tonal change. A clear case would be one where both the initial and the final have at least one lexical H-tone element, and this element appears audibly in both parts of the compound.

This type is not clearly attested in YD. A possible example is *ságú-sǎ:rǎ* ‘type of meal (with ground millet)’, cf. *ságú* ‘pounded millet grain (before sifting)’. Especially given the unusual tones of the final, this compound may be a borrowing from Jamsay.

5.1.3 Compounds of type ($\hat{n} \bar{n}$)

In this pattern, the initial is a noun that drops its tones to {L}, while the final retains its tones. Typically the initial functions as a modifier, cf. English *brick house*. Because YD has many /L/-toned nouns, it can be difficult to distinguish this type from the possessive-type compound described below (§5.1.5-6). However, the ($\hat{n} \bar{n}$) type is indicated when the initial would otherwise have at least one H-tone but appears in all L-toned form (132).

(132) ($\hat{n} \bar{n}$) compounds

compound	gloss	components
<i>sàmàl-bìdè</i>	‘day labor’	<i>sàmàl</i> ‘day labor’ <i>bìdè</i> ‘work(n)’
<i>yù:-púrⁿá</i>	‘millet flour’	<i>yù:</i> ‘millet’ <i>púrⁿá</i> ‘flour, powder’
<i>bà-úrⁿá</i>	‘mist, fog’	<i>bá</i> ‘cloudy weather’ <i>úrⁿá</i> ‘dust (in the air)’
<i>sìrà-sùmzú</i>	‘wad of tobacco’	<i>sìrà</i> ‘chewing tobacco’ <i>sùmzú</i> ‘saliva’
<i>kòṅṅ-témbè</i>	‘mountaintop’	<i>kòṅṅ</i> ‘mountain’ <i>témbè</i> ‘top, above’
<i>ìnjù-úlò</i>	‘geyser’	<i>ìnjù</i> ‘water’ <i>úlò</i> ‘spring (water source)’

The verbal-noun compounds and agentive compounds in §5.1.4-5 below are special cases of this ($\hat{n} \bar{n}$) construction.

5.1.4 Compounds with final verbal noun, type (ñ ÷ -ù)

5.1.4.1 Functioning as verbal nouns

A verbal noun readily combines with an {L}-toned form of a noun as initial. The noun denotes a generic object, or some other entity type associated with the action. The default initial is the corresponding cognate nominal. The verbal noun form used is normally that with suffix *-u* ~ *-y* and other allomorphs (§4.2.2). The compound verbal noun is homophonous with the corresponding agentive compound (§5.1.5, below).

(133) Compound verbal nouns

compound	gloss	components
<i>ʔəlò-[ɔnz-ù]</i>	‘house-building’	<i>ʔəló</i> ‘house’ <i>ɔnzó</i> ‘build’
<i>èzù-[mà-y]</i>	‘waterjar-making’	<i>èzù</i> ‘waterjar’ <i>mă:</i> ‘shape’

The initial may also be a simple PP including a common noun. In an independent PP, either the noun or the postposition has an H-tone, since /L/-toned nouns require an H-toned postposition (134a). In the corresponding compound, the {L} overlay on the initial applies to the whole noun-postposition sequence (134b). There is accordingly always an audible tonal difference between the independent and compounded forms of the PP.

- (134) a. *[tìmè †ná] yà ʔəlè-Ø*
 [tree in] Real go.up.Pfv-3SgSbj
 ‘He/She went up into (a) tree.’
- b. *[tìmè-nà]-[ʔəlì-Ø]*
 [tree-in]-[go.up-VbIN]
 ‘(act of) going up into trees’

The other verbal noun form with suffix *-lé* is less common in these compounds. It was, however, possible to elicit examples such as *ʔəlò-[ɔnzó-lé]* ‘house-building’.

5.1.4.2 Functioning as product-of-action adjectives

In other cases, the apparent verbal-noun compound does not denote an action or other abstraction. Instead, the (pseudo-)verbal noun functions as a **modifying adjective**. The compound as a whole denotes a subset of the set denoted by the initial that has undergone a process denoted by the verb. Compare English *baked fish*, *roast(ed) potatoes*, and *fried chicken*. For example, *ègèlè* ‘peanut (or groundnut)’ occurs with an ordinary adjective in

ègèlè^L bǎn ‘peanut’ (*bǎn* ‘red’) or in *ègèlè^L kòlò* ‘raw peanut’, and with adjective-like verbal nouns in (135a-b). Both (135b) and (135c) are based on *págú* ‘tie up’, but (135b) has a product-of-action adjective (the semantic head is ‘sorghum’) while (135c) is an abstractive verbal noun with incorporated object.

(135)	N+Adj	gloss	verb
a.	<i>ègèlè^L àn-ù</i>	‘roasted peanut(s)’	<i>ánú</i> ‘cook lightly’
	<i>ègèlè^L kàbù-l-ù</i>	‘split peanuts’	<i>kábú-lé</i> ‘separate’
	<i>sòl^L màṅ-Ø</i>	‘millet cakes in balls’	<i>mǎṅ</i> ‘shape into balls’
b.	<i>èmà pàg-ù</i>	‘bundled sorghum’	<i>págú</i> ‘tie up’
c.	VblN compound	gloss	literal sense
	<i>m̀bò-[pàg-ù]</i>	‘fasting, Ramadan’	“mouth-tying”

The fact that verbal-noun compounds (like many other compounds) are of (*n̄ n̄*) type, fortuitously converging tonally with N^L Adj, makes it very easy to transition back and forth between the result-of-process adjectival type in (135a-b) and the true verbal-noun compound type in (135c) and in the preceding subsection.

For a compound type of the same form, but semantically distinct, see (147a-c) below.

5.1.5 Agentive compounds of type (*n̄ v̄-ù*)

In this type of compound, a noun-verb sequence is converted into a “deer-slayer” or “bee-keeper” type agentive with incorporated object. The initial appears in unaffixed form, and drops to {L}. The agentive final is also {L}-toned, with final *-y* (monosyllabics), *-i* (the three marginally bisyllabic stems of shape *nCv* or *?əCv*), or *-u* (other nonmonosyllabics). The agentive has the same form as one of the regular verbal noun formations (§4.2.2).

(136a-b) show that the incorporated noun may be either a cognate nominal (136a) or another noun that denotes a prototypical object type (136b). The plural is with L-toned *-m̀ù*, as in *kò:-èd̀ù-m̀ù* ‘braiding ladies’.

(136) Agentive compounds

	N+Vb	gloss	compound	gloss
a.	<i>cèmnà cémné</i>	‘have fun’	<i>cèmnà-cèmǹù</i>	‘one having fun’
	<i>zàmnà zámné</i>	‘commit theft’	<i>zàmnà-zàmǹù</i>	‘thief’
b.	<i>sàṅ pídé</i>	‘shut door’	<i>sàṅ-pìd̀ù</i>	‘door-shutter’
	<i>zá mànú</i>	‘cook meal’	<i>zà-màǹù</i>	‘cook (chef)’
	<i>kó: édé</i>	‘braid head’	<i>kò:-èd̀ù</i>	‘braiding lady’

The /u/ is deleted by regular phonological rule after an unclustered sonorant (for details see §3.5.3.3), as in (137a) with cognate nominals and (137b) with more descriptive incorporated nouns.

(137)	N+Vb	gloss	compound	gloss
a.	<i>gòlò gòlé</i>	‘do farm work’	<i>gòlò-gòl</i>	‘farmer’
	<i>nùṅà nùṅó</i>	‘sing a song’	<i>nùṅà-nùṅ</i>	‘singer’
b.	<i>yú: gòló</i>	‘do farm work’	<i>yù:-gòl</i>	‘millet-farmer’
	<i>kònzò nìyⁿé</i>	‘drink millet beer’	<i>kònzò-nìyⁿ</i>	‘beer-drinker’

Verbs of the shape *Cv-* or *Cv:-* take the form *-Cv-y* in agentive compounds (138).

(138)	N+V	gloss	compound	gloss
	<i>jà: jé</i>	‘dance a dance’	<i>jà:-[jè-y]</i>	‘dancer’
	<i>márbá tá:</i>	‘shoot rifle’	<i>màrbà-[tà-y]</i>	‘rifle-shooter’
	<i>tèmbèn mǎ:</i>	‘make bricks’	<i>tèmbèn-[mà-y]</i>	‘brickmaker’
	<i>sùmzú tó:</i>	‘spit’	<i>sùmzù-[tò-y]</i>	‘spitter’

For the noun-verb combination *yàṅ yé* ‘weep’, I recorded *yàṅ-yì-Ø* ‘weeper, crybaby’.

The lexically agentive *dàná* ‘hunter’ can be used by itself, and when it does have an incorporated nominal it does not change its shape: *wèl-dàná* ‘gazelle-hunter’ (*wél*).

5.1.6 Possessive-type compounds of type (\bar{n} ñ)

This compound type has tones resembling those of alienable possessor-possesum combinations with {L}-toned possesum. A (\bar{n} ñ) compound is easily identified when the initial preserves a lexical H-tone, and when the final is {L}-toned in the compound but appears elsewhere with a H-tone somewhere, as in (139a). The (\bar{n} ñ) type would also be indicated when the initial preserves its lexical tones including an H-tone, while a lexically /L/-toned final remains unchanged (139b). I can cite no example of this, however, so there may be a correlation between (\bar{n} ñ) and underlying non-/L/-toned finals.

(139) Compounds of type (\bar{n} \bar{n})

compound	gloss	final element
a. final audibly drops tones		
<i>sàtàrà-é:-mù</i> ^L <i>kò-bàdù</i>	‘youth leader’	<i>kó-bàdù</i> ‘leader’
	(older man who represents young men at meetings)	
<i>érⁿé</i> ^L <i>zà</i>	‘soda-ash meal’	<i>zá</i> ‘meal’
<i>pòrùbá</i> ^L <i>bìdè</i>	‘collective work’	<i>bìdè</i> ‘work(n)’
<i>èdè-mú</i> ^L <i>ʔàlò</i>	‘chicken(s) coop’	<i>ʔáló</i> ‘house’
<i>ínjú</i> ^L <i>àmò</i>	‘source of water’	<i>àmó</i> ‘place’
b. final is already lexically /L/-toned, initial has an H-tone		
	[no examples known]	

The compounds in (139) take L-toned definite markers, since the compound as a whole always contains an H-tone: *pòrùbá* ^L*bìdè wò* ‘the collective work’.

When the initial element has lexical melody /L/, there is an overt distinction between (\bar{n} \bar{n}) compounds and corresponding possessives. This is because a possessum takes {H} overlay after an L-toned possessor, as in (140b). No such process affects compound-finals (140a).

- (140) a. *pè:-nà:* (⁺*wó*)
 sheep-foot (Def.InanSg)
 ‘(the) sheep’s-foot’
- b. *pè:* ^H*ná:* (*wò*)
 sheep ^Hfoot (Def.InanSg)
 ‘(the) foot of a sheep’

5.1.7 Possessive-type compounds of type (\bar{n} \acute{n})

In this type, the initial keeps its lexical melody, and the final has {H} overlay. This pattern is tonally like that of a possessor-possessed combination when the possessor is neither determined nor quantified (§6.2.1.1). Since compound initials are normally generic, the connection with possessives is meaningful here. I therefore write these combinations with a space rather than a hyphen separating initial from final. In (141a) the {H} on the final is audibly distinct from the lexical /L/. In (141b) the final is already lexically /H/-toned, but the fact that the initial does not drop to {L} strongly suggests that the (\bar{n} \acute{n}) pattern is again at hand. The only other possibility for (141b) would be (\bar{n} \bar{n}), which is not an established compound type in YD. In (141c), by contrast, it is impossible to determine whether the compounds are of type (\bar{n} \acute{n}) or (\bar{n} \bar{n}).

(141) Possessive-type compounds (\bar{n} \acute{n})

compound	gloss	final element
a. final changes from /L/ etc. to {H}		
<i>sòŋ-tìy</i> ^H <i>gón</i>	‘loom’	<i>gòn</i> ‘gear’
<i>gùzù</i> ^H <i>cìŋ</i>	‘skin disease’	<i>cìŋ</i> ‘disease’
<i>èrà</i> ^H <i>gḡá:</i>	‘sorghum granary’	<i>gḡà:</i> ‘granary’
<i>gòrù</i> ^H <i>wél</i>	‘knee tendon’	<i>wèl</i> ‘tendon’
<i>àŋgà</i> ^H <i>ín</i>	‘molar tooth’	<i>ìn</i> ‘tooth’
<i>èrà</i> ^H <i>kónzò</i>	‘sorghum beer’	<i>kònzò</i> ‘beer’
b. final already lexically /H/, initial does not change from /H/ to {L}		
<i>ínjú</i> ^H <i>ózá</i>	‘oesophagus’	<i>ózá</i> ‘road’
c. final already lexically /H/, initial already lexically /L/		
<i>ìzìgè-[túmó-ŋ]</i>	‘sunrise’	<i>túmó-ŋ</i> ‘(sun’s) rising’
<i>ìzìgè-[píló-ŋ]</i>	‘sunset’	<i>píló-ŋ</i> ‘falling’

5.1.8 Compounds with *-é:* or *-(í)yè* (‘child, fruit, blade, ...’)

The noun ‘child’ with human reference is *ènè*, irregular plural *èné*. For further tonal irregularities see §4.1.2, above. For ‘juvenile, young (animal)’ the form used without a compound initial is *íyè*. The two nouns have partially converged as compound finals either with the original literal sense (offspring) or adding a diminutive feature. Both produce compounds of type (\bar{n} \bar{n}), i.e. with {L}-toned initial.

In one compound type, *-é:* follows the initial, with no phonological interaction (in particular, no contraction with a stem-final vowel). This form is probably related to the noun *ènè*.

The other variant is *-(í)yè*, evidently from the noun *íyè*. Indeed, it is especially common with animal names as initials. In compounds, the *i* replaces a stem-final short vowel (if any). The *i* is usually omitted (syncopated) after a consonant, but in this case its H-tone is realized at the end of an otherwise {L}-toned initial, see Stranded-Tone Re-Linking (§3.7.3.5). Typical manifestations of this variant are *CṽC-yè*, *Cṽ-yyè*, *CṽCṽC-yè*, and *CṽC-íyè* (from */CṽCṽ-íyè/*). For the geminated *yy* in *Cṽ-yyè*, see §3.5.6.3.

‘X-child’ compounds have a wide range of senses, ranging from ‘young (animal)’, to ‘fruit (or other useful part) of (plant)’, to ‘blade of (tool)’, to a small object that is paired with a larger object (e.g. the small round grinding stone that one holds in one’s hand to grind with, versus the large flat stone that one grinds on), to various other small items that are parts of or auxiliaries to a defining object, to a more or less pure diminutive. Examples are in (142). Note the homonyms *nǎ-yyè* ‘calf’ and ‘toe’ (the latter can also appear as *nà:-é:*).

(142) ‘X-child’ compounds

compound	gloss	initial
a. human		
<i>sèlà-é:</i>	‘bastard child’	<i>sèlà</i> ‘concubine’
<i>cèḡèr^m-é:</i>	‘circumcised child’	<i>cèḡèr^m</i> ‘circumcision’
b. animal		
<i>nǎ-yyè</i>	‘calf’	<i>nà:</i> ‘cow’
<i>pě-yyè</i>	‘lamb’	<i>pè:</i> ‘sheep’
<i>?àn-íyè</i>	‘goat kid’	<i>?áné</i> ‘goat’
<i>éd-íyè</i>	‘chick’	<i>édé</i> ‘chicken’
c. body part		
<i>nùmà-é:</i> ~ <i>nùmà-yé</i>	‘finger’	<i>nùmà</i> ‘hand’
<i>nǎ-yyè</i> ~ <i>nà:-é:</i>	‘toe’	<i>nà:</i> ‘foot’
<i>kòmbíl-yè</i>	‘(finger-/toe-)nail’	—
<i>gìd-íyè</i>	‘eye’	<i>gìdé</i> ‘eye, eyes’ (~ <i>jìdé</i>)
d. plant products		
<i>yù:-é:</i>	‘millet grain spike’	<i>yú:</i> ‘millet plant’
<i>izà-é:</i>	‘millet grain’	—
<i>mòlò-é:</i>	‘pit of wild date’	<i>mòlò</i> ‘wild date tree (<i>Balanites</i>)’
<i>kòkò-é:</i>	‘coconut’	—
<i>ànzù-é:</i>	‘roselle seeds’	<i>ànzù</i> ‘roselle’
<i>gàw-é:</i>	‘onion bulb’	<i>gǎw</i> ‘onion plant’
<i>cèḡ-íyè</i>	‘cotton seed’	<i>cèḡè</i> ‘cotton plant’
e. other inanimate		
<i>dàbà-é:</i>	‘daba (hoe) blade’	<i>dàbà</i> ‘daba (hoe)’
<i>?èḡà-é:</i>	‘pawn in board game’	<i>?èḡà</i> ‘native board game’
<i>màrbà-é:</i>	‘bullet’	<i>màrbá</i> ‘rifle’
<i>bòn-íyè</i>	‘tapstick for tomtom’	<i>bòn</i> ‘tomtom’
<i>kún-yè</i>	‘pestle (for mortar)’	<i>kún</i> ‘mortar’
<i>nòm-yè</i> ~ <i>nòm-íyè</i>	‘small grindstone’	<i>nùm</i> ~ <i>nòm</i> ‘flattish stone on which one grinds’
f. diminutive		
<i>cìn-íyè</i>	‘pebble’	<i>cìn</i> ‘stone’
<i>tàn-íyè</i>	‘twig, small stick’	<i>tànà</i> ‘stick, staff’
<i>sèmbè-é:</i>	‘small spinning stick’	<i>sèmbé</i> ‘spinning stick’

A semantically specialized case is *ògò-é*: ‘wealth, riches’ or ‘rich person’, cf. *ògò* ‘chief, Hogon’.

In some cases the initial is not elicitable separately. Such forms are segmentable to the extent that they fit the semantic patterns seen in the clearly segmentable cases. Examples: *làl-íyè* ‘kidney’, *àlmèt-íyè* ‘matches’ (< French *allumettes*), *péjíyè* ‘insect gall (on tree)’.

Frozen diminutives in fauna terms are: *àṅà pùl-íyè* ‘yellow wagtail’, *sàkòlòl-íyè* ‘weaver (bird) or sparrow’, *pèzùmà gòmbìl-íyè* ‘hedgehog’. Plants: *sìl-íyè* ‘tree sp. (*Anogeissus*)’, *gòg-íyè* ‘neem tree’, *zìnd-íyè* ‘shrub sp. (*Feretia*)’, and perhaps (with different tones) *sátèl-íyè* ‘tree sp. (*Bauhinea*)’ and *símpàl-íyè* ‘tree sp. (*Boscia angustifolia*)’.

There are also some fauna terms that may contain an archaic diminutive *-íyà*. These are *sà:"zífà* ‘piapiac (magpie)’, *gòròmbíyà* ‘bunting (*Emberiza*)’, and *sàndíyà* ‘starling’.

For kin terms with diminutive-like final *-yè* or variant, see §6.2.3.5. For a distinction between *-díyà* (senior) and *-nè* (junior) in some other kin terms, see §6.2.3.6. Of these, *-nè* is possibly another offshoot of *ènè* ‘child’.

5.1.9 ‘Man’ (*án*) and ‘woman’ (*yè*) in compounds

For the simple human nouns *án* ‘man’ and *yè* ‘woman’, see §4.1.2, above.

Both of these may also function adjectivally, e.g. with animal terms. Thus *?óné* ‘goat’, *?àné^L án* ‘billygoat’, *?àné^L yè* ‘nannygoat’. These could also be analysed as (*ṅ ṅ*) compounds (§5.1.3), which have an {L}-toned initial.

In their own {L}-toned forms, these stems occur in a range of noun-adjective combinations and compounds. ‘Woman’ shows no irregularities: *yè pèy* ‘old woman’, *yè kàndà* ‘newlywed bride’, *yè-bìdù* ‘betrothal at birth’.

‘Boy’ is regular *ènè án*, literally ‘child male’. ‘Girl’ is the slightly irregular *èn-íyè*, ending in a hybrid between *yè* ‘woman’ and diminutive *-íyè*.

5.1.10 Compounds with *bàdú* ‘owner’

bàdú or *bàṅà* ‘owner, master’ occurs as final in a few compounds (143). *bàṅà* may be a borrowing from Jamsay.

(143) a. (*ṅ ṅ*)

<i>lèbè-bàdú</i>	‘owner of the sacrificial altar’	< <i>lèbè</i>
<i>òmbòlò-bàdú</i>	‘owner of an idol (fetish)’	< <i>òmbòlò</i>

b. (*ṅ ṅ*)

<i>?óló bàdù</i>	‘house owner’	< <i>?óló</i>
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Senses like ‘hunchback’ are usually not expressed as ‘owner of’ compounds, rather with characteristic derivational suffix *-jì* (§4.2.1).

For ‘owners’ functioning somewhat like a relative head (with unspoken ‘who said’ and an overt quoted clause), see (780) in Text 1.

5.1.11 Loose and tight compounds with *nì*: ‘mother’ (entire plant)

nì: ‘mother’ can be used as a compound final with e.g. flora terms, to denote the entire tree or herb as opposed to just its fruits or other focal part. However, this compound final competes with *tìmè* ‘tree’ in these cases. Thus *màngòrò-tìmè* or *màngòrò-nì*: ‘mango tree’.

I am not aware that ‘mother’ is used in YD as compound final in the sense ‘true X’ or ‘primary/focal X’ (as opposed to ‘false X’ or ‘secondary X’).

5.1.12 ‘False X’ (‘hyena’s X’, ‘slave of X’)

For ‘false/secondary X’ denoting a species similar to a more focal species X, a possessor denoting an animal, a child, or the like can be added: *tà:-célbà* ‘hyena-eggplant’ is *Solanum incanum*, a plant with poisonous fruits; *tà:-èlèm* ‘false jujube’ (*Ziziphus mucronata*) is opposed to true jujube (*Z. mauritiana*); *?óné-kìlè-mù* ^L*kùdà* ‘goatherds’ wild grape’ is the liana *Ampelocissus africana* whose berry clusters resemble those of the wild-grape tree (*Lannea microcarpa*); *cènjù-mú* ^L*kòdò* ‘agama lizards’ calabash’ is water lettuce *Pistia stratiotes*; *cènjù-mú* ^L*kàmbè* ‘agama lizards’ zaban fruit’ is the inedible wild melon *Cucumis melo*; *àntùmùlù-bì:*ⁿ ‘dwarf-*Sclerocarya*’ is the tree *Commiphora africana* (smaller than *Sclerocarya birrea*); *gà:*ⁿ*-égèlè* ‘cat-peanut’ is a leguminous herb *Crotalaria podocarpa*.

The compound type [*X-gùnò*] ‘slave of X’ for a similar species associated with that denoted by X is attested in [*yà:dù-kùmà*]-*gùnò* ‘slave of *Hibiscus longisepalus*’, denoting another bush of the same botanical family (seen planted in a village), *Abutilon pannosum*; in *pàl-gùnò* ‘sesame-slave’ for *Ceratotheca sesamoides*; in *tàbà-gùnò* ‘tobacco-slave’ for the weedy herb *Blumea axillaris* (whose young leaves resemble those of tobacco); and in *lòl-gùnò* ‘nére-slave’ for *Acacia amethetophylla*, smaller and less important than nére tree (*Parkia biglobosa*).

I have only one case where an adjective with a sense like ‘false’ is added to the species term X. This is *èmà* ^L*sálálá* ‘false sorghum’, denoting the sorghum-like weed *Sorghum arundinaceum*. *sálálá* is not attested in other combinations.

5.1.13 Nominal compounds with medial linking element *-mà-* ~ *-nà-*

The element *-mà-* occurs in a few *X-mà-X* compounds denoting caterpillars and small plants (144a). The first *X* and the linking *-mà-* are L-toned, the second is {HL} toned. *sóyé* means ‘larva, grub, caterpillar’. (144b) has the same form but does not denote a biological species. There is a tonally similar but non-iterative example with *-mà-* in (144c), and another with *-nà-* in (144c).

- (144) a. *sòyè^L dān-mà-dān* ‘hairy caterpillar (family Arctiidae)’
 ~ *sòyè^L dānù-mà-dānù*
 sòyè^L pègù-mà-pégù ‘sheath-carrying caterpillar’
 áy-[dòŋ-mà-dòŋ] ‘herb sp. with burrs’
- d. *bègù-mà-bégù* ‘hiccup’ (noun, used with verb *bègé-*)
- c. *bùlò-mà-tâ:ⁿ ~ -tâ:ⁿ* ‘spreading grass sp. (*Cynodon*)’
- d. *gòlò-nà-ám(è)lè* ‘bush with tomentose leaves (*Waltheria*)’

sòyè^L dān-mà-dān is associated by an assistant with *dǎn* ‘sour’, alluding to the hairs that can stick in a person’s skin.

sòyè^L pègù-mà-pégù is based on *pégù* ‘hitching post’, i.e. a small post to which animals are tied with a looped rope.

áy-[dòŋ-mà-dòŋ] is associated in part by an assistant with Tommo So *áy* ‘mouse’, alluding to the practice of putting a stem with burrs into mouseholes.

bùlò-mà-tâ:ⁿ contains *bùló* ‘kinsman, relative’ and (despite the opacity of *-tâ:ⁿ*) it is understood by an assistant to mean something like ‘have several kin’ (alluding to the plant’s putting down roots at stem nodes).

gòlò-nà-ám(è)lè is understood by an assistant to mean ‘in-law of fire’, cf. *ám(è)lè* ‘in-law’ and *gòlò* ‘fire’. Similar terms for this species (*Waltheria indica*) occur widely in north-central Mali.

Another term, *àpàn^L bìrè-mà-dòŋ* ‘white-billed buffalo weaver’ (with *àpàn* ‘bird’) contains the compound *bìrè-mà-dòŋ* ‘hard worker’. Since the YD noun *bìdè* ‘work’ has *d* rather than *r*, this phrase may be a borrowing, cf. Jamsay *bìrè* (*mà* is the possessive linker in Jamsay).

5.1.14 Instrumental relative compounds (‘oil for rubbing’)

The examples in (145) involve an inanimate singular imperfective relative verb form with *-ŋ*, see §14.1.7.2. This construction is used when the function of the noun can be expressed by a simple verb, rather than a verb plus a nominal complement, on which see below. The nouns in (145) are *ínjú* ‘water’, *nà:* ‘cow’, and *nì:* ‘oil, butter’.

- (145) a. *ínjú^L nìyⁿá-ŋ*
 water^L drink-Ipfv.Rel.InanSg
 ‘water for drinking’
- b. *ínjú^L dī-yá-ŋ*
 water^L bathe-MP-Ipfv.Rel.InanSg
 ‘water for bathing’

- c. *nà:*^L *zĩ-ŋ*
 cow^L take.away-Ipfv.Rel.InanSg
 ‘ox (as beast of burden)’ (*zĩn* ‘take away’)
- d. *nì:*^L *?ǎná-ŋ*
 oil^L eat-Ipfv.Rel.InanSg
 ‘oil for eating (cooking)’
- e. *nì:*^L *pádíyá-ŋ*
 oil^L rub.on-Ipfv.Rel.InanSg
 ‘oil for rubbing’ (verb *pádíyé*)

When the function requires both a verb and an object, as in ‘meat-cutting knife’, different constructions are used. First, a verbal-noun compound is formed, with incorporated object. This compound may then appear as a preposed possessor (or possessor-like compound initial), as in (146). In these examples, the final noun raises its tones, like the possessive-type (*n̄ n̄*) compounds in §5.1.7 above.

- (146) a. *àsègè-[sèm-Ø]* ^H*pól*
 animal-[slaughter-VbIN] ^Hknife
 ‘knife for slaughtering animals’ (< *sémé, pòl*)
- b. *nàmà-[cèz-ù]* ^H*pól*
 meat-[cut-VbIN] ^Hknife
 ‘meat-cutting knife’ (< *cézó, pòl*)
- c. *kòdò-[sòb-ù]* ^H*cém*
 calabash-[pierce-VbIN] ^Hawl
 ‘awl for piercing calabashes’ (< *cèm*)

Or the verbal noun compound may follow the head noun as a kind of adjective (147). This mimics, but is semantically distinct from, the product-of-process adjectives in §5.1.4.2 above.

- (147) a. *mànà*^L *àṅàṅ-[tá-y]*
 plastic^L bird-[shoot-VbIN]
 ‘slingshot’ (*tá:* ‘shoot’)
- b. *cèm*^L *kòdò-[sòb-ù]*
 point^L calabash-[pierce-VbIN]
 ‘awl for piercing calabashes’ (< *cèm*)
- c. *mènzínà*^L *bòrò-[piy-Ø]*
 needle^L grain.sack-[sew-VbIN]
 ‘needle for sewing grain sacks’ (< *mènzínà, bòrò, píyé*)

5.2 Adjectival compounds

5.2.1 Bahuvrihi (“Blackbeard”) compounds

Bahuvrihi compounds (cf. *black-hearted*, *two-fisted*, *butterfingers*, *Blackbeard*) can function as adjectives or nouns. The compound as a whole has its grammatical number and animacy determined by the referent. The tones are distinct from those of other compounds.

5.2.1.1 Bahuvrihi (*n̄/n̄ à*) with adjectival compound final

The nominal initial denotes a body part. Initials that already have an H-tone are unchanged, but /L/-toned initials shift the final syllable (the final mora of *Cv:*) to H-tone. The adjective drops its tones to {L}.

(148)	bahuvrihi	gloss	components
	a. initial is monosyllabic		
	<i>/L/ initial becomes {H}</i>		
	<i>ín-kòsì:</i>	‘buck-toothed’	<i>ín</i> ‘tooth’ <i>kòsì:</i> ‘oblique’
	<i>ín-jà̀yⁿ</i>	‘buck-toothed’	<i>ín</i> ‘tooth’, <i>jà̀yⁿ</i> ‘oblique’ (synonyms)
	<i>Cv:- /L/ initial becomes LH</i>		
	<i>nà̀:-zà̀là</i>	‘long-legged’	<i>nà̀:</i> ‘leg’, <i>zà̀là</i> ‘long’
	b. initial is bisyllabic		
	<i>/H/ initial unchanged</i>		
	<i>cé́né-bìn</i>	‘big-mouthed’	<i>cé́né</i> ‘buttocks’ <i>bìn</i> ‘small’
	<i>/LH/ initial unchanged</i>		
	<i>dùmó-cè̀mè</i>	‘small-buttocks’	<i>dùmó</i> ‘buttocks’ <i>cè̀mè</i> ‘small’
	<i>/L/ initial becomes LH</i>		
	<i>bè̀dé-bìn</i>	‘big-bellied’	<i>bè̀dé</i> ‘belly’ <i>bìn</i> ‘big, stout’
	<i>bè̀dé-cè̀mè</i>	‘small-belly’	<i>bè̀dé</i> ‘belly’ <i>cè̀mè</i> ‘small’
	<i>gùzù-jè̀mè</i>	‘black-skinned’	<i>gùzù</i> ‘skin’ <i>jè̀mè</i> ‘black’
	<i>gùzù-pì̀lè</i>	‘white-skinned’	<i>gùzù</i> ‘skin’ <i>pì̀lè</i> ‘white’
	<i>cìnzá-bìn</i>	‘big-nosed’	<i>cìnzá</i> ‘nose’ <i>bìn</i> ‘big, stout’
	<i>kò̀lò-zà̀là</i>	‘long-necked’	<i>kò̀lò</i> ‘neck’ <i>zà̀là</i> ‘longt’

- d. *ʔəlò^L* *jémé* *nà-ŋ* N-Adj-Poss
house^L black 3Sg-Poss.InanSg
‘his/her black house’
- e. *nà:-mù* *á-nò:* *mì-yⁿè-mù* N-Num-Poss
cow-AnPl An-two 1Sg-Poss.An-AnPl
‘my two cows’
- f. *nà:* *mí-yⁿè* *gè* N-Poss-Def
cow 1Sg-Poss.An Def.AnSg
‘my cow (definite), the cow of mine’
- g. *cìn* *ʔgé* *cêm* N-Def-‘all’
stone Def.InanPl all
‘all the stones’

6.1.2 Adjective-Numeral Inversion

The sequence N-Adj-Num is optionally inverted to N-Num-Adj under some conditions, as in several other Dogon languages (Heath 2016). In effect, the stem-class distinction between adjective and numeral, which is elsewhere quite sharp in the syntax, is blurred, with the numeral being treated (for purposes of linearization) as though a second adjective.

Usually the optional inversion is possible only when **licensed** (i.e. allowed, but not required) by the co-presence of a demonstrative or a possessor, or when the NP in question is head of a relative clause. In other words, licensors are those elements external to the N-Adj-Num sequence that restrict reference.

In the absence of an external licensor, (152a) below with N-Adj-Num order is clearly preferable to the doubtfully grammatical (152b) with N-Num-Adj. The latter was never given spontaneously by assistants in elicitation or recorded texts, and it was disapproved of or at best “accepted” unenthusiastically when presented to them. I therefore flag (152b) with a question mark. Each remaining example in (152) includes an additional external licensor: a postposed pronominal possessor in (152c-d), a preposed nonpronominal possessor in (152e-f), a relative clause in (152g-h), and a demonstrative in (152i-j). A postposed pronominal possessor can also participate in (as well as license) the reordering, so (152c-d) have further variants, listed without mark-up after (152d).

The tonal transcriptions reflect my second assistant’s usual pronunciation discerned in repeated elicitation. Where the numeral stem is tone-dropped, as in *á-tà:ndù^L*, the H-toned animacy prefix is sometimes also heard as L-toned (such variants are omitted here). Additional variants involving alternative location(s) of animate plural *-mù* are not directly relevant and they too are omitted here.

- (152) a. *nà:*^L *jèmé-mú* *á-tá:ndù*
 cow^L black-AnPl An-three
 ‘three black cows’
- b. ? *nà:-mù* *á-tà:ndù*^L *jèmé-mù*
 cow-AnPl An-three^L black-AnPl
 [= (a)]
- c. *nà:*^L *jèmé-mù* *mí-yⁿè-mù* *á-tá:ndù*
 cow^L black-AnPl 1Sg-Poss.An-AnPl An-three
 ‘my three black cows’
- d. [*nà:-mù* *á-tà:ndù*]^L *jèmé-mù* *mí-yⁿè-mù*
 [cow-AnPl An-three]^L black-AnPl 1Sg-Poss.An-AnPl
 [= (c)]

further variants of (c-d), with the possessor relocated, are:

nà:^L *jèmé-mù* *á-tá:ndù* *mí-yⁿè-mù*
nà:^L *mí-yⁿè-mù*^L *jèmé-mù* *á-tá:ndù*
nà:-mù *á-tà:ndù*^L *mí-yⁿè-mù*^L *jèmé-mù*
nà:-mù *mí-yⁿè-mù* *á-tà:ndù*^L *jèmé-mù*
nà:-mù *mí-yⁿè-mù* *jèmé-mù* *á-tá:ndù*

- e. *sǎydù* ^L[*nà:* *jèmé-mù*] *á-tá:ndù*
 S ^L[cow black-AnPl] An-three
 ‘Seydou’s three black cows’ (bracketing is tonosyntactic)
- f. *sǎydù* ^L*nà:-mù* *á-tà:ndù*^L *jèmé-mù*
 S ^Lcow-AnPl An-three^L black-AnPl
 [= (e)] (tonosyntactic bracketing of ‘three’ is ambiguous)
- g. [*nà:* *jèmé* *á-tà:ndù*]^L *pílè-zò-mù*
 [cow black An-three]^L fall-Pfv2-AnPl
 ‘the three black cows that fell’
- h. [*nà:-mù* *á-tà:ndù* *jèmé-mù*]^L *pílè-zò-mù*
 [cow-AnPl An-three black-AnPl]^L fall-Pfv2-anPl
 [= (g)]
- i. [*nà:-mù* *á-tà:ndù* *jèmé*]^L *òmíyⁿè*
 [cow-AnPl An-three black]^L Prox.AnPl
 ‘these three black cows’

- j. *[nà: jèmè-mù á-tà:ndù]^L òmíyⁿè*
 [cow black-AnPl An-three]^L Prox.AnPl
 [= (i)]

These examples show that a numeral is tonosyntactically independent of the adjective in the standard sequence N^L-Adj-Num, as in (152a,d), but that a numeral (like a noun) is tone-dropped when it precedes the adjective in the inverted sequence [N-Num]^L-Adj, as in (152d,h,i). This tone-dropping usually does not affect an H-toned animacy prefix on the numeral.

The **morphological** effect of inversion relates to animate plural suffix *-mù*. Where it is semantically appropriate, *-mù* follows an unmodified noun (N-*mù*) or an N-Adj combination (N Adj-*mù*). The suffix is also common (though optional) after the noun in an N-Num sequence (N-*mù* Num) and after the adjective in an N-Adj-Num sequence (N Adj-*mù* Num). This difference between numerals and adjectives is maintained under Adjective-Numeral Inversion, so that *-mù* is often (though not obligatorily) present on the noun in inverted N-Num-Adj sequences (N-*mù* Num Adj). Therefore numerals do not completely merge with adjectives in the inversion construction.

When two regular adjectives modify the same noun, they may occur in either order (unless one of them forms a tight, lexicalized unit with the noun. So (153) varies with (153b). In both cases, the final adjective is the dominant tonosyntactic controller.

- (153) a. *[nà: dâgâ(-mù)]^L pílè-mù*
 [cow small(-AnPl)]^L white-AnPl
 ‘small white cows’
- b. *[nà: pílè(-mù)]^L dâgâ-mù*
 [cow white(-AnPl)]^L small-AnPl
 [= (a)]

When a numeral is added to two adjectives in an NP that also includes an inversion licenser, all six possible orders are acceptable. Factoring out the alternative ordering of the two regular adjectives by arbitrarily placing ‘small’ before ‘white’, the numeral may occur before, between, or after the adjectives (154a-c). The bracketing shown here is tonosyntactic.

- (154) a. *[nà:-mù á-tà:ndù dâgâ(-mù) pílè-mù]^L òmíyⁿè*
 [cow-AnPl An-three small(-AnPl) white-AnPl]^L Prox.AnPl
 ‘these three small white cows’
- b. *[nà: dâgâ(-mù) á-tà:ndù pílè-mù]^L òmíyⁿè*
 [cow small-AnPl An-three white-AnPl]^L Prox.AnPl
 [= (a)]

- c. *[nà:^L dàgà-mù pìlè-mù á-tà:ndù]^L ðmíyⁿè*
 [cow small-AnPl white-AnPl An-three]^L Prox.AnPl
 [= (a)]

The final demonstrative has broad tonosyntactic control over the postnominal modifiers in the most fluent pronunciations of (154a-c). However, elicitation of tone patterns in such complex sequences is much more difficult for YD than for other Dogon languages such as Jamsay. This is because the syllable count of NP-internal words is high in YD, since the animate plural suffix is syllabic in YD (compare Jamsay *-m*), and because YD has classifying prefixes on numerals that have no counterparts in most Dogon languages. Pronunciations of YD examples like (154a-c) therefore tend to be broken up prosodically into narrower “chunks,” with gradual smoothing observed when they are repeated multiple times in elicitation.

Further examples in (155a-d) below show a lexically /H/-toned noun *ʔáné* ‘goat’ instead of /L/-toned ‘cow’ as in (154a-c) above, in order to confirm that the noun is part of the tone-dropping domain. ‘Goat’ indeed drops to L-toned as part of the domain controlled by the adjective in (155a-b) and by the demonstrative in (155c-d).

- (155) a. *[ʔánè-mù á-tà:ndù]^L jémé-mù mí-yⁿè-mù*
 [goat-AnPl An-three]^L black-AnPl 1Sg-Poss.An-AnPl
 ‘my three black goats’
 [compare (152d)]
- b. *ʔánè^L jémé-mù á-tá:ndù mí-yⁿè-mù*
 goat^L black-AnPl An-three 1Sg-Poss.An-AnPl
 ‘my three black goats’
 [cf. (152c)]
- c. *[ʔánè-mù á-tà:ndù]^L ðmíyⁿè*
 [goat-AnPl An-three]^L Prox.AnPl
 ‘these three goats’
- d. *ʔánè-mù^L ðmíyⁿè*
 goat-AnPl^L Prox.AnPl
 ‘these goats’

6.1.3 Order of numeral versus postnominal possessor

When a postnominal pronominal possessor is present, unmarked order is N-Adj-Num-Poss, with the possessor following the numeral (156a). However, I have occasional examples of the numeral following the possessor (156b). It is unclear what syntactic or semantic conditions are involved. Since numerals and postposed possessors are not tonosyntactic controllers, the linear variation has no tonosyntactic consequences.

- (156) a. *nà:(-mù)* *á-tá:ndù* *mí-yⁿè-mù*
 cow(-AnPl) An-three 1Sg-Poss.An-AnPl
 ‘my three cows’
- b. *nà:-mù* *mí-yⁿè-mù* *bó-tá:ndù-mù = wò*
 cow-AnPl 1Sg-Poss.An-AnPl An-three-AnPl=Def.AnPl
 ‘my three cows’

Examples (152c-d) in §6.1.2 above are repeated here as (157a-b), to which (157c) is added, since they bear on this point. In combinations of N, Adj, Num, and Poss, the pronominal possessor may follow the adjective, whether or not the adjective and numeral are inverted (157a-b). Alternatively, if the adjective and numeral are inverted, the possessor may fit in between them, as though dragged along by the numeral (157c).

- (157) a. *nà:^L* *jèmé-mù* *mí-yⁿè-mù* *á-tá:ndù*
 cow^L black-AnPl 1Sg-Poss.An-AnPl An-three
 ‘my three black cows’
- b. [*nà:-mù* *á-tà:ndù*]^L *jèmé-mù* *mí-yⁿè-mù*
 [cow-AnPl An-three]^L black-AnPl 1Sg-Poss.An-AnPl
 [=a)]
- c. [*nà:-mù*^L *á-tà:ndù* *mí-yⁿè-mù*]^L *jèmé-mù*
 [cow-AnPl An-three 1Sg-Poss.An-AnPl]^L black-AnPl
 [=a)]

The orderings N-Poss-Adj-Num and N-Poss-Num-Adj, with the possessor adjacent to the noun, do not seem to be acceptable.

6.1.4 Headless NPs (absolute function of demonstratives, possessors, etc.)

A nonpronominal NP is normally headed by an overt noun stem, but the noun may be omitted (if obvious, unimportant, or unknown) under certain conditions. This gives the appearance of another word in the NP “functioning as” the head noun.

Examples show (apparent) absolute functions of adjectives (158a), numerals (158b), pronominal possessors (158c), nonpronominal possessors (158d), demonstratives (158e), and the universal quantifier (158f). “__” shows where the noun would have been. The adjectival type (158a), while accepted (to my surprise) when I proposed it, seems uncommon in practice, since at least a semantically light noun ‘person’ or ‘thing’ normally occupies the noun slot.

- (158) a. [___ *bǎn wò*] *mì-y* *ndí*
 [___ red Def.InanSg] 1Sg-Acc give.Imprt
 ‘Give me the red one (e.g. stone)!’
- b. [___ *yè-núm*] *mì-y* *ndí*
 [___ Inan-five] 1Sg-Acc give.Imprt
 ‘Give me five (of them)!’
- c. [___ *ó-ŋ* *wò*] *mì-y* *ndí*
 [___ 2Sg-Poss.InanSg Def.InanSg] 1Sg-Acc give.Imprt
 ‘Give me yours-Sg!’
- d. [[*zòmó* *ŋ*] ___ *wò*] *nà*
 [[hare Poss] ___ Def.InanSg] in
 ‘in Hare’s (field)’ (excerpt from (835) in Text 4)]
- e. [___ *yě:*] *mì-y* *ndí*
 [___ NearDist.InanPl] 1Sg-Acc give.Imprt
 ‘Give me those!’
- f. *cêm* *mì-y* *ndí*
 all 1Sg-Acc give.Imprt
 ‘Give me all (of it)!’

The definite markers cannot be used in this way; they must follow some other nonzero constituent within the NP.

For fuller discussion of the genitive construction with *ŋ* as in (158d), see §6.2.1.2.

6.1.5 Apparent bifurcation (in relatives)

The head NP of a relative clause is (seemingly) bifurcated into a possessed or unpossessed N(-Adj)(-Num) sequence that appears internally within the relative clause, and an NP coda consisting of determiners, non-numeral quantifiers, and discourse-function elements (‘also’, Topic, etc.) which appear after the verb. For examples of the coda elements, see §14.1.9-10.

An alternative analysis, which I prefer, is that relative clauses (“Rel”) have a specific linear position in complex NPs of the form N-Adj-Num-Rel-Det-Quant-DiscFun, and that the string to the left of the relative clause then moves to the relativization site within the relative clause.

6.1.6 Internal bracketing and tone overlays

The subsections below schematically summarize facts presented in more detail, with examples, in other sections of this chapter. Apologies for repetitiveness.

6.1.6.1 Summary of right-to-left tonosyntax

The modifiers that control tone-dropping on words to their left, prototypically on an adjacent noun that heads the NP, are those in (159).

(159) Right-to-left controllers that control tone-dropping on preceding word(s)

- a. adjective (tone-drops a preceding noun or adjective)
- b. *kámà* ‘each’ or ‘(not) any’ (tone-drops a preceding noun)
- c. demonstrative (tone-drops a preceding noun, adjective, numeral)
- d. relative clause (tone-drops the internal head)

For adjectives, see §6.3.1. The fact that *tùmá* → ‘one’ (§4.7. 1.1) and *gàmbùlè* ‘a certain one’ (§6.3.2) control tone-dropping is why they can be classified in YD as adjectives, rather than as quantifiers similar to ‘all’. For *kámà* ‘each’, which occurs with only a handful of ontological nouns, see §6.6.2. For demonstratives, see §6.5.2. For internal head NPs in relative clauses, see §14.1.2.

Numerals, postposed pronominal possessors, definite markers, universal quantifiers (‘all’), and discourse-function morphemes do not control tone overlays on other words. The generalization (Heath & McPherson 2013) is that reference-restricting modifiers, those that partition the set of individuals into a subset of those that are eligible for reference and a complementary subset of those that are ineligible, are tonosyntactic controllers. Conversely, modifiers that do not carry out this partition are not controllers. Definite markers are borderline as reference restrictors, and (therefore) they are controllers in some Dogon languages but not others. Numerals like ‘8’ constrain reference indirectly by specifying cardinality, but they do not partition the overall set into eligible and ineligible individuals.

Competition between two or more right-to-left controllers is intrinsically difficult to interpret since all of them control the same overlay {L}. In sequences like N-Adj-Dem, N-Adj-Rel (with a relative clause), N-Dem-Rel, and N-Adj-Dem-Rel, all nonfinal words are tone-dropped. We can get this result either by cyclical tone-dropping by each controller in turn from the inside out, or by single-step tone-dropping on the entire string controlled by the rightmost (outermost) element. For example, the output of N-Adj-Dem could be marked up either as $[N^L \text{ Adj}]^L \text{ Dem}$, derived bottom-up in two stages or as $[N \text{ Adj}]^L \text{ Dem}$, the former.

In elicitation, numerals sporadically retain lexical melodies in what should be tone-dropping environments. When a numeral surfaces with an H-tone, it also blocks the potential controller from going past them to control a targeted word or string on the opposite side. That is, a non-tone-dropped numeral represents prosodic chunking, and is a barrier to further

tonosyntactic control. Even when the numeral stem is tone-dropped, its animate classifying prefix often remains H-toned. See §6.1.2 and §6.4.

6.1.6.2 Summary of possessor tonosyntax

Possessors are also reference restrictors, and they too are tonosyntactic controllers in YD, like adjectives, demonstratives, and relative clauses. However, the way this works differs between alienable and inalienable possession.

In **alienable** possession, the order is Poss-N, sometimes with an intervening genitive morpheme. With or without that morpheme, the possessor controls a tone overlay on the possessum, either {L} or {H} depending on the tones of the possessor. For example, ‘Seydou’s house’ is normally expressed as [Seydou^Lhouse] (§6.2.1).

Pronominal alienable possessors, on the other hand, appear late in the overall NP, following the noun and any internal modifiers (adjective, numeral). Moreover, these postposed pronominal possessors are internally composite, consisting of a pronominal and a possessive classifier (§4.3.3), as in [house ... [my thing]] = ‘my house’. The two primary classifiers are *-ɲ* and *-yⁿɛ̃ ~ -yⁿɛ̂*. The latter is both salient, since it is used for both animate singular and inanimate plural, and morphologically revealing, since it resembles other morphemes with one or both of these values (definite *gɛ̃, yɛ̃*- inanimate prefix on numerals, inanimate *yɛ̃*: ‘those-NearDist’) and since it is syllabic and therefore fully tone-bearing. In possessives, it is H-toned after several pronominals (e.g. 1Sg *mí-yⁿɛ̃*), but L-toned in logophoric *á-yⁿɛ̃*. This suggests the possibility that *yⁿɛ̃* functions tonosyntactically as the real possessum, and is the target of an {H} or {L} overlay controlled by the pronominal. The pronominal, in this analysis, immediately **precedes** the possessum and controls an overlay on it. For example, what I usually transcribe as *ʔóló mí-yⁿɛ̃* ‘my houses’ could be rewritten as *ʔóló [mí^Hyⁿɛ̃]*, whose bracketed string structurally resembles e.g. *mí^Hdé*: ‘my father’. This is perhaps over-analysing a by-now highly grammaticalized pronominal possessor paradigm. However, combinations like ‘my houses’ probably at least originated as ‘house(s) [my things]’, and they still have some trappings of this appositional origin. For example, a pronoun-classifier combination is somewhat resistant to being tone-dropped by an external controller and its linear position is not completely fixed (§6.2.2).

Inalienables (kin terms) always have a pronominal possessor, since nonpronominal possessors are resumed with a coindexed pronominal. The pronominal possessor is preposed, without a classifier, and controls a tone overlay on the noun, either {H} or {LH} depending on the noun. For example, ‘Seydou’s father’ is expressed as [Seydou [his^Hfather]], while ‘my father’ is [1Sg^Hfather].

In this way, it is possible to argue that possessors always control an overlay on possessums. This conforms with the overall YD (and Dogon) principle that reference restrictors are tonosyntactic controllers.

Competition between left-to-right control by a preposed possessor and control by any postnominal right-to-left controller presents two issues: a) does the left-to-right or right-to-left controller dominate, by successfully targeting the noun? and b) does the domain of control of the dominant controller extend beyond the noun to words on the other side of the noun?

In (160), the various combinations involving a preposed nonpronominal possessor (Poss) and an alienably possessed NP (with or without inner postnominal modifiers) are set out. In the “output” column (the basis for phonetic realization), tones overlaid on a word are marked by **subscripts** to the right (the the position of the subscript is not meaningful). In the “markup” column (more abstractly tonosyntactic), the overlay is marked as a **superscript** on the side (left or right) of its domain, “pointing” toward the operative controller. The domain of the overlay can be a multi-word phrase (shown with brackets) or a single word (no brackets). In (160) it is assumed that the possessor (whether a single word or a fuller NP) contains at least one H-tone, since such possessors control {L} overlay on the possessum.

(160) Alienable possession

	sequence	output	markup
a.	Poss-N	Poss N _L	Poss ^L N
b.	Poss-N-Adj	Poss N _L Adj _L	Poss ^L [N Adj]
	Poss-N-Dem	Poss N _L Dem	Poss ^L N Dem (??, but see text below)
c.	Poss-N-Num	Poss N _L Num	Poss ^L N Num
	Poss-N-’all’	Poss N _L ’all’	Poss ^L N ’all’

In alienable possession (by a preposed possessor), the **possessor** is the **dominant controller**. This is moot in Poss-N-Dem, shown by the parenthesized question marks, since both the possessor and the demonstrative are tonally free, and since the {L} overlay on the noun could be attributed to either as controller (or to both as joint controllers). However, in Poss-N-Num and Poss-N-’all’, the possessor unambiguously controls tones on the noun (though not on the numeral or quantifier), since numerals and ’all’ are non-controllers. Moreover, in Poss-N-Adj, the possessor controls tone-dropping on the entire N-Adj sequence, so that even an /H/-toned adjective is dropped to {L} along with the preceding noun. I will show below that the queried Poss ^LN Dem in (160b) can be confirmed under further analysis.

The tone markings in (160) must be redone when the possessor contains no H-tones, for example when it is a simple /L/-melody noun, or a tone-dropped noun followed by an /L/-melody adjective. In this case, the possessed noun is H-toned rather than L-toned, as in Poss N_H and Poss N_H Num. However, in Poss-N-Adj, only the noun is H-toned, while the adjective remains L-toned, the output being Poss N_H Adj_L. One might model this by positing an overlay {H(L)}, reducing to {H} on a single word (the possessed noun) but with a following word still in the domain of the overlay (the only possibility being an adjective) carrying the {L}.

One is tempted to claim that the {H(L)} overlay is really {L}, surfacing as H or HL after Rhythmic Tone-Raising. Arguments against this, and in favor of the {H(L)} overlay, are given in §6.2.1.1 below.

Examples involving a possessor-controlled {H} also allow us to determine the tonosyntactic dominance relationship between alienable possessors and demonstratives, which is queried in (160b) above. The relevant combinations have outputs of the type Poss

N_H Dem, as in (193b) below, showing that the possessor dominates. The markup is therefore Poss $^H N$ Dem, with the superscript “pointing” leftward toward the possessor. If the demonstrative had dominated, the output would have been #Poss N_L Dem, markup #Poss N^L Dem, with the superscript “pointing” rightward.

Inalienable possession works somewhat differently. As mentioned above, a nonpronominal possessor must be resumed by a third-person pronominal, which functions as the operative possessor. (161) illustrates this using 3Sg *nà*. To clarify the tonosyntax, I assume that the possessum is one of the kin terms whose possessor-controlled overlay is {LH} rather than {H}, e.g. ‘maternal uncle’, see (178) below for a list of such kin terms. In (161), {LH} is unmistakably possessor-controlled (161a,c), while {L} is unmistakably due to a right-to-left controller, either adjective or demonstrative (161b). We will see later that the pronominal possessor is also part of the target domain, though this has no overt effect on the already L-toned 3Sg *nà*.

(161) Inalienable possession, with {LH} as possessor-controlled overlay

sequence	output	analysis
a. no modifiers		
Poss 3SgPoss-N	Poss <i>nà</i> N_{LH}	Poss [<i>nà</i> ^{LH} N]
b. noun is tonosyntactically controlled by the modifier (§6.4.2.1, (§6.4.2.3)		
Poss 3SgPoss-N-Adj	Poss <i>nà</i> N_L Adj	Poss [<i>nà</i> N] ^L Adj]
Poss 3SgPoss-N-Dem	Poss <i>nà</i> N_L Dem	Poss [<i>nà</i> N] ^L Dem]
c. noun is tonosyntactically controlled by the possessor		
Poss 3SgPoss-N-Num	Poss <i>nà</i> N_{LH} Num	Poss [[<i>nà</i> ^{LH} N] Num]
Poss 3SgPoss-N-’all’	Poss <i>nà</i> N_{LH} ‘all’	Poss [[<i>nà</i> ^{LH} N] ‘all’]

The key differences between alienable possession (160) and inalienable possession (161) are a) the tonal pattern of the overlays, alienable {L} and {H(L)} versus inalienable {H} and {LH}, and b) the fact that adjectives and demonstratives override inalienable possessors tonosyntactically (161b), while alienable possessors override adjectives and demonstratives (160b as amended). An interesting follow-up question, perhaps philosophical, is whether “dominance” is due to **first-mover** advantage, i.e. determined by the syntactically innermost of the competing controllers whose overlay is then frozen, or due to **last-mover** advantage, i.e. the syntactically outermost or “higher” controller imposes its overlay over a broad domain, erasing any prior overlays.

6.2 Possessives

This section fleshes out the schematic summary of possessives presented in the preceding section; again, apologies for repetitiveness. A distinction is made between alienable and

inalienable (kinship) nouns. Alienable possession may involve simple preposing of a nonpronominal possessor (§6.2.1.1), preposing the same nonpronominal possessor plus an intervening genitive morpheme *ɲ* (§6.2.1.2), or postposing a bipartite possessor consisting of a pronominal and a possessive classifier marking animacy and number of the possessum (§6.2.2). Inalienable possession always involves an immediately preposed pronominal possessor, without a classifier (§6.2.3). In both types of possession, the possessor controls a tone overlay on the possessum; in the case of the postposed pronominal alienable possessor, the tone overlay applied to the classifier.

6.2.1 Alienable possession with noun-headed NP possessor

There are two ways to combine a preposed nonpronominal alienable possessor with a possessum X. One is by juxtaposition: Poss X. The other involves an intervening genitive morpheme *ɲ*, hence Poss *ɲ* X, cf. Jamsay *mà* and Tommo So *mɔ*. The presence or absence of the genitive morpheme does not affect tone overlays.

6.2.1.1 Construction [Poss X] without intervening genitive *ɲ*

When an alienable (or for that matter inalienable) noun is possessed by a **nonpronominal NP**, the order is **possessor-possessed**. The possessor has the form, tonally and morphosyntactically, of an independent NP. It may have, for example, its own definite marker. This subsection considers [Poss X] without an intervening genitive morpheme.

The lexical melody of the possessed noun (including the plural suffix, if present) is erased, being replaced by a **tone overlay**, either {H(L)} or {L}. The choice between the two overlays is determined by the tones of the possessor.

If the possessor NP is entirely L-toned, the possessed noun is subject to an apparent {H} overlay. The possessor NP is entirely L-toned only under limited circumstances. The possessor can be a simple noun of /L/ melody, without determiners. Or it may be an N-Adj combination with /L/-melody adjective (the noun being tone-dropped by the adjective). We will see later that the apparent {H} overlay can be analysed as a reduction of a more general {H(L)} overlay whose {L} is observed on a postnominal adjective within the possessum.

If the possessor has at least one H-tone, the overlay on the possessum is {L} instead of {H} or {H(L)}. This is the case when the possessor is a noun with any lexical melody other than /L/, an N-Adj combination whose adjective has any lexical melody other than /L/, or any NP including a numeral, determiner, or possessor. The {L} overlay persists into an adjective following the possessed noun.

Because there is a clear phonological basis for the choice between alienable possessor-controlled {H} and {L} overlays, one is sorely tempted to unify the two into a single {L} overlay, and to account for the H-tones by Rhythmic Tone-Raising (§3.7.4.2), a tone sandhi process. However, Rhythmic Tone-Raising elsewhere affects only the first syllable on the second of two consecutive {L}-toned words (schematically, L#LL → L#HL, where # is the boundary), while the possessor-controlled {H} overlay continues to the end of the possessed

noun (L#LL → L#HH). Furthermore, if the noun is followed by an adjective, the {H} overlay is realized as ^HN^LAdj. This suggests that the {H} overlay is an abbreviated form of {H(L)}.

I will therefore recognize {L} and {H(L)} as genuine tonosyntactic overlays for alienably possessed NPs, though the choice between them also requires reference to the tones of the possessor. This mix of categorial and phonological conditioning for possessor-controlled overlays is also found in other Dogon languages, including Ben Tey.

(162)	if possessor ...	the overlay on the alienable possessum is ...
	... is entirely L-toned	{H(L)}, realized as N ^H (Adj ^L)
	... contains an H-tone	{L}

Examples with simple singular and animate plural noun possessors are in (163). The nouns functioning here as possessums, shown with their lexical melodies prior to overlays, are *ʔóló* ‘house’, *àṅáy* ‘manner’, and *kòdù* ‘shout (n), cry (n)’. The possessors have their regular tones. In (163a-c), the possessed noun has {H} overlay throughout, since the possessor is entirely L-toned. The possessum has {L} overlay (tone-dropping) in (163d-e) since the possessor contains at least one H-tone, even if only on the animate plural suffix.

(163) a. possessor is an /L/-toned singular noun

<i>pè:</i>	^H <i>ʔóló</i>	‘a sheep’s house’
<i>nà:</i>	^H <i>ʔóló</i>	‘a cow’s house’
<i>pè:</i>	^H <i>áṅáy</i>	‘a sheep’s manner’
<i>nà:</i>	^H <i>áṅáy</i>	‘a cow’s manner’
<i>pè:</i>	^H <i>kódú</i>	‘a sheep’s cry’
<i>nà:</i>	^H <i>kódú</i>	‘a cow’s cry’

b. possessor is an /L/-toned plural noun

<i>nà:-mù</i>	^H <i>áṅáy</i>	‘cows’ manner’
<i>nà:-mù</i>	^H <i>kódú</i>	‘cows’ cry’
<i>nà:-mù</i>	^H <i>ʔóló</i>	‘cows’ house’

c. possessor is an entirely L-toned N^L-Adj sequence

<i>nà:^L pèy</i>	^H <i>áṅáy</i>	‘old cow’s manner’
<i>ʔàné^L pèy</i>	^H <i>kódú</i>	‘old goat’s cry’
<i>pè:^L pèy</i>	^H <i>ʔóló</i>	‘old sheep’s house’

d. possessor is singular noun containing an H-tone

<i>ʔóné</i>	^L <i>ʔàlò</i>	‘a goat’s house’
<i>ʔóné</i>	^L <i>àṅày</i>	‘a goat’s manner’
<i>ʔóné</i>	^L <i>kòdù</i>	‘a goat’s cry’

e. possessor is plural noun containing an H-tone

<i>pè:-mú</i>	^L <i>ʔəlò</i>	‘sheep-Pl’s house’
<i>ʔóné-mù</i>	^L <i>ʔəlò</i>	‘goats’ house’
<i>pè:-mú</i>	^L <i>àŋàŋ</i>	‘sheep-Pl’s manner’
<i>ʔóné-mù</i>	^L <i>àŋàŋ</i>	‘goats’ manner’
<i>pè:-mú</i>	^L <i>kòdù</i>	‘sheep-Pl’s cry’
<i>ʔóné-mù</i>	^L <i>kòdù</i>	‘goats’ cry’

Examples of multi-word possessors are in (164) below. An NP containing a definite marker always has an H-tone, since if all preceding words are L-toned the definite marker becomes H by Rhythmic Tone-Raising (164a-b). Possessor NPs containing postnominal modifiers other than adjectives also have at least one H-tone, as with the demonstrative in (164c). This is also always true when the possessor is itself an alienably possessed NP, even if the H-tone occurs only on the inner possessor, like ‘Seydou’ in (164d). Therefore the final possessum in each of (164a-d) has {L} overlay.

- (164) a. [*yé* *gè*] ^L*ʔəlò*
 [woman Def.AnSg] ^Lhouse
 ‘(the) house of the woman’
- b. [*pè:* †*gé*] ^L*ʔəlò*
 [sheep Def.AnSg] ^Lhouse
 ‘(the) house of the sheep-Sg’
- c. [*àn*^L *òŋgè*] ^L*ʔəlò*
 [man Prox.AnSg] house
 ‘(the) house of this man’
- d. [*săydù* ^L*ʔəlò* *wò*] ^L*dèbù*
 [S house Def.InanSg] roof
 ‘(the) roof of Seydou’s house’

Forms taken by nouns of various lexical melodies, when functioning as possessums, are shown in (165). The choice between {H} and {L} overlays is based on the tones of the possessor (not shown), as explained above. Even multisyllabic possessed nouns, such as quadrisyllabic ‘cart’ in (165d), have stem-wide {H} and {L} overlays.

(165) Forms of possessed nouns

gloss	noun	{H} overlay	{L} overlay
a. noun is /H/-toned			
‘liver’	<i>cíndá</i>	^H <i>cíndá</i>	^L <i>cìndà</i>
‘millet’	<i>yú</i>	^H <i>yú</i>	^L <i>yù</i>
‘house’	<i>ʔǎló</i>	^H <i>ʔǎló</i>	^L <i>ʔàlò</i>
b. noun is /HL/-toned			
‘money’	<i>bú:dù</i>	^H <i>bú:dù</i>	^L <i>bù:dù</i>
c. noun is /LH/-toned			
‘work’	<i>bìdé</i>	^H <i>bìdé</i>	^L <i>bìdè</i>
‘daba’	<i>wàlá</i>	^H <i>wàlá</i>	^L <i>wàlà</i>
d. noun is /LHL/-toned			
‘brick’	<i>tèmbèn</i>	^H <i>tèmbèn</i>	^L <i>tèmbèn</i>
‘calf’	<i>nǎ-yyè</i>	^H <i>nǎ-yyè</i>	^L <i>nà-yyè</i>
‘cart’	<i>wògòtóró</i>	^H <i>wògòtóró</i>	^L <i>wògòtòró</i>
e. noun is /L/-toned			
‘gear’	<i>gòn</i>	^H <i>gòn</i>	^L <i>gòn</i>
‘cow’	<i>nà:</i>	^H <i>nà:</i>	^L <i>nà:</i>

When the possessum contains a postnominal adjective, the {L} overlay extends across the noun and the adjective (166a). By contrast, the {H(L)} overlay is realized as an H-toned noun followed by an L-toned adjective (166b). The effect is that an adjective is always L-toned as part of an alienable possessum. ‘White’ in (166a-b) is tone-dropped from lexical *pílé* with /H/ melody.

- (166) a. [*yé* *gè*] ^L[*ʔǎlò* *pìlè* *wò*]
 [woman Def.AnSg] ^L[house white Def.InanSg]
 ‘the white house of the woman’ (< *ʔǎló*, *pílé*)
- b. *yè* ^{HL}[*ʔǎló* *pìlè* *wò*]
 woman ^{HL}[house white Def.InanSg]
 ‘the white house of a woman’

The {H} overlay on a possessum that follows an L-toned possessor allows us to distinguish possessive-like compounds of type (*n̄ n̄*) from true possessed NPs; see (140a-b) in §5.1.6.

6.2.1.2 Genitive [[Poss *ɲ*] X], [[Poss *ɲ*] ___ = *wò*], and [[Poss *ɲnɛ̀*] ___ *gɛ̀*]

The genitive construction [[Poss *ɲ*] X] has an overt morpheme *ɲ* between the possessor and the possessum X as in (167b) below. The genitive morpheme cannot be used in the inalienable possessive construction, which has a resumptive pronominal pronoun preceding the possessed NP, as in [Poss_x [Pron_x X]].

Genitive *ɲ* is required only when the following possessum slot is blank, for example because of its obviousness in context, cf. English *mine* or *John's* as arguments of sentences (*Mine is better than John's*). This is the case in (167a), where the context makes it clear that the missing possessum is 'field' or 'part of a field'.

When the possessum noun is overt, the genitive morpheme is uncommon, but it can occur with referentially specific possessors. For example, in (167b) 'hyena' is a specific character in a tale, favoring genitive *ɲ* even though the possessum 'field' is overt. The genitive morpheme does not occur in (167c), where 'hyena' is nonspecific (generic). Since *ɲ* requires a non-null possessor on its left, but may co-occur with a null possessum on its right, I bracket it syntactically with the possessor.

- (167) a. [nɪ: gày] [[zòmó ɲ ___ = wò] nà],
 [now Topic] [[hare Gen ___ Def.InanSg] Loc],
 ... [[làli-yè^L ná] tíɲà-m nì]
 ... [[expel-MP^L Purp] cross-Ipfv intending]
 'Now, they were about to cross over to Hare's (side) in order to drive (butterflies) away.' (excerpt from (835) in Text 4)
- b. [tà: †ɲ] ^Lmènɛ̀
 [hyena Gen] ^Lfield
 'Hyena's field' (< *mènɛ̀*)
- c. tà: ^Hméné
 hyena ^Hfield
 '(a) hyena('s) field' (< *mènɛ̀*)

When the possessum noun slot is empty, the genitive-marked possessor is usually followed by a definite marker: *wò* (inanimate singular, animate plural), as in (167a) above, or *gɛ̀* (inanimate plural, animate singular). The inanimate singular combination is phonologically regular *ɲ = wò*, with *wò* cliticizing to *ɲ*, as in (168).

- (168) [ʔámó wò] pílɛ̀ = .: ,
 [1SgPoss.InanSg Def.InanSg] white=it.is,
 [säydù ɲ ___ = wò] jèmé = .: .
 [S Gen ___ =Def.InanSg] black=it.is
 (Of two stones:) 'Mine is white, (whereas) Seydou's is black.'
 [for the predicates see §11.4.2]

Before *gè*, however, a syllabic genitive allomorph *ɲè* is used. In (169), *ɲè gè* is animate singular. The same form can elsewhere be inanimate plural: ‘Seydou’s (things)’.

- (169) *[mí-yⁿè gè]* *sóɲò* *yà* *zó-Ø*,
 [1Sg-Poss.An Def.AnSg] fat(n) Exist have-3SgSbj,
[sǎydù ɲè *gè]* *sóɲò* *zò-ń-Ø*
 [S **Gen** **Def.AnSg]** fat(n) have-StatNeg-3SgSbj
 (Of two cows:) ‘Mine has (lots of) fat (=is plump), (whereas) Seydou’s has no fat (=is lean).’

If Seydou has more than one cow, the relevant (animate plural) form is pluralized as *sǎydù ɲè-mù = wò*, containing the regular animate plural suffix.

ɲè is most likely etymologically composite, containing genitive *N (some nasal) and *ye animacy-number classifier (‘thing-Pl’ or ‘critter-Sg’). In the form *-ɲɲé*, this morpheme also occurs optionally in imperfective relative verbs like *wá-ɲɲé* ‘see(s)’, see (587-89) in §14.1.9.

I have one textual example (170a) where a pronoun plus genitive *ɲ* precedes an alienable noun, which is tone-dropped as after a preposed nonpronominal possessor. *sírⁿù-ɲ* is already lexically /L/-toned, but I was able to elicit other examples of preposed pronominal possessors followed by an audibly tone-dropped possessed noun (170b). Examples like (170a-b) with preposed alienable pronominal possessor never appeared in elicitation. In theory, such examples should reflect stacked possession, e.g. [[your __]’s X]. Both *ná-ɲ* (170a) and *ɔ-yⁿè* (170b) were heard with a final falling tone, contrast *ná-ɲ* and *ɔ-yⁿé* as postnominal possessors before a pause.

- (170) a. *ná-ɲ* ^L*sírⁿù-ɲ*
 3Sg-Poss ^Lbe.full(of.food)-Nom
 ‘his getting full (of food)’ (excerpt from (810) in Text 2)
- b. *ɔ-yⁿè* ^L*ʔəlò* (*gè*)
 2Sg-Poss.InanPl ^Lhouse (Def.InanPl)
 ‘your-Sg houses’ (< *ʔəló*)

See also *ná-ɲ wò* ‘his (one)’, equivalent to *ná-ɲ* __ = *wò*, with omitted object after preposed pronominal possessor in (835) in Text 4.

6.2.2 Alienable possession with pronominal possessor

For all alienably possessed nouns, a pronominal possessor is expressed by a possessor-classifier complex that normally **follows** the possessed noun and any inner modifiers (adjective, numeral). See §6.1.3 for exceptions to this ordering. In lengthy combinations like N-Adj-Num-Poss, the order of the postnominal words becomes freer, since a possessor is a licenser for Adjective-Numeral Inversion and since a pronominal possessor may itself be swept up in the reordering; see (156a-b) in §6.1.3.

The possessor-classifier complex takes different forms for any given pronominal-possessor category, depending on intrinsic features (animacy, number) of the possessed NP. Most of the forms derive from a possessive classifier construction of the type ‘stone [my thing]’ or ‘cow [my critter]’, where ‘thing’ and ‘critter’ are English renditions of singular inanimate and animate classifiers, respectively. However, the complexes have contracted over time, and their morphological structure now ranges from fairly transparent to opaque, to unsegmentable portmanteau. For the pronominal possessor paradigms, see §4.3.3 above.

Examples with animate possessed nouns are in (171). The preceding possessed NP, maximally N-Adj-Num, has its regular tonal form. Determiners and universal quantifiers follow the possessor complex. If the possessed noun is animate plural, suffix *-mù* occurs on the N(-Adj) core and on the possessor complex.

- (171) a. *nà:* *mí-yⁿé* *gè*
 cow **1Sg-Poss.An** Def.AnSg
 ‘my cow’
- b. *nà:-mù* *mí-yⁿè-mù = wò*
 cow-AnPl **1Sg-Poss.An-AnPl=Def.AnPl**
 ‘my cows’
- c. *nà:-mù* *mí-yⁿè-mù* *bó-tá:ndù-mù = wò*
 cow-AnPl **1Sg-Poss.An-AnPl** An-three-Pl=Def.AnPl
 ‘my three cows’
 [for this noncanonical linear order, see §6.1.3]
- d. *nà:-mù* *bó-tá:ndù* *mí-yⁿè-mù* *wò*
 cow-AnPl AnPl-three **1Sg-Poss.An-AnPl** Def.AnPl
 [=(c)]
- e. [*nà:-mù* *mí-yⁿè-mù*] *bó-tá:ndù*
 [cow-AnPl **1Sg-Poss.An-AnPl**] An-three
 ‘three of my (many) cows’ (partitive)

Inanimate singular possessed nouns require a distinctive set of pronominal possessor forms ending in *-ń*, except for irregular 1Sg possessor portmanteau *?ámó*. For inanimate plural possessed NPs, the possessor has the same form with *-yⁿé* as for animate singular possessed NPs. 1Sg possessor for inanimates is illustrated in (172).

- (172) a. *cìn* *?ámó*
 stone **1SgPoss.InanSg**
 ‘my stone’

- b. *cín* *mí-yⁿé*
stone **1Sg-Poss.InanPl**
‘my stones’

For the use of inanimate singular possessor forms as part of reflexives, as in 1Pl *kó(:)-yè-ŋ* and 3rd person *kó(:)-à-ŋ*, see §18.1.

The combination of a noun (or N-Adj) plus postposed possessor can be part of two larger syntactic environments conducive to tone-dropping, viz., a) before a demonstrative and b) as internal head of a relative clause.

Before a demonstrative, most elicited examples of pronominally possessed alienables do not drop tones, so ‘your house’ (173a) and ‘your houses’ (173b) have the same tones they would have without the demonstrative. Here it appears that the N-(Adj-)Poss sequence constitutes a **tonosyntactic island**, symbol $\subset \dots \supset$.

- (173) a. \subset ?áíó ó-ŋ \supset kó
 \subset house **2Sg-Poss.InanSg** \supset NearDist.InanSg
‘that house of yours-Sg’
- b. \subset ?áíó á-yⁿé \supset yě:
 \subset house **2Sg-Poss.InanPl** \supset NearDist.InanSg
‘those houses of yours-Sg’
- c. \subset gṣà: ó-ŋ \supset kó
 \subset granary **2Sg-Poss.InanSg** \supset NearDist.InanSg
‘that granary of yours-Sg’

In the absence of the postposed possessor, there is no island effect, and the noun is systematically tone-dropped by an immediately following demonstrative: ?áíó^L kó ‘that house’, ?áíó^L yě: ‘those houses’.

However, the **head** NP in a relative clause is usually tone-dropped in elicited utterances even when the head NP contains a pronominal possessor. In (174), the head NP ‘your house’ or ‘your houses’ was heard with a flat pitch lower than that of the relative-clause verb ‘fall’.

- (174) a. [[?áíó ó-ŋ]^L pílè-zó wò] àmbá: bò-Ø
[house 2Sg-Poss.InanSg]^L fall-Pfv2.Rel Def.InanSg] where? be-3SgSbj
‘Where is your-Sg house that fell?’
- b. [[?áíó á-yⁿé]^L pílè-zó gè] àmbá: bò-Ø
[[house 2Sg-Poss.InanPl]^L fall-Pfv2.Rel Def.InanPl] where? be-3SgSbj
‘Where are your-Sg houses that fell?’

Rarely, an alienable pronominal possessor precedes rather than follows a possessed noun, see (170a) above. In this case, the noun has the same tone overlay as after a nonpronominal possessor.

6.2.3 Inalienable possession

True kin terms and a few other relationship terms (‘friend’) form a morphosyntactically distinct set that I call inalienable.

6.2.3.1 Inalienable relationship terms with proclitic pronominal possessor

Inalienables are usually possessed, but in spite of this term they may occur in absolute (unpossessed) form like other nouns, in contexts like ‘I (do not) have a(n) X’ as in (175a). The more usual possessed inalienables are illustrated in (175b-d).

- (175) a. *nì:* [†]*zó-nù-m*
 mother have-IpfvNeg-1SgSbj
 ‘I do not have a mother.’
- b. *mì* ^H*ní:*
 1SgPoss ^Hmother
 ‘my mother’
- c. *ó* ^H*ní:*
 2SgPoss ^Hmother
 ‘your-Sg mother’
- d. *săydù* [*nà* ^H*ní:]*
 S [3SgPoss ^Hmother]
 ‘Seydou’s mother’

(175a) is entirely parallel to e.g. ‘I do not have a house’ with an alienable noun. The possessed forms, however, are quite different from those of alienable nouns. In (175b-c), the pronominal possessor **precedes** the inalienable possessum, and there is no possessive classifier. In (175d), even the nonpronominal possessor ‘Seydou’ is obligatorily **resumed** by a third-person (here 3Sg) pronominal possessor. This construction is of the type “Seydou [his mother],” familiar to readers of English literature from around the time of Ben Jonson. The effect is that inalienable possessors are always pronominal.

These possessors are pronominal proclitics, identical to those that can function as preverbal subject proclitic pronouns. See (106) in §4.3.3 above for the paradigm. The tone of the pronouns (mostly L, but H for 2Sg *ó* and for logophoric singular *á*) does not affect the tone overlay on the possessum.

6.2.3.2 {H} and {LH} overlays on possessed inalienables

The possessor-controlled overlay on monosyllabic inalienable possessums is {H}. It is either {H} or {LH} for nonmonosyllabic stems, the choice depending on the possessum.

The monosyllabic inalienables known to me are in (176). Animate plural *-mù* is in parentheses. In the possessed forms (middle column), *-mù* is included in the domain of the {H} overlay.

(176) Cv: inalienable nouns with H-toned possessed form

absolute	after possessor	gloss
a. /H/ to {H}		
<i>zú:(-mù)</i>	^H <i>zú:(-mù)</i>	‘neighbor’
b. /L/ to {H}		
<i>nì:(-mù)</i>	^H <i>nì:(-mù)</i>	‘mother’
<i>dè:(-mù)</i>	^H <i>dè:(-mù)</i>	‘father’
<i>sà:(-mù)</i>	^H <i>sà:(-mù)</i>	‘sister (of man)’

Nonmonosyllabic inalienable nouns divide into two primary sets. One has {H} overlay (177).

(177) Nonmonosyllabic inalienable nouns with {H} overlay

absolute	after possessor	gloss
a. /L/ to {H}		
<i>unsegmentable</i>		
<i>òzò(-mù)</i>	^H <i>òzò(-mù)</i>	‘younger same-sex sib’
<i>àzà(-mù)</i>	^H <i>àzà(-mù)</i>	‘(man’s) friend’s wife’ (and reciprocal)
<i>sàⁿà(-mù)</i>	^H <i>sàⁿà(-mù)</i>	‘brother (of a woman)’
<i>sèlà(-mù)</i>	^H <i>sèlà(-mù)</i>	‘concubine’
<i>sèzù(-mù)</i>	^H <i>sèzù(-mù)</i>	‘grandmother’(either side)
<i>kùmbò(-mù)</i>	^H <i>kùmbò(-mù)</i>	‘great-great-grandparent’
<i>àmèlè(-mù)</i>	^H <i>àmèlè(-mù)</i>	‘parent-in-law’
<i>kàràgà(-mù)</i>	^H <i>kàràgà(-mù)</i>	‘agemate’
<i>old diminutive (§6.2.3.5)</i>		
<i>sèzì-yè(-mù)</i>	^H <i>sèzì-yè(-mù)</i>	‘grandchild’
c. /LH/ to {H}		
<i>old diminutives (§6.2.3.6)</i>		
<i>dè:-né(-mù)</i>	^H <i>dè:-né(-mù)</i>	‘father’s younger brother’
<i>ìyà-né(-mù)</i>	^H <i>ìyà-né(-mù)</i>	‘mother’s younger sister’

Inalienables with {LH} overlay when possessed are in (178).

(178) Inalienable nouns with {LH}-toned possessed form

absolute	after possessor	gloss
a. /L/ to {LH}		
<i>lèzù(-mù)</i>	^{LH} <i>lèzú(-mú)</i>	‘maternal uncle’
<i>nèrⁿà(-mù)</i>	^{LH} <i>nèrⁿá(-mú)</i>	‘paternal aunt’
<i>dèrè(-mù)</i>	^{LH} <i>dèré(-mú)</i>	‘elder same-sex sibling’
<i>nùŋɔ́(-mù)</i>	^{LH} <i>nùŋɔ́(-mú)</i>	‘husband’
<i>gàlà(-mù)</i>	^{LH} <i>gàlá(-mú)</i>	‘brother-in-law’
<i>zèŋà(-mù)</i>	^{LH} <i>zèŋá(-mú)</i>	‘great-grandparent’
reduplicative		
<i>bà-bà(-mù)</i>	^{LH} <i>bà-bá(-mú)</i>	‘grandfather’ (either side)
b. /LH/ to {LH}		
<i>dìmbú(-mú)</i>	^{LH} <i>dìmbú(-mú)</i>	‘concubine’

Since the possessor-controlled overlay is {H} for some inalienables and {LH} for others of the same syllabic shape, a tone-sandhi approach to possessum tones would be a non-starter. Moreover, although the overlay is controlled by the possessor, its actual tonal form is chosen by the relationship term itself and must be included in the latter’s lexical entry.

There is one relationship term, borrowed from Fulfulde, that has /HL/ tones whether unpossessed or possessed (179).

- (179) a. *tógòrò* ‘homonym (person with the same personal name)’
 b. *mì tógòrò* ‘my homonym’

Grammatically specialized noun *tò*: ‘agemate, peer, counterpart’ in reciprocal-like expressions, see (735) in §18.3.1, remains L-toned after a pronominal possessor (*ó tò*: ‘your agemate’).

6.2.3.3 Special vocatives for kin

A number of core kin terms have special vocative forms (cf. *dad*, *mom*). Most have LH or H tone patterns, hinting at a covert 1Sg possessor. Some are *Cv-Cv* reduplications. Data are in (180). For ‘mother’ two forms are in use, *yà-yá* and *íyà*, both suppletive (cf. *nì*: ‘mother’).

(180)	vocative	gloss	regular term (unpossessed)
	a. {LH}-toned		
	<i>suppletive and monosyllabic</i>		
	<i>m̀bɔ́:</i>	‘(my) friend’	<i>l̀àlù-ŋ</i>
	<i>ẁây</i>	‘(my) friend’	"
	<i>reduplicated Cv-Cv</i>		
	<i>b̀à-bá</i>	‘grandfather’	<i>b̀à-bà</i>
	<i>ỳà-yá</i>	‘mother’	<i>nì:</i> [for <i>íyà</i> see (c), below]
	<i>unreduplicated CvCv</i>		
	<i>s̀èzú</i>	‘grandmother’	<i>s̀èzù</i>
	<i>d̀èré</i>	‘elder sib’	<i>d̀èrè</i>
	b. {H}-toned		
	<i>ɔ́zɔ́</i>	younger sib’	<i>ɔ̀zɔ̀</i>
	<i>s̀á:</i>	‘(man’s) sister’	<i>s̀à:</i>
	c. other		
	<i>suppletive</i>		
	<i>íyà</i>	‘mother’	<i>nì:</i> [for <i>ỳà-yá</i> see (a) above]
	<i>b̀â:yⁿ</i>	‘paternal kinsman’	<i>d̀ě:-ŋ</i> (§6.2.3.5)
	<i>irregular</i>		
	<i>ǹâ:yⁿ</i>	‘maternal kinsman’	<i>ǹì-yé-ŋ</i> (§6.2.3.5)

6.2.3.4 Relationship terms with *-ŋ* in unpossessed form only

Distinct possessed and unpossessed forms of two relationship terms also involve **segmental differences** where a final *-ŋ* appears only in the unpossessed form (181). I hyphenate this as a suffix but it could be considered part of the stem.

(181) Inalienable nouns (final nasal dropped)

	absolute	possessed	gloss
	a. /L/ to {H}		
	<i>t̀iyè-ŋ(-m̀ù)</i>	^H <i>t̀iyé(-m̀ú)</i>	‘cross-cousin’
	b. /L/ to {LH}		
	<i>l̀àlù-ŋ(-m̀ù)</i>	^{LH} <i>l̀ǎl(-m̀ú)</i>	‘friend, pal’

Cognates for ‘cross-cousin’ with similar nasal endings include Dogul Dom *t̃i:-ŋ* and Jamsay *t̃iyé-n*, as well as other cognates with no final nasal element. There are few cognates for ‘friend, pal’, but cf. Dogul Dom *ǹàlè-ŋ*.

See also *nì-yé-ŋ* ‘maternal kinsman’ and *dě:-ŋ* ‘paternal kinsman’ in §6.2.3.5 just below.

6.2.3.5 Kin terms with *-yè* ‘child’

(182) presents simple kin terms that are paired with derivatives ending in *-yè* or variant, originally a compound final meaning ‘child, offspring’ (§5.1.8). For *-ŋ* in the unpossessed forms in (182c-d), see the preceding section. Parenthesized *-mù* or *-mú* is the animate plural suffix.

(182)	unpossessed	‘my’	gloss
a.	<i>sèzù(-mù)</i> <i>sèzì-yè(-mù)</i>	<i>mì</i> ^H <i>sézú(-mú)</i> <i>mì</i> ^H <i>sézí-yé(-mú)</i>	‘grandmother’ ‘grandchild’
b.	<i>sà:(-mù)</i> <i>sà-yè(-mù)</i>	<i>mì</i> ^H <i>sá:(-mú)</i> <i>mí</i> ^H ^{LH} <i>sà-yé(-mù)</i>	‘sister’ ‘sister’s child’
c.	<i>nì:(-mù)</i> <i>nì-yé-ŋ(-mù)</i> (for vocative <i>nâ:yⁿ</i> see §6.2.3.3)	<i>mì</i> ^H <i>ní:(-mú)</i> <i>mí</i> ^H ^{LH} <i>nì-yé(-mù)</i>	‘mother’ ‘maternal kinsman’
d.	<i>dè:(-mù)</i> <i>dě:-ŋ(-mù) ~ dē:-mù</i> (for vocative <i>bâ:yⁿ</i> see §6.2.3.3)	<i>mì</i> ^H <i>dé:(-mú)</i> <i>mí</i> ^H ^{LH} <i>dě:(-mù)</i>	‘father’ ‘paternal kinsman’
e.	[<i>bàngè</i> ‘friendship between two men’] <i>bàⁿí-yⁿè(-mù)</i>	<i>mì</i> <i>bàⁿí-yⁿè(-mù)</i>	‘father’s friend’

Since *dě:-ŋ* ‘paternal kinsman’ in (182d) is parallel semantically to *nì-yé-ŋ* ‘maternal kinsman’ (182c), I take *dě:-ŋ* to be a deformation of an older **dè:(-)(í)yè*. However, this parsing is no longer transparent.

Normally L-toned pronominal possessors (1Sg *mì*, 1Pl *yè*, 2Pl *wò*, 3Sg *nâ*, *bò*) are **raised to H-tone** before the *-(í)yè* compounds in (182b-d) but not before those in (182a,e); see §3.7.4.4. This tone-raising increases the otherwise barely audible distinction between *mì*^H *dé:* ‘my father’ and *mí*^H ^H *dě:* ‘my paternal kinsman’ (182d).

6.2.3.6 Senior/junior kin compounds (*-diyà*, *-nè*)

Same-sex sibling terms distinguish senior from junior lexically: *dèrè* ‘elder same-sex sibling’, *òzò* ‘younger same-sex sibling’.

However, there is a compound-like senior/junior distinction in terms for same-sex siblings of one’s father or mother, and for co-wives of a man, using *-diyà* (senior) and *-nè*

(junior). *-diyà* is a compound-final variant of adjective *diyá* ‘big; grown-up, adult’. *-nè* has no transparent relationship to any adjective (a historical connection to *ènè* ‘child’ is questionable).

(183)	unpossessed	‘my’	gloss
a.	<i>dè:(-mù)</i>	<i>mì</i> ^H <i>dé:(-mú)</i>	‘father’
	<i>dè-diyà(-mù)</i>	<i>mì</i> ^H <i>dé:-diyà(-mù)</i>	‘father’s elder brother’
	<i>dè:-nè(-mù)</i>	<i>mì</i> ^H <i>dé:-nè(-mú)</i>	‘father’s younger brother’
b.	<i>iyà ~ yà-yá</i>	—	‘mother (vocative)’
	<i>iyà-diyà(-mù)</i>	<i>mì</i> ^H <i>iyá-diyá(-mú)</i>	‘mother’s elder sister’
	<i>iyà-nè(-mù)</i>	<i>mì</i> ^H <i>iyá-nè(-mú)</i>	‘mother’s younger sister’

An assistant pronounced *-diyà* with L-tones in possessed *mì*^H *dé:-diyà* (183a), but with H-tones in *mì*^H *iyá-diyá* (183b).

iyà-diyà and *iyà-nè* also denote ‘mother’s (senior/junior) co-wife’. Since men may have two or more wives, this relationship is common. The seniority relationship among the wives can be important. Because of jealousies among co-wives, each of whom is naturally protective of their own children, ‘mother’s co-wife’ corresponds culturally to ‘(evil) step-mother’ in European societies, especially when one’s own mother is deceased.

With kin (and other human) terms that do not ordinarily make a seniority distinction, *diyá* ‘senior’ and *bè-bélé* ‘small (hence junior)’ can be added as **ordinary adjectives** when it is necessary to specify seniority. Examples are *yè*^L *diyá* ‘senior woman (=wife)’ versus *yè*^L *bè-bélé* ‘junior woman (=wife)’, and *sà:*^L *diyá* ‘older sister (of a man)’ versus *sà:*^L *bè-bélé* ‘younger sister (of a man)’. These combinations are treated tonosyntactically like other N-Adj combinations: inalienable *mì* *sà:*^L *bè-bélé* ‘my younger sister’ (adjective controls {L} on noun, no possessor control), alienable *sáyù*^L [*yè* *bè-bélé*] ‘Seydou’s younger wife’ (possessor controls {L} on N-Adj combination).

6.2.3.7 Other composite kin terms

Above great-great-grandparent, the apical male ancestor (i.e. great-great-great-grandfather) is called *sún-tábú-lè*, which is slightly different from (but still transparently associated with) the expression ‘don’t touch (his) ear!’, cf. *sún* ‘ear’ and *tábú-* ‘touch’ (prohibitive *tábú-là*). This is because genealogical relationships based on even more distant ancestral relationships are disregarded.

‘(Woman’s) co-wife’, i.e. another woman married to the same husband, is expressed by a compound of *yè* ‘woman’ and a variant of *lâlù-ŋ* ‘friend, pal’, resulting in *yè-lâl*, plural *yè-lâl-mù*. Unlike *yè* ‘woman’ itself, the compound is treated as inalienable. When possessed, the compound initial is H-toned and the final L-toned: *mì*^{HL} *yé-lâl* ‘my co-wife’.

6.2.3.8 Plural suffix *-yè* after some kin terms

An unusual **plural morpheme** *-yè* may follow certain kin terms, as in *lèzú-yè* ‘(my) maternal uncles’. This form, without an overt possessor, may be used as a formal vocative, or in other contexts as an alternative to an overtly possessed (and perhaps definite) form such as *mì^{LH}lèzú-mù wò* ‘my maternal uncles’. The morpheme *-yè* is also attested in *gàlá-yè* ‘brothers-in-law’, *dè-dé-yè* ‘fathers’, *bà-bá-yè* ‘grandfathers’, *nèrⁿá-yè* ‘paternal aunts’, *sèzú-yè* ‘grandmothers’, and the vocative-only *m̀bó:-yè* and *wáy-yè* ‘my friends!’.

An assistant rejected combinations of *-yè* with *sà:* ‘sister (of man)’, *l̀l̀ù-ŋ* ‘friend, pal’, *tìyè-ŋ* ‘cousin’, *nì:* ‘mother’, and *sàrⁿà* ‘brother (of a woman)’. One issue with the *-yè* suffix is the possibility of confusion with a possessed form of *yè* ‘woman; wife’, which may explain why the suffix *-yè* is added to the unpossessed form of the kin term; compare *lèzú-yè* ‘(my) uncles’ with *mì^{LH}lèzú^Lyè* ‘my uncle’s wife’.

6.2.3.9 Defective and grammatically alienable kin terms

No unpossessed form was elicitable for *tó* ‘agemate’, which occurs only in possessed form: *mì^Htó* ‘my agemate’. The synonym *kàràgà* can be used in both unpossessed and possessed contexts.

Excluded from the inalienable category are nouns whose kinship function is secondary: *yè* ‘woman’ in the possessed sense ‘wife’, *ènè* ‘child’ (plural *èné*) in the possessed sense ‘child (offspring)’. These nouns are treated as regular alienables and take postposed pronominal possessors even in kinship senses (*yè mí-yⁿé* ‘my wife’, *ènè í-yⁿé* ‘your-Sg child’).

6.2.4 Treatment of modifiers following a possessed noun

Some content in the following subsections was summarized schematically in (160) and (161) in §6.1.6.2 above.

6.2.4.1 Possessor-Noun-Adjective

For unpossessed N-Adj combinations, see §6.3 below.

In an **alienable** possessive, the only preposed possessors are nonpronominal. Depending on its tones, the possessor controls either {H(L)} or {L} overlay on the following possessed noun, hence [Poss^HN] or [Poss^LN]. In either case, a following modifying adjective is {L}-toned, resulting in [Poss^HN^LAdj] and [Poss^LN^LAdj]. We can therefore schematize the two types as [Poss^L[N (Adj)]], with a flat {L} overlay extending over the bracketed string, and as [Poss^{HL}[N (Adj)]] with a contoured {HL} overlay whose L-component is realized only on a second word in the target domain (which can only be an adjective). The N-Adj

boundary must be accessible to the implementation rules determining the realization of the contoured tone overlay.

The {L} overlay, which occurs when the possessor contains an H-tone, is illustrated in (184). The adjectives in (184a-d) are all audibly tone-lowered since their lexical melodies contain an H-tone. The nouns in (184c-d) are also audibly tone-lowered. Based on these clear cases, I attribute (covert) tone-lowering to nouns and adjectives that happen to be lexically /L/-toned, like *cìn* ‘stone’.

- (184) a. *án* ^L[*cìn* *jèmè*] (*wò*)
 man ^L[stone black] (Def.InanSg)
 ‘the black stone of a man’ (< *cìn*, *jèmé*)
- b. [*yé* *gè*] ^L[*cìn* *jèmè*] *wò*
 [woman Def.AnSg] ^L[stone black] Def.InanSg
 ‘the black stone of the woman’ (< *cìn*, *jèmé*)
- c. *săydù* ^L[*ínjù* *jàjù*] *wò*
 S ^L[water hot] Def.InanSg
 ‘Seydou’s hot water’ (< *ínjú*, *jàjú*)
- d. *săydù* ^L[*zèmè* *bìn*] *gè*
 S ^L[blacksmith fat] Def.AnSg
 ‘Seydou’s fat blacksmith’ (< *zèmé*, *bǐn*)

The {HL} overlay is illustrated in (185). Within the possessum, the initial noun appears with stem-wide H-tones, followed by an adjective with stem-wide L-tones.

- (185) a. *yè* ^{HL}[*cín* *jèmè*] (*wò*)
 woman ^{HL}[stone black] (Def.InanSg)
 ‘the black stone of a woman’ (*cìn*, *jèmé*)
- b. *yè* ^{HL}[*ínjú* *jàjù*] *wò*
 woman ^{HL}[water hot] Def.InanSg
 ‘a woman’s hot water’ (*ínjú*, *jàjú*)
- c. *yè* ^{HL}[*pé:* ^L*àm*] *gè*
 woman ^{HL}[sheep ^Lplump] Def.AnSg
 ‘a woman’s plump sheep-Sg’ (*pè:*, *àm*)

In **inalienable** possessives, the sequence Poss-N-Adj with nonpronominal possessor is phrased as [Poss [[*nà* N]^L Adj]] with resumptive 3Sg pronoun *nà* if the possessor is singular, and as [Poss [[*bò* N]^L Adj]] with resumptive 3Pl pronoun *bò* if the possessor is plural. The nonpronominal possessor NP is tonally independent of the remainder of the construction, so we can now disregard the possessor NP. The possessed noun is L-toned, but the adjective has

its lexical melody. In the absence of the adjective, the noun has an {H} or {LH} overlay controlled by the possessor. Therefore the {L} overlay on the noun in [[Pron N]^L Adj] is definitely controlled by the adjective, not by the possessor. The tonosyntactic formula is [[Pron N]^L Adj].

That the pronominal possessor is also part of the target domain is shown when the possessor is one that is otherwise H-toned, unlike 3Sg *nà* and 3Pl *bò*. H-toned proclitic pronouns are 2Sg *ó* and 3Logophoric *á* (§4.3.3). They drop to *ò* and *à*, respectively, in (186a-b). This confirms the formula [[Pron N]^L Adj], with the pronoun part of the domain subject to {L} controlled by the adjective.

- (186) a. [*ò* *lèzù*]^L *gàbù* †*gɛ́*
 [2SgPoss uncle]^L tall Def.AnSg
 ‘your-Sg tall uncle’ (< *lèzù*, *ó*^{LH}*lèzù*, *gàbù*)
- b. [*à* *lèzù*]^L *gàbù* †*gɛ́* *wó-m-ù* *wà*
 [LogoSgPoss uncle]^L tall Def.AnSg] come-Ipfv-3SgSbj Quot
 ‘He_v said that his_x tall uncle is coming.’ (< *lèzù*, *á*^{LH}*lèzù*, *gàbù*)

Based on the preceding considerations, I apply the same bracketing to inalienable combinations involving pronominals that are already L-toned, like 1Sg *mì* in (187).

- (187) a. [*mì* *lèzù*]^L *síyɛ́* *gɛ́*
 [1SgPoss uncle]^L good Def.AnSg
 ‘my good uncle’ (< *lèzù*, *mì*^{LH}*lèzù*, *síyɛ́*)
- b. [*mì* *lèzù*]^L *sá-lá-m-ù = wò*
 [1SgPoss uncle]^L bad-AnPl=Def.AnPl
 ‘my bad uncles’ (< *lèzù-m-ù*, *mì*^{LH}*lèzù-m-ù*, *sá-lá*)
- c. [*mì* *àzà*]^L *bìn* *gɛ́*
 [1SgPoss younger.sib]^L fat Def.AnSg
 ‘my fat younger (same-sex) sibling’ (< *àzà*, *mì*^H*àzà*, *bìn*)
 [variant [*mì* *àzà*]^L *bìn* †*gɛ́*]
- d. [*mì* *zù:*]^L *síyɛ́*
 [1SgPoss neighbor]^L good
 ‘my good neighbor’ (*zù:*, *mì*^H*zù:*, *síyɛ́*)

It is interesting that *gàbù* ‘tall’ appears to shift its H-tone to the following definite marker in (186a) above. Other examples are *gàbù* again in (188a) below, and *bìn* from *bîn* in (188b). This tone shift appears to be optional, and limited to /LH/-melody adjectives, which then effectively merge with /L/ melody. One possible analysis is that *gàbù* and *bîn* drop to L-toned, allowing Rhythmic Tone-Raising to apply to the following morpheme. See the discussion of (77a) in §3.7.4.2.

- (188) a. *mì* *lèzù^L* *gàbù* [†]*gɛ́*
 1SgPoss uncle^L tall Def.AnSg
 ‘my tall uncle’ (*lèzù, mì lèzù, gàbù*)
- b. *sǎydù* [*nà* *lèzù^L* *bìn* [†]*gɛ́*]
 S [3SgPoss uncle^L fat Def.AnSg]
 ‘Seydou’s nasty uncle’ (*lèzù, nà lèzù, bìn*)

As noted in §6.2.3.5 and §3.7.4.4, a few composite kin terms idiosyncratically raise preceding L-toned pronominal possessors to H-toned. In these cases, when an adjective is added, the possessor remains H-toned. So from *mí^H LH sà-yé* ‘my sister’s child’ we get (189). Here the adjective controls {L} on the kin term but does not affect the pronominal possessor.

- (189) *mí^H* *sà-yé^L* *síyɛ́* *gɛ́*
 1SgPoss sister-child^(L) good Def.AnSg
 ‘my good nephew/niece’

6.2.4.2 Possessor-Noun-(Adjective-)Numeral

For unpossessed N-(Adj-)Num sequences, see §6.4 below.

Numerals are generally resistant to tone-dropping in YD, except in relative-clause head NPs. For example, the In Poss-N-(Adj-)Num combinations, the numeral retains its tones in my data. This tonosyntactic independence may be related to the fact that numerals, including a unique set of prefixed classifiers, have more syllables than in other Dogon languages.

Alienable possessives including a numeral are illustrated in (190). The noun (190a) and any immediately following modifying adjective (190b) are tone-dropped by the possessor, but the numeral is tonally free. When Poss-N-Adj-Num is inverted to Poss-N-Num-Adj, the favored tonosyntactic phrasing appears to be in two blocks: [Poss^{H/L}N] [Num^L Adj], as in (190c). So here the numeral is tone-dropped, but by the following adjective. Often the prefixed classifier remains H-toned.

- (190) a. *sǎydù* ^L*ʔàlò* *yè-tá:ndù* *gɛ́*
 S ^Lhouse Inan-three Def.InanPl
 ‘Seydou’s three houses’ (< *ʔáló*)
- b. *sǎydù* ^L*nà:* ^L*jèmè-mù* *á-tá:ndù*
 S ^Lcow ^Lblack-AnPl An-three
 ‘Seydou’s three black cows’ (< *nà:*, *jémé*)
- c. *sǎydù* ^L*nà:-mù* *á-tà:ndù^L* *jémé-mù*
 S ^Lcow-AnPl An-three^L black-AnPl
 ‘Seydou’s three black cows’ (after Adj-Num Inversion)

- d. *yè* ^H*ʔóló* *yè-kúlé* *wò*
 woman ^Hhouse Inan-six Def.InanSg
 ‘the six houses of a woman’

Inalienable examples are in (191). As with alienable possession, the numeral is tonally free. The tonosyntactically relevant possessor is always the pronominal proclitic, which is too light to force chunking with the noun. The numeral in (191a-b) is tonally independent. In (191c) it is part of the target domain of the following adjective.

- (191) a. *sé:dù* [*nà* ^{LH}*lèzú-mù* *á-tá:ndù-mù = wò*]
 S [3SgPoss ^{LH}uncle-AnPl An-three-AnPl=Def.AnPl]
 ‘Seydou’s three uncles’
- b. *mì* ^H*dé:-mú* *á-tá:ndù*
 1SgPoss ^Hfather-AnPl An-three
 ‘my three fathers’
- c. *ó* [*lèzù-mù* *bó-kùlè*]^L *síyé-mù = wò*
 2SgPoss [uncle-AnPl An-six]^L good-AnPl=Def.AnPl
 ‘your-Sg six good uncles’ (cf. *ó* ^{LH}*lèzú-mù* ‘your-Sg uncles’)

A numeral is also unaffected by a following (or preceding) **postnominal pronominal possessor** (192). This is as we would expect, since postnominal possessors do not normally control tone overlays.

- (192) a. *ʔóló* *yè-tá:ndù* *mí-yⁿé*
 house Inan-three 1Sg-Poss.InanPl
 ‘my three houses’
- b. *nǎ-yyè* *bó-kúlé* *mí-yⁿè-mù = wò*
 cow-child An-six 1Sg-Poss.An-AnPl=Def.AnPl
 ‘my six calves’

6.2.4.3 Possessor-Noun-...-Demonstrative

A demonstrative is not tone-dropped under the control of a possessor. **Alienable** examples are in (193) below. In some cases, it is difficult to determine whether the possessor or the demonstrative is responsible for the {L} overlay on the noun or on an N-Adj string, for example in (193a,c,d). However, in (193b) the possessum shows the possessor-controlled {H} rather than a demonstrative-controlled {L}. I conclude that nonpronominal possessors trump demonstratives as controllers. The general tonosyntactic formula for alienables is [Poss ⁰N Dem], where superscript ⁰ represents any possessor-controlled overlay, whether {H(L)} or {L}.

- (193) a. *sǎydù* ^L?ǎ̀lò ò̀gó
 S ^Lhouse Prox.InanSg
 ‘this house of Seydou’s’ (< ?ǎ̀lò)
- b. *yè* ^Hpé: ò̀ngé
 woman ^Hsheep Prox.AnSg
 ‘this sheep-Sg of a woman’ (< pé:)
- c. [*zèmé* *gè*] ^Lgùlà ě:
 [blacksmith Def.AnSg] ^La Prox.InanPl
 ‘these axes of a blacksmith’ (< gùlà)
- d. *sǎydù* ^L[?ǎ̀lò *pìlè*] ò̀gó
 S ^L[house white] Prox.InanSg
 ‘this white house of Seydou’s’ (?ǎ̀lò, pìlè)

Inalienable examples are in (194) below. In Poss-N-Dem and Poss-N-(Adj-)Dem, the demonstrative controls {L} on the possessed noun or N-Adj, but also on the possessor pronoun, so 2Sg ó drops to ó^L in (194b). The formula for inalienables is [[Poss N]^L Dem], parallel to [[Poss N]^L Adj]. If a numeral is added, the domain of demonstrative control appears to stop at the possessed noun (194c).

- (194) a. *sǎydù* [*nà* ò̀zò^L ò̀ngé]
 Seydou [3SgPoss younger.sib^L Prox.AnSg]
 ‘this younger brother of Seydou’s’ (< *nà* ^Hó̀zò)
- b. [*ò* *dè:*]^L ò̀míyⁿè
 [2SgPoss father]^L Prox.AnPl
 ‘these fathers of yours (ó^H *dé:-mú*)
- c. *ó* [*ò̀zò* *á-tà:ndù*]^L ò̀míyⁿè
 2SgPoss [sib An-three]^L Prox.AnPl
 ‘these three younger same-sex siblings of yours-Sg’

There is likewise no tonal interaction between a demonstrative and a postnominal possessor (195).

- (195) a. ?ǎ̀lò ó-ń ò̀gó
 house 2Sg-Poss.InanSg Prox.InanSg
 ‘this house of yours-Sg’
- b. pé: ó-yⁿè ò̀ngé
 sheep 2Sg-Poss.An Prox.AnSg
 ‘this sheep of yours-Sg’

6.2.4.4 Possessor-Noun-...-‘all’

Universal quantifiers *cêm* and *pú→* ‘all’ are not affected tonally by a preposed possessor. This applies to both alienables with preposed nonpronominal possessors (196a) and to inalienables with their obligatory pronominal possessor (196b).

- (196) a. *săydù* ^L*ʔàlò* *cêm*
 S ^Lhouse all
 ‘all (of) Seydou’s houses’
- b. *săydù* [*nà* ^{LH}*lèzú-mù = wò* *pú→*]
 S [3SgPoss ^{LH}uncle-AnPl=Def.AnPl all]
 ‘all (of) Seydou’s uncles’

6.2.5 Recursive possession

Recursive possession ([X’s Y]’s Z) is unproblematic. Y and Z may be any combination of alienable and inalienable possessums. [X’s Y] will always contain an H-tone, so if Z is alienable it will always have the {L} rather than {H} overlay. If Z is inalienable, [X’s Y] may be resumed by a 3Sg or 3Pl pronominal proclitic, like any inalienable possessor, but some kin-term products are compound-like and omit the resumptive. In either case, inalienable Z has its lexical choice of either {H} or {LH} inalienable possessum overlay.

(197a) has inalienable Y and alienable Z. (197b) has alienable Y and Z (body parts are not morphosyntactically inalienable). (197c-e) has inalienable Y and Z, but the compound-like ‘father-mother’ in (197d-e) is not split by a resumptive pronoun.

- (197) a. [*mì* ^H*dé:*] ^L*ʔàlò*
 [1SgPoss ^Hfather] ^Lhouse
 ‘my father’s house’ (< *dè:*, *ʔáló*)
- b. [*ìnjè* *mí-yⁿé*] ^L*kò:* *wò*
 [dog 1Sg-Poss.An] ^Lhead Def.InanSg
 ‘my dog’s head’ (< *ìnjè*, *kó:*)
- c. [*mì* ^{LH}*lǎl*] [*nà* ^{LH}*lèzú*]
 [1SgPoss ^{LH}friend] [3SgPoss ^{LH}uncle]
 ‘my friend’s uncle’ (< *làlù-ŋ*, *lèzù*)
- d. [*mì* ^H*dé:*] ^H*ní:*
 [1SgPoss ^Hfather] ^Hmother
 ‘my father’s mother’ (< *dè:*, *nì:*)

- e. [sǎydù [nà ^Hdé:]] ^Hní:
 [S [3SgPoss ^Hfather]] ^Hmother
 ‘Seydou’s father’s mother’ (< *dè:*, *nì:*)

Phonetically, the sequence of two {H}-toned possessed inalienable nouns, like ‘father’ and ‘mother’ in (197d-e), is articulated with a variable degree of downstep on the second noun.

6.3 Noun plus adjective

6.3.1 Noun plus regular adjective

This section discusses the form of simple N-Adj combinations, without a possessor. Representative modifying adjectives were listed in §4.5, above. These adjectives immediately follow the modified noun within the NP. It is possible for more than one adjective to occur with a noun (198d). The sequence of a noun with any co-occurring adjectives, but excluding any determiners or quantifiers, is here called **core NP**. A core NP without further morphology can function as an indefinite NP in a sentence. Within a core NP, all nonfinal words are tone-dropped to {L}, while the final word retains its lexical tones unless it is under the control of an external element (i.e. a demonstrative or relative clause). In some cases, like ‘rope’ in (198c-d), the lexical tone melody is already /L/ so there is no audible change.

(198) Core NPs

- a. *àn*^L *pèy*
 man^L old
 ‘old man’ (< *án*)
- b. *màngòrò*^L *gǒm*
 mango^L rotten
 ‘rotten mango’ (< *mángòrò*)
- c. *sùŋ*^L *jèmé*
 rope^L black
 ‘black rope’ (< *sùŋ*)

For combinations of N-Adj with a preposed possessor, see §6.2.4.1 above.

6.3.2 Specific indefinite adjective *gàmbúlè(-mù)* ~ *gàmbílè(-mù)*

The adjective glossed ‘(a) certain X’ with a countable singular noun X, or ‘some (of the) X’ with a mass noun, is *gàmbúlè* ~ *gàmbílè*. For animate ‘certain Xs, some (but not all) Xs’ with

countable plurals, add suffix *-mù*. Nouns are tone-dropped before *gàmbùlè*, as before other true adjectives: *?óné* ‘goat’, *?àné*^L *gàmbùlè-mù* ‘certain (=some) goats’.

Cognates and functional counterparts in other Dogon languages are treated variously as modifying adjectives or as numeral-like quantifiers, with tonosyntactic consequences. In YD, *gàmbùlè* is an adjective, so it tone-drops a preceding modified noun.

Semantically, *gàmbùlè* either selects a specific individual from a set, or if plural it partitions off a subset of individuals from the set. Often it occurs twice in a parallelistic construction that exhaustively partitions the larger set. Free translations like ‘some ..., (but/while) others ...’ are appropriate.

- (199) *[èné*^L *gàmbùlè-mù = wò]* *yà* *b-é:* ,
 [children^L certain-AnPl=Def.AnPl] Real be-3PISbj
gàmbùlè-mù = wò *yà* *ún-Ø*
 certain-AnPl=Def.AnPl Real go.Pfv-3PISbj
 ‘Some (=a specific subset) of the young people are (still) around, (while) some (=the others) have gone away.’ (< *èné*)

6.3.3 Expansions of adjective

6.3.3.1 Adjective sequences

Two or more adjectives may co-occur in an NP. The linear ordering of two descriptive adjectives is generally free. For example, ‘big’ and ‘white’ can occur in either order (200a-b). Only the final adjective surfaces with its lexical tone melody. The preceding words are tone-dropped under the control of the final adjective.

- (200) a. *[?àlò* *pílè]*^L *dìyá* *wò*
 [house white]^L big Def.InanSg
 ‘the big white house’
- b. *[?àlò* *dìyà]*^L *pílé* *wò*
 [house big]^L white Def.InanSg
 [= (a)]
- c. *[sùŋ* *jèmè]*^L *dènù*
 [rope black]^L short
 ‘short black rope’ (*sùŋ*, *jèmé*)
- d. *[?àlò* *dìyà]*^L *jèmé*
 [house big]^L black
 ‘short black rope’ (*?óló*, *dìyá*)

Occasionally there is a semantic bracketing relationship that forces a particular linear order, as when an N-Adj sequence is lexicalized or when an quantificational adjective like *gàmbúùè* ‘certain (ones)’ has scope over an N-Adj combination.

6.3.3.2 Adjectival intensification (‘very ADJ’)

Some expressive adverbials function as lexicalized adjectival intensifiers. One might compare them with English phrases like *snow white*, but the expressive adverbials are not exemplars as in English, and they usually have no phonological connection with ordinary lexical stems. Often they are nonsense iterations or otherwise marked phonologically. Many adjectival intensifiers are included in the extensive lists of expressive adverbials in §8.4.7.4-7.

An adjectival intensifier may occur by itself, without the associated adjective (201a). When it does combine with the adjective, the intensifier follows it. In this combination, the adjective is often tone-dropped. This could be analysed as a compound-like fashion, with the adjective functioning as an {L}-toned initial, cf. §5.1.3. Or it could simply be that the adjective, as a prosaic lexical stem, has its pitch lowered in anticipation of the more interesting intensifier to follow. One can elicit NPs with a definite marker following the adjective-intensifier combination, showing that the intensifier can occasionally function as part of an NP (201c). Animate plural *-mù* may even be added to the intensifier in this combination (201d). However, this type of integration of intensifiers into multi-word NPs is probably more typical of elicited than of naturally-occurring utterances.

- (201) a. *kúsú-kúsú* *bò-∅*
 very.black be-3SgSbj
 ‘It is jet black.’
- b. [*nà*:^L *jèmè*^L-[*kúsú-kúsú*]] *wò = bé-m*
 [*cow*^L black-[very.black]] see=Past-1SgSbj
 ‘I saw a jet-black cow.’ (< *jèmé*)
- c. [*nà*:^L *jèmè*-[*kúsú-kúsú*] *gè*] *wò = bé-m*
 [*cow*^L black-[very.black] Def.AnSg] see=Past-1SgSbj
 ‘I saw the jet-black cow.’
- d. [*nà*:^L *jèmè*-[*kúsú-kúsú-mù*] *bó-nó:*] *wò = bé-m*
 [*cow*^L black-[very.black-AnPl] An-two] see=Past-1SgSbj
 ‘I saw two jet-black cows.’

gírⁿè ‘very’ can be combined with any following adjective, in modifying or predicative function. An assistant strongly preferred the extended form of the adjective in this combination (§11.4.4). He volunteered that *gírⁿè* and lexical intensifiers do not co-occur.

- (202) a. *gìrⁿè* *gàb-í:ⁿ* *bò-Ø*
 very tall-Adj `be-3SgSbj
 ‘He/she is very tall.’
- b. *ʔàlò^L* *gìrⁿè* *zàlá-yⁿ* *wò*
 house^L very long-Adj Def.InanSg
 ‘the very long house’

6.3.3.3 ‘Good to eat’

The phrasing that expresses this sense is not an expansion of the adjective, rather it is an adjectival predicate (§11.4) with a verbal noun as subject: not ‘mangoes are [good [to eat]]’ rather ‘[eating mangoes] is good’. (203a) is therefore syntactically parallel to (203b).

- (203) a. *[[mángòrò* *gè]* *mìrⁿé-lé]* *ěl-m* *bò-Ø*
 [mango Def.InanPl swallow-VblN] sweet-Pred be-3SgSbj
 ‘Eating mangoes is good.’
- b. *[bìdé* *bìdé-lé]* *ěl-m* *bò-Ø*
 [work(n) work-VblN] sweet-Pred be-3SgSbj
 ‘Doing work is good.’

6.4 Noun plus cardinal numeral

The forms of numerals, including composite numerals, were presented in §4.7 above. This section describes unpossessed NPs of the type N-(Adj-)Num.

A cardinal numeral follows the core NP (i.e. the noun plus any modifying adjectives) but precedes any determiners. A numeral from ‘2’ to ‘10’ begins with a classifier, either *yè-* (inanimate plural) or *á-* or *bó-* (animate plural), occasionally *nò-* (human). For the choice between *á-* and *bó-* see §4.7.1.2. Animate core NPs have their regular plural suffix *-mù* before the numeral. Our examples begin with indefinite phrases that include a numeral (204).

(204) Indefinite NP ending in numeral

- a. *án-mù* *á-nó:*
 man-AnPl An-two
 ‘two men’
- b. *[nà:^L* *bĩn-mù]* *bó-píyé]*
 [cow^L fat-AnPl] An-ten
 ‘ten fat cows’

- c. *zàmdúru-mù* *bó-tá:ndù*
 donkey-AnPl An-three
 ‘three donkeys’

With the irregular noun ‘child’ (singular *ènè*, plural *èné* without animate plural suffix, see §4.1.2), the noun *nò* ‘person’ may be added in a quasi-appositional function. It is prosodically grouped with the numeral and here functions as a marginal numeral classifier (205a). A regular construction with *á-* is also possible (205b).

- (205) a. *èné* *nò-píyéí*
 children **person**-ten
 ‘ten children’
- b. *èné* *á-píyéí*
 children **An**-ten
 [= (a)]

Examples of strings with a numeral followed by a definite marker are in (206). If the noun is inanimate, the regular definite marker is simply added to the indefinite counterpart (206a). If the noun is animate, the most notable detail is that animate plural *-mù* is **repeated** on the numeral (206b).

- (206) a. *cín* *yè-píyéí* *gè*
 stone Inan-ten Def.InanPl
 ‘the ten stones’
- b. *nà:-mù* *bó-píyéí-mù = wò*
 cow-**AnPl** An-ten-**AnPl**=Def.AnPl
 ‘the ten cows’

For combinations including a preposed possessor, e.g. Poss-N-(Adj-)Num, see §6.2.4.2 above.

6.5 Noun plus determiner

6.5.1 Prenominal definite absent

Several Dogon languages allow an inanimate pronoun (*kù*, *kó*, etc.) in possessor-like form to precede an NP in strong discourse-definite (‘that same ...’) function. This construction is not attested in YD, which instead makes use of near-distant demonstratives (§4.4.2.1-2).

6.5.2 Demonstrative pronoun after N(-Adj)(-Num)(-Poss)

Forms of demonstrative pronouns are in §4.4.2.1. They occur in the position after a postposed pronominal possessor, which in turn normally follows numerals and adjectives if they are present.

Demonstrative pronouns are tonosyntactic controllers. When they directly follow a core NP, i.e. N(-Adj), without possessor, the core NP is tone-dropped. The output with a simple noun is [N^L Dem]. If an adjective is added, we cannot be certain whether the tonosyntax is cyclical, as in [[N^L Adj]^L Dem] or (with first-cycle tonal erasure) [[N^H Adj]^L Dem], or single-step as in [[N Adj]^L Dem]. This is because adjectives and demonstratives are both tonosyntactic controllers, imposing {L} on their target domains.

Numerals are rather resistant to tone-dropping. As indicated elsewhere, this may be because of their multisyllabicity. In combinations like N-Num-Dem, usually either the N-Num string is tone-dropped as a whole, or the numerals retains at least the H-tone on their classifying prefix and also protect the noun from being tone-dropped.

Typical inputs and outputs are schematized in (207).

(207)	without Dem	with Dem
a.	N	N ^L Dem
b.	N ^L Adj	[N Adj] ^L Dem
c.	N Num	[N Num] ^L Dem
d.	[N ^L Adj] Num	[N Adj Num] ^L Dem
		or: [N ^L Adj] [Num ^L Dem] (i.e. in chunks)

Examples are in (208). Counterparts without the demonstrative are in parentheses after the free translation. The alternatives for (207d) are seen in the variable tonal form of the adjectives in (208d-e).

(208)	a.	<i>ʔə̀lò</i> ^L	<i>ɲgó</i>	
		house ^L	Prox.InanSg	
		‘this house’ (< <i>ʔəló</i>)		
	b.	<i>[ʔə̀lò</i>	<i>jèmè]</i> ^L	<i>ɲgó</i>
		[house	black] ^L	Prox.InanSg
		‘this black house’ (< <i>ʔə̀lò</i> ^L <i>jèmé</i>)		
	c.	<i>[ʔə̀lò</i>	<i>yè-kùlè]</i> ^L	<i>ě:</i>
		[house	Inan-six] ^L	Prox.InanPl
		‘these six houses’ (< <i>ʔəló</i> <i>yè-kúlé</i>)		

- d. $[\text{ʔ}\text{à}\text{lò} \quad \text{jèmè} \quad \text{yè-kùlè}]^L \quad \text{ě:}$
 $[\text{ʔ}\text{à}\text{lò}^L \quad \text{jèmé}] \quad \text{yè-kúlé} \quad "$
 [house black Inan-six Prox.InanPl
 ‘these six black houses’ (< $\text{ʔ}\text{à}\text{lò}^L \text{jèmé yè-kúlé}$)
- e. $[\text{ʔ}\text{à}\text{nè} \quad \text{jèmè} \quad \text{à-kùlè}]^L \quad \text{ðmíy}^n\text{è}$
 $[\text{ʔ}\text{à}\text{nè}^L \quad \text{jèmé}] \quad \text{á-kùlè}^L \quad "$
 goat black An-six Prox.AnPl
 ‘these six black goats’ ($[\text{ʔ}\text{à}\text{nè}^L \text{jèmé}] \text{á-kúlé}$)
- f. $[\text{ʔ}\text{à}\text{lò} \quad \text{yè-tà:ndù}]^L \quad \text{màyé}$
 $\text{ʔ}\text{á}\text{ló} \quad \text{yè-tá:ndù} \quad "$
 house^(L) Inan-three^(L) FarDist.InanPl
 ‘those three houses’

For combinations involving both a demonstrative and a possessor, see §6.2.4.3 above.

6.5.3 Definite marker plus noun

Definite markers are *gè* (animate singular, inanimate plural) and *wò* (animate plural, inanimate singular). As pointed out elsewhere, the number value is flipped from animate to inanimate. Definite markers do not control tone-dropping on preceding nouns or other words, as they do in a minority of Dogon languages including Nanga. The tones of the definite markers are raised to [†]*gé* and [†]*wó* after L-toned NPs by Rhythmic Tone-Raising (§3.7.4.2), see §4.4.1. The † diacritic indicates that the H-tone is due to this process and is not lexical.

Definite markers may occur in the same linear position as demonstratives, i.e. following a numeral if one is present. However, *wò* often encliticizes, especially to animate plural *-mù*. In fact, *wò* can jump across a numeral in order to encliticize to a preceding word ending in *-mù*. Nonsingular numerals do not normally end in (redundant) *-mù*, but when *wò* does not jump across it, the numeral “grows” a final *-mù* to create an unexpected *-mù = wò*, as in (209b) below. In other words, *-mù = wò* is in the process of fusing into a portmanteau.

-mù = wò is subject to regular tonal processes. /L/-melody nouns that have H-toned *-mú*, like *pè:-mú* ‘sheep-Pl’, have animate plural definite *-mú = wò*. Those that have L-toned *-mù*, like *nà:-mù* ‘cows’, have *-mù = wó*. Nouns whose melodies contain an H-tone have *-mù = wò*.

Segmentally, *-mù = wò* usually **contracts** to phonetic [mɔ:], with -ATR or at least open vowel, preserving the tones of the uncontracted combination. To make the morphemic structure transparent, in texts I usually transcribe as *-mù = wò* with the enclitic boundary =, or just as *-mù wò*, adjusting tone markings as needed.

Two ways to say ‘the two women’ are (209a-b). In (209b), *wò* has relocated leftward by attraction to *-mù*. In (209a) this movement does not occur, so the numeral “grows” a *-mù* suffix. In the absence of a definite marker, *-mù* is not suffixed to the numeral (209c).

- (209) a. *yè-mù* *nó:-mù = wò*
 woman-AnPl two-AnPl=Def.AnPl
 ‘the two women’
- b. *yè-mù = †wó* *á-nù*
 woman-AnPl=Def.AnPl An-two
 ‘the two women’
- c. *yè-mù* *(á-)nó:*
 woman-AnPl (An-)two
 ‘two women’

Similar cliticization and contraction of *wò* occurs with *èné* ‘children’, the idiosyncratic plural of *ènè* ‘child’. Plural *èné* combines with encliticized animate plural definite *wò* as *èné = wò* ‘the children’, often contracted to phonetic [ènô:]. The syntax is the same as for ‘the women’ when a numeral is added.

The other definite marker, *gè*, has no special tendency to encliticize and its initial stop prevents contraction with a preceding vowel. It does not normally jump leftward over a numeral to encliticize to a preceding word. (210a) shows the usual N-Num-Def linear order. The reordered version (210b) was accepted by an assistant but it does not seem to occur spontaneously, so I tag it with a question mark.

- (210) a. *cìn* *yè-nó:* *gè*
 stone Inan-two Def.InanPl
 ‘the two stones’
- b. ? *cìn* †*gè* *yè-nó:*
 stone Def.InanSg Inan-two
 [= (a), marginal]

Definite markers follow postnominal possessor pronouns when both are present. For animate plural NPs, the possessor regularly ends in animate plural *-mù*, agreeing with the noun, so there is no need for animate plural definite *wò* to jump leftward over the numeral in order to encliticize to *-mù*.

- (211) *nà:-mù* *ó-mù = wò*
 cow-AnPl 2Sg-Poss.AnPl=Def.AnPl
 ‘your-Sg cows (definite)’

6.6 Universal and distributive quantifiers

6.6.1 ‘All’

Universal quantification (‘all’) is covered in §6.6.1.1-3 below, followed by distributive ‘each’ in §6.6.2 and by comments on interactions with negation in §6.6.3.

6.6.1.1 ‘All’ quantifiers (*cêm*, *pú→*) in NPs

cêm ‘all’, also found in Jamsay, is the common NP-final universal quantifier. It follows determiners (212a) and numerals (212b). It can be used absolutely, i.e. as a noun ‘all, everything’ (212d). However, human ‘everyone’ is expressed as the NP *nò-mó=wò cêm*, lit. ‘all the people’. *cêm* has no effect on the tones of preceding words in the NP, and is not itself subject to tone-dropping controlled by a possessor.

- (212) a. [*?áíó* *gè* *cêm*] *yà* *pílé-Ø*
 [house Def.InanPl **all**] Real fall.Pfv-3SgSbj
 ‘All the houses fell.’
- b. [*án-mù* *tá:ndù-mù=wò* *cêm*] *wò-bé-m*
 [man-AnPl three-AnPl=Def.AnPl **all**] see-Past-1SgSbj
 ‘I saw all three (of the) men.’
- c. [*yú* *wò* *cêm*] *yà* *úbíyé-Ø*
 [millet Def.InanSg **all**] Real spill.Pfv-3SgSbj
 ‘All the millet (was) spilled.’
- d. *cêm* *yà* *nìyⁿé-Ø*
all Real drink.Pfv-3SgSbj
 ‘He/She drank everything.’

The regionally ubiquitous (e.g. Fulfulde, Jamsay) emphatic universal quantifier is also found, in the form *pú→* with variant *fú→*. It may be substituted for *cêm* in the preceding examples. However, *nò pú→* ~ *nò fú→* ‘everyone’, as in (780) in the sample text, has a bare noun stem, compare the synonymous *nò-mó=wò cêm* mentioned above. *pú→* may also follow *cêm* (213).

- (213) [*yú* *wò* *cêm* *pú→*] *yà* *úbíyé-Ø*
 [millet Def.InanSg **all** **all**] Real spill.Pfv-3SgSbj
 ‘All the millet (was) spilled.’

In the high-frequency combinations *izèn^L cêm* and *izèn^L pú→*, both meaning ‘every day’, the noun *izèn* ‘day’ idiosyncratically drops its tones. Likewise the synonymous *bàl-lègè^L pú→*

‘every day’ from the less common *bàl-légè* ‘day’ (§8.4.7.3). However, tone-dropping does not occur in other combinations: *cí pú→* or (synonymous) *cí cêm* ‘every thing’.

Postpositions and the accusative suffix *-i: ~ -y:*, if present, follow *cêm* or *pú→*, showing that these quantifiers are still internal to the NP, even though they sometimes seem adverbial (like floating *all* in English). An example with *pú→* is (214).

- (214) *[nò pú→](-y)* *yà* *dèmé-∅*
 [person **all**](*-Acc*) Real hit.Pfv-3SgSbj
 ‘He/She hit all the people.’

6.6.1.2 ‘All’ quantifiers with pronouns

Both *cêm* and *pú→* may combine with pronouns. The pronouns occur in their nonsingular ‘all/together’ forms (§4.3.1.2).

- (215) category with *cêm* with *pú→*
- | | | | |
|----|---------|-----------------|-----------------|
| a. | 1Pl | <i>y-â: cêm</i> | <i>y-â: pú→</i> |
| | 2Pl | <i>w-â: cêm</i> | <i>w-â: pú→</i> |
| | 3LogoPl | <i>â: cêm</i> | <i>â: pú→</i> |
| b. | 3Pl | <i>bó cêm</i> | <i>bó pú→</i> |

The simple pronominal object in (216a) is universalized in (216b).

- (216) a. *yè-y* *yà* *dèmé-∅*
 1Pl-Acc Real hit.Pfv-3SgSbj
 ‘He/She hit us.’
- b. *[yâ: cêm] (-i:)* *yà* *dèmé-∅*
 [1Pl **all**] (*-Acc*) Real hit.Pfv-3SgSbj
 ‘He/She hit all of us.’

6.6.1.3 *kúnú* ‘entire, whole, intact’

The adjective *kúnú* is added to nouns denoting well-bounded entities: *cì^L kúnú* ‘(the) whole thing’, *dàmà^L kúnú* ‘(an/the) entire village’, *zògò^L kúnú* ‘(an) intact (uncut) watermelon’.

The phrases in (217) consist of a noun denoting a time interval plus *kúnú*. In (217a), the nouns are *dènùŋ* ‘day (entire daytime period)’, variant *dèr^{”(i)ŋ}*, and its antonym *nàyŋ* ‘night (entire nighttime period)’. Contrast *ízèn* ‘day’ (as temporal locator) and *dèndà:* ‘night’ (general term).

- (217) a. *dènùŋ^L kúnú* ‘all day (long)’
nàyŋ^L kúnú ‘all night (long)’
- b. *sòà:^L kúnú* ‘all month (long)’
àrⁿàgùzù^L kúnú ‘all year (long)’

6.6.2 ‘Each’ (*kámá*, *pú→*)

kámá occurs with a handful of nouns denoting ontological categories. The combinations *nò^L kámá* ‘each person’ (also *nò^L kámá cêm* with the addition of *cêm* ‘all’) and *cì^L kámá* ‘anything, whatever’ in (780) can occur in positive clauses with something like distributive sense. However, they are more often negative-polarity items, under the scope of a clause-level negative, or otherwise nonspecific: ‘(not) anyone’, ‘(not) anything’. Other combinations attested as negative-polarity items are *òmò^L kámá* ‘(not) anywhere’ in (786) and *dòm^L kámá* ‘(not) a word’ in (235a-b). An assistant rejected combinations of *kámá* with other nouns like ‘man’, e.g. *#àn^L kámá* ‘each man’.

nò ‘person’ and *dòm* ‘talk, speech, word(s)’ are lexically L-toned (in part, see §4.1.2), but *kí ~ cí* ‘thing’ and *òmó* ‘place’ have lexical melodies with an H-tone, so the L-tones in *cì^L kámá* and *òmò^L kámá* indicate that *kámá* controls tone-dropping, like adjectives and demonstratives but unlike most quantifiers including numerals. Also like adjectives, *kámá* may occur in relative clause internal heads, see (592a) in §14.1.10. However, *kámá* differs from regular modifying adjectives in its tonal interaction with an immediately following locative postposition; compare ... *kámá nà* (238d) with ... *pílé ’ná* (237a).

For other nouns, distributivity is not sharply distinguished from universality. The combination of a noun or pronoun denoting a set plus *pú→* ‘all’ can be translated in different contexts as ‘all’ or ‘each’. A distributive reading may be forced by a singular as opposed to plural noun preceding the quantifier. An example where this morphology plus a reciprocal context forces a distributive reading is (735). However, in general ‘all Xs’ and ‘each X’ are not reliably distinguished: *án-mù pú→* ‘all (of the) men; each man’; *y-â: pú→* ‘all of us; each of us’. Tone-dropping on nouns or pronouns has not been observed before *pú→*.

Distributivity is more reliably expressed by an iterative distributive numeral (§4.7.1.6) somewhere in the clause (218a), or by iterative *tùmày-túmáy ~ tù-túmáy* ‘one by one’ within the quantified NP itself (218b).

- (218) a. [*y-â: pú→*] [*témèdèrè yè-nó:-nò:*] *bèlá-m-iy*
 [1PI-all **all**] [hundred Inan-**two-two**] get-IPfv-1PISbj
 ‘We will all get two hundred each (riyals, i.e. 1000 CFA).’
- b. [*yè^L tùmày-túmáy pú→*] *pè: ndà-m-è*
 [woman^L **one-one all**] sheep give-IPfv-3PISbj
 ‘They will give a sheep to each/every woman.’

6.6.3 Universal and distributive quantifiers with negation

Under negation, *kámá* ‘each, any’ has wide scope (219a) while *cêm* ‘all’ (219b) has narrow scope. Emphatic *pú→* is not ordinarily used under negation.

- (219) a. [ci^L *kámá*] *?éǵá-li-Ø*
 [thing^L **each**] eat.meal-PfvNeg-3SgSbj
 ‘He/She didn’t eat anything.’
- b. [*nàmà* †*wó* *cêm*] *kúbó-lù-m*
 [meat Def.InanSg **all**] eat.meat-PfvNeg-1SgSbj
 ‘I didn’t eat all the meat.’

Example (219a) can be paraphrased as ‘for each X, not [he/she ate X]’. (218b) can be paraphrased as ‘not [for all X [I ate X]]’.

‘(Not) at all’ forms that can be added to emphasize negation include the interjection-like *fěy* (< Fulfulde) and the adverb *kúwò*. The widespread Arabic loan *àbádá* ‘never’ or ‘absolutely not’ is also in use.

6.7 Accusative marker (-ì ~ -ỵ)

The accusative marker behaves like a postposition in being added once, at the end of an NP, where it is realized as a suffix (or enclitic) on the final word. It does not co-occur with other postpositions. It occurs primarily with **definite animate direct objects**, and animate recipients with the verbs ‘give’ and ‘show’. It is very common after animate pronouns, optional and noticeably less common after nonpronominal animate NPs. It is uncommon with inanimate NPs, though it is possible when the reference is definite. It does not occur with inanimate pronoun *kó*. Compare locative adverb *kóy* ‘just over here’ (§4.4.3.1).

Segmentally, the suffix appears as *-ì*: after a consonant, but desyllabifies to *-ỵ* after a vowel. The tone is low, except when raised to high after an L-toned noun or adjective by Rhythmic Tone-Raising: *àzègè-ỵ* ‘animal’, *nà:-ỵ* ‘cow’.

Animate plural *-mù* assimilates, resulting in *-mì-ỵ* (subject to tone rules): *púlá-mì-ỵ* ‘Fulbe(s)’, *pè:-mí-ỵ* ‘sheep-Pl’, *nà:-mì-ỵ* ‘cows’.

Before *-ỵ*, pronouns take the same proclitic form they have as subject pronominals in nonsubject relatives. Most pronominal proclitics are L-toned, but 2Sg and logophoric singular are H-toned. In these combinations, *-ỵ* becomes H-toned *-ỵ* either by spreading after an H-tone, or by Rhythmic Tone-Raising after an L-tone: 3Sg *nà-ỵ*, 1Pl *yè-ỵ*, 2Sg *ó-ỵ*, 3Logophoric *á-ỵ* (§4.3.1).

Examples of direct objects are in (220). In (220a) and similar examples, accusative *-ì* ~ *-ỵ* after the pronoun is regularly heard in freely elicited examples, but an assistant accepted a version without *-ì* ~ *-ỵ*. In (220b) and similar examples with nonpronominal animate objects, *-ì* ~ *-ỵ* is usually absent in freely elicited examples, but an assistant accepted versions with *-ì* ~ *-ỵ*. In (220c) and similar examples with inanimate objects, *-ì* ~ *-ỵ* is absent

in freely elicitable examples, but an assistant accepted versions with *-ì: ~ -ỳ* in special contexts. In (220c), for example, he stated that *-ì: ~ -ỳ* might occur in the context of an otherwise stoneless area where the presence of one stone stood out.

- (220) a. *[éba nà] ó-ý wò = bé-m*
 [market Loc] 2Sg-**Acc** see=Past-1SgSbj
 ‘I saw you-Sg in the market.’
- b. *săydù(-y) wà-lú-m*
 S(-**Acc**) see-PfvNeg-1SgSbj
 ‘I didn’t see Seydou.’
- c. *[cìn^L tùmá→(-ỳ)] wò = bé-m*
 [stone^L one-(**Acc**)] see=Past-1SgSbj
 ‘I saw one stone.’

The indirect object (i.e. recipient) of ‘show’ and ‘give’ is treated as a direct object. This NP is ordinarily animate. In freely elicited examples, *-ì: ~ -ỳ* is rather common in these constructions with nonprominal animate NPs as recipients. In (221b), the tones in underlying ^{/LH}*lăl-ì:/* are realigned (as the result of resyllabification of the medial *l*) to result in *lâl-î:*.

- (221) a. *săydù-y ízó yà dámdé-m*
 S-**Acc** fish Real show.Pfv-1SgSbj
 ‘I showed (a) fish to Seydou.’
- b. *[mì^{LH} lâl]-î: bú:dù yà ndé-m*
 [1SgPoss ^{LH}friend]-**Acc** money Real give.Pfv-1SgSbj
 ‘I gave money to my friend.’ (< *mì^{LH} lăl*)
- c. *àpàn-î: yú yà ndé-m*
 bird-**Acc** millet Real give.Pfv-1SgSbj
 ‘I gave (some) millet (grain) to a bird.’
- d. *tól-ì: yú yà ndé-m*
 pig-**Acc** millet Real give.Pfv-1SgSbj
 ‘I gave (some) millet (grain) to a pig.’
- e. *èmà nà-ý yà ndé-m*
 sorghum 3Sg-**Acc** Real give.Pfv-1SgSbj
 ‘I gave him/her (some) sorghum.’

When present in a multi-word NP, the accusative suffix appears phrase-finally, like a postposition. For example, definite *nà:* [†]*gé* ‘the cow’ has accusative form *nà:* [†]*gé-ý*, and

adding universal quantifier *cêm* produces *nà:-mù* ^ˈ*wó cêm-ì:* ‘all the cows’ (after resyllabification of /cêm-ì:/).

7 Coordination

7.1 NP conjunction

7.1.1 NP conjunction ('X and Y') (*mì→* 'and')

The conjunctive particle *mì→* 'and' follows both coordinands in a parallelistic construction. It is related to instrumental-comitative postposition *mì* (§8.1.2). The H-toned form *mí→* occurs after an L-toned constituent by Rhythmic Tone-Raising (§3.7.4.2). However, the actual pitch is subject to intonational modification, so the first *mì→* has relatively high pitch (nonterminal intonation) and the second has low pitch (terminal intonation). Thus in (222a), the (phonologically) H-toned [†]*mí→* at the end is usually lower-pitched than the (phonologically) L-toned *mì→* in the middle. The intonational effects are suggested by the word-final downstep and upstep diacritics in (222a). In (222b-d) and in textual transcriptions I often intonational diacritics except when the effects are conspicuous. Upstep [†] **preceding** the particle, as in [†]*mí→*[†] at the end of (222a), is phonological rather than intonational, indexing the application of Rhythmic Tone-Raising.

- (222) a. [*án-mù* *mì→*[†]] [*yè-mù* [†]*mí→*[†]]
 [man-AnPl **and**] [woman-AnPl **and**]
 'men and women'
- b. [*pè:-mú* *mì→*] [*?óné-mù* *mì→*]
 [sheep-AnPl **and**] [goat-AnPl **and**]
 'sheep-Pl and goats'
- c. [*pè:* [†]*gé* *mì→*] [*?óné* *gè* *mì→*]
 [sheep Def.AnSg **and**] [goat Def.AnSg **and**]
 'the sheep-Sg and the goat'
- d. [*íyé* *mì→*] [*éw* *mì→*] *bídá-m-ìy*
 [today **and**] [tomorrow **and**] work-Ipfv-1PlSbj
 'We will work today and tomorrow.'

The series may expand to three or more conjuncts (223).

- (223) [*pè:-mú* *mì→*] [*?óné-mù* *mì→*] [*nà:-mù* [†]*mí→*]
 [sheep-AnPl **and**] [goat-AnPl **and**] [cow-AnPl **and**]
 'sheep-Pl, goats, and cows'

7.1.2 Conjunction of pronouns

When one or both of the conjuncts is a personal pronoun, it takes proclitic rather than independent form (§4.3.1). That is, the pronoun is L-toned for 1Sg, 1Pl, 2Pl, 3Sg, and 3Pl, but H-toned for 2Sg and for 3Logophoric. 3Logophoric also merges singular with plural in this series. *mì*→ becomes H-toned after all of the proclitics, see (70) in §3.7.4.1.

(224)	category	independent	proclitic	‘and ...’
	1Sg	<i>mí</i>	<i>mì</i>	<i>mì</i> ^H <i>mí</i> :
	2Sg	<i>ó</i>	<i>ó</i>	<i>ó</i> ^H <i>mí</i> →
	1Pl	<i>yé</i>	<i>yè</i>	<i>yè</i> ^H <i>mí</i> :
	2Pl	<i>wó</i>	<i>wò</i>	<i>wò</i> ^H <i>mí</i> :
	3Sg	<i>ná</i>	<i>nà</i>	<i>nà</i> ^H <i>mí</i> :
	3Pl	<i>bó</i>	<i>bò</i>	<i>bò</i> ^H <i>mí</i> :
	3LogoSg	<i>á</i>	<i>á</i>	<i>á</i> ^H <i>mí</i> →
	3LogoPl	<i>á-mù</i>	<i>á</i>	<i>á</i> ^H <i>mí</i> →

An example of two conjoined pronouns is (225).

(225)	<i>[ó</i> ^H <i>mí</i> →]	<i>[mì</i> ^H <i>mí</i> →]
	[2Sg ^H and]	[1Sg ^H and]
	‘you-Sg and I’	

The preferred construction, however, consists of or at least ends in a **summarizing** pronoun that contains a quantifier. The pronominal person is 1Pl if the speaker is included, otherwise 2Pl if an addressee is included, otherwise 3Pl. The forms for ‘X-two’ are slightly irregular, with *-nù* (cf. *nó*: as regular numeral). Combinations involving other specific numerals such as ‘three’ are regular in form. However, when the total number of individuals is three or more, a generalized form with *-â*: usually appears (§4.3.1.2). It is here glossed ‘X-all’ although it is unrelated in form to the normal universal quantifiers. The third person forms are based on the stem *á*. It was noted in §4.7.1.2 that *á-* or *bó-* is often prefixed to numerals with animate plural reference, so we should not jump to the conclusion that *á* in (226) is specifically anaphoric in nature.

(226)	category	‘X-2’	‘X-3’	‘X-all’
	a. 1Pl	<i>yé-nù</i>	<i>yé-tá:ndù</i>	<i>y-â</i> :
	b. 2Pl	<i>wó-nù</i>	<i>wó-tá:ndù</i>	<i>w-â</i> :
	c. 3Pl	<i>á-nù</i>	<i>á-tá:ndù</i>	<i>â</i> :

The summarizing quantified pronoun may be combined with a single preceding coordinand that denotes one element of the whole (227). The summarizing pronoun entails that the speaker is included in (227a), and that the addressees are included in (227b).

- (227) a. [ó^H mí→] yé-nù
 [2Sg^H and] 1Pl-two
 ‘you-Sg and I’ = ‘the two of us-Inclusive’
- b. [wò^H dé: mì→] w-â:
 [2PlPoss^H father and] 2Pl-**all.together**
 ‘you-Pl and your-Pl father’ (addressed to two or more siblings)

7.1.3 Ordering of coordinands

Since pronouns are preferably conjoined using a summarizing quantified pronoun (see just above), the issue of preferred linear order among pronominals is of little significance. When both component pronouns are overtly presented, an assistant preferred the order 3rd-2nd-1st. An example of 2nd-1st ordering is ‘you-Sg and I’ (225) in §7.1.2, above.

7.1.4 “Conjunction” of verbs or VPs

Verbs and VPs are not conjoined in the fashion of NPs and pronouns. Instead, they are combined by chaining mechanisms described in chapter 15.

7.2 Disjunction (*mâ→* ‘or’)

The ‘or’ particle is *mâ→*, becoming <HL>-toned [†]*mâ→* after an L-toned constituent. An example is *mángòrò mâ→ pàpáy* ‘mangoes or papayas.’

7.2.1 NP disjunction

The ‘or’ particle may follow both coordinands (228a), or it may occur once, between them (228b). In the latter case it is difficult to determine whether to bracket the particle with the left or right coordinand, since its prosodic grouping is variable in this case. (228b) is literally “four or three,” showing that numeral disjunctions with approximate sense do not have to follow an ascending order.

- (228) a. [izèn^L pú→] [[pè: [†]mâ→] [ʔóné mâ→] sé-m-Ø
 [day^L all] [[sheep or] [goat or] slaughter-Ipfv-1SgSbj
 ‘Every day I slaughter (either) a sheep or a goat.’

- b. *[èbà-lègè cêm]*
 [market-day all]
[pè:-mú bó-cézó mà→ bó-tá:ndù dòrá-m-Ø]
 [sheep-AnPl An-four or An-three] sell-Ipfv-1SgSbj
 ‘Every (weekly) market day I sell three or four sheep.’

7.2.2 Pronominal disjunction

One or both of the disjunctive elements may be a pronoun. The pronoun takes independent rather than proclitic form, so it is H-toned. This is a difference between disjunction and conjunction. Examples of pronominal disjuncts are 1Sg *mí mà→*, 1Pl *yé mà→*, and 2Pl *wó mà→*. For logophoric, *á* is used for singular or plural reference. Since the pronouns are H-toned, the ‘or’ particle is not tone-raised.

- (229) a. *[ó mà→]* *[mí mà→]*
 [2Sg or] [1Sg or]
 ‘you-Sg or I’
- b. *[á mà→]* *[yé mà→]*
 [3Logo or] [1Pl or]
 ‘(he_x said:) he_x or us’
 ‘(they_x said:) they_x or us’

7.2.3 Clausal disjunction

Clausal disjunction is difficult to distinguish from juxtaposition of two polar interrogatives that are offered as alternatives to choose from. In those cases where the translation equivalent is clearly a noninterrogative disjunction, the first clause ends in the ‘or’ particle. The second clause may occur without the particle (230a), with a clause-initial L-toned particle, usually after a prolonged pause (230b), or with a clause-final instantiation of the particle (230c).

- (230) *[ìzèn^L pú→]* *[gɔ̀à: †ná]* *yú:* *gòndó-m-ìy* *mà→*,
 [day^L all] [granary Loc] millet take.out-Ipfv-1Pl or,
 a. *[ébà nà]* *ébà-m-ì*
 b. *mà→* *[ébà nà]* *ébà-m-ì*
 c. *[ébà nà]* *ébà-m-ì* *mà→*
 [market Loc] buy-Ipfv-1PlSbj
 ‘Every day we (either) take millet out from the granary or we buy (some) in the market.’

An assistant rejected disjunctive combinations of imperatives (‘Eat, or go!’). These were rephrased as indicatives (‘You will eat, or you will go’).

8 Postpositions and adverbials

Yanda Dom has a number of overt postpositions. There are no “postpositions” in the form of just a floating tone, like the Jamsay and Togo Kan tonal locatives.

‘About X’ in context of the topic of discussion is expressed as a compound with *dòm* ‘talk’ (231), rather than as by a postposition.

- (231) *tìmè-dòm* *dámá-m-ìy*
 tree-talk(n) speak-IPfv-1PlSbj
 ‘We will talk about trees.’

8.1 Dative and instrumental

8.1.1 Dative (*bèrⁿà* ~ ^H*bérⁿá*)

The recipient of ‘give’ or ‘show’ is morphologically a simple direct object, usually with accusative *-ì: ~ -ỵ* (§6.7).

For the indirect object of ‘speak, tell’, one possibility is instrumental-comitative *mì* and variants; see §8.1.2 below.

A specifically dative postposition is *bèrⁿà*. It marks the indirect object (recipient) of an act of transfer, either information in the case of ‘speak’ (232a) or something more concrete in the case of ‘send’ (232b-d). ‘Speak’ can also take an instrumental-comitative postposition, see (235a-b) below. The basic L-toned form *bèrⁿà* is heard after nonpronominal NPs that contain an H-tone. After all proclitic pronouns, and after entirely L-toned NPs, it is ^H*bérⁿá* with {H} overlay. Its tonal treatment is like that of an inalienably possessed noun, see (70b) above.

- (232) a. *nàrⁿá* [*mì* ^H*bérⁿá*] ^L*dámè-Ø*
 truth [1Sg ^H**Dat**] ^Lspeak.Pfv-3SgSbj
 ‘He/She told me the truth.’
- b. *bú:dù* [*ó* ^H*bérⁿá*] *tá-m-Ø*
 money [2Sg ^H**Dat**] send-IPfv-1SgSbj
 ‘I will send you-Sg (some) money.’
- c. *bú:dù* [*sǎydù* *bèrⁿà*] *tá-m-Ø*
 money [Seydou **Dat**] send-IPfv-1SgSbj
 ‘I will send Seydou (some) money.’

See also benefactive postposition *ŋ* (§8.3).

8.1.2 Instrumental-comitative (*mì* ~ ^H*mí:* ~ ^H*mí*)

After NPs containing an H-tone, the instrumental-comitative postposition is L-toned *mì* ‘with’. After an entirely L-toned NP or after any pronominal proclitic, it is ^H*mí:*, less often ^H*mí*. The vowel is usually long in the H-toned variant. The postposition should be distinguished from the 1Sg pronoun (independent *mí*, proclitic *mì*).

Before the postposition, pronouns take proclitic form. 2Sg *ó* and logophoric *á* are H-toned, while other pronouns are L-toned. Examples are 2Sg *ó* ^H*mí:* ‘with you-Sg’ and *mì* ^H*mí:* ‘with me’.

This postposition can occur in prototypical **instrumental** contexts (using a tool or similar object in a purposeful activity). It is also used for means of transportation (233c). In such instrumental examples, the complement is more or less always inanimate.

- (233) a. [*séw* *mì*] *té:* *yà* *dèḡé-m*
 [ax **Inst**] wood Real chop.Pfv-1SgSbj
 ‘I chopped the wood with an ax.’
- b. [*izil* ^H*mí*→] *sémbà-m-Ø*
 [broom **Inst**] sweep-Ipfv-1SgSbj
 ‘I will sweep (up) with a broom.’
- c. [*bàmbà* [↑]*ná*] [*mò(m)bíl* *mì*] *úrⁿ-ùm-Ø*
 [Bamba Loc] [vehicle **Inst**] go-Ipfv-1SgSbj
 ‘I will go to Bamba (village) by motor vehicle.’

The postposition also occurs in **comitative** contexts, denoting collaboration or co-presence. Here the complement is frequently human (234), but any form of accompaniment (as in ‘He went away with the keys’) can be considered comitative.

- (234) *yé* [*săydù* *mì*] *bìdá-m-iy*
 1Pl [S **Comit**] work-Ipfv-1PlSbj
 ‘We work with Seydou.’

Another function of *mì* is to indicate what in English would be the **indirect object** of the verb *dàmá* ‘speak, tell’. For other indirect objects, see the dative (§8.1.1).

- (235) a. [[*yé* *gè*] *mì*] [*dòm^L* *kámá*] *dàmà-lú-m*
 [[woman Def.AnSg] **to**] [talk^L any] speak-PfvNeg-1SgSbj
 ‘I didn’t say a word (=anything) to the woman.’
- b. [*mì* ^H*mí*] [*dòm^L* *kámá*] *dàmà-lí-Ø*
 [1Sg ^H**to**] [talk^L any] speak-PfvNeg-3SgSbj
 ‘He/She didn’t say anything to me.’

Postposition *mì* is related to conjunction *mì*→ ‘and’, which however is intonationally prolonged (§7.1).

8.2 Spatiotemporal postpositions

8.2.1 Locative, allative, and ablative functions

In most of the locational postpositions described below, there is no distinction between static locative (‘in’, ‘at’, etc.), allative (‘to’), and ablative (‘from’). Directionality is mainly indicated by verbs like ‘go’ and ‘go out’, which are easily chained with other verbs to specify direction. The forms in §8.2.14 (‘from’, ‘to’) seem like counterexamples to this, but these are adverbs rather than postpositions.

8.2.2 Simple and complex PPs

There are several complex (composite) postpositions of the type ‘in front of X’ or ‘at the back of X’. These have (or once had) the structure [[X NOUN] Loc], where X is the possessor of NOUN (usually a body part term), and the resulting possessed noun is followed by a locative postposition. The formula [[X NOUN] Loc] should be stretched to include cases where X is a pronoun, in which case it follows the possessed noun, as in [[NOUN my] Loc].

The noun-like elements in complex postpositions are mostly L-toned bisyllabics. Some but not all of them still behave tonally as possessed nouns, i.e., they have a word-level {H} overlay after an {L}-toned NP. Their “basic” L-toned form could either be taken as lexical or attributed to a possessor-controlled {L} overlay. To avoid clutter I will omit the ^L overlay superscript. The noun-like elements that remain L-toned are subject to Rhythmic Tone-Raising of their initial syllable after an L-toned NP. Elicitation from one assistant produced the split in (236). I suspect that there is inter-speaker variation in this respect.

(236) postposition gloss after L-toned NP (‘a granary’)

a. not treated as possessed

<i>[X bɛ̀rⁿà] nà</i>	‘inside X’	<i>[gɔ̀à: †bɛ̀rⁿà] nà</i>
<i>[X dầrⁿà] nà</i>	‘on X’	<i>[gɔ̀à: †dầrⁿà] nà</i>
<i>[X jìdè] nà</i>	‘in front of X’	<i>[gɔ̀à: †jìdè] nà</i>
<i>[X tèmbè] nà</i>	‘above X’	<i>[gɔ̀à: †tèmbè] nà</i>
<i>[X tìngà] nà</i>	‘toward X’	<i>[gɔ̀à: †tìngà] nà</i>

b. treated as possessed

<i>[X àrà] nà</i>	‘beside X’	<i>[gɔ̀à: ^Hàrà] nà</i>
<i>[X tùnú] nà</i>	‘behind X’	<i>[gɔ̀à: ^Htùnú] nà</i>

L-toned forms of the postpositions occur after all NPs containing a postnominal modifier other than a modifying adjective: numerals, determiners, postposed possessors, ‘each’ and ‘all’ quantifiers (238a-d). L-toned forms also follow nouns with {L}-toned overlay after a preposed possessor (238e). The data in (238) are therefore compatible with recognition of L-toned *nà* and *bà* as basic, since Rhythmic Tone-Raising cannot apply to particles following such elements.

- (238) locative gloss
- a. locative follows a numeral
 ʔóló yè-tá:ndù nà ‘in three houses’
- b. locative follows a determiner (demonstrative or definite)
 [ʔəlò^L kó] nà ‘in that house’ (near-distant)
 [ʔóló wò] nà ‘in the house’
- c. locative follows a postposed possessor
 [ʔóló ó-í] nà ‘in your-Sg house’
 [ʔóló ʔámó] nà ‘in my house’
- d. locative follows an ‘each’ or ‘all’ quantifier
 [ʔóló cém] nà ‘in each/every house’
 [ʔóló gè pú→] nà ‘in all the houses’
 [ci^L kámá] nà ‘in everything/anything’
- e. locative follows a possessed NP with an H-tone
 [sǎydù^L ʔəlò] nà ‘in Seydou’s house’
 [yè^H ʔóló] nà ‘in a woman’s house’

To summarize the tonology: if we posit *nà* and *bà* as basic, we can account for all of the L-toned outputs in (237c-d) and (238), and for the H-toned outputs in (237b). However, the H-toned outputs in (237a) cannot be explained by the regular phonology.

Semantically, *nà* is the most general locative, and it is common in examples like (239a). The alternative (239b), with *bà*, can index a spatial displacement from ‘here’ (compare English *over* before a locational), and might occur in a conversation that takes place outside the village. *bà* can also suggest a more vaguely defined location, cf. §4.4.3.2.

- (239) a. *[dámá †ná] yà kún-Ø*
 [village **Loc**] Real be.in-3SgSbj
 ‘He/She is in (the) village.’
- b. *[dámá †bá] yà kún-Ø*
 [village **Loc**] Real be.in-3SgSbj
 ‘He/She is (over) in (the) village.’ or ‘He/She is (somewhere) in (the) village.’

In compound postpositions like ‘behind X’ and ‘in front of X’ (see sections below), *nà* regularly occurs when the reference point X (expressed as a possessor) is first person, as in *[[tùnù ʔámó] nà]* ‘behind me’. *[[tùnù ʔámó] bà]* is said to be possible only when denoting a vague location ‘somewhere behind me’. With a second or third person reference point, *bà* is more easily used: *[[tùnù ó-ń] bà]* alongside *[[tùnù ó-ń] nà]* ‘behind you-Sg’.

Prototypically the focal object (trajector) is enclosed in a bounded three-dimensional space, i.e. in a container (240a-c). It may also be immersed in a medium like ‘water’ with no well-defined boundary.

- (240) a. *[ʔáló †ná yà kúrⁿ-é:]*
 [house **Loc**] Exist be.in-3PlSbj
 ‘They are in(side) the house.’
- b. *[[dámá wò] nà] yà kúrⁿ-é:]*
 [[village Def.InanSg **Loc**] Exist be.in-3PlSbj
 ‘They are in the village.’
- c. *yú: [gɔ̀à: †ná] yà kún-dé-m*
 millet [granary **Loc**] Real put.Pfv-1SgSbj
 ‘I put (the) millet in (the) granary.’
- d. *[ínjú †ná] yà nɔ̀é-Ø*
 [water **Loc**] Real go.in.Pfv-3SgSbj
 ‘He/She went into the water.’

The focal object may also be ‘on’ a surface. The relationship to a specifically horizontal or vertical surface is expressed by the following (intransitive or transitive) verb, as in (241).

- (241) a. *[nà: ʔámó] [tèbà †ná] yà ná:-ndé-m*
 [foot 1SgPoss.InanSg] [wood **Loc**] Real **pass-Tr-Pfv-1SgSbj**
 ‘I put-Past my foot (up) across the wood.’
- b. *cènjú [lòtùnù †ná] tàdà-Ø*
 agama.lizard [wall **Loc**] **be.on.wall.Stat-3SgSbj**
 ‘(The) agama lizard is on the wall.’

As some of the above examples show, a contextually appropriate definite marker is sometimes omitted in these locative PPs (compare English *in town*), especially when it is obvious which container or surface is involved. However, there is no prohibition against definite markers before *nà*, which can be added to any NP if the semantics permit, as in ‘in the house’ (238b). There are no irregular morphophonological interactions between *nà* and definite or demonstrative morphemes.

‘Night’ and ‘daytime’, and time-of-year expressions like ‘rainy season’, function adverbially without a locative postposition (242).

- (242) a. *dèndà:* *wó-m-ù*
 night come-Ipfv-3SgSbj
 ‘He/She will come at night.’
- b. *zèrⁿà* *cilè-mú* *[wàjù* *↑ná]* *ún-m-è*
 rainy.season herder-AnPl [far **Loc]** go-Ipfv-3PlSbj
 ‘In the rainy season (the) herders go far away.’

In parsing texts, care must be taken to distinguish locative *nà* and variant *↑ná* from the homophonous 3Sg pronouns *ná* (independent) and *nà* (proclitic).

8.2.4 Locative *nà* and *bà* with place names

Locative *nà* or *bà* frequently combine with place names. *nà* is far more common.

- (243) *[bàmbà* *↑ná]* *bò-m*
 [B **Loc]** be-1SgSbj
 ‘I am in Bamba (village).’

Likewise *móti* *nà* ‘in Mopti’, *yàndá* *↑ná* ‘in Yanda’, *bàmàkó* *nà* ‘in Bamako’. Textual examples are in (785).

8.2.5 ‘Inside X, in the interior of X’ (*[X bèrⁿà]* *nà* / *bà*)

A more explicit indication that the focal object is enclosed in a bounded space is the complex postposition *[[X bèrⁿà]* *nà*, literally ‘in (the) middle/interior of X’, cf. noun *bèrⁿà* ‘middle, interior, inside’. An assistant rejected *#[[X bèrⁿà]* *bà*, another accepted it in specialized senses involving multiple interiors.

- (244) *nò-mó* *[[?óló* *bèrⁿà]* *nà]* *yà* *kúrⁿ-é:*
 person-AnPl [[house **interior]** **Loc]** Exist be.in-3PlSbj
 ‘(The) people are inside the house.’

Unlike dative *bèrⁿà*, which is treated like a noun tonally with “possessed” form ^H*bérⁿá*, *bèrⁿà* in the ‘inside X’ phrase is not subject to a word-level {H} overlay. It therefore remains L-toned in (245a). Instead, it is subject to Rhythmic Tone-Raising after an L-toned NP, affecting just its first syllable (245b).

- (245) a. *[kó* *bèrⁿà]* *nà*
 [InanSg **interior]** **in**
 ‘inside that, therein’

- b. *[gɔ̀à: †bérⁿà] nà*
 [granary interior] in
 ‘inside a granary’

8.2.6 ‘On (the head of) X, above X’ (*[X dârⁿà] nà / bà*)

There is no highly grammaticalized ‘on [the head of X]’ construction of the Jamsay type, though such a combination can be constructed compositionally where literally appropriate. There are two nouns meaning ‘head’, *dârⁿá* and *kó:*, and the former generally occurs in this context (246). An example with *kó:* is in (813) in Text 3.

- (246) *yèndù [[dârⁿá ?ámó] nà] nájâ-Ø*
 basket [[head 1SgPoss] Loc] be.up.on.Stat-3SgSbj
 ‘(The) basket is (up) on my head.’

The construction in (246), or a similar expression ‘on my neck’ with *kòlò* ‘neck’, can be extended to describe a more abstract burden (e.g. of feeding dependent children).

[X dârⁿà] nà can also mean ‘above X, over X’, though this sense is more usually expressed by *[X tèm̀bè] nà*.

8.2.7 ‘Next to, beside X’ (*[X àrà] nà / bà*)

The noun *àrà* ‘side’ is the basis for a postpositional expression ‘next to X’ or ‘beside X’. The noun is possessed (by the reference entity), and the resulting NP is followed by locative *nà* or *bà*.

- (247) a. *[[sǎydù àrà] nà] bò-m*
 [[S side] Loc] be-1SgSbj
 ‘I am next to Seydou.’
- b. *furnô: [[àrà ?ámó] nà] dè-dá*
 burner [[side 1SgPoss.InanSg] Loc] set-Tr.Imprt
 ‘Set-2Sg the burner (down) next to me!’

If the reference entity is unspecified, adverbial ‘to the side’ (i.e. ‘nearby’) can appear, expressed as *àrà †ná* or as *àrà †bá*.

8.2.8 ‘In front of X’ (*[X jidè] nà / bà*)

In the context ‘in front of (person, vehicle)’ or ‘in front of (vehicle)’, the phrasing is ‘in (the) eye (of)...’, using either *[[X jidè] nà]* or *[[X jidè] bà]*, cf. *jidè* or *jid-íyè* ‘eye’ (248). I have

also heard *[[X jìdò] nà]* and *[[X jìdò] bà]*. All these forms have variants with *g* instead of *j*. Najamba has adverb *gír mà* ‘in front’, *gíró* ‘eye’.

- (248) a. *[[nò-mó jìdè] nà]* ^L*dàmè-Ø*
 [[person-AnPl eye] Loc] ^Lspeak.Pfv-3SgSbj
 ‘He/She spoke in front of (the) people.’
- b. *tánà [[mòmbíl jìdè] bà] dùn-dó*
 stick [[vehicle eye] Loc] set.down-Tr.Imprt
 ‘Put down (=lay) a log in front of (the) vehicle.’

As an adverb ‘in front, ahead’, I recorded *jìdè* ⁺*bá*.

By contrast, ‘in front of (house)’ is expressed as ‘in (=at) (the) door.’

- (249) *[[úmbùl wò] nà] yà ?éjà-Ø*
 [[door Def.InanSg] Loc] Real stop.Stat-3SgSbj
 ‘He/She is stopped (=standing) at the door (=in front of the house).’

8.2.9 ‘Behind/after X’ (*[X tùnù] nà / bà*)

‘Behind X’ in the spatial sense is *[X tùnù] nà* or *[X tùnù] bà*, literally ‘at the back of X’, with noun *tùnù* ‘back (body part)’. A pronominal example is *[tùnù ?ámó] bà* ‘behind me’. *[gɔ̀á: H árá] nà* ‘behind (the) granary’ shows {H} overlay after entirely L-toned nonpronominal NP.

The expression *[?óló tùnù] bà* ‘(over) behind the house(s)’ denotes the area at the edge of the village where people go to defecate.

An adverbial phrase is *tùnù* ⁺*bá* ‘behind, in the rear’.

8.2.10 ‘Over X, at the top of X’ (*[X tèmbè] nà / bà*)

The noun (or adverb) *tèmbè* ‘above, top’, as in adverbial *tèmbè bà* ‘above, overhead’, is part of the complex postpositions *[X tèmbè] nà* and *[X tèmbè] bà* ‘on top of X, over X, above X’. The form with *nà* suggests a precise location (at a summit, or directly overhead the reference object), while that with *bà* is more diffuse. The first syllable of *tèmbè* is raised after L-toned noun complement in (250).

- (250) *àpàn [[tèmbè ?àmò] nà] kílíyé-m bò-Ø*
 bird [[top 1SgPoss.InanSg] Loc] fly-Ipfv be-3SgSbj
 ‘(The) bird is flying (directly) over me.’

8.2.11 ‘Under X, below X, at the bottom of X’ (*[X dù] nà / bà*)

The noun *dú* ‘bottom, base’, as in adverbial *dú bà* ‘below, underneath, at the bottom’, is part of the complex postpositions *[X dù] nà* and *[X dù] bà* ‘under X, below X, at the bottom of X’.

In (251a), the focal object is directly under the reference object (house). In (251b), its location is defined as (approximately) ‘at’ the base of the reference object. This ‘at the base of X’ sense is possible when the reference object is a large object with a well-defined top, side, and bottom.

- (251) a. *[[[ʔsɔ́lò wò] dù] nà] nà-ý* ^L*bèz-ò*
 [[[house Def.InanSg] **bottom**] **Loc**] 3Sg-Acc ^Lbury.Pfv-3PISbj
 ‘They buried him/her under the house.’
- b. *[[[kóŋò wò] dù] nà]*
 [[[mountain Def.InanSg] **bottom**] **Loc**]
ʔsɔ́lò ɔ́nzò-z-è:
 house build-Pfv2-3PISbj
 ‘They (have) built a house at the base of the mountain.’

This construction is not used in the sense ‘beside (someone)’ denoting proximity. However, ‘X is under Y’ can be said of two persons when X has a serious grudge against Y and is likely to do harm to (up to and including killing) Y.

8.2.12 ‘Toward’ (*[X tìŋà] nà / bà, [X àrà] nà / bà*)

‘Toward X’ can be expressed by a compound postposition based on either of the nouns *tìŋà* (roughly: ‘destination’) or *àrà* ‘side’, followed by *nà* or by *bà*. In the combination involving *àrà*, it is understood that the protagonist is heading for a location in the general vicinity of the named location. *àrà* takes {H} overlay (252b).

- (252) a. *[[bàmbà [†]tìŋà] bà] ùrⁿ-è-Ø*
 [[B **destination**] **Loc**] go.Pfv-3SgSbj
 ‘He/She went toward Bamba (village).’
- b. *[[bàmbà ^Hàrá] bà] ùrⁿ-è-Ø*
 [[B ^H**side**] **Loc**] go.Pfv-3SgSbj
 ‘He/She went toward (=in the general direction of) Bamba.’

The oldest generation still uses the verb phrase *[tìŋà [†]ná] tíŋé* in the sense ‘go on a trip, travel’. Younger speakers say *[dàmá nà] ún*, literally ‘go to (a) village’, perhaps calqued on Jamsay.

8.2.13 ‘Between’ (*[XY bɛrⁿà] nà / bà*)

‘Between X and Y’ with both coordinands expressed is exemplified in (253a). The alternative is to use a single NP complement with plural reference (253b).

The noun *bɛrⁿà* ‘middle; interior’ is featured, and the construction is identical in form to that meaning ‘in the interior of X, inside X’ (§8.2.5).

- (253) a.

<i>[[[ó</i>	<i>^Hmí→]</i>	<i>[mì</i>	<i>^Hmí→]]</i>	<i>bɛrⁿà]</i>	<i>nà</i>
[[[2Sg	^H and]	[1Sg	^H and]]	middle]	Loc
‘between you-Sg and me’					
- b.

<i>[yé-nù</i>	<i>bɛrⁿà]</i>	<i>nà</i>
[1Pl-two	middle]	Loc
‘between us (two)’		

8.2.14 ‘From X (to Y)’ (*bǎ→, hálè*)

‘He/She ran from Bamba to Koro’ can be expressed as (254), literally “running in (=from) Bamba, he went until (=all the way) in(to) Koro.” The particle *bǎ→* ‘until, all the way to’ follows the second locational expression. It is an adverb rather than a postposition, and may follow a complete PP.

- (254)

<i>[[bàmbà</i>	<i>†ná]</i>	<i>zóbó-y]</i>	
[[B	Loc]	run-untill.SS]	
<i>[[kóró</i>	<i>†ná]</i>	<i>bǎ→]</i>	<i>^Lùrⁿè-Ø</i>
[[K	Loc]	until]	<i>^Lgo.Pfv-3SgSbj</i>
‘He/She ran from Bamba to Koro.’			

In (255), the point of origin is understood and the emphasis is on the destination. For more on *hálè* see §19.2.1

- (255)

<i>[nà:</i>	<i>†mí→]</i>	<i>[hálè</i>	<i>bàmbà</i>	<i>†ná]</i>	<i>^Lsùwò-m-iy</i>
[foot	Inst]	[all.the.way	B	Loc]	<i>^Lgo.down-Ipfv-1PlSbj</i>
‘We will go (down) on foot all the way to Bamba (village).’					

8.2.15 Temporal and adverbial (*gà*)

Nouns denoting temporal locations, such as times of day and seasons of the year, optionally occur with a postposition *gà* in adverbial function. In all attested examples *gà* is added directly to the noun stem, and an assistant rejected combinations of *gà* with a quantifier or determiner on the noun. After an /L/-toned noun, the tone of *gà* is raised to H either by Rhythmic Tone-Raising or by a possessum-like {H} tone overlay. The notation *†gá* used in

(256) and elsewhere is the correct one for Rhythmic Tone-Raising, but since *gà* cannot follow pronominal proclitics its tonal properties are not entirely clear.

- (256) a. *wà:* [†]*gá* ‘in the morning’
 b. *dèndà:* [†]*gá* ‘at night’
 c. *ìzù-bàⁿà* [†]*gá* ‘in the hot season’
 d. *zèⁿà* [†]*gá* ‘in the rainy season’

Some of the relevant nouns may function adverbially without *gà*, e.g. *wà:* ‘(in the) morning’.

gà also occurs in some other adverbial phrases. Optional *gà* in *nìṅà:* [†]*gá* ‘yesterday’ and *gòl* [†]*gá* ‘last year’ are mentioned in §8.4.6.1. For *déyⁿ gà* ‘separate, apart’ see §8.4.7.2. For *síyé* [†]*gá* ‘(done) well’ and *gòmò* [†]*gá* ‘badly’, see §8.4.4.1. For *tùmàyⁿ †gá* ‘together (in one place)’, see §18.3.2. For *dìyá* [†]*gá* ‘greatly’ or ‘in large amounts’, see §8.4.2 and example (650).

síyé [†]*gá* and *dìyá* [†]*gá* show that H-toned [†]*gá* follows an adjective ending in an H-tone. However, L-toned *gà* occurs with an expressive adverbial in *déyⁿ gà* ‘apart’ (§8.4.7.2).

For clause-final *gà* in purposive clauses, see §17.6.3.2-3.

8.3 Purposive-causal suffixes and postpositions

8.3.1 Benefactive (-ṅ)

The *-ṅ* suffix described in this section functions like a postposition and may simply be encliticized because of its nonsyllabic shape. The complement, whether a nonpronominal NP or a pronoun, denotes the (intended) beneficiary of an action. For pronouns, the forms are the same as the possessors (§6.2.2), e.g. 2Sg *ó-ṅ* and irregular 1Sg *ṅmó*. After a noun, the tone follows the usual pattern for suffixes: H-toned after an L-toned noun (or adjective), otherwise L-toned: *yè-ṅ* ‘for a woman’, *mì^H dé:-ṅ* ‘for my father’. After a *C*-final noun, an epenthetic *u* is heard if the consonant is a nasal (*án-ùṅ* ‘for a man’), and optionally if the consonant is *l* (*mì^{LH} lál-ṅ* or *mì^{LH} lál-úṅ* ‘for my friend’).

In (257a), ‘my friend’ is a noun-headed NP. In (257b), 2Sg *ó-ṅ* follows the direct object NP. This linear ordering can lead to parsing problems, but in (257b) the presence of a demonstrative pronoun modifying the direct object clarifies the bracketing. If the sense were ‘I heated [this your water] (=this water of yours)’, the demonstrative would follow the NP-internal pronominal possessor: *ínjú ó-ṅ ṅgó*.

- (257) a. $[[mì^{LH} lál]-ṅ]$ $^{L}bidè-m$
 [[1SgPoss LH friend]-Benef] L work.Pfv-1SgSbj
 ‘I worked for my friend.’ (also pronounced *lálú-ṅ*)
- b. $[injù^L \quad ṅgó]$ $ó-ṅ$ $^{L}ṅjù-mè-m$
 [water^L Prox.InanSg] 2Sg-Benef L be.hot-Caus.Pfv-1SgSbj
 ‘I heated this water for you-Sg.’

Benefactive *-ŋ* is distinct from other *-ŋ* suffixes. One of the latter occurs in imperfective relative verbs (§14.1.7.2). Another occurs in inanimate singular forms of alienable possessor pronominals, as in *cìn ó-ŋ* ‘your-Sg stone’ (§4.3.3, §6.2.2).

A suffixed velar nasal could reflect any of various proto-forms with shapes like *N and *-Nv with any nasal. Caution is therefore indicated. However, a possible relationship of benefactive *-ŋ* with pronominal possessive *-ŋ* as in 2Sg *ó-ŋ* is supported by the fact that both appear to occur in ‘belong to’ predicates (§11.5.3).

8.3.2 Purposive or causal (*dàn*)

A PP with postposition *dàn*, becoming H-toned form †*dán* after an L-toned noun or adjective, can express the (forward-looking) purpose or goal of an action. This includes the common expression ‘for the sake of God’ describing unselfish good deeds not performed for profit (in this lowly world). The postposition may also be used for a (retrospective) causal force, as in (258d) below and (708). *dàn* does not often take human complements, as it competes with benefactive *-ŋ*, but elicited *ó dàn* ‘because of you’ and *mì †dán* ‘because of me’ show that proclitic pronominals are used.

- (258) a. *[àmbà †dán] [èné gè] ^Lkɔ̀è-m*
 [God **Purp**] [child Def.AnSg] ^Lraise.Pfv-1SgSbj
 ‘I raised the child for God (=as an act of charity).’
- b. *gǎw [bú:dù dàn] gólà-m-ìy*
 onion [money **Purp**] farm(v)-Ipfv-1PISbj
 ‘We grow onions for money (=as a cash crop).’
- c. *[sìmô: dàn] ^Lw-ò*
 [cement **Purp**] ^Lcome.Pfv-3PISbj
 ‘They have come for (=to take) the cement.’
- d. *[[zǎŋ wò] dàn]*
 [[fight(n) Def.InanSg] **Purp**]
[dà má à-ŋ] ^Ldòg-à
 [village 3Refl-Poss.InanSg] ^Lleave.Pfv-3PISbj
 ‘They have abandoned their village because of the fight.’

kó dàn ‘for that (reason/purpose)’ is a common summarizing adverbial phrase (§4.4.2.2). For *cì-?àpè †dán* ‘for what?’ = ‘why?’, see §13.2.2.2. For *dàn* ‘than (X)’ in ‘comparatives’, see §12.1.1. For *dàn* in ‘even if’ conditionals, see §16.2.1. For *dàn* in purposive and causal clauses, see §17.6.3.1, §17.6.3.5, and especially §17.6.4.

8.4 Other adverbs (or equivalents)

8.4.1 Similarity (*yèŋ* ~ *yèyⁿ* ‘like’)

The postposition *yèŋ* ~ *yèyⁿ* ‘like, similar to’, which follows a pronominal proclitic or a nonpronominal NP (or adverb), creates adverbials of comparison. The tone shifts to H after a pronominal proclitic, or after an L-toned NP. Pronominal examples: *mì^H yéŋ* ‘like me’, *ó^H yéŋ* ‘like you-Sg’. An example with a noun is (259). The tone pattern points to an {H} overlay rather than to Rhythmic Tone-Raising, which would not apply after an H-toned pronominal proclitic.

- (259) *bìdè* [*zàmdúru* *yèŋ*] *bìdá-m-ù*
 work(n) [donkey **like**] work-Ipfv-3SgSbj
 ‘He/She works like a donkey (=works hard).’

yèŋ readily combines with noun-like adverbs, as in *íyé yèŋ* ‘like today’ and *ŋgí yèŋ* ‘like here’.

ŋgó yèŋ ‘like this, thus’ can accompany a visual demonstration. *ŋŋôyⁿ* ‘thus, like this’ is undoubtedly a contraction of this combination. Similarly, an expected *kó yèŋ* regularly contracts to *kôyⁿ* ‘thus, like that’ (§4.4.2.2). Intonationally prolonged variants *ŋŋôyⁿ→* and *kôyⁿ→* are attested. Another ‘thus’ adverb is *jǎ: nì*, used in the context ‘saying thus (i.e. as just quoted)’, see (847) in Text 5.

For *yèŋ* in the sense ‘approximately’ see §8.4.3.1.

The adjectival predicate ‘resemble’ is *mùl-í*, as in *ná mùl-í-m* ‘I resemble him’. There is a noun *mù-mùlù* ‘resemblance’.

8.4.2 Extent (‘a lot’, ‘a little’)

sáy→ ‘a lot’ (§8.4.7.10) may be incorporated into a larger NP (though it does not control tones on the noun), or it may be absolute. In absolute function it may function as an argument of a verb, or it may be adverbial, e.g. with an intransitive verb (260b). In cases like (260a) and (260b), *sáy→* might be bracketed with the preceding common noun to form an NP, but an adverbial interpretation cannot be ruled out. *sáy→* ‘a lot’ should not be confused with *sày* ‘only’ (§19.4.1).

- (260) a. *bìdè* *sáy→* ^L*bìd-à*
 work(n) **a.lot** ^Lwork.Pfv-3PISbj
 ‘They worked a lot.’ (= ‘They did a lot of work.’)
- b. *sáy→* *zðbá-m-ù*
a.lot run-Ipfv-3SgSbj
 ‘He/She runs a lot.’

- c. *nàmà* *sáy→* ^L*kùbè-m*
 meat **a.lot** ^Leat.meat.Pfv-1SgSbj
 ‘I ate a lot of meat.’

An alternative expression is *dìyá* †*gá* ‘a lot, greatly; in large amounts’, consisting of *dìyá* ‘big’ and adverbial postposition *gà*. Adjective ‘many, numerous, abundant’ is *ségú*, as in *àrⁿù-njù^L ségú* ‘many years’ in (813). An extended form *sèg-í:ⁿ* also occurs, cf. *sèg-í-yⁿè* with plural suffix in (485c).

For intensification of adjectives (‘very ADJ’), see §6.3.3.2 and the intensifiers scattered among expressive adverbials in §8.4.7.4-8 below.

‘A little’ is expressed as *cém→* (§8.4.7.10) optionally expanded as *cém→ sày* with the ‘only’ particle (§19.4.1), which should be distinguished from H-toned *sáy→* ‘a lot’ illustrated just above.

- (261) a. *bìdé* *cém→(-sày)* ^L*bìd-à*
 work(n) **a.little** ^Lwork.Pfv-3PlSbj
 ‘They worked a little.’ (= ‘They did a little work.’)
- b. *cém→(-sày)* *zòbá-m-ù*
a.little run-Ipfv-3SgSbj
 ‘He/She runs a little.’
- c. *nàmà* *cém→(-sày)* ^L*kùbè-m*
 meat **a.little** ^Leat.meat.Pfv-1SgSbj
 ‘I ate a little meat.’

Two alternative ‘a little’ expressions are based on the adjective *dàgá* ‘small, little’, antonym *dìyá* ‘big’. These are *dàgá-m* and *dàgà-mà*, the latter functioning as a relative-clause head (‘the little that...’, ‘what little...’) as in (769).

An assistant commented that *cém→* ‘a little’ and *sáy→* ‘a lot’ are preferred by younger speakers, while older speakers prefer the forms based on adjectives ‘big’ and ‘small’.

8.4.3 Specificity

In addition to the subsections just below, see §4.4.3.2 on demonstrative adverbs (‘right here’, ‘around here’).

8.4.3.1 ‘Approximately’ (*yèŋ ~ yèyⁿ*)

yèŋ ~ yèyⁿ ‘like’ (§8.4.1) can indicate approximate quantity.

- (262) [pè:-mú pòlò-núm yèŋ] ^Lèbà-m-Ø
 [sheep-AnPl 10-5 **like**] ^Lbuy-Ipfv-1SgSbj
 ‘I will buy approximately 50 sheep.’

For ‘somewhere around here’ etc., see §4.4.3.2.

8.4.3.2 ‘Exactly (one)’ (*léŋ*→ ~ *lón*→, *sézélé*)

tùmá→ ‘one’ can be emphasized as *tùmá*→ *léŋ*→ (variant *lón*→) or as *tùmá*→ *sézélé*, both meaning ‘exactly one’ (pragmatically often a disparaging ‘only one’). An example of *léŋ*→ is (756) in §19.4.2.

8.4.3.3 ‘Exactly’ (*dôŋ*)

A more general ‘exactly’ adverb, used with quantity expressions, is *dôŋ*.

- (263) pè:-mú pòlò-núm dôŋ ^Lèbà-m-Ø
 sheep-AnPl 10-5 **exactly** ^Lbuy-Ipfv-1SgSbj
 ‘I will buy exactly fifty sheep.’

cêw ‘all’ can also occur in similar contexts.

8.4.3.4 ‘Exactly (equal)’, ‘right at (a time)’ (*cêw-cêw*)

cêw-cêw, phonologically resembling an iteration of ordinal *cêw* ‘first’ but functioning as a distributive iteration of *cêm* ‘all’ (§6.6.1.1), can specify exact equality by some yardstick, as in (264). Cf. Jamsay *cêw-cêw* ‘equally’ from *cêw* ‘all’.

- (264) [èné wò] á-nò: índù *cêw-cêw* bò-Ø
 [children Def.AnPl] An-two height **all-all** be-3SgSbj
 ‘The (two) children, both are (of) exactly the same height.’

cêw-cêw is also used to specify exact time (265).

- (265) [mòmbíl wò] [sálbànà mì] *cêw-cêw* ^Lnàŋà-m-ù
 [vehicle Def.InanSg] [2PM.prayer at] **all-all** ^Lpass-Ipfv-3SgSbj
 ‘The vehicle will pass by (here) right at the 2PM prayer.’

8.4.3.5 ‘Specifically’ (*té→*)

Adverbial *té→* ‘exactly’ (with lexicalized “intonational” prolongation) by itself can confirm or agree with another speaker’s statement. It can also follow an NP constituent in a clause (266).

- (266) [*pè:-mú* *pòlò-nûm* *té→*] ^L*èbà-m-Ø*
 [sheep-AnPl 10-5 **exactly**] ^Lbuy-Ipfv-1SgSbj
 ‘I will buy exactly 50 sheep.’

té→ can also single out one referent from a larger set. Here it is best translated ‘specifically’ or (for a human) ‘personally’.

- (267) [*yé* *dògò-mù*] *tê:* *èbà = bò-y*,
 [1Pl Dogon-AnPl] tea want-be-1PlSbj,
gà: [*mí* *té→*] *tê:* *èbù = là-m*
 but [1Sg **exactly**] tea want=not.be-1SgSbj
 ‘We Dogon (in general) like tea; but I personally (=specifically) don’t like tea.’

See also (290b) below.

8.4.4 Evaluation

8.4.4.1 ‘Well’ and ‘badly’ (adjective plus adverbial *gà*)

Adverbial particle *gà* or its tone-raised variant [†]*gá* (§8.2.15) can convert certain adjectives into adverbial phrases. For example, adverbial ‘(done) well’ is *síyé* [†]*gá* (268), from adjective *síyé* ‘good’. Another example occurs in (698a).

- (268) [*síyé* [†]*gá*] ^L*dàmà-m-ù*
 [**good** **Adv**] ^Lspeak-Ipfv-3SgSbj
 ‘He/She speaks well.’

‘Badly’ is *gòmò* [†]*gá*, cf. *gòmò* ‘bad’. See §8.2.15 for other adverbial phrases with *gà*.

These expressions for ‘well’ and ‘badly’ compete with alternative constructions where the adjective modifies a noun denoting an activity or process. This phrasing is favored when an appropriate noun, for example a cognate nominal, is available. (269a) literally means ‘He/She farms (i.e. does) [good farming].’ (269b) is a similar case with ‘bad’.

- (269) a. [*gòlò*^L *síyé*] ^L*gòlà-m-ù*
 [farming^L **good**] ^Ldo.farm.work-Ipfv-3SgSbj
 ‘He/She farms well (=works well in the fields).’

- b. [dòm^L gòmò] dàamá-m-ù
 [talk(n)^L bad] speak-Ipfv-3SgSbj
 ‘He/She speaks badly.’

8.4.4.2 ‘Proper, right’ (zà:ⁿ)

The noun-like element *zà:ⁿ* is used as a predicate with *bó-* ‘be’, and is negated by stative negative *-ń-*. It denotes behavior that is (socially) normal, customary, expected, or proper (“right”). The subject is a nonreferential 3Sg. A direct object may be added to denote the (expected) agent of the behavior.

- (270) a. [bìdè^L ñgó] mì-ý zà:ⁿ bó-Ø
 [work^L Prox.InanSg] 1Sg-Acc **proper** be.3SgSbj
 ‘This work is proper for (=expected of) me.’
- b. wà:-gìdènú zà:-ń-Ø
 morning-sleep(n) **proper**-StatNeg-3SgSbj
 ‘Sleeping in the morning (=daytime) is not right.’

The form is also attested as an adjective *zǎ:ⁿ*, with rising tone: *gòn^L zǎ:ⁿ wò* ‘the appropriate (requisite) gear’.

8.4.5 Manner

English manner adverbial phrases may be translated into YD either by specialized adverbials (271a), by instrumental or other PPs (271b), or by adding a modifying adjective to a direct object or cognate nominal (271c). See also ‘like’ phrases (§8.4.1).

- (271) a. *bìdé* ñjí→ ^L*bìdà-m-Ø*
 work(n) **fast** ^Lwork-Ipfv-3SgSbj
 ‘He/She works fast.’
- b. [pàṅà †mí→] [cìn †wó] ^L*jìzè-Ø*
 [strength Inst] [stone Def.InanSg] ^Lthrow.Pfv-3SgSbj
 ‘He/She threw the stone with force (=hard).’
- c. [zà^L síyé] ^L*mànà-m-ù*
 [meal^L good] ^Lcook-Ipfv-3SgSbj
 ‘He/She cooks well’ (lit., “cooks a good meal”)

gìdè and *àṅáy* are nouns meaning ‘manner, way (of doing or being)’. They can function as heads of manner adverbial relative clauses (§15.4.2), but headless versions also occur.

8.4.6 Spatiotemporal adverbials

8.4.6.1 Temporal adverbs

Some of the major temporal adverbs are in (272). Regarding (272b), the traditional market-week cycle in the area was six days, versus five days in Sangha.

- (272) a. *íyé* ‘today; nowadays’
nìḡà: ‘yesterday; formerly, in the old days’
íyé dèmè tá:ndù ‘day before yesterday’
nìmêm ‘now’
ní: ‘now’, often as topic *ní: kày*
- b. (days of the traditional 6-day week)
- éw* ‘tomorrow; in the future’
èw-dèrⁿé ‘day after tomorrow’
dèrⁿé-kúru ‘second day after tomorrow’ (third from today)
kùrùmjimbé ‘third day after tomorrow’ (fourth from today)
bà:nây ‘fourth day after tomorrow’ (fifth from today)
- c. *gòl* ‘last year’
nḡá ‘this year’
bá-gḡè: ‘next year’ (cf. *gó* ‘go out’)

Most of these adverbs (those except *nìmêm* ‘now’) are morphological nouns. In adverbial function (setting a time frame for a predication), the nouns may occur in their simple form as given above, without postpositions. Those denoting prior time spans may alternatively be expanded by adding the temporal postposition *gà* (§8.2.15), as in *nìḡà: †gá* ‘yesterday’ and *gòl †gá* ‘last year’. An assistant rejected *gà* with the nouns denoting contemporaneous or subsequent time spans, but the nominal quality of most of the stems can be brought out by adding definite *wò* (*íyé wò* ‘today’, *nḡá wò* ‘this year’, *éw wò* ‘tomorrow’). *nìmêm* ‘now’ is a particle that does not pattern as a noun and cannot be followed by definite *wò*.

For *éw* ‘tomorrow’ the regular expansion of the simple form is *éw dè*, literally ‘if (it is) tomorrow’. For ‘next year’, the parallel expansion with *dè* ‘if’ requires unpacking the morphology and rephrasing as a verb: *bá yà gó dè* ‘if time (*bá*) goes out’ (679c). For more on *bá* see §11.1.4.

8.4.6.2 Adverb ‘first’ (*tí→*)

As in Jamsay, *tí→* is an adverb meaning ‘firstly’, i.e. first in an ordered temporal sequence, with various pragmatic extensions as in (273).

- (273) *tí*→ *injù*^L-*dôm* *năm* = *bò*-∅
firstly water^L-talk difficult=be-3SgSbj
‘Firstly (=above all) the issue of water is difficult.’ (< *ínjú*)

tí→ is a special type of expressive adverbial. It can also function as a noun or adjective; see (290a) below.

8.4.6.3 Spatial adverbs

Some basic spatial adverbs, complementing the demonstrative adverbs in §4.4.3.1, are in (274).

- (274) a. *témbè nà* ‘above, top, summit’
dú nà ‘below, bottom, down’
- b. *túmó-ŋ* ‘east’, cf. verb *túmó* ‘(sun) rise’
píló-ŋ ‘west’, cf. verb *pílé* ‘fall; (sun) set’
dù-dágá ‘east/northeast’ (along base of cliffs)
tèŋ-dágá ‘south’, cf. Tengou (Dogon group)
mùzù-dágá ‘(far) south’, cf. Mossi (ethnic group)
- c. *tùnù bá* ‘in the rear’
jìdè bá ‘forward; in front’

With *nùmà* ‘hand’, we have *nùmà*^L *?əjɛ* ‘right hand’ (cf. verb *?əjɛ* ‘eat’) and *nùmà*^L *nàndà* ‘left hand’. Likewise *nà:*^L *?əjɛ* ‘right foot’ and *nà:*^L *nàndà* ‘left foot’. Native speakers associate *?əjɛ* ‘right’ with the verb *?əjɛ* ‘eat (meal)’, and (less confidently) *nàndà* with a term in some other language referring to defecation or nose-blowing. There are no spatial adverbs ‘on/to the left (or right)’.

8.4.7 Expressive adverbials and onomatopoeias

Expressive adverbials (EAs) correspond to so-called “ideophones” in many African and other languages, but also include onomatopoeias. Syntactically, they may function as adverbs with no specific thematic function, as in ‘with tears streaming down’ in (738b) and ‘late, overdue’ in (782). However, they may be made predicative by adding an inflectable auxiliary. They do not normally form part of NP constituents, although the combination of an adjective and an associated intensifier can be phrased as a compound (§6.3.3.2).

A morpheme *nì* optionally follows any EA, in adverbial or predicative function. It becomes ^ˈ*ní* after an /L/-toned EA by Rhythmic Tone-Raising. I gloss it as “Adv” in interlinears.

- (275) *cénè* [*káⁿ→* (*ní*)] *bò-∅*
 mouth [**gaping** (**Adv**)] be-3SgSbj
 ‘The mouth is wide open.’

At least one EA can form an adverbial phrase with postposition *gà*. This is *déyⁿ gà* ‘apart’ (§8.4.7.2). See also §8.2.15 for other adverbial phrases with *gà*. Such adverbials behave syntactically like EAs and like closely related spatial PPs.

The auxiliaries used in EA predicates are the same as those used with spatiotemporal and manner PPs. A state or continuous activity may be predicated with quasi-verb *bò-* ‘be (somewhere)’ or its negation *ònú-* ‘not be (somewhere), be absent’. Inchoative predicates are produced using *bìyé-*, which elsewhere means ‘stay, remain (somewhere)’. These predicates are illustrated in the following section, with *dém→* ‘straight’.

Some EAs do not lend themselves to *bò-* ‘be’ and the other auxiliaries mentioned above. See §8.4.7.9 below for EAs that occur with *kán* ‘do’ or a motion verb. In lists of auxiliaries beginning in §8.4.7.4 below, the usual auxiliary is indicated in parentheses if it is attested.

8.4.7.1 ‘Straight’ (*dém→*)

As in several other Dogon languages, adverbial ‘straight’ is expressed by the EA *dém→*. It can describe a trajectory, a path, or an object such as a stick. In (276) it functions as an adverbial phrase.

- (276) [*dém→* (*nì*)] [*bàmbà* †*ná*] *ûn-m-iy*
 [**straight** (**Adv**)] [**Bamba** **Loc**] go-1pfv-1PlSbj
 ‘We’ll go straight to Bamba (village).’

dém→ is a positive stative predicate in (277a) with *bò-* ‘be (somewhere)’. The corresponding negative is (277b) with *ònú-* ‘not be (somewhere)’. An inchoative predicate denoting a transition is (277c) with *bìyé-* ‘stay’ as auxiliary. The predicative syntax of *dém→* and other EAs is similar to that of Jamsay and other (especially eastern) Dogon languages.

- (277) a. [*ózá* *wò*] [*dém→* (*nì*)] *bò-∅*
 [road Def.InanSg] [**straight** (**Adv**)] **be-3SgSbj**
 ‘The road is straight.’
- b. [*ózá* *wò*] [*dém→* (*nì*)] *ònú-∅*
 [road Def.InanSg] [**straight** (**Adv**)] **not.be-3SgSbj**
 ‘The road isn’t straight.’
- c. [*dém→* (*nì*)] *yà* *bìyé-∅*
 [**straight** (**Adv**)] **Real** **stay.Pfv-3SgSbj**
 ‘It has become straight.’

The EA can be iterated (without the intonational prolongation) as *dém-dém*, which has similar meaning and the same syntax.

8.4.7.2 ‘Apart, separate’ (*déyⁿ gà*)

The parallelistic construction [*X [déyⁿ gà] bò-*, *Y [déyⁿ gà] bò-*, including conjugated forms of *bò-* ‘be’, indicates the physical separation of two entities, or their referential or essential differentiation (nonidentity).

- (278) *pè:-m-ó:* [*déyⁿ gà*] *b-è:* ,
 sheep-AnPl-Def.AnPl [**apart** Adv] be-3PlSbj,
?óné-m-ò: [*déyⁿ gà*] *b-è:*
 goat-AnPl-Def.AnPl [**apart** Adv] be-3PlSbj
 ‘Sheep-Pl and goats are separated (or: distinct).’

The reduplication *déyⁿ-déyⁿ* is also available, and is necessary in negative contexts where the parallelistic construction would not work (279).

- (279) [[*pè:-mú* *mì→*] [*?óné-mù* *mì→*]] *déyⁿ-déyⁿ* *òní-yè*
 [[sheep-AnPl and] [goat-AnPl and]] **apart-apart** not.be-3PlSbj
 ‘Sheep and goats are not separated (or: distinct).’

8.4.7.3 ‘Always’ (*àsú→*), ‘never’ (*àbádá*)

‘Always’ is expressed by the adverbial *àsú→*. Alternatives are ‘all (=every) day’ expressions *ìzèn^L pú→* and *bàl-lègè^L pú→* (< *bàl-légè* ‘day’). Its negation can be expressed using the experiential perfect negative verb form, or more directly as the regionally ubiquitous adverb *àbádá* ‘never’ (of Arabic origin). Pragmatically, *àbádá* is often an emphatic negative (‘not on your life!’).

- (280) a. *àsú→* [*bìdè^L ñgó*] *bìd-é:* *èbà = bó-m*
always [work^L Prox.InanSg] work-NonPast.and.SS want=be-3SgSbj
 ‘I want to do this work always (=permanently).’
- b. [*ìzèn^L pú→*] [*ñé-y*] *bò-Ø*
 [**day^L all**] be.tired-Past.and.then be-3SgSbj
 ‘He/She is always (=every day) tired.’
- c. *àbádá* *gòlò* *èbù = là-m*
never farming(n) want=not.be-1SgSbj
 ‘I don’t ever want to do farm work.’

- d. *gòlò* *gòlò = térá-lù-m*
 farming(n) do.farm.work=**ExpPrf**-PfvNeg-1SgSbj
 ‘I have never done farm work.’

àsú→ is rarely predicative but combinations with *bò-* ‘be’ and *ònú-* ‘not be’ were elicitable.

8.4.7.4 Lists of simple EAs

Inventories of EAs will be given in this and the following sections. Those in (281) are noniterative EAs with no internal segmentation except as described below. They are organized by syllabic shape. All can occur with *bò-* ‘be’ in stative predicates and with its negation *ònú-* ‘not be’. Most, but not quite all, are characterized by prolongation of the final segment (vowel or sonorant), indicated by →. Phonological vowel length cannot be distinguished in this context. Those glossed with ‘very ADJ’ are adjectival intensifiers (compare *brand new*, *dead drunk*).

(281) Simple EAs

- a. *Cv*→
- | | |
|---|---|
| <i>pó</i> → (<i>bò/ònú</i>) | ‘wide open, gaping (doorway, mouth, sack)’ |
| <i>séⁿ</i> → (<i>bò/ònú</i>) | ‘looking straight (at sth)’ (with <i>tígé</i> ‘look’) |
| <i>mé</i> → (<i>bò/ònú</i>) | ‘knocked flat on the ground’ |
| <i>bòⁿ</i> → (<i>↑ bó/ònú</i>) | ‘reddish, off-red’, hence more specifically ‘chocolate colored’, ‘reddish (bloodshot eyes)’, ‘weak light (small or dying fire)’ |
| <i>bǔ</i> → (<i>bò/ònú</i>) | ‘very long’ |
- b. *Cwi*→
- | | |
|--|--|
| <i>twí</i> → (<i>bò/ònú</i>) | ‘(plants) in full bloom, flowering’ |
| <i>kwí</i> → (<i>bò/ònú</i>) | ‘very short’ |
| <i>bwíⁿ</i> → (<i>bò/ònú</i>) | ‘feeble light (e.g. distant campfire, pre-dawn glow)’;
‘ripening (red fruits, mango or wild grape)’ |
- c. *CvC*→ (with final sonorant)
- | | |
|--|---|
| <i>dám</i> → (<i>bò/ònú</i>) | ‘completely blind’ |
| <i>dém</i> → (<i>bò/ònú</i>) | ‘straight’ |
| <i>dím</i> → (<i>bò/ònú</i>) | ‘motionless’ or ‘piled up, heaped’ |
| <i>kǎyⁿ</i> → (<i>bò/ònú</i>) | ‘wide open (eyes)’, ‘bared (teeth)’ |
| <i>tǎyⁿ</i> → (<i>bò/ònú</i>) | ‘tasty (salted)’, ‘hot (sun, temperature)’ |
| <i>cěwⁿ</i> → (<i>bò/ònú</i>) | ‘very small, tiny, undersized (anything)’ |
| <i>gǎwⁿ</i> → (<i>bò/ònú</i>) | ‘conspicuously visible (rock, horns)’ |
| <i>bém</i> → (<i>bò/ònú</i>) | ‘(millet or sorghum grain head) completely covered with fuzz (flowers)’ |

- léŋ*→ (*bò/ònú*) ‘sole, just (one)’, often followed by *sày* ‘only’ (§19.4.1)
kěy→ (*bò/ònú*) ‘sticking out (slightly)’
lēm→ (*bò/ònú*) ‘(object) resting on a surface (head, palm of hand, table)’
or ‘very clean’
- d. *CvC* (no prolongation)
kêl (*bò/ònú*) ‘(door) flush to the frame, shut all the way’
- e. *CvCv*→
màrⁿí→ (*bò/ònú*) ‘sticky (clayey soil, chewing gum)’ or ‘having an ugly face’
sàrí→ (*bò/ònú*) ‘sticking way out, jutting, projecting out’
dògè→ (*bò/ònú*) ‘walking with head high (not looking down)’
bòbú→ (*bò/ònú*) ‘very fat (person)’
bòbù→ (*bò/ònú*) ‘pot-bellied (person)’
dèbù→ (*bò/ònú*) ‘covering mouth’, see (790)
pédè→ (*bò/ònú*) ‘very full (container, of liquid or grains)’
pètè→ (*bò/ònú*) ‘flat-topped (head, hat), flat (lips)’
pátà→ (*bò/ònú*) ‘flat and wide (buttocks, feet)’
múyⁿà→ (*bò/ònú*) ‘(large person or animal) facing off, posing menacingly (facing an enemy)’
- f. *Cv:Cv*→
gè:ⁿlí→ (*bò/ònú*) ‘ajar, slightly open’
- g. *CvCCv*→
jémbè→ (*bò/ònú*) ‘projecting out overhead’
- h. *CvCvC*→
yàgáw→ (*bò/ònú*) ‘very lightweight (and fairly big)’
yègèw→ (*bò/ònú*) ‘very lightweight’
síméyⁿ→ (*bò/ònú*) ‘walking with one’s head bent forward’
púdúm→ (*bò/ònú*) ‘lots of dust or ashes’ or ‘(plant) covered with flowers’
óndóm→ (*bò/ònú*) ‘oversized, swollen (pregnant woman, bowl)’
óndóm→ (*bò/ònú*) ‘shady (tree)’
- i. *CvCCvC*→ and *CvCCvC*
kéndém→ (*bò/ònú*) ‘(person, place) silent (after being noisy)’
cénzéyⁿ→ (*bò/ònú*) ‘lean, emaciated’, cf. *cénzém-béléy*→

j. trisyllabic and longer

with prolongation

jèmbìlí→ (*bò/ònú*) ‘teetering, at risk of falling off’

without prolongation

nàṅàlàṃ (↑ *bó/ònú*) ‘very rough, coarse’

nǎ:pìndiyà (*bò/ònú*) ‘enormous’

nǎ:pìndù (*bò/ònú*) ‘enormous’

Most of these EAs are not closely related phonologically to any non-EA stem. They are therefore generally unsegmentable. One can sense vaguely segmentable final *yⁿ ~ í.ⁿ* and *m* in some of the nonmonosyllabic EAs; note especially *cénzényⁿ*→ and synonym *cénzém-béléý*→ (281i). Compare the adjectival extension *-í.ⁿ* and variants, and suffix *-m* in various predicates (adjectival before *bò-*, imperfective, stative, progressive).

nǎ:pìndiyà and variant *nǎ:pìndù* in (281j) are regionally widespread borrowings from Songhay (Humburi Senni), where they parse as ‘mother(‘-s)-buttocks’, a common insult.

The *Cwi*→ shape in (281b) does not correspond to a #*Cwi* stem type in non-EA vocabulary. It likely reflects resyllabification of **Cuy*→, whereby prolongation of the **y* lead to desyllabification of the **u*.

Most EAs contain at least one H-tone, but some are /L/-toned. In this case *bò-* ‘be’ becomes ↑*bó-* by Rhythmic Tone-Raising.

8.4.7.5 Iterative EAs without vowel change

The stems in (282) are transparently iterative. In a few cases, the uniterated stem also exists as a non-EA stem, in which case iteration is a derivational device to produce EAs. Most, however, are suppletive, i.e. “nonsense” iterations. Many adjectival intensifiers (glossed ‘very ADJ’) are iterative, especially *CvC-CvC* and *CvCv-CvCv*. Onomatopoeias denoting continuous sounds are also present.

(282) Iterative EAs without vowel shift

a. *Cv:-Cv:*

cé.ⁿ-cé.ⁿ (*bò/ònú*) ‘very green’

dì:-dà: (↑ *bó/ònú*) ‘sprawling (vegetation), much-branched (tree)’ or
‘(clouds) overcast’

pé:-pé: (*bò/ònú*) ‘(breeze) blowing lightly’

b. *CvC-CvC*

céyⁿ-céyⁿ (*bò/ònú*) ‘very hard’

dǎyⁿ-dǎyⁿ (*bò/ònú*) ‘very red’

gáyⁿ-gáyⁿ (*bò/ònú*) ‘very full, expanded to the maximum (stomach, sack)’

gǎyⁿ-gǎyⁿ (*bò/ònú*) ‘(door) tightly closed’

něṅ-něṅ (*bò/ònú*) ‘very sweet’

<i>pál-pál</i>	‘very hot (object)’
<i>péy-péy (bò/ònú)</i>	‘very unripe’
<i>sěy-sěy (bò/ònú)</i>	‘(cleaned) completely’
<i>tǎy-tǎy (bò/ònú)</i>	‘(cleaned) completely’, ‘completely used up (money, food, etc.)’
<i>táyⁿ-táyⁿ (bò/ònú)</i>	‘very tight (rope, garment)’
<i>yàw-yàw (ʔbó/ònú)</i>	‘(bird) taking off, flapping wings ready to fly’ (also <i>kán</i>), ‘fast-growing (erect plant)’
<i>yěy-yěy (bò/ònú)</i>	‘falling exhausted to the ground (weak animal, defeated wrestler)’

c. *CvCv-CvCv*

<i>òró-òró (bò/ònú)</i>	‘(head) completely clean-shaven’
<i>árⁿá-árⁿá (bò/ònú)</i>	‘scattered, here and there’
<i>bòdú-bòdú (bò/ònú)</i>	‘very soft, very supple’
<i>bòzú-bòzú (bò/ònú)</i>	‘very wet’
<i>bìrú-bìrú</i>	‘(fire) flaring up, having long flames’
<i>bìrú-bìrú(-bìrú)</i>	‘(sb) absorbed in work, working with great concentration’
<i>bìrù-bìrù (bò/ònú)</i>	‘(wounded bird, animal after throat is cut) flopping around’
<i>cérⁿé-cérⁿé (bò/ònú)</i>	‘very thin’
<i>cérú-cérú (bò/ònú)</i>	‘(moonlight) shining brightly’
<i>dàyé-dàyé (bò/ònú)</i>	‘wave (hand)’ (also <i>kán</i>)
<i>gàzù-gàzù (ʔbó/ònú)</i>	‘(milk, cream of millet) separating into layers when boiled’ or ‘(unripe millet grains) oozing latex’
<i>kúsú-kúsú (bò/ònú)</i>	‘very black’
<i>ɲèɲé-ɲèɲé (bò/ònú)</i>	‘very sharp (point, blade)’
<i>pérú-pérú</i>	‘very white’
~ <i>páru-páru (bò/ònú)</i>	
<i>písú-písú (bò/ònú)</i>	‘hopelessly lost’
<i>púlá-púlá (bò/ònú)</i>	‘brand (new)’
<i>púlá-púlá (bò/ònú)</i>	‘steaming hot (food or liquid right off the fire)’
<i>sébú-sébú (bò/ònú)</i>	‘very tall and thin (e.g. antenna)’
<i>sèbù-sèbù (ʔbó/ònú)</i>	‘liquid seeping in (footsteps in mud near water, mouth salivating before vomiting)’
<i>tágù-tágù (bò/ònú)</i>	‘spotted’ (also <i>kán</i>)
<i>tègú-tègú (bò/ònú)</i>	‘trembling, quaking’
<i>téɲé-téɲé (bò/ònú)</i>	‘very fine (powder)’, expandible as <i>téɲé-téɲé kórú</i> with <i>kórú</i> ‘burnt-bone powder’ as exemplar
<i>tómù-tómù (bò/ònú)</i>	‘having gaps (e.g. ear of corn), widely spaced, well spread out’, hence ‘occasionally’ (verb <i>tómó</i> ‘be isolated’)
<i>wílé-wílé (bò/ònú)</i>	‘flapping, dangling’ (also <i>kán</i>)

- d. *CvCCv-CvCCv*
tòm bú-tòm bú (bò/ònú) ‘(infant, drunk) walking clumsily’, ‘speaking clumsily (not making much sense)’
- e. *CvCvC-CvCvC*
bèl éyⁿ-bèl éyⁿ (bò/ònú) ‘(fire, airplace, firefly) flickering, glimmering’
dà rⁿáyⁿ-dà rⁿáyⁿ (bò/ònú) ‘very sour’ (< *dǎn*)
é lém-é lém (bò/ònú) ‘lightly sugared or salted’ (< *ě* ‘sweet’)
kà yàw-kà yàw (kán) ‘sound of crunching (e.g. carrot, cassava, kola)’
ké rém-ké rém (bò/ònú) ‘very tight (rope)’
kò yòw-kò yòw (kán) ‘sound of crunching (dry food, e.g. dried fish or meat, bread, dog crunching a bone)’

kó róm-kó róm (bò/ònú) ‘fit, in good shape’
jà ñám-jà ñám (bò/ònú) ‘sound of chomping (on meat)’
sù yàw-sù yàw (ʔ bó/ònú) ‘crunching, rustling (walking through dry grass)’
sá gú-sá gú (kán) ‘swallowing sound’
tô y-tô y (kán) ‘(dog) crunching (e.g. a bone)’
- f. *Cv:CvC-Cv:CvC*
bǔ:ròm-bǔ:ròm (bò/ònú) ‘soft, not firm (overripe fruit, partially deflated ball)’
- g. trisyllabic and longer
gágìlè-gágìlè (bò/ònú) ‘fidgeting (while seated)’ or ‘(person, donkey) rubbing one’s body against a wall’
kólógó-kólógó (bò/ònú) ‘loose-fitting, oversized (shoes, hat)’
púbùlè-púbùlè ‘rubbing; (blind person) groping (with hands)’
~ púbúlól-púbùlè (bò/ònú) (< verb *púbúlól*)
[tábì-yè]-[tábì-yè] ‘pushing off with one’s hands (e.g. climbing)’
~ [tábì-yé]-[tábì-yé] (bò/ònú) (< verb *tábì-yé*)
zàrágá-zàrágá (bò/ònú) ‘dangling or quivering in the air (e.g. small live prey in predator’s mouth)’

Two examples in (282g) are straightforward derivational iterations of input verbs. I found some fluctuation between H.L.L-H.L.L and H.H.H-L.L.L tones in these cases. Given the stress attack on the first syllable of H.H.H and of L.L.L words, H.L.L-H.L.L and H.H.H-L.L.L are difficult to distinguish.

In (283a), the iteration is not complete, and the initial looks more like a *Cv*-reduplication. In (283b), the iteration is of an adjective with the *-í:ⁿ* extension, though in the case of *[ðk-í:ⁿ]-[ðk-í:ⁿ]* the corresponding uniterated adjective (*#ðkú*, *#ðk-í:ⁿ* does not exist). The base in (283c) can be doubled or tripled, more or less onomatopoeically.

- (283) a. *sêⁿ-sêⁿ* (*bò/ònú*) ‘newborn’
- b. *[ðk-í:ⁿ]-[ðk-í:ⁿ]* (*bò/ònú*) ‘walking fast, striding’ (strong word)
[ðj-í:ⁿ]-[ðj-í:ⁿ] (*bò/ònú*) ‘fast, rapidly’ (adverb) (< *ðjú* ‘hot, fast’)
[bèd-í:ⁿ]-[bèd-í:ⁿ] (*bò/ònú*) ‘(villages, houses, trees) closely spaced, in sight of one another’; ‘from time to time, occasionally’
- c. *kìm-kìm(-kìm)* (*†bó/ònú*) ‘shivering with cold’ or ‘trembling, quaking’

8.4.7.6 Iterative EAs with vowel shift to *a*

In a few cases, a two-part iterative base shifts either all vowels or just the initial vowel to *a* in the second occurrence. A similar vowel shift occurs in some iterative noun stems (§4.1.4.3).

In (284b), the iteration is optional. In (284c), the vowel shift is not consistent.

(284) Iterative EAs with vowel shift to *a* in second occurrence

- a. *wìlìl-wàlàl* (*†bó/ònú*) ‘having roots spreading at base (tree)’ or ‘(wires, cords, hairs) spreading out’
- b. *sô:ⁿ* (*bò/ònú*) ‘oily, dripping with oil’
sô:ⁿ-sâ:ⁿ (*bò/ònú*) ‘oily, dripping with oil’
- c. *múrⁿúnù-múrⁿúnù* (*bò/ònú*, or with *ún* ‘go’)
 ~ *múrⁿúnù-márⁿúnù* ‘(snake) slithering along slowly’

In EAs with the base tripled rather than just doubled, the shift to *a* is very common. It applies to the medial occurrence in X-A-X, which is also tone-dropped. The third element is an exact copy of the first. If the base is nonmonosyllabic, the shift to *a* occurs in the first syllable, and extends to later syllables where the base has *ɔ* (but not *u*). The tripling of the base is generally iconic, as most of these EAs denote gaits characterized by multiple repetition of an awkward movement. Further extension to X-A-X-A-X is possible in some cases (285f).

(285) Twice-iterated EAs with shift to *a* and L-tone in medial occurrence

- a. *Cv:-Ca:-Cv:*
- hò:-hà:-hò:* (*bò/ònú*) ‘loud chatter’
- tí:-tà:-tí:* (*bò/ònú*) ‘struggling to walk or run’
- zè:-zà:-zè:* (*†bó/ònú*) ‘swaying slowly from side to side (like hawk gliding)’
- zì:-zà:-zì:* (*†bó/ònú*) ‘lurching from side to side’

- b. *CvN-CaN-CvN*
dím-dàm-dím (bò/ònú) ‘sound of footsteps’
- c. *Cv(N)Cv-Ca(N)Cv-Cv(N)Cv* etc.
jìbù-jàbù-jìbù (bò/ònú) ‘staggering or stumbling along’
kòlò-kàlà-kòlò (bò/ònú) ‘sudden noise, hubbub, mêlée’
gùndú-gàndù-gùndú (bò/ònú) ‘swaying, lumbering (like elephant walking)’
tòmbù-tàmbù-tòmbù (bò/ònú) ‘staggering or stumbling along’
- d. *Cɔ:Cɔ(C)-Ca:Ca(C)-Cɔ:Cɔ(C)*
nɔ:gɔ-nà:gà-nɔ:gɔ (bò/ònú) ‘walking with body lurching forward & backward (e.g. animal with long legs or long neck)’
bɔ̃:rəm-bà:rəm-bɔ̃:rəm ‘over-ripe and soft (fruit)’, variant of *bɔ̃:rəm-bɔ̃:rəm*
- e. *CvNCuCu-CaNCuCu-CvNCuCu*
pèmbùrù-pàmbùrù-pèmbùrù (bò/ònú) ‘(tall person) walking stiffly (with legs rubbing)’
- f. *cébí-càbì-cébí-càbì-cébí* ‘with short quick steps’, see (781)

8.4.7.7 Iterative EAs with multiple final *Cv* reduplication

Another fairly common type of EA involves a *CvCv* base whose final *Cv* is repeated two or three (occasionally more) times, in some cases with a consonantal alternation involving liquids ($r^n \rightarrow n$, $r \rightarrow d$, $r \rightarrow l$, $nd \rightarrow l$). Some examples are derived from adjectives and function as intensifiers. Others are unrelated to any other stem. This type of EA has a strong sensory bias. It is popular with smell categories, with visual gestalts (repetitive visual patterns, conspicuous size), and to a lesser extent taste.

(286) Multiple final *Cv* reduplication

- a. deadjectival, from bisyllabic base
éíé-lé-lé-lé (bò/ònú) ‘very sweet’ (< *éí*)
gàlá-lá-lá-lá (bò/ònú) ‘very bitter’ (< *gàl*)
pèlélé(lé) (bò/ònú) ‘very tasty’ (cf. adjective *pèlél*)
- b. deadjectival, from trisyllabic base
òr"ónónó (bò/ònú) ‘very smooth’ (< *òr"òndú*)

c. illumination

<i>dàzázázá (bò/ònú)</i>	‘bright light aimed in a direction (headlights, flashlight)’
<i>bòzózózó (bò/ònú)</i>	‘bright (point of light, e.g. start)’
<i>wèzézézé (bò/ònú)</i>	‘bright, well-illuminated (space)’
<i>wàzázázá (bò/ònú)</i>	‘bright, well-illuminated (space)’ [wider space]

d. visible characteristics

<i>sér"énénéné (bò/ònú)</i>	‘straight-nosed’
<i>súbúbúbú (bò/ònú)</i>	‘very tall’
<i>pùn ɟɲɟɲɲɲ(ɲɲ) (bò/ònú)</i>	‘having lots of flowers’ (cf. <i>pùn</i> ‘flower’)
<i>dànálálálá (bò/ònú)</i>	‘wide, round space (e.g. for playing or a site for a new house)’
<i>àyáyáyá (bò/ònú)</i>	‘conspicuously visible (body of water)’
<i>àɲáɲáɲá (bò/ònú)</i>	‘very large (animal, e.g. elephant, python)’
<i>yàrálálálá (bò/ònú)</i>	‘(planted crops) sprouting well all over’
<i>yàgárálálá (bò/ònú)</i>	‘running at top speed’
<i>téndélélélé (bò/ònú)</i>	‘running at top speed’ (cf. adj <i>tèl</i>)
<i>sùrúdúdú (bò/ònú)</i>	‘sth long and thin (rope, snake) landing on the ground after jumping or falling’ or ‘(grain) being poured into a sack’
<i>mě:r"èm (bò/ònú)</i>	‘(door, hole, sack opening) tightly closed’

e. smell and taste

<i>kèméémé (bò/ònú)</i>	‘foul-smelling (urine)’
<i>kùzázázá (bò/ònú)</i>	‘foul-smelling (animal secretions)’
<i>gòlólóló (bò/ònú)</i>	‘acid-smelling (fresh onions or cow-peas)’
<i>gòmómómó (bò/ònú)</i>	‘rotten-smelling, very rotten’
<i>àmámámá (bò/ònú)</i>	‘foul-smelling (rancid but not yet rotten meat), foul-smelling (fart)’
<i>sàmámámá (bò/ònú)</i>	‘smelling like fresh fish, meat, or milk’ (< noun <i>sámámù</i> ‘odor of raw meat (etc.)’)

8.4.7.8 Composite EAs

Most EAs are unsegmentable, except for iterations and reduplicative syllables. A few appear to be marginally composite, either on grounds of prosodic appearance or because one element is attested elsewhere (287). Some others are used with a body-part term (paronym), which may be incorporated as a compound initial or may be separate (287c).

(287) Composite EAs

a. phrased prosodically like compounds

- èrègè-děw* → (*bò/ònú*) ‘everything, totally’
òrògò-dǒw → (*bò/ònú*) ‘completely clean-shaven’, synonym *òró-òró*

b. initial also occurs separately

- cénzém-béléy* → (*bò/ònú*) ‘emaciated’ (cf. *cénzényⁿ*)
bòbù-tàrò (*†bó/ònú*) ‘very thick, massive’ (cf. *bòbù* →)
bàⁿzà-zàⁿ (*†bó/ònú*) ‘reddish (ripening fruits)’
(*<* noun *bàⁿzà* ‘reddish color of gravel’ or ‘suffering due to sickness’)
sím bǎ → (*bò/ònú*) ‘towering (tall as a palm tree)’
(*<* *sím* ‘borassus palm’, *bǎ*: ‘equal [v]’)

c. with paronym

- gìd-íyè jěyⁿ* → (*bò/ònú*) ‘small-eyed, narrow-eyed’
dìmè gòmbú → (*bò/ònú*) ‘(forehead) protruding (with eyes recessed)’
dìmè jémbè → (*bò/ònú*) ‘(forehead) protruding (with eyes recessed)’
gìdè dà:-dà: ,
~ *gìd-íyè [dà:-dà:]* (*†bó/ònú*) ‘having poor vision (but not blind)’
dùmó ká:ⁿ-kà:ⁿ-ká:ⁿ (*bò/ònú*) ‘walking with legs widely separated (after being circumcised)’
nùmà [dàyé-dàyé] kán ‘wave hand (as a signal)’

8.4.7.9 EAs not attested with *bò-* and *ònú-*

Some expressive adverbials, including some in the lists above, are not attested as simple predicates with *bò-* ‘be’ and *ònú-* ‘not be’. Some that denote abrupt movements and/or loud noises prefer *kán* ‘do, make’ (288a), and others are attested only with (intransitive or transitive) motion verbs (288b).

(288) a. with *kán* ‘do, make’

abrupt movement

- kák kán* ‘(stop) still’
mèmélé^m kán ‘go out of sight (hidden behind sth)’
nà: téyⁿ → kán ‘(monkey) stick out foot’ (*<* *nà:* ‘foot’)

abrupt movement associated with loud noise

- wòyòw → kán* ‘(bird, tree) landing with a thud’
bòbù kán ‘(mango, toad) plopping, hitting the ground hard’

loud noises

kàyàw-kàyàw kán

‘sound of crunching food (e.g. carrot, cassava, kola)’

kòyòw-kòyòw kán

‘sound of crunching food (dry food, e.g. dried fish or meat, bread; dog crunching a bone)’

ságú-ságú kán

‘swallowing sound’

tôy-tôy kán

‘(dog) crunching (e.g. a bone)’

b. with motion verb

with ‘chase away’

yěy-yěy làlì-yé

‘shoo flies away’

with ‘pass by’

pélúm nǎŋ

‘pass by with a swoosh’

with ‘go in’

mèlěm nó

‘run headling into’ (also *kán*)

mérⁿém nó

‘burst in’

with ‘go out’

sàrí→ gó

‘stick way out’

pwí gó

‘go out abruptly’ (also *kán*)

with ‘go’

súrùdù-súrùdù ún

‘(cripple) drag self along, (snake) move fast’

múrⁿúnù-múrⁿúnù

‘(snake) slithering along slowly’ (also with *bò/ònú*)

kán ‘do, make’ is also regular with nonce onomatopoeias, manual gestures, etc. Compare English *go X* as in *it went “kerplop”*.

8.4.7.10 Borderline or aberrant EAs

The expressive adverbials in (290) are idiosyncratic in form or in syntax.

(290)	EA	gloss (and comment)
a.	<i>tí→</i>	‘at first, firstly’ (§8.4.6.2) (not predicative; can function as a noun or adjective: <i>tí→ wò</i> ‘the first [one]’, <i>ìzèn^L tí→ wò</i> ‘the first day’)
b.	<i>té→, té:-té: (bò/ònú)</i>	‘precisely’ (usually follows NP, pronoun, or adverb: <i>ná té→</i> ‘precisely him/her’, <i>tól gè té→</i> ‘precisely the pig’, <i>kôyⁿ té:-té: bò</i> ‘it’s precisely thus’; occasionally incorporated into NP with following definite marker, but no tonosyntactic effect on preceding word: <i>ná té→/té:-té: gè</i> ‘precisely him’, <i>tól té→ gè</i> ‘precisely the pig’)

- c. *jèŋǎ-ŋ* (*bò/ònú*) ‘tilted’ (cf. also *jèŋ gá bò*)
jèn-jè-y († *bó/ònú*) ‘tilted’
- d. *cém* → (*bò/ònú*) ‘a little’ (§8.4.2)
sáy → (*bò/ònú*) ‘a lot’ (§8.4.2)

8.4.8 Other iterative adverbs

For the forms of distributive numerals (‘one by one’ = ‘one at a time’, etc.), see §4.7.1.6. These numerals can be used adverbially in contexts like like ‘(they came) two by two’ and ‘(I gave them candies) two apiece’.

8.4.8.1 ‘Scattered, here and there’ (*òmó-òmó*)

The noun *òmó* ‘place’ can be reduplicated to form the distributive adverb *òmó-òmó* ‘in places, here and there’, suggesting a sparse and scattered distribution. For this sense see also *tùmây-túmây* (§4.7.1.6).

8.4.8.2 ‘Occasionally’ (*lègè-lègè*)

The noun *lègè* ‘day’ (also *bàl-lègè* ‘day’) forms an iterative adverb *lègè-lègè* ‘(on) some days’, i.e. ‘occasionally, from time to time’.

9 Verbal derivation

The productive suffixal derivations (stem to stem) for verbs are the reversive (‘un-...’) and the causative. Some verbs occur with either of two complementary endings, mediopassive and transitive. Adjectives have corresponding intransitive (inchoative) and transitive (factitive) verb forms. These are in most cases phonologically similar, but not directly formed from the adjective by adding a suffix.

9.1 Reversive verbs (-*lv*-)

The reversive suffix is *-lv-*, realized as {-*lé -lé -ló -ló*} depending on the vocalism of the input stem. Reversive derivatives can often be translated with English *un-* verbs, intransitive or transitive. Reversive *-lv-* in YD is clearly distinct from transitive *-dv-*, unlike the case in some other Dogon languages where the two derivations are often homophonous.

A reversive derivation may be followed by further derivational suffixes (mediopassive, causative). However, the reversive derivation itself puts clear restrictions on the form of input stems. The attested output shapes are *CvI-lv-*, *CvCv-lv-*, and *CvNCv-lv-*.

Most of the known examples are *CvCv-lv-* from *CvCv-* inputs. As with other trisyllabics (except causatives), the vowel of the second syllable from the left appears as a high vowel *i* or *u* (often fluctuating). Examples are in (291).

(291) Reversive *CvCi/u-lv-* from *CvCv*

input	gloss	reversive	gloss
<i>nàmú</i>	‘step on’	<i>nàmú-lé</i>	‘take foot off’
<i>kómó</i>	‘tie’	<i>kómú-ló</i>	‘untie’
<i>tímé</i>	‘put lid on’	<i>tímí-lé</i>	‘take lid off’
<i>mùnó</i>	‘tangle’	<i>mùnú-ló</i>	‘untangle’
<i>mènέ</i>	‘fold’	<i>mèní-lé</i>	‘unfold’
<i>dìŋé</i>	‘tie (knot)’	<i>dìŋí-lé</i>	‘untie (knot)’
<i>sógó</i>	‘loop’	<i>sógú-lé</i>	‘unloop’
<i>lègé</i>	‘insert’	<i>lègú-lé</i>	‘remove (sth inserted)’
<i>pégé</i>	‘button up’	<i>pégí-lé</i>	‘unbutton’
<i>tágé</i>	‘put on (shoes)’	<i>tágí-lé</i>	‘take off (shoes)’
<i>págú</i>	‘tie’	<i>págú-lé</i>	‘untie’
<i>dàgú</i>	‘lock’	<i>dàgí-lé</i>	‘unlock’

There are a few cases of *CvNCv-Iv-* where the *NC* is a homorganic nasal-stop cluster (292). The reversive sometimes reveals a *CvNCv* stem shape, and a lexical tone melody, that is concealed in the corresponding nonreversive form due to syncope, as with ‘uncover’ in (292).

(292) Reversive *CvNCi/u-Iv-* from *CvNCv*

input	gloss	reversive	gloss
<i>m̀̀ndó</i>	‘seal up’	<i>m̀̀ndú-lé</i>	‘unseal’
<i>yám-dé</i>	‘cover (sb)’	<i>ỳ̀mbú-lé</i>	‘uncover’

Cvly, *Cvdy*, *Cv:dv*, and *Cvrⁿv* (presumably also *Cvrv*) stems combine with the reversive suffix as *Cvl-Iv*. This requires syncope (§3.5.3.4) followed by assimilation of *d* or a rhotic to the following *l*, see §3.5.4.3-4.

(293) Reversive *Cvl-Iv-*

input	gloss	reversive	gloss
<i>from Cvly</i>			
<i>m̀̀lé</i>	‘braid (rope)’	<i>m̀̀l-lé</i>	‘unbraid (rope)’
<i>from Cvdy</i>			
<i>tádú</i>	‘be affixed’	<i>tál-lé</i>	‘(sth affixed) be removed’
<i>g̀̀dé</i>	‘immobilize’	<i>g̀̀l-lé</i>	‘un-immobilize, remove immobilizing object from’
<i>p̀̀dé</i>	‘shut (door)’	<i>p̀̀l-lé ~ p̀̀l-ló</i>	‘open (door)’
<i>b̀̀dó</i>	‘bury’	<i>b̀̀l-ló</i>	‘disinter’
<i>from Cv:dv</i>			
<i>dé:dé</i>	‘extend (e.g. arm)’	<i>dél-lé</i>	‘pull back, retract (extended arm)’
<i>from Cvrⁿv</i>			
<i>m̀̀ǎn</i> (< /m̀̀ar ⁿ ǎ-/)	‘seal (with mud)’	<i>m̀̀al-lé</i>	‘unseal’
<i>other</i>			
<i>g̀̀ój-jó</i>	‘be inserted’	<i>g̀̀ól-lí-yé</i>	‘be dis-inserted’
<i>g̀̀ó:-dó</i>	‘insert’	<i>g̀̀ól-ló</i>	‘dis-insert (remove)’

In the next-to-last example (*m̀̀al-lé*), an alternative (which I do not favor) would be to first delete the medial syllable (Medial *Cv*-Truncation, §3.5.4.7), then double the suffixal *l*

(Lateral-Doubling, §3.5.4.2). This seems rather like taking two steps forward and one step back. In either case, the first-syllable vowel must be shortened (*v*-Shortening, §3.5.3.5).

See also *gól-ló* ‘take off hat’ in the next set below. Another such case is *kól-ló* ‘unhook (sth hanging)’, but this is complicated by the fact that the corresponding verb *kór-dó* ‘hook (sth) up’ has dissimilated (§3.5.4.5) from underlying /*kódú-dó*/, compare mediopassive *kódí-yó* ‘be hung up’.

For some verbs such as those denoting putting on garments, the distinction in nonreversible contexts between dressing oneself (mediopassive) and dressing another (transitive) is neutralized in the reversible. Therefore the mediopassive suffix is normally omitted in the reversives in (294) even when (as usual) the context is undressing oneself rather than another person.

(294) Mediopassive omitted in reversible

input	gloss	reversible	gloss
<i>tóbí-yó</i>	‘roll turban’	<i>tóbú-ló</i>	‘unroll turban’
<i>nún-jé</i>	‘put on (clothes)’	<i>nùṅú-ló</i>	‘get undressed’
<i>gòdí-yó</i>	‘put on (hat)’	<i>gól-ló</i>	‘take off (hat)’

The mediopassive suffix is also absent from another case, but for a different reason. Mediopassive *dín-jé* ‘(flour) stick to mortar’ refers to the fact that some grain pounded in a mortar remains stuck to the inside of the mortar when the rest is removed. The corresponding reversible is the transitive *dìṅí-ló* ‘remove (grain stuck in mortar)’. Here the real-world context requires agency only in the reversible.

Restrictions on reversible prosodic shapes are clearly at work in the irregular (295a-c).

(295) Prosodic mismatches from underived to reversible stem

	input	gloss	reversible	gloss
a.	<i>dǎ:</i>	‘cover opening’	<i>dál-lé</i>	‘uncover opening’
	<i>kó:</i>	‘cover with hide’	<i>kól-ló</i>	‘remove hide covering from’
b.	<i>bá:-ndé</i>	‘hide (sth)’	<i>bàṅí-lé</i>	‘uncover, reveal’
c.	<i>nán-jé</i>	‘be caught’	<i>nàṅí-lí-yé</i>	‘become un-caught’

For *CvI-Iv* from *Cv:* in (295a), see Lateral-Doubling (§3.5.4.2, above).

In (295b), *bá:-ndé* ‘hide (sth)’ is part of a word-family that includes *bán-jé* ‘hide (self)’ and adjective *bǎṅ* ‘secret, hidden’. The verbs at least could derive from a theoretical underlying *u*-final stem /*bàṅú*/, but the relationships are synchronically rather opaque.

In (295c), *nán-jé* is syncopated from **nàṅí-gí-yé* (Pergue *náṅí-gí-yé*, Nanga *nóṅí-gí-yé*, etc.).

There are undoubtedly some frozen reversives that do not have a corresponding underived stem, e.g. *sónzúló* ‘undo (braids)’.

9.2 Deverbal causative verbs

9.2.1 Productive causative with suffix *-mé* ~ *-mó*

The productive causative suffix added to verb inputs is *-mé* ~ *-mó*. The variant with *-mó* in the bare stem occurs after input stems that have a back rounded vowel. The primary allomorph is *-mé*. For a handful of cases where *-mé* ~ *-mó* is passive rather than causative, see §9.3.2.

The causative suffix has morphophonological properties different from those of other verbal derivational suffixes. The reversive, mediopassive, and transitive suffixes create stems (typically trisyllabic or longer) to which the regular constraints on vocalism and tone melodies (re-)apply. This involves raising of the second vowel of *CvCv-Cv* to *i* or *u* (§3.5.2.1) and harmonizing the ATR values of the suffixal vowel with that of the first stem vowel.

By contrast, the causative (in its own bare stem and E-stem) is added to the bare stem of the input verb, which often ends in a non-high vowel. The causative suffix inconsistently harmonizes with the stem vowels in rounding, shifting to *-mó*, as in *ún-mó* ‘cause to go’ and *kúdú-mó* ‘cause to be undiluted’. However, the suffix does not harmonize its ATR value, so -ATR suffix *-mé* readily co-occurs with +ATR or -ATR stem vowels. The stem preceding the causative suffix retains a lexical tone melody in some but not all cases. The stem-suffix sequence is subject to tone overlays controlled by an AN or modal category following the causative suffix, such as perfective negative or imperfective negative.

(296) gives examples of causatives from monosyllabic inputs. For the tone melodic classes like /H ~ H/, see §3.7.1.2. These data already suggest how easy it is to make causatives even of transitive inputs.

(296) Causative from monosyllabic verb

input	gloss	causative	gloss
a. <i>Cv</i>			
/H ~ H/			
<i>nó</i>	‘go in’	<i>nó-mó</i>	‘put in’
<i>tó</i>	‘slash (earth)’	<i>tó-mó</i>	‘cause to slash (earth)’
<i>zó</i>	‘bring’ (§10.2.1.8)	<i>zó-mé</i>	‘cause to bring’
/H ~ L/			
<i>jé</i>	‘dance’	<i>jé-mé</i>	‘make dance’
<i>yé</i>	‘weep’	<i>yé-mé</i>	‘make weep’
<i>nó</i>	‘hear’	<i>nó-mó</i>	‘cause to hear’

b. *Cv*:

/H ~ H/

<i>pé:</i>	‘become old’	<i>pé:-mé</i>	‘cause to be old’
<i>é:ⁿ</i>	‘become hard’	<i>é:ⁿ-mé</i>	‘cause to be hard’

/LH ~ L/ becoming /H ~ L/

<i>mă:</i>	‘make (bricks)’	<i>mă:-mé</i>	‘cause to make (bricks)’
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/LH ~ LH/ becoming /H ~ L/

<i>nă:</i>	‘spend night’	<i>nă:-mé</i>	‘have (sb) spend the night’
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Where the input stem is /LH ~ L/ or /LH ~ LH/, the causative is /H ~ L/. Although ‘put in’ and ‘cause to hear’ are indistinguishable in the bare stem and several other forms, *nó-mó* ‘put in’ is /H ~ H/ while *nó-mó* ‘cause to hear’ is /H ~ L/. The perfective negative forms are therefore *nó-má-lí-* ‘did not put in’ and *nò-mà-lí-* ‘did not cause to hear’.

A *Cv̄:-mé* causative of a distinct type is *zò:-mé*, variant of *zùwó-mé* ‘introduce (sb, to sb else)’, reflecting an idiosyncratic contraction, cf. *zùwó* ‘know’.

Causatives from bisyllabic inputs are in (297).

(297) Causative from bisyllabic verb

input	gloss	causative	gloss
a. marginally bisyllabic			
/H ~ H/			
<i>ʔólé</i>	‘become ripe’	<i>ʔólé-mé</i>	‘cause to ripen’
<i>ʔéjé</i>	‘eat (meal)’	<i>ʔéjé-mé</i>	‘feed, nourish’
<i>édé</i>	‘braid’	<i>édé-mé</i>	‘have (sb) braid’
/H ~ L/			
<i>ńdé</i>	‘give’	<i>ńdé-mé</i>	‘cause to give’
<i>ʔólé</i>	‘go up’	<i>ʔólé-mé</i>	‘cause to go up’
b. <i>CvCv</i> , not <i>u</i> -final			
/H ~ H/			
<i>kúbó</i>	‘eat (meat)’	<i>kúbó-mó</i>	‘give meat to’
<i>píyé</i>	‘sew’	<i>píyé-mé</i>	‘have (sb) sew’
/H ~ L/			
<i>wéjé</i>	‘give change’	<i>wéjé-mé</i>	‘make give change’
/LH ~ L/			
<i>nìyⁿé</i>	‘drink’	<i>nìyⁿé-mé</i>	‘give drink to’
<i>zòbó</i>	‘run’	<i>zòbó-mó</i>	‘make run, drive’
/LH ~ LH/			
<i>nìyⁿé</i>	‘sleep’	<i>nìyⁿé-mé</i>	‘put to sleep’
<i>lèlé</i>	‘make mistake’	<i>lèlé-mé</i>	‘cause to err’

c. *CaCu* (*u*-final)

/H ~ H/

<i>ádú</i>	‘(baby) suckle’	<i>ádú-mó</i>	‘give suck to’
<i>kágú</i>	‘be charred’	<i>kágú-mé</i>	‘char (sth)’
<i>kán</i>	‘do, make’	<i>kán-mé</i>	‘cause to do or make’
<i>ám</i>	‘be good-sized’	<i>ám-mé</i>	‘keep (animal) good-sized’

/LH ~ L/

<i>wàzú</i>	‘be left over’	<i>wàzú-mé</i>	‘cause to be left over’
<i>dám</i>	‘speak’	<i>dám-mé</i>	‘make speak’
<i>zǎŋ</i>	‘study’	<i>zǎŋ-mé</i>	‘teach’
<i>bǎn</i>	‘become red’	<i>bán-mé</i>	‘make red’

/LH ~ LH/

<i>nàmú</i>	‘step on’	<i>nàmú-mé</i>	‘cause to step on’
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The causative suffix may be added to longer stems than those illustrated above. It is generally possible to elicit it with any input stem, transitive or intransitive, though stems with a transitive suffix *-dv* or *-ndv* that has causative-like sense are in practice not combinable with the regular causative suffix.

Some examples of longer stems are in (298). The causative suffix may be added to stems that already include one or more other derivational suffixes, including reversives (‘untie’), mediopassives (*-yé*), and deadjectival inchoatives.

(298) Long causatives

input	gloss	causative	gloss
a. <i>CvCCv</i>			
<i>tómbó</i>	‘jump’	<i>tómbó-mé</i>	‘cause to jump’
<i>kúnzó</i>	‘become coarse’	<i>kúnzó-mé</i>	‘make coarse’
b. trisyllabic			
<i>íngílé</i>	‘get up’	<i>íngílé-mé</i>	‘cause to get up’
<i>élí-yé</i>	‘escape’	<i>élí-yé-mé</i>	‘allow to escape’
<i>bàdíyé</i>	‘become big’	<i>bàdíyé-mé</i>	‘make big’
c. quadrisyllabic			
<i>dèmbíí-yé</i>	‘become wide’	<i>dèmbíí-yé-mé</i>	‘make (sth) wide’
<i>dúm-dí-yó</i>	‘become short’	<i>dúm-dí-yó-mé</i>	‘shorten (sth)’
<i>wàgí-ndí-yé</i>	‘go far away’	<i>wàgí-ndí-yé-mé</i>	‘take far away’
<i>kómú-lé</i>	‘untie’	<i>kómú-lé-mé</i>	‘cause to untie’

Causatives have full AN and modal paradigms, and undergo the usual tonal and vocalic modifications in the various stem shapes, as exemplified in (298). *zòbó-mó* ‘make run’ follows the usual pattern whereby the A/O-stem changes stem-final (here, suffix-final) {*ɛ* *ɔ*}

to *a*. The stem-type classification in the rightmost column (bare, E-stem, A/O-stem) affects the form of *-mé* but does not affect the preceding input stem.

(299)	‘make run’	‘make lie down’	category	stem-type
a.	<i>z̀̀̀́-<i>m</i>́</i>	<i>b̀̀̀́-<i>m</i>́́</i>	bare stem	bare
	<i>z̀̀̀́-<i>m</i>́́-</i>	<i>b̀̀̀́-<i>m</i>́́́-</i>	perfective	E
	<i>z̀̀̀̀-<i>m</i>́́-<i>nán</i>-</i>	<i>b̀̀̀̀-<i>m</i>́́-<i>nán</i>-</i>	imperfective negative	bare
	~ <i>z̀̀̀̀-<i>m</i>́́-<i>nán</i>-</i>			
b.	<i>z̀̀̀́-<i>má</i></i>	<i>b̀̀̀́-<i>má</i></i>	imperative	A/O
	<i>z̀̀̀̀-<i>mà</i>-<i>lí</i>-</i>	<i>b̀̀̀̀-<i>mà</i>-<i>lí</i>-</i>	perfective negative	A/O

Syncope and truncation of the final syllable of the stem are not usual in this causative derivation. However, I can cite one case of truncation in a deadjectival factitive.

(300)	input	gloss	causative	gloss
	<i>wá:-<i>ndí</i>-<i>yé</i></i>	‘become wide’	<i>wá:-<i>n</i>-<i>mé</i></i>	‘widen (sth)’

9.2.2 Minor causative suffixes (*-gv*, *-lv*)

p̀́z̀́ú-g̀́ ‘crumble (sth)’ may have a vestigial minor causative suffix, cf. intransitive *p̀́z̀́* ‘(sth) crumble’. Other Dogon languages have a larger number of examples of a *-gv* causative, though still a minority causative type.

-lv transitivity two verbs of group separation: *g̀́nέ́* ‘(group) scatter’ becomes *g̀́nί́-*lé** ‘scatter (them)’; *kábu* ‘become separated’ becomes *kábu-*lé** ‘separate (them)’.

Some verbs that end in what I call the “transitive” suffix function more or less as causatives from mediopassive (middle) inputs. This is especially the case when a transitive verb with suffix *-dv*, *-nv*, or *-ndv* is paired with an unsuffixed intransitive verb. See below, §9.3.1.1-3. There are also some deadjectival factitives with similar morphology (§9.5).

There may be numerous cases of frozen minor causative suffixes, no longer synchronically segmentable, among trisyllabic transitive verbs.

9.3 Passive and transitive

9.3.1 Mediopassive *-ý* (*-j́*) and transitive *-d́* (*-ŕ*)

The mediopassive (MP) suffix is *-ý* (becoming *-j́* after a nasal or stop, following syncope). The vowel is usually *ε* or *e* in the bare stem, but it can be *ɔ* or *o* when the stem has back rounded vowels. It is also *o* in the semi-opaque mediopassive *b̀̀̀-*yó** ‘lie down’, perhaps by analogy to its regular stative form *b̀̀̀-*yó**. There is a geminated variant *-yý́* after *Cv-* and *Cv:-*

stems, the latter shortened to *Cv-* (*pá-yyé* ‘be joined’ from *pá:*, *kó-yyé* ‘be raised’ from *kó*); for the geminate see §3.5.6.3. The Tr[ansitive] suffix is *-dý*, rarely *-rv* or *-lv*, and *-ndé* (the later especially in contracted *Cv̄:-ndé*), with the same vowel-quality possibilities.

The majority of mediopassive and transitive derivatives are trisyllabic (factoring out syncope and truncation), for example *CvCv-yv* and *CvCv-dv*. Mediopassives of this shape omit the *-yv* suffix to achieve a bisyllabic (or bimoraic) target in the derived stative (§10.5) and in the nonpast durative *-n* subordinated form (§15.3.5). The rare *Cv-yv* mediopassives, by contrast, keep their *-yv* suffix in these forms in order to remain bisyllabic.

An unusual passive relative form with suffix *-yà* is described in §14.1.7.8. It might be etymologically related to mediopassive *-yé*, or possibly to a 3Pl subject suffix.

Many verb stems occur in mediopassive/transitive pairs, with no unsuffixed form. Other stems occur in an unsuffixed form and in suffixed mediopassive and/or transitive forms. There are many stems whose form suggests a suffixed mediopassive (i.e. trisyllabic with final *yv*) but that do not contrast with unsuffixed or transitive stems, making segmentation opaque.

9.3.1.1 Mediopassive *-yv* (*-jv*) paired with transitive *-dv* (*-rv*, *-lv*)

There are numerous stems that do not occur without one of these suffixes, except that if they have a derived stative form, the stative drops the mediopassive suffix. In other words, as active (aspect-marking) verbs, one or the other of the derivational suffixes is obligatory for the verbs covered in this subsection.

These stems alternate between a mediopassive in *-yv* (becoming *-jv* after a nasal or stop, following syncope), and a paired transitive in *-dv* (rarely *-rv* or *-lv*). Typical semantic domains for the mediopassive are a) physical stance or position, b) donning and wearing garments, and c) holding or carrying. The stance verbs are syntactically intransitive (e.g. ‘sit’) when in mediopassive form, and are made transitive (‘cause to sit, set’) by switching to the transitive derivational suffix. The donning-wearing verbs, and especially the holding-carrying verbs, are already syntactically transitive in their mediopassive form, and become ditransitive when the transitive suffix replaces the mediopassive. In all cases, the “transitive” derivational suffix adds an external agent. For example, ‘X puts on pants’ (morphological mediopassive) becomes ‘Y puts pants on X (e.g. a child)’ (morphological transitive), and ‘X carries baby on back’ (morphological mediopassive) becomes ‘Y puts baby on X’s back’ or ‘Y helps X put baby on back’ (morphological transitive). For the syntax of ditransitive causatives, see §11.1.2 below.

Mediopassives especially of stance and holding-carrying often also have derived stative forms, e.g. ‘be sitting (=seated)’ and ‘be carrying (baby) on back’. The mediopassive suffix is omitted in statives, with minor exceptions involving subminimal stems (§10.5).

Suffixed mediopassive and transitive forms often show phonological alternations in the presuffixal stem, involving syncope (*CvCv* to *CvC-*) or truncation (*CvCv* to *Cv:-* or *Cv-*). For syncope see §3.5.3.4, for truncation see §3.5.4.7. Syncope can lead in turn to consonant-cluster simplification processes (§3.5.4.1-5). When syncope or truncation results in a nonmonosyllabic stem with initial heavy syllable, an LH-toned stem shifts to H by Initial-Heavy-Syllable <LH> to H Flattening (§3.7.3.3).

(301) Paired mediopassive (MP) *-yv* and transitive (Tr) *-dv*

MP	gloss	Tr	gloss
a. transitive <i>-dv</i> after short vowel			
<i>Cv-</i> unchanged			
<i>bì-yó</i>	‘lie down’	<i>bì-dé</i>	‘put (sb) to sleep’
<i>pí-yé</i>	‘become shut’	<i>pí-dé</i>	‘shut (door)’
<i>Cv-</i> shortened to <i>Cv-</i> (§3.5.3.5)			
<i>zí-yé</i>	‘flip over (intr)’	<i>zì-dé</i>	‘flip (sth)’
<i>Cv</i> <i>dv-</i> or <i>Cv</i> <i>lv-</i> truncated to <i>Cv-</i> (§3.5.4.7)			
<i>dèlì-yé</i>	‘be set’	<i>dè-dé</i>	‘set, put down’
<i>tédì-yé</i>	‘(mat) be laid’	<i>té-dé</i>	‘lay out (mat)’
<i>Cv</i> <i>lv-</i> becoming <i>Cv</i> <i>r(v)-</i> (§3.5.4.4)			
<i>bùlú-yó</i>	‘put on pants’	<i>bùrú-dé</i>	‘put pants on (sb)’
b. transitive <i>-dv</i> after long vowel			
<i>Cv-</i> lengthened to <i>Cv-</i> (irregular)			
<i>dì-yé</i>	‘carry on head’	<i>dú:-dé</i>	‘have (sb) carry on head’
<i>Cv-</i> unchanged			
<i>sé:-yé</i>	‘flip over (intr)’	<i>sé:-dé</i>	‘flip (sth)’
<i>Cv</i> <i>juv-</i> or <i>Cv</i> <i>gv-</i> (syncopated <i>CvC-</i>) becomes <i>Cv-</i> (§3.5.4.6)			
<i>táj-jé</i>	‘put on shoes’	<i>tá:-dé</i>	‘put shoes on (sb)’, cf. reversione <i>tágí-lé</i> ‘take off shoes’, noun <i>tàjù</i> ‘shoe’
<i>dìgì-yé</i> (archaic) ~ <i>díj-jé</i>	‘be joined’		
		<i>dí:-dé</i>	‘join, link (sth)’
<i>pój-jó</i>	‘(poles) be laid’	<i>pó:-dó</i>	‘lay (thin cross-poles in roof)’, noun <i>pòjù</i>
<i>léj-jé</i>	‘slip self in’	<i>lé:-dé</i>	‘stick/slide (sth) in’, synonymn <i>lègé</i>
<i>gój-jó</i>	‘be inserted’	<i>gó:-dó</i>	‘insert (calabash)’, cf. reversione <i>gól-ló</i>
c. transitive <i>-dv</i> after consonant			
<i>Cv(:)dv-</i> becoming <i>Cv</i> <i>r-</i> (§3.5.4.5)			
<i>gòdí-yó</i>	‘put on hat’	<i>gór-dó</i>	‘put hat on (sb)’
<i>kódí-yó</i>	‘be hung up’	<i>kór-dó</i>	‘hang (sth) up’
<i>wé:dí-yé</i>	‘learn’	<i>wér-dé</i>	‘teach’
<i>Cv</i> <i>bv-</i> syncopating to <i>Cv</i> <i>b-</i>			
<i>óbì-yó</i>	‘sit’	<i>ób-dó</i>	‘have (sb) sit’
<i>zìbì-yó</i>	‘gird oneself’	<i>zìb-dó</i>	‘gird (sb) with a wrap’
<i>tóbì-yó</i>	‘wrap turban’	<i>tób-dó</i>	‘wrap turban on (sb)’
<i>ìbì-yé</i>	‘be afraid’	<i>ìb-dé</i>	‘frighten (sb)’

Cvmv- syncopating to *Cvm-*

pámí-yé ‘come up beside’ *pám-dé* ‘put beside’

Cvmbv- syncopating (or truncating) to *Cvm-*

bàmbí-yé ‘carry on back’ *bám-dé* ‘have (sb) carry on head’

yàmbí-yé ‘cover (self)’ *yám-dé* ‘cover (sb)’

irregular *y/r*

gáy-yé ‘lie on back’ *gár-dé* ‘lay (sb) on back’

Mediopassive and transitive suffixes after presuffixal stems with *a*-vowels, for example in the last alternation in this list, *gáy-yé* and *gár-dé*, do not shift the suffixal vowel to *u* (U-stem) in the bare stem and related forms, as do simple *a*-vocalism stems (§3.4.1.5) such as *tábú* ‘touch’ (353).

Suffixed transitives of the form #*Cv_ddv-dv-*, with consecutive *dv* syllables, are avoided. The table above shows cases of *Cv-dv-* for expected #*Cv_ddv-dv* with the first *dv* syllable truncated, and of *Cvrv-dv-* for expected #*Cv_ddv-dv* with the presuffixal *d* replaced by *r*. Another option is to shift the suffixal *d* itself to *r*. This happens in (302a), where the cluster in *Cvndv-* makes the other options phonologically difficult. (302b) shows a semi-opaque case of transitive *-lv-* after *Cvlv-* syncopated to *Cvl-*.

(302)	MP	gloss	Tr	gloss
	a. transitive <i>-rv</i> after <i>dv</i>			
	<i>kóndí-yé</i>	‘be bent’	<i>kóndí-ró</i>	‘bend (e.g. stick)’
	b. transitive <i>-lv</i> after <i>Cvl-</i> following syncope			
	<i>púlí-yó</i>	‘(sth) snap’	<i>púl-ló</i>	‘break, snap (sth)’

9.3.1.2 Mediopassive paired with transitive *-ndv*

The examples in (303) involve a suffix *-ndv* rather than *-dv*, but the phonology is somewhat opaque.

(303) Transitive *Cv:-ndv* paired with mediopassive

MP	gloss	Tr	gloss
transitive <i>-ndv</i> after long vowel			
<i>stem with medial nasal, not syncopated in mediopassive</i>			
<i>í:ǵí-yé</i>	‘(sth) stop’	<i>í:-ndé</i>	‘stop (sth)’
(~ <i>íǵí-yé</i>)			
<i>stem with medial nasal, syncopated in mediopassive</i>			
<i>nún-jó</i>	‘get dressed’	<i>nú:-ndó</i>	‘dress (sb)’
<i>jén-jé</i>	‘be tilted’	<i>jé:-ndé</i>	‘tilt (sth)’

<i>tún-jé</i>	‘kneel’	<i>tú:-ndé</i>	‘cause to kneel’
<i>bán-jé</i>	‘hide (oneself)’	<i>bá:-ndé</i>	‘hide (sth)’
<i>stem with medial lateral</i>			
<i>yú:lí-yé</i>	‘(sb) wake up’	<i>yú:-ndé</i>	‘rouse, wake (sb) up’

The long vowels in the transitive forms in (303) suggest a comparison to the pair *táj-jé* ‘put on shoes’ (syncopated), *tá:-dé* ‘put shoes on (sb)’, cf. *tàjù* ‘shoe’, given above (301b). A reasonable derivation of *tá:-dé* would be from /*tájú-dé*/ or /*tájá-dé*/ with the /j/ deleted in intervocalic position and the two adjacent short vowels then contracting to form a long vowel. This does not explain the nasal in *-ndv*, however. The fact that the deleted medial stem consonant is a coronal nasal or lateral may be connected with the appearance of *n* in *-ndv*. However, it is difficult to formalize this, and the transitive *Cv:-ndv* shape may have come to be associated templatically with *Cvn-jv* and *Cv:Cv-yv* mediopassive shapes.

9.3.1.3 Transitive *-dv* (*-nv*, *-lv*) or *-ndv* not paired with mediopassive

There are a number of cases where transitive *-dv*- or variant has a morphologically simple unsuffixed counterpart without *-yv*. The examples involving allomorph *-dv* are in (304). The presuffixal stem is *CvN-* or *Cv:-*. Included is one aberrant example with *-nv* immediately after a nasal (304c).

(304) Transitive *-dv* not paired with mediopassive

simple	gloss	Tr	gloss
a. transitive <i>-dv</i> after defective stative quasi-verb			
<i>simple stem is CvN-</i>			
<i>kùn</i>	‘be in’	<i>kún-dó</i>	‘put’
<i>dùn</i>	‘be piled up’	<i>dùn-dó</i>	‘pile up, set down’
b. transitive <i>-dv</i> after regular verb			
<i>Cvgv becoming Cv:-</i>			
<i>lègé</i>	‘insert’	<i>lé:-dé</i>	‘insert (as mark)’
<i>-dv after m</i>			
<i>dám</i>	‘speak’	<i>dám-dé</i>	‘speak to, address (sb)’
c. transitive <i>-nv</i> after nasal-final regular verb			
<i>u-final CvCu becoming CvC in both forms</i>			
<i>yám</i>	‘malfunction’	<i>yám-né</i>	‘ruin (sth)’

Whether *yám-né* (304c) belongs with the types in (304a-b) etymologically, never mind synchronically, is questionable. “Cognates” vary between a minor causative suffix *-gv* or *-ŋv*

(Najamba *jàmá-gí*, Nanga *jàmá-ŋí*, Pergué Jamsay *jàwⁿ-gá*) and the language’s productive transitive suffix (Tommo So *yàmí-lé*, Bankan Tey *jàngí-rí*, Tebul Ure *yàngì-lí*).

The examples of *-ndv* (after a long vowel) based on a stem without the mediopassive suffix are in (305). For factitive *é:-ndé* ‘tighten’ (cf. inchoative *é:ⁿ* ‘become tight’), see §9.5, below.

(305) Transitive *-ndv* not paired with mediopassive

<i>Cv stem</i>			
<i>gó</i>	‘go out’	<i>gò-ndó</i>	‘take out’
<i>Cv: stem</i>			
<i>bǎ:</i>	‘be full’	<i>bá:-ndé</i>	‘fill’
<i>CvCv becoming Cv:-</i>			
<i>dàgú</i>	‘turn out well’	<i>dá:-ndé</i>	‘do (sth) well’
<i>súwó</i>	‘go down’	<i>sú:-ndó</i>	‘take down’
<i>nǎŋ</i>	‘go past’	<i>ná:-ndé</i>	‘cause to go past’
<i>tíŋé</i>	‘(bride) transfer’	<i>tí:-ndé</i>	‘transfer (bride) to husband’s house’ (also ‘become Y’, transitive ‘transform X into Y’)
<i>zǎŋ</i>	‘fight’	<i>zá:-ndé</i>	‘incite (to fight)’
<i>tónó</i>	‘[fire] be lit’	<i>tó:-ndé</i>	‘light (fire)’ (cf. also <i>tórⁿó</i> ‘set torch on fire’)

Some further notes on these forms. *tónó* ‘(fire) be lit’ reflects **tónó*, as is shown by its A/O-stem *tona-* (and by cognates with -ATR vocalism like Tommo So *téŋé*), so the -ATR stem vowel in *tó:-ndé* ‘light (fire)’ is original. See (23b) in §3.4.1.4 and adjacent discussion. *zá:-ndé* is also attested in the senses ‘swindle’ and ‘rat on, inform on (treacherously)’. There are probably two *zá:-ndé* homonyms, one associated with *zámú* ‘betray’ and the other associated with *zǎŋ* ‘fight’, but some mutual convergence in forms may have occurred. *tí:-ndé* ‘transfer’ (and by extension ‘contaminate’) has a homonym in the phrase (with preceding cognate nominal) *tì:ndà tí:ndé* ‘give formal counsel’, where the verb may have been denominal (back-formed).

Other verbs of the shape *Cv:ndv* for which no underived counterpart is presently known in YD, but which might reflect **CvCv-dv-*, include *wá:ndé* ‘stir’ (cf. Tommo So *wàgí-lé*) and *té:ndé* ‘revive’ (cf. Jamsay *tégéré*). On the other hand, cognates of *ní:ndé* ‘accompany (a visitor, to the door)’ point to an etymon already of similar shape (e.g. Tommo So *ní:-ndé*, Jamsay *ní:né*).

9.3.1.4 Mediopassive not paired with suffixed transitive

Unpaired mediopassive verbs, i.e. with *-yv* added to an unsuffixed transitive verb, are common. Typical examples are in (306). There is a range of volitionality/agency from ‘coil self up’ to ‘be pinned’.

(306) Mediopassive *-yv* paired with unsuffixed transitive verb

transitive	gloss	mediopassive	gloss
<i>zìŋé</i>	‘have (sb) ride double’	<i>zín-jé</i>	‘ride double’
<i>péndé</i>	‘pin (e.g. garment)’	<i>péndí-yé</i>	‘be pinned’
<i>mùnó</i>	‘coil (sth)’	<i>mùní-yó</i>	‘coil self up’
<i>kó</i>	‘raise (a child)’	<i>kó-yyé</i>	‘be raised’
<i>pá:</i>	‘put together, associate’	<i>pá-yyé</i>	‘be associated’
<i>dó</i>	‘bathe (sb)’	<i>dì-yé</i>	‘bathe (oneself)’

Mediopassive *-yv* may also be superimposed on a transitive verb with reversive suffix. In (307), both the simple transitive and the derived reversive have mediopassive derivatives.

(307)	transitive	gloss	mediopassive	gloss	
	simple	<i>mèné</i>	‘fold (sth)’	<i>mèní-yé</i>	‘fold itself’
	reversive	<i>mèní-lé</i>	‘unfold (sth)’	<i>mèní-lí-yé</i>	‘unfold itself’

9.3.1.5 Tone-classes for *CvC-jv*, *CvC-dv*, *Cv:-dv*, and *Cv:-ndv*

The tone-classes for *CvC-jv* (mediopassive) and for *CvC-dv*, *Cv:-dv*, and *Cv:-ndv* (transitive) derivatives are restricted to /H ~ H/ and /H ~ L/. The generalization is that heavy initial syllables (*CvC*, *Cv:*) in these derivations put restrictions on initial L-tones. Stems of these shapes with initial voiced *C* are /H ~ L/. Stems of these shapes with initial voiceless *C*, or that have no initial *C* as in *í:-ndé* ‘stop’ and *ób-dó* ‘have (sb) sit’, are /H ~ H/.

(308) Tone-melody classes

	<i>C₁</i> voiced	other
a. mediopassive		
<i>CvC-jv</i>	/H ~ L/	/H ~ H/
b. transitive		
<i>CvC-dv</i>	/H ~ L/	/H ~ H/
<i>Cv:-dv</i>	/H ~ L/	/H ~ H/
<i>Cv:-ndv</i>	/H ~ L/	/H ~ H/

Most underived stems with an initial voiced consonant are /LH ~ L/ in the underived stem, switching to /H ~ L/ in the derivatives in (308). For example, /LH ~ L/ *zìŋé* ‘have (sb) ride double’ has /H ~ L/ mediopassive *zín-jé* ‘ride double’ (perfective negative *zìn-jà-lí-*), /LH ~ L/ *gògò* ‘be hung’ has /H ~ L/ transitive *gó:-dó* ‘hang (calabash)’ (perfective negative

gò:-dò-lí-), and /LH ~ L/ *zǎŋ* ‘fight’ has /H ~ L/ transitive *zá:-ndé* ‘incite (to fight)’ (perfective negative *zà:-ndà-lí*).

Suffixal derivatives of the shape *CvCv-Cv* (from input *CvCv*) directly carry over the tone-melody class of the input verb.

9.3.2 Passive suffix *-mé*

A minor passive suffix *-mé*, identical in form to the causative suffix (§9.2.1), is attested for three transitive verbs of perception. First, *témbé* ‘find, encounter (by chance)’ has a passive *témbé-mé* ‘be found,’ in context often ‘be findable, be available (e.g. for sale in markets)’. The other attestations are *wó-mé* ‘be seen’ from *wó* ‘see’, and *nó-mé* ‘be heard’ from *nǒé* ‘hear’. The sense can be semelfactive, e.g. ‘was seen (once)’, as well as habitual.

9.4 Ambi-valent verbs without suffixal derivation

The productivity of the mediopassive, transitive, and causative suffixal derivations means that YD does not usually need use the same verb stem both transitively and intransitively, in the fashion of zero-passive (unaccusative) verbs like English *break* (*I broke it, it broke*).

Similarly, transitive verbs in YD do not normally omit objects, preferring at least a default noun (such as a cognate nominal) as object. For example, one ‘eats a meal’ rather than just ‘eats’. Therefore zero-antipassive (unergative) verbs like English *eat* with unexpressed object (*I’m eating*) are not normal. Many English verbs that are predominantly intransitive, like *laugh*, similarly translate into YD as transitive sequences with a fixed cognate or non-cognate object (‘laugh a laugh’).

9.5 Deadjectival inchoative and factitive verbs

The term “deadjectival” is used loosely here, since the inchoative (‘become ADJ’) and factitive (‘make sth ADJ’) verbs are not mechanically derived from the corresponding adjective. However, it is reasonable to think of the modifying adjective as the semantic core of each such word family.

The factitive is in most cases the *-mé* causative of the inchoative. The main issue is therefore the morphological relationship between the inchoative and the adjective itself.

The first set of forms are those where the inchoative verb has no apparent derivational suffix (309). The inchoative is subject to the normal tonal and vocalic constraints that apply to verbs. For example, verbs not beginning in a voiced consonant have /H/ tone melodies, even when the associated adjective begins with an L-tone (e.g. ‘old’, ‘undiluted’).

(309) Unsuffixed inchoatives

adjective	gloss	inchoative	factitive
a. <i>Cv</i> : inchoative			
<i>pèy</i>	‘old’	<i>pé:</i>	<i>pé:-mé</i>
<i>ʔàyⁿàyⁿ</i>	‘tight’	<i>é:ⁿ</i>	<i>é:-ndé</i>
<i>bă:</i>	‘full’	<i>bă:</i>	<i>bá:-ndé</i>
b. <i>CvCv</i> inchoative			
<i>CvCv</i> with medial sonorant or voiced stop			
<i>màyⁿ</i>	‘dry, hard’	<i>màyⁿé</i>	<i>màyⁿé-mé</i>
<i>èmù</i>	‘narrow’	<i>émé</i>	<i>émé-mé</i>
<i>ʔàlè</i>	‘ripe’	<i>ʔólé</i>	<i>ʔólé-mé</i>
<i>jèmé</i>	‘black’	<i>jèmé</i>	<i>jèmé-mé</i>
<i>pílé</i>	‘white’	<i>pilé</i>	<i>pilé-mé</i>
<i>únù</i>	‘dense’	<i>únó</i>	<i>únó-mé</i>
<i>kóló</i>	‘ruined’	<i>kóló</i>	<i>kóló-mé</i>
<i>kómó</i>	‘lean’	<i>kómó</i>	<i>kómó-mé</i>
<i>gòm</i>	‘rotten’	<i>gòmó</i>	<i>gòmó-mó</i>
<i>yòdú</i>	‘soft’	<i>yòdó</i>	<i>yòdó-mé</i>
<i>like preceding, but with stem-final u in factitive</i>			
<i>kùdù</i>	‘undiluted’	<i>kúdó</i>	<i>kúdú-mó</i>
<i>gàbú</i>	‘tall’	<i>gàbú</i>	<i>gàbú-mé</i>
<i>CaC</i> from / <i>CaCu</i> /			
<i>băn</i>	‘red’	<i>băn (bàⁿá-)</i>	<i>bán-mé</i>
<i>àm</i>	‘good-sized’	<i>ám</i>	<i>ám-mé</i>
<i>CvCv</i> with <i>r/l</i> alternation			
<i>sèrè</i>	‘diluted’	<i>séré</i>	<i>sélé-ndó</i>
c. <i>CvCCv</i> inchoative			
<i>kúnzù</i>	‘coarse’	<i>kúnzó</i>	<i>kúnzó-mé</i>

Other adjectives have an inchoative with one or more derivational suffixes. Those in (310a) have the mediopassive suffix *-yv-*. Those in (310b-c) have this *-yV-* following another morpheme *-ndi-* or *-di-*. The verb in (310d) with just *-ndv* is isolated. In a small number of cases the “factitive” is derivationally primary (‘worn-out’, ‘wide’) or is identical to the mediopassive (‘sharp’), rather than being a *-mé* causative in form.

(310) Suffixed inchoatives

adjective	gloss	inchoative	factitive
a. inchoative with (mediopassive) <i>-yv</i>			
<i>ɔ̀jú</i>	‘hot’	<i>ɔ̀j-jé</i>	<i>ɔ̀j-jé-mé</i>
<i>nà:rⁿà</i>	‘easy’	<i>ná:ní-yé</i>	<i>ná:ní-yé-mé</i>
<i>kè:zù</i>	‘cold; slow’	<i>ké:zí-yé</i>	<i>ké:zí-yé-mé</i>
<i>dèmbùl</i>	‘thick’	<i>dèmbílí-yé</i>	<i>dèmbílí-yé-mé</i>
<i>òrⁿòndú</i>	‘smooth’	<i>óróndí-yé</i>	<i>óróndí-yé-mé</i>
<i>sémélé</i>	‘worn-out’	<i>sémílí-yé</i>	<i>sémílé</i>
b. inchoative with <i>-ndí-yv</i>			
<i>Cv:-ndí-yv</i> from <i>Cvyⁿ</i>			
<i>tòyⁿ</i>	‘deep’	<i>tó:-ndí-yé</i>	<i>tó:-ndí-yó-mé</i>
<i>wàyⁿ</i>	‘wide’	<i>wá:-ndí-yé</i>	<i>wá:-ndé</i>
<i>CvCv-ndí-yv</i> with second vowel non-high			
<i>dǎn</i>	‘sour’	<i>dàrⁿá-ndí-yé</i>	<i>dàrⁿá-ndí-yé-mé</i>
<i>èn</i>	‘thin’	<i>éné-ndí-yé</i>	<i>éné-ndí-yé-mé</i>
<i>ěl</i>	‘sweet’	<i>élé-ndí-yé</i>	<i>élé-ndí-yé-mé</i>
<i>òl</i>	‘wet’	<i>óló-ndí-yé</i>	<i>óló-ndí-yé-mé</i>
<i>gǎl</i>	‘bitter’	<i>gàlá-ndí-yé</i>	<i>gàlá-ndí-yé-mé</i>
<i>zàlà</i>	‘long’	<i>zàlá-ndí-yé</i>	<i>zàlá-ndí-yé-mé</i>
<i>CvCi-ndí-yv</i> with second vowel high			
<i>bìn</i>	‘fat’	<i>bìrⁿí-ndí-yé</i>	<i>bìrⁿí-ndí-yé-mé</i>
<i>wàgú</i>	‘distant’	<i>wàgí-ndí-yé</i>	<i>wàgí-ndí-yé-mé</i>
<i>CvCi-ndí-yv</i> after reduction of <i>CvnCv</i> to <i>CvCv-</i>			
<i>mènzù</i>	‘slender’	<i>mèzí-ndí-yé</i>	<i>mèzí-ndí-yé-mé</i>
c. inchoative with <i>-dí-yv</i>			
after contraction of <i>Cvjv-</i> to <i>Cv:-</i>			
<i>ɔ̀jú</i>	‘fast’	<i>ó:-dí-yé</i>	—
after <i>m</i>			
<i>nǎm</i>	‘difficult’	<i>nám-dí-yé</i>	<i>nám-dí-yé-mé</i>
d. inchoative and factitive with <i>-ndv</i>			
<i>sí:ⁿ</i>	‘sharp’	<i>sí:-ndé</i>	<i>sí:-ndé</i>

The unusual morphology for ‘sharp’ (310d) may reflect a constraint against monosyllabic verb stems with high vowels (§10.2.1). While *-dv* or *-ndv* is generally a transitive suffix, in this case it has intransitive (inchoative) as well as transitive (factitive) function. The ambi-valence of this verb is old (Ben Tey *sím-dé*, Jamsay *sí:-né*, Pergue *sí:-lé*).

ɔ̀jú has different inchoatives in the senses ‘hot’ (310a) and ‘fast’ (310c).

For *diyá* ‘big’, the unusual inchoative *bàdíyé* ‘become big(ger)’ has a partial phonological overlap. The factitive is *bàdíyé-mé*. For synonyms *bè-bélè*, *dàgá*, and *kùnà* ‘small’, the inchoative is suppletive *ánjílí-yé*, with factitive *ánjílí-yé-mé*. For *síyé* ‘good’ the inchoative is suppletive *ézi-ndí-yé* ‘become good’, factitive *ézi-ndí-yé-mé*, or else *dàgú* ‘turn out well’.

No morphological inchoative or factitive were elicitable from the following: synonyms *gòmò*, *sálá*, or *dà:l* ‘bad, nasty’, *tèl* ‘fast’, *izè* ‘empty’, *bèdú* ‘near’, *kàndà* ‘new’, *àzàlà* ‘almost ripe’, *dènélé* ‘round’, *nánáy* ‘important’, *pèlèl* ‘tasty’, or *sátará* ‘young’. Clearly the heavier syllabic shapes are difficult to verbalize, unless their final syllable already sounds like a suffix. In the case of the ‘bad’ adjectives, verb shapes *gòmó* ‘become rotten’ and *sál* ‘coarsely grind’ are already taken in unrelated or narrowed senses.

9.6 Denominal verbs

There are no productive denominal verbal derivations. ‘Become (an) X’ is expressed with the verb *tíjé* ‘become’ (§11.2.5), and ‘make (sb) become (an) X’ is expressed with its transitive counterpart *tí:-ndé* ‘transform, convert’.

In the many cases where a verb and a cognate nominal coexist, often together in phrases (‘sing a song’, ‘jump a jump’, ‘greet a greeting’), one could argue that the verb is secondary (back-formed). Even better examples are those like noun *tógú* ‘shed, shelter’ and verb *tógó* ‘build (shed)’, where the noun seems logically primary. See the list of cognate nominals in §11.1.5.2 for other candidates.

wèzú-gí-yé ‘become crazy’ belongs to a word-family with noun *wèzé* ‘crazy person’ or ‘craziness’. Factoring out mediopassive *-yv* leaves an archaic verbalizing suffix *-gv-*.

10 Verbal inflection

10.1 Inflection of regular indicative verbs

Verbs are inflected for a range of indicative inflectional categories, as well as for (deontic) modal categories imperative and hortative.

Indicative verbs in main clauses consist of a verb stem, AN (aspect-negation) marking, and a final pronominal-subject suffix. The AN category may be marked by stem-vocalism (ablaut) alone, as in the perfective (positive) with the E-stem, or by stem-vocalism plus an overt AN suffix such as perfective negative. The pronominal-subject suffix is nonzero, except for zero 3Sg, which is transcribed as $-\emptyset$. 1Pl and 2Pl are syncretized as $-y \sim -i$ but they are distinct from 3Pl.

The perspective for determining aspect categories is normally that of the time of speaking. However, it is possible to shift the perspective to a point in the past, keeping AN categories basically intact. This is indicated by adding the conjugatable past enclitic $=be-$ to an AN-marked verb stem, schematically Vb-AN=Past-Sbj.

Among modal categories, the singular-addressee imperative is unsuffixed, but differs by stem-vocalism (A/O-stem) from the other totally unsuffixed verb forms, the bare stem (in chains) and the 3Sg perfective positive (E-stem). The hortative does have a suffix. The imperative and hortative share a unique plural-addressee suffix $-n$, unrelated to any indicative pronominal-subject suffix.

For verbs in relative clauses (chapter 14), AN marking is present, but the pronominal-subject suffix of main clauses is replaced where needed (i.e. in nonsubject relatives with a pronominal subject) by a preverbal pronominal proclitic.

After preliminaries in §10.1 just below, this chapter describes the range of verb stem shapes (§10.2), describes indicative AN categories and their morphology (§10.3), summarizes pronominal-subject suffix paradigms (§10.4), describes stative paradigms derived from some active (i.e. aspect-marking) verbs (§10.5), describes past-shifted verbs with conjugated enclitic $=be$ (§10.6), and finally covers deontic modals (§10.7). Underived statives (e.g. ‘be’, ‘have’) and adjectival predicates are included in chapter 11, which also shows how the verb forms analysed in the present chapter function within VPs.

10.1.1 Suffixes versus chained auxiliaries (perfective system)

Several of the marked perfective-system forms involve an apparent “suffix” added to the bare stem. This combination could alternatively be analysed as a chain of two verbs (main verb and following auxiliary), since the bare stem is the form taken by nonfinal verbs in verb-chains (chapter 15). This issue arises in the verbal morphology of several Dogon languages. The key test is whether pronominal-subject proclitics may intervene between the main verb

and the “suffix” in nonsubject relative clauses. If they can intervene, the verb-chain analysis is to be preferred

In YD, the relevant AN markers **usually** behave like suffixes. In (311a), the 1Sg proclitic precedes the combination of main verb (‘eat’) and recent perfect suffix. In (311b), it precedes the combination of main verb (‘see’) and experiential perfect suffix. In (311c), it precedes the combination of main verb (‘fall’) and perfective-2 suffix. Spontaneous utterances by my assistants were regularly of this type. In interlinears, the proclitic is bolded and the main verb is underlined.

- (311) a. *izèn^L zá mì ʔǎpè-zé gè*
 day^L meal **1SgSbj** eat.meal-RecPrf.Rel Def.InanPl
 ‘the days (when) I finished eating (meals).’
- b. *ɔ̀mɔ̀^L gòyⁿè-mù mì †wɔ̀-téré wò*
 place^L elephant-AnPl **1SgSbj** see-ExpPrf.Rel Def.InanSg
 ‘the place where I have (ever) seen elephants.’
- c. *[ɔ̀mɔ̀^L mì pílé-zó wò]*
 [place^L **1SgSbj** fall-Pfv2.Rel Def.InanSg]
wàjú-m bò-∅
 distant-Adj be-3SgSbj
 ‘The place where I fell is far away.’

However, the verb-chain interpretation is not completely excluded. An assistant did accept versions of (311a-b) above that I proposed to him, with the subject pronominal splitting the verb and “suffix.” The split examples are (312a-b). The same assistant rejected this alternative for (312c), and I consider (312a-b) to be marginal.

- (312) a. *izèn^L zá ʔǎpé mì zé gè*
 day^L meal eat.meal **1SgSbj** RecPrf.Rel Def.InanPl
 ‘the days (when) I finished eating (meals).’
- b. *ɔ̀mɔ̀^L gòyⁿè-mù wò mì téré wò*
 place^L elephant-AnPl see **1SgSbj** ExpPrf.Rel Def.InanSg
 ‘the place where I have (ever) seen elephants.’

The ambivalence between suffixation and direct chaining has subtle effects in the tonal form of verbs in relative clauses. The recent perfect and experiential perfect have tonal distinctions between verbs in subject and nonsubject relative. In subject relatives, the two perfect morphemes behave tonally like suffixes, producing single-word forms. In nonsubject relatives, the perfect morphemes behave tonally like chained verbs (i.e. free auxiliaries). The main effect is that /LH~L/ verbs have stem-wide L-toned form before the perfect morphemes in subject relatives, but LH-toned form before the same perfect morphemes in nonsubject relatives. See (547-550) and discussion there.

10.1.2 Overview of categories

The AN categories of indicative verbs are given in (313), organized into systems. Categories not specified as negative are understood to be positive.

(313) Indicative verbal categories

- a. perfective positive system
 - perfective
 - perfective-2
 - experiential perfect
 - recent perfect

- b. imperfective positive system
 - imperfective
 - reduplicated imperfective

- c. perfective negative system
 - perfective negative
 - experiential perfect negative
 - recent perfect negative

- d. imperfective negative system
 - imperfective negative

- e. stative system
 - stative
 - progressive (with an auxiliary verbs)

- f. stative negative system
 - stative negative

The main justification for distinguishing these “systems” is that negative counterparts of the various marked AN categories in the perfective system all include the perfective negative suffix, which is distinct from the imperfective negative morpheme.

The categories in the stative system do not distinguish perfective from imperfective aspect, and have a distinctive negation.

10.2 Verb stem shapes

Underived verbs have from one to three syllables, with bisyllabic shapes (especially *CvCv*) favored. Some or even most synchronically underived trisyllabic stems may have originated as suffixal derivatives of shorter stems. Suffixal derivations (reversive, mediopassive,

transitive, causative) add a final *-Cv-* suffix to the underived stem (chapter 9). Some combinations, e.g. reversion of transitive or causative of mediopassive, are possible.

The term **bare stem** is used here in a technical sense for the form of a verb that occurs in nonfinal position in verb-verb chains, including the ‘be able to VP’ construction with final verb *bèlé* (elsewhere ‘get, acquire’). The bare stem is a good choice for the lexical representation of the stem, especially regarding segments. However, it does not always allow prediction of tonal patterns in the full set of AN forms, so in the lexicon I generally include both the bare stem and the perfective negative, separated by \, e.g. *ʔáɲé\ʔáɲá-li* ‘eat (meal)’.

Before proceeding to the sections below, readers are invited to review the general discussions of stem-vocalism alternations (§3.4) and tone-melody classes (§3.7.1.2).

10.2.1 Monosyllabic verb stems

The monosyllabic verbs known to me are in (314) below. The forms shown are the bare stem that occurs nonfinally in verb chains, the perfective, and the perfective negative.

The shapes *Cv* and *Cv:* are well represented and there are five known examples of nasalized *Cv:*. The distinction between /H ~ H/ and /H ~ L/ tone-melody classes is overt in the perfective negative for *Cv* stems, and at least in the bare stem and in the perfective negative of the long-voweled stems. The /H ~ L/ class assignment for *Cv* stems is a proxy for /LH ~ L/, given the inability of *Cv* verbs to overtly express a rising tone pattern. *Cv:* verbs can express a rising tone, and all but one divide into /H ~ H/ and /LH ~ L/ classes (314c-e). The exception is a single *Cv:* verb of the /LH ~ LH/ tone-melody class, namely *nǎ:* ‘spend night’ at the bottom of (314c). It is also the only *Cv:* verb with initial *n* or *l*, these being the initial consonants elsewhere associated with /LH ~ LH/.

The most distinctive feature of monosyllabic verbs is the splitting of the stem vowel into two parts, an initial short vowel (or desyllabified semivowel) reflecting the lexical stem vowel quality, and a final short vowel expressing the stem-final vocalism required by the AN category. Diphthongs created by desyllabified semivowels occur in the E-stem perfectives in (314b,d,e,h) and in the A/O-stem perfective negatives in (314b,e). In (314f), the *ɛya* sequence in the perfective negative does not involve desyllabification (to #*ɛa*) but does preserve the lexical *ɛ:* in shortened form. The verbs in (314f), however, are a mix of old **Cɛye* and **Cɛ:* stems, and the *ɛya* sequence in the A/O-stem likely preserves that of the old **Cɛye* stems (§3.4.1.5).

(314) Monosyllabic verb stems

bare	Pfv	PfvNeg	gloss
a. <i>Cv-</i> with perfective <i>Ce-</i> or <i>Cɛ-</i> , see also irregular (h) below			
/H ~ H/			
<i>cé</i>	<i>cé-</i>	<i>cé-li-</i>	‘(body part) hurt’
<i>yé</i>	<i>yé-</i>	<i>yá-li-</i>	‘weep’ (with nominal <i>yàŋ</i>)

/H ~ L/ as proxy for /LH ~ L/

<i>jé</i>	<i>jé-</i>	<i>jè-lí-</i>	‘dance’ (with nominal <i>jà:</i>)
<i>jé</i>	<i>jé-</i>	<i>jà-lí-</i>	‘kill’; ‘chop down (tree)’
<i>wó</i>	<i>wé-</i>	<i>wò-lí-</i>	‘come’
<i>wó</i>	<i>wé-</i>	<i>wà-lí-</i>	‘see’

b. *Cv-* with perfective *Cɔ̣é-* or *Cɔ̣ɛ-*

/H ~ H/

<i>kó</i>	<i>kɔ̣é-</i>	<i>kɔ̣á-lì-</i>	‘eat (crushed millet)’
<i>kó</i>	<i>kɔ̣é-</i>	<i>kɔ̣á-lì-</i>	‘raise (child)’
<i>nó</i>	<i>nɔ̣é-</i>	<i>nɔ̣á-lì-</i>	‘go in’
<i>tó</i>	<i>tɔ̣é-</i>	<i>tɔ̣á-lì-</i>	‘slash earth (to sow)’ (with nominal <i>tòŋ</i>)
<i>tó</i>	<i>tɔ̣é-</i>	<i>tɔ̣á-lì-</i>	‘send’
<i>tó</i>	<i>tɔ̣é-</i>	<i>tɔ̣á-lì-</i>	‘dismantle (house)’
<i>tó</i>	<i>tɔ̣é-</i>	<i>tɔ̣á-lì-</i>	‘(milk) fill up (in breast)’

/H ~ L/ as proxy for /LH ~ L/

<i>gó</i>	<i>gɔ̣é-</i>	<i>gò-lí-</i>	‘go out’
<i>nó</i>	<i>nɔ̣é-</i>	<i>nɔ̣à-lí-</i>	‘hear’
<i>dó</i>	<i>dɔ̣é-</i>	<i>dɔ̣à-lí-</i>	‘insult (v)’ (with nominal <i>dɔ̣à</i>)
<i>dó</i>	<i>dɔ̣é-</i>	<i>dɔ̣à-lí-</i>	‘arrive at, reach, approach’

tonally somewhat unstable

c. *Ca:-* with perfective *Caye-*

/H ~ H/

<i>á:</i>	<i>áyé-</i>	<i>á:-lì-</i>	‘uproot by hand’
<i>há:</i>	<i>háyé-</i>	<i>há:-lì-</i>	‘rent’
<i>ká:</i>	<i>káyé-</i>	<i>ká:-lì-</i>	‘shave’
<i>pá:</i>	<i>páyé-</i>	<i>pá:-lì-</i>	‘put up against’
<i>pá:ⁿ</i>	<i>páyⁿé-</i>	<i>pá:ⁿ-lì-</i>	‘intersperse (crops)’
<i>sá:</i>	<i>sáyé-</i>	<i>sá:-lì-</i>	‘answer’
<i>sá:</i>	<i>sáyé-</i>	<i>sá:-lì-</i>	‘(seedling) grow’
<i>sá:</i>	<i>sáyé-</i>	<i>sá:-lì-</i>	‘scoop (from water)’
<i>tá:</i>	<i>táyé-</i>	<i>tá:-lì-</i>	‘shoot’; ‘snap fingers against’
<i>tá:</i>	<i>táyé-</i>	<i>tá:-lì-</i>	‘avoid (taboo)’
<i>tá:ⁿ</i>	<i>táyⁿé-</i>	<i>tá:ⁿ-lì-</i>	‘spread (legs)’

/LH ~ L/

<i>bǎ:</i>	<i>bàyé-</i>	<i>bà:-lí-</i>	‘be enough’, ‘be equal to’
<i>dǎ:</i>	<i>dàyé-</i>	<i>dà:-lí-</i>	‘cover (mouth)’
<i>dǎ:</i>	<i>dàyé-</i>	<i>dà:-lí-</i>	‘endure (e.g. heat)’
<i>gǎ:</i>	<i>gàyé-</i>	<i>gà:-lì-</i>	‘harvest (rice) with sickle’
<i>gǎ:</i>	<i>gàyé-</i>	<i>gà:-lì-</i>	‘harvest (secondary millet)’
<i>mǎ:</i>	<i>màyé-</i>	<i>mà:-lí-</i>	‘make (bricks)’
<i>wǎ:</i>	<i>wàyé-</i>	<i>wà:-lí-</i>	‘pull up (boubou)’
<i>yǎ:</i>	<i>yàyé-</i>	<i>yà:-lí-</i>	‘hold over fire’

<i>zǎ:</i>	<i>zàyé-</i>	<i>zà:-lì-</i>	‘sow in manure pile’
<i>zǎ:</i>	<i>zàyé-</i>	<i>zà:-lì-</i>	‘carve’
/LH ~ LH/			
<i>nǎ:</i>	<i>nàyⁿé-</i>	<i>nǎ:-lì-</i>	‘spend night’
d. <i>Co:</i> with perfective <i>Cwe-</i>			
/H ~ H/			
<i>kó:</i>	<i>kǒé:-</i>	<i>kó:-lì-</i>	‘cover with hide’
<i>só:</i>	<i>sǒé:-</i>	<i>só:-lì-</i>	‘dip’
<i>tó:</i>	<i>tǒé:-</i>	<i>tó:-lì-</i>	‘spit’ (with <i>sùmzú</i> ‘saliva’)
<i>tó:</i>	<i>tǒé:-</i>	<i>tó:-lì-</i>	‘take, pick up’ (variant of <i>tógó</i>)
e. <i>Có:</i> with perfective <i>Cwε-</i>			
/H ~ H/			
<i>kó:</i>	<i>kǒé:-</i>	<i>kǒá:-lì-</i>	‘(wood) be worm-eaten’
<i>pó:</i>	<i>pǒé:-</i>	<i>pǒá:-lì-</i>	‘let (earth) ferment’
<i>só:</i>	<i>sǒé:-</i>	<i>sǒá:-lì-</i>	‘peck’
<i>só:</i>	<i>sǒé:-</i>	<i>sǒá:-lì-</i>	‘shovel, scoop’
<i>só:ⁿ</i>	<i>sǒé:ⁿ-</i>	<i>sǒá:ⁿ-lì-</i>	‘douse (fire)’
/LH ~ L/			
<i>bǒ:</i>	<i>bǒé:-</i>	<i>bǒá:-lì-</i>	‘unsheathe’
<i>dǒ:ⁿ</i>	<i>dǒé:ⁿ-</i>	<i>dǒá:ⁿ-lì-</i>	‘put under’
f. <i>Cε:</i> (in some cases from * <i>Cεyε</i>) with A/O-stem <i>Cεya-</i>			
/H ~ H/			
<i>é:ⁿ</i>	<i>é:ⁿ-</i>	<i>éyⁿá-lì-</i>	‘(woman) marry (man)’
<i>cé:</i>	<i>cé:-</i>	<i>céyá-lì-</i>	‘delouse’
<i>pé:</i>	<i>pé:-</i>	<i>péyá-lì-</i>	‘get old’
<i>pé:</i>	<i>pé:-</i>	<i>péyá-lì-</i>	‘tap; squash’
<i>sé:</i>	<i>sé:-</i>	<i>séyá-lì-</i>	‘trim (hair)’
<i>té:</i>	<i>té:-</i>	<i>téyá-lì-</i>	‘sprout’
<i>té:</i>	<i>té:-</i>	<i>téyá-lì-</i>	‘take (action)’, with noun <i>dàbúl</i>
g. <i>Ce:</i>			
/H ~ H/			
<i>cé:</i>	<i>cé:</i>	<i>cé:-lì-</i>	‘nibble’
h. irregular			
/H ~ H/			
<i>zó</i>	<i>zǒé-</i>	<i>zó-lì-</i>	‘bring’ (see below, §10.2.1.8)

In *Cǒe* and *Cǒε*, the diacritic indicates desyllabification of {*o* } to a *w*-like semivowel. One could alternatively transcribe *Cwe* and *Cwε*. *ǒ* is distinctly more open than *o*, so the

transcription I use is phonetically accurate, but since the ATR value is shared with the following vowel it could be allophonic.

Before *a*, there is no audible opposition between [Cɔ̃a] in (314b) and a hypothetical [Cɔ̃a]. It would therefore be possible to transcribe *w* without obscuring any phonetic oppositions.

A significant take-away from the data in (314) is that *a*-vocalism requires long-voweled *Ca*: as opposed to #*Ca* shape. A second major observation is the absence of high vowels: there are no #*Ci*, #*Ci*ː, #*Cu*, or #*Cu*ː stems. Mid-height vowels occur in both *Cv* and *Cv*ː shapes.

10.2.1.1 *yé* ‘weep’

Beginning here I present full paradigms for selected verbs, beginning with ‘weep’ in (315) below. The stem vocalism is indicated in the third column. In the fourth column, the stem tone is indicated. The tone-melody class of the verb is abstracted from this set of stem tones, generally focusing on the bare stem and the perfective negative.

The vowel of the verb ‘weep’ alternates between *ɛ* (bare stem, perfective with E-stem) and *a* (A/O-stem).

(315) Paradigm of *yé* ‘weep’

form	category	stem	stem tones
<i>yé-</i>	perfective	E	H
<i>yé</i>	bare stem	bare	H
<i>yé-zò-</i>	perfective-2	bare	H(?)
<i>yè-téré-bè-</i>	experiential perfect	bare	L
<i>yé-zè-</i>	recent perfect	bare	H
<i>yé = bè-</i>	past perfect	bare	H(?)
<i>yè-zá-lì-</i>	recent perfect negative	bare	L
<i>yè-zé = bè-</i>	past recent perfect	bare	L
<i>yá</i>	imperative	A/O	H
<i>yá-m-ù</i>	imperfective 3Sg	A/O	H
<i>yà-m̃</i>	imperfective before AUX	A/O	L
<i>yà-m̃ = bè-</i>	past imperfective	A/O	L
<i>yâ: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>yá-lì-</i>	perfective negative	A/O	H(?)
<i>yè-nán-</i>	imperfective negative	bare	L
<i>yè-lá</i>	prohibitive	bare	L
<i>yè-má</i>	hortative	bare	L

This verb is regularly preceded by cognate nominal *yàŋ* ‘weeping’. Since this nominal *yàŋ* is L-toned, it induces an initial H-tone on a following L-toned word by Rhythmic Tone-Raising.

This complicates the H- versus L-tone markings on the stem. The forms shown in the table are based on (somewhat artificial) isolation pronunciations without *yàŋ*, but show some mixing of /H ~ H/ and /H ~ L/ tone-melody types. The categories marked H(?) in the rightmost column are those that should have L-toned stems if the verb is /H ~ L/. For one assistant, preposing *yàŋ* changed the tone of *yè-téré-bè-* to *yàŋ yé-tèrè-bé-*, but did not affect the tone of *yè-zá-lì-*. The verb is probably at bottom /H ~ L/, as a proxy for /LH ~ L/, but it shows some /H ~ H/ tendencies influenced by its cognate nominal.

10.2.1.2 *wó* ‘see’

The paradigm is uncomplicated. It belongs to the /H ~ L/ tone-melody class, as can be seen in the perfective negative and other diagnostic categories (rightmost column) with L-tone. Segmentally, the breaking of *Cɛ* into *Cwɛ* or *Cwa* in certain AN categories has no audible effect since the stem already begins with *w*. We could, however, consider deriving *wɛ-* and *wa-* from /wɔ̃ɛ/ and /wɔ̃a/ with the desyllabified *ɔ̃* absorbed into the *w*.

(316) Paradigm of *wó* ‘see’ /H ~ L/

form	category	stem	stem tones
<i>wé-</i>	perfective	E	H
<i>wó</i>	bare stem	bare	H
<i>wò-zó-</i>	perfective-2	bare	L
<i>wò-téré-bè-</i>	experiential perfect	bare	L
<i>wó-zè-</i>	recent perfect	bare	H
<i>wò = bé-</i>	past perfect	bare	L
<i>wò-zá-lì-</i>	recent perfect negative	bare	L
<i>wò-zé = bè-</i>	past recent perfect	bare	L
<i>wá</i>	imperative	A/O	H
<i>wá-m-ù</i>	imperfective 3Sg	A/O	H
<i>wà-mí</i>	imperfective before AUX	A/O	L
<i>wà-mí = bè-</i>	past imperfective	A/O	L
<i>wâ: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>wà-lí-</i>	perfective negative	A/O	L
<i>wò-nán-</i>	imperfective negative	bare	L
<i>wò-lá</i>	prohibitive	bare	L
<i>wò-má</i>	hortative	bare	L

10.2.1.3 *wó* ‘come’

The tones point to /H ~ L/ class. Perfective *wé-* could be derived from /wɔ̃ɛ/ with the *ɔ̃* absorbed by the *w*.

(317) Paradigm of *wó* ‘come’ /H ~ L/

form	category	stem	stem tones
<i>wé-</i>	perfective	E	H
<i>wó</i>	bare stem	bare	H
<i>wò-zó-</i>	perfective-2	bare	L
<i>wò-téré-bè-</i>	experiential perfect	bare	L
<i>wó-zè-</i>	recent perfect	bare	H
<i>wò = bé-</i>	past perfect	bare	L
<i>wò-zá-lì-</i>	recent perfect negative	bare	L
<i>wò-zé = bè-</i>	past recent perfect	bare	L
<i>wó</i>	imperative	A/O	H
<i>wó-m-ù</i>	imperfective 3Sg	A/O	H
<i>wò-m̄</i>	imperfective before AUX	A/O	L
<i>wò-m̄ = bè-</i>	past imperfective	A/O	L
<i>wò: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>wò-lí-</i>	perfective negative	A/O	L
<i>wò-nán-</i>	imperfective negative	bare	L
<i>wò-lá</i>	prohibitive	bare	L
<i>wò-má</i>	hortative	bare	L

10.2.1.4 *gó* ‘go out’

The lexical tone-melody class is /H ~ L/. The perfective shows the E-stem vocalic split. Unlike the *wó* and *wó* verbs with their initial *w* (see the two preceding subsections), *gó* allows overt expression of the desyllabified *ɔ* in perfective *gɔ́é-*.

(318) Paradigm of *gó* ‘go out’ /H ~ L/

form	category	stem	stem tones
<i>gɔ́é-</i>	perfective	E	H
<i>gó</i>	bare stem	bare	H
<i>gò-zó-</i>	perfective-2	bare	L
<i>gò-téré-bè-</i>	experiential perfect	bare	L
<i>gó-zè-</i>	recent perfect	bare	H
<i>gò = bé-</i>	past perfect	bare	L
<i>gò-zá-lì-</i>	recent perfect negative	bare	L
<i>gò-zé = bè-</i>	past recent perfect	bare	L
<i>gó</i>	imperative	A/O	H
<i>gó-m-ù</i>	imperfective 3Sg	A/O	H
<i>gò-m̄</i>	imperfective before AUX	A/O	L

<i>gò-m̄ = b̄è-</i>	past imperfective	A/O	L
<i>gò: = bá-lì-Ø</i>	past imperfective negative	A/O	HL
<i>gò-lí-</i>	perfective negative	A/O	L
<i>gò-nán-</i>	imperfective negative	bare	L
<i>gò-lá</i>	prohibitive	bare	L
<i>gò-má</i>	hortative	bare	L

10.2.1.5 *jé* ‘dance’ or ‘fart’ and *jé* ‘kill’

‘Dance’ and ‘fart’ are homonyms, with distinct etymologies, and used with different cognate nominals (see below). In the absence of a preceding L-toned element, their paradigm is (319). The diagnostic forms point to /H ~ L/ tone-melody class.

(319) Paradigm of *jé* ‘dance’ or ‘fart’ /H ~ L/

form	category	stem	stem tones
<i>jé-</i>	perfective	E	H
<i>jé</i>	bare stem	bare	H
<i>jè-zó-</i>	perfective-2	bare	L
<i>jè-téré-bè-</i>	experiential perfect	bare	L
<i>jé-zè-</i>	recent perfect	bare	H
<i>jè = bé-</i>	past perfect	bare	L
<i>jè-zá-lì-</i>	recent perfect negative	bare	L
<i>jè-zé = bè-</i>	past recent perfect	bare	L
<i>jó</i>	imperative	A/O	H
<i>jé-m-ù</i>	imperfective 3Sg	A/O	H
<i>jè-m̄</i>	imperfective before AUX	A/O	L
<i>jè-m̄ = b̄è-</i>	past imperfective	A/O	L
<i>jò: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>jè-lí-</i>	perfective negative	A/O	L
<i>jè-nán-</i>	imperfective negative	bare	L
<i>jè-lá</i>	prohibitive	bare	L
<i>jè-má</i>	hortative	bare	L

‘Dance’ and ‘fart’ verbs are regularly collocated with their respective cognate nominals, viz., *jà:* ‘dance (n)’ and *jìŋ* ‘fart (n)’. When these L-toned nominals immediately precede the verb, they trigger Rhythmic Tone-Raising, raising the initial tone of the verb: prohibitive *jà: †jé-là* ‘don’t dance!’, *jìŋ †jé-là* ‘don’t fart!’, etc.

The verb ‘kill’, also by extension ‘extinguish (fire)’, is *jé* (< *gìyé). The paradigm is (320). It too belongs to the /H ~ L/ tone-melody class.

(320) Paradigm of *jé* ‘kill’ /H ~ L/

form	category	stem	stem tones
<i>jé-</i>	perfective	E	H
<i>jé</i>	bare stem	bare	H
<i>jè-zó-</i>	perfective-2	bare	L
<i>jè-téré-bè-</i>	experiential perfect	bare	L
<i>jé-zè-</i>	recent perfect	bare	H
<i>jè = bé-</i>	past perfect	bare	L
<i>jè-zá-lì-</i>	recent perfect negative	bare	L
<i>jè-zé = bè-</i>	past recent perfect	bare	L
<i>já</i>	imperative	A/O	H
<i>já-m-ù</i>	imperfective 3Sg	A/O	H
<i>jà-mí</i>	imperfective before AUX	A/O	L
<i>jà-mí = bè-</i>	past imperfective	A/O	L
<i>jâ: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>jà-lí-</i>	perfective negative	A/O	L
<i>jè-nán-</i>	imperfective negative	bare	L
<i>jè-lá</i>	prohibitive	bare	L
<i>jè-má</i>	hortative	bare	L

10.2.1.6 *cé* ‘hurt, be painful’

This verb can take a partonym as subject, as in ‘my foot hurts’. In the rightmost column of (321) one immediately notices a much greater density of H-tone than in the verbs discussed in preceding sections. Those verbs belong to the /H ~ L/ melodic class, while *cé* exemplifies /H ~ H/. The HL-tone of the stem in the past imperfective negative, and its L-tone in the imperfective negative, reflect tonal features of these categories rather than lexical melodies.

(321) Paradigm of *cé* ‘hurt, be painful’ /H ~ H/

form	category	stem	stem tones
<i>cé-</i>	perfective	E	H
<i>cé</i>	bare stem	bare	H
<i>cé-zò-</i>	perfective-2	bare	H
<i>cé-téré-bè-</i>	experiential perfect	bare	H
<i>cé-zè-</i>	recent perfect	bare	H
<i>cé = bè-</i>	past perfect	bare	H
<i>cé-zà-lì-</i>	recent perfect negative	bare	H
<i>cé-zé = bè-</i>	past recent perfect	bare	H
<i>có</i>	imperative	A/O	H

<i>cé-m-ù</i>	imperfective 3Sg	A/O	H
<i>cé-m̃</i>	imperfective before AUX	A/O	H
<i>cé-m̃ = bè-</i>	past imperfective	A/O	H
<i>cô: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>cé-lì-</i>	perfective negative	A/O	H
<i>cè-nán-</i>	imperfective negative	bare	L
<i>cé-là</i>	prohibitive	bare	H
<i>cé-mà</i>	hortative	bare	H

There is a derived stative *céyò-* ‘(body part) be hurting’, see (395e). It achieves the requisite bimoraic shape for statives by adding a kind of pseudo-mediopassive second syllable, compare active mediopassive *bì-yó* ‘lie down’ (active) and its stative *bì-yó-* (395c).

10.2.1.7 *Cɔ* verbs with perfective *Cɔ́é-*

The verbs of this type, whose defining feature is an onset *Cɔ* in some paradigmatic forms, are listed in (322) below. Like other *Cv* verbs, they are all H-toned in the bare stem (and some related forms), and in the E-stem. The perfective negative and other diagnostic categories allow us to distinguish /H ~ H/ and /H ~ L/ tone-melody classes. As with longer stems, an initial voiceless consonant requires /H ~ H/. The *Cɔ* stems with initial voiced consonant other than *n* are /H ~ L/, as a proxy for /LH ~ L/, since a rising tone cannot be expressed on *Cv*. However, my current tonal data for *dɔ* ‘arrive’ are somewhat inconsistent. When the first consonant is *n* (or, in theory, *l*), the stem has a lexical choice between /H ~ H/ and /H ~ L/. ‘Go in’ (322a) and ‘hear’ (322b), both segmentally *nɔ*, differ in tone-melody class.

(322) *Cɔ* and perfective *Cwé-*

a. /H ~ H/

initial voiceless consonant

tɔ ‘slash earth (to sow)’

tɔ ‘send’

tɔ ‘dismantle (house)’

tɔ ‘(milk) fill up (in breast)’

kɔ ‘eat (crushed millet)’

initial n

nɔ ‘go in’

b. /H ~ L/, i.e. with low stem tone at least in perfective negative

initial voiced consonant (other than n)

dɔ ‘arrive, reach, approach’ (but tonal data inconsistent)

dɔ ‘insult (v)’

initial n

nɔ ‘hear’

<i>nó</i>	bare stem	bare	H
<i>nò-zó-</i>	perfective-2	bare	L
<i>nò-téré-bè-</i>	experiential perfect	bare	L
<i>nó-zè-</i>	recent perfect	bare	H
<i>nò = bé-</i>	past perfect	bare	L
<i>nò-zá-lì-</i>	recent perfect negative	bare	L
<i>nò-zé = bè-</i>	past recent perfect	bare	L
<i>nɔ́á</i>	imperative	A/O	H
<i>nɔ́á-m-ù</i>	imperfective 3Sg	A/O	H
<i>nɔ́à-m̃</i>	imperfective before AUX	A/O	L
<i>nɔ́à-m̃ = bè-</i>	past imperfective	A/O	L
<i>nɔ́â: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>nɔ́à-lí-</i>	perfective negative	A/O	L
<i>nò-nán-</i>	imperfective negative	bare	L
<i>nó-là</i>	prohibitive	bare	H (L)
<i>nó-mà</i>	hortative	bare	H (L)

One assistant gave L-toned stems in *nò-lá* (prohibitive) and *nò-má* (hortative).

The forms of /H ~ H/ ‘go in’ that are tonally distinct from those of /H ~ L/ ‘hear’ are the following: *nó-zò-*, *nó-téré-bè-*, *nó = bè-*, *nó-zà-lì-*, *nó-zè = bé-*, *nɔ́á-lì-*, *nó-là*, and *nó-mà*. Other categories require H-tone, or (in one category each) HL-tone or L-tone, for both *Cv* tone-melody classes. In these inflectional categories, ‘go in’ and ‘hear’ are homophonous. Perhaps to avoid confusion, ‘hear’ is often accompanied by the noun *sún* ‘ear’.

The tonally diagnostic forms for ‘send’ and ‘hear’ are juxtaposed in (325). Experiential perfect (235a) *-téré-bè-* is unaffected by the tonal difference between ‘send’ and ‘hear’. This is the most chain-like combination in the relevant data. By contrast, the forms in (325b) show a rhythmical tonal pattern beginning HL... for ‘send’ and LH... for ‘hear’, as the suffixal tones polarize to the stem tones.

(325) Tonally diagnostic forms

	‘send’ /H ~ H/	‘hear’ /H ~ L/	category
a.	<i>tó-téré-bè-</i>	<i>nò-téré-bè-</i>	experiential perfect
b.	<i>tó-zò-</i>	<i>nò-zó-</i>	perfective-2
	<i>tó = bé-</i>	<i>nò = bé-</i>	past perfect
	<i>tó-zà-lì-</i>	<i>nò-zá-lì-</i>	recent perfect negative
	<i>tó-zè = bè-</i>	<i>nò-zé = bè-</i>	past recent perfect
	<i>tɔ́á-lì-</i>	<i>nɔ́à-lí-</i>	perfective negative

10.2.1.8 *zó* (imperative *zô:*) ‘bring’

Cognates of this verb are irregular in several Dogon languages, in some cases showing a tone-melody /HL/ that is either unique or found elsewhere only with the antonym ‘take away, convey’. In YD, ‘bring’ is irregular in several respects.

Most forms are based on a short-voweled form (*zó-*), but the imperative is *zô:* with a long vowel and falling tone. Most forms of ‘bring’ have an H-toned stem, pointing to a mostly /H ~ H/ tone-melody class. This is very odd for a stem with initial voiced obstruent. The verb is also unorthodox within the /H ~ H/ class in shifting the stem to L-tone in *zò-m̃* (imperfective before AUX) and *zò-m̃ = bè-* (past imperfective). On the other hand, an H-toned stem appears unexpectedly in imperfective negative *zó-nàn-* ~ *zó-ràn-*. This tonal peculiarity is shared only with the antonym *zĩn* ‘take away, convey’ (§10.2.1.12), below. These two verbs have the same aberrant H-toned stem in the purposive form with *ná* (§17.6.1).

In (326), the irregular forms are highlighted by an exclamation point in the rightmost column.

(326) Paradigm of *zó* ‘bring’, mostly /H ~ H/

form	category	stem	stem tones
<i>zǒé-</i>	perfective	E	H
<i>zó</i>	bare stem	bare	H
<i>zó-zò-</i>	perfective-2	bare	H
<i>zó-téré-bè-</i>	experiential perfect	bare	H
<i>zó-zè-</i>	recent perfect	bare	H
<i>zó = bè-</i>	past perfect	bare	H
<i>zó-zà-lì-</i>	recent perfect negative	bare	H
<i>zó-zè = bè-</i>	past recent perfect	bare	H
<i>zô:</i>	imperative	A/O	HL [!]
<i>zó-m-ù</i>	imperfective 3Sg	A/O	H
<i>zò-m̃</i>	imperfective before AUX	A/O	L [!]
<i>zò-m̃ = bè-</i>	past imperfective	A/O	L [!]
<i>zô: = bá-lì-∅</i>	past imperfective negative	A/O	HL
<i>zó-lì-</i>	perfective negative	A/O	H
<i>zó-nàn-</i>	imperfective negative	bare	H [!]
<i>zó-là</i>	prohibitive	bare	H
<i>zó-mà</i>	hortative	bare	H

10.2.1.9 Regular /H ~ H/-toned *Ca:*, *Co:*, and *Cé:* stems

Because of the long vowel, which permits audible expression of a rising tone, the primary opposition for *Cv:* (as opposed to *Cv*) verbs is now between /H ~ H/ and /LH ~ L/. There is

also one case of /LH ~ LH/, associated with initial *n*. The /LH ~ L/ and /LH ~ LH/ stems are treated in the following sections.

All known *Ca:*, *Co:*, and *Cé:* verbs of /H ~ H/ tone-melody class are listed in (327). Stems with nasalized vowels are included.

(327) /H ~ H/-toned *Ca:*, *Co:*, and *Cé:* verbs

	bare	perfective negative	gloss
a.	<i>á:</i>	<i>á:-lì-</i>	‘uproot by hand’
	<i>há:</i>	<i>há:-lì-</i>	‘rent’
	<i>ká:</i>	<i>ká:-lì-</i>	‘shave’
	<i>pá:</i>	<i>pá:-lì-</i>	‘put up against’
	<i>pá:ⁿ</i>	<i>pá:ⁿ-lì-</i>	‘intersperse (crops)’
	<i>sá:</i>	<i>sá:-lì-</i>	‘answer’
	<i>sá:</i>	<i>sá:-lì-</i>	‘(seedling) grow’
	<i>sá:</i>	<i>sá:-lì-</i>	‘scoop (from water)’
	<i>tá:</i>	<i>tá:-lì-</i>	‘shoot’; ‘snap fingers against’
	<i>tá:</i>	<i>tá:-lì-</i>	‘avoid (taboo)’
	<i>tá:ⁿ</i>	<i>tá:ⁿ-lì-</i>	‘spread (legs)’
b.	<i>kó:</i>	<i>kó:-lì-</i>	‘roll up (ends of pants)’
	<i>só:</i>	<i>só:-lì-</i>	‘dip’
	<i>tó:</i>	<i>tó:-lì-</i>	‘spit’ (with <i>sùmzú</i> ‘saliva’)
	<i>tó:</i>	<i>tó:-lì-</i>	‘take, pick up’ (variant of <i>tógó</i>)
c.	<i>cé:</i>	<i>cé:-lì-</i>	‘(mouse) nibble’

The notable peculiarity of *Cá:* verbs is the perfective *Cáyé-*, based on an E-stem arguably from /*Ca:e-*/ or /*Cae-*/ with a (faint) epenthetic *y* (see end of §3.2.7). The 3PI perfective is *Cá:-Ø* from /*Ca:-a*/.

The paradigm of ‘shave’ (328) is representative. In comparison with /H ~ H/-toned monomoraic *Cv* verbs, an /H ~ H/-toned *Cv:* verb like ‘shave’ has HL stem tone in four additional inflectional categories. Aside from this, the stem tones for the two shapes are the same, with L-toned stems only in the imperfective negative.

(328) Paradigm of *ká:* ‘shave’ /H ~ H/

form	category	stem	stem tones
<i>káyé-</i>	perfective	E	H
<i>ká:</i>	bare stem	bare	H
<i>ká:-zò-</i>	perfective-2	bare	H
<i>ká:-téré-bè-</i>	experiential perfect	bare	H

<i>ká:-zè-</i>	recent perfect	bare	H
<i>ká: = bè-</i>	past perfect	bare	H
<i>ká:-zà-lì-</i>	recent perfect negative	bare	H
<i>ká:-zè = bè-</i>	past recent perfect	bare	H
<i>ká:</i>	imperative	A/O	H
<i>kâ:-m-ù</i>	imperfective 3Sg	A/O	HL
<i>ká:-m</i>	imperfective before AUX	A/O	H
<i>ká:-m = bè-</i>	past imperfective	A/O	H
<i>kâ: = bá-lì-Ø</i>	past imperfective negative	A/O	HL
<i>ká:-lì-</i>	perfective negative	A/O	H
<i>kà:-nán-</i>	imperfective negative	bare	L
<i>ká:-là</i>	prohibitive	bare	H
<i>ká:-mà</i>	hortative	bare	H

Có: verbs are represented here by *tó:* ‘spit’, which takes noun *sùmzú* ‘saliva’ as direct object (329). The forms of *Có:* verbs are similar to those of *Cá:* verbs except for the perfective *Cqe:-*.

(329) Paradigm of *tó:* ‘spit’ /H ~ H/

form	category	stem	stem tones
<i>tqé:-</i>	perfective	E	H
<i>tó:</i>	bare stem	bare	H
<i>tó:-zò-</i>	perfective-2	bare	H
<i>tó:-téré-bè-</i>	experiential perfect	bare	H
<i>tó:-zè-</i>	recent perfect	bare	H
<i>tó: = bè-</i>	past perfect	bare	H
<i>tó:-zà-lì-</i>	recent perfect negative	bare	H
<i>tó:-zè = bè-</i>	past recent perfect	bare	H
<i>tó:</i>	imperative	A/O	H
<i>tô:-m-ù</i>	imperfective 3Sg	A/O	HL
<i>tó:-m</i>	imperfective before AUX	A/O	H
<i>tó:-m = bè-</i>	past imperfective	A/O	H
<i>tô: = bá-lì-Ø</i>	past imperfective negative	A/O	HL
<i>tó:-lì-</i>	perfective negative	A/O	H
<i>tò:-nán-</i>	imperfective negative	bare	L
<i>tó:-là</i>	prohibitive	bare	H
<i>tó:-mà</i>	hortative	bare	H

The long *e:* in *tqé:-* can be heard in isolation, and (more easily) before ‘since’ subordinator *-nà*, hence *tqé:-nà* ‘since (someone) spit’, contrast *gqé-nà* ‘since (someone) went out’ (§15.3.1).

cé: ‘nibble’, the only *Cé:* verb, has a straightforward paradigm since the E-stem requires no desyllabification.

(330) Paradigm of *cé:* ‘nibble’ /H ~ H/

form	category	stem	stem tones
<i>cé:-</i>	perfective	E	H
<i>cé:</i>	bare stem	bare	H
<i>cé:-zò-</i>	perfective-2	bare	H
<i>cé:-téré-bè-</i>	experiential perfect	bare	H
<i>cé:-zè-</i>	recent perfect	bare	H
<i>cé: = bè-</i>	past perfect	bare	H
<i>cé:-zà-lì-</i>	recent perfect negative	bare	H
<i>cé:-zè = bè-</i>	past recent perfect	bare	H
<i>cé:</i>	imperative	A/O	H
<i>cé:-m-ù</i>	imperfective 3Sg	A/O	HL
<i>cé:-m</i>	imperfective before AUX	A/O	H
<i>cé:-m = bè-</i>	past imperfective	A/O	H
<i>cé: = bá-lì-Ø</i>	past imperfective negative	A/O	HL
<i>cé:-lì-</i>	perfective negative	A/O	H
<i>cé:-nán-</i>	imperfective negative	bare	L
<i>cé:-là</i>	prohibitive	bare	H
<i>cé:-mà</i>	hortative	bare	H

10.2.1.10 /LH ~ L/ and /LH ~ LH/ toned *Ca:* stems

There are no *Cö:* or *Cě:* verbs with /LH/ characteristics.

Verbs like *mă:* ‘make (bricks)’ and *nă:* ‘spend night’ have the same paradigm segmentally as the /H ~ H/ toned *Cá:* verbs described just above (e.g. *ká:* ‘shave’). They differ tonally in several inflected forms from those verbs. However, ‘make (bricks)’ and ‘spend night’ also differ from each other in certain forms, where ‘make (bricks)’ is L-toned while ‘spend night’ has a rising tone. The known verbs of the two types are listed in (331). ‘Spend night’ is the only *Cv:* exemplar of the /LH ~ LH/ class. Since no other *Cv:* verb stem begins with *n* or *l*, and since these two initial consonants are elsewhere strongly associated with /LH ~ LH/, ‘spend night’ is not really aberrant.

(331) /LH ~ L/ and /LH ~ LH/ toned *Că:* verbs

bare	perfective negative	gloss
a. /LH ~ L/		
<i>wă:</i>	<i>wà:-lí-</i>	‘pull up (boubou)’
<i>mă:</i>	<i>mà:-lí-</i>	‘make (bricks)’
<i>dă:</i>	<i>dà:-lí-</i>	‘cover (mouth)’
<i>dă:</i>	<i>dà:-lí-</i>	‘endure (e.g. heat)’
<i>bă:</i>	<i>bà:-lí-</i>	‘be enough’, ‘be equal to’
<i>yă:</i>	<i>yà:-lí-</i>	‘hold over fire’
<i>ză:</i>	<i>zà:-lí-</i>	‘sow in manure pile’
<i>ză:</i>	<i>zà:-lí-</i>	‘carve’
<i>gă:</i>	<i>gà:-lí-</i>	‘harvest (rice) with sickle’
<i>gă:</i>	<i>gà:-lí-</i>	‘harvest (secondary millet)’
b. /LH ~ LH/		
<i>nă:</i>	<i>nă:-lì-</i>	‘spend night’

Sample paradigms for (331a) and (332b), respectively, are (332) and (333). The four forms whose tones differentiate the /LH ~ L/ and /LH ~ LH/ tone-melody classes are highlighted by exclamation points ! on the right.

(332) Paradigm of *mă:* ‘make (bricks)’, /LH ~ L/

form	category	stem	stem tones
<i>màyé-</i>	perfective	E	LH
<i>mă:</i>	bare stem	bare	LH
<i>mă:-zò-</i>	perfective-2	bare	LH
<i>mà:-téré-bè-</i>	experiential perfect	bare	L
<i>mă:-zè-</i>	recent perfect	bare	LH
<i>mà: = bé-</i>	past perfect	bare	L [!]
<i>mà:-zá-lì-</i>	recent perfect negative	bare	L
<i>mà:-zé = bè-</i>	past recent perfect	bare	L
<i>mă:</i>	imperative	A/O	LH
<i>mă:-m-ù</i>	imperfective 3Sg	A/O	LH
<i>mà:-m̂</i>	imperfective before AUX	A/O	L (< LH)
<i>mà:-m̂ = bè-</i>	past imperfective	A/O	L (< LH)
<i>mă: = bá-lì-</i>	past imperfective negative	A/O	LHL
<i>mà:-lí-</i>	perfective negative	A/O	L [!]
<i>mà:-nán-</i>	imperfective negative	bare	L
<i>mà:-lá</i>	prohibitive	bare	L [!]
<i>mà:-má</i>	hortative	bare	L [!]

(333) Paradigm of *nǎ:* ‘spend night’, /LH ~ LH/

form	category	stem	stem tones
<i>nàyé-</i>	perfective	E	LH
<i>nǎ:</i>	bare stem	bare	LH
<i>nǎ:-zò-</i>	perfective-2	bare	LH
<i>nà:-téré-bè-</i>	experiential perfect	bare	L
<i>nǎ:-zè-</i>	recent perfect	bare	LH
<i>nǎ: = bè-</i>	past perfect	bare	LH [!]
<i>nà:-zá-lì-</i>	recent perfect negative	bare	L
<i>nà:-zé = bè-</i>	past recent perfect	bare	L
<i>nǎ:</i>	imperative	A/O	LH
<i>nǎ:-m-ù</i>	imperfective 3Sg	A/O	LH
<i>nà:-m̃</i>	imperfective before AUX	A/O	L (< LH)
<i>nà:-m̃ = bè-</i>	past imperfective	A/O	L (< LH)
<i>nǎ: = bá-lì-</i>	past imperfective negative	A/O	LHL
<i>nǎ:-lì-</i>	perfective negative	A/O	LH [!]
<i>nà:-nán-</i>	imperfective negative	bare	L
<i>nǎ:-là</i>	prohibitive	bare	LH [!]
<i>nǎ:-mà</i>	hortative	bare	LH [!]

The <LHL> tone of the first syllable in past imperfective negative *mǎ: = bá-lì-* and *nǎ: = bá-lì-* results regularly from the combination of the lexical /LH/ tone of the stem plus the final L-toned segment imposed on the stem by the inflectional category.

10.2.1.11 *Cɛ:* and *Cɔ:* stems

These verbs differ slightly from the *Ca:* and *Co:* verbs described above in that the long mid-height vowel is retained but shortened in the A/O-stems. *Cɛ:* becomes *Cɛya* with more or less epenthetic *y* (§3.5.3.2, but see §3.4.1.5). *Cɔ:* becomes *Cɔa:*, rarely *Cɔwa*. The E-stems are respectively *Cɛ:-* and *Cɔɛ:-*.

The known verbs of these shapes are in (334). Some of them derive from original bisyllabic stems by loss of a medial consonant (usually a semivowel), while others are reconstructible as monosyllabics. Stems with nasalized vowels show the same vocalic alternations as those with oral vowels.

(334) bare gloss selected cognates

a. /H ~ H/ toned

with *ɛ*

<i>pé:</i>	‘get old’	Jamsay <i>pé:ⁿ</i> , Nanga <i>pé:</i>
<i>pé:</i>	‘tap; squash (v)’	Jamsay & Nanga <i>pé:</i>

<i>té:</i>	‘sprout (v)’	Bey Tey & Bankan Tey <i>tíyé</i> , Jamsay <i>tóyó</i>
<i>cé:</i>	‘delouse’	Jamsay <i>cé:</i>
<i>sé:</i>	‘trim (hair)’	Jamsay <i>sé:</i>
<i>é:ⁿ</i>	‘be tight’	Jamsay <i>é:ⁿ ~ éyⁿé</i>
<i>with ɔ</i>		
<i>pó:</i>	‘let ferment’	Nanga <i>pó:</i>
<i>kó:</i>	‘be worm-eaten’	Jamsay <i>kóyó</i>
<i>só:</i>	‘peck’	Bey Tey <i>sóyó</i>
<i>só:</i>	‘shovel (v), scoop’	Bey Tey <i>só</i> , Jamsay <i>só:</i>
<i>só:ⁿ</i>	‘douse (fire)’	Nanga <i>sóyí</i>

b. /LH ~ L/ toned

<i>with ɔ</i>		
<i>bǒ:</i>	‘unsheathe’	Najamba <i>bǒyé</i>
<i>dǒ:ⁿ</i>	‘put under’	Najamba <i>dǒhé</i>

The paradigm of *té:* ‘sprout’ (perhaps < **téyé*) is in (335). The other verbs in (334a) have the same paradigm, in spite of their different historical origins.

(335) Paradigm of *té:* ‘sprout (v)’ /H ~ H/

form	category	stem	stem tones
<i>té:-</i>	perfective	E	H
<i>té:</i>	bare stem	bare	H
<i>té:-zò-</i>	perfective-2	bare	H
<i>té:-téré-bè-</i>	experiential perfect	bare	H
<i>té:-zè-</i>	recent perfect	bare	H
<i>té: = bè-</i>	past perfect	bare	H
<i>té:-zà-lì-</i>	recent perfect negative	bare	H
<i>té:-zè = bè-</i>	past recent perfect	bare	H
<i>téyá</i>	imperative	A/O	H
<i>téyà-m-ù</i>	imperfective 3Sg	A/O	HL
<i>téyá-m</i>	imperfective before AUX	A/O	H
<i>téyá-m = bè-</i>	past imperfective	A/O	H
<i>téyà: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>téyá-lì-</i>	perfective negative	A/O	H
<i>tè:-nán-</i>	imperfective negative	bare	L
<i>té:-là</i>	prohibitive	bare	H
<i>té:-mà</i>	hortative	bare	H

One assistant gave A/O variants *téyá-là* (prohibitive) and *téyá-mà* (hortative).

The paradigm of *só:* ‘peck’ is (336).

(336) Paradigm of *só:* ‘peck’ /H ~ H/

form	category	stem	stem tones
<i>sɔ́é:-</i>	perfective	E	H
<i>só:</i>	bare stem	bare	H
<i>só:-zò-</i>	perfective-2	bare	H
<i>só:-téré-bè-</i>	experiential perfect	bare	H
<i>só:-zè-</i>	recent perfect	bare	H
<i>só: = bè-</i>	past perfect	bare	H
<i>só:-zà-lì-</i>	recent perfect negative	bare	H
<i>só:-zè = bè-</i>	past recent perfect	bare	H
<i>sɔ́á:</i>	imperative	A/O	H
<i>sɔ́á:-m-ù</i>	imperfective 3Sg	A/O	HL
<i>sɔ́á:-m̃</i>	imperfective before AUX	A/O	H
<i>sɔ́á:-m̃ = bè-</i>	past imperfective	A/O	H
<i>sɔ́á: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>sɔ́á:-lì-</i>	perfective negative	A/O	H
<i>sò:-nán-</i>	imperfective negative	bare	L
<i>só:-là</i>	prohibitive	bare	H
<i>só:-mà</i>	hortative	bare	H

One assistant also gave A/O variants *sɔ́á:-là* (prohibitive) and *sɔ́á:-mà* (hortative).

The verb *só:* ‘douse (fire)’ has perfective *sɔ́é:ⁿ*, imperative *sówⁿà*, perfective negative *sówⁿá-lì-*, and imperfective negative *sò:ⁿ-nán-*. The A/O-stem *sówⁿa* is syllabically parallel to *teya* in (335).

There is nothing newsworthy about the paradigms of the /LH ~ L/ stems *bɔ́:* ‘unsheathe’ and *dɔ́:ⁿ* ‘put under’ (334b), so they are omitted. Segmentally, they are like the paradigm of *só:* ‘peck’. Tonally, they are like that of *má:* ‘make bricks’ (preceding section). ‘Put under’ has perfective negative *dò:ⁿ-lí-*.

The verb ‘know’ is *zùwó* (bisyllabic). The A/O-stem is therefore *zuwa-*. The bare stem *zùwó* optionally contracts to *zɔ́:*. Jamsay cognate *jùgó* similarly contracts to *jɔ́:-* in some suffixal combinations.

10.2.1.12 *n*-final verbs (*ún* < /úrⁿ/ ‘go’, *zín* ‘take away’, *sín* ‘be sated’)

The known regular (aspect-marking) verbs of this shape (monosyllabic with final consonant) are *ún* ‘go’, *zín* ‘take away, convey (away from here or to some location)’ (French *emmener*), and *sín* ‘become sated (=full after eating)’. There is also an irregular verb *gǔn* ‘say (sth)’ (§11.3.2), and a stative quasi-verb *kùn* ‘be (put) in’ (§11.2.3) which does not mark aspect, but these two verbs do not always behave like the first three. All other surface *Cvn* or other *CvC* verbs are due to Stem-Final *u*-Deletion (§3.5.3.3) and have underlying (lexical) final *u*, which is brought out by their full paradigms.

The perfective stems of *n*-final verbs end in *ɛ*. The irregular 3Pl perfective forms are *yà ún-Ø* ~ *yà úrⁿ-ú* ‘they went’, *yà zín-Ø* ~ *yà zìrⁿ-ú* ‘they took away’, and *yà sín-Ø* ~ *yà sírⁿ-ú* ‘they became sated’. There is some ambiguity whether the optional final *u* is a 3Pl suffix allomorph, or just an extension of the stem before zero suffix, but most of the paradigms point to *n*-final stems. Contrast *yà gùrⁿ-á* ‘they said’. In the past imperfective negative and morphophonologically related forms, the stem ends in *ò:* before the encliticized = *bá-lì-*. All other forms, word-final or suffixed are based on the *n*-final stem. The imperfective negative suffix *-nán-* (L-toned *-nàn-* with ‘take away’) does not allow its otherwise optional allomorph *-rán-*, since tap *r* can occur only in intervocalic position. Before suffixes *-m* (and imperfective participial *-ŋ*, not shown in this section), which consist only of a nonhomorganic nasal, epenthetic *u* is inserted (§3.5.3.1), e.g. /*ún-m*/ → *úrⁿ-úm*.

The paradigm of ‘go’ is (337). The lexical tone-melody class is /H ~ H/ with no irregularities. The stem consonant is realized as *rⁿ* whenever intervocalic within the word, and as *n* when syllable-final. This suggests a lexically basic form /*úrⁿ-*/ that appears as *ún-* when the stem consonant is not intervocalic within the word.

(337) Paradigm of *ún* ‘go’ /H ~ H/

form	category	stem	stem tones
<i>úrⁿɛ-</i>	perfective (3Pl <i>ún-Ø</i>)	E	H
<i>ún</i>	bare stem	bare	H
<i>ún-zò-</i>	perfective-2	bare	H
<i>ún-téré-bè-</i>	experiential perfect	bare	H
<i>ún-zè-</i>	recent perfect	bare	H
<i>ún = bè-</i>	past perfect	bare	H
<i>ún-zà-lì-</i>	recent perfect negative	bare	H
<i>ún-zè = bè-</i>	past recent perfect	bare	H
<i>ún</i>	imperative	A/O	H
<i>ún-m-ù</i>	imperfective 3Sg	A/O	HL
<i>úrⁿ-úm</i>	imperfective before AUX	A/O	H
<i>úrⁿ-úm = bè-</i>	past imperfective	A/O	H
<i>úrⁿò: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>ún-lì-</i>	perfective negative	A/O	H
<i>ùn-nán-</i>	imperfective negative	bare	L
<i>ún-lâ</i>	prohibitive	bare	H
<i>ún-mà</i>	hortative	bare	H

The paradigm of ‘take away’ is (338). For one assistant, the medial stem consonant is consistently *n*, in intervocalic as well as in other positions. For another, it becomes *rⁿ* intervocalically. The stem tones, taken as a whole, are irregular. Many of the forms have rising-toned stem, but the imperative has falling tone. The perfective negative has a rare combination of H-toned stem and L-toned suffix; the only other verb with this pattern is the

other basic verb of conveyance, *zó* ‘bring’ (§10.2.1.8, above). In (338), the most irregular forms are highlighted by exclamation points.

(338) Paradigm of *zǐn* ‘take away’ (tonally irregular)

form	category	stem	stem tones
<i>zìrⁿé- ~ zìné-</i>	perfective (3Pl <i>zǐn-Ø</i>)	E	LH
<i>zǐn</i>	bare stem	bare	LH
<i>zǐn-zò-</i>	perfective-2	bare	LH
<i>zǐn-téré-bè-</i> (~ <i>zìn-téré-bè-</i>)	experiential perfect	bare (HL)	LH
<i>zǐn-zè-</i>	recent perfect	bare	LH
<i>zǐn = bè-</i>	past perfect	bare	LH
<i>zǐn-zà-lì-</i>	recent perfect negative	bare	LH
<i>zǐn-zè = bè-</i>	past recent perfect	bare	LH
<i>zǐn</i>	imperative	A/O	HL [!]
<i>zǐn-m-ù</i>	imperfective 3Sg	A/O	LH
<i>zìn-úm</i> ~ <i>zìrⁿú-ń</i>	imperfective before AUX	A/O	LH
<i>zìn-úm = bè-</i>	past imperfective	A/O	LH
<i>zìnô: = bá-lì-</i>	past imperfective negative	A/O	LHL
<i>zín-lì-</i>	perfective negative	A/O	H [!]
<i>zín-nàn-</i>	imperfective negative	bare	H [!]
<i>zín-là</i>	prohibitive	bare	H [!]
<i>zín-mà</i>	hortative	bare	H [!]

‘Be satiated (=full after eating)’ has bare stem *sín*, perfective (*yà*) *sírⁿé*, 3Pl perfective (*yà*) *sín-Ø ~ (yà) sírⁿ-ú*, and past imperfective negative *sírⁿò: = bá-lì-*. ‘Say’ has bare stem *gǐn*, perfective *gùrⁿé*, 3Pl perfective *gùrⁿ-á*, and past imperfective negative *gùrⁿô: = bá-lì-*.

Two phonological issues arise.

First, perfective *úrⁿé-*, *zìrⁿé- ~ zìné-*, and *gùrⁿé-* end in -ATR *ε*. Since so many of their suffixed forms are based on *un-* and *zin-* (with various tones but without a following stem-vowel), the only other diagnostic form for ATR-harmonic status is the past imperfective negative (with its lengthened stem-final vowel). Its forms are *úrⁿò: = bá-lì-* and *zìnô: = bá-lì-*, with +ATR *o:*. This suggests that the *ε* in the perfective forms may have been influenced by the preceding nasal consonant, rather than revealing the stems’ lexical ATR values. See §3.4.1.7 for discussion.

Secondly, because stem-final *n* is a consonant, addition of a suffix that consists of just a consonant creates a disallowed word-final *CC* cluster. All YD suffixes of this shape consist of a nasal consonant *m*, *n*, or *ŋ*. The disallowed cluster is repaired by conjuring up an extra vowel, either after (339a) or before (339b) the suffixal nasal. In (339a), this is achieved by using a syllabic *-ni* or *-nu* allomorph of the suffix; the vowel quality is unpredictable and must be attributed to allomorphy rather than to a regular phonological process. In (339b), true

epenthetic *u* is inserted between the stem-final and suffixal consonants. Some speakers prefer the epenthetic solution even for the categories in (339a), e.g. plural-addressee imperative *úrⁿ-ùn*. See §3.5.3.1 for discussion of *u*-Epenthesis, and §3.7.3.6 for its tonal consequences.

(339) Epenthetic vowels with *n*-final verbs

	‘go’	‘take away’	
a.	<i>ún-nì</i>	<i>zín-nì</i>	plural-addressee imperative (- <i>n̄</i>)
	<i>ún-nù</i>	<i>zín-nù</i>	perfective negative 3Pl (- <i>n̄</i>)
	<i>ùn-nú</i>	<i>zín-nù</i>	imperfective negative relative (- <i>n</i>)
b.	<i>úrⁿ-ùm-∅</i>	<i>zìn-úm-∅</i>	imperfective 1Sg (- <i>m̄-∅</i>)
	<i>úrⁿ-úm</i>	<i>zìn-úm</i>	imperfective before auxiliary (- <i>m̄</i>)
	<i>úrⁿ-úŋ</i>	<i>zìn-úŋ</i>	imperfective relative InanSg (- <i>ŋ</i>)
		(variants <i>zìrⁿ-úm-∅</i> , <i>zìrⁿ-ú-m̄</i> , <i>zìrⁿ-úŋ</i>)	

There are numerous verbs like *năm* ‘grind (into flour)’ that are best analysed as *u*-final bisyllabic verbs, in this case /*nàmú*/. The bisyllabic pattern is visible in e.g. imperative *námá* ‘grind!’ and perfective negative *nàmà-lí*. The apocope of the final *u* in the bare stem (*năm*) creates a superficial *CvC* stem shape. For more on the phonology, see §3.5.3.3, above.

10.2.2 Bisyllabic verbs

All bisyllabic verb stems end in a short vowel. The shapes are *CvCv*, *Cv:Cv*, *CvCCv*, and occasionally *Cv:CCv*. The initial *C* position may be vacant (*vCv*, etc.). The tone-melody classes are /H ~ H/ associated with initial voiceless consonant, /LH ~ LH/ associated with initial *l* or *n*, /LH ~ L/ associated with initial voiced obstruent and remaining sonorants, and /H ~ L/ generally favoring the heaviest shapes. Stems with no initial consonant have a lexical choice of /H ~ H/ or /LH ~ L/. For more on these tone-melody classes, see §3.7.1.2, above.

There is one *nCv* verb, three *?əCv* verbs that begin with a glottal stop plus schwa, and a fairly large number of *vCv* verbs with no initial consonant. The set of verbs of these three types can be described as **marginally bisyllabic**. They differ from *CvCv* stems (and to some extent among each other) in some details of tone-melody distribution. The /H ~ H/ tone-melody class works the same for all bisyllabic shapes. However, the other tone-melody class for the marginally bisyllabic stems is /H ~ L/, whereas *CvCv* stems have /LH ~ L/ or /LH ~ LH/, i.e. with at least some rising melodies. *CvCCv* stems behave like *CvCv*, except that the /LH/ melody has two variants. *Cv:Cv* stems are mostly /H ~ H/ or /H ~ L/, with no rising melodies.

The possible vowel-quality sequences (disregarding length and nasalization) in bisyllabic stems are those in (340). The formulae do not apply to marginally bisyllabic stems with only one “real” vowel, i.e., the single *nCv* stem and the glottal-initial stems.

(340) Vocalic sequences (bisyllabic verbs)

a. identical vowels at least in part of paradigm

e...e (with a tendency to fluctuate with *e...o*)

ε...ε

o...o

ɔ...ɔ

a...a (“*u*-final”; converts to *a...u* in the bare stem and related forms)

b. high vowel plus mid-height vowel with the same back/round value

u...o

u...ɔ

i...e (with a tendency to fluctuate with *i...o*)

i...ε

c. mixed-ATR with the same back/round value, medial nasal (§3.4.1.4)

eNε

oNɔ

The verbs that alternate between *CaCa-* in the A/O-stem and *CaCu-* (including surface *CaC-*) verbs are called ***u*-final stems**.

The zoomed-in subsections below begin with the marginally bisyllabic stems of shapes *nCv*, *ʔəCv*, and *vCv*, then move to *CvCv*, *CvCCv*, and *Cv:Cv*.

10.2.2.1 *nCv* verb (*ńdɛ́* ‘give’, irregular imperative *ńdí*)

For this shape I can cite only *ńdɛ́* ‘give’. The paradigm is (341). Except for the imperative, the forms are segmentally regular. The stem-final *ε* changes regularly to *a* in the A/O-stem. The E-stem is not segmentally distinct since the stem already ends in *ε*. The tones are split into H and L, suggesting the /H ~ L/ tone-melody class. The LH-toned imperative *ńdí* stands out as irregular, tonally as well as segmentally.

(341) Paradigm of *ńdɛ́* ‘give’ /H ~ L/

form	category	stem	tones
<i>ńdɛ́-</i>	perfective	E	H
<i>ńdɛ́</i>	bare stem	bare	H
<i>ńdɛ́-zò-</i>	perfective-2	bare	H
<i>ńdɛ́-téré-bè-</i>	experiential perfect	bare	H
<i>ńdɛ́-zè-</i>	recent perfect	bare	H
<i>ńdɛ́ = bè-</i>	past perfect	bare	H
<i>ńdè-zá-lì-</i>	recent perfect negative	bare	L

<i>ʔáǵá</i>	imperative	A/O	H
<i>ʔáǵà-m-ù</i>	imperfective 3Sg	A/O	HL
<i>ʔáǵá-m</i>	imperfective before AUX	A/O	H
<i>ʔáǵá-m = bɛ̀-</i>	past imperfective	A/O	H
<i>ʔáǵà: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>ʔáǵá-lì-</i>	perfective negative	A/O	H
<i>ʔàǵè-nán-</i>	imperfective negative	bare	L
<i>ʔáǵé-là</i>	prohibitive	bare	H
<i>ʔáǵé-mà</i>	hortative	bare	H

There are two *ʔáǵé* verbs, ‘ripen’ and ‘go up’, of different tone-melody classes. The paradigm of ‘go up’ differs tonally from that of ‘eat (meal)’ above in some forms. While ‘eat (meal)’ is classically /H ~ H/, ‘go up’ has a mix of H and L tones. The tonal pattern of ‘go up’ is similar to that for ‘give’ (§10.2.2.1, above), though they differ tonally in the past perfect, which is therefore flagged in (343) with an exclamation point. Both ‘go up’ and ‘give’ can be assigned to the /H ~ L/ tone-melody class.

(343) Paradigm of *ʔáǵé* ‘go up’ /H ~ L/

form	category	stem	tones
<i>ʔáǵé-</i>	perfective	E	H
<i>ʔáǵé</i>	bare stem	bare	H
<i>ʔáǵé-zò-</i>	perfective-2	bare	H
<i>ʔáǵé-téré-bɛ̀-</i>	experiential perfect	bare	H
<i>ʔáǵé-zɛ̀-</i>	recent perfect	bare	H
<i>ʔàǵè = bɛ̀-</i>	past perfect	bare	L [!]
<i>ʔàǵè-zá-lì-</i>	recent perfect negative	bare	L
<i>ʔàǵè-zɛ̀ = bɛ̀-</i>	past recent perfect	bare	L
<i>ʔáǵá</i>	imperative	A/O	H
<i>ʔáǵà-m-ù</i>	imperfective 3Sg	A/O	HL
<i>ʔáǵá-m</i>	imperfective before AUX	A/O	H
<i>ʔáǵá-m = bɛ̀-</i>	past imperfective	A/O	H
<i>ʔáǵà: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>ʔàǵà-lí-</i>	perfective negative	A/O	L
<i>ʔàǵè-nán-</i>	imperfective negative	bare	L
<i>ʔàǵè-lá</i>	prohibitive	bare	L
<i>ʔàǵè-mà</i>	hortative	bare	L

There is a segmentally identical stem *ʔáǵé* ‘ripen, become ripe’ with /H ~ H/ tones like those of ‘eat’ in (342) above. In those categories where ‘go up’ has an H or HL stem-tone, there is no audible difference between ‘ripen’ and ‘go up’. Where ‘go up’ has an L stem-tone, the two are tonally distinct, except in the imperfective negative *ʔàǵè-nán-*, whose suffix controls {L}

overlay on both stems (as it does for nearly all verbs). The perfective negative is one of the differentiating categories: *ʔá-là-lì-* ‘did not ripen’ versus *ʔà-là-lí-* ‘did not go up’.

10.2.2.3 *vCv* stems

The verbs considered here are special cases of *CvCv* stems (see the next subsection) with empty C_1 . Because the tone-melody classes of verbs are elsewhere dependent in part on their C_1 (mainly its voicing feature), the absence of a C_1 creates an interesting situation.

The majority of *vCv* stems are lexically /H ~ H/-toned. Only in the imperfective negative does the stem drop to {L}. This suggests that voiced C_1 is the active ingredient affecting stem tone melodies, so that absence of C_1 tends to be equivalent to the presence of unvoiced C_1 , in contrast to voiced C_1 .

A sample /H ~ H/-toned paradigm is that of ‘buy’ (344). Since the bare stem ends in *ɛ*, the E-stem and the bare stem are indistinguishable, and the A/O-stem ends in *a*.

(344) Paradigm of *ébé* ‘buy’ /H ~ H/

form	category	stem	stem tones
<i>ébé-</i>	perfective	E	H
<i>ébé</i>	bare stem	bare	H
<i>ébé-zò-</i>	perfective-2	bare	H
<i>ébé-téré-bè-</i>	experiential perfect	bare	H
<i>ébé-zè-</i>	recent perfect	bare	H
<i>ébé = bè-</i>	past perfect	bare	H
<i>ébé-zà-lì-</i>	recent perfect negative	bare	H
<i>ébé-zè = bè-</i>	past recent perfect	bare	H
<i>éba</i>	imperative	A/O	H
<i>ébà-m-ù</i>	imperfective 3Sg	A/O	HL
<i>éba-m</i>	imperfective before AUX	A/O	H
<i>éba-m = bè-</i>	past imperfective	A/O	H
<i>ébà: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>éba-lì-</i>	perfective negative	A/O	H
<i>èbè-nán-</i>	imperfective negative	bare	L
<i>ébé-là</i>	prohibitive	bare	H
<i>ébé-mà</i>	hortative	bare	H

Among other *vCv* stems of /H ~ H/ melodic class are *ɔ́nɔ́* ‘be(come) tired’, *éle* ‘take away (confiscate)’, and *ɔ́rⁿɔ́* ‘give an enema (suppository) to’. Their perfective negatives are *ɔ́nà-lì-*, *é-là-lì-*, and *ɔ́rⁿá-lì-*.

However, the correlation of /H ~ H/ tone-melody class with *vCv* stems is far from perfect. There are a number of stems of this shape that belong to the /H ~ L/ melodic class. We have seen /H ~ L/ above with *ndé* ‘give’ and *ʔále* ‘go up’, but there are some differences

in the tonal details within this set of /H ~ L/-toned marginally bisyllabic stems. The relevant *vCv* stems, such as *úbó* ‘pour’ (345), have {L} stem overlay in the perfective-2 and the experiential perfect. By contrast, these two categories have {H} or {HL} for both ‘give’ and ‘go up’. In the past perfect, the {L} stem-tone for ‘pour’ matches that of ‘go up’, not the {H}-tone of ‘give’. These three categories are highlighted by an exclamation point after the tone label in the rightmost column in (345). Because this verb ends lexically in *o*, its E-stem is distinct from its bare stem, and its A/O-stem ends in *a*.

(345) Paradigm of *úbó* ‘pour’ /H ~ L/

form	category	stem	tones
<i>úbé-</i>	perfective	E	H
<i>úbó</i>	bare stem	bare	H
<i>ùbò-zó-</i>	perfective-2	bare	L [!]
<i>ùbò-téré-bè-</i>	experiential perfect	bare	L [!]
<i>úbó-zè-</i>	recent perfect	bare	H
<i>ùbò = bé-</i>	past perfect	bare	L [!]
<i>ùbò-zá-lì-</i>	recent perfect negative	bare	L
<i>ùbò-zé = bè-</i>	past recent perfect	bare	L
<i>úbá</i>	imperative	A/O	H
<i>úbà-m-ù</i>	imperfective 3Sg	A/O	HL
<i>úbá-m</i>	imperfective before AUX	A/O	H
<i>úbá-m = bè-</i>	past imperfective	A/O	H
<i>úbà: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>ùbà-lí-</i>	perfective negative	A/O	L
<i>ùbò-nán-</i>	imperfective negative	bare	L
<i>ùbò-lá</i>	prohibitive	bare	L
<i>ùbò-má</i>	hortative	bare	L

The paradigm of ‘catch’ (346) is tonally similar to that of ‘pour’, except in the recent perfect. ‘Catch’, however, is a +ATR stem. Segmentally, in the bare stem and before suffixes, final *o* tends to fluctuate with *e*. It is consistently *o*: when lengthened (in the past imperfective negative), and usually *e* in the perfective negative. A suffix-initial labial consonant appears to favor *o* quality.

(346) Paradigm of *íbó* (or *íbé*) ‘catch’ /H ~ L/

form	category	stem	tones
<i>íbé-</i>	perfective (3Pl <i>íb-ó</i>)	E	H
<i>íbó, íbé</i>	bare stem	bare	H
<i>ìbè-zó-</i>	perfective-2	bare	L [!]
<i>ìbè-téré-bè-</i>	experiential perfect	bare	L [!]

<i>ìbò-zé-</i>	recent perfect	bare	L [!]
<i>ìbò = b'é-</i>	past perfect	bare	L [!]
<i>ìbò-zá-lì-</i>	recent perfect negative	bare	L
<i>ìbè-zé = b'è-</i>	past recent perfect	bare	L
<i>íbo</i>	imperative	A/O	H
<i>íbo-m-ù</i>	imperfective 3Sg	A/O	HL
<i>íbo-m</i>	imperfective before AUX	A/O	H
<i>íbo-m = b'è-</i>	past imperfective	A/O	H
<i>íbo: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>ìbè-lí-</i>	perfective negative	A/O	L
<i>ìbè-nán-</i>	imperfective negative	bare	L
<i>ìbè-lá</i>	prohibitive	bare	L
<i>ìbò-mà</i>	hortative	bare	L

Additional /H ~ L/ verbs of *vCv* shape include: *úmó* ‘crush (tobacco) in hand’, *úzó* ‘heal, recover’, *ídé* ‘set out to dry (in the sun)’, and *íjé* ‘be finished (depleted)’, with respective perfective negatives *ùmà-lí-*, *ùzò-lí-*, *ìbè-lí-*, and *ìjè-lí-*.

The *u*-final verb *ábú* ‘take (receive)’ (cf. *ábí-yé* ‘accept’) also belongs in this tone-melody set. It has the same tones as *úbó* ‘pour’. Like other *u*-final verbs, its stem ends in *u* in forms that are based on the bare stem. The E-stem ends in +ATR *e*, and the A/O-stem ends in *a*. The paradigm is (347).

(347) Paradigm of *ábú* ‘take, receive’ /H ~ L/

form	category	stem	stem tones
<i>ábé-</i>	perfective (3Pl <i>áb-á</i>)	E	H
<i>ábú</i>	bare stem	bare	H
<i>àbù-zó-</i>	perfective-2	bare	L [!]
<i>àbù-téré-b'è-</i>	experiential perfect	bare	L [!]
<i>ábú-zè-</i>	recent perfect	bare	H
<i>àbù = b'é-</i>	past perfect	bare	L [!]
<i>àbù-zá-lì-</i>	recent perfect negative	bare	L
<i>àbù-zé = b'è-</i>	past recent perfect	bare	L
<i>ábá</i>	imperative	A/O	H
<i>ábà-m-ù</i>	imperfective 3Sg	A/O	HL
<i>ábá-m</i>	imperfective before AUX	A/O	H
<i>ábá-m = b'è-</i>	past imperfective	A/O	H
<i>ábà: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>àbà-lí-</i>	perfective negative	A/O	L
<i>àbù-nán-</i>	imperfective negative	bare	L
<i>àbù-lá</i>	prohibitive	bare	L
<i>àbù-má</i>	hortative	bare	L

10.2.2.4 *CvCv* stems

Some verbs with bare stem (citation form) *CaC* from /*CaCu*/ are structurally bisyllabic, as is shown by A/O-stem *CaCa-* and E-stem *CaCe-*.

For *CvCv* with true initial consonant (not glottal stop), the tone-melody classes are those in (348).

- (348) stem begins with voiceless consonant: /H ~ H/
 stem begins with voiced consonant:
 one stem with medial *j* from **jj* : /H ~ L/
 most stems beginning in {*ln*} : /LH ~ LH/
 all others: /LH ~ L/

For /H ~ L/ in one *Cvjv* verb from **Cvjv*, see discussion of *wéjé* ‘give change’ preceding (58) in §3.7.1.2, above. Otherwise the tone-melody class is largely predictable from the initial consonant.

Among verbs with rising melodies, the choice between /LH ~ LH/ and /LH ~ L/ is almost predictable. The majority of stems with initial {*ln*} belong to the /LH ~ LH/ tone-melody class, as shown by *Cv̇Cv̇-li-* in the perfective negative (349). No *CvCv* stem beginning with any other consonant has this tonal profile.

- (349) *lvCv* and *nvCv* verbs with /LH ~ LH/ melody

bare	PfvNeg	gloss
a. initial <i>l</i>		
<i>lèlé</i>	<i>lèlé-li-</i>	‘err, make a mistake’
<i>lèzé</i>	<i>lèzá-li-</i>	‘press against’
<i>lèbé</i>	<i>lèbá-li-</i>	‘cauterize’
<i>lègé</i>	<i>lègá-li-</i>	‘slip (sth) under’
<i>lìgé</i>	<i>lìgé-li-</i>	‘mix’
<i>lòdó</i>	<i>lòdá-li-</i>	‘slide in’
<i>lògó</i>	<i>lògá-li-</i>	‘do a lot, do too much’
<i>lèdó</i>	<i>lèdé-li-</i>	‘make (noise)’
<i>lèbé</i>	<i>lèbé-li-</i>	‘cut off, sever’
<i>lùgó</i>	<i>lùgó-li-</i>	‘rinse out (mouth)’
<i>lùgó</i>	<i>lùgó-li-</i>	‘calculate’
b. initial <i>n</i>		
<i>nǎŋ</i>	<i>nǎŋá-li-</i>	‘pass’
<i>nàmú</i>	<i>nàmá-li-</i>	‘step on’
<i>nèmé</i>	<i>nèmá-li-</i>	‘taste’
<i>nèmé</i>	<i>nèmá-li-</i>	‘hit (with thrown object)’
<i>nèrⁿé</i>	<i>nèrⁿá-li-</i>	‘hone, whet (blade)’

<i>nìné</i>	<i>níná-lì-</i>	‘trip (sb)’
<i>nìyé</i>	<i>nìyè-lì-</i>	‘sleep’
<i>nòmó</i>	<i>nómá-lì-</i>	‘sag (under a weight)’
<i>nùzó</i>	<i>nùzá-lì-</i>	‘push with butt of hand’

However, there are some stems that begin with *l* or *n* but that have belong to the /LH ~ L/ tone-melody class, with perfective negative *CVCV-lí-*. An assistant showed some variability in tonal pronunciations in this respect, suggesting that the tendency is to convert remaining *CvCv* stems with these initial consonants into /LH ~ LH/ stems. ‘Give birth’, ‘drink’, and ‘grind’ were most consistently /LH ~ L/ in his pronunciations (350). Further study of other speakers and dialects is called for.

(350) *CvCv* verbs with initial {*l n*} and /LH ~ L/ melody

bare	PfvNeg	gloss
a. initial <i>l</i>		
<i>lǎl</i>	<i>làlà-lí-</i>	‘give birth’
b. initial <i>n</i>		
<i>nìyⁿé</i>	<i>nìyⁿà-lí-</i>	‘drink’
<i>nǎm</i>	<i>nàmà-lí-</i>	‘grind’
<i>nùṅó</i>	<i>nùṅà-lí-</i>	‘sing (a song)’

Except for the rare *Cvjv* from original geminated **Cvjjv*, all *CvCv* verbs that begin with a voiced consonant other than {*l n*}, namely {*b d g j z w y m n*}, belong to the /LH ~ L/ tone-melody class.

(351) presents paradigms of representative /H ~ H/ and /LH ~ L/ verbs. The two stems are tonally distinct throughout, except in the imperfective negative, which controls the same {L} overlay on all nearly all verbs (but not on ‘bring’ or ‘take, convey’). ‘Pound’ also illustrates +ATR *CoCo* vocalism, while ‘leave’ illustrates -ATR *CòCò* vocalism. In the A/O-stem, only ‘leave’ shifts its stem-final vowel to *a*.

(351) /H ~ H/ and /LH ~ L/ *CvCv* verbs

‘pound’ /H ~ H/	‘leave’ /LH ~ L/	category	stem
<i>tólé-</i>	<i>dògè-</i>	perfective	E
<i>tól-ó</i>	<i>dòg-á</i>	perfective 3Pl	
<i>tóló</i>	<i>dògó</i>	bare stem	bare
<i>tóló-zò-</i>	<i>dògó-zò-</i>	perfective-2	bare
<i>tóló-téré-bè-</i>	<i>dògò-téré-bè-</i>	experiential perfect	bare
<i>tólò-zè-</i>	<i>dògó-zè-</i>	recent perfect	bare

<i>tóló = bɛ̀-</i>	<i>dɔ̀gɔ̀ = bɛ̀-</i>	past perfect	bare
<i>tóló-zà-lì-</i>	<i>dɔ̀gɔ̀-zá-lì-</i>	recent perfect negative	bare
<i>tóló-zɛ̀ = bɛ̀-</i>	<i>dɔ̀gɔ̀-zɛ̀ = bɛ̀-</i>	past recent perfect	bare
<i>tóló</i>	<i>dɔ̀gá</i>	imperative	A/O
<i>tólò-m-ù</i>	<i>dɔ̀gá-m-ù</i>	imperfective 3Sg	A/O
<i>tóló-m</i>	<i>dɔ̀gá-m</i>	imperfective before AUX	A/O
<i>tóló-m = bɛ̀-</i>	<i>dɔ̀gá-m = bɛ̀-</i>	past imperfective	A/O
<i>tólò: = bá-lì-</i>	<i>dɔ̀gá: = bá-lì-</i>	past imperfective negative	A/O
<i>tóló-lì-</i>	<i>dɔ̀gá-lì-</i>	perfective negative	A/O
<i>tólò-nán-</i>	<i>dɔ̀gɔ̀-nán-</i>	imperfective negative	bare
<i>tóló-là</i>	<i>dɔ̀gɔ̀-lá</i>	prohibitive	bare
<i>tóló-mà</i>	<i>dɔ̀gɔ̀-má</i>	hortative	bare

A representative /LH ~ LH/ stem is in (352). This melodic class differs tonally from /LH ~ L/, which is exemplified by ‘leave’ in (351) above, only in the perfective negative, prohibitive, and hortative. The tones are similar to those for monosyllabic /LH ~ LH/ verb *nǎ:* ‘spend night’ (§10.2.1.10, above).

(352) Paradigm of *nǎŋ* ‘pass’ (/LH ~ L/, *u*-final but /u/ apocopated)

form	category	stem	stem tones
<i>nàŋɛ̀-</i>	perfective (3Pl <i>nàŋ-á</i>)	E	LH
<i>nǎŋ</i>	bare stem	bare	LH
<i>nǎŋ-zò-</i>	perfective-2	bare	LH
<i>nàŋ-téré-bɛ̀-</i>	experiential perfect	bare	L
<i>nǎŋ-zɛ̀-</i>	recent perfect	bare	LH
<i>nǎŋ = bɛ̀-</i>	past perfect	bare	LH
<i>nàŋ-zá-lì-</i>	recent perfect negative	bare	L
<i>nàŋ-zɛ̀ = bɛ̀-</i>	past recent perfect	bare	L
<i>nàŋá</i>	imperative	A/O	LH
<i>nàŋá-m-ù</i>	imperfective 3Sg	A/O	LH
<i>nàŋá-m</i>	imperfective before AUX	A/O	LH
<i>nàŋá-rí = bɛ̀-</i>	past imperfective	A/O	L
<i>nàŋá: = bá-lì-</i>	past imperfective negative	A/O	LHL
<i>nàŋá-lì-</i>	perfective negative	A/O	LH
<i>nàŋ-nán-</i>	imperfective negative	bare	L
<i>nǎŋ-là</i>	prohibitive	bare	LH
<i>nǎŋ-mà</i>	hortative	bare	LH

‘Pass’ in (352) also illustrates the stem-final vocalism of *u*-final verbs, which always have *a* in the first syllable. The *CvC* shape *naŋ* in several forms, including the bare stem, reflects deletion of the final *u*. For more on Stem-Final *u*-Deletion, see §3.5.3.3, above. The A/O-stem of *u*-final verbs has final *a*, and the E-stem has final *e* (not *ɛ*) except as specified below. Verbs

like *sál* ‘grind (coarsely)’ have the same kind of paradigm segmentally, again with deleted final /u/ in several forms, but with /H ~ H/ tones.

For a *u*-final verb that does not delete its final *u*, see the paradigm of V-initial *ábú* ‘take, receive’ in §10.2.2.3, above. A verb of this type with true *CvCv* shape is ‘touch’ (353).

(353) Paradigm of *tábú* ‘touch’ /H ~ H/, *u*-final (*u* not deleted)

form	category	stem	stem tones
<i>tábé-</i>	perfective (3Pl <i>táb-á</i>)	E	H
<i>tábú</i>	bare stem	U	H
<i>tábú-zò-</i>	perfective-2	U	H
<i>tábú-téré-bè-</i>	experiential perfect	U	H
<i>tábú-zè-</i>	recent perfect	U	H
<i>tábú = bè-</i>	past perfect	U	H
<i>tábú-zà-lì-</i>	recent perfect negative	U	H
<i>tábú-zè = bè-</i>	past recent perfect	U	H
<i>tábá</i>	imperative	A/O	H
<i>tábà-m-ù</i>	imperfective 3Sg	A/O	HL
<i>tábá-m</i>	imperfective before AUX	A/O	H
<i>tábá-m = bè-</i>	past imperfective	A/O	H
<i>tábà: = bá-lì-</i>	past imperfective negative	A/O	HL
<i>tábá-lì-</i>	perfective negative	A/O	H
<i>tàù-nán-</i>	imperfective negative	bare	L
<i>tábú-là</i>	prohibitive	bare	H
<i>tábú-mà</i>	hortative	bare	H

While *CaCv* verbs of the *u*-final class normally have +ATR *e* in the E-stem, an exception is *kán* ‘do’ with perfective *kárⁿé-* ending in -ATR *é*. The nasal *rⁿ* is a factor in this. See §3.4.1.7 for discussion.

10.2.2.5 *CvCCv* verbs

The majority of *CvCCv* verbs have a medial cluster of nasal and homorganic voiced stop (mb, nd, etc.). A few have a different medial cluster (*md*, *yr*, *ll*, *mz*, *nz*).

CvCCv verbs are very similar in vocalic-sequence constraints and in tone melodies to *CvCv* stems. The /H ~ H/, /LH ~ L/, and /LH ~ LH/ tone-melody classes are present in both, and have the same associations with initial consonants. However, there are some differences. The /H ~ L/ tone-melody class, which is very rare for *CvCv* (one **Cvjiv* stem which has been shortened to *Cvjv*), is slightly better represented in *CvCCv* stems that have an initial voiced consonant.

Examples of *CvCCv* stems are in (354), organized by vocalism.

(354) *CvCCv* stem vocalism

- a. same mid-height vowels (in bare stem)
- | | |
|--------------|------------------------------|
| <i>témdé</i> | ‘knock together’ |
| <i>pémbé</i> | ‘prune (onion flower)’ |
| <i>tónzó</i> | ‘flex (joint)’ |
| <i>pómbó</i> | ‘collect (last bit of food)’ |
- b. *a...u* in bare stem (*u*-final verbs)
- | | |
|--------------|--------|
| <i>támbú</i> | ‘kick’ |
|--------------|--------|
- c. high vowel plus mid-height vowel
- | | |
|--------------|--------------------|
| <i>símbé</i> | ‘roast, grill’ |
| <i>nìnjé</i> | ‘cook (sauce)’ |
| <i>túmbó</i> | ‘crush’ or ‘punch’ |
| <i>búlló</i> | ‘disinter’ |

e-final *CvCCv* verbs like *pémbé* and *símbé* show variation between final *e* and *o* in some forms, as for *CvCv* stems.

In (354), the stems beginning in *t*, *p*, and *s* (i.e. voiceless obstruents) have /H ~ H/ tones. When the initial consonant is voiced, there are tone-class choices. As with *CvCv*, the majority of *CvCCv* stems with initial {*l n*} have /LH ~ LH/ tones. Other *CvCCv* stems with initial voiced consonant are either /LH ~ L/ or /H ~ L/. The latter includes some derived *CvC-Cv* stems due to syncope from **CvCv-Cv*, and some Fulfulde loanwords.

Examples of the tone-melody classes other than /H ~ H/ are in (355).

(355) *CvCCv* verbs with at least some /LH/ or /L/ features

bare	perfective	perfective negative	gloss
a. /LH ~ L/			
<i>yèmbé</i>	<i>yèmbé-</i>	<i>yèmbà-lí-</i>	‘pick out’
<i>màndú</i>	<i>màndé-</i>	<i>màndà-lí-</i>	‘laugh’
<i>gò-ndó</i>	<i>gò-ndé-</i>	<i>gò-ndò-lí-</i>	‘take out’
<i>nìnjé</i>	<i>nìnjé-</i>	<i>nìnjà-lí-</i>	‘cook sauce’
<i>dònzó</i>	<i>dònzé-</i>	<i>dònzà-lí-</i>	‘re-open (wound)’
<i>yàndú</i>	<i>yàndé-</i>	<i>yàndà-lí-</i>	‘call (summon)’
<i>dàmbú</i>	<i>dàmbé-</i>	<i>dàmbà-lí-</i>	‘push’
b. /LH ~ LH/ with initial { <i>l n</i> }			
<i>nòmbó</i>	<i>nòmbé-</i>	<i>nòmbó-lí-</i>	‘pound (fruit pits)’
<i>nàndú</i>	<i>nàndé-</i>	<i>nàndá-lí-</i>	‘greet (in morning)’

c. /H ~ L/

<i>jáyré</i>	<i>jáyré-</i>	<i>jàyrà-lí-</i>	‘mock’
<i>zíb-dé</i>	<i>zíb-dé-</i>	<i>zìb-dò-lí</i>	‘gird (sb) with a wrap’
<i>dómdó</i>	<i>dómdé-</i>	<i>dòm-dà-lí-</i>	‘console’
<i>dám-dé</i>	<i>dám-dé-</i>	<i>dàm-dà-lí-</i>	‘inform’
<i>bám-dé</i>	<i>bám-dé-</i>	<i>bàm-dà-lí-</i>	‘have (sb) carry on back’
<i>bán-jé</i>	<i>bán-jé-</i>	<i>bàn-jà-lí</i>	‘hide’
<i>yám-zé</i>	<i>yám-zé-</i>	<i>yàm-zà-lí-</i>	‘rub (hands) together’
<i>yám-dé</i>	<i>yám-dé-</i>	<i>yàm-dà-lí-</i>	‘cover (sb)’

10.2.2.6 Bisyllabics with long vowel (*Cv:Cv*, *Cv:CCv*)

Among the set of verbs of the shape *Cv:Cv* (including *v:Cv*) are suffixal derivatives of *Cv:* or (contracted) *CvCv* stems. The presence of a long vowel has more dramatic consequences for the phonology than a medial cluster does. The major effects are summarized in (356).

(356) Phonological constraints on *Cv:(C)Cv* verbs

- no *u*-final verbs: bare stem is the E-stem, not the U-stem
- tone-melody classes reduce to /H ~ H/ and /H ~ L/

Examples of *Cv:Cv* stems are in (357).

(357) *Cv:Cv* verbs

bare	PfvNeg	gloss	comment
a. underived and not obviously borrowed			
/H ~ L/			
<i>bú:bó</i>	<i>bù:bò-lí-</i>	‘rub (e.g. with stone)’	
<i>dí:zé</i>	<i>dì:zè-lí-</i>	‘file, scrape (with a file)’	
<i>dú:dó</i>	<i>dù:dà-lí-</i>	‘heave (spear)’	
<i>má:né</i>	<i>mà:nà-lí-</i>	‘think’	
<i>wá:zé</i>	<i>wà:zà-lí-</i>	‘reel in (rope)’	
/H ~ H/			
<i>lé:ré</i>	<i>lè:rè-lí-</i>	‘tap (sth soft)’	
<i>tó:dó</i>	<i>tò:dò-lí-</i>	‘tap (can)’	
b. suffixal derivatives (§9.3.1.3)			
/H ~ L/			
<i>gó:-dó</i>	<i>gò:-dò-lí-</i>	‘hang (calabash)’	Jamsay <i>gògòró</i> , etc.
/H ~ H/			
<i>lé:-dé</i>	<i>lè:-dà-lí-</i>	‘insert (as mark)’	

c. borrowings

pá:bé *pá:bá-lì-* ‘protect, save’ Fulfulde or Songhay (‘help’)

All *Cv:CCv* stems known to me are of the form *Cv:NCv* with a medial homorganic nasal-stop cluster, usually *nd*. There are a few unsegmentable stems like *ní:ndé* ‘accompany (to the door)’ and *zá:ndé* ‘rat on’. *mb* is attested in *bú:mbó* ‘drag’ (cognates in other Dogon languages have a short *u* for this stem) and *mú:mbó* ‘assemble’. I know of no such stem with *ŋg*.

Most *Cv:CCv* stems, though, are *Cv:-ndv* suffixal derivatives, often resulting from contraction of *CvCv-* stems before transitive suffix allomorph *-ndv*, such as *sú:-ndó* ‘take down’. A full list is given in (305) in §9.3.1.3, above. Such pairs as /LH ~ LH/ *bǎ:* ‘be full’ versus /H ~ L/ *bá:-ndé* ‘fill’, and /LH ~ LH/ *nǎŋ* ‘go past’ versus /H ~ H/ *ná:-ndé* ‘cause to go past’, confirm the constraints on *Cv:CCv* tones and vocalism in (356).

10.2.3 Trisyllabic and longer verbs

Many trisyllabic verbs (and all of the much less common quadrisyllabic verbs) either are synchronically composite (*CvCv-Cv-* with derivational suffix), are suspected of being etymologically composite although the relevant underived stem is now missing, or behave in some way like suffixally derived verbs. It is therefore not feasible to sharply distinguish derived from underived verbs of these shapes.

These long stems may be lexically /H ~ H/, /LH ~ L/, or /LH ~ LH/. /LH/ melody is realized with the tone break at the first syllable boundary.

10.2.3.1 Trisyllabic verbs with medial {*i u*} and full initial syllable

The common trisyllabic pattern is that the medial syllabic has a short high vowel. In *CvCvCv-*, the medial syllable is generally in a weak metrical position in Dogon languages, and the high vowel can be thought of as reflecting this. The relationship between the first and third vowels is subject to certain harmonic considerations, disregarding the intervening high vowel, although some (transparent or frozen) suffixes like *-ye* do not always harmonize with the vocalism of the base stem.

Examples of trisyllabic verbs are in (358). There are three tonal types distinguishable in the perfective negative in the speech of my first assistant. My second assistant merges the second and third tonal types. For him, verbs in (358c) have perfective negatives like *lùgùzò-lì-* in contrast to the first assistant’s *lùgúzó-lì-*.

(358)	bare	PfvNeg	gloss
	a. /H ~ H/		
	<i>óbí-yó</i>	<i>óbí-yó-lì-</i>	‘sit’
	<i>íbí-yé</i>	<i>íbí-ya-lì-</i>	‘fear’
	<i>sízílé</i>	<i>sízílí-lì-</i>	‘roll (dough) into rolls’
	b. /LH ~ L/, see (55) in §3.7.1.2		
	<i>bàmbí-yé</i>	<i>bàmbì-yà-lí-</i>	‘carry on back’
	<i>nìndíyó</i>	<i>nìndìyò-lí-</i>	‘listen’
	<i>gàṅúlé</i>	<i>gàṅùlà-lí-</i>	‘rub off (sweat)’
	<i>yìmbíré</i>	<i>yìmbirà-lí-</i>	‘(beggar) sing verses’
	<i>yòdí-yó</i>	<i>yòdì-yò-lí-</i>	‘borrow’
	<i>yòdú-ró</i>	<i>yòdù-rò-lí-</i>	‘lend’
	<i>mèṅgíré</i>	<i>mèṅgìrè-lí-</i>	‘roll into a ball’
	<i>dùnúló</i>	<i>dùnùlò-lí-</i>	‘roll (barrel) on ground’
	c. /LH ~ LH/ varying with /LH ~ L/, see (57) in §3.7.1.2		
	<i>lùgúzó</i>	<i>lùgúzó-lì-</i>	‘poke around’
	<i>lògúzó</i>	<i>lògúzà-lì-</i>	‘nick’
	<i>lògúsó</i>	<i>lògúsá-lì-</i>	‘remove (earwax)’
	<i>nìṅírⁿé</i>	<i>nìṅírⁿé-lì-</i>	‘(pebble under mat) hurt (sb)’
	<i>nèmílé</i>	<i>nèmílé-lì-</i>	‘plead, beg’
	<i>nìndúgó</i>	<i>nìndúgó-lì-</i>	‘breathe’
	<i>nìní-yé</i>	<i>nìní-yá-lì-</i>	‘trip (over a rope)’

The full paradigm of *óbí-yó* ‘sit’ is (359). Before nonzero inflectional suffixes and enclitics, there was some phonetic fluctuation between stem-final *e* and *o* in my transcriptions, as in imperfective negative *òbì-yò-nán*, which was sometimes heard as *òbì-yè-nán*. The preceding segments (*iy*) and some suffixal segments (initial labial consonants, front or back vowels) appeared to influence the articulation of the stem-final vowel. My impression after lengthy elicitation is that stem-final *o* is basic in these suffixed forms. The perfective (E-stem) is always *óbí-yé-* with clearcut *e*.

(359) Paradigm of /H ~ H/ toned *óbí-yó* ‘sit’

form	category	stem
<i>óbí-yé-</i>	perfective	E
<i>óbí-yó</i>	bare stem	bare
<i>óbí-yó-zò-</i>	perfective-2	bare
<i>óbí-yó-téré-bè-</i>	experiential perfect	bare
<i>óbí-yó-zè-</i>	recent perfect	bare
<i>óbí-yó = bè-</i>	past perfect	bare

<i>óbí-yó-zà-lì-</i>	recent perfect negative	bare
<i>óbí-yó-zè = bè-</i>	past recent perfect	bare
<i>óbí-yó</i>	imperative	A/O
<i>óbì-yò-m-ù</i>	imperfective 3Sg	A/O
<i>óbí-yó-m</i>	imperfective before AUX	A/O
<i>óbí-yó-m = bè-</i>	past imperfective	A/O
<i>óbì-yò: = bá-lì-</i>	past imperfective negative	A/O
<i>óbí-yó-lì-</i>	perfective negative	A/O
<i>òbì-yò-nán-</i>	imperfective negative	bare
<i>óbí-yó-là</i>	prohibitive	bare
<i>óbí-yó-mà</i>	hortative	bare

A trisyllabic with /LH ~ L/ tones is *nìndíyó* ‘listen’, variant *nùndíyó*. Its paradigm is (360), as given by my first assistant. The imperative has L.H.H rather than L.H.L tones, showing that this category extends the H-tone component of /LH/ stems to the end of the word.

(360) Paradigm of /LH ~ L/-toned *nìndíyó* ‘listen’

form	category	stem
<i>nìndíyé-</i>	perfective	E
<i>nìndíyó</i>	bare stem	bare
<i>nìndiyò-zó-</i>	perfective-2	bare
<i>nìndiyò-téré-bè-</i>	experiential perfect	bare
<i>nìndíyó-zè-</i>	recent perfect	bare
<i>nìndiyò = bé-</i>	past perfect	bare
<i>nìndiyò-zá-lì-</i>	recent perfect negative	bare
<i>nìndiyò-zé = bè-</i>	past recent perfect	bare
<i>nìndíyó</i>	imperative	A/O
<i>nìndíyò-m-ù</i>	imperfective 3Sg	A/O
<i>nìndíyó-m</i>	imperfective before AUX	A/O
<i>nìndíyó-m = bè-</i>	past imperfective	A/O
<i>nìndíyò: = bá-lì-</i>	past imperfective negative	A/O
<i>nìndiyò-lí-</i>	perfective negative	A/O
<i>nìndiyò-nán-</i>	imperfective negative	bare
<i>nìndiyò-lá</i>	prohibitive	bare
<i>nìndiyò-má</i>	hortative	bare

The third tonal type in (358c), above, e.g. *nèmílé* ‘plead’, differs from the *nìndíyó* paradigm in having L.H.H (rather than L.L.L) stem, followed by an L-toned suffix, in the perfective negative (*nèmílé-lì-*), the prohibitive (*nèmílé-là*), and the hortative (*nèmílé-mà*).

Trisyllabic causatives (from bisyllabic input stems) like *zòbò-mé* ‘cause to run, drive (vehicle)’ have a different vocalic pattern. A non-high second vowel is retained, rather than raised to a high vowel, in the causative. These causatives also carry over the tone-melodic

class of the corresponding simple verb. This is best seen in the perfective negative, whose stem can be /L/-toned (‘cause to run’, ‘cause to go up’), /LH/-toned (‘cause to do a lot’), or /H/-toned (‘cause to be plump’).

(361) Paradigm of causative *z̀̀b̀̀b̀̀-̀̀m̀̀é*

	‘cause to ...			
	... run’	... go up’	... do a lot’	... be plump’
Pfv	<i>z̀̀b̀̀b̀̀-̀̀m̀̀é</i>	<i>ʔ́́l̀̀é-̀̀m̀̀é</i>	<i>l̀̀g̀̀ó-̀̀m̀̀é</i>	<i>s̀̀j̀̀ó-̀̀m̀̀é</i>
PfvNeg	<i>z̀̀b̀̀b̀̀-̀̀m̀̀à-̀̀l̀̀í-</i>	<i>ʔ́́l̀̀è-̀̀m̀̀à-̀̀l̀̀í-</i>	<i>l̀̀g̀̀ó-̀̀m̀̀á-̀̀l̀̀í-</i>	<i>s̀̀j̀̀ó-̀̀m̀̀á-̀̀l̀̀í-</i>

10.2.3.2 *nCvCv* and *ʔCvCv* verbs

Just as *nCv* exists as a defective bisyllabic pattern (*ń́d́é* ‘give’), there is a verb *ń́gílé* ‘get up’ that can be considered a defective trisyllabic; indeed, there is a dialectal variant *ń́gílé*. The tonal pattern in 3Sg imperfective *ń́gílà-m-ù* ‘he/she will stand’ shows that the initial nasal is capable of taking the initial-syllable H-tone associated with /H/-toned trisyllabics in this category, cf. *óbi-yè-m-ù* ‘he/she will sit’. The imperative is *ń́gílà*.

A glottal-initial trisyllabic is intransitive mediopassive *ʔ́́ń́í-yé ~ ʔ́́ń́í-yé* ‘stop, come to a stop’. Even in the shorter variant, the glottal syllable is capable of bearing a distinct tone, as in 3Sg imperfective *ʔ́́ń́ìyà-m-ù* ‘he/she will stop’.

10.2.4 Quadrisyllabic and longer verb stems

Verb stems of four or more syllables are probably all (synchronic or former) suffixal derivatives. In some cases the suffixes are dubiously segmentable, due to the absence of a substantial set of related forms. For example, in *tégíbí-yé* ‘tremble’ and *bèngílí-yé* ‘rub lightly against’ I take the final syllable to be the mediopassive suffix, but no simplex is attested. A more extreme example with four morphemes (this time fairly transparent) and five syllables is factitive *é́lé-ń́dí-yé-̀̀m̀̀é* ‘sweeten (sth)’, cf. *é́l* ‘sweet’, inchoative verb *é́lé-ń́dí-yé* ‘become sweet’. The paradigms are similar to trisyllabics, with an H-tone on the second syllable spread to the right.

10.2.5 *ɛ*-final verbs borrowed from Fulfulde and other languages

A number of verbs in YD and neighboring Dogon languages, including Jamsay (which may be the direct source for YD in some cases), are borrowings from Fulfulde. All of them have at least two syllables. The Fulfulde origin can often be inferred from one segmental feature or another: a long vowel in the first syllable (*Cv:Cv*), a non-Dogon consonant such as {*fh*} or a preglottalized obstruent, or a medial cluster other than the common {*nd mb ng ll*}.

With regard to vocalism, the distinctive feature of Fulfulde verb borrowings is a stem-final ϵ , regardless of whether this vowel combines with preceding vowels to constitute a regular YD vocalism type. Fulfulde borrowings into nearby Songhay languages such as Humburi Senni likewise often end in e or (if the language makes ATR distinctions) ϵ .

(362) Verbs borrowed from Fulfulde with final ϵ

bare stem	gloss	comment
a. compatible with YD vocalism norms		
<i>wéjé</i>	‘give change’	probably degeminated from *wéjjé
b. not compatible with YD vocalism norms		
<i>má:né</i>	‘think’	cf. Arabic <i>maʕnaa</i> - ‘meaning’
<i>pá:bé</i>	‘protect’	cf. Songhay <i>faaba</i> & Fulfulde <i>faab</i> - ‘help’

Although such sequences as *a...ε* are aberrant in YD, these verbs are easily processed in the verbal morphology. Stem-final ϵ is readily converted to a in the A/O-stem.

Paradigms of two of the borrowings are in (363). Stem-final ϵ in the bare stem (and its derivatives) becomes a in the A/O-stem.

(363) Paradigms of *Cv:Cv* verbs (< Fulfulde)

‘protect’ /H ~ H/	‘think’ /H ~ L/	category	stem
<i>pá:bé-</i>	<i>má:né-</i>	perfective	E
<i>pá:bé</i>	<i>má:né</i>	bare stem	bare
<i>pá:bé-zò-</i>	<i>mà:nè-zó-</i>	perfective-2	bare
<i>pá:bé-téré-bè-</i>	<i>mà:nè-téré-bè-</i>	experiential perfect	bare
<i>pá:bé-zè-</i>	<i>má:né-zè-</i>	recent perfect	bare
<i>pá:bé = bè-</i>	<i>mà:nè = bé-</i>	past perfect	bare
<i>pá:bé-zà-lì-</i>	<i>mà:nè-zá-lì-</i>	recent perfect negative	bare
<i>pá:bé-zè = bè-</i>	<i>mà:nè-zé = bè-</i>	past recent perfect	bare
<i>pá:bá</i>	<i>má:ná</i>	imperative	A/O
<i>pá:bà-m-ù</i>	<i>má:nà-m-ù</i>	imperfective 3Sg	A/O
<i>pá:bá-m</i>	<i>má:ná-m</i>	imperfective before AUX	A/O
<i>pá:bá-m = bè-</i>	<i>má:ná-m = bè-</i>	past imperfective	A/O
<i>pá:bà = bá-lì-</i>	<i>má:nà = bá-lì-</i>	past imperfective negative	A/O
<i>pá:bá-lì-</i>	<i>mà:nà-lí-</i>	perfective negative	A/O
<i>pà:bè-nán-</i>	<i>mà:nè-nán-</i>	imperfective negative	bare
<i>pá:bé-là</i>	<i>mà:nè-lá</i>	prohibitive	bare
<i>pá:bé-mà</i>	<i>mà:nè-má</i>	hortative	bare

French *gagner* ‘win’, especially ‘win (match, election)’, belongs to the *u*-final class: *gànú*. It may have been merged with the inherited verb *gànú* ‘prevent’.

A more typical French loan is *pá:sé* ‘advance to the next level (in school, in a sports tournament)’ (*passer*). This has final *é*, and with its lengthened first-syllable vowel it seems to have been nativized on the model of Fulfulde verb loans such as *pá:bé* ‘protect’.

Another way to nativize a French verb is in a noun-verb collocation with a semantically light YD verb, usually *kán* ‘do, make’. An example is *bipê: kán* ‘do a beep’, referring to the practice of telephoning another person and hanging up as soon as the telephone rings briefly (as a signal to call back). In local French the verb is *biper* (*il m’a biperé* ‘he beeped me’).

10.3 Positive indicative AN categories

10.3.1 Perfective positive system (including perfect)

10.3.1.1 The simple perfective (E-stem except 3PI)

The perfective (positive) is normally preceded by the realis proclitic *yà* in unfocalized main clauses. Unlike other inflectional categories, there is no transparently segmentable suffix for the perfective. The perfective stem always ends in {*e é*}, which is arguably a suffix, but in view of the frequent alternations of stem-final vowels in verbal inflection I prefer to take it as the **E-stem** of the verb, resulting from stem-vocalism ablaut rather than suffixation. (The 3PI perfective is instead based on the A/O-stem for most verbs, see discussion below.)

The tone of the perfective verb depends on whether *yà* is present immediately to the left of the verb. *yà* is obligatory in the perfective when no other preverbal constituent occurs. It is seemingly “optional” in the presence of one or more preverbal constituents, but it may be that its absence is due to some degree of focalization of one of these constituents, or equivalently due a defocalization of the verb. In addition, if two or more verbs are tightly chained (only the final one being inflected), *yà* usually precedes the first verb in the chain and is therefore not left-adjacent to the perfective verb (§11.2.2.1).

When *yà* is left-adjacent, perfective verb stems of one or two syllables show the same lexical tone melody, /H/ or /LH/, as in the bare stem. Trisyllabics, however, merge /H/ and /LH/ melodies. The resulting H-toned stem might be analysed as an {H} overlay limited to heavy stems, or as a morphophonological rule flattening L.H.H to H.H.H. That *yà* brings out, or protects, the lexical melody rather than introducing its own tone overlay or triggering tone sandhi, is shown by the fact that the same melody occurs in a subordinated form based on the perfective, namely *-ná ~ -rⁿá* ‘since’ (632). Other subordinators based on the perfective, but with additional tonal modifications, are past anterior *-y* (612) and nonpast anterior same-subject *-é: ~ -é:* (624).

All monomoraic *Cv* verbs have H-toned perfectives, either because they belong to the /H ~ H/ melodic class (including those with initial voiceless consonant) or because they are underlyingly /LH ~ L/ (including those with initial voiced obstruent) but are too short to express the /LH/ melody required in the perfective and some other inflectional categories. *Cv* verbs of this latter type are classified as /H ~ L/, often with the added comment “as proxy for

/LH ~ L/,” in tabular arrays below and later in this chapter and elsewhere. In morphological constructions calling for the second melodic variant /L/, these verbs merge tonally with longer /LH ~ L/ stems.

Perfectives differ audibly from bare stems in most cases, since perfectives always end in {e ε}, i.e. they take the E-stem (§3.4.1.2), while only a minority of bare stems happen to end in these vowels. The choice between e and ε in the E-stem depends on the ATR-harmonic class of the verb (for the 3Pl form, see below). Cv- and Cv:- verbs, with round vowel {o ɔ} and with C not a semivowel {y w}, preserve a trace of the rounding of the lexical vowel, in the form of a nonsyllabic semivowel ɔ or ɔ̣, as in gɔ́é- ‘went out’ and nɔ́é- ‘went in’.

Lexically Ca: stems have a perfective Caye-, arguably a realization of /Ca:e/ (364e). u-final verbs with a vowels in nonfinal syllables have final e (364j).

Examples of the perfective stem in the form it takes after the realis particle are in (364), shown alongside the bare stem (as in verb chains) for comparison.

(364)	bare	perfective after yà	gloss
a. H-toned, segmentally simple			
	/H ~ H/		
	yé	yé-	‘weep’
	ún	úr ⁿ é-	‘go’
	té:	té:-	‘sprout’
	ńdé	ńdé-	‘give’
	ʔǎné	ʔǎné-	‘eat (meal)’
	ʔólé	ʔólé-	‘go up’
	tóló	tólé-	‘pound (in mortar)’
	úbó	úbé-	‘pour’
	tábú	tábé-	‘touch’
	óbí-yó	óbí-yé-	‘sit’
	/H ~ L/ as proxy for /LH ~ L/, w-initial (perhaps underlyingly diphthongal)		
	wó	wé- (< /wɔ́é/ ??)	‘come’
	wó	wé- (< /wɔ́é/ ??)	‘see’
	/H ~ L/		
	má:né	má:né-	‘think’

b. L-toned, segmentally simple

dèr ⁿ é	dèr ⁿ é-	‘spend day’
gòló	gòlé-	‘do farm work’
dì-yé	dì-yé-	‘carry on head’
mànú	màné-	‘cook’
nìndíyó	nìndíyé-	‘listen’

c. irregular or with segmental changes

Ca: → *Caye-*, various tone melodies

<i>mă:</i>	<i>màyé-</i>	‘make (bricks)’
<i>ká:</i>	<i>káyé-</i>	‘shave’
<i>nă:</i>	<i>nàyé-</i>	‘spend night’

diphthongal after desyllabification of *o* or *ɔ*

<i>gó</i>	<i>gɔ́é-</i>	‘go out’
<i>tó:</i>	<i>tɔ́é:-</i>	‘spit’
<i>nó</i>	<i>nɔ́é-</i>	‘go in’

irregular (elsewhere)

<i>zó</i>	<i>zɔ́é-</i>	‘bring’
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When separated from realis *yà* by another chained verb (365a), or when optional *yà* is omitted in the presence of a preverbal constituent (365b-d), the perfective verb takes **{L}-toned** form. I sometimes indicate this by a superscript at the left edge of the word (not a phonetic diacritic). If *yà* were immediately adjacent, the perfective stems in (365) would be *bèlè-* (365a), *tíbé-* (365b), *ʔájé-* (365c), and *wé-* (365d).

- (365) a. *yà* *óbí-yó* ^L*bèlè-Ø*
 Real sit-MP ^Lget.**Pfv**-3SgSbj
 ‘He/She was able to sit down.’
- b. [*bàmbà* †*ná*] ^L*tíbè-Ø*
 [B Loc] ^Ldie.**Pfv**-3SgSbj
 ‘He/She died in Bamba.’
- c. *ó* *zá* *àmbá:* ^L*ʔàjè-w*
 2Sg meal where? ^Leat.meal.**Pfv**-2SgSbj
 ‘Where did you-Sg eat?’
- d. [*ó* ^H*dé:]* *à:rⁿà-gá* ^L*wè-Ø*
 [2SgPoss ^Hfather] when? ^Lcome.**Pfv**-3SgSbj
 ‘When did your-Sg father come?’

The pronominal-subject paradigm for perfective positive verbs is (366). The suffixes are atonal. The tone of the final vowel of the stem is carried forward to the end of the syllable, where possible. The 3Pl form replaces final *ɛ* by *a*, and final *e* by *o*. 1Pl and 2Pl are identical, requiring fairly frequent use of the corresponding independent pronouns. 3Sg includes inanimates (singular or plural reference).

(366)	category	suffix	‘come’	‘carry on head’
	1Sg	<i>-m</i>	<i>wé-m</i>	<i>dì-yé-m</i>
	2Sg	<i>-w</i>	<i>wé-w</i>	<i>dì-yé-w</i>
	1Pl	<i>-y</i>	<i>wé-y</i>	<i>dì-yé-y</i>
	2Pl	<i>-y</i>	<i>wé-y</i>	<i>dì-yé-y</i>
	3Sg	<i>-∅</i>	<i>wé-∅</i>	<i>dì-yé-∅</i>
	3Pl	<i>-a, -o</i>	<i>w-ó</i>	<i>dìy-á</i>
			(for 3Pl see details below)	

When the stem-final {*e e*} is followed by *w*, which is frequently the case (cf. 2Sg *-w*), or when it is preceded by *w* or a desyllabified *ɔ* or *ɔ̣*, and also followed by {*y w*}, the vowel often backs and rounds to {*o ɔ*}. For example, *wé-w* ‘you-Sg came’ is heard variably as [wéw] and [wów], and *nɔ́é-y* ‘we/you-Pl went in’ is heard as [nɔ́éj] or [nój]. Because stem-final vowel shifts are common in the verbal morphology, these variations, though seemingly low-level, may already be in the process of being morphologized.

The 3Pl perfective is based on the **A/O-stem**, rather than on the E-stem that occurs in the remainder of the paradigm. Therefore E-stem-final *e* is replaced by *a*, and *e* is replaced by *o*. The few *n*-final verbs like ‘go’ end in zero suffix or in final *u*, whose morphemic status is unclear (367).

(367)	3Sg	3Pl	gloss
a.	<i>bèl-∅</i> <i>dòg-∅</i>	<i>bèl-á</i> <i>dòg-á</i>	‘obtain’ ‘leave’
b.	<i>íb-∅</i> <i>lìg-∅</i>	<i>íb-ó</i> <i>lìg-ó</i>	‘catch’ ‘mix’
c.	<i>káy-∅</i> <i>này-∅</i>	<i>ká:-∅</i> <i>nă:-∅</i>	‘shave’ ‘spend night’
d.	<i>wé-∅</i> <i>wé-∅</i>	<i>w-á</i> <i>w-ó</i>	‘see’ ‘come’
e.	<i>nɔ́-∅</i> <i>gɔ́-∅</i>	<i>nɔ́-á</i> <i>g-ó</i>	‘go in’ ‘go out’
f.	<i>úrⁿ-é-∅</i>	<i>ún-∅</i> ~ <i>úrⁿ-ú</i>	‘go’ (bare stem <i>ún</i>)

Simple sentence examples are in (368). The presence of realis *yà* is an important issue.

/H ~ L/ as proxy for /LH ~ L/, see discussion after (322)

<i>dó</i>	<i>dó-zò-</i>	‘insult (v)’
<i>dó</i>	<i>dó-zò-</i>	‘arrive, reach, approach’
<i>irregular</i>		
<i>zó</i>	<i>zó-zò-</i>	‘bring’

b. longer H-toned stem plus *-zò-*

Cv: stem

<i>tó:</i>	<i>tó:-zò-</i>	‘spit’
<i>té:</i>	<i>té:-zò-</i>	‘sprout’
<i>ká:</i>	<i>ká:-zò-</i>	‘shave’

n-final stem

<i>ún</i>	<i>ún-zò-</i>	‘go’
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glottal-initial stem

<i>ʔáɲé</i>	<i>ʔáɲé-zò-</i>	‘eat (meal)’
<i>ʔálé</i>	<i>ʔálé-zò-</i>	‘go up’

vCv stem

<i>úbó</i>	<i>úbó-zò-</i>	‘pour’
<i>ńdé</i>	<i>ńdé-zò-</i>	‘give’

nonmonosyllabic stem

<i>tóló</i>	<i>tóló-zò-</i>	‘pound (in mortar)’
<i>óbí-yó</i>	<i>óbí-yó-zò-</i>	‘sit’

c. *Cv̄-zó-*

/H ~ L/ as proxy for /LH ~ L/

<i>wó</i>	<i>wò-zó-</i>	‘come’
<i>wó</i>	<i>wò-zó-</i>	‘see’
<i>gó</i>	<i>gò-zó-</i>	‘go out’
<i>nó</i>	<i>nò-zó-</i>	‘hear’

d. longer L-toned stem plus *-zò-*

/H ~ L/

<i>má:né</i>	<i>mà:nè-zó-</i>	‘think’
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e. LH-toned stem plus *-zò-*

/LH ~ L/

<i>mǎ:</i>	<i>mǎ:-zò-</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿé-zò-</i>	‘spend day’
<i>gǎlǎ</i>	<i>gǎlǎ-zò-</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yé-zò-</i>	‘carry on head’

/LH ~ LH/

<i>nǎ:</i>	<i>nǎ:-zò-</i>	‘spend night’
<i>nǎŋ</i>	<i>nǎŋ-zò-</i>	‘pass’
<i>nìŋírⁿé</i>	<i>nìŋírⁿé-zò-</i>	‘(pebble under mat) hurt (sb)’

f. *u*-final verbs

/H ~ H/	<i>tábú</i>	<i>tábú-zò-</i>	‘touch’
/LH ~ LH/	<i>mànú</i>	<i>mànú-zò-</i>	‘cook’

The paradigm is (370).

(370) Perfective-2 paradigm

category	perfective-2	
	L-toned	H-toned
1Sg	<i>-zò-m</i>	<i>-zó-m</i>
2Sg	<i>-zò-w</i>	<i>-zó-w</i>
1Pl	<i>-zò-y</i>	<i>-zó-y</i>
2Pl	<i>-zò-y</i>	<i>-zó-y</i>
3Sg	<i>-zò-∅</i>	<i>-zó-∅</i>
3Pl	<i>-z-è:</i>	<i>-z-é:</i>

An assistant explained (on different occasions) two aspects of the semantic difference between the regular perfective and the perfective-2. Both are suggestive of categories called “perfect” in various languages.

One element is that the perfective-2 can be resultative. (371a) reports a simple event, while perfective-2 (371b) can suggest that the cows remain in fallen position or are otherwise still the worse for the fall.

- (371) a. *nà:-m = ò:* *ya* *píl-ó*
 cow-AnPl=Def.AnPl Real fall.**Pfv**-3PlSbj
 ‘The cows fell.’
- b. *nà:-m = ò:* *pílé-z-è:*
 cow-AnPl=Def.AnPl fall-**Pfv2**-3PlSbj
 ‘The cows have fallen.’

The other semantic ingredient became evident while comparing perfective *yà óbí-yé-∅* ‘he/she sat’ and perfective-2 *óbì-yè-zò-∅*. The latter can add an inferential modal element: ‘he/she must have sat down (that’s why he/she is late coming here)’.

The perfect component of this category might explain why realis *yà* does not precede it. However, the opposition between perfective and perfective-2 is neutralized under negation as perfective negative *-li-* (§10.3.3.1).

The perfective-2, or at least *-zò-*, is also part of one version of the experiential perfect construction (see just below).

Perfective-2 *-zò-* does not its own negative form or a past-shifted form with *=bɛ-*.

10.3.1.3 Experiential perfect ‘have ever VP-ed’ (*-téré-bè-*, *-téré-zò-*)

The experiential perfect is expressed by conjugated *-téré-bè-* or *-téré-zò-*, following the semantically primary verb (372a-b). The latter is segmentally in the **bare stem**, suggesting a verb chain. The realis particle *yà* is absent, even in positive examples (370a-b). *-zò-* is the perfective-2 morpheme and the ‘have’ quasi-verb. *-bè-* is presumably related historically to the past enclitic *=bɛ-* (§10.6.1), but *-téré-bè-* switches interchangeably between present and past time frames (‘I have ever...’, versus ‘I had ever...’ with respect to a previous temporal reference point). There is also no trace of *-bè-* in the experiential perfect negative (‘have never VP-ed’) *-térá-lì-* (§10.3.3.2 below).

- (372) a. *săydù gòyⁿè †wó-tèrè-bè-∅ mà*
 S elephant see-ExpPrf-Past-3SgSbj Q
 ‘Has Seydou ever seen an elephant?’
- b. *[bàmàkó nà] bìdé bìdè-téré-zò-m*
 [Bamako Loc] work(n) work-ExpPrf-Pfv2-1SgSbj
 ‘I have (once) worked in Bamako.’

Forms with monosyllabic stems are in (373). The tones of *-téré-* are always H, and they are always followed by L-toned suffix *-bè-* (or *-zò-*, not shown).

(373) Experiential perfective forms (monosyllabic stems)

bare	ExpPrf	gloss
a. H-toned stem before suffixes		
<i>regular /H ~ H/</i>		
<i>nó</i>	<i>nó-téré-bè-</i>	‘go in’
<i>tó</i>	<i>tó-téré-bè-</i>	‘slash earth (to sow)’
<i>tó</i>	<i>tó-téré-bè-</i>	‘send’
<i>ká:</i>	<i>ká:-téré-bè-</i>	‘shave’
<i>tó:</i>	<i>tó:-téré-bè-</i>	‘spit’
<i>té:</i>	<i>té:-téré-bè-</i>	‘sprout’
<i>n-final stem</i>		
<i>ún</i>	<i>ún-téré-bè-</i>	‘go’
<i>irregular stem</i>		
<i>zó</i>	<i>zó-téré-bè-</i>	‘bring’

b. L-toned stem before suffixes

/H ~ L/ as proxy for /LH ~ L/

<i>wó</i>	<i>wò-téré-bè-</i>	‘see’
<i>wó</i>	<i>wò-téré-bè-</i>	‘come’
<i>gó</i>	<i>gò-téré-bè-</i>	‘go out’
<i>dó</i>	<i>dò-téré-bè-</i>	‘insult (v)’
<i>dó</i>	<i>dò-téré-bè-</i>	‘arrive’
<i>nó</i>	<i>nò-téré-bè-</i>	‘hear’
<i>yé</i>	<i>yè-téré-bè-</i>	‘weep’
<i>/LH ~ L/</i>		
<i>mǎ:</i>	<i>mà:-téré-bè-</i>	‘make (bricks)’

c. LH-toned stem before suffixes

/LH ~ LH/

<i>nǎ:</i>	<i>nǎ:-téré-bè-</i>	‘spend night’
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Bisyllabic and longer stems are illustrated in (374). The */LH ~ L/* verbs in (374b) spread the initial L-tone to the end of the stem.

(374) Experiential perfect forms (nonmonosyllabic)

bare	ExpPrf	gloss
a. H-toned stem before suffixes		
<i>regular /H ~ H/</i>		
<i>tóló</i>	<i>tóló-téré-bè-</i>	‘pound (in mortar)’
<i>cézó</i>	<i>cézé-téré-bè-</i>	‘cut (slice)’
<i>símbé</i>	<i>símbé-téré-bè-</i>	‘roast, grill’
<i>óbí-yó</i>	<i>óbí-yó-téré-bè-</i>	‘sit’
<i>bé:líyé</i>	<i>bé:líyé-téré-bè-</i>	‘belch’
<i>vCv stem</i>		
<i>úbó</i>	<i>úbó-téré-bè-</i>	‘pour’
<i>glottal-initial stem</i>		
<i>ʔólé</i>	<i>ʔólé-téré-bè-</i>	‘go up’
<i>NCv stem</i>		
<i>ńdé</i>	<i>ńdé-téré-bè-</i>	‘give’
<i>u-final stem</i>		
<i>tábú</i>	<i>tábú-téré-bè-</i>	‘touch’
b. L-toned stem before suffixes		
<i>/LH ~ L/</i>		
<i>dògó</i>	<i>dògò-téré-bè-</i>	‘leave’
<i>dì-yé</i>	<i>dì-yè-téré-bè-</i>	‘carry on head’
<i>mànú</i>	<i>mànù-téré-bè-</i>	‘cook’

/H ~ L/

<i>má:né</i>	<i>mà:nè-téré-bè-</i>	‘think’
<i>bármé</i>	<i>bàrmè-téré-bè-</i>	‘be wounded’

c. LH-toned stem before suffixes

/LH ~ LH/

<i>nǎŋ</i>	<i>nǎŋ-téré-bè-</i>	‘pass’
<i>ligé</i>	<i>ligé-téré-bè-</i>	‘mix by stirring’

The usual pronominal-subject suffixes are added to *-bè-* or *-zò-*.

10.3.1.4 Recent perfect (or completive) (*-zè-*)

The suffix *-zè-* can often be translated as ‘have (recently, just) VP-ed’, especially with verbs like ‘eat’ and ‘drink’ denoting activities of relatively short time span. In comparison to English ‘have just VP-ed’, there is somewhat less emphasis on temporal immediacy vis-à-vis the present and somewhat more on the completion of an activity. It is not commonly used with non-activity telic verbs like ‘die’ or ‘arrive’ that focus on a temporal moment. A textual example is in (839) in Text 4.

-zè- requires realis particle *yà* preceding the verb (375).

- (375) a. *yà* *ká:-zè-Ø*
Real shave-RecPrf-3SgSbj
‘He/She has (recently) finished shaving.’
- b. *bìdé* *yà* *bìdé-zè-m*
work(n) Real work-RecPrf-1SgSbj
‘I have (recently) finished working.’

-zè- is added to what is segmentally the **bare stem** form of the semantically primary verb. This includes *u*-final verbs, e.g. *tábú-zè-* ‘have finished touching’. All short-voweled monosyllabic verb stems have H-tone before the L-toned suffix (376a-b). Lexically /H/- and /H ~ L/-toned verbs have H tones in (376c). Lexically /LH/ verbs other than short-voweled monosyllabics have LH tones (376d).

(376) bare recent perfect gloss

a. H-toned stem before suffix

regular /H ~ H/

<i>nó</i>	<i>nó-zè-</i>	‘go in’
<i>tó</i>	<i>tó-zè-</i>	‘slash earth (to sow)’
<i>yé</i>	<i>yé-zè-</i>	‘weep’
<i>tó:</i>	<i>tó:-zè-</i>	‘spit’

<i>té:</i>	<i>té:-zè-</i>	‘sprout’
<i>ká:</i>	<i>ká:-zè-</i>	‘shave’
<i>tóló</i>	<i>tóló-zè-</i>	‘pound (in mortar)’
<i>óbí-yó</i>	<i>óbí-yó-zè-</i>	‘sit’
<i>n-final</i>		
<i>ún</i>	<i>ún-zè-</i>	‘go’
<i>glottal-initial</i>		
<i>ʔǎné</i>	<i>ʔǎné-zè-</i>	‘eat (meal)’
<i>ʔǎlé</i>	<i>ʔǎlé-zè-</i>	‘go up’
<i>vCv stem</i>		
<i>úbó</i>	<i>úbó-zè-</i>	‘pour’
<i>ńdé</i>	<i>ńdé-zè-</i>	‘give’
<i>irregular</i>		
<i>zó</i>	<i>zó-zè-</i>	‘bring’
<i>u-final stem</i>		
<i>tábú</i>	<i>tábú-zè-</i>	‘touch’
<i>/H ~ L/ as proxy for /LH ~ L/</i>		
<i>dó</i>	<i>dó-zè-</i>	‘arrive, reach, approach’
<i>dó</i>	<i>dó-zè-</i>	‘insult (v)’
<i>gó</i>	<i>gó-zè-</i>	‘go out’
<i>nó</i>	<i>nó-zè-</i>	‘hear’
<i>wó</i>	<i>wó-zè-</i>	‘come’
<i>wó</i>	<i>wó-zè-</i>	‘see’
<i>/H ~ L/</i>		
<i>bármé</i>	<i>bármé-zè-</i>	‘be wounded’
<i>má:né</i>	<i>má:né-zè-</i>	‘think’
 d. LH-toned stem before suffix		
<i>/LH ~ L/</i>		
<i>mǎ:</i>	<i>mǎ:-zè-</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿé-zè-</i>	‘spend day’
<i>gòló</i>	<i>gòló-zè-</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yé-zè-</i>	‘carry on head’
<i>nìndíyó</i>	<i>nìndíyó-zè-</i>	‘listen’
<i>u-final stem</i>		
<i>mànú</i>	<i>mànú-zè-</i>	‘cook’
<i>/LH ~ LH/</i>		
<i>nǎ:</i>	<i>nǎ:-zè-</i>	‘spend night’
<i>nǎŋ</i>	<i>nǎŋ-zè-</i>	‘pass’ /LH ~ LH/

The pronominal-suffix paradigm is regular (377). The 3Pl form is *-z-à*.

(377) Recent perfect paradigm

category	recent perfect
1Sg	<i>-zè-m</i>
2Sg	<i>-zè-w</i>
1Pl	<i>-zè-y</i>
2Pl	<i>-zè-y</i>
3Sg	<i>-zè-Ø</i>
3Pl	<i>-z-à</i>

The negative counterpart is *-zá-lì-* or *-zà-lì-* with different tonal patterns; see §10.3.3.3, below. These forms suggest the possibility that recent perfect *-zè-* and immediate future *-zà-* are related to each other at least historically as E-stem to A/O-stem.

10.3.1.5 Reduplicated perfective absent

I have not observed a reduplicated form of the perfective stem.

10.3.2 Imperfective positive system

In addition to the basic imperfective forms discussed in the following subsections, there are several progressive constructions that are included in the section on statives since they pattern with (other) statives in their negation; see §10.5.3.2.

10.3.2.1 Imperfective (positive) (*-m-*)

This basic imperfective verb form is used with realis particle *yà* with present-time reference, and without the particle with future time reference. It is characterized morphologically by a suffix *-m-* on the verb, with a somewhat unusual paradigm.

Segmentally, the verb takes the **A/O-stem**. Perhaps influenced by the suffixal *m*, stem-final *o* is found instead of *e* for verbs like *símbé* ‘roast, grill’ whose A/O-stem in other inflectional categories is inconsistent.

The tones including stem and suffix can be summarized as (X)HL((L*)). The central HL is obligatory. If there is more room, an initial X representing the lexical onset tone (H or L) is then added, if distinct from the adjacent H (i.e. only if L). If there is still room left, all remaining syllables at the end are L-toned. One effect is that all *Cv* stems, regardless of their usual tone-melodic class, are H-toned before an L-toned suffix (378a). Longer stems allow the initial L of /LH/ melody to be expressed.

The forms shown in (378) are for 3Sg subject.

(378)	bare	imperfective 3Sg	gloss
a. H-toned stem before suffixes (all <i>Cv</i> - stems)			
<i>regular /H ~ H/</i>			
	<i>nó</i>	<i>nɔ́á-m-ù</i>	‘go in’
	<i>tó</i>	<i>tɔ́á-m-ù</i>	‘slash earth (to sow)’
	<i>yé</i>	<i>yá-m-ù</i>	‘weep’
<i>/H ~ L/ as proxy for /LH ~ L/</i>			
	<i>dó</i>	<i>dɔ́á-m-ù</i>	‘arrive, reach’
	<i>dó</i>	<i>dɔ́á-m-ù</i>	‘insult (v)’
	<i>gó</i>	<i>gó-m-ù</i>	‘go out’
	<i>nó</i>	<i>nɔ́á-m-ù</i>	‘hear’
	<i>wó</i>	<i>wó-m-ù</i>	‘come’
	<i>wó</i>	<i>wá-m-ù</i>	‘see’
<i>irregular</i>			
	<i>zó</i>	<i>zó-m-ù</i>	‘bring’
b. HL-toned stem before suffixes (bimoraic and longer stems)			
<i>regular /H ~ H/</i>			
	<i>tó:</i>	<i>tô:-m-ù</i>	‘spit’
	<i>té:</i>	<i>tê:-m-ù</i>	‘sprout’
	<i>ká:</i>	<i>kâ:-m-ù</i>	‘shave’
	<i>cédé</i>	<i>cédà-m-ù</i>	‘gather (firewood)’
	<i>tóló</i>	<i>tólò-m-ù</i>	‘pound (in mortar)’
	<i>símbé</i>	<i>símbò-m-ù</i>	‘roast, grill’
	<i>óbí-yó</i>	<i>óbì-yò-m-ù</i>	‘sit’
<i>u-final stem</i>			
	<i>tábú</i>	<i>tábà-m-ù</i>	‘touch’
<i>n-final</i>			
	<i>ún</i>	<i>ûn-m-ù</i>	‘go’
<i>glottal-initial</i>			
	<i>ʔéṗé</i>	<i>ʔéṗà-m-ù</i>	‘eat (meal)’
	<i>ʔólé</i>	<i>ʔólá-m-ù</i>	‘go up’
<i>vCv stem</i>			
	<i>úbó</i>	<i>úbà-m-ù</i>	‘pour’
<i>NCv stem</i>			
	<i>ńdé</i>	<i>ńdà-m-ù</i>	‘give’
<i>/H ~ L/</i>			
	<i>má:né</i>	<i>má:nà-m-ù</i>	‘think’

c. LH-toned stem before suffixes (bimoraic stem)

/LH ~ L/

<i>mǎ:</i>	<i>mǎ:-m-ù</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿá-m-ù</i>	‘spend day’
<i>gòlò</i>	<i>gòlá-m-ù</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yá-m-ù</i>	‘carry on head’
<i>mànú</i>	<i>màná-m-ù</i>	‘cook’

/LH ~ LH/

<i>nǎ:</i>	<i>nǎ:-m-ù</i>	‘spend night’
<i>nǎŋ</i>	<i>nǎŋá-m-ù</i>	‘pass’

d. LHL-toned stem before suffix (heavier stem)

/LH ~ L/

<i>nìndíyó</i>	<i>nìndíyò-m-ù</i>	‘listen’
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The H-tone on the imperfective stem is subject to **tone-dropping** in the presence of preverbal constituents, especially focalized constituents (§13.1). This is sometimes indicated in interlinears by a superscripted ^L at the left edge of the word

The pronominal-subject paradigm is (379). *e* and *o* alternate in the stem-final vowel of ‘roast, grill’, which here represents the set of verbs with lexical ...*CiCe* vowel sequence. I would normally assign the stem-shape *simbo* to the A/O-stem and the shape *simbe* to the A-stem. However, in this paradigm the choice between stem-final *o* and *e* correlates with suffixal vowel quality, i.e. stem-final *o* with suffixal *u* and stem-final *e* with suffixal *i*. In the absence of a suffixal vowel (i.e. in the 1Sg form), the suffixal *m* favors *o*. 1Sg *-m-Ø* might be analysed as contracted from */-m-m/*.

(379) Imperfective paradigm

category	Ipfv	‘come’	‘hit’	‘roast, grill’
1Sg	<i>-m-Ø</i>	<i>wó-m-Ø</i>	<i>dèⁿmá-m-Ø</i>	<i>sím^bó-m-Ø</i>
2Sg	<i>-m-ùw</i>	<i>wó-m-ùw</i>	<i>dèⁿmá-m-ùw</i>	<i>sím^bó-m-ùw</i>
1Pl	<i>-m-ìy</i>	<i>wó-m-ìy</i>	<i>dèⁿmá-m-ìy</i>	<i>sím^be-m-ìy</i>
2Pl	<i>-m-ìy</i>	<i>wó-m-ìy</i>	<i>dèⁿmá-m-ìy</i>	<i>sím^bé-m-ìy</i>
3Sg	<i>-m-ù</i>	<i>wó-m-ù</i>	<i>dèⁿmá-m-ù</i>	<i>sím^bó-m-ù</i>
3Pl	<i>-m-è</i>	<i>wó-m-è</i>	<i>dèⁿmá-m-è</i>	<i>sím^bé-m-ù</i>

n-final verbs like *ún* ‘go’ have unproblematic forms when the suffix complex contains a vowel, e.g. *ún-m-ù* ‘he/she goes’ = ‘you-Sg go’. In the 1Sg, an epenthetic vowel is inserted to avoid a disallowed word-final consonant cluster, and the falling tone divides into its components: *úrⁿ-ù^m-Ø* ‘I go’.

The use of realis *yà* (§11.2.2.1) with the imperfective verb form is illustrated in (380). In (380a), it has presentational force: the referent is observed arriving at the moment of speech. In (380b-c), without *yà*, the action is either habitual (having occurred before the moment of speaking and expected to recur), durative, or future.

- (380) a. *yà* *wó-m-ù*
 Real come-Ipfv-3SgSbj
 ‘He/She is coming.’ (e.g. entering the doorway now)
- b. *wó-m-ù*
 come-Ipfv-3SgSbj
 ‘He/She comes (regularly).’
 or ‘He/She will come.’
- c. *wà:* *wó-m-ù*
 morning come-Ipfv-3SgSbj
 ‘He/She comes (regularly) in the morning’
 or: ‘He/She will come in the morning.’

Realis *yà* also combines with a prolonged variant of the conjugated imperfective verb in an ‘as soon as ...’ construction, see (635a-b).

10.3.2.2 Reduplicated imperfective absent

I have not observed a reduplicated form of the imperfective in YD.

10.3.2.3 Immediate future *-zà-* (hortative *-zè-mà*)

A form with *-zà-* was discovered relatively late in the fieldwork on verbal morphology. It appears to be a kind of immediate future. My assistant explained that the context for this form is that the event in question should precede some other impending event. One might therefore associate it with subordinators used in verb chains (chapter 15).

The immediate future can be indicative or imperative. The suffixal paradigm is (381), using the verb ‘go past’. The indicative forms add regular imperfective suffixes to *-zà-*. The imperative also uses regular endings. In the hortative, *-zà-* shifts to *-zè-*, which might be thought of as an E-stem. It was not possible to elicit any negative forms.

(381)	a. indicative		
	1Sg	<i>nǎŋ-zà-m</i>	‘I will go past (before ...)’
	1Pl	<i>nǎŋ-zà-m-ì</i>	‘we will go past (before ...)’
	2Sg	<i>nǎŋ-zà-m-ù</i>	‘you-Sg will go past (before ...)’
	2Pl	<i>nǎŋ-zà-m-ì</i>	‘you-Pl will go past (before ...)’
	3Sg	<i>nǎŋ-zà-m-ù</i>	‘he/she/it will go past (before ...)’
	3Pl	<i>nǎŋ-zà-m-è</i>	‘they will go past (before ...)’
	b. imperative		
	Sg	<i>nǎŋ-zà</i>	‘go past (before ...)!’
	Pl	<i>nǎŋ-zà-n</i>	‘go past (before ...)!’
	c. hortative		
	Sg	<i>nǎŋ-zè-mà</i>	‘let’s (you-Sg and I) go past (before ...)!’
	Pl	<i>nǎŋ-zè-mà-n</i>	‘let’s (all) go past (before ...)!’

The verb in this construction is the **bare stem** (382). As before other *-Ca...* suffixes, my first assistant tends to blur \pm ATR in the stem-final vowel, so for him *nó-zà-* approaches [nózá]. See comments in §3.4.1 about the possible “+ATR-stem” I once considered recognizing.

(382)	bare	immediate future	gloss
	a. <i>Cv</i> stems		
	<i>/H ~ H/</i>		
	<i>nó</i>	<i>nó-zà-</i>	‘go in’
	<i>tó</i>	<i>tó-zà-</i>	‘slash earth (to sow)’
	<i>/H ~ L/ as proxy for /LH ~ L/</i>		
	<i>wó</i>	<i>wó-zà-</i>	‘come’
	<i>gó</i>	<i>gó-zà-</i>	‘go out’
	b. irregular		
	<i>zó</i>	<i>zó-zà-</i>	‘bring’
	<i>zǐn</i>	<i>zǐn-zà-</i>	‘take away’
	c. <i>Cv:</i>		
	<i>/H ~ H/</i>		
	<i>ká:</i>	<i>ká:-zà-</i>	‘shave’
	<i>/LH ~ L/</i>		
	<i>mǎ:</i>	<i>mǎ:-zà-</i>	‘make (bricks)’
	<i>/LH ~ LH/</i>		
	<i>nǎ:</i>	<i>nǎ:-zà-</i>	‘spend night’ /LH ~ LH/

d. other

<i>n-final</i>	<i>ún</i>	<i>ún-zà-</i>	‘go’
<i>glottal-initial</i>	<i>ʔǎné</i>	<i>ʔǎné-zà-</i>	‘eat’
<i>NCv stem</i>	<i>ńdé</i>	<i>ńdé-zà-</i>	‘give’
<i>/LH ~ L/</i>	<i>gòlò</i>	<i>gòlò-zà-</i>	‘do farm work’
	<i>nìndíyó</i>	<i>nìndíyó-zà-</i>	‘listen’
<i>n-final</i>	<i>ún</i>	<i>ún-zà-</i>	‘go’
<i>glottal-initial</i>	<i>ʔǎné</i>	<i>ʔǎné-zà-</i>	‘eat’
<i>NCv stem</i>	<i>ńdé</i>	<i>ńdé-zà-</i>	‘give’
<i>/LH ~ LH/</i>	<i>nǎŋ</i>	<i>nǎŋ-zà-</i>	‘go past’
<i>u-final stem</i>	<i>tábú</i>	<i>tábú-zà-</i>	‘touch’
<i>/H ~ L/</i>	<i>má:né</i>	<i>má:né-zà-</i>	‘think’

10.3.3 Negation of indicative verbs

10.3.3.1 Perfective negative *-li-* (*-y-*, 3Pl *-n*)

Perfective negative *-li-* is added directly to a variant of the **A/O-stem** of the verb. Stem-final {*ɛ ɔ u*} shift to *a*. The shift (optional or, for the imperative, obligatory) of final *e* to *o*, usual in the A/O-stem in other inflectional categories (§3.4.1), does not apply to the perfective negative, perhaps because the suffixal front vowel favors preservation of *e*. The 3Pl-subject combination is irregular portmanteau *-ń*, and does shift stem-final *e* to *o*. For example, *pélé* ‘(trap) spring’ has 3Sg *pélé-li-∅*, 1Sg *pélé-lù-m*, and so forth, but 3Pl *péló-ń*.

The perfective negative is the common negation of semantically perfective verbs, including perfective-2. However, *-li-* may also be added to the experiential perfect and to the recent perfect, resulting in suffix complexes (see the immediately following sections).

The suffix *-li-* polarizes its tone to that of the preceding syllable. The */LH ~ L/* melodic class has L-toned stem, therefore H-toned suffix. The */LH ~ LH/* melodic class has LH-toned stem, therefore L-toned suffix. The perfective negative is an important diagnostic for melodic classes. For example, it distinguishes the two *nó* verbs (‘hear’ and ‘go in’). The two *dó* verbs (‘insult’ and ‘arrive’) are only inconsistently distinguished.

(383) presents perfective negatives of *Cv* verbs.

(383) Perfective negative (*Cv* stems)

bare	perfective negative	gloss
a. H-toned stem before L-toned suffix		
<i>/H ~ H/</i>		
<i>nó</i>	<i>nɔ́á-lì-</i>	‘go in’
<i>tó</i>	<i>tɔ́á-lì-</i>	‘slash earth (to sow)’
<i>yé</i>	<i>yá-lì-</i>	‘weep’
<i>irregular</i>		
<i>zó</i>	<i>zò-lì-</i>	‘bring’
<i>/H ~ L/ as proxy for /LH ~ L/</i>		
<i>dó</i>	<i>dɔ́á-lì- ~ dɔ́à-lí-</i>	‘arrive, reach, approach’
b. L-toned stem before H-toned suffix		
<i>/H ~ L/ as proxy for /LH ~ L/</i>		
<i>wó</i>	<i>wò-lí-</i>	‘come’
<i>wó</i>	<i>wà-lí-</i>	‘see’
<i>gó</i>	<i>gò-lí-</i>	‘go out’
<i>nó</i>	<i>nɔ́à-lí-</i>	‘hear’
<i>dó</i>	<i>dɔ́à-lí-</i>	‘insult (v)’

Longer stems are in (384).

(384) Perfective negative (stems of at least two moras)

bare	perfective negative	gloss
a. H-toned stem before L-toned suffix		
<i>regular /H ~ H/</i>		
<i>tó:</i>	<i>tó:-lì-</i>	‘spit’
<i>té:</i>	<i>téyá-lì-</i>	‘sprout’
<i>ká:</i>	<i>ká:-lì-</i>	‘shave’
<i>cézó</i>	<i>cézé-lì-</i>	‘cut (slice)’
<i>tóló</i>	<i>tóló-lì-</i>	‘pound (in mortar)’
<i>símbé</i>	<i>símbé-lì-</i>	‘roast, grill’
<i>óbí-yó</i>	<i>óbí-yó-lì-</i>	‘sit’
<i>n-final</i>		
<i>ún</i>	<i>ún-lì-</i>	‘go’
<i>glottal-initial</i>		
<i>ʔólé</i>	<i>ʔólá-lì-</i>	‘ripen’
<i>ʔópé</i>	<i>ʔópá-lì-</i>	‘eat (meal)’
<i>u-final stem</i>		
<i>tábú</i>	<i>tábá-lì-</i>	‘touch’

b. L-toned stem before H-toned suffix

/LH ~ L/

<i>mă:</i>	<i>mà:-lí-</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿà-lí-</i>	‘spend day’
<i>gòló</i>	<i>gòlà-lí-</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yà-lí-</i>	‘carry on head’
<i>nìndíyó</i>	<i>nìndiyò-lí-</i>	‘listen’
<i>u-final stem</i>		
<i>mànú</i>	<i>mànà-lí-</i>	‘cook’
<i>NCv stem</i>		
<i>ńdé</i>	<i>ńdà-lí-</i>	‘give’
<i>vCv stem</i>		
<i>úbó</i>	<i>ùbà-lí-</i>	‘pour’
<i>ábú</i>	<i>àbà-lí-</i>	‘accept, receive’
<i>glottal-initial</i>		
<i>ʔólé</i>	<i>ʔàlà-lí-</i>	‘go up’
<i>/H ~ L/</i>		
<i>má:né</i>	<i>mà:nà-lí-</i>	‘think’

c. LH-toned stem before L-toned suffix

/LH ~ LH/

<i>nǎ:</i>	<i>nǎ:-lì-</i>	‘spend night’
<i>nǎŋ</i>	<i>nǎŋá-lì-</i>	‘pass’

While (383-4) above are organized by tonal categories (and syllabic shape), it is also useful to reorganize the data (with some repetitions) focusing on stem-vocalism (385).

(385) Perfective negative (vocalism)

bare	perfective negative	gloss
a. monosyllabics		
<i>wó</i>	<i>wò-lí-</i>	‘come’
<i>gó</i>	<i>gò-lí-</i>	‘go out’
<i>zó</i>	<i>zò-lì-</i>	‘bring’
<i>tó:</i>	<i>tó:-lì-</i>	‘spit’
<i>ká:</i>	<i>ká:-lì-</i>	‘shave’
<i>nǎ:</i>	<i>nǎ:-lì-</i>	‘spend night’ /LH ~ LH/
b. final {e o} unchanged		
<i>pílé</i>	<i>pílé-lì-</i>	‘fall’
<i>nìyé</i>	<i>nìyé-lí-</i>	‘sleep’
<i>gùló</i>	<i>gùlò-lí-</i>	‘dig’
<i>súwó</i>	<i>sùwò-lí-</i>	‘go down’

<i>cézó</i>	<i>cézó-li-</i>	‘cut (slice)’
<i>óbí-yó</i>	<i>óbí-yó-li-</i>	‘sit’
c. no change to vowel in <i>n</i> -final stem		
<i>ún</i>	<i>ún-li-</i>	‘go’
<i>zín</i>	<i>zín-li-</i>	‘take away’
d. <i>CoCo</i> unchanged		
<i>tóló</i>	<i>tóló-li-</i>	‘pound (in mortar)’
e. stem-final <i>ε</i> → <i>a</i>		
<i>yé</i>	<i>yá-li-</i>	‘weep’
<i>tíbé</i>	<i>tíba-li-</i>	‘die’
<i>dèrⁿé</i>	<i>dèrⁿà-lí-</i>	‘spend day’
<i>dèmé</i>	<i>dèmà-lí-</i>	‘hit (with stick)’
<i>cédé</i>	<i>cédá-li-</i>	‘gather firewood’
<i>tégé</i>	<i>tégá-li-</i>	‘(rain) fall’
f. stem-final <i>ɔ</i> → <i>a</i>		
<i>dògɔ</i>	<i>dògà-lí-</i>	‘leave’
<i>dòdɔ</i>	<i>dòdà-lí-</i>	‘roast (on fire)’
<i>gólɔ</i>	<i>gòlà-lí-</i>	‘do farm work’
g. <i>wɔ</i> → <i>wa-</i> , otherwise monosyllabic <i>Cɔ</i> → <i>Cwa-</i> [<i>Cɔa-</i>]		
<i>wɔ</i>	<i>wà-lí-</i>	‘see’
<i>nɔ</i>	<i>nɔà-lí-</i>	‘hear’
<i>dɔ</i>	<i>dɔà-lí-</i>	‘insult (v)’
<i>dɔ</i>	<i>dɔá-li-</i>	‘arrive, reach, approach’
<i>tɔ</i>	<i>tɔá-li-</i>	‘slash earth (to sow)’
<i>nɔ</i>	<i>nɔá-li-</i>	‘go in’
h. <i>té:</i> ‘sprout’		
<i>té:</i>	<i>téyá-li-</i>	‘sprout’
i. <i>CaCu</i> → <i>CaCa-</i>		
<i>tábú</i>	<i>tábá-li-</i>	‘touch’

The irregular pronominal-subject paradigm of *-li-* is (386). The lateral *l* appears in the 1Sg and 3Sg. The 2Sg and syncretic 1Pl/2Pl have *-y-* followed by a mid-height vowel {*e o*}. One can argue about whether the *y* is epenthetic, or a mutation (palatalization) of *l*. 2Sg and 1Pl/2Pl are also the categories that have a palatalized *ɲ* replacing *n* in the imperfective negative (§10.3.3.4).

The 3Pl form is a portmanteau. It has a syllabic allomorph after two *n*-final verbs, *ún-nù* ‘they did not go’ and *zín-nù* ‘they did not take away’. Contrast *gùrⁿà-ń* ‘they did not say (it)’ from *gǔn* in (466b) in §11.3.2.

(386) Perfective negative paradigm

category	perfective negative	‘come’	‘shave’
1Sg	<i>-lu-m ~ -li-m</i>	<i>wò-lú-m</i>	<i>ká:-lù-m</i>
2Sg	<i>-y-o</i>	<i>wò-y-ó</i>	<i>ká:-y-ò</i>
1Pl	<i>-y-e</i>	<i>wò-y-é</i>	<i>ká:-y-è</i>
2Pl	<i>-y-e</i>	<i>wò-y-é</i>	<i>ká:-y-è</i>
3Sg	<i>-li-Ø</i>	<i>wò-lí-Ø</i>	<i>ká:-lí-Ø</i>
3Pl	<i>-n</i>	<i>wò-ń</i>	<i>ká:-ń</i>

10.3.3.2 Experiential perfect negative (*-térá-lì-*)

The negation of experiential perfect *-téré-bè-* or *-téré-zò-* ‘have (ever/once) VP-ed’ (§10.3.1.3 above), is *-térá-lì-* (‘have never VP-ed’). This contains perfective negative *-li-*. The vocalic change from *-téré-* to *-térá-* shows that this stem-like suffix, like true stems, takes the A/O-stem before the perfective negative suffix. The pronominal-suffix paradigm is the usual one for *-li-*. There is no trace of the *-bè-* or *-zò-* element in the negation.

- (387) *[bàmàkó nà] ún-térá-lù-m*
 [Bamako Loc] go-**ExpPrf**-PfvNeg-1SgSbj
 ‘I have never gone to Bamako.’

10.3.3.3 Recent perfect negative (*-za-lì-*)

Recent perfect *-zè-*, which often has completive sense ‘have (recently) finished VP-ing’ (§10.3.1.4), is negated as *-zá-lì-* or *-zà-lì-*. This contains perfective negative *-li-*, and follows the latter’s pronominal-subject paradigm. Therefore 3Sg *-zá-lì-Ø* is have paradigm-mates 3Pl *-zá-ń*, 1Sg *-zá-lù-m*, 2Sg *-zá-y-ù*, etc.

The sense is usually ‘have not finished VP-ing’. As with other negatives, realis particle *yà* is absent.

- (388) *bìdé bìdè-zá-lù-m*
 work(n) work-**RecPrf**-PfvNeg-1SgSbj
 ‘I have not finished working.’

While the positive form *-zè-* is always L-toned, the negative suffix complex is variably *-zá-li-* or *-zà-li-* depending on the tone melody of the stem (388). /LH ~ L/ verbs have L-toned stem. The data on /LH ~ LH/ stems are somewhat inconsistent, with only one instance of LH-toned stem (389c). ‘Weep’ is irregularly L-toned.

(389)	bare	RecPrfNeg	gloss
a. H-toned stem before L-toned <i>-zà-</i>			
<i>/H ~ H/</i>			
	<i>tó</i>	<i>tó-zà-li-</i>	‘slash earth (to sow)’
	<i>nó</i>	<i>nó-zà-li-</i>	‘go in’
	<i>zó</i>	<i>zó-zà-li-</i>	‘bring’
	<i>tó:</i>	<i>tó:-zà-li-</i>	‘spit’
	<i>té:</i>	<i>té:-zà-li-</i>	‘sprout’
	<i>ká:</i>	<i>ká:-zà-li-</i>	‘shave’
	<i>tóló</i>	<i>tóló-zà-li-</i>	‘pound (in mortar)’
	<i>óbí-yó</i>	<i>óbí-yó-zà-li-</i>	‘sit’
	<i>símbé</i>	<i>símbé-zà-li-</i>	‘roast, grill’
	<i>cézó</i>	<i>cézó-zà-li-</i>	‘cut (slice)’
	<i>u-final stem</i>		
	<i>tábú</i>	<i>tábú-zà-li-</i>	‘touch’
	<i>n-final</i>		
	<i>ún</i>	<i>ún-zà-li-</i>	‘go’
	<i>glottal-initial</i>		
	<i>ʔǎné</i>	<i>ʔǎné-zà-li-</i>	‘eat (meal)’
	<i>ʔǎlé</i>	<i>ʔǎlé-zà-li-</i>	‘ripen’
b. L-toned stem before <i>-zá-</i>			
<i>/H ~ H/</i>			
	<i>yé</i>	<i>yè-zá-li-</i>	‘weep’
<i>/H ~ L/ as proxy for /LH ~ L/</i>			
	<i>wó</i>	<i>wò-zá-li-</i>	‘come’
	<i>gó</i>	<i>gò-zá-li-</i>	‘go out’
	<i>wó</i>	<i>wò-zá-li-</i>	‘see’
	<i>nó</i>	<i>nò-zá-li-</i>	‘hear’
	<i>dó</i>	<i>dò-zá-li-</i>	‘arrive, reach, approach’
	<i>dó</i>	<i>dò-zá-li-</i>	‘insult (v)’
<i>/LH ~ L/</i>			
	<i>mă:</i>	<i>mà:-zá-li-</i>	‘make (bricks)’
	<i>dèrⁿé</i>	<i>dèrⁿè-zá-li-</i>	‘spend day’
	<i>gòlò</i>	<i>gòlò-zá-li-</i>	‘do farm work’
	<i>dì-yé</i>	<i>dì-yè-zá-li-</i>	‘carry on head’
	<i>u-final stem</i>		
	<i>mànú</i>	<i>mànù-zá-li-</i>	‘cook’

<i>/LH ~ LH/</i>		
<i>nǎŋ</i>	<i>nǎŋ-zá-li-</i>	‘pass’
<i>nìŋírⁿé</i>	<i>nìŋírⁿè-zá-li-</i>	‘(pebble) hurt (sb)’
<i>/H ~ L/</i>		
<i>má:né</i>	<i>mà:nè-zá-li-</i>	‘think’
<i>bármé</i>	<i>bàrmè-zá-li-</i>	‘be wounded’
<i>NCv stem</i>		
<i>ńdé</i>	<i>ńdè-zá-li-</i>	‘give’
<i>vCv stem</i>		
<i>úbó</i>	<i>ùbò-zá-li-</i>	‘pour’
<i>glottal-initial</i>		
<i>ʔǎlé</i>	<i>ʔàlè-zá-li-</i>	‘go up’
c. LH-toned stem before <i>-zà-</i>		
<i>/LH ~ LH/</i>		
<i>nǎ:</i>	<i>nǎ:-zà-li-</i>	‘spend night’

10.3.3.4 Imperfective negative *-nán-* ~ *-rán-*

The imperfective negative suffix appears variably as *-nán-* or *-rán-*. The final nasal is optionally weakened to velar position word-finally (i.e. in the zero 3Sg form), and it mutates to palatoalveolar *ɲ* before 2Sg and 1Pl/2Pl suffixes. Although *n* usually alternates with nasalized *rⁿ* rather than with oral *r*, the *r* in the *r*-initial variants is **not nasalized** (the preceding vowel shows no sign of phonetic nasalization). Only *n* (not *r*) occurs after the few *n*-final verbs such as *ún* ‘go’ (*ùn-nán-*).

The imperfective negative is unusual among verbal inflectional categories in controlling a fixed tone overlay on verbs of all melodic classes. Except for ‘bring’ and its antonym ‘take away, convey’, verbs have a one-size-fits-all {L}-toned stem before an H-toned suffix. The tonally irregular verbs *zó* ‘bring’ and *zín* ‘take away’ have imperfective negatives with H-toned stem and L-toned suffix: *zó-nàn-* ~ *zó-ràn* and *zín-nàn-*. The only other irregularity is that the medial *l* of *bèlè* ‘get’ is optionally deleted and the vowels then contract.

For all verbs other than ‘bring’ and ‘take away’, the suffix is H-toned when clause-final. However, it becomes <HL>-toned before a clause-final particle: *dè* ‘if’, *wà* (quotative), *mà*→ (interrogative), see (392b) below.

The stem vocalism in the imperfective negative is that of the **bare stem** (§3.4.1). In (390), the variants with suffix-initial *r* are omitted.

(390)	bare	IpfvNeg	gloss
a. <i>Cv</i> stems			
<i>/H ~ H/</i>			
	<i>yé</i>	<i>yè-nán-</i>	‘weep’
	<i>tó</i>	<i>tò-nán-</i>	‘slash earth (to sow)’
	<i>nó</i>	<i>nò-nán-</i>	‘go in’
<i>/H ~ L/ as proxy for /LH ~ L/</i>			
	<i>dó</i>	<i>dò-nán-</i>	‘arrive, reach’
	<i>dó</i>	<i>dò-nán-</i>	‘insult (v)’
	<i>gó</i>	<i>gò-nán-</i>	‘go out’
	<i>nó</i>	<i>nò-nán-</i>	‘hear’
	<i>wó</i>	<i>wò-nán-</i>	‘come’
	<i>wó</i>	<i>wò-nán-</i>	‘see’
b. irregular			
<i>irregular H-toned stem</i>			
	<i>zó</i>	<i>zò-nàn-</i>	‘bring’
	<i>zín</i>	<i>zín-nàn-</i>	‘take away’
<i>irregular contraction (optional but common)</i>			
	<i>bèlé</i>	<i>bè:-nán-</i>	‘get’, see (819), (832), (843)
			alongside regular <i>bèlè-nán-</i> , (679b)
c. <i>Cv</i> :			
<i>/H ~ H/</i>			
	<i>tó:</i>	<i>tò:-nán-</i>	‘spit’
	<i>té:</i>	<i>tè:-nán-</i>	‘sprout’
	<i>ká:</i>	<i>kà:-nán-</i>	‘shave’
<i>/LH ~ L/</i>			
	<i>mǎ:</i>	<i>mà:-nán-</i>	‘make (bricks)’
<i>/LH ~ LH/</i>			
	<i>nǎ:</i>	<i>nà:-nán-</i>	‘spend night’
d. marginally bisyllabic			
<i>n-final</i>			
	<i>ún</i>	<i>ùn-nán-</i>	‘go’
<i>glottal-initial</i>			
	<i>ʔóyé</i>	<i>ʔòyé-nán-</i>	‘eat (meal)’
	<i>ʔólé</i>	<i>ʔòlé-nán-</i>	‘go up’
<i>NCv stem</i>			
	<i>ńdé</i>	<i>ńdè-nán-</i>	‘give’
<i>vCv stem</i>			
	<i>úbó</i>	<i>ùbò-nán-</i>	‘pour’

e. longer stems

/H ~ H/

<i>cédé</i>	<i>cèdè-nán-</i>	‘gather (firewood)’
<i>cézó</i>	<i>cèzè-nán-</i>	‘pour’
<i>tóló</i>	<i>tòlò-nán-</i>	‘pound (in mortar)’
<i>símbé</i>	<i>simbè-nán-</i>	‘roast, grill’
<i>óbí-yó</i>	<i>òbì-yò-nán-</i>	‘sit’

u-final stem

<i>tábú</i>	<i>tàbù-nán-</i>	‘touch’
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/LH ~ L/

<i>dèrⁿé</i>	<i>dèrⁿè-nán-</i>	‘spend day’
<i>góló</i>	<i>gòlò-nán-</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yè-nán-</i>	‘carry on head’

/LH ~ LH/

<i>nǎŋ</i>	<i>nàŋ-nán-</i>	‘pass’
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/H ~ L/

<i>bármé</i>	<i>bàrmè-nán-</i>	‘be wounded’
<i>má:né</i>	<i>mà:nè-nán-</i>	‘think’

u-final stem

<i>mànú</i>	<i>mànù-nán-</i>	‘cook’
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These imperfective negative forms, including the tonal irregularities for ‘bring’ and ‘take away’, have a striking resemblance to purposives with {L}-toned stem plus *ná* (§17.6.1.1).

The pronominal-subject paradigm is (391).

(391) Imperfective negative paradigm

category imperfective negative

1Sg *-ná-m* ~ *-rá-m*

2Sg *-náp-ú* ~ *-ráp-ú*

1Pl *-náp-í* ~ *-ráp-í*

2Pl *-náp-í* ~ *-ráp-í*

3Sg *-nán-Ø* ~ *-rán-Ø* (with variants *-náp-Ø* and *-ráp-Ø*)

3Pl *-náp-é* ~ *-ráp-é*

The alternation of H-toned and (before a particle) <HL>-toned suffixes is illustrated in (392).

- (392) a. *wò-ráp-Ø* (*wò-ráp-é*, *wò-rá-m*)
 come-IpfvNeg-3SgSbj (-3PlSbj, -1SgSbj)
 ‘He/She (they, I) won’t come’

- b. *wò-râŋ-∅* (*wò-râŋ-è, wò-râ-m*) *mà*→
 come-IpfvNeg-3SgSbj Q
 ‘Won’t he/she (they, I) come?’

10.4 Pronominal paradigms for indicative verbal categories

10.4.1 Subject pronominal suffixes

The most common forms for indicative categories (i.e. excluding imperatives and hortatives) are in (393). They are assembled from the paradigms for specific categories presented above. The 3Sg is zero. 1Pl and 2Pl are syncretic. With imperfective *-m*, 1Sg is *-m-∅* (arguably </-m-m/) and 3Sg is *-m-ù*. 2Sg and 1Pl/2Pl suffixes are semivowels after a vowel, and vowels after a consonant (in negative conjugations). The 2Sg vocalic variant is *-u* after suffix-final *ŋ* and *-o* after suffixal *y* (both *ŋ* and *y* have been palatalized, §3.5.7). 3Pl forms are somewhat variable depending on the inflectional category, and there is 3Pl perfective negative portmanteau *-n*.

(393) Most common pronominal-subject suffix variants

category	suffix
1Sg	<i>-m</i>
2Sg	<i>-w ~ -u ~ -o</i>
1Pl	<i>-y ~ -i</i>
2Pl	<i>-y ~ -i</i>
3Sg	<i>-∅</i>
3Pl	<i>-ε or -a ~ -o</i>

The pronominal-subject suffixes do not have intrinsic tones. They combine tonally with the final vowel of the stem or of a preceding suffix.

10.4.2 Inanimate versus 3Sg subject

The 3Sg form is used when the subject is a third person animate singular referent, or any inanimate referent (singular or plural). The examples (394a-c) therefore have the same (zero-suffix) 3Sg verb form.

- (394) a. [*èné gè*] *yà* *pílé-∅*
 [child Def.AnSg] Real fall.Pfv-3SgSbj
 ‘The child fell.’

- b. [cìn †wój] yà pílé-Ø
 [stone Def.InanSg] Real fall.Pfv-3SgSbj
 ‘The stone fell.’
- c. [cìn †gɛ́] yà pílé-Ø
 [stone Def.InanPl] Real fall.Pfv-3SgSbj
 ‘The stones fell.’

10.4.3 Logophoric use of (pseudo-)1Sg suffix

The suffix *-m*, morphologically indistinguishable from the 1Sg subject suffix, expresses logophoric subject. See §18.2.1.2 for examples and analysis. A distinct construction (with a quotative-subject form preceding the verb) occurs in nonlogophoric sentences like ‘they told me that I had fallen’, see §17.1.1-2.

10.5 Stative (non-aspect-marking) derivatives of verbs

The chief distinction between active (i.e. regular) verbs and stative verbs (in the broad sense) is that the former distinguish perfective from imperfective while the latter do not. Related to this is the fact that statives have a single negative form (with a distinctive stative negative suffix), in contrast to the distinct perfective negative and imperfective negative of active verbs.

Progressive constructions are included here since, although they have clear semantic and morphological affinities to the (positive) imperfective, they are negated by the stative negative or by a related negative word.

See also ‘be (somewhere)’ §11.2.2 and ‘have’ §11.5.1. These defective quasi-verbs are stative-like in the respects indicated above.

10.5.1 Stative derived from active verb

Many active verbs also have a derived stative. While active verbs range from *Cv* to polysyllabic, all stative stems are **bimoraic**, either bisyllabic with short vowels or monosyllabic with long vowel or vowel sequence. *dḡá* ‘be carrying on head’ (395b) might be considered bimoraic in this sense, but at best marginally so.

If the input active verb already fits this condition, there is no mechanical problem in producing a stative. If the active verb is too short or too long, either no stative can be formed, or some adjustment must be made. The mediopassive suffix *-yv* (§9.3.1) plays an important role in this respect. In (395a) below, the active verb is mediopassive with a trisyllabic shape; the stative drops the mediopassive suffix to produce a bisyllabic stative. In (395b), the same mechanism produces a *Cv*: stative. In (395c), the active form is *Cvyv*. This is arguably parsable as mediopassive *Cv-yv* in the case of ‘become shut’, and there is independent

evidence that ‘lie down’ and ‘carry on head’ are mediopassive, see (301a-b) for their mediopassive-transitive pairings. The stative needs the second mora, so it retains the mediopassive suffix. In (395d), it appears that a stative is created by adding an artificial “mediopassive” suffix not found in the active verb.

The stative requires the **A/O-stem** of the verb, which therefore always ends in *a* or *o*. *dɔ́á* ‘be carrying on head’ (395c) is slightly irregular from *dì-yé* but is still bimoraic.

/H ~ H/ active verbs become HL in the stative. Lexically /LH ~ L/ verbs have LH statives. In *dɔ́á* ‘be carrying on head’ (395b), because the *ɔ* is nonsyllabic I cannot clearly hear a contoured tone.

Statives in YD are not reduplicated.

(395)	active	gloss	stative	gloss
a.	<i>óbí-yó</i>	‘sit down’	<i>óbò-</i>	‘be sitting (seated)’
	<i>tózí-yé</i>	‘squat’	<i>tózò-</i>	‘be squatting’
	<i>kódí-yó</i>	‘be hung up’	<i>kódà-</i>	‘be hanging (suspended)’
	<i>ʔáńí-yé</i>	‘(come to a) stop’	<i>ʔáńà-</i>	‘standing, be stopped’
	<i>bàmbí-yé</i>	‘carry/put on back’	<i>bàmbá-</i>	‘be carrying on one’s back’
	<i>jèlí-yé</i>	‘take hold of’	<i>jèlá-</i>	‘be holding in hand’
	<i>gój-jé</i>	‘carry on shoulder’	<i>gògá-</i>	‘keep (sth) on shoulder’
b.	<i>pá-yyé</i>	‘be put together’	<i>pá:</i>	‘be joined, associated’
c.	<i>bì-yó</i>	‘lie down’	<i>bìyó-</i>	‘be lying down’
	<i>pí-yé</i>	‘become shut’	<i>píyò-</i>	‘(door) be shut’
	<i>dì-yé</i>	‘carry on head’	<i>dɔ́á</i>	‘be carrying on head’
d.	<i>cé</i>	‘(body part) hurt’	<i>céyò-</i>	‘be painful’

Some statives are derived from intransitive active verbs, especially stance verbs, and denote the state resulting from a change in stance (‘sit down’ → ‘be sitting, be seated’). Other statives are derived from **transitive** verbs whose primary sense is of the type ‘take hold of X’ or ‘put X in carrying position’. The stative is still transitive syntactically although it denotes a resulting state: ‘put (baby) up on one’s back and tie it securely with a cloth’ → ‘have (baby) in carrying position tied on one’s back’. Stative ‘be shut’ (*píyò-*) is derived from intransitive *pí-yé* ‘(e.g. door) become shut’, rather than (directly) from transitive *pí-dé* ‘(someone) shut (door)’.

(396)	category	stative	‘be sitting’	‘be holding in hand’
	1Sg	<i>-m</i>	<i>óbò-m</i>	<i>jèlá-m</i>
	2Sg	<i>-w</i>	<i>óbò-w</i>	<i>jèlá-w</i>
	1Pl	<i>-y</i>	<i>óbò-y</i>	<i>jèlá-y</i>
	2Pl	<i>-y</i>	<i>óbò-y</i>	<i>jèlá-y</i>
	3Sg	<i>-Ø</i>	<i>óbò-Ø</i>	<i>jèlá-Ø</i>
	3Pl	<i>-ε</i>	<i>ób-è:</i>	<i>jèlá-é ~ jèl-é:</i>

The combination of 3Pl *-ε* with a stem-final *a* has been heard both as contracted *é:* and as a sequence *ae* shading into *aye*.

In positive clauses, including interrogatives, a stative verb form is usually preceded by **realis** particle *yà*. Especially in truncated replies to questions, the particle is often omitted. (397) is a question-answer sequence.

(397)	Q:	<i>yà</i>	<i>óbò-Ø</i>	<i>mà</i>	<i>?ǵnà-Ø</i>
		Real	sit.Stat-3SgSbj	Q	stand.Stat-3SgSbj
			‘Is he/she sitting or standing?’		
	A:	<i>óbò-Ø</i>			
			sit.Stat-3SgSbj		
			‘(He/She is) sitting.’		

10.5.2 Progressive constructions

There are three progressive forms, each beginning with *-m̀* added to the A/O-stem of the verb (e.g. stem-final *o* in *símbo-m̀ zò-* ‘is roasting’ from bare stem *símbe*). These forms denote activities in progress at the moment of speaking (or at a displaced reference time). The *-m̀* form of the verb is probably related to imperfective *-m-* and it will be glossed accordingly, but the relationship may not be completely clear synchronically.

10.5.2.1 Progressive (*-m̀ zò-*)

The first of these is *-m̀ zò-* (398). It is said to be common in the dialect of Yanda-Kou, but not in that of Yanda-Tourougo where most of my data are from. The 3Pl form *zw-è* suggests an affinity to *zò-* ‘have’ (§11.5.1), rather than to perfective-2 *-zò- ~ -zó-*. However, to be safe I gloss it in this combination simply as progressive (“Prog”). I write the progressive construction as two words; it could alternatively be taken as a single word with a suffix complex, or as a word ending in *-m̀* followed by a cliticized auxiliary.

- (398) a. *bídé* *bídá-m* *zò-m*
work(n) work-**Ipfv** **Prog-1SgSbj**
‘I am working.’
- b. [*èné* *wò*] *zá* *ʔéjá-m* *zw-è*
[children Def.AnPl] meal eat.meal-**Ipfv** **Prog-3PlSbj**
‘The children are eating.’

With monomoraic *Cv* stems, including those with /H ~ H/ melody, the suffix complex *-m zò-* follows an L-toned form of the stem. The effect is that H-toned *-m* forms a rising-toned syllable with the stem segments (399a). Stems longer than this divide into two tonal sets, /H ~ H/ and related stems (399b) versus the merged /LH ~ L/ and /LH ~ LH/ (399c).

- (399) bare progressive gloss
- a. L-toned stem before *-m*
- /H ~ H/*
- | | | |
|-----------|------------------|------------------------|
| <i>cé</i> | <i>cè-m zò-</i> | ‘(body part) hurt’ |
| <i>kó</i> | <i>kḡà-m zò-</i> | ‘eat (crushed millet)’ |
| <i>nó</i> | <i>nḡà-m zò-</i> | ‘go in’ |
| <i>tó</i> | <i>tḡà-m zò-</i> | ‘slash earth (to sow)’ |
- /H ~ L/ as proxy for /LH ~ L/*
- | | | |
|-----------|------------------|-----------------|
| <i>dó</i> | <i>dḡà-m zò-</i> | ‘arrive, reach’ |
| <i>dó</i> | <i>dḡà-m zò-</i> | ‘insult (v)’ |
| <i>gó</i> | <i>gò-m zò-</i> | ‘go out’ |
| <i>nó</i> | <i>nḡà-m zò-</i> | ‘hear’ |
| <i>wó</i> | <i>wò-m zò-</i> | ‘come’ |
| <i>wó</i> | <i>wà-m zò-</i> | ‘see’ |
| <i>yé</i> | <i>yà-m zò-</i> | ‘weep’ |
- irregular*
- | | | |
|-----------|-----------------|---------|
| <i>zó</i> | <i>zò-m zò-</i> | ‘bring’ |
|-----------|-----------------|---------|
- b. H-toned stem before *-m*
- /H ~ H/*
- | | | |
|---------------|---------------------|---------------------|
| <i>ká:</i> | <i>ká:-m zò-</i> | ‘shave’ |
| <i>té:</i> | <i>téyá-m zò-</i> | ‘sprout’ |
| <i>tó:</i> | <i>tó:-m zò-</i> | ‘spit’ |
| <i>cédé</i> | <i>cédá-m zò-</i> | ‘gather (firewood)’ |
| <i>cézó</i> | <i>cézó-m zò-</i> | ‘cut (slice)’ |
| <i>tóló</i> | <i>tóló-m zò-</i> | ‘pound (in mortar)’ |
| <i>símbé</i> | <i>símbó-m zò-</i> | ‘roast, grill’ |
| <i>óbí-yó</i> | <i>óbí-yó-m zò-</i> | ‘sit’ |
- u-final stem*
- | | | |
|-------------|-------------------|---------|
| <i>tábú</i> | <i>tábá-m zò-</i> | ‘touch’ |
|-------------|-------------------|---------|

<i>n-final</i>	<i>ún</i>	<i>úrⁿ-úm zò-</i>	‘go’
<i>glottal-initial</i>	<i>ʔǎpé</i>	<i>ʔǎpá-ím zò-</i>	‘eat (meal)’
	<i>ʔólé</i>	<i>ʔólá-ím zò-</i>	‘go up’
<i>vCv stem</i>	<i>úbó</i>	<i>úbá-ím zò-</i>	‘pour’
<i>NCv stem</i>	<i>ńdé</i>	<i>ńdá-ím zò-</i>	‘give’
<i>/H ~ L/</i>	<i>má:né</i>	<i>má:ná-ím zò-</i>	‘think’

c. LH-toned stem before *-ím*

<i>/LH ~ L/</i>	<i>mă:</i>	<i>mà:-ím zò-</i>	‘make (bricks)’
	<i>dèrⁿé</i>	<i>dèrⁿá-ím zò-</i>	‘spend day’
	<i>gòló</i>	<i>gòlá-ím zò-</i>	‘do farm work’
	<i>dì-yé</i>	<i>dì-yá-ím zò-</i>	‘carry on head’
<i>/LH ~ LH/</i>	<i>nă:</i>	<i>nà:-ím zò-</i>	‘spend night’
	<i>nǎŋ</i>	<i>nǎŋá-ím zò-</i>	‘pass’
<i>u-final stem</i>	<i>mànú</i>	<i>màná-ím zò-</i>	‘cook’

The pronominal-suffix paradigm is (400), with examples. It resembles that of ‘have’, with slight phonetic attrition (2Sg and 3Pl). 2Sg and 3Sg are homophonous. 3Pl allomorph *-é* combines with *zò-* as *zw-è*.

(400) Progressive *-ím zò-* paradigm

category	Ipfv	‘come’	‘hit’	‘roast, grill’
1Sg	<i>-ím zò-m</i>	<i>wò-ím zò-m</i>	<i>dèmá-ím zò-m</i>	<i>símbó-ím zò-m</i>
2Sg	<i>-ím zò-∅</i>	<i>wò-ím zò-∅</i>	<i>dèmá-ím zò-∅</i>	<i>símbó-ím zò-∅</i>
1Pl	<i>-ím zò-y</i>	<i>wò-ím zò-y</i>	<i>dèmá-ím zò-y</i>	<i>símbó-ím zò-y</i>
2Pl	<i>-ím zò-y</i>	<i>wò-ím zò-y</i>	<i>dèmá-ím zò-y</i>	<i>símbó-ím zò-y</i>
3Sg	<i>-ím zò-∅</i>	<i>wò-ím zò-∅</i>	<i>dèmá-ím zò-∅</i>	<i>símbó-ím zò-∅</i>
3Pl	<i>-ím zw-è</i>	<i>wò-ím zw-è</i>	<i>dèmá-ím zw-è</i>	<i>símbó-ím zw-è</i>

10.5.2.2 Progressive (-*m̄* *jèlà*-)

A second combination with progressive sense is *-m̄ jèlà-* ~ *-m̄ gèlà-*. This is a common progressive construction at least in Yanda-Tourougo village. An assistant could make no semantic distinction between this and the two other progressive constructions (preceding and following sections), but the bisyllabic form of the final element makes it look more obviously like a two-word (and two-stem) combination. *jèlà-* can be equated with stative transitive *jèlá-* ‘be holding (something)’, cf. active stem *jèlí-yé* ‘take hold of’.

An example of *-m̄ jèlà-* is (401).

- (401) *ànàsá:rá* *tòŋ* *tóná-m* *jèlà-Ø*
 white.man writing write-**Ipfv** **Prog-3SgSbj**
 ‘The white man is writing.’

The verb has the same segmental and tonal shape as before *-m̄-zò-* and *-m̄ bò-*.

10.5.2.3 Progressive (-*m̄* *bò-*)

A third combination with progressive sense is *-m̄ bò-*, with locational ‘be’ (§11.2.2.2) as auxiliary. I can detect no semantic difference between *-m̄ zò-*, *-m̄ jèlà-*, or *-m̄ bò-*. An assistant stated that *-m̄ bò-* is more common but that both are used by the same speakers. Here imperfective *-m̄* is followed by *bò-* ‘be (existential-locative)’.

- (402) a. [*mì* ^H*ní:]* *ínjú* *dì-yá-m* *bò-Ø*
 [1SgPoss ^Hmother] water bathe-MP-**Ipfv** **be-3SgSbj**
 ‘My mother is bathing.’
- b. *tê:* *dèŋé-m* *bɔ̄-è:*
 firewood chop-**Ipfv** **be-3PlSbj**
 ‘They are chopping wood.’

The forms of the verb stem before *-m̄ bò-* are identical, segmentally and tonally, to those with *-m̄ zò-* (preceding section): *óbíyó-m bò-* ‘is sitting (down)’, *yà-m̄ bò-* ‘is weeping’, etc. The conjugation is like that of *bò-*, except that the 3Pl is *bɔ̄-è:*, distinct from *b-è:* ‘they are’ in (459).

10.5.3 Negation of stative verbs and progressive constructions

10.5.3.1 Stative negative (-*n̄-*, -*lǎ-*)

This pronominally inflectable suffix (or enclitic) negates stative verbs and some progressive constructions (those not based on the auxiliary verb ‘be’).

The pronominal-subject paradigm is (403), with ‘not be sitting’ as the example. The *n* in the 1Sg and 3Sg forms is converted to *n* before 2Sg, 1Pl/2Pl, and 3Pl endings.

(403)	category	stative negative	‘not be sitting’
	1Sg	<i>-nú-m</i>	<i>òbò-nú-m</i>
	2Sg	<i>-n-ú</i>	<i>òbò-n-ú</i>
	1Pl	<i>-n-í</i>	<i>òbò-n-í</i>
	2Pl	<i>-n-í</i>	<i>òbò-n-í</i>
	3Sg	<i>-ń-∅</i>	<i>òbò-ń-∅</i>
	3Pl	<i>-n-ê:</i>	<i>òbò-n-ê:</i> (likely < *-n-í-yè)

Stative ‘(door) be open’ is expressed by the negation of ‘be shut’, rather than by a stative directly derived from the reversive verb meaning ‘(door) become open’. Thus *pìyò-ń-∅* ‘it is open’ (lit. ‘it is not shut’), compare *píllí-yé-* ‘become open’.

Another conjugated stative negative enclitic = *lǎ-* occurs with some defective statives (*èbù = lǎ-* ‘not want’, §11.2.4) and with negative adjectival predicates (§11.4.3).

10.5.3.2 Negation of progressive constructions

For the positive progressive forms, see §10.5.2.1-3 above.

The combinations *-ń zò-* and *-ń jèlà-* are negated by adding stative negative *-ń-* to the auxiliary. The paradigms are in (404). The stem tones and vocalism are the same as in the positive counterparts.

(404) Progressive negative *-ń-zò-ń-*, *-ń-jèlà-n-* paradigms

category	<i>-ń zò-ń-</i>	<i>-ń jèlà-ń-</i>
1Sg	<i>-ń zò-nú-m</i>	<i>-ń jèlà-nú-m</i>
2Sg	<i>-ń zò-n-ú</i>	<i>-ń jèlà-n-ú</i>
1Pl	<i>-ń zò-n-í</i>	<i>-ń jèlà-n-í</i>
2Pl	<i>-ń zò-n-í</i>	<i>-ń jèlà-n-í</i>
3Sg	<i>-ń zò-ń-∅</i>	<i>-ń jèlà-ń-∅</i>
3Pl	<i>-ń zò-n-é</i>	<i>-ń jèlà-n-é</i>

The third positive progressive form is *-ń bò-*, which is more readily segmentable into imperfective *-ń* plus locational quasi-verb *bò-* ‘be (somewhere), be present’. It is negated by replacing *bò-* by the latter’s usual suppletive negative counterpart *ònú-* ‘not be (somewhere),

be absent'. The combination is therefore *-m ònú-*, and the pronominal-suffix paradigm is the regular one for *ònú-* (§11.2.2.2).

- (405) *ínjú* *dì-yá-m* *ònú-m*
 water bathe-MP-Ipfv **not.be-1SgSbj**
 'I am not bathing.'

10.6 Post-verbal temporal particles and enclitics

10.6.1 Past enclitic (= *bɛ-*)

The pronominally conjugatable past enclitic = *bɛ-* (which could alternatively be transcribed as a suffix) is added to certain verb forms to constitute a complex inflectional category (406).

- | | | |
|-------|--------------------------|---------------------------|
| (406) | = <i>bɛ-</i> added to... | composite category |
| | bare stem | past perfect |
| | imperfective <i>-m</i> | past imperfective |
| | perfective-2 | past perfective-2 |
| | experiential perfect | past experiential perfect |
| | recent perfect | past recent perfect |
| | stative | past stative |
| | progressive | past progressive |

The pronominal-subject paradigm of = *bɛ-* is (407). The enclitic is variably toned depending on the inflectional category, and in the case of the past perfect depending on the verb stem.

- | | | | |
|-------|----------|---------------------------------|---------------------------------|
| (407) | category | form with = <i>bɛ-</i> | |
| | | L-toned | H-toned |
| | 1Sg | = <i>bɛ̀-m</i> | = <i>bɛ́-m</i> |
| | 2Sg | = <i>bɛ̀-w</i> ~ = <i>bɔ̀-w</i> | = <i>bɛ́-w</i> ~ = <i>bɔ́-w</i> |
| | 1Pl | = <i>bɛ̀-y</i> | = <i>bɛ́-y</i> |
| | 2Pl | = <i>bɛ̀-y</i> | = <i>bɛ́-y</i> |
| | 3Sg | = <i>bɛ̀-∅</i> | = <i>bɛ́-∅</i> |
| | 3Pl | = <i>b-à</i> | = <i>b-á</i> |

In positive inflectional categories, only the = *bɛ-* enclitic is pronominally inflected. In negative versions of some of these categories, both the preceding inflected stem and the past enclitic are pronominally inflected (**double conjugation**). There are also some unusual tonal patterns in the past combinations.

10.6.1.1 Past perfect (positive and negative)

Suffix (or enclitic) =*bɛ-* is added directly to the **bare stem** (allowing for tonal changes) to form a past perfect ('had VP-ed'). Functionally, the bare stem plays the role of the perfective, but from the perspective of a time in the past. With the perception verbs 'see' and 'hear', the past perfect functions as an ordinary perfective ('saw', 'heard').

Representative forms are in (408). For /LH/-toned verbs, the stem takes L-toned form before H-toned enclitic (408b).

(408)	bare	past perfect	gloss
a. H-toned verb before L-toned = <i>bɛ̀-</i>			
<i>regular /H ~ H/</i>			
	<i>nó</i>	<i>nó = bɛ̀-</i>	'go in'
	<i>tó</i>	<i>tó = bɛ̀-</i>	'slash earth (to sow)'
	<i>yé</i>	<i>yé = bɛ̀-</i>	'weep'
	<i>tó:</i>	<i>tó: = bɛ̀-</i>	'spit'
	<i>té:</i>	<i>té: = bɛ̀-</i>	'sprout'
	<i>ká:</i>	<i>ká: = bɛ̀-</i>	'shave'
	<i>cézó</i>	<i>cézó = bɛ̀-</i>	'cut (slice)'
	<i>tóló</i>	<i>tóló = bɛ̀-</i>	'pound (in mortar)'
	<i>símbé</i>	<i>símbé = bɛ̀-</i>	'roast, grill'
	<i>óbí-yó</i>	<i>óbí-yó = bɛ̀-</i>	'sit'
<i>u-final stem</i>			
	<i>tábú</i>	<i>tábú = bɛ̀-</i>	'touch'
<i>irregular</i>			
	<i>zó</i>	<i>zó = bɛ̀-</i>	'bring'
<i>/H ~ L/ as proxy for /LH ~ L/</i>			
	<i>dó</i>	<i>dó = bɛ̀-</i>	'insult (v)'
<i>n-final</i>			
	<i>ún</i>	<i>ún = bɛ̀-</i>	'go'
<i>glottal-initial</i>			
	<i>ʔǎné</i>	<i>ʔǎné = bɛ̀-</i>	'eat (meal)'
<i>vCv stem</i>			
	<i>úbó</i>	<i>úbó = bɛ̀-</i>	'pour'
<i>NCv stem</i>			
	<i>ńdé</i>	<i>ńdé = bɛ̀-</i>	'give'
b. L-toned verb before H-toned = <i>bɛ́-</i>			
<i>/H ~ L/ as proxy for /LH ~ L/</i>			
	<i>dó</i>	<i>dó = bɛ́-</i>	'arrive, reach, approach'
	<i>gó</i>	<i>gó = bɛ́-</i>	'go out'
	<i>nó</i>	<i>nó = bɛ́-</i>	'hear'

<i>wó</i>	<i>wò = b'é-</i>	'come'
<i>wó</i>	<i>wò = b'é-</i>	'see'
/LH ~ L/		
<i>mǎ:</i>	<i>mà: = b'é-</i>	'make (bricks)'
<i>dèrⁿé</i>	<i>dèrⁿè = b'é-</i>	'spend day'
<i>gòlò</i>	<i>gòlò = b'é-</i>	'do farm work'
<i>dì-yé</i>	<i>dì-yè = b'é-</i>	'carry on head'
<i>nìndíyó</i>	<i>nìndiyò = b'é-</i>	'listen'
<i>u-final stem</i>		
<i>mànú</i>	<i>mànù = b'é-</i>	'cook'
<i>glottal-initial</i>		
<i>ʔólé</i>	<i>ʔàlè = b'é-</i>	'go up'
/H ~ L/		
<i>má:né</i>	<i>mà:nè = b'é-</i>	'think'

c. LH-toned verb before L-toned = *bè-*

/LH ~ LH/		
<i>nǎ:</i>	<i>nǎ: = bè-</i>	'spend night'
<i>nǎŋ</i>	<i>nǎŋ = bè-</i>	'pass'

The positive forms are not doubly conjugated. For example, the paradigm of *dèrⁿè = b'é-* 'had spent the day' is (409). Only the enclitic is conjugated.

(409)	subject	'had spent the day'
	1Sg	<i>dèrⁿè = b'é-m</i>
	2Sg	<i>dèrⁿè = b'é-w</i>
	1Pl	<i>dèrⁿè = b'é-y</i>
	2Pl	<i>dèrⁿè = b'é-y</i>
	3Sg	<i>dèrⁿè = b'é-Ø</i>
	3Pl	<i>dèrⁿè = b-á</i>

The corresponding **negation** is based on the perfective negative (*-li-* and allomorphs), which supports the view expressed above that the bare stem in the positive forms functions as a substitute for the perfective stem. The negative forms are **doubly conjugated** for pronominal subject (410). The conjugated enclitic is added to the already conjugated perfective negative form. Lexically /LH ~ L/ verbs do not raise the tone of the *-li-* suffix or its variants, so the past enclitic is H-toned. Compare *dèrⁿà-lí-Ø* 'he/she did not spend the day'.

(410)	subject	‘had not spent the day’ /LH ~ L/	‘had not pounded (in mortar)’ /H ~ H/
	1Sg	<i>dèrⁿà-lì-m = bɛ́-m</i>	<i>tóló-lì-m = bɛ́-m</i>
	2Sg	<i>dèrⁿà-y-ù = bɛ́-w</i>	<i>tóló-y-ù = bɛ́-w</i>
	1Pl	<i>dèrⁿà-y-ì = bɛ́-y</i>	<i>tóló-y-ì = bɛ́-y</i>
	2Pl	<i>dèrⁿà-y-ì = bɛ́-y</i>	<i>tóló-y-ì = bɛ́-y</i>
	3Sg	<i>dèrⁿà-lì-∅ = bɛ́-∅</i> (usually truncated to ...-l-∅ = bɛ́-∅)	<i>tóló-lì-∅ = bɛ́-∅</i>
	3Pl	<i>dèrⁿà-ṅ = b-á</i>	<i>tóló-ṅ = b-á</i>

The past perfect, positive or negative, occurs in the antecedent (‘if’) clause of counterfactual conditionals. See §16.4 for examples.

10.6.1.2 Past imperfective (positive and negative)

The past imperfective (‘was VP-ing’, ‘used to VP’, ‘was about to VP’) is based on adding =*be-* to the H-toned word-final *-m̄* allomorph of the imperfective morpheme. This *-m̄* is also part of progressive constructions, see (399) above. The past enclitic is L-toned.

(411)	bare	past imperfective	gloss
	a. L-toned stem before <i>-m̄</i>		
	/H ~ H/		
	<i>nó</i>	<i>nɔ̀à-m̄ = bè-</i>	‘go in’
	<i>tó</i>	<i>tɔ̀à-m̄ = bè-</i>	‘slash earth (to sow)’
	<i>yé</i>	<i>yà-m̄ = bè-</i>	‘weep’
	/H ~ L/ as proxy for /LH ~ L/		
	<i>wó</i>	<i>wò-m̄ = bè-</i>	‘come’
	<i>wó</i>	<i>wà-m̄ = bè-</i>	‘see’
	<i>gó</i>	<i>gò-m̄ = bè-</i>	‘go out’
	<i>nó</i>	<i>nɔ̀à-m̄ = bè-</i>	‘hear’
	<i>dó</i>	<i>dɔ̀à-m̄ = bè-</i>	‘arrive, reach’
	<i>dó</i>	<i>dɔ̀à-m̄ = bè-</i>	‘insult (v)’
	irregular		
	<i>zó</i>	<i>zò-m̄ = bè-</i>	‘bring’
	b. H-toned stem before <i>-m̄</i>		
	<i>ká:</i>	<i>ká:-m̄ = bè-</i>	‘shave’
	<i>té:</i>	<i>téyá-m̄ = bè-</i>	‘sprout’
	<i>tó:</i>	<i>tó:-m̄ = bè-</i>	‘spit’

<i>cézó</i>	<i>cézó-m = bɛ̀-</i>	‘cut (slice)’
<i>cédé</i>	<i>cédá-m = bɛ̀-</i>	‘gather (firewood)’
<i>tóló</i>	<i>tóló-m = bɛ̀-</i>	‘pound (in mortar)’
<i>símbé</i>	<i>símbó-m = bɛ̀-</i>	‘roast, grill’
<i>óbí-yó</i>	<i>óbí-yó-m = bɛ̀-</i>	‘sit’
<i>u-final stem</i>		
<i>tábú</i>	<i>tábá-m = bɛ̀-</i>	‘touch’
<i>n-final</i>		
<i>ún</i>	<i>úrⁿ-úm = bɛ̀-</i>	‘go’
<i>glottal-initial</i>		
<i>ʔǎné</i>	<i>ʔǎná-m = bɛ̀-</i>	‘eat (meal)’
<i>ʔǎlé</i>	<i>ʔǎlá-m = bɛ̀-</i>	‘go up’
<i>vCv stem</i>		
<i>úbó</i>	<i>úbá-m = bɛ̀-</i>	‘pour’
<i>NCv stem</i>		
<i>ńdé</i>	<i>ńdá-m = bɛ̀-</i>	‘give’
<i>/H ~ L/</i>		
<i>má:né</i>	<i>má:ná-m = bɛ̀-</i>	‘think’

c. LH-toned stem before *-m*

<i>/LH ~ L/</i>		
<i>mǎ:</i>	<i>mà:-m = bɛ̀-</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿá-m = bɛ̀-</i>	‘spend day’
<i>gòló</i>	<i>gòlá-m = bɛ̀-</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yá-m = bɛ̀-</i>	‘carry on head’
<i>nìndíyó</i>	<i>nìndíyó-m = bɛ̀-</i>	‘listen’
<i>/LH ~ LH/</i>		
<i>nǎ:</i>	<i>nà:-m = bɛ̀-</i>	‘spend night’
<i>nǎŋ</i>	<i>nàŋá-m = bɛ̀-</i>	‘pass’
<i>u-final stem</i>		
<i>mànú</i>	<i>màná-m = bɛ̀-</i>	‘cook’

In the positive conjugation, there is no double conjugation: 3Sg *tóló-m = bɛ̀-∅* ‘he/she was pounding (in a mortar)’, 1Sg *tóló-m = bɛ̀-m*, 2Sg *tóló-m = bɛ̀-w*, 1PI = 2PI *tóló-m = bɛ̀-y*, 3PI *tóló-m = b-à*.

The corresponding **negation** is based on a version of the A/O stem of the verb (unconjugated and with no further suffixation), plus the conjugated perfective negative form of the past enclitic. The H-tone on *=bá-* is often not clear.

(412) subject ‘was not pounding’

1Sg	<i>tólò: = bá-lù-m</i>
2Sg	<i>tólò: = bá-y-ù</i>
1Pl	<i>tólò: = bá-y-è</i>
2Pl	<i>tólò: = bá-y-è</i>
3Sg	<i>tólò: = bá-li-Ø</i>
3Pl	<i>tólò: = bá-ñ-Ø</i>

The exact form taken by the A/O-stem in these negative forms calls for further comment. The tones of the stem are those of the (conjugated) imperfective. The stem vocalism is also that of the (conjugated) imperfective, specifically that used with 3Sg *-m-ù* and with 1Sg *-m-Ø*. A stem-final short vowel is **lengthened**. These morphophonological details and the categorial context suggest that these negative forms **originally contained imperfective *-ñ** (in L-toned form and unconjugated) preceding the past enclitic. The subsequent loss of this nasal led to (compensatory) lengthening of the stem-final vowel.

The lengthening is also found in the past form of statives (§10.6.1.6, below), the imperfective subject-focalization forms in (503) below, and in part in the imperfective relative form (§14.1.7.2).

Further examples of stem-shapes in this construction are in (413). The *Cv-* stems with /H ~ L/ melody as proxy for /LH ~ L/ have HL-toned stem (413a). The longer /LH ~ L/ stems have LHL-toned stem (413b), including some *Cṽ:-* forms with bell-shaped tone. /LH ~ L/ and /LH ~ LH/ melodic classes are merged.

(413) bare past IpfvNeg (3Sg) gloss

a. HL-toned stem before enclitic = *bá-*

/H ~ H/

<i>nó</i>	<i>nɔ̃â: = bá-li-Ø</i>	‘go in’
<i>yé</i>	<i>yâ: = bá-li-Ø</i>	‘weep’
<i>tó:</i>	<i>tô: = bá-li-Ø</i>	‘spit’
<i>ká:</i>	<i>kâ: = bá-li-Ø</i>	‘shave’
<i>té:</i>	<i>téyâ: = bá-li-Ø</i>	‘sprout’
<i>tóló</i>	<i>tólò: = bá-li-Ø</i>	‘pound (in mortar)’
<i>símbé</i>	<i>símbò: = bá-li-Ø</i>	‘roast, grill’
<i>óbí-yó</i>	<i>óbì-yò: = bá-li-Ø</i>	‘sit’

u-final stem

<i>tábú</i>	<i>tábà: = bá-li-Ø</i>	‘touch’
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n-final

<i>ún</i>	<i>úr"ò: = bá-li-Ø</i>	‘go’
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NCv stem

<i>ńdé</i>	<i>ńdà: = bá-li-Ø</i>	‘give’
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glottal-initial

<i>ʔáǵé</i>	<i>ʔáǵà: = bá-li-Ø</i>	‘eat (meal)’
<i>ʔáǵé</i>	<i>ʔáǵà: = bá-li-Ø</i>	‘go up’

vCv stem

<i>úbó</i>	<i>úbà: = bá-li-Ø</i>	‘pour’
<i>/H ~ L/ as proxy for /LH ~ L/, monomoraic Cv- only</i>		
<i>gó</i>	<i>gô: = bá-li-Ø</i>	‘go out’
<i>nó</i>	<i>nǵâ: = bá-li-Ø</i>	‘hear’
<i>wó</i>	<i>wô: = bá-li-Ø</i>	‘come’
<i>wó</i>	<i>wâ: = bá-li-Ø</i>	‘see’

irregular

<i>zó</i>	<i>zô: = bá-li-Ø</i>	‘bring’
<i>/H ~ L/</i>		
<i>má:né</i>	<i>má:nà: = bá-li-</i>	‘think’

b. HLH-toned stem before enclitic = *bá-* (bimoraic or longer only)

/LH ~ L/

<i>mǎ:</i>	<i>mǎ: = bá-li-Ø</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿâ: = bá-li-Ø</i>	‘spend day’
<i>dì-yé</i>	<i>dì-yâ: = bá-li-Ø</i>	‘carry on head’
<i>gǵló</i>	<i>gǵlâ: = bá-li-Ø</i>	‘do farm work’
<i>nìndíyó</i>	<i>nìndíyò: = bá-li-Ø</i>	‘listen’

u-final stem

<i>mànú</i>	<i>mànâ: = bá-li-Ø</i>	‘cook’
<i>/LH ~ LH/</i>		
<i>nǎ:</i>	<i>nǎ: = bá-li-Ø</i>	‘spend night’
<i>nǎŋ</i>	<i>nǎŋâ: = bá-li-</i>	‘pass’

The past imperfective, positive or negative, is used in the consequent clause of counterfactual conditionals. See §16.4 for examples.

10.6.1.3 Past = *bɛ-* with perfective-2 ... not!

An assistant rejected combinations of = *bɛ-* with perfective-2 *-zò-* (§10.3.1.2).

10.6.1.4 Past = *bè-* is part of the experiential perfect (positive only)

Past enclitic = *bɛ-* is part of the experiential perfect suffix combination *-téré-bè-* ‘have (ever/once) VP-ed’ (§10.3.1.3). However, = *bɛ-* is absent from negative *-térá-li-* ‘have never VP-ed’ (§10.3.3.2).

10.6.1.5 Past recent perfect $-z\acute{e} = b\grave{e}- \sim -z\grave{e} = b\grave{e}-$

Past $= b\epsilon-$ can combine with recent perfect $-z\grave{e}-$ ‘have just VP-ed’ or ‘have (just) finished VP-ing’ (§10.3.1.4). The result is past recent perfect $-ze = b\grave{e}-$ ‘had just VP-ed’ or ‘had (just) finished VP-ing’ (i.e. recent past with respect to a prior temporal reference point). Its surface forms are $-z\acute{e} = b\grave{e}-$ and $-z\grave{e} = b\grave{e}-$, depending on the final tone of the stem.

However, the tones of the stem with simple $-z\grave{e}-$ and with past-shifted $-ze = b\grave{e}-$ are distinct (414). The simple $-z\grave{e}-$ morpheme itself is always L-toned, and short-voweled monosyllabic verbs have H-tone before it. The past recent perfect distinguishes initial melodic H from L, while merging /LH ~ L/ and /LH ~ LH/.

(414) bare RecPrf past RecPrf gloss

a. H-toned stem before $-z\grave{e} = b\grave{e}-$

regular /H ~ H/

<i>tó</i>	<i>tó-z\grave{e}-</i>	<i>tó-z\grave{e} = b\grave{e}-</i>	‘slash earth (to sow)’
<i>nó</i>	<i>nó-z\grave{e}-</i>	<i>nó-z\grave{e} = b\grave{e}-</i>	‘go in’
<i>tó:</i>	<i>tó:-z\grave{e}-</i>	<i>tó:-z\grave{e} = b\grave{e}-</i>	‘spit’
<i>té:</i>	<i>té:-z\grave{e}-</i>	<i>té:-z\grave{e} = b\grave{e}-</i>	‘sprout’
<i>ká:</i>	<i>ká:-z\grave{e}-</i>	<i>ká:-z\grave{e} = b\grave{e}-</i>	‘shave’
<i>tóló</i>	<i>tóló-z\grave{e}-</i>	<i>tóló-z\grave{e} = b\grave{e}-</i>	‘pound (in mortar)’
<i>símbé</i>	<i>símbé-z\grave{e}-</i>	<i>símbé-z\grave{e} = b\grave{e}-</i>	‘roast, grill’
<i>óbí-yó</i>	<i>óbí-yó-z\grave{e}-</i>	<i>óbí-yó-z\grave{e} = b\grave{e}-</i>	‘sit’

irregular

<i>zó</i>	<i>zó-z\grave{e}-</i>	<i>zó-z\grave{e} = b\grave{e}-</i>	‘bring’
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n-final

<i>ún</i>	<i>ún-z\grave{e}-</i>	<i>ún-z\grave{e} = b\grave{e}-</i>	‘go’
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glottal-initial

<i>ʔǎné</i>	<i>ʔǎné-z\grave{e}-</i>	<i>ʔǎné-z\grave{e} = b\grave{e}-</i>	‘eat (meal)’
<i>tábú</i>	<i>tábú-z\grave{e}-</i>	<i>tábú-z\grave{e} = b\grave{e}-</i>	‘touch’

b. L-toned stem before $-z\acute{e} = b\grave{e}-$

/H ~ L/ as proxy for /LH ~ L/

<i>dó</i>	<i>dó-z\grave{e}-</i>	<i>dò-z\acute{e} = b\grave{e}-</i>	‘insult (v)’
<i>dó</i>	<i>dó-z\grave{e}-</i>	<i>dò-z\acute{e} = b\grave{e}-</i>	‘arrive, reach, approach’
<i>gó</i>	<i>gó-z\grave{e}-</i>	<i>gò-z\acute{e} = b\grave{e}-</i>	‘go out’
<i>nó</i>	<i>nó-z\grave{e}-</i>	<i>nò-z\acute{e} = b\grave{e}-</i>	‘hear’
<i>wó</i>	<i>wó-z\grave{e}-</i>	<i>wò-z\acute{e} = b\grave{e}-</i>	‘come’
<i>wó</i>	<i>wó-z\grave{e}-</i>	<i>wò-z\acute{e} = b\grave{e}-</i>	‘see’

regular /H ~ H/

<i>yé</i>	<i>yé-z\grave{e}-</i>	<i>yè-z\acute{e} = b\grave{e}-</i>	‘weep’
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/LH ~ L/

<i>mǎ:</i>	<i>mǎ:-z\grave{e}-</i>	<i>mà:-z\acute{e} = b\grave{e}-</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿé-z\grave{e}-</i>	<i>dèrⁿè-z\acute{e} = b\grave{e}-</i>	‘spend day’

<i>gòlò</i>	<i>gòlò-zè-</i>	<i>gòlò-zé = bè-</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yé-zè-</i>	<i>dì-yé-zé = bè-</i>	‘carry on head’
<i>nìndíyó</i>	<i>nìndíyó-zè-</i>	<i>nìndiyò-zé = bè-</i>	‘listen’
<i>u-final stem</i>			
<i>mànú</i>	<i>mànú-zè-</i>	<i>mànù-zé = bè-</i>	‘cook’
<i>glottal-initial</i>			
<i>ʔólé</i>	<i>ʔólè-zè-</i>	<i>ʔólè-zé = bè-</i>	‘go up’
<i>úbó</i>	<i>úbè-zè-</i>	<i>ùbò-zé = bè-</i>	‘pour’
<i>NCv stem</i>			
<i>ńdé</i>	<i>ńdè-zè-</i>	<i>ńdè-zé = bè-</i>	‘give’
<i>/LH ~ LH/</i>			
<i>nǎ:</i>	<i>nǎ:-zè-</i>	<i>nà:-zé = bè-</i>	‘spend night’
<i>nǎŋ</i>	<i>nǎŋ-zè-</i>	<i>nàŋ-zé = bè-</i>	‘pass’
<i>/H ~ L/</i>			
<i>má:né</i>	<i>má:né-zè-</i>	<i>mà:nè-zé = bè-</i>	‘think’

The past recent perfect **negative** is **doubly-conjugated**. The verb stem itself has the relevant conjugated form of the recent perfect negative (§10.3.3.3) but with the perfective negative suffix L-toned after all verbs. This is followed by the usual (positive) conjugated form of the past enclitic.

(415) subject ‘had not finished pouring’ ‘had not finished pounding’

1Sg	<i>ùbò-zá-lù-m = bè-m</i>	<i>tóló-zà-lù-m = bè-m</i>
2Sg	<i>ùbò-zá-y-ù = bè-w</i>	<i>tóló-zà-y-ù = bè-w</i>
1Pl	<i>ùbò-zá-y-ì = bè-y</i>	<i>tóló-zà-y-ì = bè-y</i>
2Pl	<i>ùbò-zá-y-ì = bè-y</i>	<i>tóló-zà-y-ì = bè-y</i>
3Sg	<i>ùbò-zá-lì = bè-Ø</i>	<i>tóló-zà-lì-Ø = bè-Ø</i>
3Pl	<i>ùbò-zá-n-Ø = b-à</i>	<i>tóló-zà-n-Ø = b-à</i>

Final vowels preceding *=bè-* in this construction are often elided, especially in the 3Sg. For example, *ùbò-zá-lì = bè-Ø* in the table above can be reduced to *ùbò-zá-l-Ø = bè-Ø*. When this reduction applies to the 2Sg and to the 1Pl/2Pl forms, the result is that the enclitic carries the burden of distinguishing 2Sg from 1Pl/2Pl.

10.6.1.6 Past forms of derived and underived statives

Statives in the general sense are defined by their inability to distinguish perfective from imperfective. These verbs therefore make use of past *=bè-* to distinguish states that are currently valid from those that were valid in some time interval in the past. This includes both

derived stative forms of otherwise active verbs ('sit', 'open', 'carry'), and the specialized stative quasi-verbs with senses like 'be (somewhere)' and 'have'.

The final vowel of the verb stem is **lengthened** and must end with an L-tone. Compare the form of the stem in the negative (not positive) of the past imperfective, (412) above. The regular stative is already in the A/O-stem.

(416) Past of statives

stative	past stative	gloss
a. derived statives		
<i>óbò-</i>	<i>óbò: = bè-</i>	'was sitting'
<i>ʔéjà-</i>	<i>ʔéjà: = bè-</i>	'be standing'
<i>bìyó-</i>	<i>bìyò: = bè-</i>	'was lying down'
<i>bàmbá</i>	<i>bàmbâ: = bè-</i>	'had (child) on the back'
<i>dḡá</i>	<i>dḡâ: = bè-</i>	'had (load) on the head'
<i>píyò</i>	<i>píyò: = bè-</i>	'(door) was shut'
b. specialized statives		
<i>zò-</i>	<i>zò: = bè-</i>	'have'
<i>jèlá-</i>	<i>jèlá: = bè-</i>	'hold, have'

Thus *óbò: = bè-m* 'I was standing' (= 'I was in standing position'), *ʔéló yà jèlá: = bè-m* 'I had a house'.

The whole word is subject to tone-dropping to {L} except immediately after *yà*. The long vowel is often shortened when L-toned.

The **negatives** are in (417). The verb stems have the same lengthening as in (416).

(417) Past negative of statives

stative	past stative	gloss
a. derived stative forms		
<i>óbò-</i>	<i>óbò: = bá-lì-</i>	'was sitting'
<i>ʔéjà-</i>	<i>ʔéjà: = bá-lì-</i>	'be standing'
<i>bìyó-</i>	<i>bìyò: = bá-lì-</i>	'was lying down'
<i>bàmbá</i>	<i>bàmbâ: = bá-lì-</i>	'had (child) on the back'
<i>dḡá</i>	<i>dḡâ: = bá-lì-</i>	'had (load) on the head'
<i>píyò</i>	<i>píyò: = bá-lì-</i>	'(door) was shut'
b. specialized statives		
<i>zò-</i>	<i>zò: = bá-lì-</i>	'have'
<i>jèlá-</i>	<i>jèlá: = bá-lì-</i>	'hold, have'

10.6.1.7 Past forms of progressive constructions

Three progressive constructions, each involving imperfective *-m̄* on the main verb followed by a conjugated auxiliary, are described (in positive forms) in §10.5.2, above.

The auxiliaries *zò-* and *jèlà-* can be combined with the conjugated past enclitic. Auxiliary *bò-* ‘be’ is replaced by its past counterpart *bè-*, forming a combination that is identical to the past imperfective.

(418) Past of progressive constructions

- a. *-m̄ zò-* *-m̄ zò = bè-*
 -m̄ jèlà- *-m̄ jèlà = bè-*
- b. *-m̄ bò-* *-m̄ bè-*

Especially in *-m̄ jèlà = bè-*, an assistant occasionally lengthened the stem-final *a*, as is regular for true statives.

Examples are in (419).

- (419) a. *bídé* *bídá-m̄* *zò = bè-Ø*
 work(n) work-Ipfv **Prog=Past-3SgSbj**
 ‘He/She was working.’
- b. *tòŋ* *tóŋá-m̄* *jèlà = bè-Ø*
 writing write-Ipfv **Prog=Past-3SgSbj**
 ‘He/She was writing.’
- c. *ínjú* *dì-yá-m̄* *bè-Ø*
 water bathe-MP-Ipfv **Past-3SgSbj**
 ‘He/She was bathing.’

No negative past progressives could be elicited. The intensed senses were expressed by ordinary past imperfectives.

10.6.2 ‘Still’, ‘up to now’, ‘(not) yet’ (*nám̀bà*)

Temporal adverbial phrases meaning ‘still’ and ‘(not) yet’ are based *nám̀bà*, whose basic sense is ‘up to now’.

Attested combinations for positive ‘still’ are *nám̀bà là* (with *là* ‘also, too’, §19.1.3) *nám̀bà kàndà* (with *kàndà* ‘even’, §16.2.1), and *íyè nám̀bà* (with *íyè* ‘today’). *nám̀bà* may be a frozen combination including locative postposition *bà* (§8.2.3). The other part is perhaps obscurely related to the ‘now’ adverbs *nimêm*, *ní:*, and *ní: gày*, or to an older ‘now’ adverb no longer in use (cf. Tebul Ure *nân* ‘now’).

námbà can occur by itself in a negative context to express ‘(not) yet’ or ‘still (not)’.

- (420) *námbà* *wò-lí-Ø*
up.to.now come-PfvNeg-3SgSbj
 ‘He/She hasn’t come yet.’

10.7 Imperatives and hortatives

For quoted imperative, prohibitive, and hortative constructions and their verb forms, see §17.1.5 below.

10.7.1 Imperatives and prohibitives

10.7.1.1 Positive imperatives (imperative stem, plural-addressee *-n̩*)

The imperative stem consists segmentally of the **A/O-stem** (§3.4.1). It ends in either *o* or *a* (except for the *n*-final verb ‘go’), without the variation found with the A/O stem in presuffixal combinations.

The tone for the imperative stem is H for all *Cv* verbs, of whatever lexical melodic class. Longer stems divide into H-toned and LH-toned imperatives based on their lexical melodic classes. /LH ~ L/ and /LH ~ LH/ are merged. ‘Bring’ (§10.2.1.8) has an irregular HL-toned imperative (421c).

The bare imperative stem is used for singular addressee. A suffix *-n̩* is added to this stem to form the plural-addressee imperative. After a stem-final nasal (‘go!’) it is syllabic *-n̩*. This plural-addressee suffix is also used with prohibitives and hortatives (see the following subsections). It is unrelated to the 2Pl pronominal-subject suffix *-y ~ -i* in indicative verbs. ‘Give!’, a very common imperative, irregularly shifts final *ε* to *i* in imperative *n̩dí*, which also has tones that are not otherwise typical of this stem (§10.2.1.12).

(421)	bare	imperative		gloss
		singular	plural	
a. H-toned stem				
/H ~ H/				
	<i>nó</i>	<i>nɔ́á</i>	<i>nɔ́á-n̩</i>	‘go in’
	<i>tó</i>	<i>tɔ́á</i>	<i>tɔ́á-n̩</i>	‘slash earth (to sow)’
	<i>yé</i>	<i>yá</i>	<i>yá-n̩</i>	‘weep’
	<i>té:</i>	<i>téyá</i>	<i>téyá-n̩</i>	‘sprout’
	<i>tó:</i>	<i>tó:</i>	<i>tó:-n̩</i>	‘spit’
	<i>ká:</i>	<i>ká:</i>	<i>ká:-n̩</i>	‘shave’
	<i>cézó</i>	<i>cézó</i>	<i>cézó-n̩</i>	‘cut (slice)’
	<i>tóló</i>	<i>tóló</i>	<i>tóló-n̩</i>	‘pound (in mortar)’

- (422) a. *pílé* *súwó* *bèlá-m-ù*
 fall go.down get-1pfv-3SgSbj
 ‘He/She can fall down.’
- b. *pílé* ^L*sùwò*
 fall ^Lgo.down.Imprt
 ‘Fall down-2Sg!’
- c. *wò* ^{L↑}*tìgà*
 come ^Llook.Imprt
 ‘Come-2Sg look!’

In (801) in Text 2, mediopassive imperative *nàn-jà* ‘go up on’ is {L}-toned after a heavy PP. So the {L}-toned imperative may also be conditioned by the presence of heavy preceding material.

Imperatives of transitive verbs have their regular transitive syntax; in particular, they may take accusative pronouns as direct objects.

- (423) *ná-y* *dè má*
 3Sg-Acc hit.Imprt
 ‘Hit-2Sg him/her!’

10.7.1.2 Prohibitives (*-là-* ~ *-lá-*, plural *-là-ń* ~ *-lá-ń*)

Prohibitives are negative counterparts to imperatives. The prohibitive suffix is (*-là-* ~ *-lá-*, which is used without further morphology for singular addressee (‘don’t-2Sg come!’). It polarizes to the preceding tone. For plural addressee, the same *-ń* suffix observed in positive imperatives (see preceding section) is added. The verb is in **bare-stem** form segmentally and to a large extent tonally.

Unlike the imperative, the prohibitive distinguishes H- from L-toned forms of *Cv* stems. This distinction also occurs in the perfective negative and a few other inflectional categories. /LH ~ L/ and /LH ~ LH/ melodic classes are distinguished.

(424)	bare	prohibitive		gloss
		singular	plural	
a. H-toned stem before L-toned <i>-là</i>				
		<i>regular</i> /H ~ H/		
	<i>nó</i>	<i>nó-là</i>	<i>nó-là-ń</i>	‘go in’
	<i>tó</i>	<i>tó-là</i>	<i>tó-là-ń</i>	‘slash earth (to sow)’
	<i>tó:</i>	<i>tó:-là</i>	<i>tó:-là-ń</i>	‘spit’
	<i>ká:</i>	<i>ká:-là</i>	<i>ká:-là-ń</i>	‘shave’
	<i>té:</i>	<i>té:-là</i>	<i>té:-là-ń</i>	‘sprout’

<i>cézó</i>	<i>cézó-là</i>	<i>cézó-là-n</i>	‘cut (slice)’
<i>tóló</i>	<i>tóló-là</i>	<i>tóló-là-n</i>	‘pound (in mortar)’
<i>símbé</i>	<i>símbé-là</i>	<i>símbé-là-n</i>	‘roast, grill’
<i>óbí-yó</i>	<i>óbí-yó-là</i>	<i>óbí-yó-là-n</i>	‘sit’
<i>u-final stem</i>			
<i>tábú</i>	<i>tábú-là</i>	<i>tábú-là-n</i>	‘touch’
<i>n-final</i>			
<i>ún</i>	<i>ún-là</i>	<i>ún-là-n</i>	‘go’
<i>/H ~ L/ as proxy for /LH ~ L/</i>			
<i>dó</i>	<i>dó-là</i>	<i>dó-là-n</i>	‘insult (v)’
<i>glottal-initial</i>			
<i>ʔéṗé</i>	<i>ʔéṗé-là</i>	<i>ʔéṗé-là-n</i>	‘eat (meal)’
<i>ʔólé</i>	<i>ʔólé-là</i>	<i>ʔólé-là-n</i>	‘ripen’
<i>irregular</i>			
<i>zó</i>	<i>zó-là</i>	<i>zó-là-n</i>	‘bring’

b. L-toned stem before H-toned *-lá*

/H ~ L/ as proxy for /LH ~ L/

<i>dó</i>	<i>dò-lá</i>	<i>dò-lá-n</i>	‘arrive, reach’
<i>gó</i>	<i>gò-lá</i>	<i>gò-lá-n</i>	‘go out’
<i>nó</i>	<i>nò-lá</i>	<i>nò-lá-n</i>	‘hear’
<i>wó</i>	<i>wò-lá</i>	<i>wò-lá-n</i>	‘come’
<i>wó</i>	<i>wò-lá</i>	<i>wò-lá-n</i>	‘see’

/H ~ H/

<i>yé</i>	<i>yè-lá</i>	<i>yè-lá-n</i>	‘weep’
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/LH ~ L/

<i>mă:</i>	<i>mà:-lá</i>	<i>mà:-lá-n</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿè-lá</i>	<i>dèrⁿè-lá-n</i>	‘spend day’
<i>gǔlǒ</i>	<i>gǔlǒ-lá</i>	<i>gǔlǒ-lá-n</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yè-lá</i>	<i>dì-yè-lá-n</i>	‘carry on head’
<i>nìndíyó</i>	<i>nìndiyò-lá</i>	<i>nìndiyò-lá-n</i>	‘listen’

u-final stem

<i>mànú</i>	<i>mànù-lá</i>	<i>mànù-lá-n</i>	‘cook’
<i>ábú</i>	<i>àbù-lá</i>	<i>àbù-lá-n</i>	‘accept, receive’

glottal-initial

<i>ʔólé</i>	<i>ʔàlè-lá</i>	<i>ʔàlè-lá-n</i>	‘go up’
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vCv stem

<i>úbó</i>	<i>ùbò-lá</i>	<i>ùbò-lá-n</i>	‘pour’
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NCv stem

<i>ńdé</i>	<i>ndè-lá</i>	<i>ndè-lá-n</i>	‘give’
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/H ~ L/

<i>má:né</i>	<i>mà:nè-lá</i>	<i>mà:nè-lá-n</i>	‘think’
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c. LH-toned stem before L-toned *-là*

/LH ~ LH/

<i>nǎ:</i>	<i>nǎ:-là</i>	<i>nǎ:-là-ṅ</i>	‘spend night’
<i>nǎŋ</i>	<i>nǎŋ-là</i>	<i>nǎŋ-là-ṅ</i>	‘pass’

For prohibitive *-là* in a kind of negative purposive clause, see §17.6.3.2.

10.7.2 Positive hortatives (*-mà*, plural *-mà-ṅ*)

Exhortations of the type ‘let’s go!’ may be directed to one addressee or to a group of two or more addressees. Although the speaker includes himself as an agent in the projected action, the choice between morphologically singular and morphologically nonsingular hortative forms depends on the number of addressees.

For a single addressee, the hortative suffix *-mà* is used without further affixation. This is what would usually be called a first dual inclusive hortative: ‘let’s (=you-Sg and I) go!’ For multiple addressees, the plural-addressee suffix *-ṅ* also found with imperatives and prohibitives is added, forming a suffix sequence *-mà-ṅ*. If the verb stem is L-toned in the hortative, *-mà* becomes H-toned (plural *-má-ṅ*).

The hortative form with *-ma-* is morphophonologically very closely related to the prohibitive with *-la-*. (425) is therefore almost a copy of the corresponding table for the prohibitive, with *m* replacing *l*.

(425)	bare	hortative		gloss
		singular	plural	

a. H-toned stem before L-toned *-mà*

regular /H ~ H/

<i>nó</i>	<i>nó-mà</i>	<i>nó-mà-ṅ</i>	‘go in’
<i>tó</i>	<i>tó-mà</i>	<i>tó-mà-ṅ</i>	‘slash earth (to sow)’
<i>tó:</i>	<i>tó:-mà</i>	<i>tó:-mà-ṅ</i>	‘spit’
<i>ká:</i>	<i>ká:-mà</i>	<i>ká:-mà-ṅ</i>	‘shave’
<i>tóló</i>	<i>tóló-mà</i>	<i>tóló-mà-ṅ</i>	‘pound (in mortar)’
<i>óbí-yó</i>	<i>óbí-yó-mà</i>	<i>óbí-yó-mà-ṅ</i>	‘sit’

/H ~ L/ as proxy for /LH ~ L/

<i>dó</i>	<i>dó-mà</i>	<i>dó-mà-ṅ</i>	‘insult (v)’
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n-final

<i>ún</i>	<i>ún-mà</i>	<i>ún-mà-ṅ</i>	‘go’
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glottal-initial

<i>ʔǎǎ</i>	<i>ʔǎǎ-mà</i>	<i>ʔǎǎ-mà-ṅ</i>	‘eat (meal)’
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irregular

<i>zó</i>	<i>zó-mà</i>	<i>zó-mà-ṅ</i>	‘bring’
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b. L-toned stem before H-toned *-má*

/H ~ L/ as proxy for /LH ~ L/

<i>dó</i>	<i>dò-má</i>	<i>dò-má-ń</i>	‘arrive, reach’
<i>gó</i>	<i>gò-má</i>	<i>gò-má-ń</i>	‘go out’
<i>ńó</i>	<i>ńò-má</i>	<i>ńò-má-ń</i>	‘hear’
<i>wó</i>	<i>wò-má</i>	<i>wò-má-ń</i>	‘come’
<i>wó</i>	<i>wò-má</i>	<i>wò-má-ń</i>	‘see’

/H ~ H/

<i>yé</i>	<i>yè-má</i>	<i>yè-má-ń</i>	‘weep’
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/LH ~ L/

<i>mǎ:</i>	<i>mà:-má</i>	<i>mà:-má-ń</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿè-má</i>	<i>dèrⁿè-má-ń</i>	‘spend day’
<i>gòló</i>	<i>gòlò-má</i>	<i>gòlò-má-ń</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yè-má</i>	<i>dì-yè-má-ń</i>	‘carry on head’
<i>ńìndíyó</i>	<i>ńìndiyò-má</i>	<i>ńìndiyò-má-ń</i>	‘listen’

u-final stem

<i>mànú</i>	<i>mànù-má</i>	<i>mànù-má-ń</i>	‘cook’
<i>ábú</i>	<i>àbù-má</i>	<i>àbù-má-ń</i>	‘accept, receive’

glottal-initial

<i>ʔólé</i>	<i>ʔàlè-má</i>	<i>ʔàlè-má-ń</i>	‘go up’
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vCv stem

<i>úbó</i>	<i>ùbò-má</i>	<i>ùbò-má-ń</i>	‘pour’
------------	---------------	-----------------	--------

NCv stem

<i>ńdé</i>	<i>ńdè-má</i>	<i>ńdè-má-ń</i>	‘give’
------------	---------------	-----------------	--------

/H ~ L/

<i>má:ńé</i>	<i>mà:nè-má</i>	<i>mà:nè-má-ń</i>	‘think’
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c. LH-toned stem before L-toned *-mà*

/LH ~ LH/

<i>ńǎŋ</i>	<i>ńǎŋ-mà</i>	<i>ńǎŋ-mà-ń</i>	‘pass’
<i>ńǎ:</i>	<i>ńǎ:-mà</i>	<i>ńǎ:-mà-ń</i>	‘spend night’

ńǎ:-mà (to singular addressee) and *ńǎ:-mà-ń* (to multiple addressee), literally ‘let’s spend the night!’ (425d), are also ‘good morning!’ greetings (§19.6).

Forms with L-toned stem and H-toned *-má* combine with a following quotative particle *wà* as *-mà wá*. As with other combinations involving otherwise L(L...)H predicates and a following particle, we can account for the tones either by reducing L(L...)H to L before a particle and allowing Rhythmic Tone-Raising to affect the particle, or by transferring the final H-tone directly to the particle. An example is *gòlò-má* ‘let’s cultivate (crops)!’ quoted as *gòlò-mà wá* ‘(someone said:) ‘let’s cultivate!’ This tonal pattern does not apply to plural *-má-ń*, hence *gòlò-má-ń wà*.

An interesting construction consists of hortative *jí-mà*, from a specialized auxiliary verb *jì*. It encourages the addressee to do something, while implying that the speaker will join in later. See (833) in Text 4 for a good example.

10.7.3 Hortative negative (*-mè-là* ~ *-mè-lá*, plural *-mè-là-n* ~ *-mè-lá-n*)

The hortative negative form ('let's not go!') is expressed by *-mè-là* when addressed to one addressee, and by *-mè-là-n* when addressed to more than one addressee. If the preceding syllables in the word do not contain an H-tone, the *-là-* suffix becomes H-toned, hence *-mè-lá* and *-mè-lá-n*. Morphologically, *-mè-là* looks like an E-stem of hortative *-mà*, plus the regular prohibitive *-là*. The plural-addressee suffix is *-n* as in other modal categories.

(426)	bare	hortative negative		gloss
		singular	plural	
a. H-toned stem before L-toned <i>-mè-là</i>				
<i>regular /H ~ H/</i>				
	<i>nó</i>	<i>nó-mè-là</i>	<i>nó-mè-là-n</i>	'go in'
	<i>tó</i>	<i>tó-mè-là</i>	<i>tó-mè-là-n</i>	'slash earth (to sow)'
	<i>tó:</i>	<i>tó:-mè-là</i>	<i>tó:-mè-là-n</i>	'spit'
	<i>ká:</i>	<i>ká:-mè-là</i>	<i>ká:-mè-là-n</i>	'shave'
	<i>cézó</i>	<i>cézó-mè-là</i>	<i>cézó-mè-là-n</i>	'cut (slice)'
	<i>tóló</i>	<i>tóló-mè-là</i>	<i>tóló-mè-là-n</i>	'pound (in mortar)'
	<i>símbé</i>	<i>símbé-mè-là</i>	<i>símbé-mè-là-n</i>	'roast, grill'
	<i>óbí-yó</i>	<i>óbí-yó-mè-là</i>	<i>óbí-yó-mè-là-n</i>	'sit'
<i>/H ~ L/ as proxy for /LH ~ L/</i>				
	<i>dó</i>	<i>dó-mè-là</i>	<i>dó-mè-là-n</i>	'insult (v)'
<i>n-final</i>				
	<i>ún</i>	<i>ún-mè-là</i>	<i>ún-mè-là-n</i>	'go'
<i>glottal-initial</i>				
	<i>ʔɛ́pé</i>	<i>ʔɛ́pé-mè-là</i>	<i>ʔɛ́pé-mè-là-n</i>	'eat (meal)'
<i>irregular</i>				
	<i>zó</i>	<i>zó-mè-là</i>	<i>zó-mè-là-n</i>	'bring'
b. L-toned stem before LH-toned <i>-mè-lá</i>				
<i>/H ~ L/ as proxy for /LH ~ L/</i>				
	<i>dó</i>	<i>dò-mè-lá</i>	<i>dò-mè-lá-n</i>	'arrive, reach'
	<i>gó</i>	<i>gò-mè-lá</i>	<i>gò-mè-lá-n</i>	'go out'
	<i>nó</i>	<i>nò-mè-lá</i>	<i>nò-mè-lá-n</i>	'hear'
	<i>wó</i>	<i>wò-mè-lá</i>	<i>wò-mè-lá-n</i>	'come'
	<i>wó</i>	<i>wò-mè-lá</i>	<i>wò-mè-lá-n</i>	'see'
<i>/H ~ H/</i>				
	<i>yé</i>	<i>yè-mè-lá</i>	<i>yè-mè-lá-n</i>	'weep'
<i>/LH ~ L/</i>				
	<i>mǎ:</i>	<i>mà:-mè-lá</i>	<i>mà:-mè-lá-n</i>	'make (bricks)'
	<i>dèrⁿé</i>	<i>dèrⁿè-mè-lá</i>	<i>dèrⁿè-mè-lá-n</i>	'spend day'
	<i>gòlò</i>	<i>gòlò-mè-lá</i>	<i>gòlò-mè-lá-n</i>	'do farm work'
	<i>dì-yé</i>	<i>dì-yè-mè-lá</i>	<i>dì-yè-mè-lá-n</i>	'carry on head'

u-final stem

ábú *àbù-mè-lá* *àbù-mè-lá-n* ‘accept, receive’

glottal-initial

ʔólé *ʔàlè-mé-lá* *ʔàlè-mé-lá-n* ‘go up’

vCv stem

úbó *ùbò-mè-lá* *ùbò-mè-lá-n* ‘pour’

NCv stem

ńdé *ńdè-mè-lá* *ńdè-mè-lá-n* ‘give’

/H ~ L/

má:né *mà:nè-mè-lá* *mà:nè-mè-lá-n* ‘think’

c. LH-toned stem before L-toned *-mè-là*

/LH ~ LH/

nǎ: *nǎ:-mè-là* *nǎ:-mè-là-n* ‘spend night’

10.7.4 Quoted or indirect imperative with third person subject (imprecations)

The construction for imprecations (wishes, blessings, and curses) of the type ‘May God VERB (you/him, etc.)!’ is exemplified in (427). The verb is imperative in form, but it has *àmbà* ‘God’ as logical subject. The construction has some resemblance to quoted imperatives (jussive complements) of the type ‘Tell X to VP!’ (§17.1.5), but quotative particle *wà* is absent.

(427) a. *àmbà* [*ó* ^H*bérⁿá*] *ùdò* *káná*
 God [2Sg ^HDat] be.better make.Imprt
 ‘May God relieve you!’ (to a sick person)

b. *àmbà* *ó-ý* *pá:bà*
 God 2Sg-Acc protect.Imprt
 ‘May God protect you!’ (e.g. on a voyage or other activity)

The imperative verb form, always “singular” (i.e. unmarked for addressee number), occurs in quoted imperatives (§17.1.5.1). There is no special quoted imperative or indirect imperative verb form.

10.7.5 Quoted imperative with implied 1Sg subject

The imperative can be used in polar (yes/no) question form as a response to an imperfectly heard or understood call or gesture by another speaker. There is no overt 1Sg subject marking.

- (428) *wó* *mà→*
come.Imprt Q
'(Do you want) me to come?'

10.7.6 Indirect or quoted hortative

There is no special quoted hortative verb form. For quoted hortative clauses featuring the regular hortative verb form, unmarked for addressee number, see §17.1.5.2.

11 VP and predicate structure

11.1 Regular verbs and VP structure

11.1.1 Verb types (valency)

As in other Dogon languages, the distinction between intransitive and transitive verbs is complicated by the frequency of cognate nominals in object-like function (§11.1.5.2). For example, ‘weep’ is normally expressed as *yàŋ yé*, literally ‘weep (some) weeping’. A further complication is that overt accusative marking is generally limited to animates. There are also a number of subject-verb and (noncognate) object-verb collocations with low-referentiality NPs (§11.1.4-5).

Syntactic transitivity (the ability to govern an object) is compatible with the mediopassive morphological category (§9.3.1). In particular, verbs of holding and carrying regularly take objects but are often mediopassive in form and have stative derivatives, as in (429a) below.

Perception verbs like *wó* ‘see’ are simple transitives and can take accusative objects, as in (429b) below.

Motion verbs (‘go’, ‘go in’, ‘go out’, etc.) are intransitive verbs that usually take a locational complement in the form of a locative PP or a demonstrative adverb (‘here’, ‘there’). Examples are (429c) below, also (659a) with locative PP in §17.1.4, and (670a) with ‘here’ in §17.3.1. Transitive verbs with senses like ‘put (down)’ and ‘convey’ allow locational complements in addition to a direct object (the theme). For example, ‘convey’ (= ‘take away’) in textual passage (810a) has a locative PP.

‘X give/show Y to Z’ is normally expressed as a transitive ‘X give/show Z’. The recipient is accusative. The theme Y is expressed, if at all, as a non-case-marked adjunct. Examples are (429d) below and (221a-e) in §6.7.

The indirect object of *dámá* ‘speak, say’ is either a special use of the instrumental-comitative as in (429e) below and in (235a-b), or dative as in (232a) in §8.1.1-2. Optional indirect objects of various verbs may take benefactive form (§8.3).

- (429) a. *[èné á-yⁿè]* *yà* *bàmbí-yé-Ø*
[child 3Refl-Poss.An] Real carry.on.back-MP.Pfv-3SgSbj
‘She carried her baby (on her back).’
- b. *ó-ý* *wà-lí-Ø*
2Sg-Acc see-PfvNeg-3SgSbj
‘He/She didn’t see you.’
- c. *[bàmàkó nà]* *ún-m-ù*
[Bamako Loc] go-IPfv-3SgSbj
‘He/She is going to Bamako.’

- d. *mángòrò* *ó-ý* *ndè-Ø / dàmdè-Ø*
 mango 2SgSbj-**Acc** give.Pfv/show.Pfv-3SgSbj
 ‘He/She gave/showed you a mango.’
- e. [*ó* *mí*] *?èné* *dàm-á*
 [2Sg **to**] what? give.Pfv-3PlSbj
 ‘What did they say to you-Sg?’

11.1.2 Valency of causatives

Causatives of intransitive inputs function, unsurprisingly, as simple transitives. The causative of a transitive has two objects. Frequently the lower-clause object is inanimate so it lacks accusative marking, but if it happens to be animate we can get two accusatives, as in (430c).

- (430) a. *mì-ý* *yà* *zòbó-mé-Ø*
 1Sg-**Acc** Real run-Caus.Pfv-3SgSbj
 ‘He/She made me run.’
- b. *mángòrò* *mì-ý* *yà* *mìrⁿé-mé-Ø*
 mango 1Sg-**Acc** Real eat.sth.soft-Caus.Pfv-3SgSbj
 ‘He/She made me eat a mango.’
- c. *mì-ý* *ó-ý* *yà* *bùndó-mé-Ø*
 1Sg-**Acc** 2Sg-**Acc** Real hit-Caus.Pfv-3SgSbj
 ‘He/She gave/showed you a mango.’

11.1.3 Verb phrase

VP as a syntactic category is most evident in the syntax of direct verb chains (§15.1) and same-subject loose chains (e.g. §15.2.3) and verbal-noun complements (§17.3).

11.1.4 Subject-verb collocations (including pseudo-subjects)

Certain noun-verb collocations involve a subject noun that is rarely determined or quantified and could be described as a pseudo-subject. The noun *bá* occurs, without a determiner, in collocations involving transitions from night to day or from rainy season to dry season, and vice versa. The meaning of *bá* is therefore difficult to abstract from the collocations. Its original sense was probably ‘(cloudy/rainy) weather’, cf. compounds *bà-úrⁿá* ‘mist, fog’ and *bà-zùbú* ‘dusty haze’. If so, the older collocations are those denoting the onset and end of the rainy season, and those relating to the day/night boundary are newer extensions. However, the

subject-verb collocations with *bá* have close syntactic-semantic matches in other Dogon languages, even with noncognate nouns such as Jamsay *yàrú*.

(431) Collocations with *bá*

collocation	gloss	verb's usual sense
a. time of day, season		
<i>bá tíŋé</i>	'be wee hours (1-4 AM)'	'pass' or 'become'
<i>bá ná:</i>	'day break'	'spend the night'
<i>bá dèrⁿé</i>	'night fall'	'spend the day'
<i>bá gó</i>	'spend the rainy season'	'go out, exit'
b. season (noun uncompounded)		
<i>bá dó</i>	'rainy season begin'	'arrive, approach'
<i>bá gó</i>	'rainy season end'	'go out'
c. season (noun compounded with cognate nominal)		
<i>bà-dó dó</i>	'rainy season arrive'	'arrive, approach'
<i>bà-gòló gó</i>	'rainy season end'	'go out'
	(also <i>bà-gòló gòlí-yó</i>)	

There are many other collocations expressing time of day or seasons, but in most of them the subject is more clearly referential than with *bá*. In (432), the subject noun by itself can denote the time or season.

(432) More time/season collocations

collocation	gloss	verb's usual sense
a. with motion verb		
<i>gòw nó</i>	'cold season begin'	'enter'
<i>zèrⁿà súwó</i>	'rainy season happen'	'come down'
b. with <i>izùgè</i> 'sun'		
<i>izùgè bǎn</i>	'be (in) the hot season'	'turn red', 'beat (tomtom)'

A different type of subject-verb collocation involves a body-part term. The most common partonym is *cíndá* 'liver' or 'liver-heart complex' as the seat of the emotions. The liver and heart are closely associated in butchery of livestock. This noun, and *kì-kíndè* 'shadow; image', are possessed nouns syntactically in (433a-c). The verb takes 3Sg subject form, agreeing with 'liver' or 'shade' even with 1Sg possessor in (433a,c).

- (433) a. *nìjà:* [cìndá ʔámó] yà lǝǝ-Ø
 yesterday [liver 1SgPoss.InanSg] Real overflow.Pfv-3SgSbj
 ‘I became furious yesterday.’ (< “My liver overflowed”)
- b. *nìjà:* [sǎydu ^Lcìndà] yà lǝǝ-Ø
 yesterday [Seydou ^Lliver] Real overflow.Pfv-3SgSbj
 ‘Seydou became furious yesterday.’
- c. [kì-kíndè ʔámó] yà gǝé-Ø
 [shadow 1SgPoss.InanSg] Real go.out.Pfv-3SgSbj
 ‘I was startled.’ (< ‘My shadow/soul went out.’)

The main intransitive collocations involving ‘liver’ are in (434a), with X as possessor and semantic experiencer. Causatives can readily be formed, converting the possessed partonym into an object (434b).

- (434) a. [X ^Lcìndà] ńǝílé ‘X feel mild nausea’ (< ‘stand up’)
 [X ^Lcìndà] lǝǝ ‘X become furious’ (< ‘overflow’)
 [X ^Lcìndà] yǎm ‘X be saddened, devastated’ (< ‘ruin’)
 [X ^Lcìndà] cé:zí-yé ‘X calm down’ (< ‘cool’)
 [X ^Lcìndà] élé-ndí-yé ‘X become happy’ (< ‘be sweet’)
- b. Y [X ^Lcìndà] élé-ndí-yé-mé ‘Y make X happy’ (with factitive ‘make sweet’)

To test whether the apparent subject NPs in the subject-verb collocations covered here are true subjects, consider what happens when the clauses in question are quoted. In (435), quotative particle *wà* cannot follow the apparent subject, although it does regularly follow normal referential subjects. *wà* can only occur finally in such clauses, as in any quotation (§17.1.3). In addition, temporal-setting adverbs ‘now’ and ‘yesterday’, which must follow true subject NPs in quotative clauses, can precede apparent subjects like *bá*. This and other subject tests (including focalization) suggest that these are **pseudo-subjects**, i.e. they lack full subject properties.

- (435) a. *ní:* bá (#wà) yà gǝé wà
 now weather (#QuotSbj) Real go.out.Pfv Quot
 ‘(X) said, “the rainy season has gone out (=ended) now.” ’
- b. *ní:* gǝw (#wà) yà nǝé wà
 now cold.season (#QuotSbj) Real go.in.Pfv Quot
 ‘(X) said, “the cold season has come in (=begun) now.” ’
- c. *nìjà:* [sǎydù ^Lcìndà (#wà)] yà lǝǝ wà
 yesterday [Seydou ^Lliver (#QuotSbj)] Real overflow.Pfv Quot
 ‘(X) said, “Seydou became furious yesterday.” ’

11.1.5.2 Cognate nominals

A search of the lexical reveals the cognate noun-verb collocations in (438). There is a heavy concentration in semantic domains involving processes, speech, and activities. (438) is organized around semantic domains. Within each division, the collocations are arranged based on the form of the nominal. Some of the nominals are compounds, only the final of which is cognate to the verb, see the entries at the end of (438b-e)

(438) Cognate nominal/verb pairings by domain and by form of nominal

a. bodily processes

<i>úló úló</i>	‘vomit (v)’
<i>sùwà súwó</i>	‘defecate’
<i>kà:dà ká:dé</i>	‘clear one’s throat’
<i>ìsiyà ísíyé</i>	‘sneeze’
<i>bè:liyà bé:líyé</i>	‘belch’
<i>gòròdò gòròdó</i>	‘snore’
<i>à:liyà á:líyé</i>	‘yawn (v)’

final η

<i>yàη yé</i>	‘weep (out loud)’
<i>jìη jé</i>	‘let out a fart’

final u

<i>màndù màndú</i>	‘laugh (v)’
<i>bùrú bùrò</i>	‘drool’
<i>màzìndù màzìndí-yé</i>	‘have a dream’
<i>mǎ:nù má:né</i>	‘think a thought’

final sonorant

<i>dùl dùló</i>	‘groan’
<i>tòl tóló</i>	‘lay an egg’
<i>kòndùn kóndúnó</i>	‘cough (v)’

b. speech, vocalization, sound

<i>dḡà dḡ</i>	‘insult (v)’
<i>pèlà pélé</i>	‘applaud, clap’
<i>jèlé jèlé</i>	‘denigrate’
<i>èlmà élmé</i>	‘converse (pleasantly)’
<i>tì:dà tí:dé</i>	‘(shepherd) recount adventures’
<i>tì:ndà tí:ndé</i>	‘give formal counsel’
<i>gá:jè gá:jé</i>	‘kid around’
<i>yìmbìrè yìmbíré</i>	‘(beggar) sing koranic verses’

final -n

<i>zèbù-n zèbé</i>	‘make a curse’
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final -y (monosyllabic)

<i>séyⁿ sé:ⁿ</i>	‘tell a story or riddle’
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final u

<i>bògú bógó</i>	‘(dog) bark’
<i>kòdù kódó</i>	‘howl’
<i>bògùrù bógúró</i>	‘roar (v)’
<i>bò:dù bó:dó</i>	‘(bull) bellow’
<i>só:dù só:dó</i>	‘(sth unseen) make a sudden noise’
<i>ímìlù ímíló</i>	‘stutter’
<i>sàdù sádú</i>	‘ask a question’
<i>lèdú lèdó</i>	‘make noise, be noisy’

no final vowel after sonorant

<i>dòm dăm</i>	‘speak, talk (v)’
<i>sèn séné</i>	‘ululate, emit cries of joy’
<i>sán sán</i>	‘pray, perform a prayer’
<i>dámdú dámdé</i>	‘ask a small favor’
<i>lèl lélé</i>	‘make a mistake’

verb contains frozen derivational suffix

<i>pò: pódó</i>	‘make a greeting, say hello’
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compound nominal

<i>bèrè-kézè kézé</i>	‘tell a lie’
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c. agriculture

<i>gòlò gòlò</i>	‘cultivate, do farming (esp. by pulling daba)’
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final ŋ

<i>tòŋ tó</i>	‘sow (seeds), do the planting’
<i>nǎŋ nó</i>	‘carry out the second round of weeding’

final y

<i>zǎy zǎ:</i>	‘sow (seeds) in pit (with manure)’
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final u

<i>wégù wègé</i>	‘do wet-sowing (with manure)’
<i>cíbù cíbé</i>	‘clear a new field’

no final vowel after sonorant

<i>jèl jèlé</i>	‘do the millet harvest (with a knife)’
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compound nominal

<i>tòŋ-zǐŋ zìŋé</i>	‘do over-sowing’
<i>tòŋ-bìzú bìzé</i>	‘do dry-sowing (with manure)’
<i>tòŋ-dǎŋ dǎŋ</i>	‘do spot-sowing during weeding season’
<i>tòŋ-wíl wíló</i>	‘do parallel slashes (two people sowing)’
<i>yù:-gǎ: gǎ:</i>	‘do the follow-up harvest’

d. other activities

<i>jà: jé</i>	‘perform a dance’
<i>tà: tá:</i>	‘respect a taboo’
<i>èlè élé</i>	‘compete, engage in rivalry’
<i>gòzò gòzó</i>	‘divide (group) into subgroups’

<i>bìdè bìdè</i>	‘perform work’
<i>nùṅà nùṅó</i>	‘sing a song’
<i>dùgò dùgò</i>	‘cast spells’
<i>zòṅò zòṅó</i>	‘practice medicine’
<i>tóbá tóbí-yé</i>	‘roll a turban (on one’s head)’
<i>pìyà pìyé</i>	‘make a heap’
<i>sùmà sùmó</i>	‘rest (v), take a break’
<i>zàṅá zǎṅ</i>	‘study, go to school’
<i>lùgò lùgò</i>	‘do a calculation, count’
<i>zàmà zàmú</i>	‘break a promise, betray’
<i>dùbà dùbó</i>	‘do forging, forge (tools)’
<i>dàná dànú</i>	‘go hunting’
<i>zàmnà zámné</i>	‘commit a theft’
<i>cèmnà cémné</i>	‘have fun’
<i>jáyṛè jáyṛé</i>	‘poke fun (at sb), mock’
<i>bògórò bógúrí-yé</i>	‘have a quarrel’
<i>final u</i>	
<i>tógú tógó</i>	‘build a shed’
<i>wógù wógó</i>	‘spend the morning (half-day)’
<i>sìzù sízé</i>	‘draw lines’
<i>tì:dù tí:dé</i>	‘make bunches (units for sale)’
<i>nìnjù nìnjé</i>	‘cook sauce’
<i>yà:bù yá:bé</i>	‘forgive’
<i>no final vowel after sonorant</i>	
<i>tòṅ tóngó</i>	‘do some writing’
<i>dìṅ dìṅé</i>	‘tie a knot’
<i>yǎl yálí-yé</i>	‘take a walk’
<i>nominal perhaps iterated</i>	
<i>dùndùm dùn-dó</i>	‘heap up wood’
<i>irregular</i>	
<i>zǎṅ zá:níyⁿé</i>	‘have a fight’
<i>suffix -n (§4.2.3)</i>	
<i>sègì-n ségé</i>	‘ante up, make a contribution’
<i>compound nominal</i>	
<i>kò:-pìl pílé</i>	‘sneak up’
e. other domains	
<i>bùṅá bùṅó</i>	‘foam, froth up’
<i>compound nominal</i>	
<i>yù:-zèṅé zèṅé</i>	‘(millet plant) grow offshoot grain spikes’
<i>bà-gòlò gòlì-yó</i>	‘be at the end of the rainy season’
(= <i>bà-gòlò gó</i>)	

The phonological and morphological relationship between cognate nominal and verb is variable. Some of this is due to tight general constraints in YD on vocalism and tone melody that apply to verb stems, but not nouns. Some of the nominals probably originated as deverbal nominalizations, with more or less segmentable final *-n*, *-ŋ*, *-y* after monosyllabic stem, *u* replacing final vowel, or \emptyset (from apocopated *u) following a sonorant. See §4.2.2-4 for productive and semi-productive deverbal nominalizations of these types. However, the cognate nominals often have tones distinct from those of the productive nominalizations, so synchronic morphological mark-up can be opaque.

In *bà-gòló gòlí-yó* ‘be at the end of the rainy season’, the last item in (438), it is likely that the verb was back-formed from the nominal. The variant *bà-gòló gó* is evidently original, with *gó* ‘go out’. Probable several other cognate collocations originated in this way. This can be suspected in all cases where the nominal denotes an object that exists independently of the action, e.g. ‘shed’, ‘egg’.

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

11.2.1 ‘It is’ enclitics

11.2.1.1 Positive ‘it is’ (= .:) and its conjugated forms

The symbol *.:* represents an extended intonational-like prolongation of the final segment of a word. The duration of the prolongation is widely variable. If the phonological tone of the final segment is high, the pitch additionally declines slowly. If the phonological tone is already low, the prolongation is clearly audible but the pitch decline is necessarily smaller. This is the **dying-quail** effect (§3.8.2). An important diagnostic for this, as opposed to phonological length, is that the prolongation and pitch decline occurs on the word-final segment, which may be a sonorant as in the 3Sg forms in (441) below. There are no phonemic word-final geminated consonants in YD, in fact they are systematically repaired by suffixal allomorphy in other contexts, see (339) in §10.2.1.12.

The common **identificational** ‘it is X’ construction, which provides identifying information for an entity whose existence is already known, consists of the relevant **predicate nominal** (X) plus an **unconjugated** *= .:* enclitic. I use the clitic boundary symbol *=* since several other Dogon languages have segmentally nonzero ‘it is’ enclitics, and since in YD the enclitic can also be conjugated for pronominal subject (see below).

Examples of unconjugated *= .:* after word-final vowel are in (439). (439a-b) might be used to explain the identity of a person who can be pointed at, or who has been introduced as an indefinite discourse referent in preceding discourse. *mí= .:* ‘it’s me’ (439b) might be uttered by someone identifying himself after knocking at a door, or answering a ‘who?’ question.

(439)	X	‘it is X’ (full form)	gloss
a.	<i>dògó</i>	<i>dògó = .:</i> [dògóòò]	‘it’s (a) Dogon’
b.	<i>mí</i>	<i>mí = .:</i> [míì]	‘it’s me’
c.	<i>nà:</i>	<i>nà: = .:</i> [nàááà]	‘it’s a cow’

The ‘it is’ enclitic is **optionally omitted** (or reduced to inaudibility) after a pronoun: *mí* or *mí = .:* ‘it’s me’, *bó* or *bó = .:* ‘it’s them’. It is also optionally omitted after animate plural *-mù* (except when the suffix shifts to H-tone, which makes the pitch decline easy to hear).

(439c) is an example with an /L/-toned noun. In the ‘it is’ construction, it behaves as though its melody were /LH/ or, with floating H-tone, /L/+H. The resulting *nà: = .:* is heard as [nàááà], i.e. with a rising pitch followed by the terminally pitch decline of the dying-quail intonation. This is possible (but contestable) evidence that “L-toned” nouns have underlying /LH/ melodies that are, in other contexts, phonetically realized as L-toned; see §3.7.2.2.

In (439a-c) and many other examples there is no overt subject, just the predicate nominal with the enclitic. This is because the “subject” is usually already understood by physical or discourse context, as in ‘it’s me!’ An overt NP subject is nevertheless possible. When present, one might consider it to be a topic, perhaps preclausal. However, in many cases there is no intonational break between the subject NP and the predicate nominal of the sort that we would associated with a preclausal topical NP. There is no strong argument against taking ‘my father’ in (440a-b) as a subject (and see below about conjugated ‘it is’).

(440)	a.	[<i>mì</i>	^H <i>dé:]</i>	<i>dògó = .:</i>		
		[1SgPoss	^H father]	Dogon=it.is		
		‘My father is a Dogon.’				
	b.	<i>sǎydù</i>	[<i>á</i>	^H <i>dé:]</i>	<i>dògó</i>	<i>wà</i>
		Seydou	[3Logo	^H father]	Dogon	Quot
		‘Seydou said that his father is a Dogon.’				

(440b) also shows that the dying-quail effect is annulled before the quotative particle. Even in (440a), where the relevant NP is clause-final (and prepausal), the prolongation and pitch drop of the *= .:* enclitic are usually less pronounced than in (439), and they may disappear entirely. In the latter case, (440a) could be transcribed [*mì* ^H*dé:]* *dògó* with no audible ‘it is’ enclitic, see comments after (439) above.

When there is a referential subject, a 1st/2nd person or 3Pl subject is expressed by **conjugating** the ‘it is’ enclitic. An independent pronoun is optionally present as a kind of topic. The 3Sg form is the same as the unconjugated ‘it is’ form given above, with the dying-quail intonation. ‘He is Seydou’ and ‘it’s Seydou’ (e.g. knocking at the door) are only distinguished in that the former may begin with an independent 3Sg pronoun.

Postvocally the 1Sg ‘it is’ enclitic is *=m̃* and the 2Sg is *=w̃*. The tone of the enclitic sonorant shifts to high if the predicate nominal is entirely L-toned (and in adjectival predicates ending in the extension *-í.ⁿ* or variant, §11.4.2). If both the enclitic sonorant and

the stem-final vowel are L-toned, it is not necessary to repeat the L-tone marking on the enclitic in transcriptions. I do not hear dying-quail intonation effects in the 1Sg and 2Sg forms. Examples are in (441).

(441)	‘I am X’	‘you-Sg are X’	‘he/she/it is X’	X (gloss)
	<i>mí sǎydù = m</i>	<i>ó sǎydù = w</i>	<i>ná sǎydù = .:</i>	‘Seydou’
	<i>mí dǎgɔ́ = ì</i>	<i>ó dǎgɔ́ = w̃</i>	<i>ná dǎgɔ́ = .:</i>	‘a Dogon’
	<i>mí nà: = m̃</i>	<i>ó nà: = w̃ⁿ</i>	<i>ná nǎ: = .:</i>	‘a cow’
	<i>mí óyè = m</i>	<i>ó óyè = w</i>	<i>ná óyè = .:</i>	‘a mouse’

When the 1Sg and 2Sg enclitics are **postconsonantal** (the *C* is normally a sonorant), they become, respectively, syllabic =ùm and =ùw (the latter monophthongizes and is indistinguishable from =u:). An exception is that the 1Sg is =ùm after stem-final *m*, as with ‘a porcupine’ in (442), the two consonants fusing into one prolonged labial nasal. The tone of the enclitic is low except when the noun is all-L-toned.

(442)	‘I am X’	‘you-Sg are X’	‘he/she/it is X’	X (gloss)
	<i>mí tól = ùm</i>	<i>ó tól = ùw</i>	<i>ná tól = .:</i>	‘a pig’
	<i>mí tètêw = ùm</i>	<i>ó tètêw = w</i>	<i>ná tètêw = .:</i>	‘a hawk’
	<i>mí nò^L bǎrⁿ = ùm</i>	<i>ó nò^L bǎrⁿ = ùw</i>	<i>ná nò^L bǎn = .:</i>	‘a red person’
	<i>mí tìmêm = m</i>	<i>ó tìmêm = ùw</i>	<i>ná tìmêm = .:</i>	‘a porcupine’

There is a difficulty interpreting such forms because some sonorant-final stems have a dialectal variant with final /u/, so the position of the stem-enclitic boundary is not completely certain: *tól = ùm* or *tólù = m*? In the case of ‘a red person’ in (442), the shift from the *n* of *bǎn* to the *rⁿ* of *bǎrⁿ*(*ú...*) in the 1Sg/2Sg forms is also suggestive of a word-internal phonological alternation.

Now consider 1Pl, 2Pl, and 3Pl subjects, which are of the type ‘we/you-Pl/they are Xs’ with some animate plural noun (as a reminder, the 3Pl category is restricted to animate referents). We would expect a construction of the type *[person-Pl] = (it.is-)1Pl* ‘we are people’. The difficulty is that the apparent animate plural suffix on the predicate nominal seems to function instead as part of the conjugated enclitic, hence *[person] = Pl-(it.is-)1Pl*. This is seen in (admittedly odd) contexts with inanimate predicate nominal, as in ‘we are stones’ with *cìn* ‘stone’ (443b). In other contexts, inanimates like ‘stone’ do not allow plural *-mù*, so in (443b) it appears that *-mù* has fused with the enclitic. With some difficulty I was able to elicit (443c), which has 1Pl =*m-ì*: following a morphologically singular noun with collective sense.

(443)	a.	<i>mí</i>	<i>cìn = ùm</i>
		1Sg	stone=it.is.1SgSbj
		‘I am a stone.’	

- b. *yé* *cìn = m-î:*
 1Pl stone=**AnPl**-it.is.1PlSbj
 ‘We are stones.’
- c. *yé* [*mùmbù*^L *tùmá*] = *m-ì:*
 1Pl [association^L one]=**AnPl**-it.is.1PlSbj
 ‘We are one association (or: team).’

(443a-c) provide evidence that *=m-î:* is (segmentally) the 1Pl form of the conjugated ‘it is’ enclitic. This is actually an HL-toned variant used after /L/-toned nouns; other predicate nominals that do contain an H-tone have 1Pl *=m-ì:* with L-tone. This *=m-ì:* appears to represent */=mù-y/*, with animate plural *-mù* fused to the regular 1Pl suffix *-y*. The same *=m-ì:* (variant *=m-î:*) is used for 2Pl, reflecting the usual 1Pl/2Pl suffixal syncretism.

The 3Pl counterpart is identical to the nonpredicative plural with *-mù* (or H-toned *-mú*). One of two assistants also allowed a lengthened, specifically predicative 3Pl form *=m-ù:* (variant *=m-û:*), as in the second variant in (444).

- (444) [*mì* ^H*dé:* *mì*] [*mì* ^H*ní:* *mì*] *dògó-mù / dògó = m-ù.:*
 [1SgPoss ^Hfather and] [1SgPoss ^Hmother and] Dogon=**AnPl**-it.is.3PlSbj
 ‘My father and my mother are Dogon.’

Forms of the few irregular human nouns (445) might be used as arguments against taking the *mu* element to be part of the plural-subject forms of the enclitic, as opposed to being the ordinary plural suffix *-mù*. In particular, the irregular plural *èné* ‘children’ does not have a ‘they are’ form containing the *mu* syllable.

(445)	Sg	Pl	gloss	‘he/she is a’	‘they are’	‘I am a’
	<i>ènè</i>	<i>èné</i>	‘child’	<i>èné = .:</i>	<i>ènê = Ø</i>	<i>èné = m̀</i>
	<i>yè</i>	<i>yè-mù</i>	‘woman’	<i>yě = .:</i>	<i>yè = mú.:</i>	<i>yě = m̀</i>
	<i>án</i>	<i>án-mù</i>	‘man’	<i>án = .:</i>	<i>án-mù (= .:)</i>	<i>árⁿ = ùm</i>

Since /L/-toned nouns “grow” a final H-tone element in ‘it is’ forms, *ènè* ‘child’ and both *yè* ‘woman’ and its plural *yè-mù* ‘women’ have rising tones feeding into the dying-quail intonation. The entire word therefore ends up with bell-shaped (LHL) pitch. For example *yě = .:* ‘it’s (or: she is) a woman’ is heard as [jèèèè]. In the ‘they are’ forms, prolongation and pitch decline are regularly audible after H-toned *-mú* (even if raised only in the ‘it is’ construction, as with *yè-mù* ‘women’). However, there is no pitch decline and often no detectable prolongation after L-toned *-mù* (as in *án-mù ~ án-mù = .:* ‘they are men’).

èné = .: ‘he/she is a child’ has the same pitch trajectory as *ènê = Ø* ‘they are children’. For one assistant, in the latter case the final vowel is not prolonged. Another assistant pronounced *èné = .:* in both singular and plural cases.

In *án = ∴* ‘he is a man’, the prolongation is realized on the final nasal, hence phonetic [áńńń]. A similar case is (446), an expression in everyday use. It is heard as [kàkǎlll] with slow pitch descline on the *l* (somebody invent tone diacritics that will fit over an “l”, please!).

- (446) [kà-kàl] = ∴
 [falsehood]=it.is
 ‘It’s a lie.’ or ‘It’s false.’

For 3Pl =*yè* in adjectival predicates after extension *-íⁿ*, see §11.4.2.

11.2.1.2 ‘It is not’ (= *lǎ-*)

The negative counterpart of *= ∴* ‘it is’ is *= lǎ-* ‘it is not’. Word-finally the form is *= lǎ:* (447). This is arguably the 3Sg subject form, hence properly *= lǎ:-∅*, but unless there is a referential subject I often omit the 3Sg suffix.

- | | | | |
|-------|-------------|-------------------|-----------------------|
| (447) | noun X | ‘it is not X’ | gloss |
| | <i>dògɔ</i> | <i>dògɔ = lǎ:</i> | ‘It’s not (a) Dogon.’ |
| | <i>mí</i> | <i>mí = lǎ:</i> | ‘It isn’t me.’ |
| | <i>nà:</i> | <i>nǎ: = lǎ:</i> | ‘It isn’t a cow.’ |

= lǎ- ‘it is not’ can be conjugated. The paradigm is (448).

- | | | |
|-------|--------------|--|
| (448) | category (X) | ‘X is not’ |
| | 1Sg | <i>= lǎ-m</i> |
| | 2Sg | <i>= lǎ-w</i> |
| | 1Pl | <i>= lǎ-y</i> |
| | 2Pl | <i>= lǎ-y</i> |
| | 3Sg | <i>= lǎ:-∅</i> (often <i>= là:-∅</i> prepausally) |
| | 3Pl | <i>= lá-yè</i> (after L-toned <i>-mù</i>), <i>= là-yè</i> (after H-toned <i>-mú</i>) |

Nouns with lexical melody /L/ “grow” a final H-tone element before *= lǎ-*, as they do before its positive equivalent (preceding section). Thus *cǎn = lǎ-m* ‘I am not a stone’, *nǎ: = lǎ-m* ‘I am not a cow’ (< *cín* ‘stone’, *nà:* ‘cow’).

Animate plural suffix *-mù* is present before *= lǎ-* where relevant. In examples like *dògɔ-mù = lǎ-y* ‘we (or you-Pl) are not Dogon’, the bracketing would seem to be straightforward, with plural *-mù* belonging with the noun stem. However, the bracketing is not quite so simple, since the plural suffix (which is elsewhere restricted to animates) is also optionally present (449a) after an inanimate noun denoting (in context) a plurality. We saw in

the preceding section that this is also true (and more systematically so) for the positive ‘it is’ paradigm.

- (449) a. *yé* *cìn-mú = lǎ-y*
 1Pl stone-AnPl=it.is.not-1PlSbj
 ‘We are not stones.’
 (arguably *cìn = mú-lǎ-y* with enclitic boundary shifted left)
- b. *yé* *cǐn = lǎ-y*
 1Pl stone=Pl-it.is.not-1PlSbj
 [= (a)]

There is an initially confusing relationship between the ‘it is not’ enclitic =*lǎ-* after predicate NPs, the stative negative ending of *èbù = lǎ-* ‘not want’ (§11.2.4), and the enclitic =*lǎ-* with adjectival predicates (§11.4.3). The crux of the matter is that the 3Sg form of ‘not want’ is *èbù = lá-Ø*, whereas the ‘it is not’ enclitic has 3Sg form =*lǎ:-Ø*. The two differ both in vowel length and tone. The matter is resolved by the adjectival predicates, which have 3Sg =*lá-Ø* after /L/-toned adjectives (including those whose final H-tone has shifted onto the enclitic), but 3Sg =*lǎ:-Ø* (or prepausal =*là:-Ø*) after adjectives that contain an unshifted H-tone. Since *èbù-* ‘want’ is /L/-toned, it naturally has 3Sg =*lá-Ø*. For the phonology, see §3.7.3.7. Since the noun or NP preceding ‘it is not’ always contains an H-tone (after /L/-melody nouns “grow” a final H-tone), the enclitic naturally has 3Sg =*lǎ:-Ø*.

The combination of ‘it is not’ with ‘if’ is common; ‘if it is not X’ can be loosely translated ‘other than X’, ‘aside from X’, or in a negative context ‘only X’. See e.g. *cém* → =*là: dè* in (768) in Text 1.

11.2.2 Existential and locative quasi-verbs and particles

11.2.2.1 Realis and existential (*yà*)

The particle *yà* has two major functions. Both are limited to positive clauses. The particle appears immediately to the left of the verb (for verb chains, see below).

With quasi-verbs *bó-* ‘be (somewhere)’ and *zó-* ‘have’, and with stative *jèlá-* ‘hold, have’, *yà* is glossed **existential** (abbreviation: “Exist”). It asserts the existence of the referent denoted by the subject of ‘be (somewhere)’ or the object of ‘have’.

With ordinary verbs, *yà* is regular in the simple perfective positive (§10.3.1.1) and in the recent perfect positive (§10.3.1.4). It also occurs occasionally in the imperfective positive with presentational force (describing ongoing activities). It is absent in the perfective-2, the experiential perfect, and in all negative categories. Where it does occur with ordinary verbs, it is glossed **realis** (abbreviation: “Real”). Of course there is a semantic connection between existential and realis. However, cognates and functional equivalents of *yà* in other Dogon languages are limited to existential function. I will distinguish existential from realis functions for YD to facilitate comparison.

Existential *yà* is obligatory in positive utterances with *zó-* ‘have’ and *jèlá-* ‘hold, have’ (§11.5.1-2). With *bó-* ‘be (somewhere)’ (§11.2.2.2), *yà* is obligatory if there is no other preverbal constituent, but optional if there is such a constituent. In realis function with perfective verbs, *yà* is normally present in the absence of another preverbal constituent, but it is optionally omitted in polar interrogatives and in (truncated) responses to such questions. In (450), # means ungrammatical. In other words, *yà* is obligatory in (450a-c) but optional in (450d-f). Its optional absence in (450d-f) could be construed as the result of focalization of the preverbal constituent. When *yà* is present, the immediately following quasi-verb in (450a-c) has an H-tone (*zó-*, *bó-*, *jèlá-*), and the immediately following perfective verb in (450d-f) must show its lexical /H/ or /LH/.

Examples of realis *yà* with various verbs and quasi-verbs are in (450).

- (450) a. *pè:* *yà* (#Ø) *zó-m*
 sheep Exist have-1SgSbj
 ‘I have a sheep.’
- b. *yà* (#Ø) *bó-m*
 Exist be-1SgSbj
 ‘I am present.’
- c. *yà* (#Ø) *tíbé-Ø*
 Real die.Pfv-3SgSbj
 ‘He/She died.’
- d. *ngí* *yà* *bó-m*
ngí Ø *bò-m*
 here Exist be-1SgSbj
 ‘I am here.’ (note tones of *bo-m*)
- e. *ènè* *yà* *tíbé-Ø*
ènè Ø ^L*tìbè-Ø*
 child Real die.Pfv-3SgSbj
 ‘A child died.’
- f. *ngí* *yà* *tíbé-Ø*
ngí Ø ^L*tìbè-Ø*
 here Real die.Pfv-3SgSbj
 ‘He/She died here.’

An example of a polar interrogative without *yà*, and a response with optional *yà*, is (451).

(451) Q: *ʔáílé-Ø* *mà→* *súwé-Ø*
 go.up.Pfv-3SgSbj Q go.down.Pfv-3SgSbj
 ‘Did he/she go up or go down?’

A: (*yà*) *ʔáílé-Ø*
 (Real) go.up.Pfv-3SgSbj
 ‘He/She went up.’

Focalization of a constituent, as in WH interrogatives, is incompatible with realis *yà*. Subject focalization without *yà* is seen in (452).

- (452) a. *àm* *pílé-zò-Ø*
 who? fall-Pfv2-3SgSbj
 ‘Who fell down?’
- b. *pòl* *àm* *zô:*
 knife who? have
 ‘Who has a knife?’ (also *àm pòl zô:*)
- c. *àm* *bô:*
 who? be
 ‘Who’s there?’
- d. *mì* *bô:*
 1Sg be
 ‘It’s I [focus] who am present (here).’

Non-subject focalization without *yà* is exemplified in (453).

- (453) a. *àmbá:* *bò-w*
 where? be-2SgSbj
 ‘Where are you-Sg?’
- b. *cì-ʔàpè* *bèlé-w*
 what? get.Pfv-2SgSbj
 ‘What did you get?’

Related to this is the fact that when a short final perfective clause is prosodically grouped with a preceding subordinated clause, the final clause omits the realis particle and the perfective verb takes L-toned form. In other words, the subordinated clause functions somewhat like a focalized constituent within the clause. See discussion of the ‘no sooner ..., than ...’ examples in §15.3.4.

Realis *yà* is also absent in relative clauses (454). Compare perfective *yà pílé-Ø* ‘he fell’ in a main clause.

- (454) $[\text{àn}^{\text{L}} \quad \text{pí}^{\text{HL}}\text{fè} \quad \text{gè}] \quad \text{àmbá:} \quad \text{bò-}\emptyset$
 [man^L fall.Pfv.Rel Def.AnSg] where? be-3SgSbj
 ‘Where is the man who fell?’

As shown in (450d-f) above, realis *yà* forces an immediately following perfective verb to show its lexical melody. A verb’s lexical melody always contains an H-tone, whether /H/ as in *yà ʔólé-∅* ‘he/she went up’ in (451) above, or /LH/ as in *yà bàmbí-yé-∅* ‘she carried on back’ in (429) above. (450a-c) likewise show H- or LH-toned quasi-verbs following existential *yà*. Without *yà*, these perfective verbs and quasi-verbs are free to drop to L-toned; see the following section for *bó- ~ bò-* ‘be (somewhere)’.

The association of *yà* with the presence of an H-tone in an immediately following verb or quasi-verb suggests the following historical scenarios: *yà* was formerly H-toned, its H-tone drifted onto the predicative word to its right (perhaps fusing with an existing H-tone), and this pattern was later reinterpreted as reinforcement or preservation of the verb’s lexical melody. This scenario, which points to *yá* ‘there (discourse-definite)’ as the source, gains support from the fact that cognates of *yà* (in existential but not realis function) are H-toned throughout eastern Dogon (e.g. Tommo So *yé*, Yorno So *yá*, Toro Tegu *á*). In western Dogon, based on current knowledge, only Tebul Ure has an H-toned existential, namely *yé* as in *yé bù-* ‘be (present)’. L-toned western cognates are Dogul Dom *yè* and, most likely, Tiranige *è ~ ò* and Penange *èⁿ ~ è* (assuming they have lost the *y, as in Toro Tegu *á*). Vestiges in Najamba (now suffixed, **following** rather than preceding ‘be’ and ‘not be’) are also L-toned. So, in spite of the Tebul Ure evidence, the tone shift may have been fairly ancient within western Dogon.

In YD, if there are two or more directly chained verbs (only the final verb being inflected), realis *yà* usually precedes the **first** verb in the chain (455). The nonfinal verbs have their regular bare-stem form, either /H/ or /LH/-toned depending on the verb, as they would in any direct chain. However, the final perfective verb, if its protective *yà* is not adjacent, is L-toned. See §15.1 for more on *yà* in direct chains.

- (455) a. $\text{yà} \quad \text{óbí-yó} \quad \text{bèlè-}\emptyset^{\text{L}}$
Real sit-MP get.Pfv-3SgSbj
 ‘He/She was able to sit down.’
 less common alternative: *óbí-yó yà bèlé-∅*
- b. $\text{yà} \quad \text{dòdó} \quad \text{dɔ-à}^{\text{L}}$
Real go.forward arrive.Pfv-3PlSbj
 ‘They went forward.’
 less common alternative: *dòdó yà dɔé-∅*

If the first verb is overtly subordinated rather than directly chained, *yà* follows the subordinated clause and immediately precedes the final inflected verb. If the combination is somewhat tightly knit, as in (456), the subordinated verb can behave like a preverbal constituent (focalized?), in which case *yà* is optionally omitted.

- (456) *úné-y* *yà* *wé-∅*
 " *∅* ^L*wè-∅*
 go-Past.and.then **Real** ^(L)come.Pfv-3SgSbj
 ‘He/She went and came (back).’

Realis *yà* does not regularly combine with imperfective positive verbs. However, it is attested in a kind of **presentative** sense (French *voilà que...*), as in (457), see also (380a-b) above. For other presentatives see §4.4.4.

- (457) *zòmó* *yà* *wó-m-ù*
 hare **Real** come-Ipfv-3SgSbj
 ‘There was Hare coming.’ (excerpt from (783) in Text 4)

11.2.2.2 Locational quasi-verb (*bò-* ~ *bó-* negative *ònú-*)

The positive locational element *bò-* ‘be (somewhere), be present’ or (with location downplayed) ‘exist’ is a defective, stative-only quasi-verb. Its verb-like feature is that it can be conjugated for pronominal subject. Its suppletive negative counterpart *ònú-* ‘not be (somewhere), be absent’ has similar properties. A locational expression (e.g. ‘here’ or ‘in the village’) may be added but is not required.

The positive form *bó-* (with H-tone) regularly follows existential proclitic *yà* (see the preceding section). *yà* is obligatory in the absence of an overt locational. It is optional if a locational is present (its absence suggests that the locational is focalized). *yà* is incompatible with negation.

The H-tone of *bó* in the phrase *yà bó-* is attributable to the *yà*. When the *yà* is omitted, L-toned *bò-* is heard, unless Rhythmic Tone-Raising applies.

- (458) a. *ḡgí* *yà* *bó-∅*
 here **Exist** **be-3SgSbj**
 ‘He/She is here.’
- b. *ḡgí* *bò-∅*
 here **be-3SgSbj**
 ‘He/She is here.’

It is also L-toned in auxiliary function in the progressive construction *-m̀ bò-* (§10.5.2.3).

The pronominal-suffix paradigms of ‘be’ and ‘not be’ are in (459). For the positive ‘be (present)’, the variants with and without *yà* are shown. The “basic” forms require a preceding locational expression.

(459)	category	‘be (present)’		‘not be, be absent’
		basic	after <i>yà</i>	
	1Sg	<i>bò-m</i>	<i>yà bó-m</i>	<i>ònú-m</i>
	2Sg	<i>bò-w</i>	<i>yà bó-w</i>	<i>òn-ú:</i> (< / <i>ònú-w</i> /)
	1Pl	<i>bò-y</i>	<i>yà bó-y</i>	<i>òn-í:</i> (< / <i>ònú-y</i> /)
	2Pl	<i>bò-y</i>	<i>yà bó-y</i>	<i>òn-í:</i> (< / <i>ònú-y</i> /)
	3Sg	<i>bò-∅</i>	<i>yà bó-∅</i>	<i>ònú-∅</i>
	3Pl	<i>b-è:</i>	<i>yà b-é:</i>	<i>òní-yè</i>

These forms can translate existential ‘there is/are...’ and its negation, with a focus on presence/absence rather than on location. An example is (460), where the L-toned ‘meat’ has induced a tonal change on *ònú-∅*.

- (460) *nàmà* *ónù-∅*
 meat **not.be-3SgSbj**
 ‘There is no meat.’ (i.e. ‘We’re out of meat.’)

bò- and *ònú-*, as statives, are aspectually inert. They usually apply to extended time intervals including the present. For a shift to past time, as in ‘X was (present/absent)’, see *bè-* (§11.2.2.3), below. Vowel-length distinguishes 3Pl nonpast/timeless (*yà*) *b-é:* ‘they are (present)’ from 3Sg past (*yà*) *bé-∅* ‘he/she was (present)’.

While H-toned *bó-* in *yà bó-* is evidently due to the *yà*, the question remains whether this is a morphotonological fact (determined by grammatical categories), or a simple matter of Rhythmic Tone-Raising. Possible evidence on this point is that H-toned *bó-* occurs in relative clauses, with *yà* absent (§14.1.7.3). Lexical *bó-* is also supported indirectly by the comments at the end of §11.5.2 below on *yà jèlá-*.

11.2.2.3 ‘Was/were’ (*bè-* ~ *bé-*)

For past time reference, *bò- ~ bó-* ‘be (somewhere)’ is replaced by *bè- ~ bé-*, which has a regular perfective conjugation. The perfective negative with *-lì-* and allomorphs likewise replaces negative *ònú-* ‘not be (somewhere)’ in these past time contexts. No other suffixal categories are attested. The base tone is low in the positive form, but becomes H-toned after an L-toned constituent or particle, including the very common existential *yà*. In the perfective negative, the stem is H-toned (*bá-lì-*).

(463)	category	‘was (present)’		‘was not present, was absent’
		simple	with <i>yà</i>	
	1Sg	<i>bè-m</i>	<i>yà bé-m</i>	<i>bá-lù-m</i>
	2Sg	<i>bè-w</i>	<i>yà bé-w</i>	<i>bá-y-ò</i>
	1Pl	<i>bè-y</i>	<i>yà bé-y</i>	<i>bá-y-è</i>
	2Pl	<i>bè-y</i>	<i>yà bé-y</i>	<i>bá-y-è</i>
	3Sg	<i>bè-Ø</i>	<i>yà bé-Ø</i>	<i>bá-li-Ø</i>
	3Pl	<i>b-à</i>	<i>yà b-á</i>	<i>bá-ñ</i>

No other forms of this verb are attested. However, it may be related historically to the regular active verb *bìyé* ‘remain, stay’.

Conjugated forms of *bè-/bé-* ‘was’ are common as past enclitics with verbs. these combinations show some tonal peculiarities in the stems as well as in the enclitic. See §10.6.1.1-7 for full discussion.

11.2.3 ‘Be (put) in’ (*kùn*)

The defective stative verb *kùn* ‘be in’ combines with existential *yà* as 3Sg *yà kún-Ø* (3Pl *yà kúrⁿ-è*; 1Sg *yà kúrⁿ-ùm*). The irregular negative form 3Sg *kùn-ú-Ø* (3Pl *kùn-íyè*, 1Sg *kùn-ù-mí*), with *n* rather than *rⁿ*, does not allow the existential proclitic. These forms denote location of a focal object inside a container or space. An explicit locational expression is often present but is not obligatory.

- (461) a. *ñjè* [*?áíó* *nà*] *yà* *kún-Ø*
 dog [house Loc] Exist **be.in-3SgSbj**
 ‘(A/The) dog is in the house.’
- b. [*?áíó* *nà*] *kùn-ù-mí*
 [house Loc] **be.in-Neg-1SgSbj**
 ‘I am not in the house.’

Statives are eligible for the “imperfective” subordinator *-mí* (§15.2.1.3). It combines with *kùn* as *kúrⁿ-úm* in (777) in text 1.

11.2.4 ‘Want, like’ (*èbà ~ èbù, nàmà*)

èbà combines with a conjugated encliticized form of *bó-* ‘be’ or with stative negative enclitic allomorph = *lǎ-*. The positive form for nonpast time intervals is *èbà = bó-* ‘want’. For past

time the form is *èbà = bɛ́-* ‘wanted’, parallel to the shift of *bo-* ‘be’ to *bɛ-* ‘was/were’ (§11.2.2.3).

The (nonpast) negative form is *èbù = lǎ́-*, e.g. 1Sg *èbù = lǎ́-m* ‘I do not want’, 3Sg *èbù = lǎ́-∅* ‘he/she doesn’t want’, and 3Pl *èbù = lǎ́-yè* ‘they do not want’. For the negative morpheme, see *=lǎ́-* ‘it is not’ (§11.2.1.2) and *=lǎ́-* in negative adjectival predicates (§11.4.3). For past time, the negative is *èbù = là = bɛ́-* ‘did not want’ (1Sg *èbù = là = bɛ́-m*, 3Sg *èbù = là = bɛ́-∅*).

The complement of ‘want’ may be an NP, as in (462a-b). Subordinated clausal complements are described in §17.5.2 below.

- (462) a. *émé* *èbà = b-ɛ́:*
 milk **want**=be-3PlSbj
 ‘They want (or: like) milk.’
- b. *sòl* *†èbù = lǎ́-m*
 cream.of.millet **want**=StatNeg-1SgSbj
 ‘I don’t want (or: like) cream of millet.’

An alternative to *èbà* is *nàmà*. The (nonpast) positive form is *nàmà = bó-* ‘want’ (1Sg *nàmà = bó-m* ‘I want’). The (nonpast) negative form is *nàmà = ñ-* (3Sg *nàmà = ñ-*, 1Sg *nàmà = nú-m* ‘I don’t want’), with a conjugated form of stative negative (§10.5.3.1). Past forms are *nàmà = bɛ́-* ‘wanted’ and its negation *nàmà = ñ = bɛ́-* ‘didn’t want’. This stative form is possibly related to *nàmíyé* ‘dare (to do)’ (§17.3.1).

11.2.5 Morphologically regular verbs (‘fear’, ‘know’, ‘become’)

Among the verbs that have defective stative paradigms in some other Dogon languages, but that have regular verbal paradigms in YD (distinguishing perfective from imperfective) are *íbí-yé* ‘fear’ and *zùwó* ‘know’.

The regular verb *tíjé* ‘become’ is used in the construction ‘X become Y’ where Y denotes some class of entity that the referent X did not previously belong to.

- (464) *ànàsá:rá* *yà* *tíjé-w*
 white.person Real become.Pfv-2SgSbj
 ‘You-Sg have become a white person.’

The transitive counterpart is *tí:-ndé* ‘transform (X into Y)’. For the *Cv:-ndé* shape, see (305) in §9.3.1.3. The same verbs have other meanings: *tíjé* also ‘pass by’, ‘cross (road, river)’ ‘(bride) transfer to husband’s house’, ‘move (to a new dwelling)’, and (with *bá* as subject) ‘be the wee hours (of the night)’; *tí:-ndé* also ‘pour (into)’, ‘(people) transfer (bride) to husband’s house’, and ‘contaminate (i.e. inject impurities)’

11.3 Quotative verb

Reported quotations are often framed simply by adding uninflectable quotative particle *wà* at the end of the quoted clause. The particle is also usually doubled after the subject. An overt conjugatable ‘say’ verb exists (see below) but is often omitted (§17.1.3). A ‘say’ verb is especially useful in nonveridical inflectional categories that do not simply report a completed prior event, such as imperfective or any negative category.

11.3.1 ‘Say, speak, talk’ (*dǎm*)

One common ‘say’ verb is *dǎm* (< /dǎmú/) ‘say, talk, tell, speak’, a *u*-final stem with a regular bisyllabic paradigm, e.g. perfective negative *dàmà-lí*, imperfective 3Sg *dámá-m-ù*, imperative *dámá*. I translate ‘say’ when it occurs next to a quoted segment, otherwise ‘speak, talk’. There is a homonym *dámá* ‘village’.

This verb is used with a range of quotative complements including jussives. It may take an overt indirect object denoting the original addressee. The postposition for the indirect object may be dative *bèrⁿà ~ ^Hbérⁿá* (§8.1.1) as in (465b) below and (232a), or (what is elsewhere) instrumental-comitative *mì ~ mí* (§8.1.2) as in (235a-b). These indirect objects should be distinguished from quotative-subject phrases as in (465a), which are internal to the quotation. In the absence of quoted material, the default object is the cognate nominal *dòm* ‘talk, speech, language, words’.

- (465) a. *[mì ^Hwá→] [wó nì] dàmà-lí-Ø*
 [1Sg ^HQuotSbj] [come Sbjct] say-PfvNeg-3SgSbj
 ‘He/She didn’t tell me to come.’
- b. *cí-?éjè [ó ^Hbérⁿá] dàmè-Ø*
 what? [2Sg ^HDat] say.Pfv-3SgSbj
 ‘What did he/she say to you-Sg?’
- c. *dòm dàm-nán-Ø*
 talk say-IpfvNeg-3SgSbj
 ‘He/She doesn’t talk.’

11.3.2 ‘Say (sth); call (sth, by name)’ (*gǔn*)

Another ‘say’ verb is *gǔn*, perfective *gùrⁿé*-. While *dǎm* can also simply mean ‘speak’, *gǔn* requires quoted matter or a nominal substitute like ‘what?’ or ‘that’.

- (466) a. *?éjè gùrⁿ-á*
 what? say.Pfv-3PlSbj
 ‘What did they say?’

- b. *wó-m-Ø* *gùrⁿà-ń*
 come-Ipfv-LogoSbj say-PfvNeg.3PlSbj
 ‘They_x didn’t say that they_x were coming.’

gǔn also occurs in the construction meaning ‘X call(s) Y “Z” ’ or ‘X name(s) Y “Z” ’, where Z is the name of a person, species, object type, etc. The verb is usually imperfective here, often with nonspecific 3Pl subject and timeless reference. The noun *ín* ‘name’ may be included in the clause. There is no indirect object. The “Z” phrase is covertly a manner adverbial syntactically, and its interrogative equivalent is ‘how?’ rather than ‘what?’ (467a).

- (467) a. *ńgó* *ànjă:* *gùn-m-è*
 Prox.InanSg how? say-Ipfv-3PlSbj
 ‘How (= what) do they call this?’
- b. [*ín* *nà-ń*] *úmàrù* *gùn-m-è*
 [name(n) 3Sg-Poss.InanSg] O say-Ipfv-3PlSbj
 ‘They call his name (=they call him) Oumar.’

The imperfective negative is *gù-náń-è* ~ *gù-ráń-è* ‘they do not say/call’. This form is slightly irregular versus the expected #*gùn-náń-è*, and one could also hyphenate *gùn-áń-è* ~ *gùr-áń-è*.

11.4 Adjectival predicates

There are three constructions that can be used to translate ‘X is ADJ’, denoting some current adjectival state. The first, getting only brief mention here, is the perfective of the corresponding inchoative verb. For example, (468) literally means ‘the mango became rotten’, but of course such a transition implies a continuing state.

- (468) *mángòrò* *yà* *gòmé-Ø*
 mango Real be.rotten.Pfv-3SgSbj
 ‘The mango has become (=is) rotten.’

For such adjectival inchoative verbs, see §9.5. They have full aspectual paradigms, and in the positive perfective they are preceded by realis *yà* as in (468).

The adjectival predicates to be considered in this section are not of this type. There are two constructions, one with a pronominally conjugated form of *bò-* ‘be’, and one where the pronominal-subject marking is added directly to the adjectival stem. The choice of construction depends on the adjective.

11.4.1 Adjectival predicate with *-m̀ b̀-* ‘be’

In this construction, a suffix *-m̀* appears between the adjective stem and the inflected *b̀-* ‘be’, except when the adjective already ends in a nasal consonant. The H-tone on the suffix is redundant if the adjective already ends in an H-tone.

The construction [ADJ-*m̀ b̀-*] closely resembles the progressive construction in *-m̀ b̀-*, where *-m̀* functions as an unconjugated word-final allomorph of the imperfective morpheme (§10.5.2.3). It is difficult to gloss *-m̀* in adjectival predicates, so I will just label it “-Adj” in interlinears.

An example is *g̀ab̀ú* ‘tall’, which occurs in *g̀ab̀ú-m̀ b̀-*m̀** ‘I am tall’, *g̀ab̀ú-m̀ b̀-*ẁ** ‘you-Sg are tall’, *g̀ab̀ú-m̀ b̀-*ỳ** ‘we/you-Pl are tall’, *g̀ab̀ú-m̀ b̀-*Ø** ‘he/she is tall’, and *g̀ab̀ú-m̀ b̀-*è** ‘they are tall’.

The adjectives that require this predicate construction are listed in (469). One group has audible final *u* in the adjective (469a-b). Those in (469b) are stems of the shape ...*vmu* or ...*vnu* (“v” = vowel). The remaining adjectives of this type end in a sonorant (469c-e), or in a long *i:* that is arguably from /*iy*ⁿ/ (469f). Word-finally after an unclustered sonorant is a position favoring apocope of *u*, and at least some of the stems in (469c-e) may have originally ended in **u*. Overall, (469a-e) shows a strong resemblance to the stem-final distribution of *u* versus zero described for verb stems in §3.5.3.3.

(469) Adjectives with *-m̀ b̀-*

adjective	predicative (‘be ADJ’)	gloss
a. audible final <i>u</i> after obstruent or <i>CC</i> cluster		
<i>è^sú</i>	<i>è^sú-m̀ b̀-</i>	‘good’
<i>g̀ab̀ú</i>	<i>g̀ab̀ú-m̀ b̀-</i>	‘tall’
<i>t̀ùj̀ù</i>	<i>t̀ùj̀ù-m̀ b̀-</i>	‘heavy’
<i>ỳd̀d̀ú</i>	<i>ỳd̀d̀ú-m̀ b̀-</i>	‘soft’
<i>m̀ènz̀ù</i>	<i>m̀ènz̀ù-m̀ b̀-</i>	‘slender’
<i>k̀è:z̀ù</i>	<i>k̀è:z̀ù-m̀ b̀-</i>	‘cold’
<i>ò^r̀̀nd̀ú</i>	<i>ò^r̀̀nd̀ú-m̀ b̀-</i>	‘smooth’
b. like (a) but with <i>u</i> after <i>m</i> or <i>n</i>		
<i>è^mù</i>	<i>è^mù-m̀ b̀-</i>	‘narrow’
<i>d̀èⁿù</i>	<i>d̀èⁿù-m̀ b̀-</i>	‘short’
<i>d̀òⁿù</i>	<i>d̀òⁿù-m̀ b̀-</i>	‘blunt (blade)’
c. final <i>l</i> , perhaps < / <i>lu</i> /		
<i>t̀è^l</i>	<i>t̀è^l-m̀ b̀-</i>	‘fast’
<i>d̀à:l</i>	<i>d̀à:l-m̀ b̀-</i>	‘nasty’
<i>è^l</i>	<i>è^l-m̀ b̀-</i>	‘sweet’
<i>g̀à^l</i>	<i>g̀à^l-m̀ b̀-</i>	‘bitter’
<i>d̀èmb̀ù^l</i>	<i>d̀èmb̀ù^l-m̀ b̀-</i>	‘thick, massive’

d. final <i>yⁿ</i> , perhaps < /y ⁿ ú/		
<i>ʔəyⁿəyⁿ</i>	<i>ʔəyⁿəyⁿ-m̀ b̀-</i>	‘hard’
<i>tòyⁿ</i>	<i>tòyⁿ-m̀ b̀-</i>	‘deep’
<i>wàyⁿ</i>	<i>wàyⁿ-m̀ b̀-</i>	‘spacious’

e. final nasal, perhaps < /nu/ and /mu/		
<i>bĩn</i>	<i>bĩn b̀-</i>	‘fat’
<i>dǎn</i>	<i>dǎn b̀-</i>	‘sour’
<i>nǎm</i>	<i>nǎm b̀-</i>	‘difficult’
<i>gǎm</i>	<i>gǎm b̀-</i>	‘rotten’
<i>àm</i>	<i>àm b̀-</i>	‘good-sized’

f. final <i>i:ⁿ</i> , perhaps equivalent to /iy ⁿ / < /iy ⁿ u/		
<i>sĩ:ⁿ</i>	<i>sĩ:ⁿ-m̀ b̀-</i>	‘sharp’

For the negation, see §11.4.1.3, below.

For **past time**, *b̀-* ‘be’ is replaced by its regular past equivalent *b̀-* ‘was/were’. The conjugation is the same as for inflectable past enclitic = *b̀-* at the end of active and stative verbs (§10.6).

Primary color adjectives like *jèmé* ‘black’ have predicative forms with conjugated ‘it is’ enclitics (see the following section). However, a variant predicative construction with *b̀-* is also attested (470). There are irregularities in the forms of ‘black’ and ‘white’ in this construction.

(470) gloss	adjective	alternative predicate (‘be ADJ’)
‘black’	<i>jèmé</i>	<i>jəm b̀-</i>
‘red’	<i>bǎn</i>	<i>bǎn b̀-</i>
‘white’	<i>pílé</i>	<i>pílé:-m̀ b̀-</i>

A past-time version of this construction substitutes *b̀-* ‘was/were’ for *b̀-* ‘be’ in the above: *jəm b̀-*w** ‘you-Sg were black’ (< *jèmé*), *pílé:-m̀ b̀-∅* ‘he/she/it was white’.

11.4.2 Adjectival predicate with conjugated ‘it is’ enclitic

Consider the predicative paradigms of *jèmé* ‘black’, with and without the adjectival extension in *-í:ⁿ* (471).

(471) ‘be black’

category	predicative forms	
	simple	extended
1Sg	<i>jèmé = m̀</i>	<i>jèm-í:ⁿ = m̀</i>
2Sg	<i>jèmé = ẁ</i>	<i>jèm-í:ⁿ = ẁ</i>
1Pl	<i>jèmé = ỳ</i>	<i>jèm-í:ⁿ = ỳ</i>
2Pl	<i>jèmé = ỳ</i>	<i>jèm-í:ⁿ = ỳ</i>
3Sg	<i>jèmé ~ jèmé = .:</i>	<i>jèm-í:ⁿ = Ø</i>
3Pl	<i>jèmé = mù</i>	<i>jèm-í:ⁿ = yè</i>

At least the 1st/2nd person forms are to be identified as the relevant conjugated forms of the ‘it is’ enclitic after an NP (§11.2.1.1). This is clearest in the 1Sg and 2Sg. The 1Pl/2Pl form is phonologically parallel to the 1Sg and 2Sg, but in contrast to the corresponding post-NP ‘it is’ enclitics, the adjectival predicates do not show fusion with (animate) plural *-m̀*.

In the 3Sg form, I hear the dying-quail effect (prolongation and pitch decline, §3.8.2) sometimes but not consistently, as indicated by the alternative transcriptions for 3Sg in the left-hand column. The dying-quail effect is elsewhere associated with post-NP ‘it is’ enclitics.

Adjectives attested with this predicative construction are listed in (472), in their lexically basic modifying form and in the 3Sg predicative form (showing the dying-quail effect). In contrast to the adjectives that regularly take *-m̀ b̀*- (preceding section), which end in *u* or in a sonorant, those in (472) typically end in a non-high vowel (472a-c). Three exceptional stems ending in final sonorants are in (472d). The adjective ‘red’ may have been influenced by the parallel morphology of the two other primary color adjectives ‘black’ and ‘white’ (472a). When *.:* (dying-quail symbol) follows a word-final sonorant, it indicates that the sonorant itself is prolonged and (if H-toned) declines in pitch. The cases of /L/ shifting to /LH/ related to the issue whether apparent /L/ melody is covertly /LH/ or /L/+H in nouns (§3.7.1.3) and, by extension, adjectives.

(472) Adjectives with ‘it is’ enclitic predicate

adjective	‘3Sg is ADJ’	gloss
a. stem ends in { <i>e e</i> }		
<i>/LH(L)/</i>		
<i>jèmé</i>	<i>jèmé = .:</i>	‘black’
<i>b̀è-b̀élè</i>	<i>b̀è-b̀élè = .:</i>	‘small’
<i>/H/ shifting to HL</i>		
<i>p̀ílé</i>	<i>p̀ílè = .:</i>	‘white’
<i>s̀íyé</i>	<i>s̀íyè = .:</i>	‘good’
<i>s̀émélé</i>	<i>s̀émélè = .:</i>	‘worn-out’

/L/ shifting to LH

<i>izè</i>	<i>izé = .:</i>	‘empty’
<i>sèrè</i>	<i>sèré = .:</i>	‘diluted’

b. stems ends in {o ɔ}

/LH(L)/

[none]

/H/ shifting to HL

<i>kómó</i>	<i>kómò = .:</i>	‘lean’
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/L/ shifting to LH

<i>gòmò</i>	<i>gòmó = .:</i>	‘bad’
<i>kòlò</i>	<i>kòló = .:</i>	‘raw, unripe, fresh’

c. stem ends in a

/LH/

<i>bǎ:</i>	<i>bǎ: = .:</i>	‘full’
<i>dìyá</i>	<i>dìyá = .:</i>	‘big’
<i>zàlá</i>	<i>zàlá = .:</i>	‘long’

/H/ shifting to HL

<i>sátará</i>	<i>sátàrà = .:</i>	‘young’
<i>sálá</i>	<i>sálà = .:</i>	‘bad’

/L/ shifting to LH

<i>nà:rⁿà</i>	<i>nà:rⁿá = .:</i>	‘easy’
<i>kàndà</i>	<i>kàndá = .:</i>	‘new’
<i>àzàlà</i>	<i>àzàlá = .:</i>	‘half-ripe’

d. final sonorant

/LH/

<i>ǎl</i>	<i>ǎl = .:</i>	‘fresh’
<i>bǎn</i>	<i>bǎn = .:</i>	‘red’

(1Sg *bàrⁿú = m̃* etc.)

/L/ shifting to LH

<i>pěy</i>	<i>pěy = .:</i>	‘old’
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For the negation, see §11.4.3, below.

Conjugated past enclitic = *bé-* can be added directly to the adjective stem *nà:rⁿà = bé-Ø* ‘it is’ (e.g. work) was easy’, *sálà = bè-w* ‘you-Sg were bad’.

11.4.3 Negative adjectival and stative predicates (= *lǎ-*)

Both the adjectival predicate construction with *-m bò-* and the rival construction with just the ‘it is’ enclitic are negated by adding a conjugated stative negative = *lǎ-* to the adjective. If the adjective is entirely /L/-toned, the 3Sg form is = *lá-Ø* with a short vowel and H-tone,

compare $\text{\textit{èbù}} = \text{\textit{lá}}-\emptyset$ ‘he/she doesn’t want’ (§11.2.4). If the adjective contains an H-tone, the 3Sg form is $= \text{\textit{lǎ}}:-\emptyset$ with a long vowel and rising tone.

This allomorphy may resolve an analytical problem posed by the 3Sg ‘it is not’ enclitic (used after predicate NPs), always $= \text{\textit{lǎ}}:-\emptyset$, and the 3Sg ‘not want’ $\text{\textit{èbù}} = \text{\textit{lá}}-\emptyset$. See discussion after (449) above.

(473) Negative adjectival predicate (3Sg)

adj	negative predicate	gloss
a. corresponding to $-m \text{\textit{bò}}$ -		
$\text{\textit{gàbù}}$	$\text{\textit{gàbù}} = \text{\textit{lá}}-\emptyset$	‘be not tall’
$\text{\textit{àm}}$	$\text{\textit{àm}} = \text{\textit{lá}}-\emptyset$	‘be not plump’
b. corresponding to ‘it is’ predicate		
$\text{\textit{nà:r}^n\text{\textit{à}}}$	$\text{\textit{nà:r}^n\text{\textit{à}}} = \text{\textit{lá}}-\emptyset$	‘be not easy’
$\text{\textit{bǎ}}$:	$\text{\textit{bǎ}} = \text{\textit{lǎ}}:-\emptyset$	‘be not full’
$\text{\textit{síyé}}$	$\text{\textit{síyé}} = \text{\textit{lǎ}}:-\emptyset$	‘be not good’

The pronominal-subject paradigm is (474). ‘Tall’ exemplifies an /LH/-toned adjective whose final H-tone shifts rightward, ‘good’ an adjective containing an H-tone. The only difference between them in the forms of the enclitic is in the 3Sg form, where H-toned $= \text{\textit{lá}}-\emptyset$ has a short vowel but LH-toned $= \text{\textit{lǎ}}:-\emptyset$ has a long vowel, even when (as usual) it is flattened prepausally to L-toned $= \text{\textit{là}}:-\emptyset$.

(474) subject	‘not be tall’	‘not be good’
1Sg	$\text{\textit{gàbù}} = \text{\textit{là}}-\text{\textit{m}}$	$\text{\textit{síyé}} = \text{\textit{là}}-\text{\textit{m}}$
2Sg	$\text{\textit{gàbù}} = \text{\textit{là}}-\text{\textit{w}}$	$\text{\textit{síyé}} = \text{\textit{là}}-\text{\textit{w}}$
1Pl	$\text{\textit{gàbù}} = \text{\textit{là}}-\text{\textit{y}}$	$\text{\textit{síyé}} = \text{\textit{là}}-\text{\textit{y}}$
2Pl	$\text{\textit{gàbù}} = \text{\textit{là}}-\text{\textit{y}}$	$\text{\textit{síyé}} = \text{\textit{là}}-\text{\textit{y}}$
3Sg	$\text{\textit{gàbù}} = \text{\textit{lá}}-\emptyset$	$\text{\textit{síyé}} = \text{\textit{lǎ}}:-\emptyset$ (prepausally often $\text{\textit{síyé}} = \text{\textit{là}}:-\emptyset$)
3Pl	$\text{\textit{gàbù}} = \text{\textit{lá}}-\text{\textit{yè}}$ ~ = $\text{\textit{l-è}}$:	$\text{\textit{síyé}} = \text{\textit{là}}-\text{\textit{yè}}$ ~ = $\text{\textit{l-è}}$:

For this construction in negative adjectival-predicate comparatives, see §12.1.1.

When $\text{\textit{dè}}$ ‘if’ is added, the enclitics that end in an H-tone (i.e. all but 3Pl $= \text{\textit{lá}}-\text{\textit{yè}}$) drop this final H-tone. If the adjective-enclitic combination is entirely L-toned after this, $\text{\textit{dè}}$ undergoes Rhythmic Tone-Raising, otherwise it remains L-toned: $\text{\textit{gàbù}} = \text{\textit{là}}-\emptyset$ $\text{\textit{dè}}$ ‘if he/she/it is not tall’, $\text{\textit{síyé}} = \text{\textit{lǎ}}:-\emptyset$ $\text{\textit{dè}}$ ‘if he/she/it is not good’, $\text{\textit{gàbù}} = \text{\textit{là}}-\text{\textit{m}}$ $\text{\textit{dè}}$ ‘if I am not tall’. Contrast $\text{\textit{gàbù}} = \text{\textit{lá}}-\text{\textit{yè}}$ $\text{\textit{dè}}$ ‘if they are not tall’. The same tonal behavior occurs before past

enclitic =*bɛ*-. Examples are *gàbù = là = bɛ́*- ‘was not tall’, *síyɛ́ = là: = bɛ̀*- ‘was not good’. The H-tone in *gàbù* ‘tall’ is dropped, or migrates rightward, in these examples.

11.4.4 Extension -*í:n* in adjectival predicates

The extension -*í:n* (occasionally -*yⁿ*) is optionally added to many adjective stems, especially in predicative function. The stem drops to {L}-toned except for the extension itself.

In some other Dogon languages, this extension productively converts adjectives into expressive adverbials. In YD a conspicuous stem-class shift does not appear to occur, to judge by the fact that the extension does not affect the morphosyntax of adjectival predication. However, *bírⁿ-í:n* ‘stout’ in (834) in Text 4 seems to be a nonpredicative adverb. The extension is also subject to the unbounded intonational prolongation of its counterparts in some other languages.

The extension is allowed by most adjectives. Usually it is added to a final consonant, or replaces a final short vowel (475a). In some cases a final non-high, non-rounded vowel is preserved (475b).

(475)	regular	extended	gloss
	a. added to final <i>C</i> or replaces final vowel		
	<i>gàbù</i>	<i>gàb-í:n</i>	‘tall’
	<i>gòmò</i>	<i>gòm-í:n</i>	‘bad’
	<i>nà:rⁿà</i>	<i>nà:rⁿ-í:n</i>	‘easy’
	<i>dèmbùl</i>	<i>dèmbùl-í:n</i>	‘thick, massive’
	<i>băn</i>	<i>bărⁿ-í:n</i>	‘red’
	<i>ěl</i>	<i>ěl-íⁿ</i>	‘sweet’
	<i>kómó</i>	<i>kòm-í:n</i>	‘lean, not plump’ (variant)
	b. final vowel preserved		
	<i>kómó</i>	<i>kómó-yⁿ</i>	‘lean, not plump’ (variant)
	<i>zàlà</i>	<i>zàlá-yⁿ</i>	‘short’
	<i>pílɛ́</i>	<i>pìlè-yⁿ</i>	‘white’
	c. suppletive		
	<i>sálá</i>	<i>sàlà-í:n</i>	‘bad’
	d. not accepted		
	<i>bǎ:</i>	—	‘full’
	<i>kàndà</i>	—	‘new’
	<i>síyɛ́</i>	—	‘good’

The extended form of the adjective requires -*m bò*- as the positive predicate. The negative of -*m bò*- is expressed by =*lǎ*-, and in this case the adjectival word including the extension is

{L}-toned, so the 3Sg form is =*lá-Ø* (476c). For past time, *bè-* replaces *bò-* in the positive (476b), and =*bè-* is added to L-toned =*là-* in the negative (476d).

- (476) a. *gàb-í.ⁿ-m̄* *bò-Ø*
 tall-**Adj**-Ipfv be-3SgSbj
 ‘He/she/it is tall.’
- b. *gàb-í.ⁿ-m̄* *bè-Ø*
 tall-**Adj**-Ipfv be.**Past**-3SgSbj
 ‘He/she/it was tall.’
- c. *gàb-ì.ⁿ = lá-Ø*
 tall-**Adj**=**StatNeg**-3SgSbj
 ‘He/she/it is not tall.’
- d. *gàb-ì.ⁿ = là = bé-Ø*
 tall-**Adj**=**StatNeg-Past**-3SgSbj
 ‘He/she/it was not tall.’

For the use of the extended form in comparative adjectival predicates, where *bò-* is absent and *-í.ⁿ* is directly inflected for subject, see §12.1.1.

11.5 Possessive predicates

11.5.1 ‘Have’ (*zò-*), ‘not have’ (*zò:-n̄-*)

‘X have Y’ is expressed with X as subject and Y as object, as in English. The object is normally indefinite in form (i.e. without determiners). The predicate is a conjugated form of the defective stative quasi-verb *zò-* ‘have’, which does not combine with indicative aspectual categories. The contexts range from (alienable) ownership (‘I have/own a house’), to inalienable possession (‘he has an ear/a sister’), to temporary possession (‘do you have a lighter on you?’).

Because *-zò-* is also the perfective-2 inflectional suffix with regular verbs (§10.3.1.2), one possible morphosyntactic analysis is that the ‘have’ verb is phonologically zero, but requires perfective-2 *-zò-*. Another is that the perfective-2 is structurally a combination of the main verb plus the ‘have’ quasi-verb. (‘Have’ is also part of the progressive construction with *-m̄ zò-*, §10.5.2.1).

In positive utterances, *zò-* requires existential proclitic *yà*. This combination has H-toned *zó-*, like other H- and LH-toned forms required by *yà*. The H-toned form is also found after an L-toned constituent because of Rhythmic Tone-Raising.

- (477) a. *ʔóló* *yà* *zó-m*
house Exist **have-1SgSbj**
‘I have a house.’
- b. [*pè:-mú* *á-tá:ndù*] *yà* *zw-ê:*
[sheep-AnPl An-three] Exist **have-3PlSbj**
‘They have three sheep.’

The negative (‘not have’) is *zò:-ń-*. It contains a stative negative suffix also used with derived stative verbs (§10.5.3). Existential *yà* is not allowed in any negative construction. With referentially nonspecific animate objects, either the singular or the plural may occur (478b). The issue does not arise for inanimates, which have no morphological plural.

- (478) a. *ʔóló* *zò:-nú-m*
house have-**StatNeg-1SgSbj**
‘I do not have a house.’
- b. *pè:(-mú)* *zò:-ɲ-ê:*
sheep(-AnPl) have-**StatNeg-3PlSbj**
‘They don’t have any sheep.’

The positive and negative paradigms are in (479). There is an *n ~ ɲ* alternation in the negative, following a general pattern of palatalizing consonants before 2Sg and 1Pl/2Pl suffixes in negative inflections.

(479) category	‘have’		‘not have’
	basic	with <i>yà</i>	
1Sg	<i>zò-m</i>	<i>yà zó-m</i>	<i>zò:-nú-m</i>
2Sg	<i>zò-w</i>	<i>yà zó-w</i>	<i>zò:-ɲ-ú</i>
1Pl	<i>zò-y</i>	<i>yà zó-y</i>	<i>zò:-ɲ-í</i>
2Pl	<i>zò-y</i>	<i>yà zó-y</i>	<i>zò:-ɲ-í</i>
3Sg	<i>zò-∅</i>	<i>yà zó-∅</i>	<i>zò:-ń-∅</i>
3Pl	<i>zw-ê:</i> ~ <i>zò-yè</i>	<i>yà zw-ê:</i> ~ <i>yà zó-yè</i>	<i>zò:-ɲ-ê:</i>

As with *bó- ~ bò-* ‘be (somewhere)’, there is an issue as to whether the basic tone is H (*zó-*) or L (*zò-*). This boils down to answering the question whether *yà zó-∅* in *yà zó-∅* is H-toned because of the morphotonological control power of *yà*, or because of Rhythmic Tone-Raising. In order to isolate *zó- ~ zò-* from the influence of *yà*, one must add a focalized constituent containing an H-tone, as in (480a). The result here is L-toned *zò-*, but this is not necessarily a window onto its lexical tone, since perfective verbs also occur in tone-dropped form in

focalized clauses. The form in relative clauses is H-toned *zó* (559), which might be evidence for the lexical tone. This is supported indirectly by the comments at the end of §11.5.2 below.

- (480) a. *àmbá:* = .: *ʔóné* *zò-w*
 where?=Foc goat have-2SgSbj
 ‘Where do you-Sg have a goat?’
- b. *àmbá:* = .: *pè:* [†]*zó-w*
 where?=Foc sheep have-2SgSbj
 ‘Where do you-Sg have a sheep?’

In (480b), the L-toned ‘sheep’ triggers Rhythmic Tone-Raising.

Like other statives, ‘have’ and ‘not have’ may be combined with conjugated past enclitic =*bɛ-* (‘X had Y’, ‘X did not have Y’). Depending on the context the forms are *zó:* = *bè-*. See §10.6.1.6 for the forms.

In relative clauses, ‘have’ takes H-toned form *zó* (§14.1.7.3).

11.5.2 *jèlá-* ~ *gèlá-* ‘hold, have’

An alternative to *zó-* ‘have’ is *jèlá-* (variant *gèlá-*) ‘hold, have’. It is most often used in contexts of temporary possession or custodianship. In form it is a derived stative (§10.5.1), cf. regular active verb *jèlí-yé* ‘take hold of’. For the paradigm of *jèlá-* see (396) in §10.5.1. As expected, the negative is formed with stative negative *-ń-*.

- (481) a. *ínjú* *yà* *jèlá-w* *mà*
 water Exist hold.Stat-2SgSbj Q
 ‘Do you-Sg have any water (with you)?’
- b. *ínjú* *jèlà-nú-m*
 water hold.Stat-StatNeg-1SgSbj
 ‘(No) I don’t have any water (with me).’

Existential *yà* is present in positive main clauses like (481a) without a focalized constituent. We have seen that *yà* requires the H-toned form of an immediately following *bó-* ‘be’ or *zó-* ‘have’. In the combinations *yà bó-* and *yà zó-*, it is difficult to determine whether this tonal effect is morphotonological or simply due to Rhythmic Tone-Raising. The latter explanation will not work for *yà jèlá*, since the H-tone in *jèlá* is on the second syllable. This demonstrates that *yà* protects the lexical tone melody of *jèlá* (and by extrapolation that of *bó-* and *zó-*), just as it does (in realis function) with perfective verbs.

12 Comparatives

12.1 Asymmetrical comparatives

12.1.1 Comparative with conjugated adjectival predicate (-í.ⁿ)

In this construction, the ‘more’ particle *sìgà* is possible, but is often omitted. Instead, a conjugatable predicate adjective, with or without an adjectival extension -í.ⁿ (“-Adj-“ in interlinears), is directly combined with a comparandum. The latter is an NP or pronoun plus postposition *dàn*, elsewhere purposive (§8.3.2) but here ‘than’. After an L-toned comparandum, it becomes †*dán* by Rhythmic Tone-Raising (485a,c). Suffix -í.ⁿ occurs with adjectives whose lexical stem ends in *u* or *o*, and with *C*-final adjectives like *bǎn* ‘red’.

- (485) a. *[mì †dán] gǎb-í.ⁿ-Ø*
 [1Sg **than**] long-Adj-3SgSbj
 ‘He/She is taller than I (am).’
- b. *[[mì ^Hʒóʒ] *dàn*] gǎb-í.ⁿ-m*
 [[1SgPoss ^Hyounger.sib] **than**] long-Adj-1SgSbj
 ‘I am taller than my younger (same-sex) sibling (is).’
- c. *[gǎlǎ-gǎl-mù †wó] [kìlè-mù †dán] sèg-í-yⁿè*
 [farmer-AnPl Def.AnPl] [herder-AnPl **than**] many-Adj-3PlSbj
 ‘There are more farmers than herders.’

The paradigm of the conjugated adjective with suffix -í.ⁿ is (486). The vowel is shortened except in the 3Sg. There is no audible distinction between -í-yⁿ and -í.ⁿ, but I distinguish them orthographically to clarify their morphemic composition.

(486) Paradigm of adjectival suffix -í.ⁿ-

category	form
1Sg	-í-m
2Sg	-í-w ⁿ
1Pl	-í-y ⁿ
2Sg	-í-y ⁿ
3Sg	-í. ⁿ
3Pl	-í-y ⁿ è

The **negative** counterpart has the normal negative adjectival predicate (‘is not long’, etc.) with stative negative =*lǎ-* (§11.4.3), plus the comparandum. The adjectival morpheme, elsewhere *-í:ⁿ*, is optional for the stems that allow it. However, when present it is heard as L-toned, unnasalized *-ì:-* for all subject categories. The latter are marked on the suffix added to the negative enclitic.

- (487) *[nà †dán] gàbù = là-mí*
 " " *gàb-ì:-* "
 [3Sg than] long(-Adj)- =StatNeg-1SgSbj
 ‘I am not taller than he/she (is).’

The **past** enclitic may be added to *-í:ⁿ*. The combination is pronounced *-í:-m = bè-* for all subject categories. The *-m* is probably the same as the “imperfective” *-m* in adjectival predicates with following *bò-* ‘be’ (§11.4.1). The subject category is specified in the suffix on the past enclitic (488a). The form may be negated (488b).

- (488) a. *[mì †dán] gàb-í:-m = bè-w*
 [1Sg than] long-Adj-Ipfv=**Past**-2SgSbj
 ‘You were (=used to be) taller than I (was).’
- b. *[mì †dán] gàb-ì:- = là = bé-w*
 [1Sg than] long-be=**StatNeg**=Past-2SgSbj
 ‘You-Sg were not taller than I (was).’

12.1.2 Verbal predicate with *sìgà* ‘more’

The ‘more’ particle *sìgà* can combine with any verbal predicate. The ‘than’ postposition *dàn* (§8.3.2) follows the second comparandum if it is overt. *sìgà* normally directly follows that comparandum, and they are prosodically grouped together. This suggests that *X dàn sìgà* is a syntactic phrase (489a,d). If the second comparandum is not overt, *sìgà* may follow another preverbal constituent (489c).

- (489) a. *sǎydù zá [mì †dán sìgà] ^{L†}ʔǎnà-m-ù*
 S meal [1Sg **than** **more**] ^L eat.meal-Ipfv-3SgSbj
 ‘Seydou eats more than I (do).’
- b. *[nà †dán sìgà] zòbá-m-Ø*
 [3Sg **than** **more**] run-Ipfv-1SgSbj
 ‘I run more than he/she (does).’
- c. *bìdé sìgà yà bìdé-Ø*
 work(n) **more** Real work.Pfv-3SgSbj
 ‘He/She worked more (=did more work).’

- d. [mì †dán sīgà] bìdé ^Lbìdè-Ø
 [1Sg than more] work(n) ^Lwork.Pfv-3SgSbj
 ‘He/she did more work than I (did).’

12.1.3 ‘Surpass’ (nǎŋ)

The verb *nǎŋ* ‘pass by, go past’ can mean ‘surpass’ with respect to some measurable quality. The comparandum is usually a direct object. The domain of comparison may be overt, like ‘wealth’ in (490b).

- (490) a. ó-ý yà nàŋé-m
 2Sg-Acc Real pass.Pfv-1SgSbj
 ‘I have surpassed (=have become better than) you.’
- b. [bèlé ná-ŋ] ó-ý yà nàŋé-Ø
 [wealth 3Sg-Poss.InanSg] 2Sg-Acc Real pass.Pfv-3SgSbj
 ‘His wealth has surpassed you-Sg.’ (= ‘He has become richer than you.’)

12.1.4 ‘Be bigger’ (gòlòyⁿ-)

A conjugatable stem *gòlòyⁿ-* means ‘be bigger (than)’, in various senses including size and (for people) age, as in *gòlòyⁿ-m* ‘I am bigger/older’. It can sometimes be translated as ‘be more (than)’, but if so the context is amount (size) rather than number. The negative counterpart is with the conjugated stative negative enclitic (491b).

- (491) a. yú: [èmà †dán] gòlòyⁿ-Ø
 millet [sorghum than] be.bigger-3SgSbj
 ‘Millet is more (abundant/important) than sorghum.’
- b. yú: [èmà †dán] gòlòyⁿ=lá-Ø
 millet [sorghum than] be.bigger=StatNeg-3SgSbj
 ‘Millet is not more (abundant/important) than sorghum.’

12.1.5 ‘Be better’

12.1.5.1 ‘Be better’ (ùdò-)

‘Be better’ is expressed by a defective stative verb *ùdò-*. When a conjugated form of this verb is pronounced in isolation, the H-tone appears on a suffixal sonorant or, in the third person, on the second stem syllable (492). In sentences with preverbal constituents, *ùdò-* is generally heard as all-L-toned.

(492) ‘be better’

1Sg	<i>ùdò-m</i>
2Sg	<i>ùdò-w</i>
1Pl	<i>ùdò-y</i>
2Pl	<i>ùdò-y</i>
3Sg	<i>ùdò-Ø</i>
3Pl	<i>ùdò-(y)è</i>

The construction is [*X [Y dàn] ùdò-*] ‘X is better than Y’ (493).

- (493) a. *mí [nà †dán] ^Lùdò-m*
 1Sg [3Sg than] ^L**be.better**-1SgSbj
 ‘I am better than he/she (is).’
- b. *ná [mì †dán] ^Lùdò-Ø*
 3Sg [1Sg than] ^L**be.better**-3SgSbj
 ‘He/She is better than I (am).’
- c. *mángòrò [kùdà †dán] ^Lùdò-Ø*
 mango [wild.grape than] ^L**be.better**-3SgSbj
 ‘Mangoes are better than wild grapes (*Lannea microcarpa*).’

The **negation** is with stative negative =*là-* ‘it is not’, with the same syntactic frame. Example: 1Sg *ùdò = là-m* ‘I am not better’.

ùdò- combines with past =*be-* as *ùdò = bé-*.

12.1.5.2 ‘Be better’ (*kày*)

An alternative ‘be better’ predicate is uninflectable *kày*. The negative counterpart is *kày = là* with no further inflection. If the subject is pronominal, it is expressed by a preceding proclitic rather than suffixally. The data do not suffice to make a sharp semantic difference between *kày* and *ùdò-* (preceding section), but several examples I have of *kày* suggest a contextual sense ‘be preferable, more highly valued’.

- (494) a. *[nà:-nàmà †dán] pè:-nàmà kày*
 [cow-meat than] sheep-meat **be.better**
 ‘Lamb meat (mutton) is better than beef.’

- b. *ngó* *dàn,* [*jà:* *á-ŋ* *wò*]
 this.Inan than, [hunger 3LogoSg-Poss.InanSg Def.InanSg]
á-y *kày* *gà*
 3LogoSg-Acc **be.better** Topic]
 ‘(He said:) my hunger (=going hungry) is better than this.’ [from (809) in Text 2]
- c. *zùwó* *bò* †*káy(=là)*
 knowledge 3PlSbj be.better(=Neg)
 ‘They are (not) more knowledgeable.’

12.1.6 ‘Best’ (*gidé = .:*)

A variant of the noun *gidé* ‘front, forward (position)’ can be used as a predicate in superlative sense. The construction is roughly of the form ‘X is front’, or plural ‘Xs are fronts’, with a conjugated form of the ‘it is’ enclitic (§11.2.1.1). The ‘front’ noun agrees with animate plural subjects, so I gloss it ‘leader’ in this construction. The basis of comparison may be added as an adjunct (495c).

- (495) a. *săydù* *gidé = .: -∅*
 Seydou **leader=it.is-3SgSbj**
 ‘Seydou is the best.’
- b. *dògɔ-mù = wò* *gidè-mú = .:*
 Dogon-AnPl=Def.AnPl **leader-AnPl=it.is**
 ‘The Dogon (people) are the best.’
- c. *mí* *nùṅà-nùṅ* *gidé = m̀*
 1SgSbj song-singer **leader=it.is.1SgSbj**
 ‘I am the best singer.’

12.2 Symmetrical comparatives

12.2.1 ‘Be as much as, be as big as’ (*bă:*)

The verb *bă:* ‘be as much as, be as big as’ occurs in symmetrical (egalitarian) comparisons. The normal positive form for present time reference or for timeless statements is the perfective-2 *bà:-zó-*. The very common negative equivalent, which converts a symmetrical comparison into an asymmetrical one, is perfective negative *bà:-lí-* (496b).

- (496) a. *[mènè ?ám = ô:]* *[mènè ó-ŋ = ò]*
 [field 1SgPoss.InanSg=Def.InanSg] [field 2SgPoss =Def.InanSg]
bà:-zó-Ø
be.as.much-Pfv2-3SgSbj
 ‘My field is as big as your-Sg field.’
- b. *[pè: ʒ-yⁿè gè]* *[pè: mí-yⁿè gè]*
 [sheep 2Sg-Poss.An Def.AnSg] [sheep 1Sg-Poss.An Def.AnSg]
bà:-lí-Ø
be.as.much-PfvNeg-3SgSbj
 ‘Your-Sg sheep-Sg isn’t as big as my sheep-Sg.’

Other inflected forms of *bǎ:* occur in special contexts, for example with future time reference. For example, ‘my sheep will be as big as your sheep next year’ requires imperfective *bǎ:-m-ù*.

12.2.2 ‘Attain, equal’ (*kéw-ndí-yé, dǒ*)

Verbs meaning ‘become equal to X’ are *kéw-ndí-yé* ‘become equal, become level’ (inchoative) and *dǒ* ‘arrive at, attain, approach’.

- (497) *[yè ^Hmí] yà kéw-ndí-yé-Ø*
 [1Pl ^HInst] Real **equal-Inch-Inch.Pfv-3SgSbj**
 ‘He/She has equaled us.’

12.3 ‘A fortiori’

A relevant construction is exemplified in (498). The connection with talk is reminiscent of local French *ne parlons pas de* in similar contexts.

- (498) *ózú ún bèle-ná-m,*
 walk(n) go get-IpfvNeg-1SgSbj,
nà→ [zǎbú ^Ldòm gày] = lá:-Ø
 Advers [running(n) ^Ltalk(n) Top]=**it.is.not-3SgSbj**
 ‘I can’t (even) walk, not to mention (=much less) run.’

More generally, the construction is *[X ^Ldòm] = lá:-Ø*, *[X gày] = lá:-Ø*, or combining the two *[X ^Ldòm gày] = lá:-Ø*. Here ^L*dòm* is the {L}-toned possessed form of *dòm* ‘talk’, although there is no audible tonal change. In the ‘it is’ construction, we can distinguish *dòm = .:* ‘it is talk’ (with LHL pitch trajectory and prolonged nasal) from *zǎbú ^Ldòm.:* ‘it is talk of running’ (with flat-low pitch trajectory on the final word). Cf. §3.7.1.1 on (apparent) lexically /L/-toned nouns like *nà:* ‘cow’.

An assistant equates *gày* in (498) with the topic particle (§19.1.1).

13 Focalization and interrogation

13.1 Focalization

There is a sharp distinction between subject focalization, which is highly distinctive in form (§13.1.1-2), and nonsubject focalization (§13.1.3-4) which is rather weakly developed. Subject focalization requires a change in verb form, and positions the focalized subject NP or pronoun in preverbal position (following objects).

Realis or existential *yà* is disallowed when any constituent is focalized.

Focalization is not marked overtly on a focal NP, i.e. there is no focus particle. However, focalized pronominal subjects take proclitic form rather than regular suffixal agreement on the verb.

13.1.1 Subject focalization

The verb takes a special **subject-focalization** form (abbreviation: “SbjFoc”) that includes AN marking (e.g. imperfective positive), has no pronominal-subject agreement, and may have intonation-like prolongation of the final segment. The focalized subject, whether nonpronominal or pronominal, is obligatorily expressed before the verb. For a nonpronominal NP subject, the preferred position is that following other full NPs (including objects) and adverbials (including PPs), but preceding any pronominal object or pronominal PP. Occasionally the focalized NP is clause-initial in the normal subject position, preceding other NPs and/or adverbials.

The two examples in (499a-b) differ only in the AN category marked in the SbjFoc verb (imperfective positive and perfective positive, respectively). The focalized NP ‘Seydou’ follows other NPs (499a-b), but precedes a pronominal object (499c) or a pronominal PP (499d).

- (499) a. *[pè: †gɛ] sǎydù sèmà→*
[sheep Def.AnSg] S slaughter.Ipfv.**SbjFoc**
‘It’s Seydou [focus] who will slaughter the sheep.’
- b. *[pè: †gɛ] sǎydù sèmè→*
[sheep Def.AnSg] S slaughter.Pfv.**SbjFoc**
‘It was Seydou [focus] who slaughtered the sheep.’
- c. *sǎydù mì-y dèmè→*
S 1Sg-Acc hit.Pfv.**SbjFoc**
‘It was Seydou [focus] who hit me.’

- d. *sǎydù* [mi^H bér^Há] *dámè→*
 S [1Sg^H Dat] say.Pfv.**SbjFoc**
 ‘It was Seydou [focus] who told me.’

If the focalized subject is a pronoun, it is expressed a **proclitic** pronominal, like those that occur in nonsubject relatives of the type ‘the man who(m) I saw’ (§4.3.1.1, §14.1.6), e.g. 1Sg *mì* (L-toned) and 2Sg *ó* (H-toned). An L-toned subject pronominal like 1Sg *mì* or 1Pl *yè* triggers Rhythmic Tone-Raising, raising the first syllable of the SbjFoc verb if otherwise L-toned (500a-b,d).

- (500) a. *mì* †*úr^Hò→*
 1**SgSbj** go.Ipfv.**SbjFoc**
 ‘It is I [focus] who will go.’
- b. [*pè:* †*gɛ́*] *mì* †*sémà→*
 [sheep Def.AnSg] 1**SgSbj** slaughter.Ipfv.**SbjFoc**
 ‘It is I [focus] who will slaughter the sheep-Sg.’
- c. [*pè:* †*gɛ́*] *ó* *sémà→*
 [sheep Def.AnSg] 2**SgSbj** slaughter.Ipfv.**SbjFoc**
 ‘It is you-Sg [focus] who will slaughter the sheep-Sg.’
- d. [*pè:* †*gɛ́*] *yè* †*sémà→*
 [sheep Def.AnSg] 1**PlSbj** slaughter.Ipfv.**SbjFoc**
 ‘It is we-Sg [focus] who will slaughter the sheep-Sg.’

A focalized subject pronoun occurs in immediately preverbal position. It obligatorily follows even a pronominal object or a pronominal PP (501a-b).

- (501) a. *mì-yí* *ó* *dímè*
 1Sg-Acc 2**SgSbj** hit.Pfv.SbjFoc
 ‘It was you-Sg [focus] who hit me.’
- b. [*mì* †*béná*] *nà* †*dámè*
 [1Sg †^HDat] 3**SgSbj** say.Pfv.SbjFoc
 ‘It was he/she [focus] who told me.’

13.1.2 Morphology of subject-focalization verbs

13.1.2.1 Positive aspect-negation categories

As noted above, in the presence of a focalized subject the verb takes a special SbjFoc form. It is not a participle since it does not agree morphologically with the subject (or any other NP).

In focalized clauses, marked perfective-system AN categories with syllabic suffixes or auxiliaries (perfective-2, experiential perfect, recent perfect) are uncommon. The dominant form of the subject-focalization form is based transparently on the simple perfective, with the E-stem of the verb. There is no pronominal-subject suffix. The final vowel is optionally **prolonged** especially with monosyllabic verbs. The duration of the prolonged segment is highly variable, as with intonational prolongation. When I hear prolongation, I indicate it with →. The SbjFoc perfective verb is {L}-toned in its basic form. Its first syllable undergoes Rhythmic Tone-Raising after an L-toned pronominal subject or any other entirely L-toned constituent such as *àm* ‘who?’ This verb then surfaces as an <HL> monosyllabic, an H.L bisyllabic, or an H.L.L trisyllabic.

In (502), the regular perfective in its form after realis *yà* is shown alongside the SbjFoc perfective, which does not allow *yà*.

(502) Perfective subject-focalization forms of verbs

perfective after <i>yà</i>	SbjFoc perfective		gloss
	basic	tone-raised	
<i>wé-</i>	<i>wè</i>	<i>wê</i>	‘see’
<i>nǝé-</i>	<i>nǝè</i>	<i>nǝê</i>	‘go in’
<i>gǝé-</i>	<i>gǝè</i>	<i>gǝê</i>	‘go out’
<i>úrⁿé-</i>	<i>úrⁿè</i>	<i>úrⁿê</i>	‘go’
<i>káyé-</i>	<i>kàyè</i>	<i>káyê</i>	‘shave’
<i>ńdé-</i>	<i>ńdè</i>	<i>ńdê</i>	‘give’
<i>ʔǝǝé-</i>	<i>ʔǝǝè</i>	<i>ʔǝǝê</i>	‘eat (meal)’
<i>úbé-</i>	<i>úbè</i>	<i>úbê</i>	‘pour’
<i>bèlé-</i>	<i>bèlè</i>	<i>bélê</i>	‘get’
<i>pídé-</i>	<i>pídè</i>	<i>pídê</i>	‘shut’
<i>tábé-</i>	<i>tábè</i>	<i>tábê</i>	‘touch’
<i>kún-dé-</i>	<i>kún-dè</i>	<i>kún-dê</i>	‘put’
<i>má:né-</i>	<i>má:nè</i>	<i>má:nê</i>	‘think’
<i>íbí-yé</i>	<i>íbí-yè</i>	<i>íbí-yê</i>	‘fear’
<i>níndíyé-</i>	<i>níndíyè</i>	<i>níndíyê</i>	‘listen’

SbjFoc forms based on perfective-2 *-zò-* and on recent perfect *-zè-* were elicited with difficulty: ... *wó-zò* ‘... came’, ... *wò-zé* ‘... has already come’. I was unable to elicit a SbjFoc form with experiential perfect *-téré-*. The simple perfective forms in (503) are predominant in subject-focalization contexts.

The corresponding **imperfective** SbjFoc form of the verb is based on the **A/O-stem**, with obligatorily **lengthened** final vowel. The word is {L}-toned in its basic form, but like the perfective SbjFoc form its onset is raised to H after an L-toned subject pronominal or another entirely L-toned constituent by Rhythmic Tone-Raising.

(503) Imperfective subject-focalization forms of verbs

A/O-stem	subject-focalization		gloss
	basic	tone-raised	
<i>wa-</i>	<i>wà:</i>	<i>wâ:</i>	‘see’
<i>nɔ̃a-</i>	<i>nɔ̃â:</i>	<i>nɔ̃â:</i>	‘go in’
<i>go-</i>	<i>gò:</i>	<i>gô:</i>	‘go out’
<i>urⁿo-</i>	<i>ùrⁿò:</i>	<i>úrⁿò:</i>	‘go’
<i>ka:-</i>	<i>kâ:</i>	<i>kâ:</i>	‘shave’
<i>nda-</i>	<i>ndâ:</i>	<i>ndâ:</i>	‘give’
<i>ʔəpa-</i>	<i>ʔəpâ:</i>	<i>ʔəpâ:</i>	‘eat (meal)’
<i>uba-</i>	<i>ùbâ:</i>	<i>úbâ:</i>	‘pour’
<i>bɛla-</i>	<i>bɛlâ:</i>	<i>bélâ:</i>	‘get’
<i>pido-</i>	<i>pìdò:</i>	<i>pídò:</i>	‘shut’
<i>taba-</i>	<i>tàbâ:</i>	<i>tábâ:</i>	‘touch’
<i>kundo-</i>	<i>kùn-dò:</i>	<i>kún-dò:</i>	‘put’
<i>ma:na-</i>	<i>mà:nâ:</i>	<i>má:nâ:</i>	‘think’
<i>ibi-ya</i>	<i>ìbì-yâ:</i>	<i>íbì-yâ:</i>	‘fear’
<i>nindiyò-</i>	<i>nìndiyò:</i>	<i>níndiyò:</i>	‘listen’

Stative stems derived from regular verbs (like ‘sit’) can also occur in subject-focalization constructions. The verb is an {L}-toned form of the regular stative stem, with no pronominal-subject suffix. Rhythmic Tone-Raising applies under the same conditions as for the perfective and imperfective. Prolongation of the final vowel was observed in some tokens but is not required and appears to be intonational.

(504) Stative subject-focalization forms of verbs

stative	subject-focalization		gloss
	basic	tone-raised	
<i>óbò-</i>	<i>òbò</i>	<i>óbò</i>	‘be sitting’
<i>bìyó-</i>	<i>bìyò</i>	<i>bíyò</i>	‘be lying down’

Stative quasi-verbs also occur in the subject-focalization construction. Their forms are comparable to those of the derived statives shown above. Lengthening of the final vowel is regular with ‘be (somewhere)’ and with the ‘have’ quasi-verb *zò-*. With ‘want’, prolongation was observed in some tokens and is here taken to be intonational (*èbâ→*).

(505) Subject-focalization forms of underived statives

stative	subject-focalization		gloss
	regular	after L-tone	
<i>bó-</i>	<i>bò:</i>	<i>bô:</i>	‘be (somewhere)’
<i>zó-</i>	<i>zò:</i>	<i>zô:</i>	‘have’
<i>èbà-</i>	<i>èbà</i>	<i>ébà</i>	‘want’

In the progressive, the final inflected (auxiliary) verb takes the subject-focalization form and is immediately preceded by a proclitic subject pronominal if there is one.

- (506) a. *bìdɛ̀* *bìdà-m* *mì* [†]*jélà*
work(n) work-Ipfv 1SgSbj Prog.**SbjFoc**
‘It’s I [focus] who am working.’
- b. *bìdɛ̀* *bìdà-m* *ó* *jèlà*
work(n) work-Ipfv 2SgSbj Prog.**SbjFoc**
‘It’s you-Sg [focus] who are working.’

Verbs with past enclitic =*bɛ̀-* also occur in the subject-focalization construction. Attested combinations are the past perfect and the past imperfective. Both the main verb stem and =*bɛ̀-* are L-toned. Rhythmic Tone-Raising can apply to the first syllable of the main verb.

As in unfocalized main clauses, the past perfect is built on the bare stem of the verb, which is not lengthened. The following unconjugated =*bɛ̀* is prolonged intonationally in some but not all examples in the data.

- (507) a. *ó* *gò = bɛ̀*
2SgSbj go.out.Ipfv=**Past**
‘It was you-Sg [focus] who had gone out.’
- b. *mì* [†]*gó = bɛ̀*
2SgSbj come.Ipfv=**Past**
‘It was I [focus] who had come.’

The past imperfective in main clauses is a combination of unconjugated imperfective suffix allomorph -*m̃* plus conjugated past =*bɛ̀-* (§10.6.1). In the subject-focalization construction, the -*m̃* disappears, but the final vowel is lengthened consistently in monosyllabic stems and often in longer stems (508).

- (508) a. *ó* *wò: = bɛ̀*
2SgSbj come.Ipfv=**Past**
‘You-Sg [focus] were coming.’

- b. *nàmà* *mì* †*kúbò: = bè*
 meat 1SgSbj eat.meat.Ipfv=**Past**
 ‘I [focus] was eating meat.’

The same replacement of imperfective *-mì* by a lengthened L-toned vowel occurs in the main-clause past imperfective negative and past stative negative (§10.6.1.2, §10.6.1.6). Somewhat similar modifications also occur in imperfective relative verb forms, see (551) below.

13.1.2.2 Negative aspect-negation categories

The SbjFoc forms of negative verbs follow the general pattern seen above. The verb is inflected for AN category but not for pronominal-subject. It is basically {L}-toned, with the onset subject to Rhythmic Tone-Raising. Intonational prolongation is possible but not required. The basic forms for aspect-marking verbs are perfective negative *-lì* and imperfective negative *-nàn*, which are L-toned like the rest of the verb.

- (509) a. *ó* *ùn-lì*
 2SgSbj go-**PfvNeg**.SbjFoc
 ‘It’s you-Sg [focus] who did not go.’
- b. *mì* †*ún-lì*
 1SgSbj go-**PfvNeg**.SbjFoc
 ‘It’s I [focus] who did not go.’
- c. *ó* *ùn-nàn*
 2SgSbj go-**IpfvNeg**.SbjFoc
 ‘It’s you-Sg [focus] who won’t go.’
- d. *mì* †*ún-nàn*
 1SgSbj go-**IpfvNeg**.SbjFoc
 ‘It’s I [focus] who won’t go.’

The stative negative has *-n* (510).

- (510) *ó* *òbò-n*
 2SgSbj sit.Stat-**StatNeg**
 ‘It’s you-Sg [focus] who is not sitting.’

The underived (lexical) and irregular SbjFoc stative negatives are shown in (511). Intonational prolongation is possible but not required.

(511) Subject-focalization forms of underived negative statives

negative	SbjFoc		gloss
	regular	after L-tone	
<i>ònú-</i>	<i>ònù</i>	<i>ónù</i>	‘not be (somewhere)’
<i>zò-ń-</i>	<i>zò-̀n</i>	<i>zó-̀n</i>	‘not have’
<i>èbù = lá-</i>	<i>èbù = là</i>	<i>ébù = là</i>	‘not want’

The past perfect negative has *-l = bè* (512).

- (512) *ó* *gò-l = bè*
 2SgSbj go.out-PfvNeg=Past.SbjFoc
 ‘It’s you-Sg [focus] who had not gone out.’

The past imperfective negative has *= bá-li* following a lengthened form of the stem, as in main clauses (§10.6.1.2).

- (513) *ó* *ùrⁿò: = bá-li*
 2SgSbj go.Ipfv=Past-PfvNeg.SbjFoc
 ‘It’s you-Sg [focus] who was not going.’

13.1.3 Object focalization

The verb has its regular main-clause form, including AN and subject-pronominal agreement. The focalized object may end in an accusative suffix (or postposition), just as in main clauses. The preferred position for a focalized object is like that of an unfocalized object: following other NPs and adverbs (514c), but preceding a pronominal PP (514d). These features do not clearly characterize a transitive clause as containing a focalized object.

There are two clues suggesting the presence of a focalized constituent other than the verb: a) absence of realis particle *yà* in perfective positive clauses; and b) the {L}-toned form of the final inflected verb.

- (514) a. *̀ngó* *^Lbèlè-m̀*
Prox.InanSg ^Lget.Pfv-1SgSbj
 ‘This [focus] is what I got (or: found).’
- b. *̀ngó-ỳ* *^Lzùwà-m̀-Ø*
Prox.InanSg-Acc ^Lknow-Ipfv-1SgSbj
 ‘This [focus] is what I know.’

- c. *sǎydù* *ngó* ^L*ʔàpè-Ø*
 S **Prox.InanSg** ^Leat.Pfv-3SgSbj
 ‘This [focus] is what Seydou ate.’
- d. *ngó* [*mì* ^H*béná*] ^L*dàmè-Ø*
Prox.InanSg [1Sg ^HDat] ^Lsay.Pfv-3SgSbj
 ‘This [focus] is what he/she told me.’
- e. *ó-y* *dùnó-m* ^L*jèlà-m*
2Sg-Acc look.for-Ipfv ^LProg-1SgSbj
 ‘It’s you-Sg [focus] that I am looking for.’

13.1.4 Focalization of PP or other adverb

As with object focalization, there is no sharp distinction in form between focalized and unfocalized PPs. A focalized PP or adverb has its usual form and there is no systematic relinearization. The absence of realis *yà* in perfective positives (515b) and {L}-toned verbs (515a-b), are clues that a constituent other than the verb is focused.

Instrumental examples are in (515).

- (515) a. *[[séw wò] mì] bìdé-m* ^L*zò-w*
 [[**ax** Def.InanSg] Inst] work-Ipfv ^LProg-2SgSbj
 ‘It’s with the ax [focus] that you-Sg are working.’
- b. *[[séw wò] mì] bìdè-m*
 [[**ax** Def.InanSg] Inst] ^Lwork.Pfv-1SgSbj
 ‘It’s with the ax [focus] that I worked.’

A dative example is (516).

- (516) *[sǎydù bèrⁿà] ^Ltʒè-m*
 [S **Dat]** ^Lsend.Pfv-1SgSbj
 ‘It was to Seydou [focus] that I sent (it).’

A locative example is (517).

- (517) *[[[mì ^Hdé:] ^Lmènè] nà] ^Lgòlà-m-Ø*
 [[[1SgPoss ^Hfather] ^Lfield] **Loc]** ^Ldo.farm.work-Ipfv-1SgSbj
 ‘It’s in my father’s field [focus] that I will farm.’

13.1.5 Focalization of postpositional complement...not!

In PPs, it is not possible to focalize only the NP complement of the postposition. Instead, the entire PP is focalized. See the preceding section.

13.2 Interrogatives

13.2.1 Polar (yes/no) interrogatives (*mà*)

The particle *mà* is added to a main clause to produce a yes/no (polar) interrogative. The pitch is variable across examples, as we would expect from a pragmatically sensitive particle in clause-final position. Intonational prolongation (*mà*→) is possible, but is most common in nonfinal (non-prepausal) position, see below. Allowing for intonational modifications, the basic phonological tone seems to be L. For example, in (518c), where *mà* follows a word ending in H-tone, I do not hear a particularly high pitch on *mà* of the sort that would indicate phonological tone spreading from the preceding word onto the particle.

- (518) a. *éw* *ún-m-ùw* *mà*
 tomorrow go-IPfv-2SgSbj Q
 ‘Are you-Sg going tomorrow?’
- b. *[[dámá wó-ŋ]* *nà]* *àrⁿùŋ* *tégè = bè-Ø* *mà*
 [[village 2Pl-Poss.InanSg] Loc] rain rain.fall=Past-3SgSbj Q
 ‘Has it rained in your-Pl village?’
- c. *wò-lí-Ø* *mà*
 come-IPfvNeg-3Sgs Q
 ‘Didn’t he/she come?’

Yes/no questions provide the addressee with a choice between two polarities (positive, negative) for the relevant eventuality. Both poles of a question may be overtly uttered (519). When *mà* is not followed by a pause, it is usually prolonged intonationally (symbol →). In this context, *mà* can be interpreted either as a polar interrogative (bracketed with the clause to its left) or as the disjunction ‘or’ linking the two clauses. This raises a general problem (as for other Dogon languages) as to whether the polar interrogative and the disjunctive particle are meaningfully distinguishable. For more on disjunctive ‘or’ see §7.2.1.

- (519) *wó-m-ùw* *mà*→ *wò-náj-ù*
 come-IPfv-2SgSbj Q come-IPfvNeg-2SgSbj
 ‘Are you-Sg coming, or aren’t you coming?’

As in many languages, an explicit polar interrogative morpheme is not obligatory in functionally yes-no questions. An alternative in YD to the type with final *mà* is to utter the clause in its usual indicative form, but with an intonational rise on the final syllable.

A polar interrogative clause ending in *mà*→ can function as a ‘whether’ complement with main-clause ‘not know (that/whether ...)’ (§17.2.1).

WH interrogative clauses (i.e. with ‘who?’, ‘where?’, etc.) may also end in *mà* or in a final-syllable intonational rise, though these indicators of interrogation are somewhat redundant in this case.

13.2.2 Content (WH) interrogatives

These interrogative stems are variously nominal (‘who?’, ‘what?’), adverbial (‘how?’ etc.), or adjectival (‘which?’). The syntax of the interrogative clause is predictable from the stem-class category of the interrogative stem. The interrogative word or phrase is **focalized**. This is particularly relevant to ‘who?’ or ‘what?’ as clause subject, which require the subject-focalization form of the verb as described in §13.1.2 above.

The clause-final **question particle** *ma*→ is optionally added to content interrogative clauses.

13.2.2.1 ‘Who?’ (*àm*)

The basic ‘who?’ stem, restricted to human referents, is *àm*. A following verb or other morpheme may get an H-tone by Rhythmic Tone-Raising. The accusative form is *àm-í*. In *ám = .:* ‘who is it?’ with the ‘it is’ enclitic, phonetic [ám̄m̄m̄], *àm* behaves like underlying /ám/ with rising tone, but similar tonal patterns occur with /L/-melody nouns (§3.7.1.3). A possessor form *àm-úŋ* plus the same ‘it is’ enclitic produces the possessor interrogative predicate *àm-úŋ = .:* ‘(it) belongs to whom?’, phonetic [ámúŋŋ]. Where the referent is understood to be nonsingular, the plural form *ámíⁿè* ‘who all?’ is optional.

- (520) a. *àm* ^{L↑}*pílè*
who? ^Lfall.Pfv.SbjFoc
 ‘Who fell?’
- b. *ámíⁿè* ^L*pílè*
who.Pl? ^Lfall.Pfv.SbjFoc
 ‘Who-Pl fell?’
- c. *ám = .:*
who?=it.is
 ‘Who is it?’

- d. [èbà †ná] àm-í: ^Lwè-w
 [market Loc] **who?**-Acc ^Lsee.Pfv-2SgSbj
 ‘Who did you-Sg see in the market?’

For *àm* and plural *àmíyⁿè* as adjectives in the sense ‘which?’ with animate nouns, see §13.2.8, below.

13.2.2.2 ‘What?’ (*ʔə̀nè*, *cì-ʔə̀nè*), ‘with what?’, ‘why?’

The nonhuman interrogative noun ‘what?’ is *ʔə̀nè* (contrast perfective *ʔə̀nè-* ‘ate’). It is optionally extended as *cì-ʔə̀nè* with *kí* ~ *cí* ‘thing’ as compound initial. Both the simple and extended variants may refer to animals as well as to inanimates.

- (521) a. *ɲgó* *ʔə̀nè = ∴*
 Prox.InanSg **what?**=it.is
 ‘What’s this?’
- b. *ʔə̀nè* ^L*ʔə̀nè-w*
 what? ^Leat.Pfv-2SgSbj
 ‘What did you-Sg eat?’
- c. *cì-ʔə̀nè* *ó-y* ^L*bèlè*
 thing-what? 2Sg-Acc ^Lget.Pfv.SbjFoc
 ‘What got you-Sg?’ (= ‘What has happened to you?’),

I was not able to elicit a morphological plural form. However, a conjunction of the type ‘what and what?’ is in use when referring to a multiplicity of object types.

- (522) *ě:* [[*cì-ʔə̀nè* †*mí→*] [*cì-ʔə̀nè* *mì→*]]
 Prox.InanPl [[**thing-what?** and] [**thing-what?** and]]
 ‘These (things) are what and what?’

Not surprisingly, the instrumental form (§8.1.2) of ‘what?’ is used to inquire about the instrument or material used in an activity (523).

- (523) [*cì-ʔə̀nè* †*mí→*] ^L*gòlà-m-ù*
 [what? **Inst**] ^Ldo.farm.work-Ipfv-2SgSbj
 ‘With what (tool) do you work (in the fields)?’

Similarly, ‘why?’ is expressed as ‘for what?’ (524), with purposive postposition *dàn* (§8.3.2).

- (524) [ci-ʔə̀nè †dán] L wò-w
 [thing-what? **Purp**] L come.Pfv-2SgSbj
 ‘Why (= for what?) did you-Sg come?’

An alternative ‘why?’ expression is ʔə̀nè †ní: .

13.2.2.3 ‘Where?’ (*àmbá:*)

The ‘where?’ stem is *àmbá:* . It is common in adverbial function with a motion verb (525a) or with locational quasi-verb *bò-* ‘be (somewhere)’ (525b).

- (525) a. *àmbá:* L ùn-m-ù
where? L go-Ipfv-2SgSbj
 ‘Where are you-Sg going?’
- b. *àmbá:* *bò-y*
where? be-2PlSbj
 ‘Where are you-Pl?’

An assistant rejected the (redundant) use of locative postposition with ‘where?’ (#*àmbá: nà*).

‘It is where?’ (= ‘where is it?’) is *àmbá: = ∴*, pronounced with dying-quail intonation on the final vowel as usual with the ‘it is’ enclitic. This form can also be used to overtly focus ‘where?’

13.2.2.4 ‘When?’ (*à:rⁿà, à:rⁿà gá*)

‘When?’ is *à:rⁿà*, which can be extended by adding the temporal (elsewhere also adverbial) postposition *gà* (§8.2.15) to form *à:rⁿà †gá*.

- (526) a. [à:rⁿà †gá] [yàndà †ná] wò-m-ù
 [**when?** Temp] [Y Loc] come-Ipfv-3SgSbj
 ‘When are you-Sg coming to Yanda?’
- b. *à:rⁿà = ∴*
when?=it.is
 ‘When is it?’

Another expression, which can be used to inquire about the time of day, is *wàkàtù ʔə̀nì †mí→*, literally ‘with which time?’

13.2.2.5 ‘How?’ (*ànjǎ:*)

The basic ‘how?’ manner adverbial interrogative is *ànjǎ:*.

- (527) [*yèndù* †*wó* *ànjǎ:* ^L*yèdè-m-ì*
 [basket Def.InanSg] **how?** ^Lfix-Ipfv-1PlSbj
 ‘How are we going to fix the basket?’

ànjǎ: can combine with the *kán* ‘do’ in the sense ‘do what?’ (cf. French *comment faire?*), where the expected reply is the description of an action.

- (528) *wó* *ànjǎ:* ^L*kàrà-m-ì*
 2Pl **how?** ^Ldo-Ipfv-2PlSbj
 ‘What are you-Pl going to do?’

The combination of ‘how?’ and ‘do’ can also be used in a subordinated clause (‘doing how?’) with same-subject subordinator (§15.2.3), as in (529).

- (529) [*ànjǎ:* *kàrà-é:*] *yé* ^L*gò-m-ìy*
 [**how?** **do-NonPast.and.SS]** 1Pl ^Lgo.out-Ipfv-1PlSbj
 ‘(By) doing what (=how) are we going to get out?’

13.2.2.6 ‘How much/many?’ (*àṅà*)

With *àṅà* ‘how much?’ or ‘how many?’, if the noun denoting the unit type or substance is overt, it precedes the interrogative (animate nouns take plural *-mù*). The noun retains its usual tones, showing that *àṅà* behaves tonosyntactically like a numeral rather than like a modifying adjective. The interrogative may follow in the unprefixated form *àṅà*, or (often) it takes a prefixal classifier from the set also used by numerals (§4.7.1.2). The prefixated inanimate form is *yè-àṅà*. The animate plural form is either *á-àṅà* (pronounced [áʔàṅà] with a glottal stop separating the two *a* vowels) or *bó-àṅà*. The initial H-tone on *-àṅà* in *yè-àṅà* is due to Rhythmic Tone-Raising after the L-toned classifier.

- (530) a. [*pè:-mù* *á-àṅà*] ^L*èbè-w*
 [sheep-AnPl **how.many?**] ^Lbuy.Pfv-2SgSbj
 ‘How many sheep did you-Sg buy?’
- b. *wó* [*nèm* *yè-àṅà*] *zò-y*
 2Pl [salt Inan-**how.much?**] have-2PlSbj
 ‘How much salt do you-Pl have?’

The distributive reduplication *àṅà-àṅà* is used to ask ‘how much?’ per unit (e.g. of sale). The ordinal is *àṅày-nò* or *àṅà-nè* ‘how-many-eth?’ (French *quantième?*).

13.2.2.7 ‘Which?’ (*àṅgó*, etc.)

àṅgó and associated forms meaning ‘which?’ are interrogative modifying adjectives that may follow a noun (or a fuller core NP). The preceding noun is tone-dropped as usual with nouns before adjectives: *ʔáíó* ‘house’, *ʔàíó^L àṅgó* ‘which house?’. The forms of ‘which?’ agree with the referent in animacy and number (531). For animates, the singular variant *àm* and plural *àmíyⁿè* are identical to the corresponding ‘who?’ interrogatives (§13.2.2.1). In animate plural NPs, plural suffix *-mù* is optionally present on the noun preceding *àmíyⁿè*.

(531) ‘Which?’

<i>àṅgó</i>	inanimate singular
<i>àyé</i>	inanimate plural
<i>àṅgé ~ àm</i>	animate singular (cf. <i>àm</i> ‘who?’)
<i>àmíyⁿè</i>	animate plural (also ‘who?-Pl’)

For the animate forms, compare demonstrative *àṅgé* ‘this’, plural *àmíyè* (§4.4.2.1).

Examples are in (532).

- (532) a. *[kòdò^L àṅgó]* *èbà-w*
 [calabash^L **which?**.InanSg] want-2SgSbj
 ‘Which calabash do you-Sg want?’ (*kòdò*)
- b. *[nà:-mù^L àmíyⁿè]* *sèmà-m-ìy*
 [cow-AnPl^L **which?**.AnPl] slaughter-Ipfv-1PlSbj
 ‘Which cows will we slaughter?’

The partitive construction ‘which of/from (a set)?’ is expressed by combining the appropriate ‘which?’ form with a locative PP (533). The PP here is tonally independent of the ‘which?’ form.

- (533) *[[[nà:-mù ó-mù]* *bèrⁿà nà]*
 [[[cow-AnPl 2Sg-Poss.AnPl] **interior** **Loc**]
àṅgé dòrⁿà-m-ùw
which?.AnSg sell-Ipfv-2SgSbj
 ‘Which of your-Sg cows will you sell?’
 (lit.: “Inside your cows, which ...”)

13.2.3 Embedded interrogatives

Interrogatives are commonly embedded, especially with ‘know’ or ‘be aware (of)’ in the higher clause.

Two types of embedded polar (yes/no) interrogatives are in (534). In (534a), the pronominal subject of the embedded clause is expressed with quotative subject (QuotSbj) *wà* (§17.1.2), and the verb ('come') is not inflected for pronominal-subject category. In (534b), by contrast, the embedded interrogative has exactly the same form, including pronominal-subject inflection on the verb, that it would have if it were an unembedded main clause ('Are they here, or not?'). In context, the truth of the embedded clause is presupposed in (534a) but not in (534b). This distinction (crucial in English, hence *that* versus *whether*) is not important in YD.

- (534) a. *[mì* ^H*dé:]* *[mì* ^H*wá→]* *[yà* *wé* *mà→]*
 [1SgPoss ^Hfather] [1Sg ^HQuotSbj] [Real come.Pfv **Q**]
sò: *zó-n-∅*
 awareness have-StatNeg-3SgSbj
 'My father is not aware that I have come.'
- b. *[ɲgí* *yà* *b-é:* *mâ→]* *[òni-yè* *mâ→]* *zùwà-rá-m*
 [here Exist be-3PlSbj **Q**] [not.be-3PlSbj **Q**] know-IpfvNeg-1SgSbj
 'I don't know whether they are here or not.'

The following embedded content (WH) interrogatives should be understood to be followed by, and embedded under, 'I don't know...' (*zùwà-rá-m*) or a similar phrase.

In one construction, the embedded clause has its normal main-clause interrogative form, including the relevant WH interrogative like 'who?' (535).

- (535) (I don't know...)
- a. *àm* [†]*wô:* *mâ→*
who? come.Ipfv.SbjFoc **Q**
 '... who is coming.'
- b. *cì-ʔə̀nè* ^{L†}*ʔə̀nà-m-ì* *mâ→*
what? ^Leat-Ipfv-1PlSbj **Q**
 '... what we will eat.'
- c. *àmbá:* *b-è:* *mâ→*
where? be **Q**
 '... where they are.'

In the alternative construction, the WH interrogative is replaced by the corresponding semantically light noun denoting an ontological category ('who?' → 'person', 'what?' → 'thing', 'where?' → 'place', 'when?' → 'time', etc.). The embedded interrogative clause is converted into a relative clause with this light noun as (L-toned) head. The construction is therefore literally of the type 'I don't know the person who... (the thing that..., the place where ...)'.

(536) ('I don't know...')

a. *ɔmɔ*^L *ó* *bò*
place^L 2SgSbj be
'...the place where you-Sg are'

b. *nò*^L *wó:* *gè*
person^L come.Ipfv.Rel.AnSg Def.AnSg
'...the person who will come'

14 Relativization

14.1 Basics of relative clauses

The following are the major structural features of relative clauses in YD.

- there is **no relative morpheme**;
- the regular verb of a main clause (inflected both for aspect-negation and pronominal subject) is replaced by a **relative verb** that includes aspect-negation marking but no pronominals;
- for negative categories, and some marked perfective categories, the form (mainly tonal) of the relative verb distinguishes **subject** from **non-subject** relatives;
- imperfective positive relative verbs show partial agreement with the animacy and number categories of the head NP, as in (595a-d); other AN categories allow only the animate plural suffix *-mù* on the relative verb;
- the head NP is seemingly **bifurcated** into an **internal head** consisting maximally of N-Adj-Num plus a possessor, and a **coda** following the relative verb and consisting of determiners and non-numeral quantifiers ('each', 'all'); the determiners agree with the head NP in animacy and number;
- the internal head is subject to **tone-dropping**;
- **doubling** of the noun of the internal head following the relative verb, as in some Dogon languages, has not been observed;
- nonpronominal **possessors**, even if adjacent to the possessed NP (i.e. in alienable possession), are not included in the tone-dropping domain, but they lose their power to control a tone overlay on the possessed NP when the latter is relative head;
- **proclitic** pronominal possessors (which are obligatory in inalienable possession) are tone-dropped along with the possessed noun;
- in non-subject relatives. if the subject is pronominal it is expressed by a set of pronominal **proclitics**, which have a mix of L and H tones;
- if a **possessor** is the head, it takes regular internal-head form, but it no longer controls a tone overlay on the possessed NP, which reverts to its unpossessed form;
- when an NP complement of a **postposition** is relativized on, the postposition is either omitted or appears in its usual postnominal position, in L-toned form that could be interpreted either as lexical or as due to its being included in the domain of tone-lowering.

The apparent bifurcation of the head NP into a string whose maximal form is Poss-N-Adj-Num, constituting the internal head, and a separate string maximally Det-Quant (plus discourse functional 'only', 'even', etc.), constituting a rump-like postverbal coda, makes little sense syntactically or otherwise. The same issue arises with relatives in most other Dogon languages.

The solution is to think of the entire NP as having the form Poss-N-Adj-Num-RelCl-Det-Quant, with the relative clause located between the numeral and the determiner. The relative clause has an NP in some function (subject, object, etc.) that is coindexed to the entire higher NP. The string to the left of the relative clause, i.e. Poss-N-Adj-Num, then slides into the relativization site within the clause.

14.1.1 Coordinated relatives with a shared head

Instead of two relatives with a shared head NP, when two same-subject clauses are involved the first is expressed as a same-subject subordinated clause as usual, with *-é:* ~ *-é:* on the verb (§15.2.3) or some similar chaining form. Only the final verb has relative form. For examples see §14.1.8 below.

14.1.2 Tone-dropping on the internal head in a relative clause

Fieldwork on relative-clause tone-dropping was difficult for YD especially in connection with internal head NPs that contain numerals and other elements. This is probably because of the classifying prefix that adds an extra syllable to numerals in this language. My first assistant would typically pronounce the tones on the same sequence differently in repetitions, making it difficult for the linguist to discern a basic pattern. Some occurrences would sound like independent NPs (not relative heads), others would show systematic tone-lowering, and others were intermediate. My second assistant had more consistent tone patterns and I base the analysis chiefly on data from him. For him, the noun and all postnominal elements within the internal head NP were subject to tone-dropping (if not already tone-dropped), except that H-toned classifying prefixes on numerals often escaped tone-dropping, i.e. functioning as tiny, monosyllabic islands.

In the formulae in (537), the middle column shows the form taken by an NP as internal relative-clause head. A tonosyntactic superscript attached to a bracketed phrase is understood to take the entire bracketed string as its domain. For example, $[N \text{ Adj}]^L$ is understood to be expressed as $N_L \text{ Adj}_L$ with both words tone-dropped. Brackets are omitted if only one word is targeted. $\subset \dots \supset$ enclose tonosyntactic islands, i.e. strings that resist further tonosyntactic targeting.

(537)	regular	as internal head NP	gloss
	a. $N \rightarrow N^L$		
	<i>gà:ⁿ</i>	<i>gà:^{nL}</i>	‘cat’
	<i>ʔóló</i>	<i>ʔóló^L</i>	‘house’
	<i>pê:</i>	<i>pê:^L</i>	‘sheep’
	<i>nà:</i>	<i>nà:^L</i>	‘cow’

- b. [N^L Adj] → [N Adj]^L
- | | | |
|------------------------------|---|-------------|
| <i>gà:^{nL} jémé</i> | <i>[gà:ⁿ jèmè]^L</i> | ‘black cat’ |
| <i>gà:^{nL} pílè</i> | <i>[gà:ⁿ pìlè]^L</i> | ‘white cat’ |
| <i>gà:^{nL} pèy</i> | <i>[gà:ⁿ pèy]^L</i> | ‘old cat’ |
- c. animate plural N-*mù* → N-*mù*^L
- | | | |
|---------------------------|---------------------------------------|------------|
| <i>gà:ⁿ-mù</i> | <i>gà:ⁿ-mù^L</i> | ‘cats’ |
| <i>pè:-mú</i> | <i>pè:-mù^L</i> | ‘sheep-Pl’ |
| <i>nà:-mù</i> | <i>nà:-mù^L</i> | ‘cows’ |
- d. [N^L Adj-*mù*] → [N Adj-*mù*]^L
- | | | |
|---------------------------------|--|--------------|
| <i>gà:^{nL} jémé-mù</i> | <i>[gà:ⁿ jèmè-mù]^L</i> | ‘black cats’ |
| <i>gà:^{nL} pílè-mù</i> | <i>[gà:ⁿ pìlè-mù]^L</i> | ‘white cats’ |
| <i>gà:^{nL} pèy-mù</i> | <i>[gà:ⁿ pèy-mù]^L</i> | ‘old cats’ |
- e. [N Num] → [N (≡Prefix-≡)Num]^L or [N (Prefix-)Num]^L
- | | | |
|------------------------|---------------------------------------|--------------|
| <i>ʔóló yè-nó:</i> | <i>[ʔàlò c-yè-≡ nò:]^L</i> | ‘two houses’ |
| " " | <i>[ʔàlò yè-nò:]^L</i> | " " |
| <i>án-mù (bó-)kúlé</i> | <i>[àn-mù ≡bó-≡kùlè]^L</i> | ‘six men’ |
| " " | <i>[àn-mù (bò-)kùlè]^L</i> | " " |
| <i>án-mù (á-)kúlé</i> | <i>[àn-mù (≡á-≡)kùlè]^L</i> | ‘six men’ |
| " " | <i>[àn-mù (â-)kùlè]^L</i> | " " |
- f. [N^L Adj Num] → [N Adj (≡Prefix-≡)Num]^L
or [N Adj (Prefix-)Num]^L
- | | | |
|---|--|------------------|
| <i>gà:^{nL} jémé-mù (á-)nó:</i> | <i>[gà:ⁿ jèmè-mù (≡á-≡)nò:]^L</i> | ‘two black cats’ |
| " " | <i>gà:^{nL} jèmè-mù (â-)nò:</i> | " " |
| <i>gà:^{nL} pílè-mù á-nó:</i> | <i>[gà:ⁿ pìlè-mù (≡á-≡)nò:]^L</i> | ‘two white cats’ |
| " " | <i>gà:^{nL} pìlè-mù (â-)nò:^L</i> | " " |
| <i>gà:^{nL} pèy-mù á-nó:</i> | <i>[gà:ⁿ pèy-mù (≡á-≡)nò:]^L</i> | ‘two old cats’ |
| " " | <i>gà:^{nL} pèy-mù (â-)nò:^L</i> | " " |
- g. [N Poss]] → [N Poss]^L
- | | | |
|-------------------------------|---|-----------|
| <i>ʔóné mí-yⁿè</i> | <i>[ʔàné mì-yⁿè]^L</i> | ‘my goat’ |
|-------------------------------|---|-----------|

Now consider the NPs with preposed nonpronominal **possessors** in (538), and the form they take as relative-clause heads. A double strike-through in a superscript as in ≡N^L indicates cancellation of an earlier tonosyntactic overlay.

(538)	regular	head NP	gloss
a.	$[\text{Poss } ^L\text{N}] \rightarrow \subset \text{Poss} \supset ^L\text{N}^L$ <i>ámìrù</i> ^L ʔàlò	$\subset \text{ámìrù} \supset$ ^L ʔàlò ^L	‘chief’s house’
b.	$[\text{Poss } ^H\text{N}] \rightarrow \subset \text{Poss} \supset ^H\text{N}^L$ <i>ámìrù</i> [<i>nà</i> ^H dé:]	$\subset \text{ámìrù} \supset$ [<i>nà</i> ^H dè:] ^L	‘chief’s father’
c.	$[\text{Poss } ^H\text{N}] \rightarrow [\text{Poss } ^H\text{N}]^L$ (for pronominal possessor) <i>ó</i> ^H dé:	$[\text{ò}$ ^H dè:] ^L	‘your-Sg father’
d.	$[[\text{Poss } ^H\text{N}] ^L\text{N}] \rightarrow \subset \text{Poss } ^H\text{N} \supset ^L\text{N}^L$ <i>[ó</i> ^H dé:] ^L ʔàlò	$\subset \text{ó}$ ^H dè:] ^L ʔàlò ^L	‘your father’s house’

A nonpronominal possessor like ‘chief’ in (538a) is not subject to tone-dropping controlled by the relative clause. The alienable possessum ‘house’ is tone-dropped, but it is indeterminate whether this is controlled by the possessor, by the relative clause, or by both jointly or redundantly. This is always the case with alienably possessed NPs as relative heads because alienable possessors and relative clauses control the same {L} overlay.

Inalienable possession involves {H} or {LH} overlay on the possessum, so in (538b) it is clear that the relative clause overrides the possessor as controller of the possessum. In the “regular” column, possessed ‘father’ is H-toned ^Hdé:, but it is tone-dropped as relative head.

Comparison of (538b) with (538c) shows that a nonpronominal inalienable possessor ‘chief’ retains its lexical tones even when ‘chief’s father’ is relative head. This accounts for the island notation. By contrast, a pronominal proclitic functioning as inalienable possessor is included in the domain of tone-dropping controlled by the relative clause. This is moot in (538b), since 3Sg proclitic *nà* is already L-toned lexically, but it is overt in (538c), where H-toned 2Sg *ó* is tone-dropped along with ‘father’ when functioning as relative head.

(538d) illustrates stacked possession. The subordinated possessor (‘your father’) is not subject to tone-dropping controlled by the relative clause, so it appears in island notation. The higher possessed noun (‘house’) is tone-dropped, but as in (538a) it is indeterminate whether the tone-dropping is controlled by its possessor ‘your father’ or by the relative clause, or jointly (redundantly) by both, so I hedge by putting the ^L superscript on both sides.

One might extrapolate from the inalienable cases (538b-c), where the relative clause overrides the possessor, to the alienable cases, and make the judgement that even in the alienable cases the relative clause overrides the possessor. Doing so would not be unreasonable. However, I refrain from it since alienable and inalienable possession are so different in general in this language.

The next few examples are complete sentences containing relatives. (539a) illustrates tone-dropping of a postnominal possessor (‘your’), cf. formula (537g) above. (539b) confirms that a nonpronominal possessor (‘chief’) is a tonosyntactic island and so is not tone-dropped. In this example, the possessor-controlled {L} on ‘house’ is reinforced or replaced by a homophonous {L} controlled by the relative clause. (539c) confirms that the inalienable possessor-controlled {LH} on ‘uncle’ is replaced by the relative-controlled {L}. (539d) adds

a modifying adjective to ‘uncle’. (539c-d) show that a preposed pronominal possessor (which occurs with kin terms) is tone-dropped along with the noun (and adjective), though this is audible only for an H-toned pronoun like 2Sg *ó*.

- (539) a. $[[\text{ʔàlò} \quad \text{ò-ŋ}]^L \quad \text{pílè-zò} \quad \text{wò}]$
 [[house 2Sg-Poss.InanSg]^L fall-Pfv2.Rel Def.InanSg]
àmbá: *bò-∅*
 where? be-3SgSbj
 ‘Where is [your-Sg house that fell]?’ (< *ʔáló ó-ŋ* ‘your house’)
- b. $[[\text{ámì:rò} \supset \quad \text{ʔàlò}^L] \quad \text{pílè-zò} \quad \text{wò}]$
 [[chief house]^L fall-Pfv2.Rel Def.InanSg]
àmbá: *bò-∅*
 where? be-3SgSbj
 ‘Where is [the chief’s house that fell]?’ (< *ámì:rò ʔàlò* ‘chief’s house’)
- c. $[\text{ò} \quad \text{ìèzù}^L \quad \text{pílé} \quad \text{gè}]$
 [2SgPoss uncle]^L fall.Pfv.Rel Def.AnSg]
àmbá: *bò-∅*
 where? be-3SgSbj
 ‘Where is [your uncle who fell]?’ (< *ó ʰìèzù* ‘your-Sg uncle’)
- d. $[\text{ò} \quad \text{ìèzù} \quad \text{gòmò}^L \quad \text{pílé} \quad \text{gè}]$
 [2SgPoss uncle nasty]^L fall.Pfv.Rel Def.AnSg]
àmbá: *bò-∅*
 where? be-3SgSbj
 ‘Where is [your evil uncle who fell]?’ (< *ó ʰìèzù ʰgòmò* ‘your-Sg nsaty uncle’)

To repeat, elicitation with another assistant produced a more varied and less systematic data set, reflecting the prosodic heaviness and tendency toward chunkiness of multi-word relative heads in YD.

14.1.3 Restrictions on the head NP in a relative clause

A personal pronoun cannot directly head a relative, but it may occur as an independent pronoun in apposition to the head of a relative, which may be covert (540a) or a noun such as ‘person’.

- (540) a. *yé* *[ŋgí* *bó-m = ò:]* *àbà-y-í*
 1PI [here be.Rel=Def.AnPI] accept-PfvNeg-1PISbj
 ‘We (the ones) who are here do not accept (=we refuse).’

- b. *yé* [*ó* *nò*^L *gòlò* *gòlá:* *gè*]
 1Pl [2Sg person^L farming(n) do.farm.work.Ipfv.Rel Def.AnSg]
^L*bàdà-m-i*
^Lhelp-Ipfv-1PlSbj
 ‘We will help you-Sg the person who is farming.’

14.1.4 Relative clause with conjoined NP as head

The elicited example (541) has a conjoined head NP. I heard numerous repetitions of it and there was no sign of tone-dropping on either coordinand. I conclude that a conjoined NP is a tonosyntactic island that is impervious to relative-clause-head tone-dropping.

- (541) [_C[[*yè-mù* [†]*mí*→] [*án-mù* *mì*→]]_C *zá:nìy"à-m = ò:*
 [_C[[woman-AnPl **and**] [man-AnPl **and**]]_C squabble-AnPl=Def.AnPl]
àmbá: *b-è:*
 where? be-3PlSbj
 ‘Where are the women and men who squabbled?’

Examples like this are fairly uncommon in practice. Most English-type relatives with conjoined head NPs are expressed in YD as conjunctions of two entire relative constructions. For example, ‘the women and men who eat here’ is phrased in YD as ‘[the women who eat here] and [the men who eat here]’. This rephrasing is impossible in (541), which involves reciprocal activity.

14.1.5 Headless relative clause

A predictable, contextually understood, or nonspecific indefinite head NP may appear as a semantically light ontological noun (‘thing’, ‘person’, ‘critter’, ‘place’, ‘time’) (542a). Alternatively, it may be omitted, resulting in a superficially headless relative (542b).

- (542) a. [*kí*^L *mì* *ébà* *wò*] *ngí* *ònú-Ø*
 [**thing**^L 1SgSbj want.Rel Def.InanSg] here not.be-3SgSbj
 ‘The thing that I want isn’t here.’ (< *kí*)
- b. [*mì* *ébà* *wò*] *ngí* *ònú-Ø*
 [1SgSbj want.Rel Def.InanSg] here not.be-3SgSbj
 ‘What I want isn’t here.’

For headless relatives as complements, see §17.5.1 (‘consent’) and §17.5.2 (‘want’). For headless relatives as adverbial clauses, see §15.4.3.

14.1.6 Proclitic subject pronominal in nonsubject relative

In nonsubject relatives, if the subject happens to be a pronoun it is expressed by a pronominal proclitic (§4.3.1.1), immediately preceding the relative verb. The paradigm is (543). Some proclitics are H-toned (2Sg, 3Logophoric), others L-toned. The same proclitics forms occur in inalienable possessor function with kin terms; see (186) in §6.2.4.1. Proclitics differ from independent pronouns in that the latter are all H-toned.

(543) Subject pronouns in nonsubject relative clauses

1Sg	<i>mì</i>
2Sg	<i>ó</i>
1Pl	<i>yè</i>
2Pl	<i>wò</i>
3Sg	<i>nà</i>
3Pl	<i>bò</i>
3Logo (Sg=Pl)	<i>á</i>

Some examples of nonsubject relatives with pronominal subjects are in (544).

- (544) a. *ʔàlò^L* *mì* *ébé* *wò*
house^L **1SgSbj** buy.Pfv.Rel Def.InanSg
‘the house that I bought’
- b. *izèn^L* *ó-ý* *bò* *wé* *wò*
day^L 2Sg-Acc **3PlSbj** see.Pfv.Rel Def.InanSg
‘the day (when) they saw you-Sg’
- c. *ámò^L* [*pè:* †*gé*] *ó*
place^L [sheep Def.AnSg] **2SgSbj**
sémá-ŋ *wò*
slaughter-Ipfv.Rel.InanSg Def.InanSg
‘the place (where) you-Sg will slaughter the sheep-Sg’

The only form that can intervene between a preverbal subject pronoun and the relative verb is a preceding chained verb; see §14.1.8.

14.1.7 Relative verb

The relative form of the verb lacks pronominal-subject suffixation. It does mark the AN category. In the imperfective positive there is also partial marking of the intrinsic nominal category (animacy/number) of the head NP, giving the verb a partial participial structure. Intrinsic categories of the head are expressed more reliably by a postverbal determiner, which may follow a relative verb of any AN category. I therefore do not generally refer to the YD relative verb as a participle.

14.1.7.1 Relative forms of positive perfective-system verbs

The verb in a perfective positive relative (abbreviation “Pfv.Rel”) is tonally and often segmentally identical to the main-clause conjugated simple perfective stem. However, E-stem vocalism (final *e* ~ *ɛ*) is implemented less strictly in relative perfective verbs than in the main-clause perfective. In particular, when the relative verb is followed by a definite marker or by animate plural *-mù-*, stem-final *o* and *ɔ* often, but not always, shift to *e* and *ɛ*, respectively, especially with bisyllabic and longer stems that also have rounded vowels in nonfinal syllables. My sense is that the vocalism is structurally the E-stem, complicated by low-level assimilations. See the parenthesized variant pronunciations in (546a-d) below.

The tones are /H/ or /LH/ based on lexical melodies, as in the main-clause perfective stem. /LH/ is realized on trisyllabics as L.H.H with the tone break at the leftmost syllable boundary. Since the initial L-tone is confined to at most one syllable, the verb is not subject to Rhythmic Tone-Raising triggered by a preceding L-toned constituent.

There is no distinction in form between nonsubject and subject relative perfective verbs. For animate plural head NP, the usual animate plural suffix *-mù* is added to the verb. Realis proclitic *yà* does not occur in relative clauses.

(545) Perfective relative verb

bare	perfective	Pfv.Rel	gloss
a. monosyllabic with mid-height vowel			
<i>/H ~ H/</i>			
<i>nɔ́</i>	<i>nɔ́é-</i>	<i>nɔ́é</i>	‘go in’
<i>yé</i>	<i>yé-</i>	<i>yé</i>	‘weep’
<i>tó:</i>	<i>tɔ́é-</i>	<i>tɔ́é</i>	‘spit’
<i>/H ~ L/ as proxy for /LH ~ L/</i>			
<i>wɔ́</i>	<i>wé-</i>	<i>wé</i>	‘see’ (arguably < /wɔ́é/)
<i>nɔ́</i>	<i>nɔ́é-</i>	<i>nɔ́é</i>	‘hear’
<i>gó</i>	<i>gɔ́é-</i>	<i>gɔ́é</i>	‘go out’

b. *Cá*: stem

/H ~ H/

ká: *káyé-* *káyé* ‘shave’

/LH ~ L/

mă: *màyé-* *màyé* ‘make (bricks)’

/LH ~ LH/

nă: *nàyé-* *nàyé* ‘spend night’

c. bisyllabic and longer

/H ~ H/

ún *úrⁿé-* *úrⁿé* ‘go’

ńdé *ndé-* *ndé* ‘give’

ʔólé *ʔólé-* *ʔólé* ‘go up’

tábú *tábé-* *tábé* ‘touch’

óbí-yó *óbí-yé* *óbí-yé* ‘sit down’

/H ~ L/

bármé *bármé-* *bármé* ‘be wounded’

/LH ~ L/

dògó *dògé* *dògé* ‘leave’

níndíyó *níndíyé-* *níndíyé* ‘listen’

Examples showing the various animacy/number values for head NPs are in (546). They are most reliably expressed by a following determiner, but animate plural is marked suffixally on the verb.

- (546) a. *àn^L* *nàmà* *dògé* *gè*
 man^L meat leave.Pfv.Rel Def.AnSg
 ‘the man who left (some) meat’ (variant ... *dògó gé*)
- b. *àn^L* *nàmà* *dògé-m = ò:*
 man^L meat leave.Pfv.Rel-AnPl=Def.AnPl
 ‘the men who left (some) meat’ (variant ... *dògó-m = ò:*)
- c. *ìzèn^L* *nàmà* *mì* *dògé* *wò*
 day^L meat 1SgSbj leave.Pfv.Rel Def.InanSg
 ‘the day (when) I left (some) meat’. (may contract to ... *dòg = ò:*)
- d. *ìzèn^L* *nàmà* *mì* *dògé* *gè*
 day^L meat 1SgSbj leave.Pfv.Rel Def.InanPl
 ‘the days (when) I left (some) meat’. (variant ... *dògó gé*)

Perfective-2 relatives are not very common, but they did turn up: *pílè-zó* in subject relative (174) and nonsubject relative (311c), and *mòdìyè-zó* in nonsubject relative (644a). The suffix is H-toned *-zó-* in these examples. Their infrequency might be to avoid confusion with

superficially similar relative verbs, with *-zò ~ -zò* suffix, that occur in a fairly common type of imperfective (!) relative clause, see (555) in §14.1.7.2 below.

The **recent perfect** with suffix *-zè-* (§10.3.1.4) has the relative verb forms in (547) below. For subject relatives, main-clause *-zè-* usually corresponds to an extended relative form *-zé-zò- ~ -zè-zó*, though simple *-zé ~ -zè* is also acceptable. The extended form does not occur in nonsubject relatives. Tones partially distinguish subject from nonsubject relatives. In subject relatives, the initial L of the /LH ~ L/ melodic class spreads to the end of the stem. The stem is followed by rhythmically alternating *-zè-zó* after final H-tone and *-zé-zò* after L-tones. In nonsubject relatives, the stem shows its full lexical melody, and *-zé* is H-toned. Subject relative verbs pattern tonally as single words (verb stem plus **suffix** *-zé ~ -zè*), while nonsubject relative verbs pattern like direct chains (bare stem plus **auxiliary** *zé*). The otherwise puzzling addition of *-zò ~ -zó* only in subject relatives may have a similar basis, being added only to the single-word type. Similar distinctions between subject and nonsubject relatives occur in the experiential perfect and in both perfective and imperfective negatives. See §10.1.1 on this general issue. The forms in (547) are based on the speech of one assistant. The other assistant allowed the “nonsubject” forms like *nó-zé* and *gó-zé* even in subject relatives, especially before definite markers.

(547) Recent perfect relative

bare	RecPrf	RecPrf relative		gloss
		subject	nonsubject	
a. same stem tones in subject and nonsubject relatives				
<i>/H ~ H/</i>				
<i>nó</i>	<i>nó-zè-</i>	<i>nó-zè(-zó)</i>	<i>nó-zé</i>	‘go in’
<i>ká:</i>	<i>kâ:-zè-</i>	<i>ká:-zè(-zó)</i>	<i>ká:-zé</i>	‘shave’
<i>óbí-yó</i>	<i>óbí-yó-zè-</i>	<i>óbí-yó-zè(-zó)</i>	<i>óbí-yó-zé</i>	‘sit’
<i>/LH ~ LH/</i>				
<i>nǎ:</i>	<i>nǎ:-zè-</i>	<i>nǎ:-zé(-zó)</i>	<i>nǎ:-zé</i>	‘spend night’
b. different stem tones in subject and nonsubject relatives				
<i>/H ~ L/ as proxy for /LH ~ L/</i>				
<i>gó</i>	<i>gó-zè-</i>	<i>gò-zé(-zò)</i>	<i>gó-zé</i>	‘go out’
<i>/LH ~ L/</i>				
<i>mǎ:</i>	<i>mǎ:-zè-</i>	<i>mà:-zé(-zò)</i>	<i>mǎ:-zé</i>	‘make (bricks)’
<i>gòlò</i>	<i>gòlò-zè-</i>	<i>gòlò-zé(-zò)</i>	<i>gòlò-zé</i>	‘do farm work’
<i>nìndíyó</i>	<i>nìndíyó-zè-</i>	<i>nìndiyò-zé(-zò)</i>	<i>nìndíyó-zé</i>	‘listen’
c. irregular				
<i>zǐn</i>	<i>zǐn-zè-</i>	<i>zǐn-zè(-zó)</i>	<i>zǐn-zé</i>	‘take away’

Examples of recent perfect relatives are in (548). Negative counterparts are (562e-f) below.

- (548) a. àn^L zá ʔáɲé-zè-zó gè
 man^L meal eat.meal-**RecPrf**-have.Rel Def.AnSg
 ‘the man who has finished eating (a meal)’
- b. àn^L zá ʔáɲé-zè-zó-m = ò:
 man^L meal eat.meal-**RecPrf**-have.Rel-AnPl=Def.AnPl
 ‘the men who have finished eating (a meal)’
- c. izèn^L zá mì ʔáɲé-zé wò
 day^L meal 1SgSbj eat.meal-**RecPrf**.Rel Def.InanSg
 ‘the day (when) I finished eating (a meal).’
- d. izèn^L zá mì ʔáɲé-zé gè
 day^L meal 1SgSbj eat.meal-**RecPrf**.Rel Def.InanPl
 ‘the days (when) I finished eating (meals).’
- e. àn^L gòlò gòlò-zé(-zò)-mù = wò
 man^L farming(n) do.farming-**RecPrf**(-have.Rel)-AnPl=Def.AnPl
 ‘the men who have finished farming’
- f. izèn^L gòlò mì gòlò-zé gè
 day^L farming(n) 1SgSbj eat.meal-**RecPrf**.Rel Def.InanPl
 ‘the days (when) I finished farming.’

The **experiential perfect** has suffix complex *-téré-bè-* or *-téré-zò-* in positive main clauses (§10.3.1.3). The relative verb ends in simple *-téré*, omitting the final auxiliary-like element (549). In subject relatives, the verb has the same tones as in the main-clause experiential perfect, so that initial L in the /LH ~ L/ melodic class spreads to the end of the stem. In nonsubject relatives, bare-stem tones appear. The effect is that only the /LH ~ L/ melodic class, and its *Cv* equivalent, have different stem tones in subject and nonsubject relatives (549b). As with the recent perfect relatives described above (cf. §10.1.1), as in negative relative forms, verbs in subject relatives behave tonally like single words (stem plus **suffix** *-téré*), while those in nonsubject relatives behave tonally like direct chains (bare stem plus **auxiliary** *téré*).

(549) Experiential perfect relative

bare	ExpPrf	ExpPrf relative		gloss
		subject	nonsubject	
a. same tones in subject and nonsubject relatives				
<i>/H ~ H/</i>				
<i>nó</i>	<i>nó-téré-</i>	<i>nó-téré</i>	<i>nó-téré</i>	‘go in’
<i>ká:</i>	<i>ká:-téré-</i>	<i>ká:-téré</i>	<i>ká:-téré</i>	‘shave’
<i>óbí-yó</i>	<i>óbí-yó-téré-</i>	<i>óbí-yó-téré-</i>	<i>óbí-yó-téré-</i>	‘sit’
<i>/LH ~ LH/</i>				
<i>nǎ:</i>	<i>nǎ:-téré-</i>	<i>nǎ:-téré</i>	<i>nǎ:-téré</i>	‘spend night’
b. different tones in subject and nonsubject relatives				
<i>/H ~ L/ as proxy for /LH ~ L/</i>				
<i>gó</i>	<i>gó-téré-</i>	<i>gó-téré</i>	<i>gó-téré</i>	‘go out’
<i>/LH ~ L/</i>				
<i>mǎ:</i>	<i>mǎ:-téré-</i>	<i>mǎ:-téré</i>	<i>mǎ:-téré</i>	‘make (bricks)’
<i>gòlò</i>	<i>gòlò-téré-</i>	<i>gòlò-téré-</i>	<i>gòlò-téré-</i>	‘do farm work’
<i>nìndíyó</i>	<i>nìndíyò-téré-</i>	<i>nìndíyò-téré-</i>	<i>nìndíyó-téré-</i>	‘listen’

Some examples of the experiential perfect relative forms are in (550). Negative counterparts are (562g-h) below.

- (550) a. *àn^L* *gòyⁿè* *wò-téré* *gè*
 man^L elephant see-ExpPrf.Rel Def.AnSg
 ‘the man who has (ever) seen an elephant’
- b. *àn^L* *gòyⁿè* *wò-téré-m = ò:*
 man^L elephant see-ExpPrf.Rel-AnPl=Def.AnPl
 ‘the men who have (ever) seen an elephant’
- c. *àm^ò*^L *gòyⁿè-mù* *mì* *wó-téré* *wò*
 place^L elephant-AnPl 1SgSbj see-ExpPrf.Rel Def.InanSg
 ‘the place where I have (ever) seen elephants.’
- d. *àm^ò*^L *gòyⁿè-mù* *mì* *wó-téré* *gè*
 place^L elephant-AnPl 1SgSbj see-ExpPrf.Rel Def.InanPl
 ‘the places where I have (ever) seen elephants.’

14.1.7.2 Relative forms of positive imperfective-system verbs (-*ŋ* etc.)

The regular main-clause imperfective is characterized by a suffix *-m-*, added to the A/O-stem, to which an additional pronominal-subject suffix can be added. The corresponding relative forms (551-2) lack this *-m-*, though they do have suffixes like *-ŋ* and vowel-lengthening that may have originated as **-m*. The optional morpheme *-ŋŋé* that occurs optionally in all combinations except inanimate singular is likely from *-ŋ* plus an original animacy-number classifier **yε*.

There is no difference between subject and nonsubject forms of the verb. Paradigms for ‘leave’ (551) and ‘fall’ (552) illustrate the forms.

(551) Imperfective relative forms of *dògá* ‘leave’

		simple	with definite
inanimate	singular	<i>dògá-ŋ</i>	<i>dògá-ŋ = wò</i>
	plural	<i>dògá:</i> <i>dògá-ŋŋé</i>	<i>dògá: gè</i> <i>dògá-ŋŋé gè</i>
animate	singular	<i>dògá:</i> <i>dògá-ŋŋé</i>	<i>dògá: gè</i> <i>dògá-ŋŋé gè</i>
	plural	<i>dògá:-mù</i> <i>dògá-ŋŋé-mù</i>	<i>dògá:-mù = wò</i> <i>dògá-ŋŋé-mù = wò</i>

(552) Imperfective relative forms of *pílé* ‘fall’

		simple	with definite
inanimate	singular	<i>pílé-ŋ</i>	<i>pílé-ŋ = wò</i>
	plural	<i>píló:</i> <i>pílé-ŋŋé</i>	<i>píló: gè</i> <i>pílé-ŋŋé gè</i>
animate	singular	<i>píló:</i> <i>pílé-ŋŋé</i>	<i>píló: gè</i> <i>pílé-ŋŋé gè</i>
	plural	<i>píló:-mù</i> <i>pílé-ŋŋé-mù</i>	<i>píló:-mù = wò</i> <i>pílé-ŋŋé-mù = wò</i>

The forms with lengthened stem-final vowel resemble the form taken by the imperfective stem in the past imperfective negative with cliticized *=ba-li-* (§10.6.1.2). For example, past imperfective (positive) *dògá-m = bè-* ‘was leaving’ is negated as *dògá: = bá-li-* ‘was not

leaving’, and the latter likely originated as *dògá-m̄ = bá-lì-, with the medial *ám̄ contracting later to â: .

For a possibly related -ŋ in instrumental relative compounds (‘water for drinking’), see §5.1.16.

Representative imperfective relative forms are given for a range of verbs in (553). These show the form with final lengthening used in the inanimate plural and animate singular, and the form with -ŋ for the inanimate singular. The animate plural form is easily constructed from the lengthened form by adding -mù.

(553) Imperfective relative

bare	imperfective	Ipfv relative		gloss
		InanPl/AnSg	InanSg	
a. /H/-toned relative stem				
/H ~ H/				
<i>nó</i>	<i>nḡá-m-ù</i>	<i>nḡá:</i>	<i>nḡá-ŋ</i>	‘go in’ (homophone below)
<i>yé</i>	<i>yá-m-ù</i>	<i>yá:</i>	<i>yá-ŋ</i>	‘weep’
<i>ká:</i>	<i>ká:-m-ù</i>	<i>ká:</i>	<i>ká:-ŋ</i>	‘shave’
<i>tó:</i>	<i>tó:-m-ù</i>	<i>tó:</i>	<i>tó:-ŋ</i>	‘spit’
<i>ún</i>	<i>ún-m-ù</i>	<i>úrⁿó:</i>	<i>úrⁿ-úŋ</i>	‘go’
<i>ńdé</i>	<i>ńdà-m-ù</i>	<i>ńdá:</i>	<i>ńdá-ŋ</i>	‘give’
<i>ʔólé</i>	<i>ʔólà-m-ù</i>	<i>ʔólá:</i>	<i>ʔólá-ŋ</i>	‘go up’
<i>tábú</i>	<i>tábà-m-ù</i>	<i>tábá:</i>	<i>tábá-ŋ</i>	‘touch’
<i>óbí-yó</i>	<i>óbì-yò-m-ù</i>	<i>óbí-yó:</i>	<i>óbí-yó-ŋ</i>	‘sit down’
/H ~ L/ as proxy for /LH ~ L/				
<i>wó</i>	<i>wá-m-ù</i>	<i>wá:</i>	<i>wá-ŋ</i>	‘see’
<i>nó</i>	<i>nḡá-m-ù</i>	<i>nḡá:</i>	<i>nḡá-ŋ</i>	‘hear’ (homophone above)
<i>gó</i>	<i>gó-m-ù</i>	<i>gó:</i>	<i>gó-ŋ</i>	‘go out’
/H ~ L/				
<i>bármé</i>	<i>bármà-m-ù</i>	<i>bármá:</i>	<i>bármá-ŋ</i>	‘be wounded’
b. LH-toned relative stem				
/LH ~ L/				
<i>mă:</i>	<i>mă:-m-ù</i>	<i>mă:</i>	<i>mă:-ŋ</i>	‘make (bricks)’
<i>dògó</i>	<i>dògó-m-ù</i>	<i>dògá:</i>	<i>dògá-ŋ</i>	‘leave’
<i>nìndíyó</i>	<i>nìndíyò-m-ù</i>	<i>nìndíyó:</i>	<i>nìndíyó-ŋ</i>	‘listen’
/LH ~ LH/				
<i>nă:</i>	<i>nă:-m-ù</i>	<i>nă:</i>	<i>nă:-ŋ</i>	‘spend night’

For verbs of two or more moras (Cv: , CvCv, etc.), /LH ~ L/ and /LH ~ LH/ stems begin with an L-tone. The remainder of the stem is H-toned in the -ŋ form, and in the lengthened form except for the terminal falling tone.

úrⁿ-úŋ for ‘go’ in (553a) reflects *u*-Epenthesis between an *n*-final verb stem and suffix *-ŋ* (§3.5.3.1).

One assistant indicated that the *-ŋ* form can also optionally replace the lengthened form for inanimate plural, at least in position before definite inanimate plural *gè*. Therefore (554b) with plural head NP (‘days’) has two variants.

- (554) a. *izèn^L mì ʔólá-ŋ = ò:*
 day^L 1SgSbj go.up.-Ipfv.Rel.InanSg=Def.InanSg
 ‘the day (when) I will go up.’
- b. *izèn^L mì ʔólá: gè*
 " " ʔólá-ŋ "
 ‘the days (when) I will go up.’

There is an **alternative** to the imperfective relative as described above. This alternative includes the morpheme *-zo*. This of course reminds of perfective-2 suffix *-zò-* in main clauses and its (not very common) relative forms with *-zó*. However, there is a glaring aspectual difference. All such forms are probably derived historically from quasi-verb *zò-* ‘have’, likely via different grammaticalization routes. Compare Nanga in eastern Dogon, which has both a perfective-2 *-só-* and a progressive *-sò-*, following different forms of the verb.

Examples of the alternative imperfective relative form are in (555). There is no difference between subject and nonsubject relatives.

(555) Imperfective relative (form with *-zó ~ -zò*)

bare	Ipfv relative	gloss
a. H-toned stem before <i>-zò</i>		
<i>/H ~ H/</i>		
<i>nó</i>	<i>nó-zò</i>	‘go in’
<i>ká:</i>	<i>ká:-zò</i>	‘shave’
<i>tóló</i>	<i>tóló-zò</i>	‘pound (in mortar)’
<i>óbí-yó</i>	<i>óbí-yó-zò</i>	‘sit’
<i>irregular</i>		
<i>zó</i>	<i>zó-zò</i>	‘bring’
b. L-toned stem before <i>-zó</i>		
<i>/H ~ L/ as proxy for /LH ~ L/</i>		
<i>wó</i>	<i>wò-zó</i>	‘see’
<i>gó</i>	<i>gò-zó</i>	‘go out’

c. LH-toned stem before -zò

/LH ~ L/

mǎ: *mǎ:-zò* ‘make (bricks)’

dògó *dògó-zò* ‘leave’

nìndí-yó *nìndí-yó-zò* ‘listen’

/LH ~ LH/

nǎ: *nǎ:-zò* ‘spend night’

An immediately preceding all L-toned constituent, such as an L-toned subject pronominal, triggers Rhythmic Tone-Raising on the initial syllable or mora of the relative form. For example, *gò-zó* as in (556) becomes [†]*gó-zò* in (557) after L-toned 1Sg subject *mì*.

(556) *ìzèn*^L *ó* *gò-zó*
 day^L 2SgSbj go.out-Ipfv.Rel
 ‘the day (when) you-Sg will go out’

(557) *ìzèn*^L *mì* [†]*gó-zò*
 day^L 1SgSbj go.out-Ipfv.Rel
 ‘the day (when) I will go out’

14.1.7.3 Relative forms of stative verbs

Stative derivatives of regular verbs (§10.5.1), always bimoraic with the possible exception of contracted *dǔá* ‘be carrying on head’, can occur in relative clauses. The vocalism (A/O-stem) and tone are the same as in the inflectable stative in main clauses. There is no difference between subject and nonsubject relative verb forms.

(558)	bare	stative	stative Rel	gloss
a. HL-toned relative stem				
	<i>óbí-yó</i>	<i>óbò-</i>	<i>óbò</i>	‘be sitting (seated)’
	<i>ʔǎní-yé-</i>	<i>ʔǎnà-</i>	<i>ʔǎnà</i>	‘be stopped’
	<i>pí-yé</i>	<i>píyò-</i>	<i>píyò</i>	‘(door) be shut’
b. LH-toned relative stem				
	<i>bàmbí-yé</i>	<i>bàmbá-</i>	<i>bàmbá</i>	‘have on one’s back’
	<i>jèlí-yé</i>	<i>jèlá-</i>	<i>jèlá</i>	‘be holding in hand’
c. contracted				
	<i>dì-yé</i>	<i>dǔá-</i>	<i>dǔá</i>	‘be carrying on head’

Underived stative **quasi-verbs** (‘be’, ‘have’, ‘want’) have the relative forms in (559). Note the initial H-tone.

(559)	stem	relative	gloss
	<i>bò-</i>	<i>bó</i>	‘be (somewhere)’
	<i>zò-</i>	<i>zó</i>	‘have’
	<i>èbà-</i>	<i>ébà</i>	‘want’

Progressive verb complexes that end in an auxiliary-like stative make use of the latter’s relative form (560). The imperfective verb with *-m* has its regular tones.

(560)	<i>yè^L</i>	<i>ínjú</i>	<i>dì-yá-m</i>	<i>jèlá</i>	<i>gè</i>
	woman ^L	water	bathe-MP-Ipfv	Prog.Rel	Def.AnSg
	‘a woman who is bathing’				

Adjectival predicates do not normally occur in relative clauses (‘a dog that is black’ is instead expressed as ‘a black dog’).

14.1.7.4 Relative forms of negative perfective-system verbs

The conjugated main-clause perfective negative has a suffix *-li-* of variable tone. This suffix also appears in corresponding relative forms, in L-toned form. There is a tonal distinction between nonsubject and subject relatives for the /LH ~ L/ melodic class and its *Cv*: counterpart (561b). As with (positive) recent perfect and experiential perfect relative verbs described above, and like the imperfective negative relative verb described below, the nonsubject relative verb behaves tonally like a direct chain (bare stem plus auxiliary-like *-li*), while the subject relative verb behaves more like a single word (stem plus suffix *-li*).

(561) Perfective negative relative

	bare	PfvNeg	PfvNeg Rel		gloss
			subject	nonsubject	
a. same tones in nonsubject and subject relatives					
/H ~ H/					
	<i>tó</i>	<i>tɔ́á-li-</i>	<i>tɔ́á-li</i>	<i>tɔ́á-li</i>	‘slash earth (to sow)’
	<i>ká:</i>	<i>ká:-li-</i>	<i>ká:-li</i>	<i>ká:-li</i>	‘shave’
	<i>tóló</i>	<i>tóló-li-</i>	<i>tóló-li</i>	<i>tóló-li</i>	‘pound (in mortar)’
	<i>óbí-yó</i>	<i>óbí-yó-li-</i>	<i>óbí-yó-li</i>	<i>óbí-yó-li</i>	‘sit’
<i>irregular</i>					
	<i>zó</i>	<i>zó-li-</i>	<i>zó-li</i>	<i>zó-li</i>	‘bring’
/LH ~ LH/					
	<i>nǎ:</i>	<i>nǎ:-li-</i>	<i>nǎ:-li</i>	<i>nǎ:-li</i>	‘spend night’

b. different tones in nonsubject and subject relatives

/H ~ L/ as proxy for /LH ~ L/

<i>gó</i>	<i>gò-lí-</i>	<i>gò-li</i>	<i>gó-li</i>	‘go out’
<i>wó</i>	<i>wò-lí-</i>	<i>wò-li</i>	<i>wó-li</i>	‘come’
<i>wó</i>	<i>wà-lí-</i>	<i>wà-li</i>	<i>wá-li</i>	‘see’

/LH ~ L/

<i>mǎ:</i>	<i>mà:-lí-</i>	<i>mà:-li</i>	<i>mǎ:-li</i>	‘make (bricks)’
<i>dògó</i>	<i>dògà-lí-</i>	<i>dògà-li</i>	<i>dògá-li</i>	‘leave’
<i>nìndíyó</i>	<i>nìndiyò-lí-</i>	<i>nìndiyò-li</i>	<i>nìndíyó-li</i>	‘listen’

The following examples are perfective negative (562a-d), recent perfect (562e-f), and experiential perfect (562g-h) relatives. (562a-b,e,g) are subject relatives. (562c-d,f,h) are nonsubject relatives.

(562) **perfective negative:**

a. *àn^L* *gò-li* *†gé*
 man^L go.out-**PfvNeg**.Rel Def.AnSg
 ‘the man who did not go out’

b. *àn^L* *nɔ́á-li* *gè*
 man^L go.in-**PfvNeg**.Rel Def.AnSg
 ‘the man who did not go in’

c. *ìzèn^L* *mì* *gó-li*
 day^L 1SgSbj go.out-**PfvNeg**.Rel
 ‘the day I didn’t go out’

d. *ìzèn^L* *mì* *nɔ́á-li*
 day^L 1SgSbj go.in-**PfvNeg**.Rel
 ‘the day I didn’t go in’

recent perfect negative, compare positive (548a,c) above

e. *àn^L* *zá* *ʔéjé-zà-li* *†gé*
 man^L meal eat.meal-RecPrf-**PfvNeg**.Rel Def.AnSg
 ‘the man who has not finished eating (a meal)’

f. *ìzèn^L* *zá* *mì* *ʔéjé-zá-li* *wò*
 day^L meal 1SgSbj eat.meal-RecPrf-**PfvNeg**.Rel Def.InanSg
 ‘the day (when) I did not finish eating (a meal).’

experiential perfect negative, compare positive (550a,c) above

g. *àn^L* *gòyⁿè* *wò-térá-li* *gè*
 man^L elephant see-ExpPrf-**PfvNeg**.Rel Def.AnSg
 ‘the man who has never seen an elephant’

- h. $\delta m\delta^L$ $g\delta y^n\grave{e}-m\grave{u}$ $m\grave{i}$ $w\delta-t\acute{e}r\acute{a}-\grave{l}\grave{i}$ $w\delta$
 place^L elephant-AnPl 1SgSbj see-ExpPrf-PfvNeg.Rel Def.InanSg
 ‘the place where I have never seen elephants.’

14.1.7.5 Relative forms of negative imperfective-system verbs

The basic imperfective negative, in its conjugatable main-clause form, has *-nán-* ~ *-rán-*. The imperfective negative relative has a suffix *-ń*. There is a tonal distinction between relative forms in nonsubject and subject relatives. As with relative verbs in the recent perfect and experiential perfect, and in the perfective negative, the imperfective negative relative verb behaves tonally as a word (verb plus suffix *-ń*) in subject relatives, and as a direct chain (verb plus auxiliary-like *ń*) in nonsubject relatives.

An important difference between the main-clause imperfective negative and other AN categories is that the imperfective negative controls {L} on all but two tonally irregular stems before the H-toned suffix, disregarding the usually crucial distinction between verbs with initial melodic H and L. This tonal pattern is carried over into subject but not nonsubject relative verbs. The only verbs that have identical subject and nonsubject forms are *Cv*: stems with /LH/ melody. This is to be expected, since no overt distinction can be made between /Cv̄:-ń/ and /Cv̄:-ń/, which converge as *Cv̄:-ń* (563a). Factoring out this surface convergence, all other verbs distinguish subject from nonsubject relative forms (563b-c).

‘Bring’ and ‘take away’, the two tonally irregular verbs (§10.2.1.8, §10.2.1.12), have HL patterns in the main-clause imperfective negative and (therefore) in the subject relative verb (563c). The L-tone is realized on the suffix. For ‘bring’, a regularized variant of the subject relative verb is also attested. In the nonsubject relative, the verbs have their usual bare-stem form.

In addition, *n*-final verbs ‘go’ (563b) and ‘take away’ (563c) require a syllabic allomorph of the suffix to avoid a final #*nn* cluster. The suffix appears *-nù*, with L-tone that may have been influenced by L-toned perfective negative relative *-lì*.

(563) Imperfective negative relative

stem	IpfvNeg	IpfvNeg relative		gloss
		subject	nonsubject	
a. same tones in subject and nonsubject relatives (<i>Cv</i> :- stems only)				
/LH ~ L/				
<i>mǎ:</i>	<i>mà:-nán-</i>	<i>mà:-ń</i>	<i>mà:-ń</i>	‘make (bricks)’
/LH ~ LH/				
<i>nǎ:</i>	<i>nà:-nán-</i>	<i>nà:-ń</i>	<i>nà:-ń</i>	‘spend night’

b. different tones in subject and nonsubject relatives

/H ~ H/

<i>tɔ́</i>	<i>tò-nán-</i>	<i>tò-ń</i>	<i>tɔ́-ń</i>	‘slash earth (to sow)’
<i>yé</i>	<i>yè-nán-</i>	<i>yè-ń</i>	<i>yé-ń</i>	‘weep’
<i>ká:</i>	<i>kà:-nán-</i>	<i>kà:-ń</i>	<i>ká:-ń</i>	‘shave’
<i>ńdé</i>	<i>ńdè-nán-</i>	<i>ńdè-ń</i>	<i>ńdé-ń</i>	‘give’
<i>tóló</i>	<i>tòlò-nán-</i>	<i>tòlò-ń</i>	<i>tóló-ń</i>	‘pound (in mortar)’
<i>óbí-yó</i>	<i>òbì-yò-nán-</i>	<i>òbì-yò-ń</i>	<i>óbí-yó-ń</i>	‘sit’

/H ~ L/ as proxy for /LH ~ L/

<i>wó</i>	<i>wò-nán-</i>	<i>wò-ń</i>	<i>wó-ń</i>	‘come’
<i>wɔ́</i>	<i>wɔ̀-nán-</i>	<i>wɔ̀-ń</i>	<i>wɔ́-ń</i>	‘see’
<i>gó</i>	<i>gò-nán-</i>	<i>gò-ń</i>	<i>gó-ń</i>	‘go out’

/LH ~ L/

<i>dògɔ́</i>	<i>dògà-nán-</i>	<i>dògò-ń</i>	<i>dògɔ́-ń</i>	‘leave’
<i>nìndíyó</i>	<i>nìndiyò-nán-</i>	<i>nìndiyò-ń</i>	<i>nìndíyó-ń</i>	‘listen’

n-final (syllabic suffixal allomorph)

<i>ún</i>	<i>ún-nàn-</i>	<i>ùn-nú</i>	<i>ún-nù</i>	‘go’
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c. irregular, with HL-toned subject relative verb

<i>zó</i>	<i>zò-nàn-</i>	<i>zò-ń ~ zò-ń</i>	<i>zó-ń</i>	‘bring’
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n-final (syllabic suffixal allomorph)

<i>zǐn</i>	<i>zín-nàn-</i>	<i>zín-nù</i>	<i>zǐn-nù</i>	‘take away’
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Examples (564a-b) are nonsubject relatives; see also (705) in §17.6.3.4. (564c) is a subject relative.

- (564) a. *izèn^L* *mì* *ká:-ń*
 day^L 1SgSbj shave-**IpfvNeg**.Rel
 ‘a day (when) I do not shave’
- b. [*nà:^L* *yè* †*émé-ń-m = ò:*]
 [cow^L 1PISbj milk(v)-**IpfvNeg**.Rel-AnPI=Def.AnPI]
àmbá: *b-è:*
 where? be-3PISbj
 ‘Where are the cows that we are not going to milk?’
- c. [*nò^L* *bìdè* *bìdè-ń*] *èbù-là-m*
 [person^L work(n) work-**IpfvNeg**.Rel] want-StatNeg-1SgSbj
 ‘I don’t like/want a person who doesn’t work.’

14.1.7.6 Relative forms of negative stative verbs

The stative negative relative is identical in form to the conjugatable stative negative (565). The suffix is stative negative *-ń*, after an L-toned form of the derived stative stem.

(565)	stem	StatNeg	StatNeg Rel	gloss
a.	<i>óbí-yó</i>	<i>òbò-ń-</i>	<i>òbò-ń</i>	‘not be sitting (seated)’
	<i>ʔǎńí-yé-</i>	<i>ʔàńà-ń-</i>	<i>ʔàńà-ń</i>	‘not be stopped’
	<i>pí-yé</i>	<i>pìyò-ń-</i>	<i>pìyò-ń</i>	‘(door) not be shut’
b.	<i>bàmbí-yé</i>	<i>bàmbà-ń</i>	<i>bàmbà-ń</i>	‘not have on one’s back’
	<i>jèlí-yé</i>	<i>jèlà-ń</i>	<i>jèlà-ń</i>	‘not be holding in hand’
c.	<i>dì-yé</i>	<i>dǎà-ń-</i>	<i>dǎà-ń</i>	‘not be carrying on head’

Examples of the stative negative relative are in (566). The relative forms are subject to Tone-Raising after an L-toned constituent such as an L-toned pronominal subject (566b).

(566)	a.	<i>àn^L</i>	<i>bú:dù</i>	<i>jèlà-ń</i>	
		man ^L	money	hold.Stat- StatNeg .Rel	
		‘a man who has no money (on him)’			
	b.	<i>izèn^L</i>	<i>bú:dù</i>	<i>mì</i>	<i>ʔjèlà-ń</i>
		day ^L	money	1SgSbj	hold.Stat- StatNeg .Rel
					<i>gè</i>
		‘the days (when) I don’t have any money (on me)’			

Negative relative forms of underived statives (‘be’, ‘have’, ‘want’) are in (567).

(567)	negative	negative relative	gloss
	<i>ònú-</i>	<i>ònú</i>	‘not be (somewhere)’
	<i>zò-ń-</i>	<i>zò-ń</i>	‘not have’
	<i>èbù = lá-</i>	<i>èbù = lá</i>	‘not want’

An example of a **progressive** negative relative (with the relative form of the final stative auxiliary) is (568).

(568)	<i>àn^L</i>	<i>zá</i>	<i>ʔǎńá-m</i>	<i>jèlà-ń</i>	<i>gè</i>
	man ^L	meal	eat.meal-Ipfv	Prog-StatNeg .Rel	Def.AnSg
	‘the man who is not eating’				

With some difficulty, relative clauses with negated **adjectival** and **NP** predicates based on the enclitic *=lá-* ‘it is not’ (§11.2.1.2) or stative negative (§11.4.3) were elicited (569). An

assistant expressed discomfort with the adjectival examples, preferring alternative phrasings, e.g. ‘I’m looking for a short person’ in place of (569a).

- (569) a. $[nò^L \quad gàbù = là] - y$ $dùnó - m - \emptyset$
 [person^L tall=StatNeg.Rel]-Acc look.for-Ipfv-1SgSbj
 ‘I’m looking for someone who is not tall’
- b. $[nò^L \quad dógó = là] - y$ $dùnó - m - \emptyset$
 [person^L Dogon=it.is.not.Rel]-Acc look.for-Ipfv-1SgSbj
 ‘I’m looking for someone who is not a Dogon.’

14.1.7.7 Relative forms of past enclitic =bɛ-

A brief summary of the relationship between the conjugated (main-clause) and relative forms including past =bɛ is (570). The only segmental difference is in the past imperfective positive, where the -m- morpheme is replaced by vowel-lengthening in the relative (574). This replacement also occurs in imperfective negative forms, both main-clause and relative. Tonal differences, both in the stem and in the suffix-enclitic complexes, will be described below.

(570) Relative form of past enclitic (positive polarity)

category	conjugated	relative
past perfect	=bɛ-	=bɛ
" " negative	-l-∅=bé-	-l-∅=bɛ
past imperfective	-m=bè-	-: =bɛ
" " negative	: =bá-lì-	: =bá-lì
past recent perfect	-zɛ=bè-	-zɛ=bɛ
" " negative	-za-lì=bè-	-za-l=bɛ
past stative	: =bè-	: =bɛ
" " negative	: =bá-lì-	: =bá-lì

The **past perfect** relative, like the conjugated main-clause past perfect (§10.6.1.1), is based segmentally on the bare stem (including the U-stem for *u*-final verbs). It distinguishes subject relative verbs (word-like) from nonsubject relative verbs (direct chain-like) in the by now familiar way. The subject relative verb closely resembles a main-clause verb, while the nonsubject relative verb has bare-stem form as though in a direct chain. The distinction is audible for the verbs that have L-toned stem before =bé- in main clauses (571b). There is no audible distinction for the verbs in (571c-d), since these stems are /H/- or /LH/-toned in the bare stem and before =bè in main clauses.

(571)	stem	past perfect	past perfect relative subject	past perfect relative nonsubject	gloss
a. same tones in subject and nonsubject relatives					
/H ~ H/					
	<i>yé</i>	<i>yé = bɛ̀-</i>	<i>yé = bɛ̀</i>		‘weep’
	<i>nó</i>	<i>nó = bɛ̀-</i>	<i>nó = bɛ̀</i>		‘go in’
	<i>ká:</i>	<i>ká: = bɛ̀-</i>	<i>ká: = bɛ̀</i>		‘shave’
	<i>ún</i>	<i>ún = bɛ̀-</i>	<i>ún = bɛ̀</i>		‘go’
	<i>ʔɛ̀pé</i>	<i>ʔɛ̀pé = bɛ̀-</i>	<i>ʔɛ̀pé = bɛ̀</i>		‘eat (meal)’
	<i>úbó</i>	<i>úbó = bɛ̀-</i>	<i>úbó = bɛ̀</i>		‘pour’
	<i>ńdɛ̀</i>	<i>ńdɛ̀ = bɛ̀-</i>	<i>ńdɛ̀ = bɛ̀</i>		‘give’
	<i>tóló</i>	<i>tóló = bɛ̀-</i>	<i>tóló = bɛ̀</i>		‘pound (in mortar)’
	<i>tábú</i>	<i>tábú = bɛ̀-</i>	<i>tábú = bɛ̀</i>		‘touch’
	<i>óbí-yó</i>	<i>óbí-yó = bɛ̀-</i>	<i>óbí-yó = bɛ̀</i>		‘sit’
/LH ~ LH/					
	<i>nǎ:</i>	<i>nǎ: = bɛ̀-</i>	<i>nǎ: = bɛ̀</i>		‘spend night’
b. different tones in subject and nonsubject relatives					
/H ~ L/ as proxy for /LH ~ L/					
	<i>wó</i>	<i>wò = bɛ́-</i>	<i>wò = bɛ́-</i>	<i>wó = bɛ̀</i>	‘come’
	<i>gó</i>	<i>gò = bɛ́-</i>	<i>gò = bɛ́-</i>	<i>gó = bɛ̀</i>	‘go out’
/LH ~ L/					
	<i>mǎ:</i>	<i>mà: = bɛ́-</i>	<i>mà: = bɛ́-</i>	<i>mǎ: = bɛ̀</i>	‘make (bricks)’
	<i>dèrⁿɛ̀</i>	<i>dèrⁿɛ̀ = bɛ́-</i>	<i>dèrⁿɛ̀ = bɛ́</i>	<i>dèrⁿɛ̀ = bɛ̀</i>	‘spend day’
	<i>gòlò</i>	<i>gòlò = bɛ́-</i>	<i>gòlò = bɛ́</i>	<i>gòlò = bɛ̀</i>	‘do farm work’
	<i>dì-yé</i>	<i>dì-yè = bɛ́-</i>	<i>dì-yè = bɛ́</i>	<i>dì-yé = bɛ̀</i>	‘carry on head’
	<i>ʔálé</i>	<i>ʔàlè = bɛ́-</i>	<i>ʔàlè = bɛ́</i>	<i>ʔálé = bɛ̀</i>	‘go up’
	<i>mànú</i>	<i>mànù = bɛ́-</i>	<i>mànù = bɛ́</i>	<i>mànú = bɛ̀</i>	‘cook’
	<i>nìndíyó</i>	<i>nìndiyò = bɛ́-</i>	<i>nìndiyò = bɛ́</i>	<i>nìndíyó = bɛ̀</i>	‘listen’

Example (572a) is a nonsubject past perfect relative, and (572b) is a corresponding subject relative. They differ in verb-stem tones.

- (572) a. *ìzèn^L* *gòlò* *mì* *gòlò = bɛ̀* *wò*
 day^L farming(n) 1SgSbj do.farm.work=**Past**.Rel Def.InanSg
 ‘the day (when) I had done farm work’
- b. *àn^L* *gòlò* *gòlò = bɛ́* *gè*
 man^L farming(n) do.farm.work=**Past**.Rel Def.AnSg
 ‘the man who had done farm work’

The main-clause past perfect negative contains conjugated perfective negative *-lì-* and variants, followed by a “positive” conjugated past enclitic *= bɛ́-* (410). The corresponding

relative verb has unconjugated $-l(i) = b\acute{e}$. In nonsubject relatives, the main verb has bare-stem form, as though followed by auxiliary-like $-l(i) = b\acute{e}$ (573a). In subject relatives, the main verb has the same form it has in the main-clause past perfect negative, e.g. L-toned stem for the /LH ~ L/ melodic class (573b).

- (573) a. $\dot{i}z\acute{e}n^L$ $g\grave{o}l\grave{o}$ $m\grave{i}$ $g\grave{o}l\acute{a}-l\grave{i} = b\acute{e}-\emptyset$ $w\grave{o}$
 day^L farming(n) 1SgSbj do.farm.work-PfvNeg=Past.Rel Def.InanSg
 ‘the day when I had not done farm work’
- b. $g\grave{o}l\grave{o}$ $\grave{a}n^L$ $g\grave{o}l\grave{a}-l = b\acute{e}$ $g\grave{e}$
 farming(n) man^L do.farm.work-PfvNeg=Past.Rel Def.AnSg
 ‘the man who had not farmed’
 [order can be changed to: $\grave{a}n^L$ $g\grave{o}l\grave{o}$ $g\grave{o}l\grave{a}-l = b\acute{e}$ $g\grave{e}$]

The conjugated main-clause **past imperfective** has imperfective suffix $-m$ followed by the conjugated past enclitic (411). In the corresponding main-clause negative, this $-m$ is dropped, the preceding vowel is lengthened, and a stem-final L-tone is added. In this modified imperfective stem, the stem is (L)HL-toned, i.e. HL for the /H ~ H/ and /H ~ L/ melodic classes, and LHL for bimoraic and longer verbs that begin with L-tone (413). In past imperfective relative verbs, both positive and negative, this second form of the stem is followed, with vowel-lengthening instead of $-m$. Positive forms are in (574). There is no distinction between nonsubject and subject relative verbs.

(574) stem past Ipfv past Ipfv relative gloss

a. HL-toned stem before $= b\acute{e}$ in relative verb

/H ~ H/

$n\acute{o}$	$n\grave{z}\grave{a}-m = b\grave{e}-$	$n\grave{z}\grave{a}: = b\acute{e}$	‘go in’
$d\acute{o}$	$d\grave{z}\grave{a}-m = b\grave{e}-$	$d\grave{z}\grave{a}: = b\acute{e}$	‘insult (v)’
$t\acute{o}:$	$t\acute{o}:-m = b\grave{e}-$	$t\acute{o}: = b\acute{e}$	‘spit’
$k\acute{a}:$	$k\acute{a}:-m = b\grave{e}-$	$k\acute{a}: = b\acute{e}$	‘shave’
$c\acute{e}d\acute{e}$	$c\acute{e}d\acute{a}-m = b\grave{e}-$	$c\acute{e}d\acute{a}: = b\acute{e}$	‘gather (firewood)’
$t\acute{a}b\acute{u}$	$t\acute{a}b\acute{a}-m = b\grave{e}-$	$t\acute{a}b\acute{a}: = b\acute{e}$	‘touch’
$s\acute{i}m\acute{b}\acute{e}$	$s\acute{i}m\acute{b}\acute{o}-m = b\grave{e}-$	$s\acute{i}m\acute{b}\acute{o}: = b\acute{e}$	‘roast, grill’
$\acute{o}b\acute{i}-y\acute{o}$	$\acute{o}b\acute{i}-y\acute{o}-m = b\grave{e}-$	$\acute{o}b\acute{i}-y\acute{o}: = b\acute{e}$	‘sit’
$\acute{n}d\acute{e}$	$\acute{n}d\acute{a}-m = b\grave{e}-$	$\acute{n}d\acute{a}: = b\acute{e}$	‘give’
$\text{?}\acute{e}j\acute{n}\acute{e}$	$\text{?}\acute{e}j\acute{n}\acute{a}-m = b\grave{e}-$	$\text{?}\acute{e}j\acute{n}\acute{a}: = b\acute{e}$	‘eat (meal)’
$\acute{u}b\acute{o}$	$\acute{u}b\acute{a}-m = b\grave{e}-$	$\acute{u}b\acute{a}: = b\acute{e}$	‘pour’
$\acute{u}n$	$\acute{u}r^n-\acute{u}m = b\grave{e}-$	$\acute{u}r^n\grave{o}: = b\acute{e}$	‘go’

/H ~ L/ as proxy for /LH ~ L/

$w\acute{o}$	$w\grave{a}-m = b\grave{e}-$	$w\grave{a}: = b\acute{e}$	‘see’
$g\acute{o}$	$g\grave{o}-m = b\grave{e}-$	$g\grave{o}: = b\acute{e}$	‘go out’

irregular

$z\acute{o}$	$z\grave{o}-m = b\grave{e}-$	$z\grave{o}: = b\acute{e}$	‘bring’
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a. LHL-toned stem before = *bé*

/LH ~ L/

<i>mă:</i>	<i>mă:-m = bē-</i>	<i>mă: bé</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿá-m = bē-</i>	<i>dèrⁿá: = bé</i>	‘spend day’
<i>gòlò</i>	<i>gòlá-m = bē-</i>	<i>gòlá: = bé</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yá-m = bē-</i>	<i>dì-yá: = bé</i>	‘carry on head’
<i>mànú</i>	<i>màná-m = bē-</i>	<i>màná: = bé</i>	‘cook’
<i>nìndíyó</i>	<i>nìndíyó-m = bē-</i>	<i>nìndíyò: = bé</i>	‘listen’

/LH ~ LH/

<i>nă:</i>	<i>nă:-m = bē-</i>	<i>nă: = bé</i>	‘spend night’
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Example (575a) is a nonsubject relative, (575b) a subject relative. The relative verb has the same form in both.

- (575) a. *ìzèn^L* *gòlò* *mì* *gòlá: = bé* *wò*
 day^L farming(n) 1SgSbj do.farm.work.**Ipfv=Past**.Rel Def.InanSg
 ‘the day (when) I was doing farm work’
- b. *àn^L* *gòlò* *gòlá: = bé* *gè*
 man^L farming(n) do.farm.work.**Ipfv=Past**.Rel Def.AnSg
 ‘the man who was doing farm work’

The past imperfective negative relative verb has the same stem shape as the positive, but ends in = *bá-lì*. Nonsubject (576a) and subject (576b) relatives have the same verb form.

- (576) a. *ìzèn^L* *gòlò* *mì*
 day^L farming(n) 1SgSbj
gòlá: = bá-lì *wò*
 do.farm.work-**Ipfv=Past-PfvNeg**.Rel Def.InanSg
 ‘the day when I was not doing farm work’
- b. *àn^L* *gòlò* *gòlá: = bá-lì* *gè*
 man^L farming(n) do.farm.work-**Ipfv=Past-PfvNeg**.Rel Def.AnSg
 ‘the man who was not farming’

The **past recent perfect** relative is directly related to the corresponding conjugated past recent perfect (§10.6.1.5). As with the (nonpast) recent perfect, the relative verb behaves tonally like a suffixed word in subject relatives, like a direct chain in nonsubject relatives. For /LH ~ L/ verbs, the subject relative verb spreads the L-tone to the end of the stem, followed by HL-toned *-zé = bē* (577b). Stems that end in H-tone have subject relative verbs ending in LH-toned *-zè = bé* (577d). The rhythmical tonal up-and-down extends in this way through the suffix and enclitic. In nonsubject relatives, by contrast the verb (of either melodic class) has bare-stem form followed by the tonally invariant, auxiliary-like *-zé = bē* (577a,c).

- (577) a. *ìzèn^L gòlò mì gòlò-zé = bè wò*
 day^L farming(n) 1SgSbj do.farm.work-**RecPrf=Past**.Rel Def.InanSg
 ‘the day when I had finished farming’
- b. *àn^L gòlò gòlò-zé = bè gè*
 man^L farming(n) do.farm.work-**RecPrf=Past**.Rel Def.AnSg
 ‘the man who had finished farming’
- c. *ìzèn^L tól mì tóló-zé = bè wò*
 day^L pounding 1SgSbj pound-**RecPrf=Past**.Rel Def.InanSg
 ‘the day when I had finished pounding’
- d. *yè^L tól tóló-zè = bé gè*
 woman^L pounding pound-**RecPrf=Past**.Rel Def.AnSg
 ‘the woman who had finished pounding’

The past recent perfect negative relative adds past =*bé* to the (nonpast) recent perfective negative relative. As usual, the subject relative verb is most closely related tonally to the main-clause counterpart (§10.6.1.5), while the nonsubject relative verb shows bare-stem tones for the verb. The verb therefore has different tones in nonsubject relative (578a) and subject relative (578b) with ‘do farm work’, a verb of /LH ~ L/ melodic class. The suffix *-za-* polarizes tonally to the preceding tone.

- (578) a. *ìzèn^L gòlò mì*
 day^L farming(n) 1SgSbj
gòlò-zà-lì = bé wò
 do.farm.work-RecPrf-PfvNeg=Past.Rel Def.InanSg
 ‘the day when I had not finished doing farm work’
- b. *àn^L gòlò gòlò-zá-lì = bé gè*
 man^L farming(n) do.farm.work-RecPrf-PfvNeg=Past.Rel Def.AnSg
 ‘the man who had not finished farming’
- c. *ìzèn^L tól mì tóló-zà-lì = bé wò*
 day^L pounding 1SgSbj pound-RecPrf=Past.Rel Def.InanSg
 ‘the day when I had not finished pounding’
- d. *yè^L tól tóló-zà-lì = bé gè*
 woman^L pounding pound-RecPrf-PfvNeg=Past.Rel Def.AnSg
 ‘the woman who had not finished pounding’

The **past stative** relative is illustrated for a derived stative in (579). The relative forms are closely related to the corresponding conjugated forms (§10.5.1) and to the identical (nonpast)

stative relative verbs in (558) above. There is no difference in the form of the relative verb in nonsubject and subject relatives.

- (579) a. *ìzèn*^L *mì* *óbò: = bɛ́* *wò*
 day^L 1SgSbj sit.**Stat**=Past.Rel Def.AnSg
 ‘the day when I was sitting’
- b. *àn*^L *óbò: = bɛ́* *gè*
 man^L sit.**Stat**=Past.Rel Def.AnSg
 ‘the man who was sitting’

The past stative negative relative is illustrated in (580). There is no difference in the form of the relative verb in nonsubject and subject relatives.

- (580) a. *ìzèn*^L *mì* *óbò: = bá-li* *wò*
 day^L 1SgSbj sit.**Stat**=Past-**PfvNeg**.Rel Def.AnSg
 ‘the day when I was not sitting’
- b. *àn*^L *óbò: = bá-li* *gè*
 man^L sit.**Stat**=Past-**PfvNeg**.Rel Def.AnSg
 ‘the man who was not sitting’

14.1.7.8 Passive relative (-yà)

A special passive relative form is attested in texts. There appears to be no exactly equivalent main-clause verb form. The verb ends in *-yà*, which vaguely resembles 3Pl perfective suffix *-á* and mediopassive *-yé*, but is not identical with either.

- (581) a. [*ìzèn*^L *sé:dé-má* *gùnì-yà* *wò*]
 [day^L set-Hort say-**Pass.Rel** Def.InanSg]
dò *nà* *kárⁿé-y*
 arrive 3SgSbj do-Past.and.then
 ‘The day that had been set arrived, ...’ (excerpt from (778) in Text 1)
- b. [*ìzèn*^L *dámí-yà* *wò*]
 [day^L speak-**Pass.Rel** Def.InanSg]
[wò-y *yà* *dɔ́-á]*
 [come-Past.and.then Real arrive.Pfv-3PlSbj]
 ‘On the day that was spoken of they came (back)’ (excerpt from 779 in Text 1)

- c. *[[[kó ná-ŋ] nà] ci^L kúndí-yà]*
 [[[head 3Sg-Poss] Loc] thing^L put-**Pass.Rel**]
[zàmtùrù-sùwà^L bàl kúndí-yà]
 [donkey-shit^L gather put-**Pass.Rel**]
[kó bò wò] wàrà]
 [InanSg be Def.InanSg] other]
[á kàrⁿ-à-lì †ní→]
 [3LogoSgSbj do-PfvNeg Subjunct]
 ‘The thing that was put on his head (=blamed on him), the donkey dung that had been put (there), that he hadn’t done it’ (excerpt from (794) in Text 1)

14.1.8 Relative clause involving verb- or VP-chain

When two verbs are directly chained (without overt subordination), as in (582a), the corresponding relative clause is formed by changing the final verb in the chain into its morphological relative form. The nonfinal chained verb, such as ‘go down’ in (582a-b), is unaffected.

- (582) a. *súwó bèlè-nán-Ø*
 go.down be.able-IpfvNeg-3SgSbj
 ‘He/She cannot get down.’
- b. *yè^L súwó bèlè-ń gè*
 woman^L go.down be.able-**IpfvNeg.Rel** Def.AnSg
 ‘the woman who cannot get down’

If a nonsubject relative containing a direct chain like this happens to have a pronominal subject, the subject proclitic most often precedes the chain, keeping the chained verbs adjacent to each other. The main clause (583a) has a direct chain (‘hit’ and ‘be able’). When the object ‘child’ is relativized on with a 1Sg pronominal subject, the 1Sg proclitic *mì* precedes both chained verbs (583b). This is usual with ‘be able’ as the final verb.

- (583) a. *[èné gè] dèmé bèlè-ná-m*
 [child Def.AnSg] hit be.able-IpfvNeg-1SgSbj
 ‘I cannot hit the child.’
- b. *ènè^L mì dèmé bèlè-ń gè*
 child^L **1SgSbj** hit be.able-IpfvNeg.Rel Def.AnSg
 ‘the child that I cannot hit’

In direct chains where the final verb denotes a distinct co-event, it is possible for the proclitic to intervene between the two. See (600a-b) for an example where both orders are possible.

In loose chains where the nonfinal verb is morphologically subordinated, the relative-clause version again marks only the final verb in the sequence as relative. For example, (584b) is the relative-clause version of (584a); both show the same-subject subordinating suffix *-é: ~ -é:* on the first verb. Another example with this subordinator is (584c).

- (584) a. *ùrⁿ-é:* ^L*wò-m-Ø*
 go-NonPast.**and.SS** ^Lcome-IPfv-1SgSbj
 ‘I will go and come (back here).’
- b. *àn* *ùrⁿ-é:* *wô:* *gè*
 man go-NonPast.**and.SS** come.IPfv.Rel Def.AnSg
 ‘the man who will go and come (back here)’
- c. [*nò*^L [*kìrⁿà* [†]*gíz-è:*]
 [person^L [bone throw-NonPast.**and.SS**]
sèmbè-n^L *bô:* *èbù-là-ń*
 sweep-IPfvNeg.Rel^L NearDist-AnPl want-StatNeg-1SgSbj
 ‘I don’t like those people who throw bones and do not sweep up.’
 (< *gíz-é:* , *sèmbè-ń*)

The loosely chained subordinated clause with *-é: ~ -é:* does not have to be adjacent to the final verb, unlike the case in direct chains. Other constituents may intervene between the two verbs. In (585a), a proclitic subject pronoun intervenes. In (585b), a direct object (‘meal’) specifically associated with the final verb intervenes.

- (585) a. *ìzèn*^L *ùrⁿ-é:* *mì* *wó-ŋ*
 day^L go-NonPast.**and.SS** **1SgSbj** come-IPfv.Rel.InanSg
 ‘(the) day (when) I will go and come (back here)’
- b. [*nò*^L *ŋgí* *w-ě:*]
 [person^L here come-NonPast.**and.SS**]
zá *ʔəpá:-mù =[†]wó* *bó* *àmí-yè*
meal eat.IPfv.Rel-AnPl=Def.AnPl] 3PlSbj who?-Pl
 ‘The people who come and eat (meals) here, who are they?’
 [also a variant with ... *zá ʔəpí-mù =[†]wó* ...]

14.1.9 Determiners following the relative verb

Determiners associated with the clause-internal head NP follow the relative verb, forming what looks like an NP coda.

Definite markers are very common in relative clauses, and numerous examples containing them occur in preceding sections. One example is inanimate singular definite *wò* in (539a-b). Definite markers are not tonosyntactic controllers, in relatives or elsewhere.

Demonstrative pronouns also follow the verb in a relative clause. Demonstratives control {L} on preceding words in NPs. They behave the same way in relatives, but the target of tone-dropping is the relative verb. In nonsubject relatives, a proclitic subject pronoun (if present) is also tone-dropped. This is audible with lexically H-toned proclitics like 2Sg *ó*. Subject relatives cannot have proclitic subject pronouns.

In (586-70), the (a) examples are definite. The (b) examples end in demonstratives and show a tone-dropped verb and subject proclitic (the brackets are tonosyntactic). Variants with *ɲɲé* (likely < *-ɲ yé), cf. (169) in §6.2.1.2 and (551-2) in §14.1.7.2 above, are shown in parentheses in (587-9), below the relevant plural and animate singular forms.

- (586) a. *ʔəlò^L* *ó* *wá-ɲ* *wò*
house^L 2SgSbj see-IPfvRel.InanSg Def.InanSg
‘the house that you-Sg see’
- b. *ʔəlò^L* [*ò* *wà-ɲ]*^L *ɲgó*
house^L [2SgSbj see-IPfvRel.InanSg]^L Prox.InanSg
‘this house that you-Sg see’
- (587) a. *ʔəlò^L* *ó* *wá:* *gè*
house^L 2SgSbj see-IPfvRel.InanPl Def.InanPl
‘the houses that you-Sg see’
[also: ... *wá-ɲɲé gè*]
- b. *ʔəlò^L* [*ò* *wà-ɲ]*^L *yě:*
house^L [2SgSbj see-IPfvRel.InanPl]^L Prox.InanPl
‘these houses that you-Sg see’
[also: ... *wà-ɲɲè]*^L *yě:*]
- (588) a. *àn^L* *ó* *wá:* *gè*
man^L 2SgSbj see-IPfvRel.AnSg Def.InanSg
‘the man who(m) you-Sg see’
[also: ... *wá-ɲɲé gè*]
- b. *àn^L* [*ò* *wà:]*^L *nà* †*gé*
man^L [2SgSbj see-IPfvRel.AnSg]^L NearDist.AnSg Def.InanSg
‘that man who(m) you-Sg see’
[also: ... *wà-ɲɲè]*^L *nà †gé*]
- (589) a. *àn^L* *ó* *wá:-mù = wò*
man^L 2SgSbj see-IPfv.Rel-AnPl=Def.AnPl
‘the men that you see’
[also: ... *wá-ɲɲé-mù = wò*]

- b. *àn^L* *[ò* *wà:]^L* *bô:*
 man^L [2SgSbj see.Ipfv.Rel NearDist.AnPl
 ‘those men whom you see’
 [also: *[ò wà-ɲɲè]^L bô:*]
- (590) a. *izèn^L* *mì* *ʔólé* *wò*
 day^L 1SgSbj go.up.Pfv.Rel Def.InanSg
 ‘the day when I went up’
- b. *izèn^L* *[mì* *ʔàlè]^L* *màngó*
 day^L [1SgSbj go.up.Pfv.Rel]^L FarDist.InanSg
 ‘that other day when I went up’

Likewise, in (584c) in §14.1.8, the imperfective negative relative form *sèmbè-ń* (‘does not sweep’) drops its final H-tone to *sèmbè-n^L* before the demonstrative *bô:* .

14.1.10 Non-numeral quantifiers following the relative verb

cêm and *pú*→ ‘all’ can follow relative verbs. Elsewhere they have minor local tonal interactions in a few combinations (§6.6.1.1), but they are not true tonosyntactic controllers, and they do not interact tonally with verbs or other words in relatives.

- (591) a. *nà:-mù* *ó* *dǔgè-mù = wò* *pú*→
 cow-AnPl 2SgSbj leave.Pfv.Rel-AnPl=Def.AnPl all
 ‘all the cows that you have left (there)’
- b. *nà:-mù* *ó* *émá-l(i)-mù = wò* *cêm*
 cow-AnPl 2SgSbj milk(v)-PfvNeg.Rel-AnPl=Def.AnPl all
 ‘all the cows that you have not milked’

Sistributive *kámá*, which occurs in a handful of combinations like *nò^L kámá* ‘each person; everybody’ (§6.6.2), and other distributives such as *tù-túmáy* (< numeral ‘1’), are syntactically adjectives or numerals, so they appear in the internal head in relatives, where they are subject to relative-controlled tone-lowering.

- (592) a. *[nò* *kàmà]^L* *wé-mù = wò* *cêm*
 [person each]^L come.Pfv.Rel-AnPl=Def.AnPl all
 ‘every person who came’
- b. *[[ʔàlò* *tù-tùmày]^L* *yè* *ónzò-zó* *gè]*
 [[house Rdp-one]^L 1PlSbj build-Pfv2.Rel Def.AnPl]
 ‘each house that we have built’

14.2 Subject relative clause

In this and the following sections I repeat and illustrate points already made above (apologies for repetitiveness), but now focusing on the grammatical function of the head within the relative clause. I begin with subject relatives.

The internal head NP, which may appear in various positions before the verb, undergoes tone-dropping. The internal head is maximally Poss-N-Adj-Num. Determiners and non-numeral quantifiers associated with the head NP appear as a coda after the verb. These points apply to all relative-clause heads, not just subjects.

The verb takes the correct relative form for its AN category, but it does not agree with the head NP except in imperfective positive relatives. Since the subject NP is usually overt, and is always nonpronominal, there is no separate subject proclitic preceding the verb.

As illustrated in detail in preceding sections, the verb in subject relatives is closely related to the corresponding main-clause conjugated AN stem. In particular, tonal patterns in suffixed main-clause forms recur in the relative verb.

Examples are in (593). The lexical form of the head noun is in parentheses after the free translation. The head NP (usually just a noun) is bolded in the interlinear.

- (593) a. *[ébà nà] àn^L mì-ý wé gè*
 [market Loc] **man^L** 1Sg-Acc see.Pfv.Rel Def.AnSg
 ‘the man who saw me in the market’ (*án*)
- b. *nò-mò^L [ébà nà] mì-ý wé m-ò:*
person-AnPl^L [market Loc] 1Sg-Acc see.Pfv.Rel Pl-Def.AnPl
 ‘the people who saw me in the market’ (*nò-mó*)
- c. *sèw^L mì-ý tǔé wò*
ax^L 1Sg-Acc cut.Pfv.Rel Def.InanSg
 ‘the ax that cut me’ (*séw*)
- d. *sèw^L mì-ý tǔé gè*
ax^L 1Sg-Acc cut.Pfv.Rel Def.InanPl
 ‘the axes that cut me’ (*séw*)
- e. *àn^L pílé gè*
man^L fall.Pfv.Rel Def.AnSg
 ‘the man who fell’ (*án*)
- f. *àn^L pílé m = ò:*
man^L fall.Pfv.Rel Pl = Def.AnPl
 ‘the men who fell’ (*án*)
 [also *àn-mù pílé m = ò:* , with Pl suffix on the head noun]
- g. *cìn^L pílé wò*

- stone**^L fall.Pfv.Rel Def.InanSg
‘the stone that fell’ (*cìn*)
- h. *cìn*^L *pílé* *gè*
stone^L fall.Pfv.Rel Def.InanPl
‘the stones that fell’ (*cìn*)
- i. *àn*^L *mì-ý* *dèm-â:* *gè*
man^L 1Sg-Acc hit-Ipfv.Rel Def.AnSg
‘the man who will hit me’ (*án*)
- j. *àn*^L *mì-ý* *dèm-â:* *m = ò:*
man^L 1Sg-Acc hit-Ipfv.Rel Pl-Def.AnPl
‘the men who will hit me’ (*án*)
- k. *sèw*^L *mì-ý* *tḡá-ŋ* *wò*
ax^L 1Sg-Acc cut-Ipfv.Rel Def.InanSg
‘the ax that will cut me’ (*séw*)
- l. *sèw*^L *mì-ý* *tḡâ:* *gè*
ax^L 1Sg-Acc cut.Ipfv.Rel Def.InanPl
‘the axes that will cut me’ (*séw*)
- m. *àn*^L *ún-lì* *gè*
man^L go-PfvNeg.Rel Def.AnSg
‘the man who didn’t go’
- n. *àn*^L *ùn-nú* *gè*
man^L go-IpfvNeg.Rel Def.AnSg
‘the man who will not go’

14.3 Object or adjunct relative clause

By “adjunct” I mean an adverbial expression such as ‘time’, ‘place’, or ‘manner’. Most nonsubject relatives have either an adjunct or an object as head. In nonsubject relatives, the internal head and its postverbal coda have the same form as in subject relatives.

In an object relative, the head NP is not marked for accusative case. This is related to the frequent dropping of postpositions whose complements are relative heads (§14.5).

The verb in a nonsubject relative may differ tonally from corresponding subject relatives. This is the case in suffixally marked perfect(ive) positive relative verbs (recent perfect and experiential perfect), and in several types of negative relative verbs. Where there is a tonal distinction, the nonsubject relative verb has bare-stem form, as though in nonfinal position in a verb chain.

Object and adjunct relative clauses have a subject distinct from the head. The subject may be nonpronominal (noun-headed) or pronominal. If pronominal, it takes the form of a proclitic pronoun immediately preceding the relative verb or direct verb chain.

The object-relative examples in (594) exemplify several of these points. They also illustrate the four intrinsic (animacy-number) categories of the head NPs: ‘stone(s)’, ‘cow(s)’. The verb takes the invariant perfective form *d̀̀g̀́* (variant of *d̀̀g̀́́*) in these examples, except for the animate plural suffix in (594d). The following definite marker distinguishes intrinsic categories, notably inanimate singular versus inanimate plural, agreeing with the internal head NP.

- (594) a. [*c̀̀n*^L *m̀̀* *d̀̀g̀́* *ẁ̀*] *àmbá:* *b̀̀-Ø*
 [stone^L 1SgSbj leave.Pfv.Rel Def.**InanSg**] where? be-3SgSbj
 ‘Where is the stone that I left?’
- b. [*c̀̀n*^L *m̀̀* *d̀̀g̀́* *g̀̀*] *àmbá:* *b̀̀-Ø*
 [stone^L 1SgSbj leave.Pfv.Rel Def.**InanPl**] where? be-3SgSbj
 ‘Where are the stones that I left?’
- c. [*nà:*^L *m̀̀* *d̀̀g̀́* *g̀̀*] *àmbá:* *b̀̀-Ø*
 [cow^L 1SgSbj leave.Pfv.Rel Def.**AnSg**] where? be-3SgSbj
 ‘Where is the cow that I left?’
- d. [*nà:-m̀̀*^L *m̀̀* *d̀̀g̀́-m = ò:*] *àmbá:* *b-è:*
 [cow-AnPl^L 1SgSbj leave.Pfv.Rel-**AnPl**=Def.AnPl] where? be-3PlSbj
 ‘Where are the cows that I left?’

Imperfective examples are in (595). Imperfective positive relative verbs, unlike other relative verbs, distinguish inanimate singular from other intrinsic categories of the head.

- (595) a. [*c̀̀n*^L *ó* *d̀̀g̀́á-ŋ = ò:*] *àŋg̀́ = .:*
 [stone^L 2SgSbj leave.Ipfv.Rel-**InanSg**=Def.InanSg] which?InanSg=it.is
 ‘Which is the stone that you will leave?’
- b. [*c̀̀n*^L *ó* *d̀̀g̀́á:* *g̀̀*] *àyé = .:*
 [stone^L 2SgSbj leave.Ipfv.Rel.**InanPl** Def.InanPl] which?InanPl=it.is
 ‘Which are the stones that you will leave?’
- c. [*nà:*^L *ó* *d̀̀g̀́á:* *g̀̀*] *àŋg̀́ = .:*
 [cow^L 2SgSbj leave.Ipfv.Rel.**AnSg** Def.AnSg] which?AnSg=it.is
 ‘Which is the cow that you will leave?’
- d. [*nà:*^L *ó* *d̀̀g̀́á-m = ò:*] *àmbá:* *b-è:*
 [cow^L 2SgSbj leave.Ipfv.Rel-**AnPl**-Def.AnPl] where? be-3PlSbj
 ‘Where are the cows that you will leave?’

14.4 Possessor relative clause

Example (596) illustrates the possessor-relative structure, with the possessum ‘head’ directly following the L-toned head noun ‘man/men’. The final definite marker agrees with the relative-clause head ‘man/men’. The possessum escapes possessor-controlled tone-dropping, as it is effectively **decoupled** from the possessor when the latter is relativized on. Compare lexically /H/-toned *kó:* ‘head’ in (596a-b) with its {L}-toned possessed form in *án^Lkò:* ‘(a/the) head of a man’.

- (596) a. *án^L kó: céyò gè*
 man^L head hurt.Stat Def.AnSg
 ‘the man whose head hurts’
- b. *án^L kó: céyò-m = ò:*
 man^L head hurt.Stat-AnPl=Def.AnPl
 ‘the men whose head hurts (=whose heads hurt)’

Cues of this syntactic type were often rephrased in YD. In (597a), ‘the man whose house fell’ was rephrased as ‘the man (who is) the owner of (the) house that fell’. Here ‘owner of (the) house that fell’ as a unit is treated as an adjectival modifier of ‘man’. (597b), with a resumptive possessor pronoun, is partially analogous to nonstandard English examples of the type ‘the children_x who their_x father died’, but the definite marker agrees in number with the relative-clause subject (‘father’) rather than with ‘children’.

- (597) a. [*án^L [[?àlò^L pílé] ^Lbàdù] gè]*
 [man^L [[house^L fall.Pfv.Rel] ^Lowner] Def.AnSg]
àmbá: bò-Ø
 where? be-3SgSbj
 ‘Where is the man (who is) the owner of the house that fell?’ (< *án, ?óló, bàdú*)
- b. [*ènè^L [bò ^Hdé:] tíbé gè] àmbá: b-è:*
 [child.Pl^L [3PlPoss ^Hfather] die.Pfv.Rel Def.AnSg] where? be-3PlSbj
 ‘Where are the children whose father died?’ (< *èné* ‘children’)

14.5 Relativization on the complement of a postposition

When the NP complement of a postposition is relativized on, one possibility is for the postposition to simply be omitted. (598a) has an overt locative postposition *nà*, but its relativized counterpart (598b) omits the postposition. Omission of the postposition is similar to the absence of accusative marking on object relative heads.

- (598) a. [bòndò †ná] yà pílé-w
 [hole **Loc**] Real fall.Pfv-2SgSbj
 ‘You-Sg fell into the pit.’
- b. [bòndò^L ó pílé wò] àngó = ∴
 [pit^L 2SgSbj fall.Pfv.Rel Def.InanSg] which?=it.is
 ‘Which (one) is the pit that you-Sg fell (into)?’

If the postposition is overt in the relative clause, it follows its complement noun as usual. However, both the noun and the postposition are L-toned. In other words, the noun is tone-dropped, and it cannot induce Rhythmic Tone-Raising on the postposition. The postposition is perhaps included in the domain of relative-controlled tone-dropping. This cannot be conclusively proven, since the relevant (noncomposite) postpositions elsewhere have L- as well as H-toned forms, so the L-toned forms in relatives might just be lexical.

- (599) a. [bòndò^L nà] ó pílé wò
 [pit^L **Loc**] 2SgSbj fall.Pfv.Rel Def.InanSg
 ‘the pit that you-Sg fell into’
- b. [ìngó [àn^L mì] ó dàmé gè]
 [Prox.InanSg [man^L to] 2SgSbj speak.Pfv.Rel Def.AnSg
 ‘the man to whom you-Sg said that’
- c. [àn^L bèr"à] bú:dù ó tǝ́ gè
 [man^L **Dat**] money 2SgSbj send.Pfv.Rel Def.AnSg
 ‘the man to whom you-Sg sent money’

15 Verb (VP) chaining and adverbial clauses

A **direct chain** of verbs or VPs is one where the nonfinal verbs take their bare-stem form, with no overt subordinator. The chain is completed by a single verb with full inflection. Direct chains in Dogon languages express co-events that are conceptually integrated into a larger whole, but the languages differ as to how strict the criteria for conceptual integration are. Compared to other Dogon languages, YD has relatively few direct chains. This is because it has some highly productive subordinators (notably those for same-subject VP chains) that are used in combinations that correspond to direct chains in some other Dogon languages such as Jamsay.

A **loose chain** is one where the nonfinal VP or clause does have an overt subordinator. In such a chain, each VP or clause usually has some degree of syntactic and semantic autonomy. However, the VPs in same-subject chains often share some constituents, and some syntactic integration may be apparent.

A useful test of syntactic autonomy is the position of a preverbal subject pronominal (P) in a relative clause. In relative clauses not involving a chain, such pronouns immediately precede the verb. In a relative involving a chain, if the order is ...P verb₁ verb₂, we conclude that the two verbs form a tight, compound-like unit. If the order is ...verb₁ P verb₂, then the VP or clause ending in verb₁ (which may have a subordinator) has at least some syntactic autonomy.

15.1 Direct chains (without chaining morpheme)

Direct chains, where the nonfinal verb appears as a bare stem (with no inflectional or subordinating suffix), are limited to integrated events that can be decomposed into two simultaneous or at least overlapping aspects (co-events) which are marked by different verbs. When two events are sequential rather than simultaneous, a suffixally marked subordinated form is used. For example, ‘go and come (back)’ is not expressed as a direct chain; see §15.2.2.2. As a result, direct chains are more restricted in YD than in, say, Jamsay.

Some complement-like constructions that are expressed as direct chains are described in §17.4. These include the ‘be able to VP’ construction expressed with final ‘get’ verb (§17.4.2) and a ‘finish VPing’ construction (§17.4.1).

Only proclitics may **intervene** between chained verbs, and even proclitics do so only sporadically. One such proclitic is realis *yà*, which occurs in some types of positive main clause (simple perfective, stative, recent perfect). Adding realis *yà* to a direct Vb₁ Vb₂ chain produces either [Vb₁ *yà* Vb₂] (600a) or, more often, [*yà* Vb₁ Vb₂] (600b). The other relevant proclitics are subject pronominals, which are common in nonsubject relative clauses. The 1Sg proclitic subject pronoun *mì* combines with a relativized verb chain as [Vb₁ *mì* Vb₂-Rel] (600c) or, more often, [*mì* Vb₁ Vb₂-Rel] (600d).

- (600) a. *pílé* *yà* *súwé-Ø*
 fall **Real** go.down.Pfv-3SgSbj
 ‘He/She fell down.’
- b. *yà* *pílé* ^L*sùwè-Ø*
Real fall ^Lgo.down.Pfv-3SgSbj
 [= (a)]
- c. *izèn*^L *pílé* *mì* *súwé* *wò*
 day^L fall **1SgSbj** go.down.Pfv.Rel Def.InanSg
 ‘the day when I fell down’
- d. *izèn*^L *mì* *pílé* *súwé* *wò*
 day^L **1SgSbj** fall go.down.Pfv.Rel Def.InanSg
 [= (c)]

When Vb₁ and Vb₂ are adjacent, under some conditions one or the other appears in {L}-toned form. If Vb₁ is /H ~ H/-toned, its tones are stable, but an immediately following clause-final Vb₂ usually drops to {L}-toned regardless of its lexical tones, as with *sùwè-Ø* in (600b). This instantiates a general pattern whereby verbs drop tones clause-finally when preceded by other full constituents, especially in focalized clauses. The final determiner in (600c-d) protects *súwé* from dropping its tones. Likewise, when realis *yà* intervenes between Vb₁ and Vb₂, it protects Vb₂ from tone-dropping, as in (600a). Contrast the more common (600b), where *yà* precedes both verbs and the unprotected Vb₂ drops tones.

Further examples of tonal relationships are in (601). Here Vb₁ is an /H ~ H/-toned verb *kúndó* which is stable tonally in the form of a bare stem. The immediately following inflected /LH ~ L/-toned verb ‘abandon’ is L-toned, not only in the negative forms (601b,d) where it is regularly L-toned, but also in the perfective, imperfective, and imperative where it would otherwise (i.e. if not in a chain) have at least one H-tone (601a,c,e).

- (601) a. [*èzù* †*wó*] *yà* *kúndó* ^L*bèz-ò*
 [waterjar Def.AnSg] Real **put.in** ^Labandon.Pfv-3PISbj
 ‘They put in and left the waterjar.’
- b. *kó* *kúndó* *bèzè-lí-Ø*
 InanSg **put.in** abandon-PfvNeg-3SgSbj
 ‘He/She did not put it in and leave it.’
- c. *kó* *kúndó* ^L*bèzò-m-ù*
 InanSg **put.in** ^Labandon-Ipfv-3SgSbj
 ‘He/She will put it in and leave it.’

- d. *kó* *kúndó* *bèzè-náŋ-Ø*
 InanSg **put.in** abandon-Ipfv-3SgSbj
 ‘He/She will not put it in and leave it.’
- e. *kó* *kúndó* ^L*bèzò*
 InanSg **put.in** ^Labandon.Imprt
 ‘Put-2Sg it in and leave it!’

The chain *pílé súwó* ‘fall down’ has the same tonal patterns as *kúndó bèzé* when Vb₁ and Vb₂ are adjacent and Vb₂ is clause-final. For example, elsewhere the perfective negative of ‘go down’ is *súwó-lì-* with /H/-toned stem. Chaining it to a preceding *pílé* ‘fall’ produces *pílé sùwò-lí-* ‘did not fall down’.

Now consider what happens when Vb₁ is lexically /LH ~ L/-toned, like *dè-dé* ‘set, put (e.g. container) down’. The verb appears with its lexical /LH/ melody in the perfective and imperfective (602a,c). However, in the perfective negative, imperfective negative, and imperative, L-toned *dè-dè* occurs, and an initial H-tone appears on Vb₂ (602b,d-e).

- (602) a. [*èzù* [†]*wó*] *yà* *dè-dé* ^L*bèz-ò*
 [waterjar Def.AnSg] Real **put.down-Tr** ^Labandon.Pfv-3PlSbj
 ‘They put down and left the waterjar.’
- b. *kó* *dè-dè* [†]*bézè-lí-Ø*
 InanSg **put.down-Tr** abandon-PfvNeg-3SgSbj
 ‘He/She did not put it down and leave it.’
 [for tones compare *yè:dè †bézè-zó-m* in (769) in Text 1]
- c. *kó* *dè-dé* ^L*bèzò-m-ù*
 InanSg **put.down-Tr** ^Labandon-Ipfv-3SgSbj
 ‘He/She will put it down and leave it.’
- d. *kó* *dè-dè* [†]*bézè-náŋ-Ø*
 InanSg **put.down-Tr** abandon-Ipfv-3SgSbj
 ‘He/She will not put it down and leave it.’
- e. *kó* *dè-dè* ^{L†}*bézò*
 InanSg **put.down-Tr** ^Labandon.Imprt
 ‘Put-2Sg it down and leave it!’

There are two ways to model the tones of the aberrant (602b,d-e). One is to allow the initial L-tone of *dè-dé* to spread rightward to the end of the word, effectively suppressing the final H-tone. At this point, both verbs are L-toned, and Rhythmic Tone-Raising could raise the tone of the first syllable of Vb₂. An alternative analysis, with the same result, is that the final H-tone of *dè-dé* jumps across the word boundary and docks on the first syllable of Vb (§3.7.4.3).

15.1.1 Verbal noun of directly chained verbs

Direct verb chains can form a verbal noun in compound form. The final verb takes its usual verbal noun form. The nonfinal verb has its regular bare stem form but drops tones, like the initials in many noun-noun compounds including those with verbal-noun final and an incorporated object (§5.1.4.1). For example, *pilé súyó-* ‘fall down’ (‘fall’ plus ‘go down’) becomes *pìlè^L-[sűy-Ø]* ‘(act of) falling down’.

15.1.2 Presence of AN suffix in nonfinal verb in direct chains

In direct chains, by definition, inflectional or subordinating suffixes are absent on the nonfinal verbs in the chain. In some other Dogon languages, an auxiliary-like element Y can appear in an [X-Y]-Z verb chain, functioning as a perfective marker for the X verb. This construction is not known in YD, since perfectivity entails sequencing, and since YD does not express sequential events as direct verb chains.

té in §15.1.7 below resembles medial perfective auxiliaries in some other Dogon languages, but it is not related to any AN suffix.

15.1.3 Arguments of directly chained verbs

As noted earlier, chained verbs are typically adjacent, allowing only certain elements (realis *yà*, subject proclitics) to intervene, and then only optionally. Overt subject and object NPs, adverbial phrases, and other clausal elements precede both verbs. See (601a,c,e) in §15.1 above for examples involving direct objects.

In (819) in Text 3, ‘what I have brought and come’, the head NP ‘thing’ appears to belong logically to the nonfinal chained verb ‘brought’. However, since postpositions can be omitted when their complements are relativized on, this example could also be construed as ‘what I have brought and come with’.

15.1.4 Negation of direct verb chains

Only the final verb in the chain is inflectable. As a consequence, the only possible negation is wide-scoped and is expressed by suffixation on the final verb. See (601b,d) in §15.1 above for examples. In practice, negation of verb chains is rare in discourse.

15.1.5 Direct chains including a motion verb

The combination ‘fall’ plus ‘go down’ meaning ‘fall down’ is illustrated in §15.1 above. It was difficult to elicit other examples. Meanings like ‘X came singing’ and ‘X ran up the hill’ are expressed using various loose-chain constructions, not as direct chains of two simple

(uniterated) verbs. For a construction that does involve iteration, see the following section. Loose-chain constructions covered elsewhere are illustrated in (603a-c) to make the point that direct chaining is not usual with motion verbs.

- (603) a. *[nùṅà nùṅá-m wè-Ø]*
 [song sing-**Ipfv**] come.Pfv-3SgSbj
 ‘He/She came singing (a song).’
 [imperfective clause, §15.2.1]
- b. *zòbò-y yà ʔólé-Ø*
 run-Past.**and.then** Real go.up.Pfv-3SgSbj
 ‘He/She ran up (e.g. a hill).’
 [-y with coindexed subject, §15.2.2.2]
- c. *[tòlò^L ná w-ò]*
 [pound^L **Purp**] come.Pfv-3PlSbj
 ‘They came to pound (grain).’
 [purposive clause, §17.6.1]

15.1.6 Durative verb-iterations chained to a following verb

The construction in (604) has an iterated bare verb stem functioning as a durative clause chained to a following verb. Prolonged duration is emphasized. The first occurrence of the verb has the tones of the regular bare stem, while the second and any subsequent iterations are {L}-toned. The regular bare stems are shown in parentheses after the free translations.

- (604) a. *[nùṅà nùṅó-nùṅò] wè-Ø*
 [song **Iter-sing**] come.Pfv-3SgSbj
 ‘He/She came singing (a song).’ (*nùṅó*)
- b. *[ànǎ: kán-kàn] zá bèlá-ń gèlà-Ø †má→ wà*
 [how? **Iter-do**] food get-**Ipfv** Prog-3SgSbj Q Quot
 ‘(He asked:) By doing what (=how) do you keep getting food?’ (*kán*) (excerpt from (800) in Text 2)
- c. *[ṅṅóy [zá wò]*
 [thus [meal Def.InanSg]
ʔéńé-ʔèńè bèlá-ń jèlà-Ø dè gày]
Iter-eat get-**Ipfv** Prog-3SgSbj if Top]
 ‘(He said:) if this is how you keep getting the food, ...’ (*ʔéńé*) (excerpt from (809) in Text 2)

Disjoint subjects are also possible; see §15.2.1.2 for examples.

This *-m̄* should be distinguished from logophoric-subject *-m* in quotations, on which see §10.4.3 and §18.2.1.2.

15.2.1.1 Imperfective *-m̄* on activity verb plus time-of-day verb

A verb with a meaning like ‘spend (day, night, etc.)’ denoting an extended time interval can readily combine with a preceding imperfective subordinated clause (see the preceding subsection) with the same subject. The imperfective verb ends in *-m̄* without pronominal-subject conjugation.

- (607) a. *[té: zàndá-m]* ^L*dèrⁿ-à*
 [tea cook-**Ipfv**] ^Lspend.day.Pfv-3PlSbj
 ‘They spent all day making tea.’
- b. *[jà jè-m̄]* *nǎ:-m-è*
 [dance(n) dance-**Ipfv**] spend.night-**Ipfv**-3PlSbj
 ‘They will spend the night dancing.’

15.2.1.2 Imperfective *-m̄* in different-subject complements

While imperfective *-m̄* occurs most often in constructions where the two clauses share a subject, and in general are tightly fused, it is also possible for it to form imperfective complements of main-clause verbs of perception (‘see’, ‘hear’, ‘find’). In this construction, the subject of the imperfective clause must be represented by a preverbal subject pronoun, even when a full subject NP is also present.

- (608) a. *[nò-mó wò]* *záŋ bò záníyá-m* ^L*tèmbè-m*
 [person-AnPl Def.AnPl] fight(n) 3PlSbj fight-**Ipfv**] ^L**find**.Pfv-1SgSbj
 ‘I found the people fighting (squabbling).’
- b. *[[yè-mù †wó]* *tól bò tóló-m wò = bé-m*
 [[woman-AnPl DefAnPl] pounding 3PlSbj pound-**Ipfv**] **see**=Past-1SgSbj
 ‘I saw the women pounding (in mortars).’
- c. *[dèndà: †gá]* *sátará bòn nà bàrá-m nò = bé-m*
 [night Loc] young.man tomtom 3SgSbj beat-**Ipfv**] **hear**=Past-1SgSbj
 ‘At night I heard a young man play(ing) a tomtom.’

These complements are distinct from factive (‘that ...’) complements for the same higher perception verbs (§17.2.2-3).

15.2.1.3 Imperfective *-m* complements of stative verbs

Although the conjugated derived stative form of verbs (e.g. ‘be sitting’) does not include *-m-* or other recognizable allomorph of the imperfective suffix, in constructions like those of the preceding section, e.g. with ‘find’ as main-clause verb, imperfective *-m* is added to the stative verb in the complement.

- (609) a. [säydù nà óbò-*m*] ^Ltèmbè-*m*
 [S 3SgSbj sit.Stat-**Ipfv**] ^L**find**.Pfv-1SgSbj
 ‘I found Seydou sitting.’
- b. [háwà ènè nà bàmbá-*m*] ^Ltèmbè-*m*
 [H child 3SgSbj carry.on.back.Stat-**Ipfv**] ^L**find**.Pfv-1SgSbj
 ‘I found Haouwa carrying a baby on her back.’

A textual example is the repeated *bò kúrⁿ-úm* ‘they were in’, (777) in text 1. See also *bó-ⁿm* ‘(while) being’, with the locational ‘be’ quasi-verb, in (118b) in §4.7.1.1.

15.2.1.4 Background clauses with *-m = ð:* (plural *-ⁿm gè*) with proclitic subject

This construction is common in texts. *-m-ð:* consists of *-ⁿm* (presumably imperfective) plus encliticized inanimate singular or animate plural definite *wò*. For the contracted pronunciation, compare phonetic [mð:] from animate plural definite /-*mù wò*/. This morphemic analysis is supported by the alternative form *-ⁿm gè*, with animate singular or inanimate plural definite *gè* following “imperfective” *-ⁿm*.

This subordinated clause type is common medially in narrative text segments. In spite of its imperfective morphology, the textual examples have no obviously imperfective aspectual quality. An assistant usually translates it with ‘when ...’ (French *lorsque ...*), setting up a following foregrounded clause. However, it does not usually occur in repeated “echo” clauses as in ‘he fell down; (after) having fallen down, he ...’. In other words, the clause can introduce new narrative material in this clause type, as long as it is not highly foregrounded.

The subject pronominal category is expressed by a preverbal proclitic pronominal, with *á* (elsewhere reflexive or 3Logophoric) for 3Sg.

- (610) a. àmbà [èⁿè^L bô:] á bálé-*m = ð:* ,
 God [children^L those.NearDist] 3Refl gather-**Ipfv=Def.InanSg**
 ‘God gathered (=adopted) those children, ...’ (excerpt from (845) in Text 5)
- b. bò-*y* á pódé-*m* gè, ...
 3Pl-Acc 3ReflSbj greet-**Ipfv** Def.**AnSg**, ...
 ‘when she had greeted them, ...’ (excerpt from (853) in Text 5)

15.2.2 Past anterior subordinator *-y* ‘and then’

This subordinator connects its clause with an immediately following clause. The conditions for using *-y* are those in (611).

- (611) a. the event denoted by the subordinated clause precedes that denoted by the following main clause;
 b. the two events are part of a single episode;
 c. the event denoted by the subordinated clause (and therefore the entire sequence) is completed.

In interlinears, the gloss is ‘Past.and.then’. For future and other imperfective contexts, *-y* is replaced by another subordinator, *-é: ~ -é:*, see §15.2.3 below.

The subjects of the two clauses may be coindexed or disjoint, see §15.2.2.1-2 below. In the disjoint case, a proclitic subject pronoun is obligatory, and (perhaps under the influence of this proclitic) the *-y* form of the verb is {H}-toned. In the coindexed case, lexical tones affect the tones of the *-y* form. Lexical /H/ is realized as H, while lexical /LH/ spreads its initial tone all the way to the right to result in L. Irregular /HL/ stem ‘bring’ preserves its full melody.

The stem takes the E-stem, as in the simple perfective. Vowel-length is preserved in *Cv:* stems, except that *Ca:* stems take their bisyllabic form *Caye-*, again as in the perfective. In the presence of *w* or another labial or rounded segment, a final *e* is often heard as *o*, hence *wè-y ~ wò-y* ‘come’, *kúbé-y ~ kúbó-y* ‘eat [meat]’. By contrast, final *ɛ* is distinctly audible.

(612)	bare stem	perfective	Past.and.then (coindexed)	gloss
a. H-toned				
	/H ~ H/			
	<i>ká:</i>	<i>káyé-</i>	<i>káyé-y</i>	‘shave’
	<i>nó</i>	<i>nɔ́é-</i>	<i>nɔ́é-y</i>	‘go in’
	<i>tó:</i>	<i>tɔ́é:-</i>	<i>tɔ́é:-y</i>	‘spit’
	<i>té:</i>	<i>té:-</i>	<i>té:-y</i>	‘sprout (v)’
	<i>ún</i>	<i>úrⁿé-</i>	<i>úrⁿé-y</i>	‘go’
	<i>ńdé</i>	<i>ńdé-</i>	<i>ńdé-y</i>	‘give’
	<i>ʔáǵé</i>	<i>ʔáǵé-</i>	<i>ʔáǵé-y</i>	‘eat (meal)’
	<i>ʔólé</i>	<i>ʔólé-</i>	<i>ʔólé-y</i>	‘go up’
	<i>tóló</i>	<i>tólé-</i>	<i>tólé-y</i>	‘pound (in mortar)’
	<i>úbó</i>	<i>úbé-</i>	<i>úbé-y</i>	‘pour’
	<i>tábú</i>	<i>tábé-</i>	<i>tábé-y</i>	‘touch’
	<i>óbí-yó</i>	<i>óbí-yé-</i>	<i>óbí-yé-y</i>	‘sit’

b. L-toned

/H ~ H/

yé *yé-* *yè-y* ‘weep’

/H ~ L/ as proxy for /LH ~ L/

gó *gòé-* *gòè-y* ‘go out’

wó *wé-* *wè-y ~ wò-y* ‘come’

wó *wé-* *wè-y* ‘see’

má:né *má:né-* *mà:nè-y* ‘think’

/LH ~ L/

mǎ: *màyé-* *màyè-y* ‘make (bricks)’

dèrⁿé *dèrⁿé-* *dèrⁿè-y* ‘spend day’

gòló *gòlé-* *gòlè-y* ‘do farm work’

dì-yé *dì-yé-* *díyè-y* ‘carry on head’

nìndíyó *níndíyé* *nìndiyè-y* ‘listen’

/LH ~ LH/

nǎ: *nàyé-* *nàyè-y* ‘spend night’

c. HL-toned

irregular

zó *zòé-* *zòé-y* ‘bring’

Examples are in the two subsections below.

15.2.2.1 Different-subject *-y* with proclitic subject

If the subjects are disjoint, the subject of the subordinated clause must be expressed as a preverbal **proclitic** pronominal (1Sg *mì*, 2Sg *ó*, etc.), and the *-y* verb appears as **{H}-toned**. A resumptive third person subject proclitic is required even when the subject is already expressed as a full NP (613b). The presence of a subject proclitic tips the listener off to the fact that the following clause has a disjoint subject. The subordinated verb in (613a-b) is *dílíyó* ‘pull’, perfective *dílíyé-*, but here with {H} overlay.

- (613) a. *[[sùŋ †wó] mì dílíyé-y]*
 [[rope Def.InanSg] **1SgSbj** pull-Past.**and.then**]
[yà púlí-yé-Ø]
 [Real snap-MP-3SgSbj]
 ‘I pulled the rope and (then) it snapped.’

- b. *[sěydù [sùŋ †wó] nà dílíyé-y]*
 [Seydou [rope Def.InanSg] **3SgSbj** pull-Past.**and.then**]
[yà púlí-yé-Ø]
 [Real snap-MP-3SgSbj]
 ‘Seydou pulled the rope and (then) it snapped.’

- c. *[[sùŋ †wó] ó dílyé-y]*
 [[rope Def.InanSg] 2SgSbj pull-Past.and.then]
[yà púlí-yé-Ø]
 [Real snap-MP-3SgSbj]
 ‘You-Sg pulled the rope and (then) it snapped.’

In (613a-b) above, the second (i.e. main) clause is shown in its full form, with realis *yà* (which requires the regular tones of the following simple perfective verb). It is also possible to omit *yà* in these clauses, in which case the perfective verb drops to {L} tone. For example, (613a) has a variant (614). This reduction of the main clause is similar to reductions within perfective clauses that have preverbal constituents, especially if focalized.

- (614) *[[sùŋ †wó] mì dílyé-y] ^Lpùlì-yè-Ø*
 [[rope Def.InanSg] 1SgSbj pull-Past.and.then] ^Lsnap-MP.Pfv-3SgSbj
 ‘I pulled the rope and (then) it snapped.’

15.2.2.2 -y with coindexed subjects

The subordinated and main clauses may also have coindexed subjects. Examples are (615a-b), which are explicit about the agency of the snapping event. In this construction, there are no preverbal subject proclitics in the subordinated clause. In (615a), the final 1Sg suffix in the main clause is sufficient. A nonpronominal subject NP normally occurs at the beginning of the construction (though one can argue about which verb to bracket it with), and there is no resumptive subject proclitic (615b).

- (615) a. *[[sùŋ †wó] dílyè-y] [yà púl-lé-m]*
 [[rope Def.InanSg] pull-Past.and.then] [Real snap-Tr-1SgSbj]
 ‘I pulled the rope and made it snap.’
- b. *[sěydù [sùŋ †wó] dílyè-y] [yà púl-lé-Ø]*
 [S [rope Def.InanSg] pull-Past.and.then] [Real snap-Tr-3SgSbj]
 ‘Seydou pulled the rope and made it snap.’

With coindexed subjects, sometimes the -y clause denotes a **prolonged** activity or situation rather than a temporally bounded event. The prolonged activity leads up to the event denoted by the following clause, as in (616). The free translation often has ‘until’.

- (616) *zóbó-y [yà pílé-Ø]*
 run-Past.and.then [Real fall.Pfv-3SgSbj]
 ‘He ran (=kept running) until he fell.’

The ‘be tired’ construction in §15.2.2.3 below makes use of this.

15.2.2.4 Negation and *-y* clauses

The *-y* clause itself cannot be negated. The main clause can of course be negated. In this case, usually the negation does not have scope over the subordinated clause (620). In free translations, ‘but’ is often appropriate.

- (620) a. *[[mì^H dé:] bɛ̀rⁿà] bú:dù mì némílé-y,*
 [[1SgPoss ^Hfather] Dat] money 1SgSbj ask-Past.and.then
mì-ý ñdà-lí-Ø
 1Sg-Acc give-PfvNeg-3SgSbj
 ‘I asked my father for money but he didn’t give me (any).’
- b. *[[sùŋ †wó] dilìyè-y] púl-ló-lù-m*
 [[rope Def.InanSg] pull-Past.and.then] snap-Tr-PfvNeg-1SgSbj
 ‘I pulled the rope but did not make it snap.’

If the first clause is separately negated, it does not appear in subordinated-clause form. Instead, a regular negative main clause is followed directly by the second clause (621).

- (621) *sémbá-lù-m [mì-ý^L làlìyè-Ø]*
 sweep-PfvNeg-1SgSbj [1Sg-Acc ^Lchase.away.Pfv-3SgSbj]
 ‘I didn’t sweep up and (so) he/she drove me out.’

15.2.3 Nonpast anterior same-subject subordinator *-é: ~ -é:* after {L}

This subordinator links one clause to a following clause under these conditions:

- (622) a. the two clauses have coindexed subjects (usually not overtly repeated);
 b. the events denoted by the two clauses are chronologically sequenced;
 c. the two-event sequence as a whole is not completed.

The clause following the *-é: ~ -é:* clause may be imperfective or a deontic modal (imperative, hortative). The construction is common with regularly paired events (‘eat and drink’), and combinations where the second event reverses the first (e.g. ‘go and come back’, ‘go up and come back down’).

-é: ~ -é: is also the form of the complement in the same-subject ‘want to VP’ construction (§17.5.2). In this case, requirements (622a,c) are respected, but the chronological requirement is waived.

The subordinated clause has *-é: ~ -é:* replacing the stem-final vowel, and it is arguably an extension of the final {*e* *ɛ*} of the E-stem as in the simple perfective. However, the preceding stem is L-toned. For mono- and bisyllabic verbs, the tones are consistent with an {L} overlay. However, this does not account for trisyllabics, which are L.L.H for the /H ~ H/ melodic class but L.H.H from /LH ~ L/. See comments following (624) below.

c. CvCv- (and Cvn-)

+ATR

<i>pílé</i>	<i>pìl-é:</i>	‘fall’
<i>tóló</i>	<i>tòl-é:</i>	‘pound (in mortar)’
<i>tábú</i>	<i>tàb-é:</i>	‘touch’
<i>mànú</i>	<i>màn-é:</i>	‘cook’

-ATR

<i>ún</i>	<i>ùrⁿ-é:</i>	‘go’
<i>sémé</i>	<i>sèm-é:</i>	‘slaughter’
<i>ʔéṗé</i>	<i>ʔèṗ-é:</i>	‘eat (meal)’
<i>ʔólé</i>	<i>ʔòl-é:</i>	‘go up’
<i>dèrⁿé</i>	<i>dèrⁿ-é:</i>	‘spend day’
<i>gòlò</i>	<i>gòl-é:</i>	‘do farm work’
<i>dì-yé</i>	<i>dìy-é:</i>	‘carry on head’

d. trisyllabic

/H ~ H/

<i>óbí-yó</i>	<i>òbì-y-é:</i>	‘sit’
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/L ~ LH/

<i>nìndíyó</i>	<i>nìndíy-é:</i>	‘listen’
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The tonal discrepancy between ‘sit’ and ‘listen’ in (624d) shows that a one-size-fits-all {L} overlay is untenable. The L.H.H tone sequence in *nìndíy-é:* has the same tone break, at the leftmost syllabic boundary, as in the bare stem *nìndíyó*, contrast perfective *yà nìndíyé* ‘he/she listened’. *óbí-yó* ‘sit’ has no natural tone-break position, and its subordinated form *òbì-y-é:* delays the H-tone until the final syllable. So the default is L.L.H, but if the verb has a lexical tone-break position the rise from L to H is aligned with that position.

In cases involving tight integration of two co-events, whose chronological sequencing is blurry, the construction with *-é:* ~ *-é:* may compete with direct chains, where the first verb occurs in its bare stem form. For example, ‘fall’ and ‘go down’ combine in a tight chain to denote the event usually expressed in English as *fall down* (625a). They can also combine using *-é:* ~ *-é:*, a phrasing that allows for a time lapse between the two events, as when the fall occurs on a roof and the unfortunate victim then comes down on a ladder (625b).

- (625) a. *pílé* *súwó-m-ù*
 fall go.down-Ipfv-3SgSbj
 ‘He/She will fall down.’
- b. *pìl-é:* *súwó-m-ù*
 fall-NonPast.and.SS go.down-Ipfv-3SgSbj
 ‘He/She will fall and (then) go down.’

For past time frames, a similar competition occurs between *-y* subordinated clauses and direct chains.

- (629) a. *y-â:* *mù:mbì-y-é:* *ún-m-iy*
 1Pl-all.together **assemble-MP-NonPast.and.SS** go-Ipfv-1PlSbj
 ‘We will all get together and go (=go together).’
- b. *y-â:* *mòrⁿ-é:* *ún-m-iy*
 1Pl-all.together **assemble-NonPast.and.SS** go-Ipfv-1PlSbj
 ‘We will all get together and go (=go together).’

Other forms from the same word-family are transitive *mú:mbó* ‘gather, assemble (them)’ and noun *mú:mbú* ‘assemblage, gathering, group, herd’.

15.2.4.2 ‘(Go) with, (take) along’ chains including *jèlí-yé-* ‘hold’

There is no close counterpart to elements such as Jamsay *jíjè* that function like nonfinal chained verbs with the sense ‘(go/come) with/accompanied by (sth)’. This is expressed in YD not by a direct chain, rather by a loose chain with subordinator *-y* (past time) or *-é: ~ -é:* (nonpast time) added to some verb with a meaning like ‘hold’ or ‘keep’. This is normally followed by a verb of motion or conveyance.

- (630) *[[injè †gè] jèlí-yè-y] úrⁿ-é-m*
 [[dog Def.AnSg] **hold-MP-Past.and.then** go.Pfv-1SgSbj
 ‘I went, taking the dog along.’

15.3 Other temporal adverbial clauses

15.3.1 ‘(Ever) since ...’ clause with *-ná ~ -rⁿá* and proclitic subject

Clauses of the type ‘(ever) since ...’, denoting an extended time interval that began with a specified event and continues to the present (or an alternative reference point), are expressed by adding a suffix *-ná* to the verb of the ‘since’ clause. The allomorph *-rⁿá* is optional, except that only *-ná* is possible with the three *n*-final verbs.

For *-ná ~ -rⁿá* in immediate-sequence clauses, see the §15.3.2.1 below.

The subject of the ‘since’ clause proper is obligatorily expressed by a preverbal proclitic pronoun (e.g. 1Sg *mì*, 2Sg *ó*). This proclitic is required even if the subject has already been spelled out by a fuller NP, and regardless of whether the subordinated and main clauses have the same or different subjects. For example, (631a) is literally ‘the goat, (ever) since it came here, it hasn’t eaten.’ One might consider ‘the goat’ to be a preclausal topic NP at least syntactically.

- (631) a. *[?áné gè] [nà wé-ná] ?èpè-lè ?áná-lì-Ø*
 [goat Def.AnSg] [3SgSbj come-since] eat-VbIN eat-PfvNeg-3SgSbj
 ‘The goat hasn’t eaten (anything) since it came (here).’

- b. *[mì nɔ́é-ná gò-lú-m]*
 [1SgSbj go.in-**since**] go.out-PfvNeg-1SgSbj
 ‘Since I went in, I haven’t gone out.’
- c. *àrⁿùŋ [nà tégè-ná]*
 rain [3SgSbj rain.fall-**since**]
[[izèn^L pú→] [òy †ná úrⁿú-m bò-Ø]
 [[day^L all] [field Loc] go-Ipfv be-3SgSbj]
 ‘Since it rained, he is (=has been) going to the fields every day.’
- d. *[nà †sá:-m = ò:] [bò tíbé-ná]*
 [3SgPoss sister-AnPl=Def.AnPl] [3PlSbj die-**since**]
[ŋgí wò-lí-Ø]
 [here come-PfvNeg-3SgSbj]
 ‘Since his sisters died, he hasn’t come here.’

As shown by the data in (632) below, *-nà* ‘since’ is added to a form identical to that of the conjugated **perfective** stem (in its tonal form following realis *yà*). The segmental connection to the perfective is especially clear in forms with desyllabified rounded vowel (632b-c) and in forms of the shape *Caye* (632d).

(632)	bare stem	perfective after <i>yà</i>	‘since...’	gloss
a.	<i>wó</i>	<i>wé-</i>	<i>wé-ná</i>	‘come’
	<i>wó</i>	<i>wé-</i>	<i>wé-ná</i>	‘see’
	<i>yé</i>	<i>yé-</i>	<i>yé-ná</i>	‘weep’
b.	<i>gó</i>	<i>gɔ́é-</i>	<i>gɔ́é-ná</i>	‘go out’
	<i>nó</i>	<i>nɔ́é-</i>	<i>nɔ́é-ná</i>	‘go in’
	<i>zó</i>	<i>zɔ́é-</i>	<i>zɔ́é-ná</i>	‘bring’
c.	<i>tó:</i>	<i>tɔ́é:-</i>	<i>tɔ́é:-ná</i>	‘spit’
	<i>só:</i>	<i>sɔ́é:-</i>	<i>sɔ́é:-ná</i>	‘peck’
	<i>té:</i>	<i>té:-</i>	<i>té:-ná</i>	‘sprout (v)’
d.	<i>mǎ:</i>	<i>màyé-</i>	<i>màyé-ná</i>	‘make (bricks)’
	<i>nǎ:</i>	<i>nàyé-</i>	<i>nàyé-ná</i>	‘spend night’
	<i>ká:</i>	<i>káyé-</i>	<i>káyé-ná</i>	‘shave’
e.	<i>ún</i>	<i>úrⁿé-</i>	<i>úrⁿé-ná</i>	‘go’
	<i>ńdé</i>	<i>ńdé-</i>	<i>ńdé-ná</i>	‘give’
	<i>ʔɛ́né</i>	<i>ʔɛ́né-</i>	<i>ʔɛ́né-ná</i>	‘eat (meal)’
	<i>ʔólé</i>	<i>ʔólé-</i>	<i>ʔólé-ná</i>	‘go up’

	<i>tóló</i>	<i>tólé-</i>	<i>tólé-ná</i>	‘pound (in mortar)’
	<i>úbó</i>	<i>úbé-</i>	<i>úbé-ná</i>	‘pour’
	<i>tábú</i>	<i>tábé-</i>	<i>tábé-ná</i>	‘touch’
	<i>óbí-yó</i>	<i>óbí-yé-</i>	<i>óbí-yé-ná</i>	‘sit’
f.	<i>dèrⁿé</i>	<i>dèrⁿé-</i>	<i>dèrⁿé-ná</i>	‘spend day’
	<i>gòlò</i>	<i>gòlé-</i>	<i>gòlé-ná</i>	‘do farm work’
	<i>dì-yé</i>	<i>dì-yé-</i>	<i>dì-yé-ná</i>	‘carry on head’
	<i>níndíyó</i>	<i>níndíyé-</i>	<i>níndíyé-ná</i>	‘listen’

A different particle *bâ*→ ‘since’ is used with an NP complement: *nìṅà: bâ*→ ‘since yesterday’. Alternating phrasings for this sense are [*X gó méréⁿá*] ‘(since) before X went out’, cf. §15.3.4, and [*X gòyé-ná*] ‘since X went out’, based on the verb *gó* ‘go out’ (§10.2.1.4).

- (633) a. [*nìṅà: bâ*→] *bìdé* *bìdá-m* *jèlà-y*
 [morning **since**] work(n) work-Ipfv Prog-1PlSbj
 ‘We have been working since morning.’
- b. [*nìṅà: gó méréⁿá*] *bìdé* *bìdá-m* *jèlà-y*
 [morning **go.out before**] work(n) work-Ipfv Prog-1PlSbj
 ‘We have been working since morning.’

15.3.2 Immediate-sequence constructions

Two constructions described below indicate that the event denoted by a final clause immediately and unexpectedly follows the completion of the event denoted by a preceding clause (‘No sooner did/does ..., than ...’).

See also the ‘as soon as ...’ construction in §16.2.2.1.

15.3.2.1 Immediate sequence *-ná* ~ *-rⁿá*

In one construction, the first clause contains the same *-ná* ~ *-rⁿá* subordinator on the verb, and has the same obligatory preverbal subject pronominal, that occur in ‘since ...’ clauses (§15.3.1 above). This construction was regularly elicited when the sequence of closely spaced events took place in the past. The second clause may omit realis proclitic *yà* before the perfective verb, especially when the second clause is short and not sharply set off prosodically from the first clause. In the absence of *yà*, the perfective verb may take its defocalized {L}-toned form (634d). Realis *yà* does occur in the long second clause in (634e).

- (634) a. [[*?óló †ná*] *mì* *dǔyé-ná*] *bìyé-m*
 [[house Loc] 1SgSbj arrive-**since**] lie.down.Pfv-1SgSbj
 ‘As soon as I arrived at the house, I lay down (to sleep).’

- b. *[[ʔáló †ná mì dʒé-ná]*
 [[house Loc] 1SgSbj arrive-**since**]
[àrⁿùŋ tégíí-yé-Ø]
 [rain(n) rain.fall-Inch.Pfv-3SgSbj]
 ‘As soon as I arrived at the house, rain began to fall.’
- c. *[nà wé-ná] [yàŋ tólé-Ø]*
 [3SgSbj come-**since**] [weeping(n) begin.Pfv-3SgSbj]
 ‘As soon as she came, she started crying.’
- d. *[àrⁿùŋ nà tégíí-yé-ná] [[ʔáló †ná] ^Lnʒè-Ø]*
 [rain 3SgSbj rain.fall-Inch-**since**] [[house Loc] ^Lgo.in.Pfv-3SgSbj]
 ‘As soon as rain started to fall, he/she went into the house.’
- e. *[[mì ^{LH}lāl] mónò mì-ý nà ndé-ná]*
 [[1SgPoss ^{LH}friend] motorcycle 1Sg-Acc 3SgSbj give-**since**]
[[mì ^{LH}dèré] [mì ^Hbérⁿá] yà élé-zè-Ø]
 [[1SgPoss ^{LH}elder.sib] [1Sg ^HDat] Real dispossess-RecPrf-3SgSbj]
 ‘As soon as my friend gave me a motorcycle, my older (same-sex) sibling took (it) away from me.’

15.3.2.2 Prolonged conjugated imperfective

The second immediate-sequence construction is favored when the sequence of events is conceptualized as non-past (future or present habitual). The verb of the first clause is imperfective, with regular pronominal-subject inflection. The second clause is usually likewise imperfective, but it can also be an imperative or hortative. The first clause has realis *yà*, since its veridicality is presupposed in this context. Elsewhere, *yà* combines with imperfectives in presentational function, i.e. when an activity is in progress and conspicuous, see (380a-c). The only “subordinator” in the current construction is obligatory **prolongation** of the final segment (symbol →) of the conjugated imperfective verb of the first clause. In (635a), the word-final *m* in the 1Sg imperfective is prolonged, while in (635b) the final vowel of the 3Pl suffix is prolonged.

- (635) a. *[[dùmózáŋ nà] yà dʒá-m-Ø→] bìyó-m-Ø]*
 [[D Loc] Real arrive-**Ipfv-1SgSbj**] lie.down-**Ipfv-1SgSbj**
 ‘As soon as I (will) arrive in Douentza, I will lie down (=go to bed).’
 or: ‘(Habitually) as soon as I arrive in Douentza, I lie down.’
- b. *[[dùmózáŋ nà] yà dʒá-m-è→] bìyó-m-è]*
 [[D Loc] Real arrive-**Ipfv-3PlSbj**] lie.down-**Ipfv-3PlSbj**
 ‘As soon as they arrive in Douentza, they will lie down (=go to bed).’

It is unclear whether this prolongation should be ascribed to the dying-quail intonation effect (§3.8.2). That effect also includes slow pitch decline on prolonged H-toned sonorants or vowels. The conjugated imperfective ends in an L-tone, so we cannot determine what would happen with a final H-tone.

15.3.3 Noun-headed temporal clause ('the time/day when ...')

A noun denoting a temporal moment or interval ('time', 'year', 'day', 'era', etc.) can serve as head of a relative clause that functions as a temporal adverbial clause ('when...'). The relative construction may be followed by instrumental postposition *mì* 'with' (§8.1.2), as in (636a), or a postposition may be absent but implied (636b).

- (636) a. *[wàgàdù^L mì pílé wò] mì,*
 [time^L 1SgSbj fall.Pfv.Rel Def.InanSg] with,
pòl †gélá: = bá-lù-m
 knife have.Ipfv=Past-PfvNeg-1SgSbj
 'At the time when I fell, I didn't have a knife (on me).'
- b. *módùbè [izèn^L nà wé wò],*
 holy.man [day^L 3SgSbj come.Pfv.Rel Def.InanSg],
[dàamá wò cêm] yà múmbí-y-á
 [village Def.InanSg all] Real assemble-MP.Pfv-3PISbj
 'The holy man, (on) the day when he came, the whole village (=all the villagers) assembled.'

15.3.4 'Before ...' clause (*mér^{ná}, mì*) with proclitic subject

The clause-final particle *mér^{ná}* is added to an **H-toned** form of the bare stem of the verb to constitute a 'before ...' clause, which may precede or follow its main clause. A preverbal subject proclitic pronominal is obligatory, even if the subject is also expressed by a full NP. The proclitic may have played a role historically in determining the tone of the verb. This construction is required when the 'before ...' clause and the main clause have different subjects.

- (637) a. *[nìṅà: †gá] [[àrⁿùṅ †wó] nà tégé] mér^{ná}*
 [yesterday in] [[rain Def.InanSg] 3SgSbj rain.fall] before]
[?áíó †ná] nó-zè = bè-m
 [house Loc] go.in-RecPrf=Past-1SgSbj
 'Yesterday, before the rain fell, I had (already) gone into the house.'

- b. [nìŋ †wó] *tédé-mà-n*
 [mat Def.InanSg] lay.out-Hort-PlAddr
 [nònònzù-m = ó:] *bò wó méré^{ná}*
 [guest-AnPl=Def.AnPl] 3Pl come **before**
 ‘Let’s set out the mats before the guests come.’
- c. [nà gó méré^{ná}] [[sáj wò] *pídò*]
 [3SgSbj go.out **before**] [[door Def.InanSg] shut.Imprt]
 ‘Shut-2Sg the door, before he/she comes out.’

Representative forms of the verb with *méré^{ná}* are in (638).

(638)	bare stem	‘before ...’	gloss
	a. Cv stems		
	<i>dó</i>	<i>dó méré^{ná}</i>	‘arrive, reach’
	<i>dó</i>	<i>dó méré^{ná}</i>	‘insult (v)’
	<i>gó</i>	<i>gó méré^{ná}</i>	‘go out’
	<i>nó</i>	<i>nó méré^{ná}</i>	‘go in’
	<i>nó</i>	<i>nó méré^{ná}</i>	‘hear’
	<i>tó</i>	<i>tó méré^{ná}</i>	‘slash earth (to sow)’
	<i>wó</i>	<i>wó méré^{ná}</i>	‘come’
	<i>wó</i>	<i>wó méré^{ná}</i>	‘see’
	<i>yé</i>	<i>yé méré^{ná}</i>	‘weep’
	<i>zó</i>	<i>zó méré^{ná}</i>	‘bring’
	b. longer stems		
	<i>tó:</i>	<i>tó: méré^{ná}</i>	‘spit’
	<i>ká:</i>	<i>ká: méré^{ná}</i>	‘shave’
	<i>mǎ:</i>	<i>mǎ: méré^{ná}</i>	‘make (bricks)’
	<i>nǎ:</i>	<i>nǎ: méré^{ná}</i>	‘spend night’
	<i>ʔǎné</i>	<i>ʔǎné méré^{ná}</i>	‘eat (meal)’
	<i>ʔǎlé</i>	<i>ʔǎlé méré^{ná}</i>	‘go up’
	<i>úbó</i>	<i>úbó méré^{ná}</i>	‘pour’
	<i>ńdé</i>	<i>ńdé méré^{ná}</i>	‘give’
	<i>zǐn</i>	<i>zǐn méré^{ná}</i>	‘take away’
	<i>ún</i>	<i>ún méré^{ná}</i>	‘go’
	<i>tóló</i>	<i>tóló méré^{ná}</i>	‘pound (in mortar)’
	<i>cézó</i>	<i>cézó méré^{ná}</i>	‘cut (slice)’
	<i>dèr^{né}</i>	<i>dèr^{né} méré^{ná}</i>	‘spend day’
	<i>góló</i>	<i>góló méré^{ná}</i>	‘do farm work’
	<i>dì-yé</i>	<i>díyé méré^{ná}</i>	‘carry on head’
	<i>tábú</i>	<i>tábú méré^{ná}</i>	‘touch’
	<i>nǎm</i>	<i>nám méré^{ná}</i>	‘grind (into flour)’

<i>mànú</i>	<i>mánú méréⁿá</i>	‘cook’
<i>símbé</i>	<i>símbé méréⁿá</i>	‘roast, grill’
<i>óbí-yó</i>	<i>óbí-yó méréⁿá</i>	‘sit’

Of course ‘before X, Y’ can also be phrased as ‘(after) Y, then X’. This second phrasing is typical when the two clauses have the same subjects. (639a) makes use of the same-subject (‘and.SS’) subordinator *-é:*, which specifies temporal sequencing (§15.2.3). (639b) likewise contains the ‘and then’ subordinator *-y*, in its same-subject function (§15.2.2).

- (639) a. [*bìdé* *bìd-é:*] [*zá* *?ápnà-m-ìy*]
 [work(n) work-NonPast.and.SS] [meal eat-Ipfv-1PISbj]
 ‘We’ll work and then we’ll eat.’ (= ‘We’ll work before we eat.’)
- b. [*bìdé* *bìdé-zé-y*] [*zá* ^L*?ápnè-Ø*]
 [work(n) work-RecPrf-Past.and.then] [meal ^Leat.Pfv-3SgSbj]
 ‘He/She finished working and then ate.’
 (= ‘...finished working before eating’)

See also the discussion of the immediate future form *-zà-* in §10.3.2.3.

(820) in text 3 has an interesting combination of instrumental postposition *mì* with a complement consisting of a relativized ‘begin’ clause, in the sense ‘as X was about to VP’.

15.3.5 Nonpast durative *-n* clauses with H-toned proclitic pronoun

A clause with verbal suffix *-n* functions as a durative clause preceding an ‘until’ clause, when the time frame for the overall construction is non-past, i.e. future (640a) or present (640b). Corresponding constructions referring to past time intervals have imperfective *-m* (640c).

- (640) a. [*bìdé* *yé* *bìdà-ⁿ*] [*hálè* *tê:* ^L*wò-m-ù*]
 [work(n) 1PISbj work-NonPastDur] [until tea ^Lcome-Ipfv-3SgSbj]
 ‘We will work until the tea comes.’
- b. [*ìzèn*^L *cêm*] *bìdé* *yé* *bìdà-ⁿ*]
 [day^L all] work(n) 1PISbj work-NonPastDur]
 [*hálè* *tê:* ^L*wò-m-ù*]
 [until tea ^Lcome-Ipfv-3SgSbj]
 ‘Every day, we work until the tea comes.’
- c. [*nìⁿà:* *yè* *bìdà-^m*] [*hálè* *tê:* ^L*wè-Ø*]
 [yesterday 1PISbj work-Ipfv] [until tea ^Lcome.Pfv-3SgSbj]
 ‘Yesterday we worked until the tea came.’

The durative clause and the ‘until’ clause may have **disjoint** subjects as in (640a-b). If the subject of the durative clause is nonpronominal, a resumptive proclitic is obligatory. For example, ‘children’ is resumed by a 3Pl subject proclitic in (641). In the disjoint-subject construction, what are elsewhere L-toned proclitic pronouns (all but 2Sg and 3Logophoric) shift to **H-toned** in this construction, hence 1Pl *yé* in (640a-b) above and 3Pl *bó* in (641). See §3.7.4.4 for other cases of tone-raising of pronominal proclitics. The verb is {L}-toned before *-n* in this construction. It is as though an H-tone from the verb shifted left onto the proclitic.

- (641) *[èné bídé bó bìdà-̀n]*
 [children work(n) 3PlSbj work-NonPastDur]
[há̀lè [tê: wó-̀j] ̀dɔ̀à-m-̀ù]
 [until [tea come-Ipfv.Rel.InanSg] ̀arrive-Ipfv-3SgSbj]
 ‘The children will work until the tea comes.’

For *wó-̀j ̀dɔ̀à-m-̀ù* in this construction, see discussion in §15.4.4.

If the two clauses have **coindexed** subjects, the subject is not overtly repeated even as a proclitic in the durative clause, though a topical NP may be preposed to the entire construction. In the absence of a subject proclitic, the verb with *-n* shows its **lexical** melody (642).

- (642) *[bídé bìdà-̀n] [há̀lè éw ̀dɔ̀à-m-̀iy]*
 [work(n) work-NonPastDur] [until tomorrow ̀arrive-Ipfv-1PlSbj]
 ‘We will work until we arrive at tomorrow (=until tomorrow).’

For the use of *-n* in a construction that functions like an ‘as soon as’ conditional, see §16.2.2.1. In (706a) in §17.6.3.5, *dé* (presumably the ‘if’ morpheme) follows *-n*.

Representative verb forms with *-n* are in (643). As explained above, the verb has its lexical melody in the coindexed version, but {L} overlay in the disjoint version. The vocalism is that of the A/O-stem. Mediopassive *-yV-* is dropped before *-n* unless this would result in a monosyllabic stem (see ‘lie down’). Most examples therefore have bisyllabic stems. The A/O-stem and the bimoraic bias are strongly reminiscent of the derived stative, but trisyllabics like ‘roll into a ball’ show that the bisyllabic norm is not rigorous for the *-n* subordinator.

(643) Verbs with nonpast durative subordinator *-n*

stem	NonPastDur if subjects are...		gloss
	...disjoint	...coindexed	
a. monosyllabic			
<i>Cv stems</i>			
<i>yé</i>	<i>yà-n</i>	<i>yá-ń</i>	‘weep’
<i>jé</i>	<i>jè-n</i>	<i>jé-ń</i>	‘dance’
<i>Cv stems</i>			
<i>tó:</i>	<i>ṭà-n</i>	<i>ṭá-ń</i>	‘sow’
<i>tó:</i>	<i>tò:-n</i>	<i>tó: -ń</i>	‘spit’
<i>ká:</i>	<i>kà:-n</i>	<i>ká: -ń</i>	‘shave’
b. bisyllabic or longer			
<i>bìdé</i>	<i>bìdà-ń</i>	<i>bìdá-ń</i>	‘work’
<i>nùṅó</i>	<i>nùṅà-ń</i>	<i>nùṅá-ń</i>	‘sing’
<i>nìyé</i>	<i>nìyo-ń</i>	<i>nìyó-ń</i>	‘sleep’
<i>kúbó</i>	<i>kùbò-ń</i>	<i>kúbó-ń</i>	‘eat (meat)’
<i>nǎm</i>	<i>nàmà-ń</i>	<i>námá-ń</i>	‘grind’
<i>dí:zé</i>	<i>dì:zò-ń</i>	<i>dí:zó-ń</i>	‘file’
<i>mèṅgíré</i>	<i>mèṅgùrò-ń</i>	<i>mèṅgúró-ń</i>	‘roll into a ball’
<i>mediopassive -yv- omitted</i>			
<i>óbí-yó</i>	<i>òbò-ń</i>	<i>óbó-ń</i>	‘sit’
<i>bì-yó</i>	<i>bì-yò-ń</i>	<i>bì-yó-ń</i>	‘lie down’
<i>nùndí-yé</i>	<i>nùndò-ń</i>	<i>nùndó-ń</i>	‘listen’

15.4 Spatial and manner adverbials

15.4.1 Spatial adverbial clause (‘where ...’)

The basic ‘where ...’ adverbial clause is a relative construction headed by *àmó* ‘place’, which drops tones as usual with relative heads. Because it is inanimate, the relative clause generally ends in inanimate singular definite *wò*. In (644a), the relative clause functions as an NP subject of the adjectival predicate. In (644b-c), a similar NP is complement of the locative postposition *nà*, and the PP as a whole functions as a spatial adverbial clause.

- (644) a. [*mòmbíl* *àmò*^L *mòdiyè-zó* *wò*]
 [vehicle **place**^L be.stuck-Pfv2.Rel Def.InanSg]
wàjú-m *bò-∅*
 distant-Adj be-3SgSbj
 ‘The place where the vehicle got stuck is far away.’

- b. *[[ðmð^L mi bármè wò] nà]*
 [[**place^L** 1SgSbj be.wounded.Pfv.Rel Def.InanSg] **Loc**]
[dògòtórò ònú-Ø]
 [doctor not.be-3SgSbj]
 ‘There is no doctor in the place where I got hurt.’
- c. *[[gòyⁿè-mù †wó] ðmð^L mi wé wò] nà]*
 [elephant-Pl Def.AnPl] **place^L** 1SgSbj see.Pfv.Rel Def.InanSg] **Loc**]
^L*kòná-m-Ø*
^Lgo.back-Ipfv-1SgSbj
 ‘I will go back to the place where I saw (the) elephants.’
- d. *ðmð^L zá yè ?óná-ŋ wò*
place^L meal 1PlSbj eat.meal-Ipfv.Rel.InanSg Def.InanSg
 ‘(the place) where we are going to eat (a meal)’

15.4.2 Manner adverbial clause (‘how ...’)

A relative clause of the type ‘the way/manner ...’ has *gìdè* or synonym *àṅǎy* ‘manner’ (§8.4.5) as head NP, in L-toned form *gìdè* or *àṅǎy* (645a). A clause of this type may function as a regular NP argument in its clause, such as the object NP in (645b). To convert this into a manner adverbial clause, a clause-final *yèŋ* ‘like’ or variant is needed, as in (645c) here and in (787) in Text 1. In (645c), the manner adverbial clause is resumed in the main clause by *kòyⁿ* ‘thus, like that’.

- (645) a. *nìŋà: ðòm àṅǎy^L ó ðàmé wò*
 yesterday talk(n) **manner^L** 2SgSbj speak.Pfv.Rel Def.InanSg
 ‘the way you-Sg talked yesterday’
- b. *[ðòm àṅǎy^L ó ðàmà-ŋ^L kó]*
 [talk(n) **manner^L** 2SgSbj speak-Ipfv.Rel.InanSg^L NearDist.InanSg]
^L*èbù = là-m*
 want=StatNeg-1SgSbj
 ‘I don’t like the way you-Sg talk.’
- c. *[[àṅǎy^L nà ðàmé] yèŋ]*
 [[**manner^L** 3SgSbj speak.Pfv.Rel] **like**]
^H*[mì lá] kòyⁿ ðàmà-m-Ø*
 [1Sg ^Htoo] **thus** ^Lspeak-Ipfv-1SgSbj
 ‘I speak like he/she speaks.’
 (lit.: “Like the way he/she speaks, I too speak like that.”)

15.4.3 Headless adverbial clause as spatiotemporal or manner clause

Other Dogon languages that construct manner and spatiotemporal adverbial clauses as relatives (‘where/when/the way ...’) generally allow the implied head to be omitted. A possible textual example is (646), where ‘he went’ has relative form but appears to have no overt head NP.

- (646) [zòmó kóy bò-m] [nà úr^hé là]
 [hare just.over.here be-Ipfv] [3SgSbj go.Pfv.Rel too]
 [[zùwó kàndà] dɔ̀à-li-Ø kóy]
 [[week even] arrive-PfvNeg-3SgSbj Emph]
 ‘(Since) Hare was there and had gone away, not even a week had elapsed.’
 (excerpt from (778) in Text 1)

15.4.4 ‘Until ...’ (*hálè*) and ‘to such an extent that ...’ (*fó*→) clauses

‘Until ...’ clauses begin with *hálè*, a versatile particle that in other contexts can mean ‘even’ or ‘all the way to’ (§19.2.1). ‘Until ...’ examples are (647a-c). The preceding clause has nonpast durative subordinator *-n* (§15.3.5) for nonpast time frames as in (647a-b), and imperfective *-m* (§15.2.1) for past time frames as in (647c). The *-n* clause distinguishes same- from different-subject constructions; the latter has a proclitic subject pronoun and {L}-toned verb (647b).

- (647) a. [bìdé bìdá-n] [hálè éw ^Ldò-m-iy]
 [work(n) work-NonPastDur] [until tomorrow ^Larrive-Ipfv-1PlSbj]
 ‘We will work until (we arrive at) tomorrow.’
- b. [bìdé yé bìdà-n] [hálè tē: ^Lwò-m-ù]
 [work(n) 1PlSbj work-NonPastDur] [until tea ^Lcome-Ipfv-3SgSbj]
 ‘We will work until the tea comes.’
- c. [nìṅà: yè bìdá-m] [hálè ìzìgè-[píló-ŋ] ^Ldɔ̀è-Ø]
 [yesterday 1PlSbj work-Ipfv] [until sunset (§4.2.4) ^Larrive.Pfv-3SgSbj]
 ‘Yesterday we worked until the sunset arrived (=until sunset).’

Both (647a) and (647c) combine *hálè* with a final perfective ‘arrived’. In those two examples, the complement of ‘until’ had no other verb. However, even when the complement does include another verb, the ‘until ... arrived’ construction is possible. In this case, the other verb takes suffix *-ŋ*, as in (641) above, an alternative to (647b). I interpret this *-ŋ* as the imperfective inanimate singular participle, so that (641) can be paraphrased literally as ‘... until [(the time/situation in which) the tea comes] has arrived’.

In addition to *hálè* ‘until’, there is a more emphatic clause-type with *fó*→ ‘so much that ..., to such an extent that ...’. It occurs three times in the texts, one alone (828) and twice

in the combination *fó* → *úrⁿé-y* with a subordinated ‘and then’ form of ‘go’ (799) and (827), although motion is not involved (compare English *X went so far as to ...*).

16 Conditional constructions

The ‘if’ particle is *dè*, in clause-final position following the verb or other predicate. Conditional ‘if’ often shades into future-oriented temporal ‘when’.

The lexical tone of *dè* is L, but it can be raised by one or the other of Rhythmic Tone-Raising or Rightward Tone-Jumping (depending on which phonological analysis is preferred). For example, verbs otherwise ending in H-toned perfective negative 3Sg *-lí-Ø* or 3Pl *-ń*, and some other LH-toned predicates like *ònú-Ø* ‘it is not (present)’, seemingly transfer their H-tone onto *dè*, resulting in surface forms like *-l-Ø †dé*, *-ń †dé*, and *ònú-Ø †dé*, see (79a-b). Either the H-tone jumps onto *dè*, or the H-tone is dropped, leading to Rhythmic Tone-Raising (§3.7.4.2-3).

Positive perfective verbs like *yà wé-Ø* in (648a) show the same tones before *dè* as they do in main clauses. The tone-dropping of 3Sg and 3Pl perfectives before ‘if’ particles that occurs in Najamba and some other western Dogon languages does not occur in YD.

Like other clause-final subordinators, *dè* is subject to additional intonational effects.

In (774) in Text 1, *yè* appears to be a variant of or alternative to *dè*.

16.1 Hypothetical conditional with *dè* ‘if’

When the antecedent denotes a single hypothetical future event, or the negation of such an event, its verb takes **perfective** form (648a-b). The consequent is usually imperfective (648a) or a deontic modal (imperative, hortative). The consequent is occasionally perfective, as in (648b), where the verb in question is generally perfective in form even when effectively predicating a resulting state (of safety after a dangerous close call).

- (648) a. *[ó-ý yà wé-Ø dè] [ó dèmá-m-ù]*
 [2Sg-Acc Real see.Pfv-3SgSbj **if**] [2Sg hit-Ipfv-3SgSbj]
 ‘If she sees you-Sg, she’ll hit you.’
- b. *[ó-ý wà-l-Ø †dé] [yà pá:bí-yé-w]*
 [2Sg-Acc see-PfvNeg-3SgSbj **if**] [Real protect-MP.Pfv-2SgSbj]
 ‘If she doesn’t see you-Sg, you will safe (=will have been protected).’
- c. *yà pílé sùwè-Ø †dé*
 Real fall go.down.Pfv-3SgSbj **if**
 ‘if he/she falls down, ...’

The antecedent may denote a recurrent activity, and in this case its verb takes imperfective form (649).

- (649) a. [zá ʔə̀nà-m-ùw dè] àmà-m-ùw
 [meal eat-**Ipfv**-2SgSbj **if**] be.goodsized-**Ipfv**-2SgSbj
 ‘If you-Sg eat, you’ll grow (to a good size).’
- b. [zá ʔə̀nè-ráɲ-ù dè] dò̀nà-m-ù
 [meal eat-**IpfvNeg**-2SgSbj **if**] be.skinny-**Ipfv**-2SgSbj
 ‘If you-Sg don’t eat, you’ll become skinny.’

16.2 Alternative ‘if’ constructions

16.2.1 ‘Even if ...’ (*dàn* replacing *dè*)

An ‘even if’ conditional asserts that the actualization or non-actualization of the antecedent eventuality would not bear on the actualization of the consequent. My examples are with *dàn*, which is elsewhere a purposive-causal postposition (§8.3.2) and a ‘than’ postposition in asymmetrical comparatives (§12.1.1).

The examples with *dàn* that were obtained in elicitation regularly use the **perfective-2** form of the verb in the antecedent clause.

- (650) a. àrⁿùŋ [dìyá †gá] tégè-zó *dàn*
 rain [big Adv] rain.fall-**Pfv**2-3SgSbj **even**
 [[mènè ó-ŋ] nà] gò-rán-Ø]
 [[field 2Sg-Poss.InanSg] Loc] go.out-**IpfvNeg**-3SgSbj
 ‘Even if rain falls heavily, your-Sg field won’t yield (much).’
 [lit.: “... it won’t come out in your field”]
- b. [zá ʔə̀pè-z-é: *dàn*] àm-náɲ-é
 [meal eat-**Pfv**2-3PISbj **even**] be.goodsized-**IpfvNeg**-3PISbj
 ‘Even if they eat, they don’t grow (to a good size).’
- c. [wò-z-é: *dàn*] [ŋgí zá ʔə̀nè-ráɲ-é]
 [come-**Pfv**2-3PISbj **even**] [here meal eat.meal-**IpfvNeg**-3PISbj]
 ‘Even if they come, they won’t eat here.’

16.2.2 Rephrasings

16.2.2.1 ‘As soon as ...’ (*dimbà-n*)

I did not find any ‘as soon as’ particles replacing *dè* at the end of the antecedent clause, emphasizing the immediacy of the consequent eventuality on the actualization of the antecedent condition. Cues with French *dès que* were rendered by ordinary conditional clauses with *dè*.

Two constructions that indicate immediate sequencing were described in §15.3.2.1-2 above. A third alternative requires a significant rephrasing, using a stative form *dimbà-* from the verb *dimbí-yé* ‘follow’. Both the substantive verb and ‘follow’ appear with nonpast durative subordinator *-n* (§15.3.5).

- (651) *wó-n* *ná* *dimbà-n,*
 go-NonPastDur 3SgSbj **follow**.Stat-NonPastDur,
zá *?ǵnà-m-iy*
 meal eat.meal-Ipfv-1PlSbj
 ‘As soon as he/she comes, we’ll eat.’

16.2.2.2 ‘Whenever ...’ (conjoined headless relatives)

Another way to rephrase a conditional is to relativize both clauses with covert inanimate heads, and conjoin them. Relative constructions are NPs syntactically, and they can be conjoined like any other NPs. An example is (652), literally “(the time/situation) where they see each other and (the time/situation) where they fight,” i.e. they are one and the same situation. This construction describes recurrently paired eventualities (‘whenever’).

- (652) *[[á* *tòmù]* *bò* *wá-ŋ* *mì→]*
 [[3Refl Recip] 3PlSbj **see**-Ipfv.**Rel**.InanSg and]
[bò *zá:níyá-ŋ* *mì→]*
 [3PlSbj **fight**-Ipfv.**Rel**.InanSg and]
 ‘(Whenever) they see each other, they fight.’

16.3 Willy-nilly and disjunctive antecedents (‘whether X or Y ...’)

In a willy-nilly conditional, two mutually exclusive antecedents that together exhaust all truth-conditional possibilities are juxtaposed to constitute a complex antecedent, with dying-quail intonation (§3.8.2, symbol *∴*) at the end of both, and with optional final *pú→* ‘all’. There is no final *dè* ‘if’. Usually the two antecedents are paired positive and negative clauses, the second one being reduced to a single negative verb by not repeating shared constituents. The consequent has its normal form, usually imperfective or a deontic modal. The consequent is understood to be asserted (or commanded) regardless of which of the two antecedents turns out to be true.

- (653) *[bó* *wò-z-é: ∴* *wò-ń: ∴* *pú→]*
 [3Pl come-**Pfv**2-3PlSbj come-**Pfv**Neg.3PlSbj **all]**
[yé *[pédù* *yè-ŋ]* *kárⁿà-m-iy]*
 [1Pl [feast 1PlSbj-Poss.InanSg] do-Ipfv-1PlSbj]
 ‘Whether they come or not, we’re going to have our feast.’

In a true disjunctive antecedent, where either of two antecedents can serve as the condition for the consequent, the antecedent has the usual form of a clausal disjunction, followed by a single occurrence of *dè* ‘if’, as in (654). If spoken without a prosodic break, the second (postpausal) ‘or’ may be omitted.

- (654) *[ńjú ònú-∅ mâ→], [mâ→ ńjú bǎn = ∴ dè]*
 [water not.be-3SgSbj **or**], [**or** water red=it.is **if**]
[[bìdô:ⁿ ^Lńjú wò] nìyⁿá-m-ìy]
 [[can ^Lwater Def.InanSg] drink-Ipfv-1PlSbj]
 ‘If there is no water or (the) water is brown, we’ll drink the water of (=in) the can.’

16.4 Counterfactual conditional

In a counterfactual, where the antecedent proposition is understood not to have occurred, both the antecedent and the consequent are expressed with conjugated past enclitic =*bε-*. The antecedent clause is **past perfect** (bare stem plus conjugated =*bε-*), and the consequent is **past imperfective**.

- (655) a. *[bó nò-nó:-mù wò] íyé wà:*
 [3Pl person-two-AnPl Def.AnSg] today morning
wò = b-á dè, cíná kúbò: = b-à
 come=**Past**-3PlSbj **if**, liver eat.meat.**Ipfv**=**Past**-3PlSbj
 ‘If the two of them had come this morning, they would have eaten some liver.’
- b. *[kà:-mú wò-n = b-á dè],*
 [grasshopper-AnPl come-**PfvNeg**.3PlSbj=**Past**-3PlSbj **if**,
yé yú: bèlâ: = b-è-y
 1Pl millet get.**Ipfv**=**Past**-1PlSbj
 ‘If the locusts hadn’t come, we’d have gotten (=harvested) millet.’

17 Complement and purposive clauses

17.1 Quotative complement

Quoted speech and thought is expressed by one or more of the following features:

- inflectable ‘say’ verb *dǎm* or *gǔn* (§11.3.1-2), preceding or following the quotation, but often omitted;
- uninflectable quotative **particle** *wà* following a quoted clause, often in addition to the same particle following a semantically specific subject, §17.1.3;
- instead of *wà*, a clause-final **subjunctive** particle *nì* in propositional-belief complements (§17.1.4);
- clause-initial subject pronouns instead of proclitics or pronominal-subject suffixes on verbs (§17.1.2);
- **3Logophoric** pronouns substituting for (original) first person pronouns (§17.1.1 and §18.2.1.1);
- logophoric subject is also expressed by a suffix on the verb that has the form (but not function) of a 1Sg subject suffix (§18.2.1);
- the original addressee is expressed by ordinary third person pronouns (§17.1.1).

There is no ‘that’ complementizer. Inflected ‘say’ verbs are frequently omitted in favor of the uninflectable quotative particle. AN and modal categories are preserved in quotations.

17.1.1 Pronominal conversions in quotative complements

If the original speaker and addressee are disjoint to the current speaker and addressee, original first person pronouns are converted into 3Logophorics, and original second person pronouns are usually merged with regular third person. For example, original ‘I will give it to you’ is quoted as ‘3LogoSg will give it to 3Sg (him/her)’ if the original speaker and addressee are not current speech-event participants. In (656), the initial 3Sg pronoun denotes the original addressee, while the original speaker is referred to by the (dative) 3Logophoric.

- (656) *[nà wá→] [pàl †zámnè-y]*
[3Sg Quot] [sesame steal-Past.and.then]
[á bérⁿá] [sàdù sádù nà] wò-zò-Ø wà,
[3LogoSg Dat] [question ask Loc] come-Pfv2-3SgSbj Quot,
‘“You-Sg stole some sesame and you have come to me to ask (questions),” she said.’
(excerpt from (818) in Text 3)

As a result, regular (nonlogophoric) third person pronouns in quotative clauses are ambiguous between original-addressee reference and reference to any other referent.

When actual first and second person pronouns occur in quoted speech, they normally refer to the **current** speaker and addressee, respectively (657). In other words, these pronominal categories are reset (updated) on the basis of the structure of the current speech event.

- (657) *[ó wà] mì-ý yà wé wà*
 [2SgSbj Quot] 1Sg-Acc Real see.Pfv Quot
 ‘(X) said that you-Sg saw me.’

Exceptionally, in (793) in Text 1, the original 2Sg *ó* is preserved in subject quotative *[ó wá→] nì*. Interrogative topic marker *nì* makes the translation roughly ‘how about you, ...?’, and this may account for the unusual direct quotative aspect. A similar preservation of 2Sg subject is (728a) in §18.2.1.2.

17.1.2 Quotative-subject phrases

Nonpronominal subject NPs are already clause-initial in nonquotative indicative clauses, factoring out preclausal topics. In quotative clauses, pronominal subjects are expressed by in a clause-initial **quotative-subject phrase** consisting of a pronominal proclitic, e.g. H-toned 2Sg *ó* in (657) or L-toned 3Sg *nà* in (656), obligatorily followed by quotative particle *wà*, which is subject to Rhythmic Tone-Raising as in 3Sg *nà wá* (656). Further examples are in (660) below. Main-clause pronominal-subject suffixes on verbs are omitted. In the case of nonpronominal subjects, quotative particle *wà* is optionally present if the NP is referentially specific, as in (658a) below. *wà* encliticizes to and optionally contracts with pronominal clitics (hence a proclitic-enclitic word!) ending in *a*, e.g. 3Sg *nà = á*, 3Logophoric *á = à*. These pronominal combinations may be intonationally prolonged (symbol →) and prosodically set off from the following VP. Setting adverbs like ‘yesterday’ follow the quotative-subject phrase.

- (658) a. *[sǎydu (wà)] nìṅà: pè: yà sémé wà*
 [Seydou (QuotSbj)] yesterday sheep Real slaughter.Pfv Quot
 ‘(X) said, “Seydou slaughtered a sheep yesterday.”’
- b. *[ó wà(→)] nìṅà: pè: yà sémé wà*
 [2SgSbj QuotSbj] yesterday sheep Real slaughter.Pfv Quot
 ‘(X) said, “you-Sg slaughtered a sheep yesterday.”’
- c. *á = à(→) wó-m-∅ wà*
 3LogoSg=QuotSbj come-Ipfv-LogoSbj Quot
 ‘He_x said that he_x was coming.’

Nonspecific pseudo-subjects in certain fixed subject-verb collocations are not treated as true subjects for this purpose. They are not directly followed by *wà* and they may follow temporal-setting adverbs. See (454a-b) in §11.1.4 for examples.

Quotative subject marker *wà* may be followed by certain discourse-functional particles that have scope over the subject NP: *là* ‘also, too’ in (802) in Text 2, topic marker *gày* in (859) in Text 5.

17.1.3 Clause-final quotative particle *wà*

Uninflectable quotative particle *wà* can occur in quotative-subject phrases (preceding section), and again clause-finally. It precedes clause-final emphatic particles like *kòy* (§19.5.1).

With an indicative clause, *wà* can have **hearsay** evidential quality (‘allegedly, supposedly’), but for the most part it can be thought of as an audible quotation mark, and it can follow quoted imperative and other non-indicative clauses where evidentiality is moot (§17.1.5). It can also occur in clarification requests with any word or phrase: *X wà* ‘(did you say/mean) “X”?’

wà only occurs in veridical quotations, i.e. in quoted material that is reported as having actually been uttered. It does not occur clause-finally (and redundantly) in the presence of an inflected ‘say’ verb (§11.3.1.2).

17.1.4 Subjunctive *nì* in propositional belief complements

Subjunctive *nì* occurs clause-finally in clauses that denote a proposition formulated mentally by a referent. The proposition may be a belief, a hope, or an intention. The current speaker does not vouch for the truth of the proposition (i.e. it is not veridical).

- (659) a. *[[má:nú bó-ŋ] nà]*
 [[thought 3Pl-Poss.InanSg] Loc]
săydu [dámá nà] úrⁿé-Ø nì zw-é: ,
 S [village Loc] go.Pfv-3SgSbj **Sbjct** have-3PlSbj,
gà: nàrⁿá = là-Ø
 but truth=it.is.not-3SgSbj
 ‘In their belief, Seydou went to the village, but it isn’t true.’
- b. *[gòlò yà gòlò-z-à nì] ^Lnòè-m*
 [farming(n) Real do.farm.work-RecPrf-3PlSbj **Sbjct]** ^Lhear.Pfv-1SgSbj
 ‘I heard (=was told) that they had finished farming.’

For subjunctive *nì* as complement of ‘begin’, see (697) in §17.6.1.2. For *nì* after an imperfective negative verb in a negative purposive clause, see §17.6.3.1.

I can discern no clear semantic relationship between this subjunctive particle and interrogative-topic particle *nì* (§19.1.2), which I suspect is a reduced variant of *ní*: ‘now’ (the latter is often topical). However, subjunctive *nì* may be related to *nî*: ‘intending’, see (773) in Text 1, cf. also *?àpè nî*: ‘why?’ (§13.2.2.2).

17.1.5 Jussive complement (quoted imperative or hortative)

17.1.5.1 Quoted imperative

As with other quoted utterances, quoted imperatives have either a final quotative verb (*gǔn*, *dǎm*) or particle *wà*, but not both. The quoted verb takes invariant imperative form, and it is not marked for addressee number (§10.7.1.1). A pronominal subject (or addressee) is usually expressed at the beginning of the clause, but is not obligatory. Quotative subject morpheme *wà→* (with pronominals) or *wà* (with nonpronominal NPs) is regularly present. However, in this case the “subject” may in some cases really be a quoted vocative.

- (660) a. *[nà †wà→]* *pè:* *sémá* ^L*gùnè-m*
 [3Sg **QuotSbj**] sheep slaughter.**Imprt** ^Lsay.Pfv-1SgSbj
 ‘I told him/her to slaughter a sheep.’
- b. *[bò †wà→]* *pè:* *sémá* ^L*gùnè-m*
 [3Pl **QuotSbj**] sheep slaughter.**Imprt** ^Lsay.Pfv-1SgSbj
 ‘I told them to slaughter a sheep.’
- c. *[sǎydù wà→]* *pè:* *sémá* ^L*gùnè-m*
 [3Pl **QuotSbj**] sheep slaughter.**Imprt** ^Lsay.Pfv-1SgSbj
 ‘I told Seydou to slaughter a sheep.’
- d. *[mì †wà→]* *wó* ^L*gùn-à*
 [1Sg **QuotSbj**] come.**Imprt** ^Lsay.Pfv-3SgSbj
 ‘They told me to come.’
- e. *[ó ^Hdé:]* *[ó ^Hwà→]*
 [2SgPoss ^Hfather] [2Sg ^H**QuotSbj**]
w-ě: *á* *tígá* ^L*gùnè-Ø*
 come-NonPast.and.SS LogoSgObj look.**Imprt** ^Lsay.Pfv-3SgSbj
 ‘Your-Sg father said for you-Sg to come and see him.’

Quoted prohibitives are illustrated in (661). The verb takes prohibitive form without addressee-number marking (§10.7.1.2).

- (661) a. [mì †wá→] wò-lá wá
 [1Sg QuotSbj] come-Proh Quot
 ‘(He/she/they) told me not to come.’
- b. [bò †wá→] pè: sémé-là ^Lgùnè-m
 [3Pl QuotSbj] sheep slaughter-Proh ^Lsay.Pfv-1SgSbj
 ‘I told them not to slaughter a sheep.’

17.1.5.2 Quoted hortative

In a quoted hortative, the usual paraphernalia is present: initial quotative-subject phrase, quoted VP, and final inflected ‘say’ or *wà* particle. The verb takes invariant hortative form with *-ma* (§10.7.2).

- (662) a. [mì †wá→] ún-mà wà
 [1Sg QuotSbj] go-Hort Quot
 ‘(He/she/they) told me, let’s go!’
- b. *nimêm* ?áǵé-mà ^Lgùnè-w
 now eat-Hort ^Lsay.Pfv-2SgSbj
 ‘You-Sg said (to me), let’s eat!’

A quoted hortative negative clause is in (663). The verb is in the regular hortative negative form (§10.7.3).

- (663) *săydù* [mì †wá→] zá ?áǵé-mè-là wà
 S [1Sg QuotSbj] meal eat-Hort-Proh Quot
 ‘Seydou said to me, let’s not eat!’

17.2 Factive (indicative) complements

A factive clause corresponds to a ‘that ...’ complement in English with a verb like ‘know’ or ‘see/hear’ that denotes or implies a mental representation of a proposition. The factive clause has the same form as a main clause. However, it functions syntactically like an NP, and it may be followed by inanimate singular definite *wò*.

NPs in factive complements are not subject to logophoric anaphora based on the subject of the higher clause as antecedent. In (664a), the 3Sg object pronoun may or may not be coindexed with Seydou. By contrast, in quotative complements such indexation is explicit. In (664b), the object is coindexed with Seydou, and in (664c) it is not.

- (664) a. *sǎydu* [*ná-ý* *wò = bé-m*] *zùwá-m-ù*
 S [3Sg-Acc see=Past-1SgSbj] **know**-Ipfv-3SgSbj
 ‘Seydou_x knows that I saw him_x/her_y.’
- b. *sǎydu* [*mì* †*wá→*] *á-ý* *wò = bé* *wà*
 S [1Sg QuotSbj] **3Logo**-Acc **see**=Past Quot
 ‘Seydou_x says/said that I saw him_x.’
- c. *sǎydu* [*mì* †*wá→*] *ná-ý* *wò = bé* *wà*
 S [1Sg QuotSbj] **3Sg**-Acc **see**=Past Quot
 ‘Seydou_x says/said that I saw her_y.’

The factive complements considered in this section are distinct from imperfective complements with subordinator *-m* that occur with some of the same higher verbs ‘see’, ‘hear’, and ‘find’. These complements denote activities that are or were perceived in progress, as in ‘I saw/heard them dance (dancing)’, or stative counterparts, as in ‘I found them sitting (=seated)’. See §15.2.1.2-3 for these *-m* complements.

17.2.1 ‘Know that/whether ...’ complement clause

When not negated or questioned, the verb ‘know’ takes a factive complement, in the same form as a main clause but often followed by definite *wò* (665a-b).

- (665) a. [*wò-ráŋ-ù* *wò*] *zùwá-m-Ø*
 [come-IpfvNeg-2SgSbj Def.InanSg] **know**-Ipfv-1SgSbj
 ‘I know that you-Sg are not coming.’
- b. [*sǎydu* [*dámá* *nà*] *yà* *úrⁿé-Ø* *wò*] *zùwá-m-ùw*
 [S [village Loc] Real go.Pfv-3SgSbj Def.InanSg] **know**-Ipfv-2SgSbj
 ‘You-Sg know that Seydou went to the village.’

When ‘know’ is **nonveridical** (negated or questioned), the complement takes polar **interrogative** form with clause-final particle *mà→* (§13.2.1). There is no distinction between e.g. ‘he doesn’t know that she died’ (presupposing the truth of the embedded proposition) and ‘he doesn’t know whether (or not) she died’, and the YD phrasing follows the modal quality of the latter translation. For example, in (666a) ‘I am here’ is clearly true, but the syntax is parallel to that in (666b).

- (666) a. [[*mì* †*wá→*] *ŋgí* *yà* *bó* *mà→*] *zùwò-rán-Ø*
 [[1Sg QuotSbj] here Exist be Q] **know**-IpfvNeg-3SgSbj
 ‘He/She doesn’t know that/whether I am here.’

- b. [gòlò yà gòlò-z-à mà→] zùwò-rá-m
 [farming(n) Real do.farm.work-RecPrf-3PlSbj Q] know-IpfvNeg-1SgSbj
 ‘I don’t know whether they have finished farming.’

17.2.2 ‘See that ...’

‘See’ takes a factive complement with definite *wò* when the context is that the observer has used visual evidence to draw a conclusion about a fact, such as the completion of an activity.

- (667) a. [bìdè yà bìdè-z-à wò] yà wé-m
 [work(n) Real work-RecPrf-3PlSbj Def.InanSg] Real see.Pfv-1SgSbj
 ‘I saw that they had finished the work.’
- b. [[tê: wò] yà íjé-Ø wò]
 [[tea Def.InanSg] Real be.finished.Pfv-3SgSbj Def.InanSg]
 wà-m bò-m
 see-Ipfv be-1SgSbj
 ‘I see that the tea is finished (=we’re out of tea).’

17.2.3 ‘Find (=discover) that ...’

The transitive verb *témbé* ‘find (by accident)’ is used with a factive complement in contexts such as ‘(I went there and) I found (=discovered, learned) that ...’, with reference to a completed event. Definite *wò* is absent in the attested examples.

- (668) a. [[yú: wò] téyá-li-Ø] ^Ltémbè-m
 [[millet Def.InanSg] sprout-PfvNeg-3SgSbj] ^Lfind.Pfv-1SgSbj
 ‘I found that the millet had not sprouted.’
- b. [[mì ^Hdé:] yà gó-zè-Ø] ^Ltémbè-m
 [[1SgPoss ^Hfather] Real go.out-RecPrf-3SgSbj] ^Lfind.Pfv-1SgSbj
 ‘I found that my father had gone out.’

17.3 Verbal-noun complement

For the morphology of verbal nouns, see §4.2.2. Verbal-noun complements may include nonsubject arguments and adverbs.

A verbal-noun complement is a subjectless verb phrase. In addition to the nominalized verb itself, nonsubject arguments and adjuncts may occur. (669a) shows a direct object for ‘hit’. However, if the object is nonspecific or generic, it is often incorporated as an {L}-toned compound initial.

- (669) a. *[[èné á-mù] bündó-le] yà dǎgǎ-Ø*
 [[children 3Refl-Poss.AnPl] hit-VbIN] Real leave.Pfv-3SgSbj
 ‘He/She has ceased beating his children.’
- b. *injù-níy-Ø yà dǎgǎ-Ø*
 water-drink-VbIN Real leave.Pfv-3SgSbj
 ‘He/She has ceased drinking water.’

17.3.1 ‘Dare’ (*dàdú, nàmíyé*) with verbal-noun complement

These essentially synonymous verbs take nominal complements. In (670a), either of two types of verbal noun occur in the complement. In (670b), a relative clause with implied inanimate singular head is used.

- (670) a. *ñí wò-y / wó-lé yà nàmíyé-Ø*
dàdé-Ø
 here come-VbIN Real **dare**.Pfv-3SgSbj
 ‘He/She dared to come here.’
- b. *[ó-ý dǎá-ŋ] yà nàmíyé-Ø*
 [2Sg-Acc insult(v)-Ipfv.Rel.InanSg] Real **dare**.Pfv-3SgSbj
 ‘He/She dared to insult you-Sg.’

nàmíyé may have originated as a mediopassive of *nàmà* ‘want, like’ (§11.2.4).

17.3.2 ‘Cease’ (*dǎgǎ*) with verbal-noun complement

dǎgǎ is a simple transitive meaning ‘leave, abandon’. It can also be used with a verbal-noun or other nominal complement in the sense ‘cease (doing), desist from (doing)’.

- (671) a. *tè:-níyⁿ-Ø yà dǎgǎ-Ø*
 tea-drink-VbIN Real **leave**.Pfv-3SgSbj
 ‘He/She has ceased to drink tea.’ (*tè:*)
- b. *kú-bà gǎlò yà dǎgǎ-á*
 there farming(n) Real **leave**.Pfv-3PlSbj
 ‘They have ceased to farm there.’
- c. *bòn-bǎn-Ø yà dǎgǎ-á*
 tomtom-beat-VbIN Real **leave**.Pfv-3PlSbj
 ‘They have ceased to beat (=play) tomtoms.’

17.3.3 ‘Forget’ (*ídé*) with verbal-noun complement

This verb takes nominal complements, ranging from simple NPs (672a) to verbal-noun complements with covert coindexed subjects (672b).

- (672) a. *[dà má á-ŋ]* *yà* *ídé-Ø*
 [village 3Refl-Poss.InanSg] Real **forget**.Pfv-3SgSbj
 ‘He_x forgot his_x village.’
- b. *[[[dà má á-ŋ]* *nà]* *†ún-Ø / ún-lé]*
 [[[village 3Refl-Poss.InanSg] Loc] go-VbIN]
yà *ídé-Ø*
 Real **forget**.Pfv-3SgSbj
 ‘He_x forgot to go to his_x village.’

‘Forget’ can also take finite **factive** complements (673).

- (673) *[yà tɪb-á wò]* *idè = bé-m*
 [Real die.Pfv-3PISbj Def.InanSg] **forget**=Past-1SgSbj
 ‘I forgot that they had died.’

17.3.4 Predicative *tílày* or *wá:zìbù* ‘obligation’ with verbal-noun subject

A noun meaning ‘obligation, duty’, either *tílày* or *wá:zìbù*, takes impersonal predicative form. The required action is expressed as a verbal-noun or similar nominal complement, with a possessor denoting the agent. The ‘it is’ enclitic = *∴* (§11.2.1.1) is present, one presumes, but it is usually not audible.

- (674) *[[bàmàkó nà] ùn-Ø / ún-le ná-ŋ]* *tílày(= ∴) / wá:zìbù(= ∴)*
 [[Bamako Loc] go-VbIN 3Sg-Poss.InanSg] **obligation**=it.is
 ‘He/She must go (=is obligated to go) to Bamako.’

17.3.5 ‘Be afraid to’ (*íbí-yé*) with verbal-noun complement

The transitive verb ‘be afraid of X’ can also take a verbal-noun complement as in (675). The experiencer is expressed as main-clause subject and does not appear in the complement.

- (675) *[bàmàkó nà] ún-Ø / ún-lé]* *íbí-yá-m-Ø*
 [Bamako Loc] go-VbIN] fear-MP-Ipfv-1SgSbj
 ‘He/She is afraid to go to Bamako.’

If the lower subject is not coindexed to the matrix subject, the complement is a ‘whether’ interrogative clause featuring interrogative/disjunctive *mà(→)*, with an imperfective verb, assuming that the feared eventuality is not yet actualized.

- (676) *[mì-ý* *dèmá-m-ù* *mâ→]* *íbí-yá-m-Ø*
 [1Sg-Acc hit-Ipfv-3SgSbj Q] **fear**-MP-Ipfv-1SgSbj
 ‘I fear that he/she might hit me.’

‘Be afraid that’ is logically different from ‘be afraid to’ since it does not involve the subject’s future agency. (843) in Text 5 is a good example of ‘be afraid that’, and has a subjunctive (*nì*) complement.

17.3.6 ‘Help (v)’ (*bàdú*) with verbal-noun adjunct or chained verb

bàdú ‘help’ may be a special sense of *bàdú* ‘add, increase’, in the sense that the agent adds himself/herself to a joint action. The person who is helped is expressed as a direct object of *bàdú*. In (677a), a subjectless verbal-noun is added as an adjunct, roughly ‘...helped me [in walking]’. In (677b), the two verbs are directly chained to form a kind of verb-verb compound, roughly ‘...tie-help you’.

- (677) a. *òzù-[ún-Ø]* *mì-ý* *bàdù = bé-Ø*
 road-[go-VbIN] 1Sg-Acc **help**=Past-3SgSbj
 ‘He/She helped me to walk.’
- b. *[nà: †gɛ́]* *ó(-ý)* *kómó* *bàdà-m-Ø*
 [cow Def.AnSg] 2Sg(-Acc) tie **help**-Ipfv-1SgSbj
 ‘I will help you-Sg tie up the cow.’

17.4 Directly chained VP as complement

Direct verb chains are those with no overt subordinator on the nonfinal verbs, which occur in bare-stem form (§15.1). In many cases each verb describes one aspect (co-event) of a single integrated event. However, there are some verbs that regularly combine with other VPs in a semantically specialized manner reminiscent of English control verbs. One can speak informally of the chained VP as a complement for the specialized verb, though syntactically these combinations are like other direct chains.

17.4.1 *tádú* ‘try to VP’ with preceding chained VP

tádú ‘try’ is chained to a preceding VP ending in bare-stem verb in the sense ‘try to VP’ or ‘see if one can VP’. The high-frequency imperative form is {L}-toned *tàdà*. The historical

- (680) *zə̀bə̀* [↑]*bɛ̀lɑ̀-lú-m*
 run be.able-PfvNeg-1SgSbj
 ‘I was not able to run.’ (*zə̀bə̀*)

Although the semantic connection between ‘get, obtain’ and ‘be able to’ seems stretched to westerners, a construal of ‘be able to’ as ‘get’ makes sense if one supplies an object such as ‘(the) means’. This accounts for examples like (681a) below, where *bɛ̀lɛ̀* precedes rather than follows the other verb. Using his practical experience, the speaker apparently reasoned that ‘be unable to farm’ implies ‘be unable to obtain the resources (seedstock, tools, transportation, and/or workforce) to farm’. In this reading, it is reasonable (iconically) to position *bɛ̀lɛ̀* ‘get’ before ‘do farm work’. A textual example of *bɛ̀lɛ̀* before a chained verb is (681b). Here the other animals were dissuaded from entering Hare’s field by sounds of (apparent) danger.

- (681) a. [*gòl* [↑]*gá*] *gə̀lə̀* ^L*bɛ̀lɛ̀* [↑]*gólɑ̀-lú-m*
 [last.year Loc] farming(n) ^Lget do.farm.work-PfvNeg-1SgSbj
 ‘Last year I was unable to farm.’
- b. [[[*zòmó* *ɲ*]] ^L*mɛ̀nɛ̀ wò*] *nà*] ^L*bɛ̀lɛ̀* [↑]*tíjɑ̀-ń*
 [[[hare Poss] ^Lfield Def.AnSg] Loc] ^Lget cross-PfvNeg.3PlSbj
 ‘They could not cross over into hare’s field.’
 (excerpt from (838) in Text 4)

As these examples show, *bɛ̀lɛ̀* appears as L-toned *bɛ̀lɛ̀* in this construction, as is regular for /LH/-toned verbs in nonfinal position in direct chains. The final verb has HL-stem tones and H-toned suffix, regardless of lexical melody. The initial H-tone is arguably due to Rightward Tone-Jumping or Rhythmic Tone-Raising, and so is marked with [↑].

An example of the usual ‘be able to’ construction in a relative clause is (682). The verb ‘go’ and ‘be able’ are fused in a compound-like sequence, so the preverbal subject pronominal precedes both of them.

- (682) *sǎ̀yɔ̀dù* *izèn*^L *nà* *ún* *bɛ̀lɛ̀* *wò*
 S day^L 3SgSbj go get.Rel.Pfv Def.InanSg
 ‘the day when Seydou was able to go’

17.4.3 ‘Finish, complete’ (*ídé*, *kílíyɛ̀*, *íjé*) with preceding chained VP

The usual expression of ‘have finished VP-ing’, referring to an activity, is addition of recent perfect suffix *-zɛ̀-* (§10.3.1.4) to the verb. It is possible that this is really a directly chained auxiliary verb rather than a suffix, cf. §10.1.1. In this analysis, one could take the preceding material as constituting a subordinated clause.

Alternative constructions involve adding a final chained verb *ídé* or *kílíyɛ̀* ‘finish, bring to an end (an activity)’, or *íjé* ‘cease’ (the latter can be used for inanimate subjects, e.g. ‘rain has

stopped falling’). All three of these combine with a preceding directly chained verb (i.e. VP). It is likely that *íjé* and *ídé* are historically related (transitive versus mediopassive), but the morphology is now obscure.

ídé will serve as illustration. This verb is also used with NP object in the sense ‘finish up, run out of, deplete (e.g. one’s supply of sugar)’, and it is probably historically related to intransitive *íjé*, which is found in contexts like ‘(film) be finished, be over’ and ‘(sugar, tea) be depleted, be used up’. Examples of *ídé* with clausal complement are in (683).

- (683) a. *éw* *[[ʔáné gè]* ^L*nàmà]* *kúbó]* *idè-m-iy*
tomorrow [[goat Def.AnSg] ^Lmeat] eat.meat] **finish**-Ipfv-1PlSbj
‘Tomorrow we will finish eating the meat of the goat.’
- b. *[láyà* *nà* *dó* *mér^aá]*
[feast.of.ram 3SgSbj arrive before]
[[ʔáíó *ónzó]* *idò]*
[[house build] **finish**.Imprt]
‘Finish-2Sg building the house, before the Feast of the Ram (arrives)!’

A relative-clause example is (684).

- (684) *izèn^L* *nàmà* *mì* *kúbó* *ídé* *wò*
day^L meat 1SgSbj eat.meat **finish**.Pfv.Rel Def.InanSg
‘the day (when) I finished eating the meat’

As an alternative to the direct-chain construction, *ídé* ‘finish’ may also take a complement with *-y* past anterior subordinator on the verb. The subordinator indicates that the eventuality denoted by its clause precedes in time the eventuality denoted by the main clause. This arguably makes sense in the case of ‘finish’, as in ‘I ate the meat and then finished’. The relative clause (684), above, can therefore also be expressed as (685). The subject pronoun *mì* in (685) does intervene between the two verbs, which is not possible in the direct-chain construction (684).

- (685) *izèn^L* *nàmà* *kúbó-y* *mì* *ídé* *wò*
day^L meat eat.meat-Past.**and.then** 1SgSbj **finish**.Pfv.Rel Def.InanSg
‘the day (when) I finished eating the meat’

17.4.4 ‘Nearly (do)’ (*nèmá-li*) with preceding chained verb

nèmé ‘taste (v)’ has a regular perfective negative *nèmá-li-* ‘did not taste’, with LH stem tone, see (349b) in §10.2.2.4. With a preceding chained VP, the sense is ‘nearly (VP)’, ‘not miss (VPing) by much’.

- (686) *pílé nèmá-lù-m*
 fall **taste-PfvNeg-1SgSbj**
 ‘I nearly fell.’ (lit. ‘I didn’t taste-fall’).

17.5 Other complements

17.5.1 ‘Consent’ (*ábí-yé*) with relative complement

The usual verb for ‘consent, agree (to do something)’ is *ábí-yé* ‘accept, receive’. The equivalent of the English infinitival complement is expressed as a headless imperfective relative in inanimate singular form (suffix *-ŋ*). A literal rendering would be of the type “X accept [(fact/situation) that ...].” A final definite *wò* is optional.

Examples with same-subject complements are in (687). In this construction, there is no overt marking of the pronominal subject in the complement clause.

- (687) a. *wó-ŋ yà ábí-yé-Ø*
 come-Ipfv.**Rel.InanSg** Real **accept-MP-3SgSbj**
 ‘He/She has agreed (=consented) to come.’
- b. *[[pè: †gé] ébá-ŋ yà ábí-y-á*
 [sheep Def.AnSg] buy-Ipfv.**Rel.InanSg** Real **accept-MP-3PlSbj**
 ‘They have agreed (=consented) to buy the sheep-Sg.’

Examples (688a-b) below show the different-subject version of the construction. A proclitic subject pronominal is obligatory even when it resumes a nonpronominal subject NP (688b).

- (688) a. *[mì ^Hdé:] [[bàmàkó nà] mì ún-ún*
 [1SgPoss ^Hfather] [[B Loc] **1SgSbj** go-Ipfv.**Rel.InanSg**
wò] yà ábí-yé-Ø
 Def.InanSg] Real **accept-MP-3SgSbj**
 ‘My father has agreed that I (may) go to Bamako.’
- b. *[mì ^Hdé:] [sǎydù [[bàmàkó nà] nà*
 [1SgPoss ^Hfather] [S [[B Loc] **3SgSbj**
ún-ún] wò] yà ábí-yé-Ø
 go-Ipfv.**Rel.InanSg** Def.InanSg] Real **accept-MP-3SgSbj**
 ‘My father has agreed that Seydou (may) go to Bamako.’

17.5.2 ‘Want’ (*èbà = bó-*) with *-é:* ~ *-é:* or relative complement

èbà = bó- ‘want’ (§11.2.4) can take an NP complement (‘want X’) or a clausal complement. When the complement clause has the same subject as the main clause, the nonpast anterior

same-subject subordinator *-é: ~ -é:* (§15.2.3) occurs on the complement verb. There is no pronominal marking of the subject in the complement clause (689). Since *èbà = bó-* is usually nonfocal in this construction, the enclitic *bó-* is usually heard as L-toned.

- (689) a. *[ðdð-nìnjù ?ə̀ŋ-é:] èbà = bò-∅*
 [baobab-sauce eat.meal-NonPast.**and.SS**] **want=be-3SgSbj**
 ‘He/She wants to eat millet cakes (with baobab sauce).’
- b. *[[dàamá †ná] ùrⁿ-é:] èbà = bò-m*
 [[village Loc] go-NonPast.**and.SS**] **want=be-1SgSbj**
 ‘I would like to go to the village.’
- c. *[[[dàamá á-ŋ] nà] ùrⁿ-é:]*
 [[[village 3Refl-Poss.InanSg] Loc] go-NonPast.**and.SS**]
èbù = là-∅
want=StatNeg-3SgSbj
 ‘He doesn’t want to go to his (own) village.’

If the subjects are **disjoint**, the complement takes the form of a headless imperfective **relative** clause with inanimate singular agreement (*-ŋ* on the verb), with or without definite *wò*. A proclitic subject pronoun is obligatory (690a-b).

- (690) a. *[mì ^Hdé:]*
 [1SgPoss ^Hfather]
[[dàamá †ná] mì ùrⁿ-úŋ (wò)] èbà = bò-∅
 [[village Loc] **1SgSbj** go-Ipfv.**Rel.InanSg** (Def.InanSg)] **want=be-3SgSbj**
 ‘My father wants me to go to the village.’
- b. *[èné [gòmú nà] bò nɔ́á-ŋ*
 [children [courtyard Loc] **3PISbj** go.in-Ipfv.**Rel.InanSg**
wò] èbù = là-m
 Def.InanSg] **want=StatNeg-1SgSbj**
 ‘I don’t want children to enter the courtyard.’

The alternative ‘want’ form *nàmà = bó-* has similar syntax and can be substituted for *èbà = bó-* in the examples above.

17.5.3 ‘Prevent, obstruct’ (*gàpú*) with juxtaposed clause

Cues of the type ‘X prevent Y from [Y...]’ were rephrased with negated causative verbs. Thus ‘X prevented Y from [Y bring ...]’ was phrased as ‘X didn’t make (=let) Y bring ...’. If the verb *gàpú* ‘obstruct’ is present, it is in a juxtaposed clause (691a).

- (691) a. [àrⁿùŋ mì-ý ^Lgàñè-Ø]
 [rain 1Sg-Acc ^Lobstruct.Pfv-3SgSbj
 [yú: wò] mì-ý zó-má-lì-Ø
 [millet Def.InanSg] 1Sg-Acc bring-Caus-PfvNeg-3SgSbj
 ‘The rain obstructed me, it didn’t let me bring the millet.’
- b. [pè: †gɛ́] mì-ý sémé-má-lì-Ø
 [sheep Def.AnSg] 1Sg-Acc slaughter-Caus-PfvNeg-3SgSbj
 ‘He/She prevented me from slaughtering the sheep.’

17.6 Purposive and causal clauses

17.6.1 Purposive clause with *ná* (same-subject, positive)

17.6.1.1 Simple adjoined purposive clauses

The purposive morpheme *ná* occurs clause-finally, after an {L}-toned form of the verb. *ná* might be identified as locative postposition *nà* (§8.2.3), here in H-toned form due to Rhythmic Tone-Raising (for L-toned *nà* in some contexts, see below). To avoid confusion it will be glossed “Purp” in interlinears in this construction. An object NP or other clausal constituent, in its regular form, may precede the verb (692a-b), but no such constituent is required (692c). The purposive clause may be nested within the main clause, following some of the latter’s constituents such as locative adverbs (692a-b). The subject of the purposive clause is understood to be **coindexed** with that of the main clause. The main clause is usually a verb of motion (‘go’, ‘come’).

- (692) a. [dà má nà] [[mì ^Hdé:] tìgè^L ná] ^Lùrⁿ-ùm-Ø
 [village Loc] [[1SgPoss ^Hfather] visit^L **Purp**] ^Lgo-Ipfv-1SgSbj
 ‘I’m going to the village to visit my father.’
- b. [dà má nà] [[mì ^Hní:] bàdù^L ná] ^Lùrⁿ-ùm-Ø
 [village Loc] [[1SgPoss ^Hmother] help(v)^L **Purp**] ^Lgo-Ipfv-1SgSbj
 ‘I’m going to the village to help my mother.’
- c. [sùmò^L ná] ^Lùrⁿ-ùm-Ø
 [rest^L **Purp**] ^Lgo-Ipfv-1SgSbj
 ‘I’m going over there to rest.’

The purposive (nominal plus *ná*) consists of an L-toned form of the bare stem with no further suffix followed by H-toned *ná* (693a). The two primary verbs of conveyance, ‘bring’ and ‘take away’ (§10.2.1.8, §10.2.1.12), have H-tones and are followed by L-toned *nà* (693b). In general, these purposives (including tonal irregularities) are very similar to the forms of the imperfective negative with suffix *-nán-* ~ *-rán-* (§10.3.3.4)

(693)	bare stem	purposive	gloss
a. L-toned stem before <i>ná</i>			
<i>/H ~ H/</i>			
	<i>yé</i>	<i>yè^L ná</i>	‘weep’
	<i>tó</i>	<i>tò^L ná</i>	‘slash earth (to sow)’
	<i>nó</i>	<i>nò^L ná</i>	‘go in’
<i>/H ~ L/ as proxy for /LH ~ L/</i>			
	<i>dó</i>	<i>dò^L ná</i>	‘arrive, reach’
	<i>dó</i>	<i>dò^L ná</i>	‘insult (v)’
	<i>gó</i>	<i>gò^L ná</i>	‘go out’
	<i>nó</i>	<i>nò^L ná</i>	‘hear’
	<i>wó</i>	<i>wò^L ná</i>	‘come’
	<i>wó</i>	<i>wò^L ná</i>	‘see’
	<i>tó:</i>	<i>tò:^L ná</i>	‘spit’
	<i>ká:</i>	<i>kà:^L ná</i>	‘shave’
	<i>ún</i>	<i>ùn^L ná</i>	‘go’
	<i>ʔéǵé</i>	<i>ʔèǵè^L ná</i>	‘eat (meal)’
	<i>ʔólé</i>	<i>ʔòlè^L ná</i>	‘go up’
	<i>úbó</i>	<i>ùbò^L ná</i>	‘pour’
	<i>ńdé</i>	<i>ńdè^L ná</i>	‘give’
	<i>cézó</i>	<i>cèzò^L ná</i>	‘cut (slice)’
	<i>tábú</i>	<i>tàbù^L ná</i>	‘touch’
	<i>tóló</i>	<i>tòlò^L ná</i>	‘pound (in mortar)’
	<i>óbí-yó</i>	<i>òbí-yò^L ná</i>	‘sit’
	<i>símbé</i>	<i>sìmbè^L ná</i>	‘roast, grill’
<i>/LH ~ L/</i>			
	<i>mǎ:</i>	<i>mà:^L ná</i>	‘make (bricks)’
	<i>dèrⁿé</i>	<i>dèrⁿè^L ná</i>	‘spend day’
	<i>góló</i>	<i>gòlò^L ná</i>	‘do farm work’
	<i>dì-yé</i>	<i>dì-yè^L ná</i>	‘carry on head’
	<i>mànú</i>	<i>mànù^L ná</i>	‘cook’
<i>/LH ~ LH/</i>			
	<i>nǎ:</i>	<i>nà:^L ná</i>	‘spend night’
	<i>nǎm</i>	<i>nàm^L ná</i>	‘grind (into flour)’

b. H-toned stem before *nà*

irregular

<i>zó</i>	<i>zò ná</i>	‘bring’
<i>zǐn</i>	<i>zín ná</i>	‘take away’

The L-toned verb forms are subject to Rhythmic Tone-Raising when preceded within the clause by an L-toned constituent, such as a cognate nominal. In this case the postposition takes L-toned form *nà* (694a-b).

- (694) a. *[yàŋ* *†yé^L* *nà]* *^Lùrⁿè-Ø*
 [weeping(n) weep^L **Purp**] ^Lgo.Pfv-3SgSbj
 ‘He/She went (there) to weep.’
- b. *[gòlò* *†gólò^L* *nà]* *^Lùrⁿè-Ø*
 [farming(n) do.farm.work^L **Purp**] ^Lgo.Pfv-3SgSbj
 ‘He/She went (there) to farm.’

In (818) in Text 3, *[sàdù †sádu^L nà] wò-zò-Ø* ‘(you) have come to ask questions’ is another example with a cognate noun-verb sequence (*sàdù* ‘question[n]’). In (814) in the same text, in *[[[dùnù wò] dùnò^L] ná] úrⁿ-úm* ‘she went around to do the (re-)search’, *dùnù* is a cognate nominal with definite marking; similar elicited examples are in the comments to (814).

17.6.1.2 Purposive complement with ‘begin’ (*tólí*)

The transitive verb ‘begin’ is *tólí* (695a). It has an intransitive counterpart with mediopassive suffix *tólí-yé* (695b).

- (695) a. *bidé* *yà* *tól-á*
 work(n) Real **begin**.Pfv-3PlSbj
 ‘They have begun the work.’
- b. *bidé* *yà* *tólí-yé-Ø*
 work(n) Real **begin-MP**-3SgSbj
 ‘The work has begun.’

When the complement of ‘begin’ is clausal, it must have the same subject as the main clause. There are two distinct complement constructions. In one, the clause-final subordinator is *ná* (arguably the locative postposition), after a bare verb stem in {L}-toned form (before Rhythmic Tone-Raising), as in purposive complements (preceding subsection).

- (696) a. *[zá* *?àŋè^L* *ná]* *yà* *tólé-Ø*
 [meal eat.meal^L **Purp**] Real begin.Pfv-3SgSbj
 ‘He/She has begun to eat (the meal).’
- b. *éné* *[yàŋ* *†yé^L* *nà]* *yà* *tól-á*
 children [weeping(n) weep^L **Purp**] Real begin.Pfv-3PlSbj
 ‘The children began to weep.’

The alternative construction is with subjunctive *nì* (§17.1.4) following a verb ending in imperfective *-m*. The subordinated verb has {HL} tones.

- (697) *[yǎy* *[íyé* *là]*
 [there.Def [again too]
kéné *kúndò-m* *nì]* *tólà-m-ù*
 mouth put.in-Ipfv **Sbjnct]** **begin-Ipfv-3SgSbj**
 ‘(The dog) would again begin to put his mouth in there.’
 (excerpt from (807) in Text 2)

The association with purposive and subjunctive complements suggests that the verb translated ‘begin’ has a dubitative element in YD (as in several Dogon languages), and might better be glossed ‘initiate an attempt to (do)’.

17.6.2 Purposive clause (different-subject, positive)

17.6.2.1 Manner adverbial as positive purposive

One construction that is used in (translation equivalents of) different-subject purposive clauses is a manner adverbial clause, either headless (698a) or with *ànjǎy* ‘manner’ in tone-dropped form as relative head (698b). The subordinated clause ends in an imperfective relative verb with *-ŋ* suffix agreeing with ‘manner’ (inanimate singular), without a following determiner (698). The construction is literally of the type “(in) such a manner that ...,” compare English *so that* ... The purposive clause may precede or follow the main clause.

- (698) a. *[gìdǎn* *[síyé* *†gá]* *bò* *nìyó-ŋ]*
 [sleep(n) [good Adv] 3PISbj sleep(v)-Ipfv.**Rel.InanSg]**
màtlá ^L*tédà-m-Ø*
 mattress ^Llay.out-Ipfv-1SgSbj
 ‘I’ll lay out the mattress(es), so they may sleep well.’
- b. *[[zá* *wò]* *zô:]*
 [[meal Def.InanSg] bring.Imprt]
[ànjày^L *ŋgí* *yè* *?éjǎ-ŋ]*
 [**manner^L** here 1PISbj eat-Ipfv.**Rel.InanSg**
 ‘Bring-2Sg the meal, so we may eat here!’

17.6.2.2 Bare stem plus *-mà* as positive purposive

A second construction adds suffix *-mà* to the bare stem of the verb. This construction differs tonally from the hortative form with *-mà* (§10.7.2). A proclitic subject pronoun is obligatory even when it resumes a nonpronominal subject NP (699).

- (699) [àràjò: jáj]
 [radio kill.Imprt]
 [sǎydu tèlèfôn [síyé ↑gá] nà ↑nìndíyó-mà]
 [S telephone [good Adv] **3SgSbj** listen-**Purp**]
 ‘Turn off-2Sg the radio, so Seydou can listen to (=hear) the telephone well!’

Examples of the purposive with *-mà*, plus the hortative for comparison, are in (700). In (700a-b) the two forms differ tonally, but in (700c-d) there is no audible difference.

(700) Purposive *-mà*

bare stem	hortative	purposive	gloss
a. purposive has H-toned stem, hortative has L-toned stem			
<i>/H ~ H/</i>			
<i>yé</i>	<i>yè-má</i>	<i>yé-mà</i>	‘weep’
<i>ndé</i>	<i>ndè-má</i>	<i>ndé-mà</i>	‘give’
<i>úbó</i>	<i>ùbò-má</i>	<i>úbó-mà</i>	‘pour’
<i>ábú</i>	<i>àbù-má</i>	<i>ábú-mà</i>	‘accept, receive’
<i>/H ~ L/ as proxy for /LH ~ L/</i>			
<i>dó</i>	<i>dò-má</i>	<i>dó-mà</i>	‘arrive, reach’
<i>gó</i>	<i>gò-má</i>	<i>gó-mà</i>	‘go out’
<i>nó</i>	<i>nò-má</i>	<i>nó-mà</i>	‘hear’
<i>wó</i>	<i>wò-má</i>	<i>wó-mà</i>	‘see’
<i>/LH ~ L/</i>			
<i>ʔólé</i>	<i>ʔàlè-má</i>	<i>ʔólé-mà</i>	‘go up’
b. purposive has LH-toned stem, hortative has L-toned stem			
<i>/LH ~ L/</i>			
<i>mǎ:</i>	<i>mà:-má</i>	<i>mǎ:-mà</i>	‘make (bricks)’
<i>dèrⁿé</i>	<i>dèrⁿè-má</i>	<i>dèrⁿé-mà</i>	‘spend day’
<i>gòló</i>	<i>gòlò-má</i>	<i>gòló-mà</i>	‘do farm work’
<i>dì-yé</i>	<i>dì-yè-má</i>	<i>dì-yé-mà</i>	‘carry on head’
<i>mànú</i>	<i>mànù-má</i>	<i>mànú-mà</i>	‘cook’
<i>nìndíyó</i>	<i>nìndiyò-má</i>	<i>nìndíyó-mà</i>	‘listen’
c. purposive and hortative have H-toned stem			
<i>/H ~ H/</i>			
<i>nó</i>	<i>nó-mà</i>	<i>nó-mà</i>	‘go in’
<i>tó</i>	<i>tó-mà</i>	<i>tó-mà</i>	‘slash earth (to sow)’
<i>dó</i>	<i>dó-mà</i>	<i>dó-mà</i>	‘insult (v)’
<i>zó</i>	<i>zó-mà</i>	<i>zó-mà</i>	‘bring’
<i>ʔéyé</i>	<i>ʔéyé-mà</i>	<i>ʔéyé-mà</i>	‘eat (meal)’
<i>tóló</i>	<i>tóló-mà</i>	<i>tóló-mà</i>	‘pound (in mortar)’

<i>tábú</i>	<i>tábú-mà</i>	<i>tábú-mà</i>	‘touch’
<i>óbí-yó</i>	<i>óbí-yó-mà</i>	<i>óbí-yó-mà</i>	‘sit’

d. purposive and hortative have LH-toned stem

/LH ~ LH/

<i>nǎ:</i>	<i>nǎ:-mà</i>	<i>nǎ:-mà</i>	‘spend night’
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Purposive forms that do not already begin with an H-tone are subject to Tone-Raising after an L-toned subject pronominal, as in (699), above.

17.6.3 Negative purposive clauses

17.6.3.1 Negative same-subject purposive clause with *-ná-m* plus *nì* or *dàn*

In a negative purposive clause with same subject as the main clause, two constructions are possible.

In the first, the verb takes a suffix *-ná-m* ~ *-rá-m*. This is morphologically the logophoric-subject (pseudo-1Sg) form (§18.2.1.2) of the imperfective negative, i.e. the subject is coindexed with the ascribed author of the thinking. This verb is followed either by subjunctive *nì* indicating an intention (§17.1.4) or by purposive-causal postposition *dàn* ‘like’.

In (701), *nì* and *dàn* are more or less interchangeable. The difference is that subjunctive (Sbjct) *nì* directly reports the protagonist’s thought process.

(701)	<i>[gǎ̀lò</i>	<i>gǎ̀lò-ná-m</i>	<i>nì / dàn]</i>
	[farming(n)	do.farm.work- IpfvNeg-LogoSbj	Sbjct / Purp]
	<i>[gálè</i> <i>nà]</i>	^L <i>ùrⁿè-Ø</i>	
	[city Loc]	^L go.Pfv-3SgSbj	
	‘He went away to the city in order not to do farm work.’		

(702) is phrased with the imperfective negative of a **causative** verb, i.e. ‘... in order (for us) not to make/have/let it fall’. The causative permits conversion of what would otherwise have been a disjoint-subject construction (‘so that it won’t fall’) into a same-subject construction.

(702)	<i>[[gágábú</i> <i>wò]</i>	<i>sùwò-mè-ná-m</i>	<i>nì]</i>
	[[wall Def.InanSg]	go.down- Caus-IPfvNeg-LogoSbj	Sbjnc]
	^L <i>tàdà-m-iy</i>		
	^L plaster-IPfv-1PISbj		
	‘We’ll replaster the wall, so it won’t come down.’		

17.6.3.2 Prohibitive *-là* plus *gà* as negative purposive clause

Prohibitive *-là* may also be used, with clause-final adverbial *gà* (§8.2.1.5), in negative purposive contexts. The main clause may be imperative (703a) but may also be indicative (703b). (703a) shows the conversion to a same-subject purposive using the causative (literally ‘don’t make/have/let it weep’), as in (702) above. In (703b) the two clauses keep their disjoint subjects.

- (703) a. *[[èné gè] dómá]*
 [[child Def.AnSg] console.Imprt]
[yàŋ †yé-mè-là †gá]
 [weeping(n) weep-Caus-Proh Adv]
 ‘Console-2Sg the child, so it won’t weep.’ (< *yè-mè-lá*)
- b. *[[dèbù †wó] [súwó-là gà] †tàdà-m-ìy]*
 [[roof Def.InanSg] [go.down-Proh Adv] †replaster-Ipfv-1PlSbj]
 ‘We’ll replaster the roof so it (=roof) won’t fall.’

17.6.3.3 Imperfective positive plus *gà* as negative purposive clause

In (704), the purposive clause is imperfective positive in form but negative pragmatically (cf. ‘lest’ clauses). Adverbial *gà* is again present.

- (704) *[?óló tádá] [súwò-m-ù gà]*
 [house plaster.Imprt] [go.down-Ipfv-3SgSbj Adv]
 ‘Replaster-2Sg the house, lest it fall’ (= ‘otherwise it will fall’)

17.6.3.4 Negative manner adverbial as negative purposive clause

Another way to form a negative purposive clause is to phrase it as a manner adverbial clause with ‘manner’ as head and negative imperfective relative verb (705).

- (705) *[[?óné gè] †cènè wò]] kómà-m-ìy]*
 [[goat Def.AnSg] †mouth Def.InanSg] tie-Ipfv-1PlSbj]
[àŋày^L nà kódó-n]
 [manner^L 3SgSbj bleat-IpfvNeg.Rel]
 ‘We’ll tie up the goat’s mouth so it (=goat) won’t bleat.’

17.6.3.5 Verbal noun plus *dàn* as same subject negative purposive clause

A construction that can function somewhat like a negative purposive clause involves purposive-causal *dàn* following a verbal noun with suffix *-lé*. The core sense is approximately ‘instead of VPing’. The construction is puzzling since there is no negative morpheme in the purposive clause although negativity is implicit.

- (706) a. *[gìdě̀n nìyè-lé dàn]*
 [sleep(n) sleep-VbIN Purp]
[[sé:zù nà] óbó-n dé nà:-m-ù]
 [[chair Loc] sit-NonPastDur if spend.night-Ipfv-3SgSbj]
 ‘He/She will spend the night sitting in a chair instead of sleeping.’
- b. *bò-y gànú-lé dàn,*
 3Pl-Acc disturb-VbIN Purp,
cém→ wàjì-ndiy-é: biyò-m-ù
 a.little far-Inch-NonPast.and.SS lie.down-Ipfv-3SgSbj
 ‘In order not to bother them, he will go some distance away and lie down (to sleep).’

17.6.4 Causal (‘because’) clause (*dàn*)

Purposive *dàn* can be used in causal ‘because’ clauses (generally retrospective) as well as in purposive ‘for’ clauses (generally prospective). Causal clauses are in (707). The clause before *dàn* has main-clause form.

- (707) a. *[[mì ^Hdé:] séllá-li-Ø dàn]*
 [[1SgPoss ^Hfather] be.healthy-PfvNeg.3SgSbj Purp]
[[dámá nà] úrⁿ-ùm-Ø]
 [[village Loc] go-Ipfv-1SgSbj
 ‘I’m going to the village because my father is ill.’
- b. *[[nà ^Hdé:] nà-y yà làlí-yé-Ø dàn]*
 [[3SgPoss ^Hfather] 3Sg-Acc Real chase-MP-3SgSbj Purp]
njí ^Lwè-Ø
 here ^Lcome.Pfv-3SgSbj
 ‘He/She came here because his/her father drove him/her out.’

18 Anaphora

The key linguistic form in this chapter is *á*, which functions as a third person reflexive (3Refl), a third person subject-to-subject coindexation indicator, and a third person logophoric (3Logo). In all of these constructions, *á* marks coindexation to a preceding antecedent. Morphosyntactically and tonosyntactically, *á* is a pronoun rather than a noun; for example, it can be directly procliticized to a noun as inalienable possessor (§18.1.4.2) or to a verb as subject in nonsubject relative clauses as in (605).

Also covered in this chapter are the reciprocal construction (§18.3) and emphatic forms of pronouns (§18.1.5).

18.1 Reflexive

18.1.1 Reflexive object (accusative pronominal, 3Reflexive *á-ý*)

Coindexation of a 1st/2nd person subject and object does not require overt reflexive marking. The accusative objects in (709a-b) are the same forms that occur with noncoindexed subjects. For example, (709a) and (709c) have the same 1PI object form. For optional explicit reflexive-object marking, see the following section.

- (709) a. *yè-ý* *yà* *césé-ý*
1PI-Acc Real cut.Pfv-1PISbj
'We cut ourselves.'
- b. *ó-ý* *césé-y-ò* *là* *ma*
2Sg-Acc cut-PfvNeg-2SgSbj Q Q
'You-Sg didn't cut yourself?'
- c. *yè-ý* *yà* *cés-ó*
1PI-Acc Real cut.Pfv-3PISbj
'They cut us.'

For third person subject, singular or plural, a coindexed object is expressed by the accusative form of 3Reflexive *á* (710a-b).

- (710) a. *á-ý* *césó-lì-Ø*
3Refl-Acc cut-PfvNeg-3SgSbj
'He/She didn't cut himself/herself.'

- b. *á-y* *césó-ṅ*
3Refl-Acc cut-PfvNeg.3PlSbj
 ‘They didn’t cut themselves.’

18.1.2 Reflexive object with possessed ‘head’ (1Sg *kó:-mú* etc.)

Marked reflexive object forms can also be used. They are based on possessed forms of *kó:* ‘head’, so that e.g. ‘I hit myself’ is expressed literally as ‘I hit my head.’ The 1Sg form is contracted from *kó: ʔámó* to *kó:-mú*. The other forms are regular in form, but 2Sg *kó: ó-ṅ* can contract to *kó:-ṅ*, and *kó:* in the remaining combinations can be shortened to *kó*. I will transcribe all of the forms as single words.

(711)	category	reflexive object
	1Sg	<i>kó:-mú</i>
	2Sg	<i>kó:-ó-ṅ</i> ~ <i>kó:-ṅ</i>
	1Pl	<i>kó:-yé-ṅ</i> ~ <i>kó-yé-ṅ</i>
	2Pl	<i>kó:-wó-ṅ</i> ~ <i>kó-wó-ṅ</i>
	3Sg, 3Pl	<i>kó:-á-ṅ</i> ~ <i>kó-á-ṅ</i>

Some examples are in (712).

- | | | | | | |
|-------|----|-------------------|-------------------|-----------|--------------------------------|
| (712) | a. | <i>(mí)</i> | <i>kó:-mú</i> | <i>yà</i> | <i>cézé-mí</i> |
| | | (1Sg) | 1SgRefl | Real | cut.Pfv-1SgSbj |
| | | | | | ‘I cut myself.’ |
| | b. | <i>yé</i> | <i>kó(:)-yé-ṅ</i> | <i>yà</i> | <i>cézé-ý</i> |
| | | 1Pl | 1PlRefl | Real | cut.Pfv-1PlSbj |
| | | | | | ‘We cut ourselves.’ |
| | c. | <i>èné = wò</i> | <i>kó(:)-á-ṅ</i> | <i>yà</i> | <i>céz-ó</i> |
| | | children=Def.AnPl | 3Refl | Real | cut.Pfv-3PlSbj |
| | | | | | ‘The children cut themselves.’ |

18.1.3 Simple and marked reflexives as postpositional complements

The same options described above for direct objects are also available for complements of postpositions that are coindexed to the clausemate subject.

Simple possessor pronouns are in (713), with a complex postposition ‘behind X’ expressed as ‘at [X’s rear]’. For third person subject, the 3Refl form *á-ṅ* is required (713b).

- (713) a. *[gòdú wò] [[tùnù ?ámó] nà]* ^L*tèmbè-m*
 [hat Def.InanSg] [[rear **1SgPoss**.InanSg] Loc] ^Lfind.Pfv-1SgSbj
 ‘I found the hat behind me.’
- b. *[gòdú wò] [[tùnù á-ń] nà]* ^L*tèmbè-Ø*
 [hat Def.InanSg] [[rear **3Refl**-Poss.InanSg] Loc] ^Lfind.Pfv-3SgSbj
 ‘He/She found the hat behind himself/herself.’

Marked reflexive pronouns based on possessed forms of ‘head’ are in (714).

- (714) a. *[kó:-mú mì] dàmbé-ń*
 [**1SgRefl** to] speak.Pfv-1SgSbj
 ‘I spoke to/with myself.’
- b. *[kó:-á-ń mì]* ^L*bìdà-m-ù*
 [**3Refl** Comit] ^Lwork-Ipfv-3SgSbj
 ‘He/She works with/by himself/herself.’

18.1.4 Reflexive possessor (third person *á*)

18.1.4.1 Reflexive alienable possessor

When the clausemate subject is a 1st/2nd person pronoun, a coindexed possessor on the direct object (for example) has its usual form, with no special reflexive marking. Therefore ‘my dog’ has the same form in (715a) and in (715b).

- (715) a. *[ìnjè mí-yⁿè] gè]* *yà* *dèmé-ń*
 [dog **1Sg**-Poss.An Def.AnSg] Real hit.Pfv-1SgSbj
 ‘I hit-Past my (own) dog.’
- b. *ènè [ìnjè mí-yⁿè] gè]* *yà* *dèmé-Ø*
 child [dog **1Sg**-Poss.An Def.AnSg] Real hit.Pfv-3SgSbj
 ‘A child hit my dog.’

For third person subject, a coindexed nonsubject possessor is marked by the appropriate possessor form of 3Refl *á*, i.e. *á-ń*, *á-yⁿè*, or *á-(yⁿè-)mù* depending on agreement with the possessum. Compare the reflexive possessor based on *á* in (716a) with the nonreflexive possessor based on 3Sg *ńá* in (716b).

- (716) a. *[ìnjè á-yⁿè] gè]* *yà* *dèmé-Ø*
 [dog **3Refl**-Poss.An Def.AnSg] Real hit.Pfv-3SgSbj
 ‘He_x hit his_x (own) dog.’

- b. [ɪnjè ná-yⁿè gè] yà dèmé-m
 [dog 3Sg-Poss.An Def.AnSg] Real hit.Pfv-1SgSbj
 ‘I hit-Past his/her dog.’

Forms based on *á* are used for reflexive plural as well as reflexive singular possessor. In (717), there is still just one dog, but now it is possessed by the individuals referred to by the subject NP.

- (717) èné [ɪnjè á-yⁿè gè] yà dèm-á
 children [dog 3Refl-Poss.An Def.AnSg] Real hit.Pfv-3PlSbj
 ‘(The) children_x hit their_x (own) dog.’

18.1.4.2 Reflexive inalienable possessor

As explained in §6.2.3, inalienable pronominal possessors are procliticized to the possessum (a kin or relationship term) and do not agree morphologically with the possessum. Allowing for this, reflexive possessors follow the pattern described above for alienables. For 1st/2nd persons, the nonreflexive proclitic functions as possessor (718a). For third persons, the possessor takes the 3Refl form *á* if it is coindexed to the subject (718b-c), and a nonreflexive form (i.e. 3Sg *nà*, 3Pl *bò*) otherwise (718d-e).

- (718) a. [mì ^Hdé:] wò = b-é-m
 [1SgPoss ^Hfather] see=Past-1SgSbj
 ‘I saw my father.’
- b. [á ^Hdé:] wò = b-é-Ø
 [3ReflPoss ^Hfather] see=Past-3SgSbj
 ‘He/She_x saw his/her_x (own) father.’
- c. [á ^Hdé:] wò = b-á
 [3ReflPoss ^Hfather] see=Past-3PlSbj
 ‘They_x saw their_x (own) father.’
- d. [nà ^Hdé:] wò = b-á
 [3SgPoss ^Hfather] see=Past-3PlSbj
 ‘They saw his/her father.’
- e. [bò ^Hdé:] wò = b-é-m
 [3PlPoss ^Hfather] see=Past-1SgSbj
 ‘I saw their father.’

18.1.4.3 Antecedent for the reflexive is in a higher clause

Ordinarily the antecedent of 3Refl *á* or of any marked reflexive (with *kó*: ‘head’) is the clausemate subject. However, the antecedent can occasionally be in a higher clause. In (719), the younger sibling is usually understood to be that of the higher subject Seydou, not that of the unknown attacker. An assistant was very clear on the form and meaning of this example, and this was confirmed as the preferred reading by another assistant. The context is favorable to the higher-antecedent interpretation, since one would have to construct an unusual context for a reading like ‘X doesn’t know who-Y hit Y’s (own) younger sibling’.

- (719) *săydù* *[[á* ^H*śzś* *gè]-ŷ*
 S [[**3ReflPoss** ^H*junior.sib* Def.AnSg]-Acc
nò^L *démé* *gè]* *zùwà-rán-Ø*
 person^L hit.PfvRel Def.AnSg] know-IpfvNeg-3SgSbj
 ‘Seydou_x doesn’t know who hit his_x younger brother.’
 [lit. “... doesn’t know the person who ...”]

In a more favorable context, the reflexive can or must be construed as having the clausemate subject as antecedent (720).

- (720) *[nò*^L *[á* ^H*śzś]-ŷ* *j-á:]*
 [person^L [**3ReflPoss** ^H*junior.sib*]-Acc kill-IpfvRel.AnSg]
[nò^L *síyé]=lă:-Ø*
 [person^L good]=it.is-3SgSbj
 ‘A person who kills his/her (own) brother is not a good person.’

18.1.5 Emphatic pronouns

Emphatic pronouns (‘I did it myself’, etc.) are not anaphoric but I describe them here to clarify their distinctness from true anaphorics, and because third-person anaphoric *á* has emphatic forms.

In one type of emphatic, the excluded possibility is of the agent being assisted by others (§18.1.5.1). In another, the excluded possibility is of someone other than the agent undertaking an action (§18.1.5.2).

18.1.5.1 With *tùmà* ‘only’

In (721), the speaker indicates that he will perform a job singly, instead of as part of a larger action group. This is expressed by combining a proclitic pronoun with *tùmà* ‘only’ (§19.4.1), cf. *tùmá*→ ‘one’.

- (721) *[bìdɛ ʔámó]* *[mì †tùmà]* ^L*bìdà-m-Ø*
 [work(n) 1SgPoss.InanSg] [1Sg **only**] ^Lwork-Ipfv-1SgSbj
 ‘I will do my work (by) myself (=alone).’

1st/2nd person forms are *mì †tùmà* (1Sg), *yè †tùmà* (1Pl), *ó tùmà* (2SgSbj), *wò †tùmà* (2Pl). The L-toned proclitic pronouns trigger Rhythmic Tone-Raising, affecting the first syllable of *tùmà*.

In this construction, a 3rd person subject requires 3Refl *á* before *tùmà* (722). This shows that the emphatic phrase with *tùmà* is adverbial, so the possessor can meaningfully said to be coindexed with the clausemate subject.

- (722) *[bìdɛ á-íj]* *[á tùmà]* ^L*bìdà-m-ù*
 [work(n) 3Refl-Poss.InanSg] [3Refl **only**] ^Lwork-Ipfv-3SgSbj
 ‘She_x will do her_x work (by) herself_x (=alone).’

An example with *á tùmà* coindexed to a plural subject is (723).

- (723) *èné = wò* *[á tùmà]* *[cìn †wó]*
 children=Def.AnPl [3Refl **only**] [stone Def.InanSg]
tógó bèlè-náŋ-è
 pick.up be.able-IpfvNeg-3PlSbj
 ‘The children are unable to pick up the rock by themselves.’

18.1.5.2 Proclitic pronoun plus *kò-bàndà* or *kò mì*

A proclitic pronoun may be followed by *kò-bàndà* or by *kò mì* to form another emphatic pronoun. *kò* is presumably a variant of *kò(:)*, possessed form of *kó*: ‘head (abstractly)’. Compare the short-voweled compound initial in *kò-tógóró* ‘head (body part)’. The final element in *kò-bàndà* is equatable with that in *dàrnà-bàndá* ‘head (body part)’, cf. *dàrná* ‘head, top’. The other attestation of compound final *bàndá* is *tèrè-bàndá*, an emphatic near-synonym of *tèrè* ‘unwelcome surprising event, mishap’. *mì*, on the other hand, is the instrumental postposition ‘with’.

In both combinations, *kò-* becomes [†]*kó-* by Rhythmic Tone-Raising after L-toned proclitic pronouns: 1Sg *mì †kó-bàndà* and *mì †kó mì*, contrast 2Sg *ó kò-bàndà* and *ó kò mì*. H-toned [†]*kó-* optionally resurrects the original long vowel in *kó*: ‘head’, as in *mì †kó:-bàndà* and *mì †kó: mì*.

These emphatic pronouns are normally focalized subjects (arguably, preclausal topics) as in (724a-b). There is a (resumptive) preverbal subject pronoun in addition to the clause-initial emphatic pronoun. For the subject focalization construction, see §13.1.1.

- (724) a. *[mì* *↑kó:-bàndà]* *mì* *↑úrⁿò:*
 [1SgPoss **Emph**] **1SgSbj** go.Ipfv.SbjFoc
nà→ *nò-ý* *tò-rá-m*
 Advers person-Acc send-IpfvNeg-1SgSbj
 ‘It’s I myself who will go, I won’t send someone (else).’
- b. *[nà* *↑kó:-bàndà]* *nà* *↑úrⁿò:*
 [3SgPoss **Emph**] **3SgSbj** go.Ipfv.SbjFoc
nà→ *nò-ý* *tò-rán-Ø*
 Advers person-Acc send-IpfvNeg-3SgSbj
 ‘It’s she herself who will go, she won’t send someone (else).’

18.1.5.3 With *té→* ‘precisely’

The adverbial *té→* ‘exactly, precisely, specifically, personally’ (§8.4.3.4) can also be used as a kind of emphatic, when one referent is identified and another that might have been expected is excluded (725). This construction is favored when the NP in question is not the clause subject.

- (725) *[ènè* *mí-yⁿè* *gè]* *yàndà-lí-Ø,*
 [child 1Sg-Poss.An Def.AnSg] call-PfvNeg-3SgSbj,
[mì-ý *té→]* ^L*yàndè-Ø*
 [1Sg-Acc **exactly**] ^Lcall.Pfv-3SgSbj
 ‘She didn’t call my son, (rather) she called me personally (=specifically).’

18.2 Logophoric and indexing pronouns (3Logo *á*)

18.2.1 True third person logophoric function

True logophorics are pronouns inside verbal or thought quotations that are coindexed to the attributed author of the quotation. In the original utterance or thought, the author would have said or thought ‘I’ or ‘we’, so a logophoric is a kind of embedded first person pronoun.

In YD, explicit logophoric pronouns are used for third person quoted authors, so the label used here is “3Logo” (parallel to “3Ref”). 3Logophorics can be singular (original ‘I/me’) or plural (original ‘we/us’), but since they are coindexed to an antecedent it is unnecessary to mark plurality (as with reflexives).

The basic 3Logo pronoun is *á*. It can appear in a range of grammatical functions within its clause, such as accusative direct object (726a), complement of a postposition (726b), or possessor (726c). For subject function, see the following section.

- (726) a. [*ó* ^H*wá→*] *á-ý* ^L*dèmè* *wà*
 [2Sg ^HQuotSbj] **3Logo-Acc** ^Lhit.Pfv Quot
 ‘He_x says that you-Sg hit him_x.’
- b. *èné* [*á* ^H*bérⁿá*] ^L*dàm-à* *wà*
 children [**3Logo** Dat] ^Lspeak.Pfv-3PlSbj Quot
 ‘She_x says that the children told her_x.’
- c. [*injè* *á-mù*] *ó-ý* *cédá-ñ* *wà*
 [dog **3Logo-Poss.AnPl**] 2Sg-Acc bite-PfvNeg.3PlSbj Quot
 ‘He_x says that his_x dogs didn’t bite you-Sg.’

An explicitly plural 3Logo form is *á-yⁿè-mù* (accusative *á-yⁿè-mì-y*). Morphologically, this resembles the 3Logo possessor form for animate plural possessed NP, which has a full form *á-yⁿè-mù* but is usually reduced to *á-mù* as in (726c) above.

18.2.1.1 Logophoric as clause subject

For logophoric subject suffix *-m* on verbs, not limited to third person antecedents, see the following section.

3Logophoric *á* may appear with the quotative subject particle *wà(→)* (§17.1.2). The two contracts somewhat irregularly as *á→*, with exaggerated prolongation (727a). The explicitly plural 3Logophoric *á-yⁿè-mù* is optionally preposed to *á→* (727b).

- (727) a. *á→* *yà* *pilé-m* *wà*
3Logo.QuotSbj Real fall.Pfv-LogoSbj Quot
 ‘He_x said that he_x fell.’ or ‘She_x said that she_x fell.’
- b. *á-yⁿè-mù* (*á→*) *yà* *pilé-m* *wà*
3Logo-An-AnPl (**3Logo.QuotSbj**) Real fall.Pfv-LogoSbj Quot
 ‘They_x said that they_x fell.’

18.2.1.2 Logophoric-subject (pseudo-1Sg) and pseudo-3Sg verbs in quotations

The verb in a logophoric-subject quotative clause has a pronominal-subject suffix *-m* that is glossed “LogoSbj” in interlinears, but that is identical in form to the 1Sg suffix in nonquotative main clauses. This **pseudo-1Sg** *-m* coindexes the subject of the quoted clause with the ascribed author. Unlike 3Logo pronoun *á*, LogoSbj *-m* suffix is not limited to third person antecedents.

In quoted indicative clauses, if the subject is not coindexed with the author, the verb has invariant zero (**pseudo-3Sg**) pronominal-subject suffix. An example with 2Sg subject, expressed only in the clause-initial quotative-subject phrase, is (657) in §17.1.1. The real

subject in such cases is expressed by the quotative-subject phrase at the beginning of the quoted sentence.

The identity in form between nonquotative 1Sg subject *-m* and logophoric-subject *-m* does not in fact lead to ambiguity. In parsing, the listener considers a) whether or not there is a quotative-subject phrase or other clause-initial independent pronoun, b) the pronominal-subject suffix on the predicate, and c) the subject of the ‘say’ verb. Consider the examples in (728). In (728a-c), the author is not coindexed to the subject. In (728d-f), the two are coindexed.

- (728) a. [*?ðɲè* [↑]*nî:*] [*ó* ^H*wá:*] *wó-m-ù* ^L*gùrⁿè-Ø*
 [why?] [2Sg ^HQuotSbj] come-Ipfv-3SgSbj ^Lsay.Pfv-2SgSbj
 ‘Why did you-Sg say (to me) I was coming?’ (discussed at end of §17.1.1)
- b. [*?ðɲè* [↑]*nî:*] [*mì* ^H*wá:*] *wó-m-ù* ^L*gùrⁿè-w*
 [why?] [1Sg ^HQuotSbj] come-Ipfv-3SgSbj ^Lsay.Pfv-2SgSbj
 ‘Why did you-Sg say I was coming?’
- c. [*?ðɲè* [↑]*nî:*] [*nà* ^H*wá:*] *wó-m-ù* ^L*gùrⁿè-w*
 [why?] [3Sg QuotSbj] come-Ipfv-3SgSbj ^Lsay.Pfv-2SgSbj
 ‘Why did you-Sg say he/she was coming?’
- d. [*?ðɲè* [↑]*nî:*] (*ó*) *wó-m-Ø* ^L*gùrⁿè-w*
 [why?] (2Sg) come-Ipfv-LogoSbj ^Lsay.Pfv-2SgSbj
 ‘Why did you-Sg say you-Sg were coming?’
- e. [*?ðɲè* [↑]*nî:*] (*mí*) *wó-m-Ø* ^L*gùrⁿè-m*
 [why?] (1Sg) come-Ipfv-LogoSbj ^Lsay.Pfv-1SgSbj
 ‘Why did I say I was coming?’
- f. [*?ðɲè* [↑]*nî:*] (*á→*) *wó-m-Ø* ^L*gùrⁿè-Ø*
 [why?] (3Logo.QuotSbj) come-Ipfv-LogoSbj ^Lsay.Pfv-3SgSbj
 ‘Why did he_x say he_x was coming?’

The clues as to the identity of the subject and to its relationship with the author (i.e. the subject of ‘say’) for the noncoindexed (728a-c) and coindexed (728d-f) cases are summarized in (729).

- (729) a. clause-initial subject pronoun
 noncoindexed:
 quotative-subject phrase obligatory if subject is referentially specific
 any pronoun except 3Logo *á* in quotative-subject phrase
 coindexed:
 quotative-subject phrase optional
 3Logo *á* in quotative-subject phrase *á*→
 1st/2nd person independent pronoun, without *wà*→
- b. pronominal-subject suffix on verb
 noncoindexed: zero (pseudo-3Sg)
 coindexed: *-m* (pseudo-1Sg)

These clues are sufficient to permit accurate parsing. In particular, note that the (pseudo-)1Sg suffix on the verb cannot be misconstrued as referring to the speaker, unless the speaker is quoting himself/herself.

18.2.2 Subject-to-subject coindexation function of 3Refl *á*

18.2.2.1 *á* in relative-clause subject coindexed to main-clause subject

If the subject of a relative clause is coindexed with the third-person subject of a higher clause (e.g. the main clause), the 3Refl[exive] form expresses this coindexation. In (730a), both clauses have 1Sg subjects but no explicit marking of coindexation occurs (or is necessary). In (730b), the two clauses have coindexed 3rd person subjects and the 3Refl pronoun is required. In (730c), the regular 3Sg form is used since there is no subject coindexation.

- (730) a. [*mì* *gòrⁿá-ŋ*] ^L*kàrⁿà-m-Ø*
 [1SgSbj be.able-IpfvRel.InanSg] ^Ldo-Ipfv-1SgSbj
 ‘I will do what I can.’
- b. [*á* *gòrⁿá-ŋ*] ^L*kàrⁿà-m-ù*
 [3ReflSbj be.able-IpfvRel.InanSg] ^Ldo-Ipfv-3SgSbj
 ‘He_x will do what he_x can.’
- c. [*nà* *gòrⁿá-ŋ*] *wò*] *wá-m-Ø*
 [3SgSbj be.able-IpfvRel.InanSg Def.InanSg] see-Ipfv-1SgSbj
 ‘I will see what he/she can (do).’

18.2.2.2 No *á* subject in narrative sequences except in *-m = ð*: clauses

The 3Refl pronoun is not ordinarily used in narrative event sequences to track a topical referent. For example, in both examples in (731a-b) a topic is established, but it is resumed in the following clause by a nonanaphoric pronominal subject suffix, not just for 1Sg (*-m*) for also for 3Sg (*-Ø*).

- (731) a. *mí* *gày*, [*dàná* *nà*] *yà* *úrⁿé-m* *dè* *pú→*
 1Sg **Top**, [hunt Loc] Real go.Pfv-**1SgSbj** if all,
nàmà *bèlá-m-Ø*
 meat get-Ipfv-1SgSbj
 ‘As for me, whenever I go on a hunt, I get meat.’
- b. [*mì* ^H*dé:*] *gày*, [*dàná* *nà*] *yà* *úrⁿé-Ø* *dè* *pú→*,
 [1SgPoss ^Hfather] **Top**, [hunt Loc] Real go.Pfv-**3SgSbj** if all,
nàmà *bèlá-m-ù*
 meat get-Ipfv-3SgSbj
 ‘As for my father, whenever he goes on a hunt, he gets meat.’

Likewise, in (732a-b), the objects in the ‘hits ___’ clause are coindexed to the preposed topic, but have nonanaphoric form, as do the subjects in the final ‘___ will kill’ clause.

- (732) a. [*mí* *gày*], [*nò* *mì-y*] *yà* *dèmé-Ø* *dè*,
 [1Sg Top] [person 1Sg-Acc] Real hit.Pfv-3SgSbj if]
[nà-y] *já-m-Ø*
 [3Sg-Acc kill-Ipfv-1SgSbj]
 ‘As for me, if somebody hits me, I’ll kill him.’
- b. [*mì* ^H*dé:* *gày*], [*nò* *nà-y*] *yà* *dèmé-Ø* *dè*,
 [1SgPoss ^Hfather Top], [person 3Sg-Acc] Real hit.Pfv-3SgSbj if]
[nà-y] *já-m-ù*
 [3Sg-Acc kill-Ipfv-3SgSbj]
 ‘As for my father_x, if somebody hits him_x, he_x’ll kill him.’

Exceptionally, the subordinated clause construction with *-m = ð*: (§15.2.1.4), which occurs in backgrounded clauses in narrative and is not necessarily imperfective in spite of its morphology, *á* does systematically replace nonanaphoric 3Sg pronominals. There are two examples of this in textual segment (834), along with others scattered through the texts. Since *-m = ð*: clauses are common in such narratives, interspersed with regular main clauses, the effect can approximate topic-tracking across clauses.

18.3 Reciprocal

18.3.1 Simple reciprocals (*tò-mù*)

The noun *tò-mù* is always combined with a plural possessor pronoun. It expresses reciprocal action where the protagonists exchange subject-object roles. The pronoun takes **proclitic** form, as shown by the L-tone of the 1Pl and 2Pl pronominals (§4.3.3). For third person, the pronoun is 3Refl *á*, which I take to be a proclitic as well, although this pronoun is H-toned in both independent and proclitic series. An L-toned proclitic pronoun triggers Rhythmic Tone-Raising on the first syllable of *tò-mù*.

An assistant rejected accusative *-y* in reciprocal objects.

- (733) a. [*yè* [†]*tó-mù*] *wò = bé-y*
 [1Pl Recip] see=Past-1PlSbj
 ‘We saw each other.’
- b. [*wò* [†]*tó-mù*] *wò = bé-y*
 [2PlPoss Recip] see=Past-2PlSbj
 ‘You-Pl saw each other.’
- c. [*á* *tò-mù*] *wò = b-á*
 [3ReflPoss Recip] see=Past-3PlSbj
 ‘They saw each other.’

There is no difference in form depending on whether the number of reciprocating individuals is two or more than two.

- (734) *á-nù* [[*á* *tòmù*] *sà:-mù*] *zìyè-z-è:*
 An-two [[3ReflPoss **Recip**] sister-AnPl] marry.woman-Pfv2-3PlSbj
 ‘The two (men) married each other’s sisters.’

tò-mù also occurs as a possessed plural noun meaning ‘agemates, peers’ or ‘neighbors, fellow villagers’. Inalienable possessive morphosyntax is obligatory, but the {H} or {LH} tone overlay on kin terms is absent. Rhythmic Tone-Raising does occur after an L-toned proclitic like 1Sg *mì* and 3Sg *nà*. Examples are *mì* [†]*tó-mù* ‘my agemates’, *sǎydù nà* [†]*tó-mù* ‘Seydou’s agemates’, *ó tò-mù* ‘your agemates’, and *á tò-mù* ‘his/her agemates’ (804). Unlike reciprocal forms, the noun can be singular, in the form *tò:* (with long vowel), as in *mì* [†]*tó:* ‘my agemate’, *sǎydù nà* [†]*tó:* ‘Seydou’s agemate’, *á tò:* ‘his/her agemate’, and *ó tò:* ‘your agemate’. Singular *tò:* can have reciprocal-like sense when combined with a distributively quantified subject NP, as in (735).

- (735) [ní: kày] [[nò fú→] wò-zó-Ø dè]
 [now Top] [[person all] come-Pfv2-3SgSbj if]
 [á tò:] pódó-zó-Ø dè]
 [3ReflPoss agemate] greet-Pfv2-3SgSbj if]
 ‘Now each one came and greeted his fellow.’ (excerpt from (780) in Text 1)

18.3.2 ‘Together’ (*tùmàyⁿ gá*)

There is no high-frequency adverb or grammatical category for ‘together’. Universalizing pronouns of the type 1Pl *yâ:* ‘all of us’ (§6.6.1) are often understood in context to imply mutual activity (736a), but this is not baked into the meaning. An adverbial phrase *tùmàyⁿ †gá* appears to mean ‘together, in a single place’ in examples like (736b). Cf. *tùmá→* ‘one’, *tùmày-túmáy* ‘one at a time’ (distributive iteration), and adverbial morpheme *gà* §8.2.15.

- (736) a. *y-â:* ^L*bìdè-y*
 1Pl-all.together ^Lwork.Pfv-1PlSbj
 ‘We all worked together.’
- b. *y-â:* [*tùmàyⁿ †gá*] *ób-dò*
 1Pl-all.together [together at] sit-Caus.Imprt
 ‘(Please) have-2Sg us all sit together!’

In *tùmàyⁿ gá* the *yⁿ* is strongly nasalized, unlike *y* in *tùmày-túmáy* and related forms based on the numeral ‘1’.

18.4 Restrictions on reflexive antecedents

18.4.1 No antecedent-reflexive relation between coordinands

A left coordinand cannot serve as antecedent for a reflexive possessor in the second coordinand. (737) comes out the same way whether or not Amadou is coindexed to the possessor of ‘father’.

- (737) [á:madù mì→] [nà ^Hdé: mì→] yà w-ó
 [A and] [3SgPoss ^Hfather and] Real come.Pfv-3PlSbj
 ‘Amadou_x and his_x father came.’
 ‘Amadou_x and his/her_y father came.’

19 Grammatical pragmatics

19.1 Topic

19.1.1 Topic (*kày* ~ *gày*, optional plural *yè*)

The topic particle was recorded as *kày* in elicitation, but in texts it is heard as *gày* (occasionally reduced to *gà*). It is commonly found in clause-initial (or preclausal) position at a topic switch point. After an L-toned NP, it undergoes Rhythmic Tone-Raising: *ènè* [†]*káy* ‘as for a child’. An L-toned pronoun takes H-toned independent form before *kày* (1Sg *mí kày*, 3Sg *ná kày*, etc.). In (738b) there is a second apparent occurrence as clause-final *gà*, but it might be that this is just a variant of French clause-final *quoi*, which is annoyingly common nowadays in Malian languages.

- (738) a. *wàzè-mù = †wó* *yà* *ún-Ø*,
 remainder-AnPl=Def.AnPl Real go.Pfv-3PlSbj,
[mí kày] wàzá-m-Ø
 [1Sg Top] remain-IPfv-1SgSbj
 ‘The others have gone (away); as for me, I will stay (here).’
- b. *[gìdè-ńjú bǎl-bǎl] [á→ gày] ún bè:-ná-m gâ*,
 [eye-water streaming] [3LogoSg Top] go get-IPfvNeg-LogoSbj ??
 ‘With tears streaming down, he said: “As for me, I cannot go”.’
 [excerpt from (832) in Text 4]

The topicalized constituent (or its referent) usually functions as subject in the full clause. It can, however, be an object or a PP. Because the topic particle ends in *y*, it would be difficult to hear optional accusative suffix *-y* (§6.7). In examples like (739) this makes it difficult to determine whether the topicalized NP is preclausal or clause-internal. However, when the referent of the complement of a PP is topicalized, *kày* can follow the postposition (739b), in which case it is clearly clause-internal, or it may precede the clause, with a resumptive pronominal in the clause-internal PP (739c).

- (739) a. *[[mì zú:-mù = wò] làli-yè-y]*
 [[1SgPoss neighbor-AnPl=Def.AnPl] chase-MP-Past.and.then]
[mí gày] sádá-ń
 [1Sg Top] answer-PfvNeg.3PlSbj
 ‘They have driven out my neighbors, but as for me they did not speak (to me).’

- b. [mì^H bér^{ná} kày] [dòm^L kámá] dàmà-ń
 [1Sg Dat **Top**] [talk(n)^L any] speak-PfvNeg.3PlSbj
 ‘To me they didn’t say anything.’
- c. [mí kày] [mì^H bér^{ná}] [dòm^L kámá] dàmà-ń
 [1Sg **Top**] [1Sg^H Dat] [talk(n)^L any] speak-PfvNeg.3PlSbj
 ‘As for me, they didn’t say anything to me.’

kày may follow *là* ‘also, too’, see end of §19.1.3 below. *ní: kày* ‘(as for) now’ is very common in texts, where it can be translated as a weak discourse marker ‘now’ or ‘then’.

In (769) in Text 1, a single occurrence of particle *yè* appears to have topicalizing force. It seems to occur only in plural reference.

19.1.2 Interrogative topic (QTop) *nì*

When a constituent is topicalized at the beginning of a question (‘what about X, ...?’), the particle is *nì*. It has the same phonological form as subjunctive clause-final particle *nì* (§17.1.4), but I see no clear semantic relationship between them. It may be a reduced variant of *ní: ‘now’*, which often appears in narrative texts as *ní: kày* ‘(as for) now’.

(740) is a fragment of a two-speaker (A, B) dialogue.

- (740) A: *pè:-mú = wò* *yà* *màd-á*
 sheep-AnPl=Def.AnPl Real be.lost.Pfv-3PlSbj
 ‘They sheep have gone astray.’
- B: *ʔóné-mù = wò* *nì,* *ànjă:* *^Lkàrⁿî-yè-Ø*
 goat-AnPl=Def.AnPl **QTop,** how? ^Ldo-MP.Pfv-3SgSbj
 ‘What about the goats? What happened (to them)?’

A pronoun takes its H-toned independent form: *mí nì* ‘what about me?’. *nì* may follow *là* ‘also, too’, see §19.1.3 just below.

19.1.3 ‘Also’ (*là*)

After a pronoun, NP, or other nonpredicative constituent, the common particle meaning ‘also, too’ is *là*. Its tone can be raised to high by Rhythmic Tone-Raising (741b) or by an {H} overlay (741c). Pronouns take the proclitic form, which is L-toned except for 2Sg *ó* and 3LogoSg *á*.

- (741) a. *nà: †gé là* ‘the cow too’
án gè là ‘the man too’
sâydu là ‘Seydou too’
- b. *ènè †lá* ‘a child too’
- c. *mì ^Hlá* ‘me too’
nà ^Hlá ‘he/she too’
ó ^Hlá ‘you-Sg too’

là follows accusative-marked NPs (742a) and PPs (742b).

- (742) a. [*ó-y* *là*] *démá-m-ù*
 [2Sg-Acc **too**] hit-IPfv-3SgSbj
 ‘He/She will hit you-Sg too.’
- b. [*mì* ^H*bérⁿá* *là*] *dám = bé-Ø*
 [1Sg Dat **too**] speak=Past-3SgSbj
 ‘He/She spoke to me too.’

là follows an NP, PP, or similar nonpredicative constituent, rather than a clause or predicate. In the parallel clauses of (743), the first *là* occurs on the cognate nominal ‘work’ rather than on the verb, and the second occurs on the adverb ‘here’, though the point of contrast between the two clauses is the action described. Efforts to elicit a *là* after a main-clause predicate were unsuccessful.

- (743) [*bìdé* *là*] *ngí* ^L*bìdà-m-ù*,
 [work(n) **too**] here ^Lwork-IPfv-3SgSbj,
 [*ngí* *là*] ^L*nà:-m-ù*
 [here **too**] ^Lspend.night-IPfv-3SgSbj
 ‘He will work her, and he will sleep here.’

Textual occurrences of *là* are often difficult to interpret semantically since ‘X too’ (requiring full parallelism of the predicate) spills into ‘X likewise’ (requiring only partial parallelism), which then spills into various discourse-related functions like ‘moreover’ or ‘meanwhile’ or ‘on the other hand’. For the occasional sense ‘even X’, see the next section.

là may combine with topic *kây*, in that order: *mì †lá kây* ‘as for me too’. It likewise precedes QTopic *nì*, as in *mì †lá nì* ‘what about me too?’.

19.1.4 ‘Even’ (*kàndà*)

là ‘also, too’ can be translated as ‘even’ in some discourse contexts. This is not surprising, since the difference between ‘I too can climb that hill’ and ‘Even I can climb that hill’ is subtle.

A stronger ‘even’ particle is *kàndà*, which behaves much like *là* syntactically. It may be an adverbial offshoot of the adjective *kàndà* ‘new’. Adverbial *kàndà* follows the relevant constituent (744a). Pronouns have proclitic form before the particle, as in *mì* [†]*kàndà* ‘even I/me’. *kàndà* can follow PPs (744b-c) and accusative-marked NPs or pronouns (744d). *kàndà* is more likely to be translated ‘even’ than *là* is.

- (744) a. [*ènè* [†]*kàndà*] *?ólé* *bèlá-m-ù*
 [child **even**] go.up get-1pfv-3sgsbj
 ‘Even a child can climb up (there).’
- b. [*mì* ^H*bérⁿá* *kàndà*] *wò = bé-Ø*
 [1sg ^HDat **even**] come=Past-3sgsbj
 ‘He/She came even to me.’
- c. [*yé* *gè*] *bèrⁿà* *kàndà*] *wò = bé-Ø*
 [woman Def.Ansg] Dat **even**] come=Past-3sgsbj
 ‘He/She came even to the woman.’
- d. [*ó-ý* *kàndà*] *dè má-m-ù*
 [2sg-Acc **even**] hit-1pfv-3sgsbj
 ‘He/She will even (=will go so far as to) hit you.’

After an L-toned NP, *kàndà* undergoes Rhythmic Tone-Raising to [†]*kàndà*, as in (744a). Only the first syllable is affected.

kàndà is common in negative clauses (‘not even’) (745).

- (745) a. [*mì-ý* *kàndà*] *pódó-lì-Ø*
 [1sg-Acc **even**] greet-PfvNeg-3sgsbj
 ‘He/She didn’t even greet me.’
- b. [*nà* *tù má→* *kàndà*] *wò-lí-Ø*
 [time one **even**] come-PfvNeg-3sgsbj
 ‘He/She didn’t come even once.’
- c. [*bù:dù* *tù má→* *kàndà*] *mì-ý* *ndà-lí-Ø*
 [riyal one **even**] 1sg-Acc give-PfvNeg-3sgsbj
 ‘He/She didn’t give me a red cent.’

A textual example is ‘not even a week’ in (646).

‘Even X’ can alternatively be expressed by *hálè*, on which see §19.2.1 just below. *hálè* can be added at the beginning of a positive clause with *là* or *kàndà* like those in (744) above with little change in meaning.

For ‘even if’ conditional antecedents, see §16.2.1.

19.2 Preclausal or clause-initial particles

19.2.1 ‘All the way to, even X’ (*hálè*)

Clause- or phrase-initial *hálè* is the YD form of a regionally widespread particle with senses like ‘as far as, all the way to’ as well as ‘even’, see also the ‘until ...’ clauses in §15.4.. Forms of this particle are also found in Fulfulde, Songhay, etc. Preposed *hálè* readily combines with postposed *là* ‘also’ (746) or *kàndà* ‘even’.

- (746) [*hálè* *ènè* †*lá*] *bìdé* *bèlá-m-ù*
 [even child too] work(v) get-IPfv-3SgSbj
 ‘Even a child can work.’

hálè preceding a locational expression means ‘all the way’. It is most often allative ‘all the way to X’ as in (255) in §8.2.14, repeated here as (747a).. However, it can also be ablative as in (747b).

- (747) a. [*nà:* †*mí*→] [*hálè* *bàmbà* †*ná*] ^L*sùwò-m-iy*
 [foot Inst] [all.the.way B Loc] ^Lgo.down-IPfv-1PISbj
 ‘We will go (down) on foot all the way to Bamba (village).’
- b. [*nà:* †*mí*] [*hálè* *bàmàkó* *nà*] ^L*ùn-m-iy*
 [foot Inst] [all.the.way Bamako Loc] ^Lgo-IPfv-1PISbj
 ‘We walked (here) all the way from Bamako.’

Postposed particle *bǎ*→ can also be used in ‘until’ expressions, see (254) in §8.2.4.

19.2.2 ‘Well, ...’ (*háya* ~ *hà:*)

háya ‘well, ...’ (variant *hà:*) is a discourse marker that occurs at the beginning of speaking turns and paragraph-like segments in narratives. Many examples occur in the YD texts. It occurs twice in textual passage (748), excerpted from (817) in Text 3.

- (748) *háya á→ [ná^H bér^{ná}] wò-zò-m wà,*
well, 3LogoSg [3Sg^H Dat] come-Pfv2-LogoSbj Quot,
háya [ná^H wá→]
well, [3Sg^H QuotSbj]
[[[á^H bér^{ná}] cí^L bó] tígé tàdà wà],
 [[[3LogoSg^H Dat] thing^L be] look try.Imprt Quot]
 ‘(She) said: “Well, I have come to you; well, you try to look at (=determine) what there is for me (=what my problem is).” ’

19.2.3 ‘But ...’ (*gà:*)

This particle occurs at the junction between two clauses that have some type of adversarial relationship, as when the first proposition would ordinarily imply the opposite of the second. *gà:* can be grouped prosodically either with the preceding or following clause.

- (749) *[[bámákò ná] úrⁿ-ùm-ìy] gà: yòmò-náŋ-ìy*
 [[B Loc] go-IPfv-1PISbj] **but** stay.long-IPfvNeg-1PISbj
 ‘We will go to Bamako but we won’t stay (there) long.’

See also *kásórò* (Bambara ‘it happened that’) in the context ‘whereas in fact...’ in (786) in Text 1.

19.2.4 Adversative *nà→* ‘rather’

This particle occurs at the junction of two clauses that denote propositions in an truth-conditionally adverse relationship, compare English ‘rather’ or ‘instead’. Elicited examples include (724a-b) in §18.1.5.2, ‘It’s I myself who will go, I won’t send someone (else)’, and (498) in §12.3, ‘I can’t (even) walk, not to mention (=much less) run’. Textual examples follow.

In (750), the two propositions are contradictory (truth-conditionally disjoint).

- (750) *[kó bò ná→]*
 [InanSgSbj be **Advers**]
[kó [[òmò^L wàjù] †ná] ònú-Ø]
 [InanSgSbj [[place^L distant] Loc] not.be-3SgSbj]
 ‘(He said:) It’s there (i.e. around here), it is not in a distant place.’
 (excerpt from (789) in Text 1)

In (751), the adverse relationship is more diffuse, between ‘X get food’ and the catastrophic reality of famine. This example is closer to the ‘not to mention’ case mentioned above.

- (751) *[árⁿá-kùsù wò] [dámá †ná]*
 [year Def.InanSg] [village Loc]
jà: †nó nà kárⁿé-y fó→ úrⁿé-y,
 hunger enter 3SgSbj do-Past.and.then until go-Past.and.then,
[kún sǎ:dú] nò-mè-rá-ŋ nà→
 [mortar sound] hear-Pass-IpfvNeg-3SgSbj **Advers**
[zà-[bǎl-Ø] dòm = lá: wá],
 [food-[get-VblN] speech=not.be Quot],
 ‘The (=a certain) year, famine entered into the village to such an extent that one did not (even) hear the sound of mortars. There was no talk (=question) of getting food, it is said.’ [excerpt from (799) in Text 2]

Example (752) is more complex. This *nà→* comes at the end of an indirect thought quotation, and is unrelated to the following narrative segment. It is not immediately clear whether the adverse relationship is in the quoted character’s mind or in the current speaker’s mind. The belief that butterflies were infesting the cow-peas is false (the “butterflies” in the tale were actually colorful cow-pea flowers), and I suspect that the adversity is between this belief and the reality.

- (752) *kó [[nǐm wò] nà]*
 that [[cowpea Def.InanSg] Loc]
[pì-pírù]-mù [nǐm á-ŋ]
 [butterfly-AnPl [cowpea 3LogoSg-Poss]
yámná-tím jèlà-yè nà→]
 damage(v)-Ipfv Prog-3PlSbj **Advers]**
 ‘So in the cow-peas, (he thought) that butterflies were infesting his cow-peas.’
 [end of a narrative segment, followed by ‘well, he came and spoke to ...’]
 [excerpt from (830) in Text 4]

19.3 Pragmatic adverbs or equivalent

19.3.1 ‘Again’, ‘not again’, ‘on the other hand’

‘*íyé †lá*’ means ‘again’, referring to repeated events, or more abstractly ‘furthermore’ as discourse marker. It arguably contains *là* ‘too’, but it is rather frozen and arguably a single word. It is common in texts at the beginning of a clause. It is audibly distinct from *íyé là* ‘today also’.

wànà ‘other’ can function as an adverb in a negative clause, in the sense ‘(not) again’ or ‘(no) longer’.

- (753) a. *[íyé †lá] yǎy ún-m-ù*
 [again] there.Def go-Ipfv-3SgSbj
 ‘He/She will go there again.’

- b. *wàná* *tê:* *nìyè-ná-m*
other tea drink-**IpfvNeg-1SgSbj**
 ‘I no longer drink tea.’

19.4 ‘Only’ particles

In addition to the particles presented here, there is a construction of the type ‘Neg [if it is not X]’ that can be roughly translated as ‘none other than X’ or ‘only X’.

19.4.1 ‘Only’ (*tùmà*, *sày*)

‘Only’ particles follow an NP or clause. *tùmà* appears to be the older form, while *sày* may have been borrowed from Jamsay. Dogon cognates of *tùmà* are the numeral ‘1’ or pragmatic variants thereof, but YD *tùmà* can follow nonsingular NPs and clauses, which are inconsistent with singular cardinality. For *tùmà*, see also §18.1.5.1.

A constituent with ‘only’ is normally focalized (754).

- (754) a. [*ʔáné* *tùmà*] ^L*èbè-m*
 [goat only] ^Lbuy.Pfv-1SgSbj
 ‘I bought only a goat.’
- b. [*nò-núm* *tùmà*] ^L*w-ò*
 [person-five only] ^Lcome.Pfv-3PlSbj
 ‘Only five people came.’

‘Only’ particles are rarely clause-final since there is a strong preference to attach them to an NP or to a noun-like adverb (755a-b). However, if there is no such NP the particle may appear clause-finally (755c).

- (755) a. [*zá* *tùmà*] ^L*ʔəŋ-à*
 [meal **only**] ^Leat.Pfv-3PlSbj
 ‘They only ate.’ (i.e. they didn’t also spend the night)
- b. [*bìdé* *bìdè-náŋ-Ø*] [*gìděn* *tùmà*] ^L*nìyè-m-ù*
 [work(n) work-**IpfvNeg.3SgSbj**] [sleep(n) **only**] ^Lsleep(v)-**Ipfv-3SgSbj**
 ‘He/She doesn’t work, he/she just sleeps.’
- c. *yà* *wé-Ø* *tùmà*
 Real come.Pfv-3SgSbj **only**
 ‘He/She only came.’

Pronouns take proclitic form before *tùmà*, and independent form before *sày*. For example, ‘only me’ is *mì* [↑]*tùmà* with L-toned pronominal proclitic (which triggers Rhythmic Tone-Raising) or *mí* *sày* with H-toned independent pronoun *mí*.

19.4.2 ‘Just (one)’ (*léŋ→*)

As an alternative to the usual ‘only’ particles (*tùmà*, *sày*), described in the preceding section, *léŋ→* ~ *lóŋ→*, (§8.4.3.2) may function as an emphatic for *tùmá→* ‘one’. The pragmatic force is to minimize the quantify.

- (756) [^L?àné^L *tùmá→* *léŋ→*]=*lǎ:* *dé* *zò:-ń-Ø*
 [goat^L one **just.one**]=it.is.not if have-StatNeg-3SgSbj
 ‘He/She has just one (lousy) goat.’

léŋ→ can be stretched to co-occur with ‘2’, but is uncommon with higher numerals.

19.5 Phrase-final emphatics

For ‘(not) at all’ emphatics, see §6.6.3.

19.5.1 Clause-final emphatic *kòy* (confirming)

Clause-final *kòy* emphasizes the truth of an assertion in a confirming rather than contradicting context. A clause with *kòy* may be used to confirm the truth of what an interlocutor has said (cf. English preverbal *sure*). (757) is a two-person exchange.

- (757) A: *úzá* *yà* *bó-Ø*
 hot.weather Real be-3SgSbj
 ‘It (weather) is hot.’
- B: *ǎhǎ*, *úzá* *yà* *bó-Ø* *kòy*
 uh-huh, hot.weather Real be-3SgSbj Emph
 ‘Uh-huh, it sure is hot.’

kòy can also occur in an emphatic positive answer to a polar interrogative. In (758), *kòy* might be used when there has just been a heavy rain. *kòy* is not routinely used in nonemphatic answers to polar interrogatives.

- (758) A: [*wó-ŋ* *bà*] *àrⁿùŋ* *tégé = bé-Ø* *mà*
 [2Pl-Poss.InanSg Loc] rain(n) rain.fall=Past-3SgSbj Q
 ‘Did it rain over where you-Pl area?’

B: *tégé = bé-Ø* *kòy*
rain.fall=Past-3SgSbj Emph
‘It sure did rain.’

19.5.2 Clause-final emphatic *dè* (admonition)

Clause-final *dè* can add a warning note to a positive or negative imperative. In (759), A’s statement could lead to either the B or C response from a concerned interlocutor. This function of *dè*, perhaps influenced by Jamsay, conflicts with the much more common ‘if’ particle *dè* in conditional antecedents, but emphatic *dè* has a distinctive prosody that can distinguish the two.

(759) A: *[[zǎŋ wò] bà]* ^L*ùrⁿ-ùm-Ø*
[[fight(n) Def.InanSg] Loc] ^L*go-Ipfv-1SgSbj*
‘I’m going to the fight.’

B: *[kú-bà ún-là dè]*
[there(Def) go-Proh Emph]
‘Don’t go there!’

C: *[kó-ó-ŋ kázúbá dè]*
[2SgRefl watch.Imprt Emph]
‘Now watch yourself (be careful)!’

19.6 Greetings

Simple time-of-day greeting and response sequences are in (760). A is the initiator and B responds. At each turn there are usually two options depending on the number (singular/plural) of addressee(s) and on the sex of the speaker. (760a-c) are ABBA sequences.

(760) a. from dawn until late AM (retrospective)

A:	<i>(wà:) nǎ:-má</i>	‘good morning’ (singular addressee)
	<i>(wà:) nǎ:-má-ñ</i>	‘good morning’ (plural addressee)
B:	<i>áwò</i>	(woman speaking)
	<i>ô→</i>	(man speaking)
B:	<i>ó sé:w nà-yⁿè-w</i>	‘Did you-Sg sleep well?’
	<i>wó sé:w nà-yⁿè-y</i>	‘Did you-Pl sleep well?’
A:	<i>séw nà-yⁿè-m</i>	‘I slept well.’
	<i>séw nà-yⁿè-y</i>	‘We slept well.’

b. mid-day and afternoon (and general default greeting)

A:	<i>pǒ:</i>	‘Greeting!’ (singular addressee)
	<i>pǒ:-ŷ</i>	‘Greeting!’ (plural addressee)
B:	<i>áwò</i>	(woman speaking)
	<i>ô→</i>	(man speaking)
B:	<i>ó sé:w bò-w</i>	‘Are you-Sg well?’
	<i>wó sé:w bò-y</i>	‘Are you-Pl well?’
A:	<i>sé:w bò-m</i>	‘I am well.’
	<i>sé:w bò-y</i>	‘We are well.’

c. evening and night (retrospective)

A:	<i>dèrⁿé-má</i>	‘good evening’ (singular addressee)
	<i>dèrⁿé-má-ñ</i>	‘good evening’ (plural addressee)
B:	<i>áwò</i>	(woman speaking)
	<i>ô→</i>	(man speaking)
B:	<i>ó sé:w dèrⁿé-w</i>	‘Did you-Sg have a good day?’
	<i>wó sé:w dèrⁿé-y</i>	‘Did you-Pl have a good day?’
A:	<i>sé:w dèrⁿé-m</i>	‘I had a good day.’
	<i>sé:w dèrⁿé-y</i>	‘We had a good day.’

d. morning (prospective ‘good day’)

A:	<i>àmbà [dèn^L síyé] ñdí</i>	‘May God give a good day!’
or:	<i>[síyé †gá] yè dèrⁿé-má</i>	‘May (God) make us pass the day well!’
B:	<i>ámí:nà</i>	‘Amen’

e. night (prospective ‘good night’)

A:	<i>àmbà nàyé-ŋ síyé ñdí</i>	‘May God give a good night!’
or:	<i>[síyé †gá] yè ná:-má</i>	‘May (God) make us pass the night well!’
B:	<i>ámí:nà</i>	‘Amen!’

As often in Dogon greetings, the morphology is somewhat unusual. *nǎ:* ‘spend the night’ (760a,e) and *dèrⁿé* ‘spend the mid-day’ (760c,d) are recognizable. *-má* (plural *-má-ñ*) looks like a hortative (§10.7.2), but it might originally have been a modal form of a causative (with ‘God’ as agent). In the default greetings (760b), *pǒ:* has a 2Pl form with *-ŷ* but does not add *-w* for 2Sg.

Some embellishments can be worked into the sequences above. For example, in the morning greetings (761) can replace B’s second turn. *=bò-* is evidently a cliticized form of *bò-* ‘be’, but the morphosyntax is obscure.

(761)	B:	<i>ó nǎ: =bò èné =wò nǎ:-b-è:</i>	‘Did you-Sg and the children sleep well?’
		<i>wó nǎ: =bò-y èné =wò nǎ:-b-è:</i>	‘Did you-Pl and the children sleep well?’

In addition to the time-of-day and default greetings above, there are situation- and place-specific greetings. In (762), a noun (*ól* ‘fields’, *ínjú* ‘water’, or *éba* ‘market’) precedes *pǒ:* (or

(766) *àmbà* *ó* ^L*àbè,*
 God 2Sg(O) ^Ltake.Pfv-3SgSbj,
àmbà [*bárgè* *mì*] *kṣá*
 God [blessing Inst] raise.Imprt
 ‘God has received (=spared) you. May God raise (the child) with blessings.’

Texts

Yanda Dom texts recorded 2011, transcribed by Jeffrey Heath

Tape references

- 2011.01b.01 Hare and Donkey (tale)
- 2011.01b.02 Monitor lizard and Dog (tale)
- 2011.01b.03 Cat and Mouse (tale)
- 2011.01b.04 Hyena and Hare (tale)
- 2011.01b.05 Abandoned twins (tale)

Text 1 Hare and Donkey (tale)

(tape reference: 2011.01b.01)

(767) A: *séyⁿ·:*

[story-opening word]

B: *màté:ⁿ*

[audience-confirmation word]

(768) A: [*òy-nàmà-mú* *fú→*] *mù:mbì-y-é:*
 [outback-meat-AnPl all] assemble-MP-NonPast.and.SS

yú *gòlò-mà* †*wá,*
 millet cultivate-Hort Quot,

[*òy-nàmà-mú* *fú→*] *mù:mbì-yè-y,*
 [outback-meat-AnPl all] gather-MP-Past.and.then,

[*yú* *gòlò-y*] [[*cém→ = là: dè*] *bèlà-ń,*
 [millet cultivate-Past.and.then] [[a.little=not.be if] get-PfvNeg.3PlSbj],

‘All of the wild animals got together, saying: “Let’s cultivate millet!” The wild animals all got together and cultivated millet, (but) all they got was a little bit.’

[mediopassive (MP) suffixal derivation §9.3.1; quoted hortative *-mà* §10.7.2, §17.1.5.2; quotative *wà* §17.1.3; past ‘and then’ *-y* with coindexed subjects §15.2.2.2; *cém→* ‘a little’ §8.4.2; *=lǎ-* ‘it is not’ §11.2.1.2]

(769) *háya* [*dàgà-mà^L* *bò* *bèlé* *wò*]
 well, [what.little^L 3PlSbj get.Pfv.Rel Def.InanSg]
 [[*kó* *á-yⁿè-mù* *yè*] [*zèⁿà-pánù* *gà*]
 [[Inan 3Logo-AnPl-AnPl Top.Pl] [rainy.season-meal Adv]
yè:dè †*bézè-zó-m* *dè,*
 store(v) leave-Pfv2-LogoSbj if,

‘Well, what little (millet) they had gotten, that (millet) of theirs, (they said) “we will store that (millet) as our rainy-season meals.” ’

[*dàgà-mà* end of §8.4.1; perfective object relative §14.1.7.1, §14.3; 3Logophoric *á-yⁿè-mù* §18.2.1; optional plural topic marker *yè* §19.1.1; adverbial *gà* §8.2.15; pseudo-1Sg logophoric subject *-m* §18.2.1.2; Perfective-2 *-zo-* §10.3.1.2; *yè:dè* †*bézè-* direct verb-chain with both verbs lexically /LH ~ L/-toned, compare (602b,d) in §15.1; conditional *dè* §16.1]

- (770) [*nò fú→*] *ìzì-bàⁿà* *yàliyè-zó-m* *dè*,
 [person all] dry.season go.around-Pfv2-LogoSbj if,
 [[*pànù á-ŋ*] *dùnó-dùnò*
 [[meal 3Logo-Poss] Iter-look.for]
 [*?ǎná-n á bò-n*]
 [eat-NonPastDur 3LogoSgSbj be-NonPastDur]
 [*bá yà dǔé-Ø dè*]
 [rainy.season.edge Real arrive.Pfv-3SgSbj if]
 [*w-ě: mù:mbì-y-é:*]
 [come-NonPast.and.SS assemble-MP-NonPast.and.SS]
 [*dàgà-mà^L bó wò ?ǎné-má wà*],
 [what.little^L be Def.InanSg] eat-Hort Quot]

‘We will all go around during the dry season, looking for their meals (=something to eat) and will be eating (that), (then) when the rainy season arrives we will come back together and eat what little there is (from the harvest) (they said).’

[*nò fú→* ‘everyone’ §6.6.1.1; reflexive possessor *á-ŋ* §18.1.4; *dùnó-dùnò* verb-stem iteration with noninitial iterations {L}-toned §15.1.6; *-n* nonpast durative §15.3.5; *bá* in subject-verb collocation §11.1.4; realis *yà* in positive perfective clause §11.2.2.1; nonpast same-subject ‘and (then)’ (*w-ě:*, *mù:mbì-y-é:*) §15.2.3]

- (771) *ní: sǎŋnè àm-í: òdà-m-è †má→ wà*,
 now key who?-Acc give-IPfv-3PlSbj Q Quot,
háya sǎŋnè zòmó òdì wà,
 well, key rabbit give.Imprt Quot,
 [*sǎŋnè zòmó-y òdè^L †bézè-y*]
 [key rabbit-Acc give.Pfv^L leave-Past.and.then]

‘Now who should they give the key (to the collective granary) to?, it was asked. “Well, give the key to Hare!” they said. They gave the key to Hare.’

[*ní:* ‘now’ as topic (272a) in §8.4.6.1; *àm* ‘who?’ §13.2.2.1; polar interrogative *má→* §13.2.1; quoted imperative (jussive) §17.1.5.1; *bézé* ‘leave’ is common as a final chained verb, cf. (602a-d)]

- (772) [[*ní: kày*] [*nò fú→*] *ìzì-bàⁿà*
 [[now Top] [person all] dry.season
 [[*òmò^L á ěl*] *nà* *ún-zó-Ø dè*]
 [[place^L 3LogoSg be.pleasing] Loc] go-Pfv2-3SgSbj if]

[[*dùnó-dùnò* *?áǵá-n*] *bò* *bò-n*],
 [[Iter-look.for eat-NonPDur] 3PISbj be-NonPDur]

‘Now, in the dry season everyone will go to wherever it pleases (them), and they will look (for food) and will be eating it.’

[*kày* topic §19.1.1; ‘place’ as relative head §15.4.1; locative *nà* §8.2.3]

- (773) *háya* [*zèrⁿà* *yà* *súyé-Ø* *dè*]
 well, [rainy.season Real go.down.Pfv-3SgSbj if]
 [*w-ě:* *mù:mbì-yè-mà* *†nî:*]
 [come-NonPast.and.SS assemble-MP-Hort Sbjunct]
 [*sǎǵǵè* [*zòmó* ^H*bérⁿá*] *dògò-y*] [*òy-nàmà-mú* *fú→*]
 [key [rabbit ^HDat] leave-Past.and.then] [bush-meat-AnPl all]
 [*gìnnè-y* [*òy* *†ná*] *kôyⁿ* ^L*ñǵ-à*],
 [disperse-Past.and.then [outback Loc] thus ^Lenter.Pfv-3PISbj]

‘Well, intending to come (back) together when the rainy season arrived, they left the key with Hare, and all the (other) wild animals went and dispersed into the outback like that (=as planned).’

[*háya* ‘well, ...’ §19.2.2; *†nî:* variant of subjunctive *nì* in sense ‘intending’ §17.1.4; *òy* *†ná* ‘in the bush (outback)’ (237b) in §8.3.3; contracted *kôyⁿ* ‘thus’ (70a) in §3.7.4.1]

- (774) [*zòmó* [*sǎǵǵè* *wò*] *nà* *†gélà-Ø* *dàn*,
 [hare [key Def.InanSg] 3SgSbj hold.Stat-3SgSbj] because,
zòmó *ún-li-Ø*,
 hare go-PfvNeg-3SgSbj,
zòmó [*nò-mó* [*wàjù* *†ná*] *úrⁿé-y*]
 hare [person-AnPl [far Loc] go-Past.and.then]
 [*pànù* *bò* *dùnó-ń*]
 [meal 3PISbj look.for-Ipfv]
 [*zòmó* *kóy* *á* *bìyè-m = ð:*],
 [hare just.over.here 3ReflSbj remain-Ipfv=Def.InanSg],
 [[*yú* *wò*] *pómbó-zó-Ø* *yè*] *?áǵá-m-ù*,
 [[millet Def.InanSg] plunder-Pfv2-3SgSbj if] eat-Ipfv-3SgSbj,

‘Because Hare held the key, Hare did not go (to the outback). Hare, when the people (=animals) had gone far away, looking for meals, Hare was staying there (in the village), and raided the millet and ate it.’

[*dàn* ‘because’ clause §17.6.5; *wàjù* ‘distant’; *-ń* and *-m = ð:* imperfective clauses §15.2.1, §15.2.1.4; *yè* here is a variant of conditional *dè* ‘if’ §16.1]

- (775) [[*yú* *wò*] *ìzèn^L* *nà* *gò-ndó-zò* *cêm* *fú→*]
 [[millet Def.InanSg] day^L 3SgSbj go.out-Caus-Pfv2 all all]
 [*zàmtùrù-sùwà* [*yènd-íyè* *mì*] *bǎ:* *bàl-zó-Ø* *dè*]
 [donkey-shit [basket-Dimin Inst] be.full gather-Pfv2-3SgSbj if]

[[[gɔ̀à: †wó] nà] kúndó-zó-Ø dè] dúndò-m-ù,
 [[[granary Def.InanSg] Loc] put.in-Pfv2-3SgSbj if] lay-Ipfv-3SgSbj

‘Each day on which (=whenever) he took out (some of) the millet, he would gather some donkey dung and fill a basket (with it), then he would lay it down inside the granary.’

[*izèn* ‘day’ as temporal locator, not ‘day(time)’ versus ‘night’ or ‘day(s)’ as unit of elapsed time; diminutive *-(i)yè* §5.1.8; instrumental *mì* §8.1.2]

- (776) *háya [kɔ̀yⁿ nà kárⁿá-m] [nà kárⁿá-m] [nà kárⁿá-m]*
 well, [thus 3SgSbj do-Ipfv] [3SgSbj do-Ipfv] [3SgSbj do-Ipfv]
[[yú wò] [ní: kày] cé^m→ sà^y→ =là: dè]
 [[millet Def.InanSg] [now Top] a.little only=not.be if]
wàsà-lí nà kárⁿé-y,
 be.left-PfvNeg 3SgSbj do-Past.and.then,
zòmó zòbò-y yà bán-jé-Ø,
 hare run-Past.and.then Real hide-MP.Pfv-3SgSbj,

‘Well, he kept doing thus. The millet now, when only a little was left, Hare fled and hid.’

[*kárⁿé-y* ‘did and then’ after a conjugated verb is common in these texts in subject-switching contexts, cf. §15.2.2.1]

- (777) *[â: fú→]*
 [3.all.together all]
[kú-bà bò kúrⁿ-úm] [bò kúrⁿ-úm] [bò kúrⁿ-úm]
 [there.Def 3PlSbj be.in.Stat-Ipfv] [3PlSbj be.in.Stat-Ipfv] [3PlSbj be.in.Stat-Ipfv]
[ní: kày] [dòrù^L bò dà^mé wò]
 [now Top] [moment^L 3PlSbj speak.Pfv.Rel Def.InanSg]
dò nà kárⁿé-y,
 arrive 3SgSbj do-Past.and.then,
[tùmày-túmáy wò^L ná] yà tól-á,
 [Iter-one come^L Purp] Real begin.Pfv-3PlSbj,

‘All of them (=other animals) were (still) being there (in the outback). Now, when the time that they had spoken of arrived, they began to come (back) one by one.’

[*â: fú→* §4.3.1.2; *tùmày-túmáy* §4.7.1.6; ‘begin to VP’ construction §17.6.1.2]

- (778) *[ní: kày] [izèn^L sé:dé-má gùní-yà wò]*
 [now Top] [day^L set-Hort say-Pass.Rel Def.InanSg]
dò nà kárⁿé-y,
 arrive 3SgSbj do-Past.and.then,
háya [òy-nàmà-mú fú→] bò wó-y,
 well, [outback-meat-AnPl all] 3PlSbj come-Past.and.then,
[zòmó kóy bò-m] [nà úⁿé là]
 [hare just.over.here be-Ipfv] [3SgSbj go.Pfv.Rel too]

[[zùwó kàndà] dɔ̀à-lí-Ø kôy],
 [[week even] arrive-PfvNeg-3SgSbj Emph],
 zòmó wò-lí-Ø,
 hare come-PfvNeg-3SgSbj,

‘Now, the day that had been set arrived. Well, all the wild animals came. (Since) Hare was there and had gone away, not even a week had elapsed. Hare didn’t come (back).’

[gùnì-yà passive relative §14.1.7.8, see also *dàmí-yà* in (779) just below; *kàndà* ‘even’ §19.1.4; *kòy* clause-final emphatic §19.5.1]

(779) [òy-nàmà-mú fú→] [ìzèn^L dàmí-yà wò]
 [outback-meat-AnPl all] [day^L speak-Pass.Rel Def.InanSg]
 [wò-y yà dɔ̀-á]
 [come-Past.and.then Real arrive.Pfv-3PlSbj]
 [zòmó wò-y dɔ̀à-lí-Ø],
 [hare come-Past.and.then arrive-PfvNeg-3SgSbj],

‘All the wild animals, on the day that was spoken of they came (back). (But) Hare did not come (back).’

(780) é→ [zòmó wà] [wàjì-ndiyè-zó-Ø] bàdú-mù = wò,
 hey [hare Quot] [far-Inch-Pfv2-3SgSbj] owner-AnPl=AnPl,
 [ní: kày] [[nò fú→] wò-zó-Ø dè]
 [now Top] [[person all] come-Pfv2-3SgSbj if]
 [á tò:] pódó-zó-Ø dè]
 [3ReflPoss agemate] greet-Pfv2-3SgSbj if]
 [[ðmò^L á gɔ̀é] dàmé]
 [[place^L 3LogoSgSbj go.out.Pfv.Rel] speak.Pfv]
 [[ci^L kámá] kárⁿé],
 [[thing^L any] do.Pfv],

‘(There were) some who said hey, Hare has gone far away. Now each one came and greeted his fellow, and said where he had come from, and did whatever (else).’

[quotative *wà* after clause subject §17.1.2; deadjectival inchoative *wàgí-ndí-yé* ~ *wàjì-ndí-yé* ‘become (=go) far away’ (310b) in §9.5; *bàdú* ‘owner’ §5.1.10, here with a clause in the sense ‘those who...’; *tò:* ‘agemate’, here ‘(his) fellow, counterpart’, related to reciprocal forms, see (735) in §18.3.1; *ci^L kámá* ‘anything, whatever’ §6.6.2]

(781) [nà kárⁿé-y]
 [3SgSbj do-Past.and.then]
 zòmó [[ùmùlò^L pèy] †ná] níjú kúndé-y,
 hare [[waterbag^L old] Loc] water put.in-Past.and.then,
 cébí-càbì-cébí-càbì-cébí [òy-nàmà-mú fú→]
 with.short.quick.steps [outback-meat-AnPl all]

[*nà* ^H*wá*→ *gày*]
 [3Sg ^HQuotSbj Top]
wàjì-ndiyè-zó-Ø *biyà-m-ù* *wà* *kõy*,
 far-Inch-Pfv2-3SgSbj happen-Ipfv-3SgSbj Quot Emph,
mì *gùrⁿé-y*, *zòmó* *òⁿhóⁿ* *wàgì-ndiyè-zó-m* *wà*,
 1SgSbj say-Past.and.then, hare uh-huh far-Inch-Pfv2-LogoSbj Quot,
 ‘Now, news was exchanged: how is it? Where were you? It happens (=seems) that you went far away, I (=an animal) said. Here said: uh-huh, I went far away.’

[*ànjá*: ‘how?’ §13.2.2.5, *àmbá*: ‘where?’ §13.2.2.3; 3Sg pronoun *nà* for original addressee in quoted clause, §17.1.1; *wàgì-ndiyè-zó-m* with logophoric subject *-m* §18.2.1.2; emphatic *kõy* §19.5.1]

- (785) *ní:* [*àmbá:* *mì*] [*àmbá:* *mì*] [*àmbá:* *mì*]
 now [where and] [where? and] [where? and]
bè-Ø [†]*má*→ *wà*,
 be.Past-3SgSbj Q Quot,
á = à, [*tí*→ *nà*] *úrⁿé-y*,
 3LogoSg=QuotSbj, [Ti Loc] go-Past.and.then,
 [*tí*→ *nà*] *gòè-y*,
 [Ti Loc] go, out-Past.and.then,
 [*tá:* *nà*] *úrⁿé-y*, [*tá:* *nà*] *gòè-y*,
 [Ta Loc] go-Past.and.then, [Ta Loc] go.out-Past.and.then,
 [*nú:* *nà*] *úrⁿé-y*,
 [Nou Loc] go-Past.and.then,

‘Now, where and where and where were you, they asked. He said, I went to Ti, then I left Ti and went to Ta, then I left Ta and went to Nou.’

[*bè* ‘was’ §11.2.2.3; *á = à* contracted from *á wà* with 3Logophoric *á* and quotative *wà* after subject §17.1.2-3; locative *nà* with place name §8.2.4]

- (786) *zòmó* [*nà* *lígílá-rí*] [*nà* *lígílá-rí*] [*nà* *lígílá-rí*]
 hare [3SgSbj cite-Ipfv] [3SgSbj cite-Ipfv] [3SgSbj cite-Ipfv]
[kàlè *zó:-nì]* *kásórò*,
 [limit have-StatNeg.Rel] nevertheless,
[[òmò^L *kámá]* *nà* *là]* *ún-lì-Ø*,
 [[place^L any] Loc too] go-PfvNeg-3SgSbj

‘Hare kept citing (place names), without limit, although in fact he had not gone to any (such) place.’

[‘it has no limit’ is a common phrase for ‘lots’; *kásórò* < Bambara ‘it happened that’, here something like ‘whereas in fact’; *òmò^L kámá* ‘(not) anywhere’ §6.6.2]

- (787) *háya* *wò-y* [*ní:* *kày*]
 well, go-Past.and.then [now Top]
kôyⁿ *yà* *bìyé-Ø* *dè*,
 thus Real happen.Pfv-3SgSbj if,

[[gɔ̀à: á-ŋ]
 [[granary 3LogoSg-Poss]
 [[gìdè^L á dɔ̀gɛ́] yèyⁿ] bɔ̀-∅ †má→]
 [[manner^L 3LogoSgSbj leave.Pfv.Rel] like] be-3SgSbj Q,
 [ní: kày] sán d̀àgì-lè †tádà wà,
 [now Top] door lock-Revers try.Ipfv Quot,

‘(Hare) went and said: “well, now that it (=the situation) has come to be thus, (let’s see) whether my granary is (still) the same way I left it; now unlock the door and try (=see).” ’

[manner adverbial relative headed by *gìdè* ‘way, manner’, with following postposition *yèyⁿ* (variant of *yèŋ* ‘like’), see (645c) in §15.4.2; *d̀àgì-lè* reverside ‘unlock’ (291) in §9.1; *tádà* ‘try!’ with directly chained VP, idiosyncratic {L}-toned imperative §17.4.1]

- (788) *zòmó úrⁿé-y nɔ̀é-y*
 hare go-Past.and.then enter-Past.and.then
sǎŋpè tóyé-y wò-y,
 key take-Past.and.then come-Past.and.then,
sǎŋpè [á gày] ñjí,
 key [3LogoSg Top] here,
 [[ìzèn^L kó] ñjí á ^Lbà:-ndè]
 [[day^L that.NearDist] here 3LogoSgSbj ^Lhide-Caus.Pfv]
gò-mè ná,
 go.out-Caus SS,
[d̀ògò té-y á úrⁿé wò]
 [leave Pfv-Past.and.then 3LogoSgSbj go.Pfv.Rel Def.InanSg]
 [[d̀mò^L á d̀ògɛ́] b̀èdù kóy]
 [[place^L 3LogoSgSbj leave.Pfv.Rel] near just.over.here]

‘Hare went and went in (where he hid the key) and picked up the key and came (back). (He said:) The key, as for me, here, ever since I hid it here on that day, the place where I left it and went away, the place where I had left it is near here.’

[[ìzèn^L kó ‘that day’ with near-distant demonstrative in recent discourse-definite function §4.4.2.1; transitive *b̀a:-ndè* ‘hide’ (295b) in §9.1 and (303) in §9.3.1.2; *gò-mè ná* ‘since (doing)’, lit. “to cause to go out and then ...” with *ná* after {L}-toned verb §17.6.1; *té* perfective auxiliary verb associated with *d̀ògò* ‘leave’ and a few other verbs, including *sá:* ‘destroy’ (later in this text) §15.1.7]

- (789) [*kó b̀ò nà→*]
 [InanSgSbj be Advers]
 [*kó [[d̀mò^L ẁàjù] †ná] ònú-∅*]
 [InanSgSbj [[place^L distant] Loc] not.be-3SgSbj]
 [[d̀mò^L b̀ò má:ná-li] nà]
 [[place^L 3PlSbj think-PfvNeg.Rel] Loc]

kóy kó dù:-ndè-y gèlá-m wà,
just.over.here InanSg lay-Caus-Past.and.then hold-LogoSbj Quot,

‘(Hare:) It’s there, it is not in a distant place. I put it and kept it around here, in a place that they (=people) didn’t think of.’

[adversative *nà*→ §19.2.4; *ònú* ‘not be’ somewhere §11.2.2.2; in *kóy kó dù:-ndè-y*, *kóy* refers to the location and *kó* is a pronoun referring to the key]

- (790) *háya, [sàppè^L kó] tóyé-y wò-y,*
well, [key^L that.NearDist] pick.up-Past.and.then come-Past.and.then,
[[sáj dàgú-lá-ím] òmbá-ím]
[[door lock-Rev-Ipfv] follow-Ipfv]
[[céné á-ŋ] dèbù→ kárⁿé-y]]
[[mouth ReflSg-Poss] covering.mouth do-Past.and.then]]

‘Well, he picked up that key and came (back). As soon as he had unlocked the door, he covered his mouth (feigning amazement).’

[*dèbù*→ expressive adverbial (281e) in §8.4.7.4]

- (791) *[zòmó kòdù^L |ègùbè-Ø], ó ò ò ò ò ò,*
[hare cry(n) ^Lvocalize.Pfv-3SgSbj, oh! oh! oh! oh! oh! oh!],
[zàmtúú gày]
[donkey Top]
mbà ?óló yà sá: tè-Ø wà,
around.here house Real destroy Pfv-3SgSbj Quot,
[wò †tìgà wà] [[zàmtúú gày]
[come look.Ipfv Quot] [[donkey Top]
?óló yà sá: tè-Ø gà],
house Real destroy Pfv-3SgSbj Presentative]

‘Hare let out a scream: oh-oh-oh-oh-oh-oh-oh! As for Donkey, he has destroyed the structure (=granary) here. Come and look! As for Donkey, look, he has destroyed the structure.’

[*mbà* ‘around here’ (112a) in §4.4.3.1; {L}-toned imperative *tìgà* after a chained verb, cf. *ún tìgà* ‘go look!’; *tè-* perfective auxiliary §15.1.7; *gà* appears to have presentative sense here]

- (792) *háya [wò-y èjjè bò tígé-y→]*
well, [come-Past.and.then peek 3PISbj look-Past.and.then]
[[[gà: †wó] nà]
[[[granary Def.InanSg] Loc]
yù bò d̀g̀é wò]
millet 3PISbj leave.Pfv.Rel Def.InanSg]
[[tùmá→ kàndà] kùn-ú→] [zàm̀tù̀r̀ù̀-̀s̀ù̀wà c̀ềw kùn-Ø],
[[one.single even] be.in-Neg] [donkey-shit all be.in-3SgSbj]

‘Well, they came and got a peek (through the narrow granary window). (Of) the millet that they had left in the granary, not one (grain spike) was therein, donkey dung was all in it (=filled it up).’

[*tùmá*→ ‘one’ §4.7.1.1; negative *kùn-ú* ‘not be in’ and positive *kùn* ‘be in’ §11.2.3]

- (793) *háya* [*ní: gày*] *zàmtúru* [*yú wò*] *nà* †*?ǎnè*→,
 well, [now Top] donkey [millet Def.InanSg] 3SgSbj eat.Pfv,
háya [[*òy-nàmà-mú fú*→] *mù:mbì-yè-y*]
 well, [[outback-meat-AnPl all] assemble-MP-Past.and.then]
[ní: gày] [*zàmtúru* [*ó* ^H*wá*→] *nì*]
 [now Top] [donkey [2Sg ^HQuotSbj] QTop]
ní: ànjá: kàlì-yè-Ø †*má*,
 now how? happen-MP-3SgSbj Q,

‘Well now, (they thought) it was Donkey [focus] who ate the millet. Well, all the animals assembled (and asked): now, Donkey, how about you? How did it happen?’

[*?ǎnè*→ perfective subject-focus form §13.1.2.1; 2Sg quotative subject *ó wá*→ not converted to 3Sg §17.1.1-2; *nì* interrogative topic §19.1.2]

- (794) *háya* [*zàmtúru wànà*] [[[*kó ná-ŋ*] *nà*] *ci*^L *kúndí-yà*]
 well, [donkey other] [[[head 3Sg-Poss] Loc] thing^L put-Pass.Rel]
[zàmtùrù-sùwà bàl kúndí-yà]
 [donkey-shit gather put-Pass.Rel]
[[kó bò wò] wànà]
 [[InanSg be Def.InanSg] other]
[á kàrà-li †*ní*→]
 [3LogoSgSbj do-PfvNeg Sbjunct]
[òmò^L dàmbè-y [[[*kó ná-ŋ*] *nà*] *gòé*]
 [place^L speak-Past.and.then [[[head 3Sg-Poss] Loc] go.out.Pfv.Rel]
ònù-Ø †*wá*
 not.be Quot

‘Well, (as for) the donkey meanwhile, the thing that was put on his head (=blamed on him), the donkey dung that had been put (there), he couldn’t claim that he hadn’t done it. There was no place (=way) for him to escape with his head, they said.’

[‘other’ as adverb ‘meanwhile’; subjunctive *nì* §17.1.4; *ònù-Ø* †*wá* < /*ònú-Ø wà*/]

- (795) B: [*á-ŋ* *kàrà*^L *élí-yá-ŋ*]
 [3Refl-Poss device^L escape-MP-Ipfv.Rel.InanSg]
kúwò zò:-n-Ø
 at.all have-StatNeg-3SgSbj
 ‘He had no way at all to escape.’

[*kárá* ‘means, device, solution (to a problem)’; here as head NP; *kúwò* ‘at all’ §6.6.3]

- (796) A: *háya* [*òy-nàmà-mú* *fu→*]
 well, [outback-meat-AnPl all]
[ní: gày] [*yú wò*] *zàmtúrí* *?əjè→*,
 [now Top] [millet Def.InanSg] donkey eat.Pfv,
háya [*[kôyⁿ nà]* *zàmtúrí-y* *accuser* *kárⁿé-y*]
 well, [[thus Loc] donkey-Acc accuse do-Past.and.then]
[[júgà:rè wò]
 [[penalty Def.InanSg]
zàmtúrí-y ^L*dù:-d-à* *wà*],
 donkey-Acc ^Lcarry.on.head-Tr.Pfv-3PlSbj Quot]

‘Well, all the wild animals (thought), now it was Donkey [focus] who ate the millet. Well, in that way, (they) accused Donkey, and they imposed a penalty on Donkey, it is said.’

- (797) *háya* *kóy* ^L*sùwò-m-ù* *wà*
 well, just.over.here ^Lgo.down-Ipfv-3SgSbj Quot
 ‘Well, here it (=tale) goes down.’
 [standard story-closing formula]

Text 2 Monitor Lizard and Dog (tale)

(tape reference: 2011.01b.02)

(798) A: *séyⁿ* .:

[story-opening word]

B: *màtéⁿ*

[audience-confirmation word]

(799) A: [*àyⁿ* †*mí→*] [*ñjè-zàṅà* †*mí→*], [*árⁿá-kùsù* *wò*]

[lizard and] [dog and], [year Def.InanSg]

[*dà má* †*ná*] *jà:* *nó* *nà* *kárⁿé-y* *fó→* *úrⁿé-y*,

[village Loc] hunger enter 3SgSbj do-Past.and.then until go-Past.and.then,

[*kún* *sɔ́á:dú*] *nò-mè-rá-ṅ* *nà→*

[mortar sound] hear-Pass-IpfvNeg-3SgSbj Advers

[*zà-[bèl-Ø]* *dòm = là:* †*wá*],

[food-[get-VbIN] speech=not.be Quot],

‘(Monitor) Lizard and Dog. The (=a certain) year, famine entered into the village to such an extent that one did not (even) hear the sound of mortars. There was no talk (=question) of getting food, it is said.’

[*mí→* ‘and’ after both conjuncts §7.1.1; *nò-mè-rá-ṅ* with passive *-mé* §9.3.2; *fó→* ‘to such an extent that’ §8.2.14; *zà-[bèl-Ø]* verbal noun with {L}-toned incorporated object §5.1.4; *=là-* ‘it is not’ §11.2.1.2]

(800) *hà:* [*nà* *biyé-y*] [*ñjè-zàṅà* †*wá→* *nì*],

well, [3SgSbj happen-Past.and.then] [dog Quot QTop],

[*nà* ^H*wá→*] [[*nò-mó* *fú→*] *zá* *bè:-ráṅ-é*]

[3Sg QuotSbj] [[person-AnPl all] food get-IpfvNeg-3PlSbj]

[*ñjè-zàṅà* †*wá→* *nì*],

[dog QuotSbj QTop],

ṅgó [*ànjá:* *kán-kàn*]

this.Inan [how? Iter-do]

zá *bèlá-m* *gèlà-Ø* †*má→* *wà*,

food get-Ipfv Prog-3SgSbj Q Quot,

[Well, it having become (like that), (Lizard) said: “(hey) you Dog, none of the (other) people are getting food. Dog, (as for) that (food), by doing what (=how) do you keep getting food?”’

[progressive *-m jèlà-* ~ *-m gèlà-* §10.5.2.2; imperfective negative *bè:-ráṅ-é* from *bèlé* ‘get’ (390e) in §10.3.3.4]

(801) *há yà* *ñjè-zàṅà* [*nà* ^H*wá→*]

well, dog [3Sg ^HQuotSbj]

[[*zá* *?ṅp-é:*] *sìrⁿ-é:*

[[food eat-NonPast.and.SS] be.satisfied-NonPast.and.SS

èbà = bó *dè]*
 want=be if]
cêm *fú→*, [*nà* ^H*wá→*]
 all all, [3Sg ^HQuotSbj]
 [[*tùnù* *á-ŋ]* *nà]* *nàn-jà* *wà*,
 [[back 3Sg-Poss] Loc] go.up.on-MP.Imprt Quot,

‘Well, Dog said: “(hey) you, if you want to eat and be full (=eat well), you get up on my back.”’

[‘want’ §17.5.2, §11.2.4; *nàn-jà* {L}-toned imperative, (422) in §10.7.1.1]

(802) *á→*

3LogoSgSbj
 [[[*ðmð*^L *zá* *á* *ʔéŋá-ŋ* *wò]* *nà]*
 [[[place^L food 3LogoSgSbj eat-IPfv.Rel.InanSg Def.InanSg] Loc]
á-nù *úrⁿ-úm→*] [[*nà* ^H*wá→* *là]*
 3Logo-two go-IPfv] [[3Sg ^HQuotSbj too]
 [*íyé* *kày]* *zá* *ʔəŋ-é:]* [*ná* *bǎ:-m-ù]* *wà*,
 [today Top] food eat-NonPast.and.SS] [3Sg suffice-IPfv-3SgSbj Quot,

‘“(As for) me, let’s the two of us go to the place where I eat food. You too will eat food today, and you will be satisfied (=full),” he said.’

[*á-nù* ‘the two of them’ (226c) in §7.1.2; *là* ‘also, too’ §19.1.3 following subject quotative; in *ná bǎ:-m-ù*, 3Sg *ná* can be overtly accusative (*ná-y*) before *bǎ:* ‘be enough, suffice’ in the sense ‘be enough for X’, hence ‘X be satisfied, sated, full (after eating)’, but this “object” seems to have some subject properties, cf. same-subject marking on ‘eat’]

(803) *àyⁿ* *tómbó-y*

lizard jump-Past.and.then
 [[[*ŋjè-zàŋà* ^H*túnú]* *nà]* *tádí-yé]* *nà* *kárⁿé-y*,
 [[[dog ^Hback] Loc] be.on-MP] 3SgSbj do-Past.and.then,
 [[*ʔə̀lò*^L *cèw]* [†]*ná]* *á* *úrⁿé-m = ð:* ,
 [[house^L first] Loc] 3ReflSbj go-IPfv-Def.InanSg,
 [[*án-mú* ^L*gùmà]* *nà]* *zá* *gò-ndè-y*,
 [[man-AnPl ^Lbowl] Loc] food go.out-Caus-Past.and.then,

‘After Lizard jumped onto Dog’s back, when they went into the first house, they (=women) had taken out out the meal (and put it) into the men’s eating bowl.’

[*tùnù* ‘back’ (body part), *gùmà* ‘wooden eating bowl’]

(804) [*án-mú* *ní:]* [*bèrèdèyⁿ* [†]*ná]*

[man-AnPl now] [eating.area Loc]
 [[[*zá* *ðmð*^L *bò* *ʔéŋá-ŋ]* ^L*kòrù* *wò]* *nà]*,
 [[[food place^L 3PlSbj eat-IPfv.Rel.InanSg] ^Lcircle Def.InanSg] Loc]
 [[*zá* *gò-ndè-y]* *dè-dè-y]*
 [[meal go.out-Caus-Past.and.then] set-Tr-Past.and.then]

[[*á* *tò-mù*] *dòmá-m* *bò* *bó-m*],
 [[3RefIPoss agemate-AnPl] wait-Ipfv 3PlSbj be-Ipfv]

‘The men now, in the eating area, in the circular area where they eat food, they (=women) took (it) our and set it (down). They (=men) were waiting for their fellows (=each other).’

[*kòrù* ‘circle, ring’; *á tò-mù* §18.3.1; *dòmá-m ... bó-* progressive §10.5.2.3, cf. stative *yà dòmá-Ø* ‘he is waiting’ from *dòmí-yó* ‘wait’]

- (805) [*ñjè-zàṅà* *wò-y*] [[*án-mú* ^L*gùmà* *wò*] *nà*]
 [dog come-Past.and.then] [[man-AnPl ^Lbowl Def.InanSg] Loc]
kéné *kúndò-m* *nì*] ^L*tàlè-Ø*,
 mouth put-Ipfv Sbjunct] ^Lbegin.Pfv-3SgSbj]
 [[*sàtàrà-è*:^L *tùmá→*] [*tàná*^L *bú-búndú*] *tóyé-y*]
 [[youth-child^L one] [stick^L Rdp-big] pick.up-Past.and.then]
 [[[*ñjè-zàṅà* [†]*gé*] ^L*tùnù*] *nà*] [*dǎyⁿ* *nì*]
 [[[dog Def.AnSg] ^Lback] Loc] [bang! Adv]
yà *jé-Ø* *dè* *cém* *fú→*]
 Real kill.Pfv-3SgSbj if all all]

‘Dog came and began to put his mouth into the men’s eating bowl. A certain young man picked up a big stick (=club) and beat with a bang on (what it thought was) the dog’s back.’

[subjunctive complement for ‘begin’, see (697) in §17.6.1.2; *dǎyⁿ nì* expressive adverbial plus particle *nì* §8.4.7; *jé-* ‘kill’ here means ‘beat up, beat the crap out of’]

- (806) [[[*àyⁿ* [†]*gé*]-*y*] *nèmà-m-ù*]
 [[[lizard Def.AnSg]-Acc] touch-Ipfv-3SgSbj]
 [[*ñjè-zàṅà* [†]*gé*]-*y*] *nèmè-náṅ-Ø* *quoi*,
 [[dog AnSg]-Accus touch-IpfvNeg-3SgSbj (particle),
[kóy wǒṅ yà gùrⁿé-Ø dè]
 [over.here barking Real say.Pfv-3SgSbj if]
[zàb-é: gò-m-ù],
 [run-NonPast.and.SS go.out-Ipfv-3SgSbj],

‘He was striking the lizard, it was not striking the dog. He (=Dog) barked, then he was running away.’

[French *quoi* ‘what?’, here at the end of a clause providing background clarification]

- (807) [*íyé là*] [[*ʔàlò*^L *wàná*] [†]*ná*] *ùn-m-ù*,
 [again too] [[house^L other] Loc] go-Ipfv-3SgSbj,
 [[*ninjù-ès-íyè*] *mà→*] [*cí* *mà→*]
 [[sauce-[pot-Dimin] or] [thing or]
kárⁿá-n *bó* *bò-n*]
 do-NonPDur 3PlSbj be-NonPDur]

[yòŋóy→ mùyⁿò kán-sò-Ø dè]
 [calm(adv) patience do-Pfv2-3SgSbj if]

[m̀b̀ó: nà g̀ùrⁿé-y]
 [friend.Voc 3SgSbj say-Past.and.then]

‘In that (same) way they went to three or four places (=houses). The dog would let the lizard get beaten up (each time). Lizard came and said to his counterpart (=Dog): “(hey) you, if this is how you keep getting the food, my hunger (=going hungry) is better than this, if you are calmly patient (=begging your pardon), my pal.”’

[numerals with classifier *yè-* §4.7.1.2; *àyⁿ-y* accusative of noun *àyⁿ* with Rhythmic Tone-Raising §6.7; *ŋŋóy* ‘thus, like this’ §8.4.1; *ʔəŋé-ʔəŋè* verb iteration §15.1.6; *dàn* ‘than’ §12.1.1; *kày* ‘be better (for)’ with direct object §12.1.5.2; *m̀b̀ó:* ‘my friend!’, plural *m̀b̀ó:-yè* ‘my friends!’, vocative only, an alternative vocative is *wáy*, plural *wáy-yè*, cf. non-vocative referential *l̀àl̀ù-ŋ(-m̀ù)* ‘friend(s)’]

- (810) [wó→ wà] [nà ^Hwá→] [m̀yⁿò kán-sò-Ø dè]
 [yes Quot] [3Sg ^HQuotSbj] [patience do-Pfv2-3SgSbj if]
 [[ɔ̀m̀ò^L á-y nà bèlé wò] nà]
 [[place^L 3LogoSg-Acc 3SgSbj get Def.InanSg] Loc]
 á-y zín wà,
 3LogoSg-Acc convey.Imprt Quot,
 [ná-ŋ ^Lsìrⁿù-ŋ] [ŋgó dàn]
 [3Sg-Poss being.satisfied-Nom] [this.Inan than]
 [jà: á-ŋ wò] á-y kày wà,
 [hunger 3Refl-Poss Def.InanSg] 3LogoSg-Acc better Quot,

‘(Dog) said, “yes?” (Lizard) said: “(hey) you, if you are patient (=begging your pardon), take me (back) to the place where you got me! (As for) your getting full (of food), my hunger is better for me than this.”’

[imperative *zín* from irregular verb ‘convey’ §10.2.1.12; *sìrⁿù-ŋ* isolated nominal form §4.2.4, here in *ná-ŋ* ^L*sìrⁿù-ŋ* showing infrequent inversion of pronominal possessor with possessed noun, see (170) in §6.2.1.2]

- (811) [ŋjè-zàŋà †m̀í→] [àyⁿ †m̀í→],
 [dog and] [lizard and],
 [[zá ^Lkò:] nà] ŋŋóy ^Lbìyè-Ø wà
 [[food ^Lhead] Loc] thus ^Lhappen.Pfv-3SgSbj Quot

‘Dog and monitor lizard, it happened like that on (=with respect to) eating food, it is said.’

Text 3 Cat and Mouse (tale)

(tape reference: 2011.01b.03)

(812) A: *séyⁿ* .:

[story-opening word]

B: *màtéⁿ*

[audience-confirmation word]

(813) A: [*òyè^L yè^L pèy*]

[mouse^L woman^L old]

[[*àrⁿ-ù-njù^L ségú*] [[*kó: ná-ŋ*] *nà*] *yà* *nàŋé-Ø*]

[[year^L many] [[head 3Sg-Poss] Loc] Real pass.Pfv-3SgSbj]

[*ènè* [†]*béla-lí-Ø*],

[child get-PfvNeg-3SgSbj],

‘An old female mouse. Many years passed on her, (but) she had no child.’

[*kó: ná-ŋ* *nà* ‘on his/her head’ §8.2.6]

(814) [*á→ ènè béla-m mâ→ ni*]

[3LogoSgSbj child get-IPfv Q Sbjct]

dùnú ^L*tàlè-Ø*,

search(n) ^Lbegin.Pfv-3SgSbj,

[[[*dùnú wò*] *dùnò^L*] *ná* *úrⁿ-úm*]

[[[[search(n) Def.InanSg] search^L] Purp] go-IPfv]

[[*àlmà-kùndù* ^H*bérⁿá*] *ùrⁿ-ùm-Ø* *wà*]

[[fortune.teller ^HDat] go-IPfv-LogoSbj Quot]

‘(She wondered:) “Will I (ever) have a child?” She began to (re-)search. She went around to do the (re-)search. She said (=decided), “I will go to a fortune-teller.”’

[*dùnú*... purposive construction §17.6, similar elicited examples with cognate objects are [*tìgù* [†]*wó*] *tìgè ná* ‘(went) to look (=take) a look’, [*nùŋà* [†]*wó*] *nùŋè ná* ‘(went) to sing a song’; ^H*bérⁿá* dative §8.1.1]

(815) B: [*àlmà-kùndù* ^H*bérⁿá*] *ùrⁿ-ùm-Ø* *wà*]

[fortune.teller ^HDat] go-IPfv-LogoSbj Quot]

A: *é→*,

yes,

B: ‘She said (=decided), “I will go to a fortune-teller.”’

A: ‘Yes.’

- (816) *[[[àlmà-kùndù †gɛ́] bèrⁿà] úrⁿ-úm]*
 [[[fortune.teller Def.AnSg] Dat] go-IPfv]
[pàl †zámnè-y úrⁿè-Ø],
 [sesame steal-Past.and.then ^Lgo.Pfv-3SgSbj],
 ‘Going to (=on the way to) the fortune-teller, she went to steal some sesame.’
- (817) *[pàl †zámnè-y úrⁿé-y]*
 [sesame steal-Past.and.then go-Past.and.then]
[àlmà-kùndù †gɛ́]-ȳ á témbé-m = ò: ,
 [fortune.teller Def.AnSg]-Acc 3ReflSbj find-IPfv=Def.InanSg,
háya á→ [nà ^Hbérⁿá] wò-zò-m wà,
 well, 3LogoSgSbj [3Sg ^HDat] come-Pfv2-LogoSbj Quot,
háya [nà ^Hwá→]
 well, [3Sg ^HQuotSbj]
[[[á ^Hbérⁿá] ci^L bó] tígé tàdà wà],
 [[[3LogoSg ^HDat] thing^L be] look try.Imprt Quot]
 ‘She went to steal some sesame, and finding the fortune-teller, she said: “Well, I have come to you; well, you try to look at (=determine) what there is for me (=what my problem is).” ’
 [analysed in (748) in §19.2.2]
- (818) *[àlmà^L cèw] á mánzé-m = ò: ,*
 [cowry.toss^L first] 3ReflSbj toss.down-IPfv=Def.InanSg,
[nà ^Hwá→] [pàl †zámnè-y]
 [3Sg ^HQuotSbj] [sesame steal-Past.and.then]
[á ^Hbérⁿá] [sàdù †sádù nà] wò-zò-Ø wà,
 [3LogoSg ^HDat] [question ask Purp] come-Pfv2-3SgSbj Quot,
 ‘After the first toss of the cowries (for telling fortunes), he (=fortune-teller) said:
 “You stole some sesame and have come to ask questions of me.” ’
 [bunches of small cowry shells are tossed by the fortune-teller, who then reads the future by interpreting their configuration; *sàdù sádù nà] wò-zò-Ø* purposive with motion verb §17.6.1.1]
- (819) *òⁿhòⁿ→ [nà ^Hwá→] [yà wé-Ø] wà], [á wà]*
 uh.huh [3Sg ^HQuotSbj] [Real see.Pfv-3SgSbj Quot], [3LogoSg QuotSbj]
[ci^L jéí-yé-y] á wé wò]
 [thing^L hold-MP-Past.and.then 3LogoSg come.Pfv.Rel Def.InanSg]
nà wò-zò kôyⁿ→,
 3SgSbj see-Pfv2 thus,
háya [wàzè^L [á ^Hbérⁿá] bó wò là]
 well, [remainder^L [3LogoSg ^HDat] be Def.InanSg too]
[nà ^Hwá→] [kôyⁿ wá wà],
 [3Sg ^HQuotSbj] [thus see.Imprt Quot],

[á→ ènè bɛ̀lá-m-∅ mâ→] [bè:-ná-m mâ→],
 [3LogoSg child get-Ipfv-LogoSbj Q] [get-IpfvNeg-LogoSbj Q]

‘(Mouse) said: “Uh-huh, you have seen (=divined) it. In the same way as you have seen what I have brought and come here, well, also see (=divine) the remainder (=other things) that are (happening) to me. Will I have a child, or will I not have (one)?” ’

[ci^L jéí-yé-y á wé wò ‘what I have brought and come’, with head noun ‘thing’ belonging to the chained first VP; wàzè ‘remainder’; mâ→ in alternative polar questions §13.2.1]

(820) háyà, àlmà-kùndù [álmá mànzá-m nì]
 well, fortune.teller [cowry.toss(n) toss.down-Ipfv Sbjunct]
 nà tólá-ŋ mì→,
 3SgSbj begin-Ipfv.Rel.InanSg Inst,
 [[mbùl wò] nà]
 [[door Def] Loc]

gà:ⁿ †wó-y †ǵní-yè-∅ wà,
 cat come-Past.and.then stop-MP.Pfv-3SgSbj Quot,

‘Well, as the fortune-teller was beginning to (=was about to) do a cowry toss, a cat came and stopped at the door, it is said.’

[instrumental *mì* after a relativized ‘begin’ clause in the sense ‘as X was about to VP’, only example of this construction, see end of §15.3.4]]

(821) [[àlmà-kùndù †ǵé] wà→] [†ǵní-yá wà]
 [[fortune.teller Def.Sg] QuotSbj] [stop-MP.Imprt Quot]
 [ènè^H dóm wò] dǵǵò té-zò-∅ dè,
 [child^H speech Def.InanSg] leave Pfv-Pfv2-3SgSbj if,
 [nà^H wá→] [á→ cìnzá-tám yà zó-m mâ→]
 [3Sg^H QuotSbj] [3LogoSg long.life Exist have-LogoSbj Q]

‘(Mouse) said: “(hey) fortune-teller, stop! Leave (=cease) talking about a child, and (tell me) whether I (will) have long life!” ’

[ènè^H dóm wò with possessed tone overlay {H} on noun *dóm* ‘talk (about X)’, i.e. ‘matter, topic of’; *dǵǵò té-* §15.1.7; *cìnzá-tám* ‘long life’, compound with *cìnzá-* ‘nose’ and an otherwise unattested final, in some expressions uncompounded *cìnzá* can mean ‘life (longevity)’, see (824) below]

(822) [nà^H wá→] mànzù †tádà wà,
 [3Sg^H QuotSbj] cowry.toss(n) try.Imprt Quot,
 [[àlmà-kùndù †ǵé] là]
 [[fortune.teller Def.AnSg] too]
 [kèlè †wó] á mánzé-m = ð:
 [cowry Def.InanSg] 3ReflSbj toss-Ipfv=Def.InanSg]
 [háyà nàⁿá wà]
 [well, truth Quot]

[*cìnzà-tám ná-ŋ là*] *bàd-é: = lǎ:* *wà,*
 [long.life 3Sg-Poss too] add-NonPast.and.SS=not.be Quot,

‘(Mouse) said: “You, try a cowry toss!” When the fortune-teller for his part tossed the cowries, he said: “Well, it’s true, your longevity is not much (=you don’t have long to live).” ’

[*bàd-é: = lǎ:* ‘is not very much’, subordinated form *bàd-é:* from *bàdú* ‘add’]

(823) *háya* [*kó* *dàmè-y*
 well, [InanSg speak-Past.and.then
nà sú:-ndó-ŋ mì→
 3SgSbj go.down-Caus-Ipfv.Rel.InanSg Inst]
 [*gònò tígè→ zòbà-m ni*] [*nà kárⁿá-rí*]
 [look.back look run-Ipfv Sbjunct] [3SgSbj do-Ipfv]
 [*gà:ⁿ †gé*] *tómbó-y wò-y*
 [cat Def.AnSg] jump-Past.and.then come-Past.and.then
 [[*kó: ná-ŋ*] *nà* ^L*sùyè-Ø* *wà,*
 [head 3Sg-Poss] Loc] ^Lgo.down.Pfv-3SgSbj Quot

‘Well, when he spoke and brought it down (=finished speaking), she (Mouse) looked back (over her shoulder) intending to flee. The cat came and jumped and came down (=landed) on her, it is said.’

[causative *sú:-ndó* and perfective *sùyè-* both < *súwó* ‘go down’ (305) in §9.3.1.3]

(824) *háya* [[*ènè-dùnù*]-*símé* *wà*]
 well, [[child-seeking]-excess Quot]
 [*cìnzà †ná pà:-Ø* *wà,*
 [life Loc] be.joined.Stat-3SgSbj Quot,
hà kôyⁿ ^Lbìyè-Ø *wà*
 well, thus ^Lhappen.Pfv-3SgSbj Quot

‘Well, trying too hard for a child gets close to life (=is dangerous), it is said. Well, it happened like that.’

[*símé* ‘excess (n)’ as compound final; stative *pà:* ‘be joined (=associated)’, negation *pà:-ń*, regular verbs are mediopassive *pá-yyé* ‘become joined, associated’ and transitive *pá:* ‘put together, pair, associate (two things)’]

Text 4 Hyena and Hare (tale)

(tape reference: 2011.01b.04)

- (825) A: *séyⁿ*:
[story-opening word]
B: *màté:ⁿ*
[audience-confirmation word]
- (826) A: [*tà:* †*mí*→] [*zòmó mì*→] *mù:mbì-yè-y*
[hyena and] [hare and] assemble-MP-Past.and.then
nìm-mènè gòl-á,
cowpea-field cultivate.Pfv-3PlSbj,
‘Hyena and Hare got together and cultivated a cow-pea field.’
- (827) [*á-nù* [*nìm-mènè* †*wó*] *gòlè-y*]
[3Pl-two [cowpea-field Def.InanSg] cultivate-Past.and.then]
[bò bó-m] fó→ *úrⁿé-y*
[3PlSbj be-IPfv] until go-Past.and.then
[[nìm bó-ŋ] [wèrú wò] yà yé:dí-yé-Ø],
[[cowpea 3Pl-Poss] [greenness Def.InanSg] Real flourish-MP.Pfv-3SgSbj],
‘The two of them were cultivating the cow-pea field, until the greenness of their
cowpea (plants) was flourishing.’
[*á-nù* ‘they two’ (226c) in §7.1.2]
- (828) [*wèrú wò*] *yè:dì-yè-y* *fó*→
[greenness Def.InanSg] flourish-MP-Past.and.then until
[[nìm wò] pùn nà tólé-y],
[[cowpea Def.InanSg] flower 3SgSbj begin-Past.and.then],
‘The greenness was flourishing to the point that the cowpeas began (to grow)
flowers.’
- (829) [*tà:* [*izèn^L tùmá*→] *á* *íngílé-m = ò:*]
[hyena [day^L one] 3RefISbj stand-IPfv=Def.InanSg]
[[nìm-mènè †wó] tìgè^L ná] ^Lúrⁿé-Ø,
[[cowpea-field Def.InanSg] look^L Purp] ^Lgo.Pfv-3SgSbj,
[[tìgè^L ná] nà úrⁿé-y]
[[look^L Purp] 3SgSbj go-Past.and.then]
[nìm wò] pùn twí→ *nà bó-m,*
[cowpea Def.InanSg] flower blooming 3SgSbj be-IPfv,
‘One day Hyena got up and went to look at the cow-pea field. He went to look,
and the cow-peas were in full bloom.’
[purposive *ná* §17.6.1; *twí*→ expressive adverbial plus *bò-* §8.4.7]

- (830) *kó* [[*nīm wò*] *nà*]
 that [[cowpea Def.InanSg] Loc]
[pì-pírù]-mù [*nīm á-ŋ*]
 [butterfly-AnPl [cowpea 3LogoSg-Poss]
yámná-m *jèlà-yè* *nà→*],
 damage-Ipfv Prog-3PISbj Advers],
 ‘So in the cow-peas, (he thought) that butterflies were infesting his cow-peas.’
- (831) [*hà: wò-y zòmó-y dàm-dè-y*]
 [well, come-Past.and.then hare-Acc speak-Tr-Past.and.then]
[háya [dábúl ná-ŋ] té:-má wà,
 [well, [action 3Sg-Poss] take.action-Hort Quot,
 ‘Well, he came and spoke to Hare, saying “well, let’s take action of (=about) it!” ’
- (832) *zòmó* [[*gìd-íyè á-ŋ*] *nà*]
 hare [[eye-Dim 3Refl-Poss] Loc]
sàptèrè-púrⁿá *á* *yílé-m = ò:* ,
 chili-powder 3ReflSbj sprinkle-Ipfv=Def.InanSg,
[gìdè-íjú bǎl-bǎl] [á→ gày] ún bè:-ná-m gà,
 [eye-water streaming] [3LogoSg Top] go get-IpfvNeg-LogoSbj Top,
 ‘Hare sprinkled some ground chili pepper into his own eyes (to induce tears).
 With tears streaming down, he said: “As for me, I cannot go.” ’
 [final topic particle *gà* may be a variant of French *quoi*]
- (833) [*nà* ^H*wá→*] [*yà úrⁿé-Ø* *dè*]
 [3Sg ^HQuotSbj] [Real go.Pfv-3SgSbj if]
*[[[ná-ŋ wò] *nà*] mà:ndì-yè-zó-Ø* *dè*]
 [[[3Sg-Poss Def.InanSg] Loc] be.energetic-MP-Pfv2-3SgSbj if]
*[[ná-ŋ wò] *nà*] tíyá-m = ò:* ,
 [[3Sg-Poss Def.InanSg] Loc] perch.Stat-Ipfv=Def.InanSg,
lálíyá wà,
 chase.way.Imprt Quot,
*[á-ŋ wò] *kôyⁿ dògò jí-mà wà,**
 [3LogoSg-Poss Def.InanSg] thus leave go.ahead-Hort Quot,
 ‘(Hare) said: “you go and work hard on yours (=your side of the field), drive out
 (the butterflies) that are perched on yours, but for now (until I join you) just leave
 mine as it is.” ’
 [stative *tíyá-m* < mediopassive *tíy-yé* ‘(bird) perch (on branch), (insect) land (e.g.
 on a plant)’; *á-ŋ wò* ‘mine’ with possessed noun omitted §6.1.4; *jí-mà* with *jì-*
 (a kind of auxiliary verb) plus hortative suffix, functions like an imperative, but
 implies that the speaker will later join in the activity, cf. *?ŋnè jì-mà* ‘go ahead and
 eat!’ implying that the speaker will eat later]

- (834) *[[òy-nàmà-mí]-ỵ jìlé á kúndé-m = ð:]*
 [[outback-meat-AnPl]-Acc order(v) 3ReflSbj put-IPfv=Def.InanSg]
á-ŋ-, [tànà-bèndé á-ŋ wò]
 3Refl-Poss-, [stick 3Refl-Poss Def.InanSg]
bìrⁿ-ì:ⁿ á kárⁿé-m = ð: ,
 stout-Adj 3ReflSbj do-IPfv=Def.InanSg,
úrⁿé-y [bùndò^L ná] ^Ltòlè-Ø,
 go-Past.and.then [beat^L Purp] ^Lbegin.Pfv-3SgSbj,
 ‘(Hyena) issued a call to the wild animals. His own stick was the thickest, and he went and began beating (the cow-pea plants).’
[[òy-nàmà-mí]-ỵ with accusative *-ỵ* after animate plural *-mù*; *bìrⁿ-ì:ⁿ* with adjectival extension *-ì:ⁿ* §11.4.4; *á* subject (twice) §18.2.2]
- (835) *háya [[ná-ŋ wò]*
 well, [[3Sg-Poss Def.InanSg]
mé→ bùndò kílí-yé-y]
 knocked.flat beat finish-MP-Past.and.then]
[ní: gày] [[zòmó ŋ wò] nà],
 [now Top] [[hare Gen Def.InanSg] Loc]
ná→ – [[làyè^L ná] tíŋà-m nì] bò kárⁿá-ń,
 ?? – [[chase^L Purp] cross-IPfv Sbjunct] 3PlSbj do-IPfv,
 ‘Well, he finished beating his (side) down to the ground. Now they (=animals) were about to go across (to Hare’s side of the field) in order to drive out (butterflies).’
[mé→ (expressive adverbial) ‘knocked flat on the ground’; *ná-ŋ wò* ‘his’ and *zòmó ŋ wò* ‘Hare’s’ (with genitive *ŋ*), both with omitted possessed noun §6.2.1.2]
- (836) *[[zòmó nà tígé-y] kôyⁿ nà bó-ń]*
 [[hare 3SgSbj look-Past.and.then] thus 3SgSbj be-IPfv]
[zòmó á gogé-m = ð: zòbò-y]
 [hare 3ReflSbj go.out-IPfv=Def.InanSg run-Past.and.then]
yá á úrⁿé-m = ð:],
 there.Def 3ReflSbj go-IPfv=Def.InanSg],
 ‘Hare was watching thus (=as this happened). Hare ran out and went there (to the field).’
- (837) *háya úrⁿ-úm, [kây [[bèndê á-ŋ] nà]*
 well, go-IPfv, [horn [[shoulderbag 3Refl-Poss] Loc]
kúndó jèlì-yè-y] á úrⁿé-m = ð: ,
 put.in hold-MP-Past.and.then] 3ReflSbj go-IPfv=Def.InanSg,
 ‘Well, as he (=Hare) was going, he put a horn in his shoulderbag and took it along on the way there.’
[kây ‘horn’, hollowed out horn of a *Hippotragus* antelope, blown as a musical instrument]

Text 5 Abandoned Twins (tale)

(tape reference: 2011.01b.05)

[the songs, indented, are partially in Tommo So, a Dogon language]

(842) A: *séyⁿ* .:

[story-opening word]

B: *màtéⁿ*

[audience-confirmation word]

(843) A: [*yè ènè nà làlé-y* *nimè-mú = .:* ,
[woman child 3SgSbj give.birth-Past.and.then] twin-AnPl=it.is,
[nimè-mù = †wó] *gìrⁿè mènz-í.ⁿ = yè,*
[twin-AnPl=Def.AnPl] very thin-Adj=it.is.3PlSbj
[[gìrⁿè mènz-í.ⁿ] kó bè:-ná-m nì]
[[very thin-Adj] raise get-IpfvNeg-LogoSbj Sbjunct]
á íbí-yé-m = ò: ,
3LogoSgSbj fear-MP-Ipfv=Def.InanSg,

‘A woman (once) gave birth, it was twins. The twins were very undersized. She was fearing that she would not be able to raise very undersized ones.’

[irregular noun ‘child’ §4.1.2 occurs in several forms in this text; ‘it is’ with animate plural noun §11.2.1.1; *mènz-í.ⁿ = yè* with *gìrⁿè* ‘very’ with adjective §6.3.3.2; *mènz-í.ⁿ = yè* with adjectival extension *-í.ⁿ* §11.4.4 and 3Pl enclitic *= yè* in adjectival predicate; *íbí-yé-* ‘fear’ §17.3.5]

(844) [*òy †ná á gòé-m = ò:*]
[[outback Loc] 3Ref1Sbj go.out-Ipfv=Def.InanSg]
[[[kòlmbà dú] nà] dùndò †bézè-y]
[[[Piliostigma.tree under] Loc] lay leave-Past.and.then]
[?óló †ná] ^Lwè-Ø,
[house Loc] ^Lcome-Pfv.3SgSbj,

‘She went out into the outback. She laid them down under a *kòlmbà* (*Piliostigma reticulatum*) tree, and she went back home.’

(845) *àmbà [ènè^L bô:] á bálé-m = ò:* ,
God [children^L those.NearDist] 3Ref1Sbj gather-Ipfv=Def.InanSg,
hà: úrⁿé-y zírⁿè-y,
well, go-Past.and.then convey-Past.and.then,
éné = wò nà kó-y,
children=Def.AnPl 3SgSbj raise-Past.and.then,
sátará yà g-ó,
manhood Real go.out.Pfv-3PlSbj,

‘God gathered (=adopted) those children. Well, He went and conveyed them (to a place) and He raised the children. They attained manhood.’

[*zírⁿè-y* < irregular verb *zín* ‘convey, take (away)’ §10.2.1.12; the last segment is literally “they emerged (into) young-man-hood”]

- (846) [*sátará* *gò*] *nà* *kárⁿé-y*,
 [manhood go.out] 3SgSbj do-Past.and.then,
èné = wò [*sòm^L* *án*]
 children=Def.AnPl [horse^L male]
cégéré *á* *págé-m = ò* ,
 saddle(n) 3ReflSbj tie-IPfv=Def.InanSg,
hà: [*èné = wò* *á-nù*] *ní*: , *á-yⁿè-mù* *ní*: ,
 well, [children=Def.AnPl 3Pl-two] now, 3Refl-AnPl-AnPl now,
 [[*á* ^H*ní*:] *dùnò^L* *ná*] *ùⁿ-ùm-Ø* *wà*,
 [[3Refl ^Hmother] search^L Purp] go-IPfv-LogoSbj Quot,

‘When they had attained manhood, the children each saddled up his stallion. The two children now, (as for) them now, they said (=decided) that they would go to look for their mother.’

[*èné = wò á-nù* ‘the two children’ with cliticized definite *= wò* and pronominal *á-nù* (226c) in §7.1.2, can alternatively be phrased as *èné nò-nó:-mù = wò* with the regular numeral ‘2’ preceded by *nò-* ‘person’ (not reduplicative) as classifier and followed by the encliticized definite marker; two occurrences of *ní*: ‘now’ then one of ^H*ní*: ‘mother’ in H-toned possessed form, glosses based on narrator’s comments]

- (847) [[*jǎ*: *nì*] *dàmè-y*] *úrⁿ-úm*]
 [[thus Adv] speak-Past.and.then] go-IPfv]
 [[*sòm^L* *án*] *mí*:] *úrⁿ-úm*]
 [[horse^L male] Inst] go-IPfv]
 [[*dàmà^L* *tùmá→*] *nà*] *dǔè-y*]
 [[village^L one] Loc] arrive-Past.and.then]
 [*yè-mù* [*bònò* [†]*ná* *bò* *?ǎná-m*],
 [woman-AnPl [pounding.area Loc] 3PlSbj stand.Stat-IPfv]

‘Saying (=intending) thus, they went, they went with (=on) (their) stallions. They arrived at a village. Women were standing in the grain-spike pounding area (at the edge of the village).’

[*jǎ*: *nì* ‘thus’ §8.4.1; instrumental §8.1.2; *dǔè-y* ‘arrived’, the verb properly denotes reaching the boundary of a place (e.g. the gate of a house); there is a pounding area at the edge of every village where women go to do heavy pounding, especially of millet grain spikes, in large mortars]

- (848) [song] *pǒ:-yè pǒ:-yè* *sèndè-[dén-dèn]*
 hello! hello!
[[yàgú dú:] nà] ^Lpàdù-w *sèndè-[dén-dèn]*
 [[what? under] Loc] ^Lleave.Pfv-2SgSbj
[[yùlɔ dú:] nà] ^Lpàdù-m *sèndè-[dén-dèn]*
 [[néré under] Loc] ^Lleave.Pfv-1SgSbj
[mí ^Hná: gè] ù = lé *sèndè-[dén-dèn]*
 [1SgPoss ^Hmother Def.AnSg] 2Sg=it.is.not

A: ‘Greetings!’

B: ‘Greetings!’

A: ‘Under what (tree) did you leave (them)?’

B: ‘I left (them) under néré tree (*Parkia biglobosa*).’

A: ‘You are not my mother.’

[Many women claim to be the mother of such elegant young men, but only the true mother knows which tree she left the babies under.]

- (849) *[ɔŋgé [á→ [[lòl dú] nà] ^Ldògè-m]*
 [this.AnSg [3LogoSgSbj [[néré under] Loc] ^Lleave.Pfv-LogoSbj]
nà gùrⁿé-y]
 3SgSbj say.Pfv-Past.and.then]
[[[lòl dú] nà] ^Ldògè-Ø †dé gày]
 [[néré under] Loc] ^Lleave.Pfv-3SgSbj if Top]
[á ^Hní: gè] nà = là †wá,
 [3LogoSgPoss ^Hmother Def.AnSg] 3Sg=it.is.not Quot,

‘This (woman) said: “I left (the babies) under a néré tree.” (One twin) said: “If she left (them) under a néré tree, she is not my mother.”

[‘she is not my mother’ here and in (852) could alternatively be translated ‘you are not my mother’, given the usual substitution of 3Sg for original 2Sg in quoted speech; *nà = lá-Ø* ‘is not her’. ‘It is not’ enclitic drops tone to = *là-* before quotative *wà*]

- (850) *[[íyé là] kóy á gòé-m = ò:]*
 [[again too] just.over.here 3LogoSgSbj go.out-Ipfv=Def.InanSg]
[bò úrⁿ-úm]
 [3PlSbj go-Ipfv]
[[[dàmà^L tùmá→] nà] bò †dòé-y]
 [[village^L one] Loc] 3PlSbj arrive-Past.and.then]
[yè-mù [bònò †ná] yá ?ónà-yè],
 [woman-AnPl [pounding.area Loc] Real stand.Stat-3PlSbj],
yá á dòé-m = ò:
 there.Def 3LogoS arrive-Ipfv=Def.InanSg

‘They (=twins) proceeded to go away from there. They went and arrived at a village, (to find) women standing in the grain-spike pounding area. They arrived (=approached).’

- (851) [song] *pǒ:-yè pǒ:-yè* *sèndè-[dén-dèn]*
 hello! hello!
[[yàgú dú:] nà] ^Lpàdù-w *sèndè-[dén-dèn]*
 [[what? under] Loc] ^Lleave.Pfv-2SgSbj
[[sá: dú:] nà] ^Lpàdù-m *sèndè-[dén-dèn]*
 [[grape under] Loc] ^Lleave.Pfv-1SgSbj
[mí ^Hná: gè] ù = lé *sèndè-[dén-dèn]*
 [1SgPoss ^Hmother Def.AnSg] 2Sg=it.is.not

A: ‘Greetings!’

B: ‘Greetings!’

A: ‘Under what (tree) did you leave (them)?’

B: ‘I left (them) under wild-grape tree (*Lannea microcarpa*).’

A: ‘You are not my mother.’

- (852) *[íyé là] [kóy dǒgè-y] nàjé-Ø wà,*
 [again too] [over.there leave-Past.and.then] pass.Pfv-3SgSbj Quot,
[[[kùdà dú] nà] ^Ldǒgè-Ø dé gày]
 [[[wild.grape under] Loc] ^Lleave.Pfv-3SgSbj if Top]
[á ^Hní: gè] nà = là-Ø †wá,
 [3LogoSgPoss ^Hmother Def.AnSg] 3Sg=it.is.not Quot
 ‘Again he (=a twin) left that place and continued onward, it is said. “If she left (them) under a wild-grape tree, she is not my mother,” he said (or thought).’

- (853) *íyé-ń [bò úrⁿ-úm] [bò úrⁿ-úm]*
 that.day [3PlSbj go-1pfv] [3plS go-1pfv]
[íyé lá] [[[dàmà^L tùmá→] nà] bò †dǒé-y]
 [again too] [[[village^L one] []\Loc] 3PlSbj arrive-Past.and.then]
[yé-mù [bòndò †ná] yà ?éjà-yè],
 [woman-AnPl [pounding.area Loc] Real stand.Stat-3PlSbj],
bò-y á pódé-ń gè,
 3Pl-Acc 3LogoSgSbj greet-1pfv Def.AnSg,

‘That (same) day they went. Again they arrived in a village. Women were standing in the grain-spike pounding area. When they had greeted them...’

[*íyé-ń* ‘that day’, cf. *íyé* ‘today’, distinct from *íyé* ‘again’; *dàmá* ‘village’; *pódé-ń gè* with animate plural definite *gè* since *á* here denotes both young men, would be -*m = ð*: for animate singular]

- (854) [song] *pǒ:-yè pǒ:-yè* *sèndè-[dén-dèn]*
 hello! hello!
[[yàgú dú:] nà] ^Lpàdù-w *sèndè-[dén-dèn]*
 [[what? under] Loc] ^Lleave.Pfv-2SgSbj
[[kǎybé dú:] nà] ^Lpàdù-m *sèndè-[dén-dèn]*
 [[*Pilio* under] Loc] ^Lleave.Pfv-1SgSbj

[mí ná: gè] ú = yⁿ sèndè-[dèŋ-dèŋ]
 [1SgPoss Hmother Def.AnSg] 2Sg=it.is

A: ‘Greetings!’

B: ‘Greetings!’

A: ‘Under what (tree) did you leave (them)?’

B: ‘I left (them) under *Piliostigma* tree.’

A: ‘You are my mother.’

- (855) [tígé nà kárⁿé-y]
 [look 3SgSbj do-Past.and.then]
 [yé gè] èné = wò,
 [woman Def.AnSg] children=Def.AnPl,
 [ðmð^L cicatrice ðmð^L nà zùwó-zó] yà bó-Ø,
 [place^L scar place^L 3SgSbj know-Pfv2] Real be-3SgSbj,
 [[èné á-mù = wò] ðmíyⁿè bó wà]
 [[children 3Logo-AnPl=Def.AnPl] these.An 3Pl=it.is Quot]

‘She looked (at them), the woman (looked at) the children. There was a spot (on their bodies) (with) a scar (or mark) that she knew. “These are my children,” she said.’

[redundant double occurrence of relative head ðmð^L < noun ðmó ‘place’, either of the two can be omitted; ðmíyⁿè bó ‘it is these’ (predicative)]

- (856) [bò wá→ nì] [ànjà: kárⁿé-y] ^Lkò-yy-à,
 [3Pl QuotSbj QTop] [how? do-Past.and.then] ^Lraise-MP.Pfv-3PlSbj,
 à: òjí, [[ðmð^L bò bé] mì]
 ah here, [[place^L 3PlSbj be.Past.Rel] Inst]
 [[ci^L kámá] mì cêm fú→]
 [[thing^L each] Inst all all]
 sádú-sàdù á kárⁿé-m = ò: ,
 Iter-ask 3ReflSbj do-Ipfv=Def.AnSg,

‘“Doing what (=how) were you-Pl raised?” Ah here, she was asking about where they had been and everything (else).’

[kò-yyé ‘be raised’ from kó ‘raise (e.g. a child)’ §9.3.1; bé relative-clause verb form of bè- ‘was’ §14.1.7.7; iterated sádú-sàdù §15.1.6]

- (857) [yé nà †gé]
 [woman NearDist.AnSg Def.AnSg]
 [ðc-í:ⁿ [[bònò †ná]
 [fast-Adj [[pounding.area Loc]
 gòn á bè kó]
 gear 3ReflSbj Past Dem.NearDist]
 á bálé-m = ò:]
 3ReflSbj gather-Ipfv=Def.InanSg]

‘That (same) woman quickly gathered up the gear (e.g. grain and pestle) that she was (holding) in the grain-spike pounding area.’

[*nà* †*gé* (111) in §4.4.2.1; ...*gòn á bè kó* reduced from ...*gòn á jèlà = bè kó* ‘that gear that she was holding’]

- (858) *[[èné á-mù] tédí-yé-y]*
 [[children 3Refl-Poss.AnPl] take.along-MP-Past.and.then]
[[ʔóló †ná] úrⁿé-y,
 [house Loc] go-Past.and.then,
 ‘She took her children along (with her), (they) went to (her) house.’

- (859) *háya [àmbà †wá→ gày], gòrⁿó yà zó-Ø wà,*
 well, [God Quot Top], power Exist have-3SgSbj Quot,
[á→ èné òḡḡy kó bè:-ná-m nì]
 [3LogoSgSbj children thus raise get-IpfvNeg-LogoSbj Sbjunct]
[íyé [èné á jízé-m = ò:],
 [today [children 3LogoSgSbj throw-Ipfv=Def.InanSg],
kó-yyé-y [òḡḡó sòm págé-y]
 raise-MP-Past.and.then] [then horse tie-Past.and.then]
[á-y dùnó-dùnò-dùnò]
 [3LogoSg-Acc search-search-search]
[òḡḡó [bònò †ná] wò-y],
 [then [pounding.area Loc] come-Past.and.then],

‘She said: “well, God has the power. The children that I threw (=abandoned) believing that I could not raise children in that way, (they) were raised (by God), then they tied (=saddled up) horses, kept searching for me, and then came to the grain-spike pounding area.” ’

[iterated verb *dùnó-dùnò-dùnò* §15.1.6, as also in (770); two occurrences of *òḡḡó* ‘this’ (inanimate) resuming a just-described situation, could be glossed ‘then’ or ‘with that’, or just disregarded in free translation]

- (860) *nàḡá-m [á bò sádé-y], hà: ,*
 pass-Ipfv [3LogoSg 3PlSbj ask-Past.and.then], well,
[[ḡmḡ^L á-y bò jízé mì→]
 [[place^L 3LogoSg-Acc 3PlSbj throw.Pfv.Rel and]
[ci^L kámá mì→] dàm bò kárⁿé-y],
 [thing^L each and] speak 3PlSbj do-Past.and.then],
hà: [èné á-mù = wò] bó wà,
 well, [children 3LogoSg-AnSg=Def.AnSg] 3Pl.it.is Quot,

‘(She) said: “While passing (=on your way here), you-Pl asked me, well, where they threw you (=where you were thrown) and everything (else). Well, you-Pl are my children.” ’

[3Logophoric coindexed with the author of a quotation within another quotation, here the children]

- (861) *hà: kó [bò-ý tédí-yé-y]*
 well, so [3Pl-Acc take.along-MP-Past.and.then]
[ʔáíó †ná] wò-zò-m wà,
 [house Loc] come-Pfv2-LogoSbj Quot,
 ‘Well, then she took them along (with her), they came to (her) house, it is said.’

- (862) *[[ʔáíó †ná] èné = wò tédí-yé kúndé-y]*
 [[house Loc] children=Def.AnPl take.along-MP put.in-Past.and.then]
[[èné = wò [[á H dé:] L ʔàìò]
 [[children=Def.AnPl [[3ReflPoss H father] L house]
dùnè-y] [kôyⁿ L w-à wà]
 look.for-Past.and.then] [thus L see.Pfv-3PlSbj Quot]
 ‘When she had taken them along (with her) and brought them into the house, the children (then) looked for their father. In that way they saw (=found) (him).’

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Abbreviations and symbols

Abbreviations

3Logo	third-person logophoric
3Refl	third-person reflexive
Acc	accusative
Adj	adjective
Addr	addressee
Advers	adversative (§19.2.4)
An	animate
AN	aspect-negation suffix or category
AnPl	animate plural
AnSg	animate singular
ATR	advanced tongue root (vowel feature)
Benef	benefactive (postposition)
C	a) (<i>italicized:</i>) consonant, especially in formulae like <i>CvCv</i> b) (<i>not italicized:</i>) controller (in tonosyntax)
Caus	causative
Char	characteristic nominal derivational suffix (§4.2.1)
Comit	comitative ('with' of accompaniment)
Dat	dative
Def	definite
Dem	demonstrative
Det	determiner (demonstrative or definite)
Dist	distant (in NearDist, FarDist)
DS	different-subject (subordinator)
EA	expressive adverbial (§8.4.7)
Emph	emphatic (clause-final particle)
ExpPrf	experiential perfect
FarDist	far-distant (demonstrative)
Foc	focus
Fut	future
Gen	genitive
H	high (tone)
Hort	hortative
ImmFut	immediate future (§10.3.2.3)
Imprt	imperative
Inan	inanimate
InanPl	inanimate plural

InanSg	inanimate singular
Inch	inchoative ('become' with adjective)
Inst	instrumental
Iter	iteration (full reduplication) of stem
L	a) low (tone) b) any sonorant (in e.g. <i>CvL</i>)
Logo	logophoric (in "3Logo" and "LogoSbj")
MP	mediopassive
N	a) noun (in e.g. "N-Adj") b) any nasal consonant (in e.g. <i>CvN</i>)
(n)	noun, in interlinear glosses like 'work (n)'
NearDist	near-distant (demonstrative)
Neg	negative
Nom	nominalization
NP	noun phrase
Num	numeral
O	object (in e.g. "SOV")
Pass	passive
Pfv	perfective
Pl	plural
Poss	possessor
PP	postpositional phrase
Pred	predicate (of adjectives)
Presntv	presentative ('here's X!')
Prf	perfect (in "experiential perfect" and "recent perfect")
Prog	progressive
Proh	prohibitive (negative imperative)
Pron	pronoun
Prox	proximate (demonstrative)
Proh	prohibitive
Psm	possessum (possessed entity)
Purp	purposive
Q	question
QTop	interrogative topic (§19.1.2)
Quot	quotative particle
QuotSbj	quotative subject
Recip	reciprocal
RecPrf	recent perfect
Refl	reflexive (in 3Refl)
Rel	relative clause; relative verb form
Rev	reversive
S	subject (in e.g. "SOV")
Sbj	subject
Sg	singular

SS	same-subject (subordinator)
Stat	stative
T	target (in tonosyntax)
Top	topic
Tr	transitive derivational suffix, §9.3
V	verb (in e.g. “SOV”)
v	a) vowel (in e.g. <i>CvCv</i>) b) verb, in glosses like ‘work(v)’
Vb	verb
VbIN	verbal noun
VP	verb phrase
YD	Yanda Dom language

Symbols

*	reconstructed
#	a) ungrammatical, unattested (before unitalicized green transcription) b) boundary, in tone formulae like LH#L
á, à, â, ã, ä	tones on vowels (or syllables), §3.7
̄, ̂, ̃, ̆	tone overlays on stem in compounds, Chapter 5
/.../	a) lexical tone melody, e.g. /LH/ or /H/ b) underlying or lexical representation
{...}	a) tone overlay, e.g. {HL}, {H}, or {L} b) enclosing any set, e.g. {u a i}
[...]	a) phonetic (IPA) representation, e.g. [bǔ:] b) syntactic or tonosyntactic phrase
[...]ᵀ	{L} tone overlay controlled by an element to the right
ᵀ[...]	{L} tone overlay controlled by an element (possessor) to the left
⊂...⊃	tonosyntactic island
→	(prolongation of final vowel or sonorant)
↘	terminal pitch drop (intonation)
↗	terminal pitch rise or sustained high terminal pitch
=	clitic boundary

Index

1. selected morphemes

notes:

in suffixes, “v” is a variable vowel;

alphabetical order: $\emptyset < \therefore < \text{ʔ} < a, e < \varepsilon, o < \text{ɔ}, n < \text{ɲ} < \eta, r < r^n, y < y^n$

atonal morphemes are not tone-marked here;

lexical stems (nouns, verbs, etc.) are shown with lexical tones.

- \emptyset a) 3Sg subject on verbs, §10.2
- b) verbal-noun suffix (apocopated from /-u/), §4.2.2
- \therefore a) = \therefore , ‘it is’ enclitic, §11.2.1.1
- in adjectival predicates, §11.4.2
- in ‘belong to’ predicates, §11.5.3
- b) \therefore , in willy-nilly conditionals, §16.3
- $\text{ʔó}mó$, 1Sg alienable possessor (inanimate singular), §4.3.3
- $\text{ʔ}è\text{ɲ}è$, ‘what?’, §13.2.2.2
- $\text{ʔ}é\text{ɲ}é$, ‘eat meal’, §10.2.2.2
- $\text{ʔ}ó\text{lé}$ a) $\text{ʔ}ó\text{lé}$, ‘ripen’, perfective negative $\text{ʔ}ó\text{lá-li-}$, §10.2.2.2
- b) $\text{ʔ}ó\text{lé}$, ‘go up’, perfective negative $\text{ʔ}è\text{là-li-}$, (343) in §10.2.2.2
- a* a) \acute{a} , anaphoric third-person pronoun, §4.3.1.1
- third-person reflexive, §18.1
- third-person logophoric, §18.2
- in same-subject relative clause, §18.2.2.1
- $\acute{a} \rightarrow$, quotative-subject phrase, §18.2.1.1
- b) \acute{a} -, animate classifier with nonsingular numerals, §4.7.1.2
- c) *a*-, frozen prefix in a few nouns, §4.1.5
- \hat{a} -, ‘they all/together’, §4.3.1.2
- $\acute{a}b\acute{i}-y\acute{e}$, ‘consent (to an action)’, §17.5.1
- $\hat{a}m$, ‘who?’, §13.2.2.1
- ‘which?’, animate singular, §13.2.2.7
- $\hat{a}mb\acute{a}$ -, ‘where?’, §13.2.2.3
- $\hat{a}-m\hat{a}:n \sim \hat{a}-m\hat{a}:n\grave{u}$, ‘So-and-so’, §4.1.3
- $\hat{a}m\acute{y}^n\grave{e}$, ‘which?’, animate plural, §13.2.2.7
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-o, 3Pl perfective variant, (367c-d) in §10.3.1.1

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