

A Grammar of Bunoge (Dogon, Mali)

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1 Introduction

1.1 Dogon languages

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

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

Bunoge belongs to a southwestern Dogon division in which its closest relatives are Ampari, Penange, and Mombo (aka Kolu). This southwestern group is part of western Dogon, which runs north along the western cliffs of the plateau to around Douentza. Western Dogon also includes Tiranige, Najamba-Kindige-Bondu, Yanda Dom, Tebul Ure, and Dogul Dom, in opposition to eastern Dogon.

1.2 Bunoge language

Bunoge is spoken in only three villages (one of which has small satellites) on the western extremity of the Dogon plateau between Bandiagara and Douentza in eastern Mali.

The full name of the language is *bùr-nò:-gè tágù* ‘language of the people of Boudou’, based on a gentilic derivative of *bùrù* ‘Boudou village’ and the noun *tágù* ‘speech’. In the compound, the latter is arguably in possessed tonal form ^{HL}*tágù*. This term for the language is used in Sangou and Dakouma as well as in Boudou. *bùr-nò:-gè* can also be used without *tágù* ‘speech, language’ in contexts, as in (1).

- (1) *bùr-nò:-gè* *ɲ* *núndà*
Boudou-Gentilic-Pl 1SgSbj hear.Ipfv
‘I hear (=understand, speak) Bunoge.’

The Bunoge-speaking villages are those in (2). Coordinates are degrees, minutes, and decimal fractions of minutes (.000 to .999). For the gentilic derivatives *-nò-wè* (singular) and *-nò:-gè* (plural) see §5.1.4.2.

(2)	official name	Bunoge name	N latitude	W longitude
	Boudou	<i>bùrù</i>	N 14 39.194	W 03 47.617
	Boudou village	<i>bùrù ?òlò</i>		
	Boudou person	<i>bùr-nò-wè</i>		
	Boudou people	<i>bùr-nò:-gè</i>		
	Sangou	<i>sàngù</i>	N 14 42.793	W 03 49.390
	Sangou village	<i>sàngù ?òlò</i>		
	Sangou person	<i>sàngù-nò-wè</i>		
	Sangou people	<i>sàngù-nò:-gè</i>		
	Dakouma	<i>dàkùmà ~ dàgùmà</i>	N 14 41.533	W 03 48.808
	Dakouma village	<i>dàkùmà ?òlò ~ dàgùmà ?òlò</i>		
	Dakouma person	<i>dàkùmà-nò-wè ~ dàgùmà-nò-wè</i>		
	Dakouma people	<i>dàkùmà-nò:-gè ~ dàgùmà-nò:-gè</i>		

The ‘village’ terms contain *?òlò* ‘village’.

The main village in Boudou was still in its original location on the high plateau during our visit in 2015, but some families have been moving down to lower elevations. Two “lower Boudou” offshoots in the plains are both called *bùrù fòli*. Dakouma is also on an elevation.

Sangou village moved *en bloc* around 2008 from a now abandoned site on the high plateau at N 14 42.715, W 03 48.948. The new village is in the plains below. Old maps show the former location.

The most important weekly market in the area is Tomborguel (Fulbe-speaking) on Saturdays, which can be reached from Sangou and Dakouma by cart or on foot. The important Tuesday market at Fatoma near Sevare is farther away but it can be reached by public vans or by motorcycle. There is a small Monday market at Piro (a Tommo So speaking town), which is convenient for people from Boudou village.

The most common other language spoken by Bunoge speakers is Fulfulde. It is the lingua franca of the markets (Tomborguel, Fatoma, and to some extent Piro). There is some symbiosis between Dogon and local Fulbe. The Fulbe live in their own villages, in hamlets (clusters of thatched huts), or in a few cases at the edge of Dogon villages. Livestock owned by Dogon are either tended by their own young people or are entrusted to Fulbe, who then have the right to consume and sell milk (fresh, curdled) and butter when they are plentiful (especially June to December), and are paid with cash or cereals during the later dry season. There is chronic low-level tension between Dogon and Fulbe, both because of cattle damaging cereal crops in the fields before the harvest and because of the suspicious “loss” of Dogon-owned cattle when Fulbe take the herds to the river in the the late dry season.

Virtually every adult or adolescent Bunoge speaker is bilingual in Fulfulde. Of the three villages, Sangou is subject to the strongest Fulfulde influence. Young men there now tend to speak Fulfulde among themselves, while women and older people still use Bunoge. Fulfulde influence is somewhat weaker in Dakouma and much weaker in Boudou.

Bambara is also widely known by adults, due to the large number of Bunoge speakers who migrate during the dry season to southern Mali or other Bambara-Jula speaking areas for seasonal work, or who have spent multi-year periods there before returning permanently. Bambara is also becoming more common in the nearby markets, and it has substantially displaced Fulfulde as lingua franca in the provincial capital Mopti-Sevare. Some young people of Boudou and Dakouma villages speak Bambara among themselves.

Bunoge speakers have sporadic contact with other Dogon, namely speakers of Tommo So, Mombo, and Tiranige, and to some extent with speakers of the language isolate Bangime. However, no single one of these languages is widely spoken in the Bunoge villages.

1.3 Environment

The Bunoge villages were traditionally near the edge of the high plateau, which falls more or less abruptly down to the (mostly sandy) plains that spread out to the west and north. The area is rugged, with small valleys cutting into the rocky plateau. The high perches on the plateau once provided protection against Fulbe raiders, while the valleys and plains have the best cultivated fields. As with other Dogon, the trend has been for villages near the edge of the high plateau to relocate down to the plains and the valleys that extend from them.

Bunoge people are primarily millet farmers, like other Dogon of the zone. The fields are predominantly down below, in the plains and valleys. Secondary rainy-season crops are sorghum, peanut, groundnut (*Vigna subterranea*), cow-pea (*Vigna unguiculata*), sesame, and roselle (*Hibiscus sabdariffa*), and to a lesser extent maize and rice. A little sugar cane and watermelon is interspersed in the millet fields to be consumed as snacks during the arduous work of the rainy-season growing season. Fonio, once a major crop, is still cultivated here and there. Cotton was formerly grown.

Dry-season gardening, essentially cash crops, is considerably reduced from former times because of reduced water levels in the seasonal streams and ponds. Currently there is small-scale onion gardening along with a little tomato and mango. Tobacco was once widely farmed around Boudou but is now gone. Banana and papaya were formerly picked. Large calabashes were formerly planted at the end of the rainy season; small calabashes (ladles) are still grown occasionally during the rainy season.

Borassus palms form stands in some of the valleys. The shoots and fruit segments are edible and are sold in markets or consumed directly.

There are still two families of blacksmiths (hoe and ax blades, knives) at Boudou, and a few at Sangou (but not Dakouma). Pottery is no longer actively practiced since waterjars are obtained at Kona.

1.4 Previous and contemporary study of Bunoge

1.4.1 Surveys

The existence of this language was mentioned by Plungian & Tembine (1994:178) as “budu tagu.” Hochstetler et al. (2004) gave the name of the language as “Korandabo.” This is

actually a Bunoge greeting *kòràndá:bò*, pragmatically ‘how are you?’ but somewhat opaque in form (§19.6). It may be that some variant of *kòràndá:bò* is used by some neighboring Dogon as a language and ethnicity name. Some other Dogon languages and even sub-ethnicities, including Jamsay, are likewise based on greetings.

Kirill Prokhorov of our project visited Boudou and Sangou for two days in 2011 and collected some data.

1.4.2 Fieldwork

I worked with an assistant from Sangou full-time for two weeks in April 2012, and later part-time over one month in June 2012. He was one of two native speakers of Bunoge known to us who had learned French in primary school at Goundaka, and who had worked for ten years in Bouaké. The work was done in our base in Sevare and later in Bobo Dioulasso.

In 2015 I and my project assistant Minkailou Djiguiba made a daytrip up to Boudou village, where we met with elders and recorded some texts.

In 2017 we reestablished contact with our Sangou assistant and worked with him in Sevare for three weeks, transcribing some of the texts and doing follow-up grammatical work.

1.4.3 Acknowledgements

The overall work on Dogon languages (and a few others including Bangime) began with grant PA-50643-04 from the National Endowment for the Humanities (NEH) for solo fieldwork on Jamsay. This led to the idea of a comparative Dogon linguistic project. The first phase thereof was funded by NSF, grant BCS 0537435, for the period 2006-08.

The fieldwork on Bunoge came during later phases. Much of it was carried out as part of grant BCS-0853364 (2009-13) from the National Science Foundation (NSF), Documenting Endangered Languages (DEL) program. The final work has been done under BCS-1263150 (2013-17) from the same DEL program.

2 Sketch

This is a quick synopsis of some of the major features of the language, emphasizing differences with respect to other Dogon languages.

2.1 Phonology

2.1.1 Segmental phonology

The consonantal and vocalic phoneme inventories are consistent with pan-Dogon patterns. There are seven vowel qualities including ATR oppositions in mid-height vowels {*i e ε a o u*}, long and short (length opposition chiefly in word-initial syllables). Primary consonants are voiceless stops {*p t k*}, voiced stops {*b d j g*}, nasals {*m n ŋ*}, sibilant *s*, liquids {*l r*} with *r* a tap, and semivowels {*w y*}. Nasalized vowels and nasalized semivowels {*wⁿ yⁿ*} are rare, and *rⁿ* is absent.

2.1.2 Prosody

Tone elements are binary H[igh] and L[ow]. Syllables may be H, L, <HL>, or <LH>, rarely <LHL>. Stems and words may be {H}, {L}, {HL}, {LH}, or {LHL}, with the tone elements spread out over the relevant syllables. There are no lexical tone oppositions among verbs, and only marginal oppositions among adjectives, but nouns may be lexically /HL/, /LH/, or /L/. The general pattern is that at most one syllable in a word is H-toned, so the tonal system has a resemblance to pitch-accent systems that have at most one accented syllable and allow unaccented words.

Bunoge lacks some of the tonosyntactic complexity found in several (mainly eastern) Dogon languages. The main tonosyntactic overlays are {LH}, for example on a noun followed by an adjective, and {HL} on a noun preceded by a possessor. Head nouns in relative clauses are not marked tonosyntactically.

Bunoge does have a rich tonomorphology, especially in verbal inflection. Tones of verb forms depend both on the aspect-negation inflectional category and on the pronominal-subject category. Tones are already important in pronominal-subject proclitics, with H-toned 1Pl *ɲ* and 2Pl *á* opposed to L-toned singular counterparts 1Sg *ɲ* and 2Sg *à*. Tones of the verb stem may also differ in 1Pl/2Pl versus 1Sg/2Sg forms. 3Sg and 3Pl subjects are distinguished by tone oppositions and, in some inflectional categories, by special 3Pl subject suffixes or allomorphs.

An important tonal process is Rightward H-Spreading, by which HL#L becomes HH#L, where # is a word or similar boundary. Lexically /L/-toned stems have no H-tone to spread to

the right so they remain {L}-toned. The H of an {HL} overlay on possessums does not spread.

2.1.3 Segmental phonological rules

Segmental phonology is simple. A major reason for this is that there are relatively few suffixes in the language.

Syncope of stem-final short high vowels can lead to consonant-cluster assimilation rules at stem-suffix boundaries. The most morphology-disfiguring of these processes is *y*-Assimilation, e.g. /gy/ → gg.

Nasalization-spreading is absent.

ATR-harmony occurs within unsegmentable stems, and extends in some (but not all) cases to suffixes that have mid-height vowels.

2.2 Verbs and other predicates

Verb stems are underived or suffixally derived. Suffixal derivations are reversive, transitive (adds an agent to a stem that is otherwise mediopassive semantically), and causative. There are some survivals of the old suffixed mediopassive derivative, usually paired with a suffixed transitive derivative, but most original mediopassives now have no suffix.

Active verbs are morphologically marked for aspect (perfective/imperfective) and polarity (positive/negative). Additional categories (experiential perfect, progressive) are morphologically composite (periphrastic). These indicative inflectional categories are complemented by modal categories. Modals are deontic (imperative and hortative) and capacitative ('can', §10.7), along with their negations.

A suffixed 'go and VP' construction is the only known directional element in verb morphology (§10.6).

Imperfective positive verbs occur in constructions including a monosyllabic reduplication (*Cv*) or, in polar interrogatives, a full-stem iteration. For 1st/2nd person subjects, the reduplicant and base are separated by the pronominal subject proclitic (§10.2.2.1).

There are a few defective stative quasi-verbs with senses like 'be (somewhere)', 'have', 'want', and 'know' that do not correspond to regular verbs. In simple positive main clauses, some of them require a preceding existential proclitic, which in Bunoge is *bò* (§11.2.2.1), not *yé* or the like as in most Dogon languages, cf. demonstrative adverb *bó-lò* 'there' (§4.4.3.1).

Some regular verbs also have a corresponding derived stative form, which marks polarity but not aspect (§10.4). Positive derived statives have either existential proclitic *bò* (as with some stative quasi-verbs) or full-stem iteration (as with the imperfective of active verbs).

2.3 Noun phrase (NP)

Possessors precede possessed NPs, except that 3Sg pronominal possessor is expressed by a suffix on the noun. Preceding possessors control {HL} contour on the following possessum. There is no genitive morpheme between possessor and possessum.

The other element that can precede a noun within the NP is all-purpose demonstrative *mɔ́* ‘this/that’. There is no tonal interaction between *mɔ́* and a following NP.

A noun may be followed by one or more adjectives, then plural *-gè*, then a numeral, then definite *nɔ̀*, then an ‘all’ quantifier, then a discourse-functional morpheme (‘too’, ‘even’, ‘as for’). Numerals above ‘2’ and the ‘all’ quantifier do not interact tonally with preceding elements. An adjective directly following a noun is {L}-toned but requires {LH} contour on the preceding noun, indicated by N^{LH} LAdj. In N-Adj1-Adj2, the second adjective is {HL}-toned and has no further tonal effect on the preceding N-Adj1 sequence, indicated by N^{LH} LAdj1 ^{HL}Adj2.

Plural *-gè* interacts tonally with a preceding noun or N-Adj in a phonological rather than tonosyntactic fashion, and it is transcribed here as a suffix. *-gè* triggers Rightward H-Spreading, by which the H-tone on an /HL/-melody noun spreads to the syllable preceding *-gè*. Lexically /L/-toned nouns remain {L}-toned before *-gè*.

Nonsingular numerals generally follow plural-marked NPs with suffix *-gè*. Numerals above ‘3’ do not interact tonally with the preceding plural NP. *dè:gà* ‘2’, the only /L/-toned numeral, triggers Final Tone-Raising on a preceding L-toned string, resulting in H-toned plural *-gè*.

Definite *nɔ̀* does not trigger tonal changes on preceding strings. *nɔ̀* itself polarizes tonally to a preceding all-L-toned words, becoming *nɔ́*. Definite *nɔ̀* is also subject to Final Tone-Raising before various words beginning with L-tone.

2.4 Case-marking and PPs

There is a productive accusative marker *ɲgù* used with direct and indirect objects, primarily for personal pronouns and humans.

Adpositions (spatial, instrumental) are postposed to NPs. No specifically dative postposition is known. Locative and instrumental are usually distinct, but instrumental *ndò* can be used as a locative under some conditions.

2.5 Main clauses and constituent order

The basic order is SOV when subject and object are nonpronominal NPs. The verb is normally clause-final except for subordinators, but see just below on imperatives. Pronominal subjects are expressed in the inflected verb. Setting adverbs like ‘yesterday’ are usually clause-initial, preceding the subject.

- (3) *[á* ^{LHL} *ʔègù* *nɔ]* *mì-yá-ŋgù* *dénjè-Ø,*
 [2SgPoss ^{LHL} come.Nom Def] 1Pl-Acc be.sweet.Pfv-3SgSbj,
 ‘Your-Sg coming has pleased us.’ (T2015-03 @ 00:43)

Adverbial adjuncts usually occur somewhere before the verb. However, there are some examples where a locational phrase follows the verb. Most of them involve imperatives and hortatives, where a motion verb like ‘go’ or ‘leave, get away from’ precedes the locational (4a-b). Even in such cases, preverbal position is also possible.

- (4) a. *gèndé-yⁿ* *wà* *[ʔibà* *mbà]*
 go-Hort Quot [market Loc]
 ‘(She) said: “Let’s go to the market!”’ (< *gèndé-yⁿ*) (T2015-08 @ 01:15)
- b. *gò* *bó-lò*
 go.out.Imprt there-Loc
 ‘Get-2Sg away from there!’ (also: *bó-ló gò*)

Readers should not rely on elicited (as opposed to textual) examples in this grammar for fine points of constituent order, since the order of elements in French translation cues may have influenced the Bunoge responses.

2.6 Relative clauses

The overt head NP, maximally Poss-N-Adj-Num, is internal to the relative clause. Definite markers and ‘all’ quantifiers, as well as plural suffix *-gè*, follow the verb. The latter is a partially nominalized participle, but retains aspect and negation stem-shapes and suffixation, sometimes followed by participial suffixes.

Subject and nonsubject relatives are distinguished. Nonsubject relatives have regular pronominal-subject inflection, unlike participles in several other Dogon languages which do not allow main-clause-like pronominal-subject inflection in relatives. Subject relatives have no pronominal-subject inflection, and in positive inflectional categories they have different participial forms than are found in nonsubject relatives.

2.7 Interclausal syntax

There are no direct chains of the very common eastern Songhay type, where nonfinal verbs in a chain (denoting coevents or closely sequenced events with the same subject) occur either as bare stems or in a special “chaining form.” In Bunoge, by contrast, two or more perfective verbs, each with pronominal-subject affixation, are juxtaposed and prosodically phrased together (symmetry rather than subordination).

Looser chain-like concatenations are common. The imperfective (future time) counterpart of the symmetrical perfective juxtaposition construction just mentioned involves a same-

subject future-time anterior subordinator (*-nê* ~ *-nê*) on the nonfinal verb(s), so in this case the construction is asymmetrical.

There is a purposive clause type with final *-â*: on an otherwise imperfective-like verb, with {L}-toned object noun; this purposive clause type is used with motion verbs.

Verbal nouns (often with VP-like complements such as object NPs) occur in infinitive-like complements, generally requiring subject coindexation from matrix to subordinated clause.

2.8 Anaphora

Reflexive object is of the ‘I saw [my head]’ (i.e. ‘I saw myself’) type. There is no reflexive possessor construction, so ‘he killed his horse’ has the same referential ambiguities as in English.

Reciprocals are expressed by a verbal derivation, with suffix *-gè* (perfective form).

There are no logophoric pronouns or suffixes. However, the choice between two different types of 3Sg and 3Pl perfective positive verbs can be used in quotations to distinguish same-subject (i.e. logophoric) from disjoint-subject constructions (§18.3.1, §17.1.1).

3 Phonology

3.1 Internal phonological structure of stems and words

3.1.1 Syllables

Initial syllables in nonmonosyllabic stems and words are *(C)v*, *(C)v:*, and *(C)vL* with final sonorant. In words like *gé:ndè* ‘go’ we might recognize superheavy *(C)v:L* syllables, but the examples I have of *(C)v:CCv* have medial homorganic nasal/voiced-stop clusters {*mb nd nj ng*}, and syllabification as [gé: . ndè] would make recognition of *(C)v:L* syllables unnecessary. Nouns borrowed from Fulfulde may begin in homorganic {*mb nd nj ng*}, see §3.2.9.2. It may therefore be necessary to add *NCv*, *NCv:*, and *NCvL* to the list of possible initial syllables. In isolation (postpausally), the initial nasal can be separately syllabified, but it does not bear an independent phonological tone.

Word-medial (neither initial nor final) syllables in trisyllabic and longer words are *Cv*, *Cv:*, and *CvL* with final sonorant. If intervocalic {*mb nd nj ng*} are treated as syllable onsets, we can add *NCv*, *NCv:*, and *NCvL*. Long vowels are rare in noninitial syllables, but they do occur in lengthened stem-final vowels of verb stems before perfective negative suffix *-li* or 3PI *-ndi* (§10.2.3.1).

Word-final syllables in nonmonosyllabic stems, and in most suffixed verb forms, are *Cv* and *CvL* with final sonorant.

Nonlexical long final vowels in nonmonosyllabics occur in verbal constructions involving certain auxiliaries or postverbal particles. For past imperfectives like *sèlú sèlá: mbè* ‘he/she used to slaughter’ and similar forms with lengthened vowel before past *mbè*, see §10.5.1.1. For experiential perfect *wélè: bò* including *bò* ‘be’ as auxiliary (compare participial *wélé sà:*), see §10.2.1.4. For resultative passives like *sélag-é: bò* ‘be cut’, based on a lengthened form of the perfective stem, see §9.3. For adjectival predicates like *jà:ñí: bò* ‘be dry’, lengthened from *jà:ñi* ‘dry’, see §11.4.1.2. In all of these cases, the question can be posed whether this is ordinary phonological vowel length, as found in many word-initial syllables and in *Cv:* monosyllabics, or whether it is more of an intonation-like prosodic adjustment.

In monosyllabic words based on lexical stems (nouns, verbs, adjectives, numerals), both *Cv* and *Cv:* occur as surface forms. However, the distinction between the two is not lexically important, and *Cv:* is lexically basic. Nouns of this type are always *Cv:* before plural *-gè* and definite *nò*, so I analyse them as basically *Cv:*, but lexically /HL/-toned /Cv:/ nouns are shortened to *Cv* in isolation (*ná* ‘cow’, *ná: nò* ‘the cow’), see §3.6.1.3. Monosyllabic verbs are *Cv:*, but shorten to *Cv* in the imperative and the imperfective (*dé:* ‘went in’ and *dǎ:-lò* ‘does not go in’, but (reduplicated) *dù dà* ‘goes in’ and *dà* ‘go in!’). Defective stative quasi-verbs can be *Cv* (*sà* ‘have’, *bò* ‘be’) or *CvL* (*?èyⁿ* ‘know’, *kàyⁿ* ‘want’).

Additional superheavy *Cv:L* syllables occur on the surface as the result of syncope/apocope (usually optional) of a short high vowel. An example is the second

(syncopated) variant of perfective negative participle *sòwà:-lí-gà* ~ *sòwǎ:-l-gà* ‘did not buy’ (397b) in §13.1.1.2.

3.1.2 Metrical structure

There is no special tendency for the medial syllable in *CvCvCv* and similar trisyllabics to weaken, i.e. with its vowel raised to {*i u*} or syncopated. The weak position is definable in morphological rather than just in classic metrical fashion. Specifically, raising and syncope are typical of final vowels in nonmonosyllabic stems before certain suffixes. Most of these combinations are trisyllabic *CvCv-Cv*, so there is a suggestion of metricality. This is the case with reversive and transitive derivatives like those in (5a-b). Some vestigial mediopassives similarly show syncope followed by assimilation (5c).

(5)	derivative	gloss	related	gloss
	a. reversive			
	<i>jángú-lè</i>	‘unhook’	<i>jángè</i>	‘hook, hang’
	<i>bél-lè</i>	‘dispossess’	<i>bé:lè</i>	‘get’
	b. transitive			
	<i>?ébú-rè</i>	‘have sit, seat’	<i>?éb-bè</i>	‘sit down’
	<i>yúl-lè</i>	‘wake (sb) up’	<i>yúlè</i>	‘wake up’
	c. mediopassive			
	<i>?éb-bè</i>	‘sit down’		
	<i>?íj-jè</i>	‘stand up, stop’	(cf. stative <i>?ígà</i>)	

However, other trisyllabic verbs have a stable nonhigh medial vowel. There are many unsegmentable trisyllabics like *bélóngè* ‘find’ and *párá-gè* ‘cut’, which show that the medial syllable in trisyllabics is not intrinsically weak. Causative derivatives with suffix *-mì* or *-gè* (§9.2) added to bisyllabic stems likewise show stable nonhigh presuffixal vowels. Among trisyllabic nouns, I find no special tendency toward raising or syncopating the medial vowel.

3.2 Consonants

The inventory of consonants is (6). Parentheses enclose marginal consonant phonemes, which are described in following sections. Notably absent are voiced fricatives (column 5).

(6) 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>l</i>	<i>r</i>			
alveopalatal	<i>(c)</i>	<i>j</i>	<i>ɲ</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], *ʃ* 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 (including sibilants); 6. laterals; 7-8. unnasalized then nasalized sonorants; 9-10. laryngeals

Preglottalized stops like ^ʔ*b* and and preglottalized ^ʔ*y* occur in unassimilated Fulfulde loanwords, as in *sá^ʔdà* ‘expense’ and *tá^ʔyìkò.^ʔyó* ‘breakfast’. These consonants are conventionally transcribed as implosives in Fulfulde orthography (*ɓ* etc.).

3.2.1 Alveopalatals (*c, j*)

{*k g*} are clearly distinct from {*c j*} even before front vowels {*i e ε*}. *k* and *g* are common before both front and back/low vowels. *c* is rare overall and is confined to cultural vocabulary, probably borrowed, e.g. *nìcùrgá* ‘(mouth) bit’. *j* is common before back/low vowels (*sójà* ‘person’, *sí:jà* ‘chicken’), but rare and probably confined to loanwords before front vowels. (7) exemplifies the four consonants before front vowels.

- (7) a. *ɲècì (kání)* ‘spur (v)’
- b. *kàsàŋkí* ‘shroud (n)’
kìbà ‘hip’
kìndà ‘liver’
kènsè ‘side of face’
kìrké ‘saddle (n)’
- c. *jì:bì (kání)* ‘(animal) die without being slaughtered’
kàjè ‘tendon’
- d. *pòŋgèlè* ‘cemetery’
-gè plural suffix
búgè ‘marrow’
géndè ‘forehead’
géŋgè ‘be bent, tilted’

j as onset of the final syllable of verb stems is followed by a front vowel in the E/I-stem, which occurs in the perfective positive, and by back/low vowels in other stems (A/O-stem, A-stem). (8) contrasts *j* and *g*.

(8)	perfective (E/I)	imperfective (A)	perfective negative (A/O)	gloss
	<i>sóǰè</i> <i>dǐǰè</i>	<i>sò sòǰà</i> <i>dì dǐǰà</i>	<i>sòǰà:-lì</i> <i>dǐǰò:-lì</i>	‘pay’ or ‘tie’ ‘bury’

3.2.2 *g*-Spirantization (*g* → *ɣ*) absent.

There is no noticeable spirantization of *g* between two {*a ɔ*} vowels: *sàǰàllà* ‘young man’.

3.2.3 Back nasals (*ŋ, ɲ*)

I have observed no merging of *ŋ* and *ɲ* (or *n*) before *i* or other vowels. Examples are *ŋ* in *ɲà:ŋì* ‘dry’, *ɲ* in *ɲí:* ‘he/she drew water’, and *n* in *káni* ‘he/she did’.

3.2.4 Voiceless labials (*p, f*)

p is common stem-initially: *pùmbù* ‘back (of body)’, *pùsù-pùsú* ‘lung(s)’, *pòndé-sè* ‘testicle(s)’, *púbúlè* ‘blow (v.)’, *pánáǰè* ‘meal’, *píǰì* ‘wall’.

f is rare and confined to loanwords.

3.2.5 Laryngeals (*h, ʔ*)

h is rare; it occurs stem-initially in a few loanwords.

ʔ is not a full-fledged phoneme. Phonetic glottal stop occurs at the beginning of stems otherwise beginning with a vowel, e.g. *ʔéb-bè* ‘sit down’ (perfective). I choose to transcribe *ʔ* here, but one could argue that it is a low-level epenthetic feature and then omit it from phonemic transcriptions. However, there is no phonetic glottal before pronouns (*à* and *ò* 2Sg, *á* and *ò-yá* 2Pl, *ǎwⁿ* 3Sg, etc.).

3.2.6 Sibilants (*s, ʃ, z, ʒ*)

s is a full-fledged phoneme: *sòǰò* ‘person’, *pùsù-pùsú* ‘lung(s)’, *sàǰàllà* ‘young man’, *sé* (*sé:*) ‘horse’, *sè* ‘foot’.

{*ʃ z ʒ*} do not occur except in a few loanwords.

3.2.7 Nasalized sonorants absent (r^n) or rare (w^n, y^n)

Nasalized sonorants do not occur stem-internally. r^n was not observed (inherited n does not lenite). w^n occurs word-finally in several numerals (e.g. $nê:w^n$ ‘four’, $kúléw^n$ ‘six’, $só:w^n$ ‘seven’) and in a few other words like $jòw^n$ ‘today’ and 3Sg pronoun $ǎw^n$. Before a consonant it can be pronounced as a homorganic nasal. y^n occurs finally in hortatives and (plural-subject) imperatives with suffix $-y^n$.

3.2.8 w versus β

w is a regular consonant that is common as an unclustered consonant in all positions, and also occurs in some initial Cw clusters. My assistant sometimes pronounced initial w as a bilabial approximant similar to a lax IPA $[\beta]$ before mid-height front vowels $\{e\ \varepsilon\}$ in certain words (9a). There is insufficient evidence to warrant recognition of a phonemic opposition, and I did not observe this articulation in the examples in (9b).

(9) a. optional pronunciation as bilabial approximant

$wénámà \sim \betaénámà$ ‘body’
 $wélé \sim \betaélé$ ‘learn (by training)’

b. semivowel

initial w

$wírdì$ ‘saying one’s beads’ (<Arabic)
 $wè$ past enclitic (allomorph)
 $wè:$ ‘thing’
 $wélé: bò$ experiential perfect auxiliary

initial Cw

$gwí$ ‘skin’

intervocalic

$sí:wè$ ‘melt’
 $?è:wè$ ‘splinter-removing gear’

final

$tôw$ ‘planting (seeds)’

3.2.9 Consonant clusters

3.2.9.1 Initial gw, dw

My primary assistant from Sangou has no initial Cw clusters. However, in recorded texts from Boudou I hear gw and dw perfectives of some monosyllabic verbs (10), similar to those in several other Dogon languages.

(10)	gloss	3Sg perfective	
		Sangou	Boudou
	‘entered, went in’	<i>dê:</i>	<i>dwê:</i>
	‘exited, went out’	<i>gê:</i>	<i>gwê:</i>

3.2.9.2 Word- and morpheme-initial *NC* clusters

I have a handful of examples of initial *NC* clusters (nasal plus another consonant) in noun stems, probably all borrowed. There are no such verb, adjective, or numeral stems. The nasal does not have an independent tone. It is pronounced with low pitch after a pause; elsewhere it is syllabified with the final segments of the preceding word.

(11)	stem	gloss
	a. <i>mb</i>	
	<i>mbásâm</i>	‘bassam (fine fabric)’
	<i>mbóléri</i>	‘small gourd’
	<i>mbú:dù</i>	‘currency unit’ (equals 5 CFA francs)
	b. <i>nd</i>	
	<i>ndímà</i>	‘snuff tobacco’
	c. <i>ŋg</i>	
	<i>ŋgàllú</i>	‘city’

1Sg *ɲ* and 1Pl *ɲ* proclitics combine with *C*-initial stems to create *NC* clusters at the level of verb complexes. The nasal assimilates in position to the following consonant, but I transcribe unassimilated *ɲ* and 1Pl *ɲ* to bring out the morphemic structure. Thus *ɲ bò* ‘I am’ is pronounced [ɲbò]. Because the 1Sg proclitic is L-toned and the 1Pl proclitic is H-toned, for example, tones must be marked on the nasal.

Certain clitic-like morphemes may have initial *NC* clusters at least as variants. The past morpheme is *mbè* alternating with *wè*. Plural suffix *-gè* takes the form *-ŋgè* in a few combinations, e.g. *wè:-ŋgè* ‘possessions’ (§11.5.2), and suffix *-ŋgè* also occurs in instrument nominals (§4.2.3.1). Locative postposition *mbà* alternates with *à*. In locative function, postposition *ndò* alternates with *lò*, but *ndò* is stable in instrumental-comitative function. In these forms, the nasal does not have a separate lexical tone. It is typically syllabified with the preceding syllable, whose tone spreads to the nasal.

3.2.9.3 Medial geminated *CC* clusters

Medial geminated clusters arise most often from syncope followed by consonantal assimilations. Frequent culprits are suffixes beginning in *y*, such as 3Pl subject suffix *-yè* ~ *-yè*, whose *y* assimilates totally to some preceding consonants (§3.4.4.1). What behaves synchronically as templatic gemination in adjectival predicates and related forms likewise goes back an original **-ya* suffix (§11.4.1.1). Mediopassive derivatives involving medial geminates (§9.4.1) originated in the same way. There are also some cases of *ll* from */nl/* or */rl/* after syncope.

3.2.9.4 Medial nongeminate *CC* clusters

All nongeminate clusters begin with a sonorant. The most common ones are those with homorganic nasal plus voiced stop {*mb nd nj ŋg*}. (I write *nj* for [ɲdʒ]). These may occur after a long vowel (*gé:ndè* ‘go’). Other sonorant-initial clusters are uncommon, though more would occur once or twice in a full dictionary including many Fulfulde loanwords.

In (12) I give one example each of attested medial clusters, focusing on stem-medial as opposed to suffix-boundary examples.

- | | | | | |
|------|----|-----------|-----------------------|---|
| (12) | a. | <i>mb</i> | <i>gém̀b̀ù</i> | ‘shard’ |
| | | <i>nd</i> | <i>sóǹd̀d̀</i> | ‘gutter spout’ |
| | | <i>nj</i> | <i>múǹj̀ù</i> | ‘thousand’ |
| | | <i>ŋg</i> | <i>síǹg̀ì</i> | ‘rope’ |
| | b. | <i>mp</i> | <i>làmpá</i> | ‘lamp’ |
| | | <i>nt</i> | <i>sìnt̀ùgú</i> | ‘a spice (<i>Ammodaucus</i>)’ |
| | | <i>ŋk</i> | <i>bànà̀ŋkú</i> | ‘cassava’ |
| | c. | <i>ns</i> | <i>kè̀ns̀è</i> | ‘side of face’ |
| | | <i>mj</i> | <i>kám̀j̀è</i> | ‘squeeze’ |
| | d. | <i>lb</i> | <i>hè̀lb̀d̀:ré</i> | ‘flint’ |
| | | <i>ld</i> | <i>ké̀ld̀è</i> | ‘perform (marriage)’, cf. <i>ké̀lé̀ŋ̀g̀è</i> ‘marriage’ |
| | | <i>lj</i> | <i>?à̀lj̀è̀nné</i> | ‘paradise’ |
| | | <i>lg</i> | <i>bù̀l̀-`gè̀nà</i> | ‘next year’ (variant of <i>bù̀l̀-`gè̀nà</i>) |
| | e. | <i>lp</i> | — | |
| | | <i>lt</i> | — | |
| | | <i>lk</i> | <i>?à̀lk̀è̀:mbé</i> | ‘harvesting knife’ |
| | | <i>ls</i> | <i>?à̀s̀ì̀l̀à̀:mí</i> | ‘Muslim’ |

f.	<i>lm</i>	<i>wànjàlmà</i>	‘calabash clapper’
	<i>ln</i>	—	
	<i>lp</i>	—	
	<i>lj</i>	—	
g.	<i>rb</i>	—	
	<i>rd</i>	<i>wirdí</i>	‘saying one’s beads (with rosary)’
	<i>rj</i>	—	
	<i>rg</i>	<i>nicùrgá</i>	‘spur (n)’
h.	<i>rp</i>	—	
	<i>rt</i>	<i>màrtó</i>	‘hammer’ (< French <i>marteau</i>)
	<i>rk</i>	<i>kirké</i>	‘donkey saddle’
	<i>rs</i>	<i>sàrsì (kání)</i>	‘load’ (< French <i>charger</i>)

3.2.9.5 Medial triple *CCC* clusters

lmb and *wnd* are attested stem-medially. Both are of the type nonnasal and nonhomorganic sonorant plus homorganic nasal plus voiced stop cluster.

- (13) a. *lmb*
- | | | |
|---------------|----------------------------------|-----------------------------|
| <i>símbè</i> | ‘folding knife’ | (cf. Mombo <i>sílémbè</i>) |
| <i>kòlmbò</i> | ‘burrgrass’ | |
| <i>sùlmbò</i> | ‘vine sp. (<i>Leptadenia</i>)’ | |
- b. *wnd*
- | | | |
|---------------|--------------------|--------------|
| <i>líwndù</i> | ‘shepherd’s staff’ | (< Fulfulde) |
|---------------|--------------------|--------------|

3.2.9.6 Final *CC* clusters

No word-final *CC* clusters have been found.

3.3 Vowels

Bunoge has the usual Dogon vowel qualities, with seven qualities, long and short.

(14)	short	long
	<i>u</i>	<i>u:</i>
	<i>o</i>	<i>o:</i>
	<i>ɔ</i>	<i>ɔ:</i>
	<i>a</i>	<i>a:</i>
	<i>ɛ</i>	<i>ɛ:</i>
	<i>e</i>	<i>e:</i>
	<i>i</i>	<i>i:</i>

ATR (advanced tongue root) is distinguished in mid-height vowels. {*ɛ ɔ*} are -ATR, {*e o*} are +ATR. The opposition plays a passive role in lexical vowel harmony and a more active role in verbal stem-vocalism ablaut (§3.3.6).

An interesting lexical opposition that may have originated by splitting a proto-stem into two with different ATR values is in (15).

- (15) a. *ʔɔllè* ‘go up, rise’
 b. *ʔóllè* ‘get up, arise (from sitting or lying position)’

Early in the fieldwork, my assistant distinguished *tíllngè* ‘tree, woody plant’ from *tíllngè* ‘medicine (medication)’. However, later he pronounced both identically as *tíllngè*. The syncretism ‘tree’ = ‘medicine’ occurs in some other languages in the zone.

3.3.1 Short and long oral vowels

Vowel length is not distinctive in *Cv(:)* or *Cv(:)C* stems.

For nouns, *Cv:* stems are of two tonal types, underlyingly /HL/ and /L/. Arguably the distinction is accented versus unaccented (§3.6.1.2). Both types simplify to *Cv* in isolation or prepausally. The /HL/ tonal type becomes H-toned in this shortened form, but its falling tone and long vowel are revealed when definite *nɔ̀* is added. Examples: *sè* ‘foot’, definite *sè: nɔ̀*, *sé* ‘horse’, definite *sé: nɔ̀*. I take all such nouns to be lexically of the form *Cv:*, subject to shortening prepausally. See §3.6.1.2 for more on the shapes of noun stems.

There is likewise no distinction between lexically short- and long-voweled *Cv(:)* verbs. Again I take the *Cv:* form to be basic. Imperatives (and some flat-toned third-person subject perfectives) are reduced to *Cv̆*. For example, ‘pound (in mortar)’ has imperative *dà*, perfective *dè:*, imperfective *dù dà:*, and so forth.

Given that there is no lexical opposition between *Cv* and *Cv:* noun or verb stems, it would be possible to take *Cv* as basic and account for *Cv:* forms by lengthening rules, though there would be some ad hoc-ness about the details.

/HL/-toned *bé* (*bè:*) ‘child’ shortens its vowel and shifts to /L/ melody as a compound final, *ná:-bè* ‘calf’, definite *ná:-bè nɔ̀*, plural *ná:-bè-gè* (§5.1.4.1).

3.3.2 Nasalized vowels

Nasalized vowels are not typical of Bunoge. I can cite *kìːⁿ* ‘skiff (boat)’ and *tóːⁿ-tóːⁿ* ‘nearby’. Stems like *kènsè* ‘side of face’ with *ns* cluster are usually pronounced with a nasalized vowel, here [kèⁿsè], but I consider /ns/ to be a satisfactory lexical representation.

Several numerals, and 3Sg independent pronoun *ǎwⁿ*, and clause-final *táwⁿ ~ táⁿ* ‘as soon as’, end in a nasalized vowel or semivowel (*wⁿ*) that is not always clearly articulated. The nasalization may be a morpheme-like element here. See §4.6.1.2 for examples and discussion.

3.3.3 Initial vowels

Lexical stems (nouns, verbs) with initial vowel are articulated with a glottal stop (§3.2.5). Whether such stems are thought of as vowel-initial or glottal-initial is an analytical judgement rather than an empirical question. I will transcribe the initial glottal.

Examples of nouns are *ʔóndò* ‘chin’, *ʔòbò* ‘house’, *ʔújéré* ‘sweat’, *ʔínjè* ‘dog’, and *ʔálámà* ‘sheep’.

Examples of vowel-initial verbs are *ʔéb-bè* ‘sit’ and *ʔíj-jè* ‘stand’.

2Sg *à* and 2Pl *á* proclitics (subject of verb, possessor of noun) do not have this glottal stop. In several combinations they contract with a preceding vowel to form a long [a:]. This happens, for example, in reduplicated imperfective verbs like *tà = à tègà* ‘you-Sg see’, where the pronominal intervenes between the reduplication (here *tè*) and the verb (§10.2.2.1). When this contraction occurs, I transcribe *...a = a*, with the second person morpheme treated as a phonological enclitic to the preceding word. Allomorph *à* of the locative postposition *mbà ~ à* ‘in, on’ (§8.2.3.1) behaves in the same way.

3.3.4 Stem-final vowels

All vowel qualities including *u* occur frequently in stem-final position.

3.3.5 Vocalic harmony

Uncompounded stems generally respect ATR-harmony. That is, they may have one or more -ATR vowels {*e ɔ*} or one or more +ATR vowels {*e o*}, but they normally do not mix -ATR with +ATR.

Apparent exceptions call attention to themselves and suggest (to me and probably to native speakers) at least semi-transparent segmentation. The known exceptions are nouns with frozen (but perhaps still vaguely segmentable) inanimate suffix *-nge* or *-ge* which can occur after stems that otherwise have either -ATR or +ATR vowels. See §4.1.1.3 for more on these nouns.

There are no processes changing ATR values for nouns, adjectives, or numerals. However, verbs have several vocally defined stems. Two of these, the E/I-stem and the

O/U-stem, preserve lexical ATR values, e.g. that of a penult syllable. By contrast, the A/O-stem and the A-stem involve not only a change in the final vowel quality, but also require +ATR-consistent vocalism over the entire stem. In the case of the A-stem, there is no trace left of the lexical ATR-harmonic value. In the case of the A/O-stem, there is an indirect trace, since lexically -ATR stems appear with final *a*, while lexically +ATR stems appear with final *o*.

High vowels {*i u*} are extraharmonic, i.e. harmonically neutral. Verbs of the shapes *CiCv* and *CuCv* can end (lexically) in either -ATR or +ATR vowels. For example, ‘sing’ (perfective *nújè*) is -ATR, while ‘go down’ (perfective *sígè*) is +ATR. One could argue that {*i u*} are underlyingly marked either as -ATR or +ATR, but there is no way to prove or disprove this.

The small class of final-high-vowel verbs, which have final *i* in the perfective (*káni* ‘do’, *ji:* ‘draw water’, *sími* ‘build’), have +ATR A/O-stems (e.g. perfective negative), but have 3Pl perfectives with -ATR *e* (*kání-yè* ‘they did’, *ju-yyè* ‘they drew water’, *sím-mè* ‘they built’). This also applies to the productive causative derivation with *-mi* (3Pl perfective *-m-mè*).

The low vowel *a* is in most cases covertly +ATR phonologically. Verbs of the shape *CaCv* have +ATR final vowels in the E/I-stem (*CaCe*) and in the U/O-stem (*CaCo*), these being the two vocalism stems that reflect the lexical ATR-harmonic value. Example: *nálè* ‘gave birth’, *náló-lò* ‘does not give birth’. However, *?ámmè* ‘swell; be inflated’ and homonym *?ámmè* ‘wasp’ show that *a* can coexist with a -ATR vowel, at least when a consonant cluster separates them.

ATR-harmony affects certain verbal derivational suffixes, namely reversive *-lv* and transitive *-rv*. It does not apply to syllabic inflectional suffixes, i.e. to perfective negative *-li* (whose high vowel is extraharmonic anyway) or, more interestingly, imperfective negative *-lò*, which does not shift to *#-lò*.

3.3.6 Vocalism stems of verbs (E/I, O/U, U, A/O, A)

Each verb occurs in a number of vocalic forms depending on the inflectional category (aspect-negation or AN). Disregarding tones, which vary independently of vocalism (tones are determined by AN and pronominal-subject categories), the vocalism stems are those in (16).

(16)	stem	grammatical category (examples)
	E/I-stem	perfective (§10.2.1.1), hortative (§10.8.2.1)
	O/U-stem	imperfective negative (§10.2.3.3), capacitative ('can', §10.7), verbal noun (§4.2.2), imperfective participle in subject relatives and subject-focalized clauses (§13.1.1.7, §14.5.2, §14.5.5)
	U-stem	a) preserves lexical ATR value: quoted imperative (§10.8.3.1, §17.1.4.1) b) requires +ATR (or at least +ATR-compatible) vocalism: verb-stem iteration before imperfective or stative (§10.4.1.1, §13.1.6, §13.2.1.1)
	A/O-stem	perfective negative (§10.2.3.1), singular imperative (§10.8.1.1)
	A-stem	imperfective (§10.2.2.1), plural imperative (§10.8.1.1), prohibitive (§10.8.1.2)

The E/I-stem ends in {*e* *ɛ*} for final-nonhigh-vowel verbs, and in *i* for final-high-vowel verbs. In other words, the E/I-stem is a composite of what could be called an E-stem for the first group and an I-stem for the latter group.

The O/U-stem ends in *o* or *ɔ* for final-nonhigh-vowel verbs, and in *u* for final-high-vowel verbs. That is, the O/U-stem is a composite of what could be called an O-stem for the first group and an U-stem for the other. The general U-stem ends in *u* for all verbs.

Lexical ATR-harmonic values are preserved in some vocalism stems but not others. The distinction is relevant to final-nonhigh-vowel verbs, while all known final-high-vowel verbs are overtly +ATR or at least +ATR-compatible, since their vocalism consists entirely of {*a i o u*} vowels. For final-nonhigh-vowel verbs, the E/I-stem (for these verbs, the E-stem) and the O/U-stem (for these verbs, the O-stem) clearly preserve lexical ATR values for final-nonhigh-vowel verbs, since they end in *ɛ* or *ɔ* for -ATR and in *e* or *o* for +ATR. The U-stem preserves ATR values for nonfinal-syllable vowels in the quoted imperative. However, the U-stem in verb iterations requires stem-wide +ATR (or compatible) vocalism, casting doubt on the unity of the U-stem. The A/O-stem and A-stem require +ATR or +ATR-compatible vocalism. The A/O-stem preserves a telltale trace of the lexical -ATR value in final-nonhigh-vowel verbs by having final *a*, versus final *o* for lexical +ATR stems of this verb class. The A-stem has final *a* for all verbs, with +ATR or +ATR-compatible vocalism in nonfinal syllables, so the A-stem leaves no trace of the lexical ATR-harmonic category.

Examples of the various vocalism stems with actual verbs are in (17). Tones are omitted. Vowel-length of monosyllabics is also omitted here.

(17)	gloss	E/I	O/U	U	A/O	A
	a. final-nonhigh-vowel					
	-ATR					
	‘sing’	<i>nuŋɛ</i>	<i>nuŋɔ</i>	<i>nuŋu</i>	<i>nuŋa</i>	<i>nuŋa</i>
	‘dig’	<i>gɔjɛ</i>	<i>gɔjɔ</i>	a) <i>gɔju</i> b) <i>goju</i>	<i>goja</i>	<i>goja</i>
	+ATR					
	‘come’	<i>ʔege</i>	<i>ʔego</i>	<i>ʔegu</i>	<i>ʔego</i>	<i>ʔega</i>
	‘go down’	<i>sige</i>	<i>sigo</i>	<i>sigu</i>	<i>sigo</i>	<i>siga</i>
	<i>a-vowel type</i>					
	‘do farming’	<i>wale</i>	<i>walo</i>	<i>walu</i>	<i>wala</i>	<i>wala</i>
	<i>monosyllabic, -ATR</i>					
	‘eat (meal)’	<i>jɛ</i>	<i>jɔ</i>	<i>ju</i>	<i>ja</i>	<i>ja</i>
	<i>monosyllabic, +ATR (defective)</i>					
	‘go out’	<i>ge</i>	<i>go</i>	<i>gu</i>	<i>go</i>	—
	b. final-high-vowel					
	<i>high-vowel type (CiCi, CuCi, etc.)</i>					
	‘build’	<i>simi</i>	<i>simu</i>	<i>simu</i>	<i>simo</i>	<i>sima</i>
	<i>a-vowel type (CaCi etc.)</i>					
	‘do’	<i>kani</i>	<i>kanu</i>	<i>kanu</i>	<i>kana</i>	<i>kana</i>
	<i>monosyllabic</i>					
	‘draw water’	<i>ɲi</i>	<i>ɲu</i>	<i>ɲu</i>	<i>ɲo</i>	<i>ɲa</i>

Only the relatively uncommon types illustrated by ‘build’ and ‘draw water’ distinguish four stem vocalisms overtly, merging only the O/U- and U-stems. The other verb types make one further syncretism each, bringing the number of overtly distinct stems to three. The E/I-stem is always distinctive since no other stem ends in a front vowel. For some final-nonhigh-vowel verb types (‘sing’, ‘dig’, ‘do farming’, ‘eat meal’, ‘do’), constituting the majority of verb stems, the A/O- and A-stems are identical (final *a*) but distinct from the O/U-stem. This is also true for final-high-vowel verbs with nonfinal *a* (‘do’). For other final-nonhigh-vowel verbs (‘come’), the A/O- and A-stems are distinct but the A/O-stem (with final *o*) is identical to the O/U-stem.

3.4 Segmental phonological rules

3.4.1 Trans-syllabic consonantal processes

3.4.1.1 Nasalization-Spreading absent

There is no Jamsay-style nasalization-spreading process whereby a nasal syllable transmits nasalization to a following syllable beginning with a semivowel or rhotic.

3.4.1.2 Consonantal metathesis (absent)

No cases of metathesis, e.g. of *l* and *r* in verbal derivation, are known.

3.4.1.3 Alternations of initial *NCv* and nonnasal *(C)v*

A few pairs of grammatical morphemes (suffixes or clitic-like particles) show an alternation between initial prenasalized *mb* or *nd* and a nonnasal form.

(18)	category	prenasalized	nonnasal	reference
	past	<i>mbè</i>	<i>wè</i>	§10.5.1
	locative	<i>mbà</i>	<i>à</i>	§8.2.3.1
	locative	<i>ndò</i>	<i>-lò</i>	§8.2.3.2
	plural	<i>-ŋgè</i>	<i>-gè</i>	§4.1.1.2

The phonology is not transparent, and the prenasalized and nonnasal variants are distributed in an essentially grammatical rather than phonological fashion. The split between past *mbè* and *wè* correlates with polarity (positive versus negative). In the cases of the two locative pairs, the prenasalized form behaves as though it contains definite *nɔ̃*, raising the possibility that *mbà* and *ndò* are contractions of **nɔ̃* plus a **Cv* postposition that is better preserved in the nonnasal variant (§8.2.3).

3.4.2 Vocalism of suffixed stems

3.4.2.1 Harmonic effects on suffixes

Some suffixes are subject to harmonic processes whereby vocalic features, chiefly \pm ATR, of the preceding stem are transmitted to a non-high suffixal vowel. The relevant suffixes are those in (19).

- (19) a. verbal inflection
-yè ~ -yè 3Pl subject, perfective (§10.2.1.1)
- b. verbal derivation (shown in perfective form)
-lè ~ -lè reversive (§9.1)
-rè ~ -rè, -dè ~ -dè transitive (§9.4.2)
- c. syntactic
-gà ~ -gò ~ -gò participial (§14.5.2-4)

Suffixes and clitic-like particles with nonhigh vowels that are not sensitive to harmony are in (20).

- (20) a. suffixes
- | | |
|------------|-----------------------|
| <i>-lò</i> | imperfective negative |
| <i>-gè</i> | plural |
- b. particle
- | | |
|-----------|----------|
| <i>nò</i> | definite |
|-----------|----------|

3.4.2.2 Syncope

Syncope, often optional, affects short high vowels {*i u*} at the end of a verb stem (underived or derived) before a suffix. Syncope is sensitive to the particular pair of consonants flanking the high vowel; in effect, the consonants “attract” each other. However, the consonant clusters resulting from syncope may then undergo assimilations (§3.4.4).

Syncope is common before perfective 3Pl subject suffix *-yè* ~ *-yè* for all types of verbs. It also occurs with final-high-vowel verbs in connection with mperfective negative *-lò*, and capacitative *-mò*.

3Pl perfective *-yè* ~ *-yè* forces a preceding stem-final short vowel to shift to *i*. Whether syncope then occurs depends mainly on the preceding consonant, but perhaps also on the syllable count. Since the 3Pl perfective form has {LHL} melody with H-tone on the stem-final *i*, syncope triggers Stranded-Tone Re-Linking (§3.6.4.2), resulting in a rising tone on the surviving stem-final syllable. Another sign that syncope has occurred is when syncope is followed by *y*-Assimilation, as in *tég-gè* ‘they saw’ from /tègí-yè/ and causative *gúndúló-m-mè* ‘they caused (sth) to roll’ from /gúndúló-m-yè/ (§10.2.1.1). There are some similar, but vestigial, cases involving original mediopassive **-yv*, as in *túl-lè* ‘put on (a garment)’ (§9.4.1).

Syncope is not systematic with transitive *-rè* ~ *-dè* (§9.4.2), but does occur in *kán-dè* ‘manufacture, produce’ if this is derived from *káni* ‘do; be done’; cf. also the morphologically causative *kán-dá-mì* ‘repair’. Syncope also appears to occur, along with /*lr*/ → *ll*, in *yúl-lè* ‘wake (someone) up’ for /yúlú-rè/ from *yúlé* ‘wake up’, but contrast this with unsyncopeated *túlú-dè* ‘put (garment) on (someone)’, where the same phonology seen in *yúl-lè* would have led to homophony with mediopassive *túl-lè* ‘put on (garment)’ syncopated from /túlú-yè/.

Imperfective negative *-lò* triggers syncope of /*u*/ between two *l* consonants, as in *kál-lò-Ø* ‘he/she does not do’ for /kálú-lò/ (§10.2.3.3). See also reversive *bél-lè* ‘dispossess’ for /bélú-lè/ from *bé:lè* ‘get’ (§9.1).

Capitative *-mò* triggers syncope of /*u*/ between two *m* consonants, as in *sím-mò* ‘can build’ from /símú-mò/ (§10.7).

Syncope happens sporadically in medial position in some trisyllabic and longer stems that are not obviously segmentable, as in *tǎ:l(ú)mà* ‘20’. In cases where syncope has generalized, the lexical representation must have changed, so there is no synchronic syncope.

3.4.3 Apocope absent

Word-final short high vowels {*i u*} are generally stable. For example, perfective negative suffix *-li* (§10.2.3.1) does not reduce to *-l* word-finally, though it syncopates to *-l-* before a participial suffix.

3.4.4 Local consonant sequence rules

3.4.4.1 *y*-Assimilation

The most transparent suffix-initial *y* is in perfective 3Pl *-ye ~ -yè*, which surfaces without change in e.g. *só:ngí-yè* ‘they brought’ and *?órí-yè* ‘they skinned and butchered’. In some paradigms the preceding short /*i*/ is syncopated, and the *y* assimilates to the now adjacent stem-final consonant.

(21) Assimilations for perfective 3Pl *-ye ~ -yè*

	process	example	input	gloss
a.	/gy/ → <i>gg</i>	<i>?ég-gè</i>	/?é <i>g</i> í-yè/	‘they came’
b.	/ndy/ → <i>nd</i>	<i>gé:n-dè</i>	/gé:ndí-yè/	‘they went’
c.	/my/ → <i>mm</i>	<i>-m-mè</i>	/-mí-yè/	causative

Numerous cases of medial gemination probably originated in the same way, but the morphology and phonology are now opaque. For geminated mediopassives like *yóg-gè* ‘hide (oneself)’, see §9.4.1. For geminated adjectival predicates like *wàggá bò* ‘it is distant’, see §11.4.1.1.

3.4.4.2 Assimilations involving liquids

(22)	process	example	underlying	gloss
a.	/nl/ → <i>ll</i>	<i>kǎl-lè</i>	/kànú-lè/	‘doesn’t do’
b.	/lr/ → <i>ll</i>	<i>yúl-lè</i>	/yúlú-rè/	‘woke (sb) up’

3.4.5 Vowel-vowel sequences

There are no vowel sequences within words.

For contractions of vowel sequences across clitic boundaries, see the following section on *vv*-Contraction.

3.4.5.1 *vv*-Contraction

The “vowel-initial” stems (nouns, verbs, etc.) have an initial glottal stop that prevents contraction with a preceding vowel except in rapid speech.

Contraction is common with 2Sg *à* and 2Pl *á* proclitics, which combine with a preceding vowel to form a long *a:*. Contraction occurs, for example, when a second person subject morpheme intervenes between an initial *Cv*-reduplication and the stem in the imperfective conjugation. Compare the 3Sg, 1Sg, and 2Sg forms in (23).

(23)	3Sg	<i>tè tègà</i>	‘he/she sees’
	1Sg	<i>tè ñ tègà</i>	‘I see’
	2Sg	<i>tà = à tègà</i> [<i>tà:tègà</i>]	‘you-Sg see’

Although the output is phonetically a long [*a:*], I transcribe the second person forms with two short *a*’s to better capture the morphemic composition. For more imperfective examples see §10.2.2.1.

Similar contractions occur with locative postpositional allomorph *à*, as in *bòmðká = à* ‘in Bamako (city)’, from *bòmðkó*.

Whether *vv*-Contraction occurs at stem-suffix boundaries depends on how one analyses verb morphophonology. I prefer an ablaut-type analysis in terms of several vocally characterized stems, such as the A/O-stem and the E/I-stem (§3.3.6). However, one could imagine a suffixal analysis, where for example the E/I-stem consists of a bare stem plus an underspecified high front vowel. One difficulty with such an analysis is that some of the ablaut stems require changes in vocalism in nonfinal as well as final syllables. Another problem is how to explain the fact that the various ablauted stems end in short, not long vowels.

3.4.6 Local vowel-consonant interactions

3.4.6.1 Vowel-Semivowel Assimilation (mostly absent)

Assimilations of the type /*uy*/ → *iy* or /*iw*/ → *uw* are rare since there are no *-w* or *-y* suffixes. A similar assimilation may occur in the U-stem when stem-final *u* follows *y*, as in agentive plural *tàjí-tìyì-gè* ‘basket-weavers’, compare *wòlí-wàlù-gè* ‘farmers’. However, the final *i* and *u* in these plurals is usually syncopated after a sonorant, and it is unclear whether *tàjí-tìyì-gè* is distinguishable from *tàjí-tìy-gè* or from *tàjí-tìyy-gè*. In another U-stem form, the quoted imperative (§10.8.3.1), word-final *u* is stable: *tàjí ñ tíyú ?ùnè* ‘he/she told me to weave a basket’.

3.4.6.2 Monophthongization (/iy/ to *i*; /uw/ to *u*)

A case for monophthongization can be made in *bí(-)y-rè* ‘have (sb) lie down’, transitive derivative from *bí:(-)yè* ‘lie down’ (§9.4.1). The analysis of the phonology is complicated by an ambiguity in the morphemic composition of these forms, namely whether *-yè* is segmentable as the mediopassive derivational suffix or is just part of the stem *bí:yè*. If we go for unsegmentable *bí:yè*, the transitive form is reasonably analysed as /biy(i)-re/ and a monophthongization process must be recognized. If we prefer to segment *bí:-yè*, we could analyse the transitive either as bimorphemic /bi-re/ lengthened to *bí:-rè* with no monophthongization, or as trimorphemic /bi-y(i)-re/, which would again require monophthongization.

In theory there should be similar examples involving /uw/ sequences but I know of none.

3.5 Cliticization

In the absence of an elaborated stress/accent system, the distinction between clitics and particles is not clearcut.

Based on linear position, **proclitics** to predicates (verbs and quasi-verbs) are 1st/2nd person subject markers in main clauses (§10.3.1); 1st/2nd person and 3Pl subject markers in nonsubject relative clauses and related constructions (§14.3); existential *bò* before ‘have’ and some other stative predicates (§11.2.2.1); and preverbal *yé* in certain types of focalized and relative clauses (§13.1.1.9, §14.4). The 1st/2nd person subject markers are the clearest case of proclisis, since the same pronouns take fuller forms in other positions, e.g. 1Sg subject proclitic *ɲ* versus independent *mì* and accusative *mì-ɲgù*. These subject markers interact tonally with the onset of the following verb (§10.3.3).

The same 1st/2nd person proclitics occur before nouns in possessor function (§6.2.1.1-2, §6.2.2.1).

While 1st/2nd person subject and possessor morphemes are syntactically proclitic to the following stem, phonologically they can behave more like enclitics to the preceding word. 2Sg *à* and 2Pl *á* proclitics undergo *vv*-Contraction with a preceding vowel in some combinations, as in *tà=à tègà* ‘you-Sg see’ from reduplicated /tè à tègà/. Similarly, 1Sg *ɲ* and 1Pl *ɲ* syllabify phonetically with a preceding vowel, as in *tè ɲ tègà* ‘I see’, syllabified as [tèɲ.tè.gà].

Syntactic **enclitics** are difficult to distinguish from suffixes. The relevant forms occur primarily in verb complexes and other predicates. I transcribe the ‘it is’ clitic =: (expressed, unreliably, by vocalic lengthening, §11.2.1.1) and its suppletive negation =*là* ‘it is not’ (§11.2.1.2) as enclitics, since they are added at the end of NPs. I likewise transcribe stative negative =*ndà* as an enclitic (§10.4.2). Another candidate for enclitic is past *mbè* ~ *wè* (§10.5.1), but I transcribe this as a separate particle.

3.6 Tones

Tones are primarily of grammatical rather than lexical importance, though nouns and numerals do have lexical tones.

As noted in §2.1.2, syllables may be H, L, <HL>, or <LH>. Bell-shaped <LHL> occurs rarely in multimorphemic words, e.g. *jâ-â:* ‘in order to eat’ in (575a). What should be <HLH> syllables are occasionally produced at boundaries, e.g. /gèndéyⁿ ń/ in (514), but are pronounced H or HL. Single-syllable <LH> is restricted and generally uncharacteristic of Bunoge. It occurs when an {LHL} overlay is applied to a word-shape like *Cv:Cv* with three or more vocalic moras. This is the case in unsuffixed 3Sg perfective *gě:ndè* ‘he/she went’, compare with 3Pl *gé:ndè* ‘they went’ and with suffixed 3Sg *gé:ndè-Ø* ‘he/she went’. For other cases where <LH> is flattened to H, see §3.6.4.3. In monosyllabic words, the only examples I have of <LH> tone are *Cv̇:* nouns to which the ‘it is’ enclitic =: (i.e. vowel lengthening) is added. /L/-melody nouns undergo Final Tone-Raising before =:, and monosyllabics are allowed to surface with rising tone, as in *kǒ:=:* ‘it’s a head’ from *kò:* ‘head’ (§11.2.1.1).

3.6.1 Lexical tone patterns

3.6.1.1 Lexical tone melodies of verbs (absent)

There are no tonal classes of verbs comparable to the distinction between /H/ and /LH/ in several eastern Dogon languages. The tones of verb forms vary by inflectional and pronominal-subject category, but they are grammatical rather than lexical (or mixed lexical-grammatical) tones. See chapter 10 for details.

3.6.1.2 Lexical tone melodies of unsegmentable noun stems

Three basic lexical melodies for noun stems can be identified: /HL/, /LH/, and /L/ (24). /LHL/ is discussed later, see after (26). The lexical tone melody is in slashes /.../ in (24), with typical spelled-out syllabic sequences below.

(24)	monosyllabic	bisyllabic	trisyllabic and longer
	a. /HL/ (or H-initial)		
	<i>Cv̇ ~ Cv̇:</i>	<i>Cv̇Cv̇</i>	<i>Cv̇Cv̇Cv̇</i>
	b. /LH/ (or H-final)		
	(see below)	<i>Cv̇Cv̇</i>	<i>Cv̇Cv̇Cv̇</i>
	c. /L/		
	<i>Cv̇:</i>	<i>Cv̇Cv̇</i>	<i>Cv̇Cv̇Cv̇</i>

There are virtually no examples of tonal minimal pairs at the lexical level. However, I can cite *bóyè* ‘watermelon’ versus *bòyè* ‘mosquito’, and *sé* ‘horse’ versus *sè* ‘foot’.

For the /H(L)/-melody monosyllabics in (24a), the isolation form is *Cv̂*, the plural is *Cv̂:-gè*, and the definite singular is *Cv̂: nɔ̀*. Examples are *bé* ‘child’, plural *bé:-gè*, and definite *bê: nɔ̀* ‘the child’. Some /H(L)/ monosyllabics likely once had /LH/ melodies but have merged with /H(L)/ because of a constraint against monosyllabics with rising tone. An example is *yó* ‘woman’, definite *yô: nɔ̀* ‘the woman’. In principle, /H(L)/ and /LH/ monosyllabics could still be distinguished in the plural, since *Cv:Cv* words do allow rising tone on the long vowel. However, there is no tonal difference between *bé:-gè* ‘children’ and *yô:-gè* ‘women’, indicating that the merger of the two lexical melodies is complete for monosyllabics.

The distribution of H-tones suggests the possibility of an **accentual** analysis, with nonfinal accent (H-tone) in (24a), final accent in (24b), and no accent in (24c). In this model, it remains to consider the underlying locus of the accent in the first type. One attractive option would be initial accent (hence *Cv̂v*, *Cv̂Cv*, *Cv̂vCv*, *Cv̂CvCv*, etc.) followed by Rightward H-Spreading through the penult where needed (*Cv̂v̂Cv*, *Cv̂Cv̂Cv*).

Some examples of each type follow. /HL/ melody is common with native Dogon nouns. Monosyllabic stems of /HL/ melody are heard as *Cv̂* in isolation but as *Cv̂:* before definite *nɔ̀* and as *Cv̂:-gè* with plural suffix. Rightward H-Spreading applies before *-gè* but not before *nɔ̀*. The parenthesized forms in (25a) are those used before *nɔ̀*.

In polysyllabic words, the peak of pitch and intensity in e.g. an H.(H.)H.L syllable sequence is just before the tone break, giving the impression of an M.(M.)H.L sequence. In an accentual model, we could formalize this as an accent on that syllable, perhaps after Rightward H-Movement from a starting point at the left edge.

(25) /HL/ melody

a. monosyllabic /H(L)/ (form before definite *nɔ̀* in parentheses)

Cv̂ ~ Cv̂:

<i>bá</i>	‘morning’ (in the phrase <i>bá: mbà</i> ‘in the morning’)
<i>bé (bê:)</i>	‘child’
<i>dó (dô:)</i>	‘mortar (for pounding)’
<i>gó (gô:)</i>	‘water’
<i>jí (jî:)</i>	‘food, meal’
<i>jú (jú:)</i>	‘thorn’
<i>ké (kê:)</i>	‘place’ or ‘(the) bush, outback’
<i>kú (kû:)</i>	‘sweet potato’
<i>ná (nâ:)</i>	‘cow’
<i>nú (nú:)</i>	‘oil, butter’
<i>sé (sê:)</i>	‘horse’
<i>tá (tâ:)</i>	‘pants’ or ‘door shutter’
<i>wá (wâ:)</i>	‘cold weather’

Cwv

<i>dwí (dwî:)</i>	‘bundle’
<i>gwí (gwî:)</i>	‘skin’

CvL with final sonorant

<i>dêw</i>	‘big river’
<i>kâw</i>	‘antelope’
<i>kûy</i>	‘war’
<i>tâw</i>	‘bow (for arrows)’
<i>têy</i>	‘basket’
<i>têw</i>	‘African eggplant’
<i>tîw</i>	‘errand, mission’
<i>tôw</i>	‘slashing earth (to plant seeds)’
<i>yây</i>	‘fence’

b. bisyllabic /HL/

final CvL syllable

<i>nânây</i>	‘mint’
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final Cv syllable (partial list)

<i>bóyè</i>	‘watermelon’
<i>búgè</i>	‘marrow’
<i>dólè</i>	‘belly’
<i>górò</i>	‘kola nut’
<i>ʔínì</i>	‘tooth’
<i>kánù</i>	‘gold’
<i>kílò</i>	‘goat’
<i>kójì</i>	‘grass’
<i>kúlù</i>	‘hump (in back)’
<i>múlè</i>	‘sugar cane’
<i>nólò</i>	‘man’
<i>ʔólò</i>	‘village’
<i>sójò</i>	‘person’
<i>tágà</i>	‘well (n)’
<i>bémbò</i>	‘chest’
<i>dándì</i>	‘chili pepper’
<i>gémbè</i>	‘forehead’
<i>ʔínjè</i>	‘dog’
<i>jóngò</i>	‘basket-holder’
<i>kómbò</i>	‘animal’
<i>ʔóndò</i>	‘chin’
<i>pómbà</i>	‘squash’
<i>séngè</i>	‘flank (of body)’
<i>ʔójjè</i>	‘breast’
<i>sóggè</i>	‘clothing’
<i>kéjjè</i>	‘chisel’
<i>bó:lò</i>	‘metal straining ladle’
<i>ní:bè</i>	‘bird’
<i>ná:lì</i>	‘cat’

<i>sí:jà</i>	‘chicken’
<i>só:yè</i>	‘strap, whip’
<i>tá:rà</i>	‘Tuesday’
<i>dá:mbò</i>	‘tinder’
<i>sá:mbè</i>	‘waterbag (for well)’
<i>dá:ngól</i>	‘paired hitching posts and cord’

c. trisyllabic /HL/ (see comments above)

<i>?álábà</i>	‘Wednesday’
<i>?álámà</i>	‘sheep’
<i>?ámúnù</i>	‘guinea-fowl’
<i>?ánkóngò</i>	‘sky’
<i>bá:gúlè</i>	‘clothing’
<i>bámbúlà</i>	‘hat’
<i>bárálà</i>	‘(a) bargain’
<i>béláṅgà</i>	‘middle’
<i>béléṅgè</i>	‘fodder’
<i>bélógò</i>	‘sauce’
<i>béndélè</i>	‘side’
<i>bóṅgélè</i>	‘navel’
<i>búgúndè</i>	‘buttock’
<i>débógè</i>	‘umbilical cord’
<i>déné-nè</i>	‘fatigue’, cf. <i>dénè</i> ‘become tired’
<i>dílímà</i>	‘maize’
<i>dólóngò</i>	‘bottom’
<i>?éndúmù</i>	‘darkness’
<i>gómbólò</i>	‘courtyard’
<i>hó:lá:rè</i>	‘trust, confidence’
<i>jóṅgúlè</i>	‘star’
<i>kálóngò</i>	‘hourglass tomtom’
<i>kéléṅgè</i>	‘marriage’
<i>kémbúlè</i>	‘piece of meat’
<i>kíbarù</i>	‘news’
<i>kógáli</i>	‘stem’
<i>kólómù</i>	‘donkey’
<i>kóláṅgè</i>	‘neck’
<i>kómbólì</i>	‘shell, scab’
<i>kónú-ṅgà</i>	‘sorcerer’
<i>kómúnù</i>	‘salt’
<i>kórógò</i>	‘trimming ax’
<i>kúléṅgè</i>	‘bits of millet grain spike’
<i>kúndúlè</i>	‘log’
<i>lásá:sì</i>	‘(modern) rifle’
<i>lówóṅgà</i>	‘collective hunt’

<i>málágè</i>	‘djinn’
<i>mándámù</i>	‘peanut’
<i>má:ngórò</i>	‘mango’
<i>má:nípò</i>	‘ant-lion larva’
<i>mbóléri</i>	‘small gourd’
<i>ménjélè</i>	‘needle’
<i>mínjìlì</i>	‘mosque’
<i>nánsímbè</i>	‘giant millipede’
<i>númbúlù</i>	‘namesake’
<i>ɲóɲómè</i>	‘camel’
<i>ɲóɲónì</i>	‘fly (insect)’
<i>ʔólándù</i>	‘rest (n)’
<i>pálígè</i>	‘sesame’
<i>pánángè</i>	‘meal’
<i>póléngè</i>	‘egg’
<i>póngélè</i>	‘cemetery’
<i>sáɲánà</i>	‘cross-cousin’
<i>sárágà</i>	‘alms, sacrifice’
<i>síjálà</i>	‘cream of millet’
<i>sógúlè</i>	‘rags’
<i>sólágè</i>	‘roselle’
<i>sómbúlò</i>	‘millet cakes with baobab sauce’
<i>sómbúlè</i>	‘Abdim’s stork’
<i>tébéngè</i>	‘ladle’
<i>tóɲónò</i>	‘truth’
<i>túlúngè</i>	‘neighborhood’
<i>túnúnè</i>	‘catfish (<i>Clarias</i>)’ or ‘ant sp. (<i>Messor</i>)’
<i>ʔúgújù</i>	‘bellows’
<i>ʔújéré</i>	‘sweat (n)’
<i>wágúlè</i>	‘stone partridge’
<i>wá:jíbì</i>	‘duty, necessity’
<i>wénámà</i>	‘body’

d. quadrisyllabic /HL/ (two subtypes)

H.H.H.L subtype

<i>ʔálámínjà</i>	‘Thursday’
<i>ʔégésélè</i>	‘macari (spice)’

H.H.H.L subtype

<i>kóró-bòrò</i>	‘Songhay (ethnicity)’
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/LH/ melody is typical of loanwords from e.g. Fulfulde and Bambara. It is fairly common with bisyllabics, and predominant among trisyllabic or longer stems. No monosyllabics are attested. Trisyllabics and most quadrisyllabics limit the H-tone to the final syllable. There are a small number of quadrisyllabics of L.L.H.H type. All nouns of /LH/ melody are subject to

Dissimilatory Tone-Lowering (§3.6.3.4), i.e. the final H-tone drops to L before a word beginning in H-tone.

(26) /LH/ melody

a. bisyllabic /LH/

final Cv

<i>b̀̀né</i>	‘misfortune’
<i>d̀̀wá</i>	‘ink’
<i>d̀̀dá</i>	‘log’
<i>j̀̀mé</i>	‘hare’
<i>k̀̀sú</i>	‘jail’
<i>f̀̀t́</i>	‘pond’
<i>g̀̀lé</i>	‘grains of Selim (<i>Xylopi</i> a spice)’
<i>j̀̀bá</i>	‘onion’
<i>l̀̀ḱ</i>	‘minnow’
<i>m̀̀tó</i>	‘motorcycle’
<i>ǹ̀fá</i>	‘value, use’
<i>b̀̀:ró</i>	‘waterskin’
<i>m̀̀:rí</i>	‘soubala (spice)’
<i>ǹ̀:má</i>	‘pleasant weather’
<i>ŋ̀̀:ní</i>	‘rice or millet cake’
<i>s̀̀:f́</i>	‘evening prayer’
<i>s̀̀:ḱ</i>	‘sack’
<i>c̀̀rdí</i>	‘silver’
<i>h̀̀jǐ</i>	‘pilgrimage to Mecca’
<i>j̀̀kká</i>	‘zakat’
<i>j̀̀ggá</i>	‘hitching post’
<i>l̀̀mpá</i>	‘lamp’
<i>l̀̀llí</i>	‘cow tick’
<i>p̀̀ccú</i>	‘tiny bee sp.’
<i>p̀̀ddí</i>	‘henna’
<i>s̀̀ttí</i>	‘sulfur’
<i>m̀̀:njó</i>	‘papaya’
<i>m̀̀:ndé</i>	‘saltlick’

final CvC

<i>g̀̀lbál</i>	‘animal market’
<i>c̀̀llál</i>	‘health’

CvCCv arguably syncopated from *CvCvCv*

<i>ʔ̀̀lwá</i> (1)	‘locally produced candy’
<i>ʔ̀̀lwá</i> (2)	‘tablet for koranic-schoolboy’
<i>ʔ̀̀ksí</i>	‘candy-like cough drops’
<i>f̀̀yré</i>	‘light, illumination’
<i>j̀̀rké</i>	‘native guitar’

<i>kirké</i>	‘saddle’
<i>màrtó</i>	‘hammer’
<i>sèrdú</i>	‘rifle barrel’

b. trisyllabic /LH/

final Cv

<i>ʔàljènné</i>	‘paradise’
<i>ʔàlkè:mbé</i>	‘harvesting knife’
<i>ʔàlmà:mí</i>	‘imam’
<i>ʔàmì:rú</i>	‘chief’
<i>ʔàndàlú</i>	‘knowledge’
<i>ʔà:ràbú</i>	‘Arab’
<i>ʔàrkìllé</i>	‘mosquito net’
<i>ʔàsílí</i>	‘Saturday’
<i>bàlà:wú</i>	‘disaster’
<i>bànàṅkú</i>	‘cassava’
<i>bàràdá</i>	‘tea kettle’
<i>bàrmèndé</i>	‘wound, injury’
<i>bùyà:gí</i>	‘guava’
<i>dòwà-rú</i>	‘condolences’
<i>pùtùró</i>	‘twilight prayer’
<i>gàndù:ré</i>	‘yoke’
<i>gàrnà:ré</i>	‘gunpowder horn’
<i>hèlbò:ré</i>	‘flint’
<i>jàppèré</i>	‘padding’
<i>kàsàṅkí</i>	‘shroud’
<i>kàràká</i>	‘portable wooden bed’
<i>kòbàjí</i>	‘large fishnet’
<i>kòròńó</i>	‘genet’
<i>làbàṅgá</i>	‘(mouth) bit’
<i>làcírí</i>	‘couscous’
<i>làmùrú</i>	‘name-giving, christening’
<i>fècèré</i>	‘half’
<i>là:sàrá</i>	‘4 PM prayer’
<i>lèmbùrú</i>	‘citrus fruits’
<i>lèṅgùrú</i>	‘bell’
<i>lò:tírí</i>	‘cooked stomach roll-up (including reticulum)’
<i>mà:nàjí</i>	‘okra’
<i>mìsò:ré</i>	‘head shawl’
<i>nà:filá</i>	‘optional extra prayers’
<i>nà:fíkí</i>	‘trouble-maker’
<i>nègèsó</i>	‘bicycle’
<i>nè:tàró</i>	‘impolite person’
<i>nìcùrgá</i>	‘spur (n)’

<i>pìkírí</i>	‘injection’ (Fr <i>piqûre</i>)
<i>sàlfàná</i>	‘2 PM prayer’
<i>sàllígí</i>	‘ablutions’
<i>sàtàlá</i>	‘kettle’
<i>sìkòrò</i>	‘sugar’
<i>sìntùgú</i>	‘spice (<i>Ammodaucus</i>)’
<i>tàmàrò</i>	‘date (fruit)’
<i>tèngà:dé</i>	‘conical hat’
<i>tùbàbú</i>	‘white person’
<i>wà:wà:dé</i>	‘shield’
<i>yàmbùré</i>	‘fishhook’

c. quadrisyllabic /LH/ (two subtypes)

L.L.L.H subtype

<i>?àgàlà:wó</i>	‘(drinking) trough’
<i>?àlàmpilé</i>	‘airplane’
<i>?àlbà:nà:jí</i>	‘amber’
<i>?àlbàrkà:jí</i>	‘bdellium (incense)’
<i>?àljùmà:ré</i>	‘Friday’
<i>?àlmùjìlí</i>	‘muezzin’
<i>?àlsilà:mí</i>	‘Muslim’
<i>?ànàsà:rá</i>	‘white person’
<i>bàndàgà:rí</i>	‘cart poles’
<i>màdàràsá</i>	‘Islamic school’
<i>mèsèkèré</i>	‘scissors’
<i>tà[?]yìkò:[?]yó</i>	‘breakfast’ (< Fulfulde, with preglottalized <i>y</i>)
<i>tè:mèndèré</i>	‘hundred’
<i>tùbàlà:jí</i>	‘baggy pants’
<i>?ùrù?àná</i>	‘Coran’

L.L.H.H subtype

<i>bàlàminí</i>	‘long lever’ (tool)
<i>dògòtóró</i>	‘(modern) doctor’

/LHL/ as a distinct lexical melody is uncommon in unsegmentable noun stems. It can be recognized in a few trisyllabics like *màndámù* ‘peanut’ with plural *màndámù-gè*, *kòlàngè* ‘neck’ with plural *kòlàngé-gè*, and *bà:gúlè* ‘garment’ with plural *bà:gúlé-gè*. One wonders whether some of these heavy nouns are not treated prosodically as composite, which might have something to do with the inconsistent plural tones. L.H.L(L) sequences are indeed common in noun-adjective sequences, compounds, and derivatives such as characteristic nominals with *-gà*. The compounds in question are mostly the regular type with {LH} initial and {L} final, but also include a few unclassified compounds like *sèmè-lémà* ‘cleverness, trickery’ (cf. predicate *sémé: bò* ‘be clever’). L.(L.)H.L also occurs due to the L+{HL} overlay in possessed forms of trisyllabic and longer stems, when the preceding possessor ends in an H-tone (e.g. 1PI *ń*, 2PI *á*, and numeral-final NPs).

/L/ **melody** occurs in uncompounded native Dogon nouns of one to three (infrequently four) syllables.

(27) Low melody

a. monosyllabic /L/

Cv(:)

<i>dò (dò:)</i>	‘jar, waterjar’
<i>dò (dò:)</i>	‘insult’
<i>kò (kò:)</i>	‘head’
<i>sè (sè:)</i>	‘foot’
<i>sì (sì:)</i>	‘color, type’ (usually possessed) or ‘grub’
<i>tù (tù:)</i>	‘termite’
<i>yà (yà:)</i>	‘night’

CvC

<i>cèm</i>	‘handcuffs’
<i>tèw</i>	‘lid’

b. bisyllabic /L/

<i>?àllà</i>	‘pig’
<i>?àmmè</i>	‘millet beer’
<i>?àtè</i>	‘tea’
<i>bàbà</i>	‘blood’
<i>dò:wà</i>	‘death; corpse’
<i>gàndà</i>	‘country’
<i>gèmbù</i>	‘(leather) bag’
<i>gù:mbí</i>	‘tigerfish’
<i>kà:y^hà</i>	‘grasshopper’
<i>kènsè</i>	‘side of face’
<i>kìbà</i>	‘hip’
<i>kìnà</i>	‘nose’
<i>kòlò</i>	‘bier’
<i>kùlè</i>	‘hair’
<i>kùmà</i>	‘crowned crane’
<i>ṅàṅà</i>	‘shed, shelter’
<i>ṅàṅò</i>	‘life’
<i>?òbò</i>	‘house’
<i>?ò:gè</i>	‘scraper’
<i>?óji</i>	‘road’
<i>?òlò</i>	‘granary’
<i>sògò</i>	‘ground’
<i>pùmbù</i>	‘back’
<i>tè:bù</i>	‘hawk’
<i>tè:ṅgè</i>	‘firewood’

<i>tòni</i>	‘mouth’
<i>yàlè</i>	‘wind (airflow)’

c. trisyllabic /L/

<i>?àmbàrà</i>	‘aardvark’
<i>?à:tènè</i>	‘Monday’
<i>dà:namà</i>	‘hunt (n)’
<i>dèndè-bè</i>	‘tongue’
<i>dùndùlù</i>	‘bundle of millet grain spikes’
<i>?èmè-ηgè</i>	‘milk’
<i>gàmbàgù</i>	‘share, division’
<i>gùntàbà</i>	‘harvest pile’
<i>jàngùlà</i>	‘finery’
<i>jògòlò</i>	‘comb (of rooster)’
<i>kàmbàlà</i>	‘back of head’
<i>kèjèlè</i>	‘scale’
<i>kìndò-bè</i>	‘shadow; soul’
<i>kòbàli</i>	‘tree bark’
<i>kògùlè</i>	‘fish’
<i>kòmòlò</i>	‘wilderness’
<i>kòròrò</i>	‘snoring’
<i>kùlùnjù</i>	‘placenta’
<i>kùyàndè</i>	‘rock hyrax (mammal)’
<i>kùyèηgè</i>	‘gourd vine’
<i>mùnjàlè</i>	‘cotton-spinning stick’ (cf. <i>mùnjàlè-sé</i> ‘whorl’)
<i>?ònjèlè</i>	‘mortar axe’
<i>pòbòlò</i>	‘sheath’
<i>sàgàllà</i>	‘young man’
<i>sùgùlè</i>	‘ear’
<i>wànjàlmà</i>	‘calabash clapper’

d. quadrisyllabic /L/

<i>tà:gàlèmmè</i>	‘neighbor’
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Lexical melodies are subject to modification by tone rules when nouns are followed by other elements, either internal or external to the NP itself. They are also subject to tone overlays controlled by a preceding possessor. For a brief summary of these modifications see §3.6.2.2 below. Fuller analysis and exemplification are in the relevant chapters, especially Chapter 6.

3.6.1.3 Lexical tone patterns for adjectives and numerals

An adjective that follows a modified noun is {L}-toned. Since all modifying adjectives have this melody it does not have to be learned at the lexical level and it can be considered a

grammatical overlay. When a noun is followed by two or more adjectives, the first is again {L}-toned, but subsequent ones are {HL}, which I attribute to a tonosyntactic overlay.

Some stems that can function as modifying adjectives can also be used absolutely, i.e. as nouns, and in that function a lexical tone melody can be determined. For example, *nólò* ‘man’ (with /HL/ melody) corresponds to the adjective ‘male’ that appears with a noun X as [*X nòlò*] ‘(a) male X’.

Primary numerals from ‘3’ to ‘10’ all begin with an H-tone (§4.6.1.2). However, ‘2’ is {L}-toned *dè:gà*, before which plural *-gè* is tone-raised to *-gé*. Numeral ‘1’ (*tó:lè*) is treated as a modifying adjective and therefore drops to {L}-toned ^L*tò:lè* after a modified noun.

3.6.2 Grammatical tone patterns

3.6.2.1 Grammatical tones for verb stems

All tones for verb forms are grammatical, there being no distinct tonal classes. The tones for the various inflectional categories are described in detail in the relevant sections of chapter 10. A schematic summary is in (28).

- (28)
- a. {H}
 - [none]
 - b. {HL}
 - 1. perfective (1Sg, 2Sg, 3Pl, suffixed 3Sg)
 - 2. perfective negative (3Pl)
 - 3. reduction of {LHL} with prosodically light verbs
 - a. perfective (1Sg, 2Sg, 3Sg)
 - b. imperfective (3Sg)
 - 4. imperfective (3Pl)
 - 5. imperfective negative (3Sg including suffix, 3Pl)
 - 6. imperative (plural-addressee)
 - 7. prohibitive
 - c. {LH}
 - 1. perfective negative (1Sg, 2Sg)
 - d. {LHL}
 - 1. perfective (unsuffixed 3Sg)
 - 2. imperfective (1Pl, 2Pl, 3Sg)
 - 3. perfective negative (1Sg, 2Sg) including inflectional suffix
 - 4. imperfective negative (3Pl), also 1Sg, 2Sg, 3Sg {LH-L} including inflectional suffix
 - 5. imperative (plural addressee)

- e. {L}
 1. imperfective (1Sg, 2Sg)
 2. reduction of {LHL} in prosodically light stems
 - a. imperfective (1Pl, 2Pl, 3Sg)
 3. perfective (1Pl, 2Pl)
 4. perfective negative (1Pl, 2Pl, 3Sg)
 5. imperfective negative (1Pl, 2Pl)
 6. imperative (singular addressee)

3.6.2.2 Grammatical tones for noun stems

Lexical tone melodies are /HL/, /LH/, and /L/ (§3.6.1.2). These tones are subject to modification by both **tonosyntactic** and **morphophonological** processes. Tonosyntactic processes involve a syntactically defined controller (e.g. possessor or adjectival modifier), a syntactically defined target stem (typically a noun or a sequence including a noun), and a tone overlay that erases lexical tone melodies over the targeted word or string. Morphophonological processes are tone-sandhi rules that can make reference to morphological information. They have local effects such as a rightward shift or spread of an H-tone.

The major tonosyntactic processes affecting noun stems are those in (29). The choice between {HL} and L+{HL} overlays in (29a) is phonologically rather than syntactically determined. We could analyse {HL} as the basic overlay for possessed nouns, with L+{HL} interpreted as {HL} plus an extra initial L dissimilating to a preceding H-tone (§3.6.3.4). There is no phonological difference between {LHL} and L+{HL}.

(29)	controller	target	overlay
	a. controller precedes noun		
	possessor	possessed noun	{HL} after L-tone L+{HL} after H-tone
	b. controller follows noun		
	adjective	modified noun	{LH}

For possessors, see §6.2. For noun-adjective combinations, see §6.3. The {HL} overlay is realized as H.L.L on trisyllabics and does not allow Rightward H-Spreading. The L+{HL} version is realized as L.L.H.L on quadrisyllabics (139b). The {LH} overlay is realized as L.L.H on trisyllabics. In each case, the H-tone appears on just a single syllable.

Two major morphophonological (as opposed to tonosyntactic) processes affecting noun stems are Rightward H-Movement (§3.6.3.5) and Rightward H-Spreading (§3.6.3.8). Both affect HL sequences. A bisyllabic H.L syllable sequence becomes L.H (before an L-tone) by Rightward H-Movement, and H.H (before an L-tone) by Rightward H-Spreading. Nouns with lexical /L/ melody have no H-tone that could move or spread, and such stems are therefore

unaffected. When an /L/-melody noun surfaces with a final H-tone, it is attributable to another morphophonological process, Final Tone-Raising (§3.6.3.2-3).

As an example of how the tones of a noun change in different positions, consider *pólèngè* ‘egg’, a trisyllabic noun of /HL/ melody.

(30) Trisyllabic H-initial noun

a. H.H.L

lexical

pólèngè ‘egg’
pólèngè nò ‘the egg’

before 1st/2nd person proclitic)

pólèngè ìj sà: = ndà ‘I do not have an egg’
pólèngè ìj sà: = ndà ‘we do not have an egg’

b. H.H.H

Rightward H-Spreading (before L-tone)

pólèngé-gè ‘eggs’
pólèngé-gè nò ‘the eggs’
pólèngé-gé dè:gà ‘two eggs’

c. H.L.L

possessor-controlled {HL} overlay (possessor ends in L-tone)

séydù^{HL} pólèngè ‘Seydou’s egg’
ìj^{HL} pólèngè (nò) ‘my egg’
à^{HL} pólèngè (nò) ‘your-Sg egg’

d. L.H.L

possessor-controlled L+{HL} overlay (possessor ends in H-tone)

ìj^{L+HL} pólèngè (nò) ‘our egg’
á^{L+HL} pólèngè (nò) ‘your-Pl egg’

e. L.L.H

{LH} overlay before 3Sg possessor suffix or before adjective

pólèngé-nà (nò) ‘his/her egg’
pólèngé^{LH} L tò:lè ‘one egg’
pólèngé^{LH} L bìgì ‘a big egg’

Rightward H-Movement before L-initial 3Sg subject predicate

pólèngé sà: = ndà-Ø ‘he/she does not have an egg’

The lexical /HL/ melody surfaces as syllable sequence H.H.L in isolation and before definite *nò* (30a). It flattens to H.H.H by Rightward H-Spreading before some L-toned syllables (30b). A preceding possessor controls {HL} overlay realized as H.L.L (30c), or in the case of

1Pl/2Pl possessor the overlay is L+{HL} with an additional L-tone at the left edge (30d). L.L.H is due to an {LH} overlay triggered by some following modifiers (30e).

Consider now nouns with melodies other than /HL/. Before an H-toned 1Pl/2Pl proclitic *ŋ* or *á*, stems of /LH/ melody lower the tone of their final syllable, by Dissimilatory Tone-Lowering. Monosyllabic /HL/-melody nouns like ‘woman’ are H-toned before L-toned 1Sg/2Sg proclitics, but drop to L-tone before H-toned 1Pl/2Pl proclitics.

(31) Before 1st/2nd person proclitic

gloss	lexical	before 1Pl/2Pl proclitic
a. /HL/		
‘egg’	<i>póléŋgè</i>	<i>póléŋgè</i>
‘cat’	<i>ná:li</i>	<i>ná:li</i>
‘woman’	<i>yó (yô:)</i>	<i>yò</i> (before H-toned <i>ŋ</i> , <i>á</i>)
b. /LH/		
‘yoke’	<i>gàndù:ré</i>	<i>gàndù:rè</i>
‘pond’	<i>fētó</i>	<i>fètò</i>
c. /L/		
‘ear’	<i>sùgùlè</i>	<i>sùgùlè</i>
‘horn’	<i>kèlè</i>	<i>kèlè</i>
‘head’	<i>kò (kò:)</i>	<i>kò</i>

Most possessors (most nonpronominal NPs, 1Sg/2Sg/3Pl proclitics) end in an L-tone and control {HL} on the possessum, which erases lexical melodies. A minority of possessors (NPs ending in some numerals, 1Pl/2Pl proclitics) end in an H-tone and control L+{HL}, i.e. {HL} plus a (dissimilated) L-tone at the left edge of the possessum. L+{HL} flattens to just {L} on light stems (*Cv̇*; *Cv̇Cv̇*), but the full form of the overlay is restored when plural *-gè* is added (*Cv̇:-gè*, *Cv̇Cv̇-gè*).

(32) Possessor-controlled {HL} or L+{HL} overlay

gloss	lexical	after possessor that ...	
		... ends in L-tone	... ends in H-tone
a. /HL/ melody			
‘egg’	<i>póléŋgè</i>	^{HL} <i>pólèŋgè</i>	^{L+HL} <i>pòlèŋgè</i>
‘cat’	<i>ná:li</i>	^{HL} <i>ná:li</i>	^{L+HL} <i>nǎ:li</i>
‘woman’	<i>yó (yô:)</i>	^{HL} <i>yô:</i>	^{L+HL} <i>yò:</i>

b. /LH/ melody

‘yoke’	<i>gàndù:ré</i>	^{HL} <i>gándù:rè</i>	^{L+HL} <i>gàndù:rè</i>
‘pond’	<i>fètó</i>	^{HL} <i>fétò</i>	^{L+HL} <i>fètò</i> (Pl ^{L+HL} <i>fètó-gè</i>)

c. /L/ melody

‘ear’	<i>sùgùlè</i>	^{HL} <i>súgùlè</i>	^{L+HL} <i>sùgùlè</i>
‘horn’	<i>kèlè</i>	^{HL} <i>kélè</i>	^{L+HL} <i>kèlè</i> (Pl ^{L+HL} <i>kèlé-gè</i>)
‘head’	<i>kò (kò:)</i>	^{HL} <i>kô:</i>	^{L+HL} <i>kò:</i> (Pl ^{L+HL} <i>kô:-gè</i>)

Tonosyllabic {LH} overlay is exemplified in (33). The final H-tone occurs with lexically /L/-melody nouns as well as with /HL/ and /LH/ melodies. In other words, the overlay erases lexical melodies. Monosyllabic *Cv:* is arguably just a reduced form of {LH}. By these criteria, the {LH} overlay applies to all nouns preceding adjectives, but it does not apply to light bisyllabic (*CvCv*) /L/-melody nouns before the 3Sg possessor suffix, see ‘horn’ in (33c).

(33) {LH} overlay

	gloss	lexical	preadjectival	‘his/her’
a. heavy stems				
‘egg’		<i>pólèngè</i>	<i>pòlèngé</i>	<i>pòlèngé-nà</i>
‘cat’		<i>jà:lí</i>	<i>jà:lí</i>	<i>jà:lí-nà</i>
‘ear’		<i>sùgùlè</i>	<i>sùgùlé</i>	<i>sùgùlé-nà</i>
‘yoke’		<i>gàndù:ré</i>	<i>gàndù:ré</i>	<i>gàndù:ré-nà</i>
b. monosyllabics				
‘woman’		<i>yó (yô:)</i>	<i>yó:</i>	<i>yó:-nà</i>
‘head’		<i>kò (kò:)</i>	<i>kó:</i>	<i>kò:-nà ~ kó:-nà</i>
c. light bisyllabics				
‘pond’		<i>fètó</i>	<i>fètó</i>	<i>fètó-nà</i>
‘goat’		<i>kílò</i>	<i>kíló</i>	<i>kíló-nà</i>
/L/ melody				
‘horn’		<i>kèlè</i>	<i>kélè</i>	<i>kèlè-nà</i>

Rightward H-Spreading with plural *-gè* and Rightward H-Movement before an L-initial 3Sg subject predicate are illustrated in (34). /L/-melody nouns have no H-tone that can spread or relocate rightward, so they surface with {L} melody.

(34) Rightward H-Spreading (plural) and Rightward H-Movement (3Sg predicate)

gloss	lexical	plural	before <i>sà: = ndà-Ø</i> ‘he/she does not have’
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a. /HL/ melody

‘egg’	<i>pólɛ̀ŋgè</i>	<i>pólɛ̀ŋgé-gè</i>	<i>pòlɛ̀ŋgé</i>
‘cat’	<i>ɲá:lì</i>	<i>ɲá:lí-gè</i>	<i>ɲà:lí</i>
‘woman’	<i>yó(yô:)</i>	<i>yó:-gè</i>	<i>yó:</i>

b. /LH/ melody

‘yoke’	<i>gàndù:ré</i>	<i>gàndù:ré-gè</i>	<i>gàndù:ré</i>
‘pond’	<i>fètɔ́</i>	<i>fètɔ́-gè</i>	<i>fètɔ́</i>

c. /L/ melody

‘ear’	<i>sùgùlè</i>	<i>sùgùlè-gè</i>	<i>sùgùlè</i>
‘horn’	<i>kèlè</i>	<i>kèlè-gè</i>	<i>kèlè</i>
‘head’	<i>kò:</i>	<i>kò:-gè</i>	<i>kò:</i>

Combinations with numeral *dè:gà* ‘2’ are in (35). The plural suffix *-gè* on the preceding noun undergoes Rightward H-Spreading in (35a-b). This suffix also becomes *-gé* after an /L/-melody noun, as in *sùgùlè-gé dè:gà* ‘two ears’ (35c), which cannot be explained by Rightward H-Spreading since the noun has no lexical H-tone that could spread. This must instead be attributed to Final Tone-Raising (§3.6.3.3). Numerals from ‘3’ up begin with H-tone and do not raise the tone of preceding plural *-gè*.

(35) ‘Two X’s

gloss	lexical	plural	before <i>dè:gà</i> ‘2’
a. /HL/ melody			
‘egg’	<i>pólɛ̀ŋgè</i>	<i>pólɛ̀ŋgé-gè</i>	<i>pólɛ̀ŋgé-gé dè:gà</i>
‘cat’	<i>ɲá:lì</i>	<i>ɲá:lí-gè</i>	<i>ɲá:lí-gé dè:gà</i>
‘woman’	<i>yó(yô:)</i>	<i>yó:-gè</i>	<i>yó:-gé dè:gà</i>
b. /LH/ melody			
‘yoke’	<i>gàndù:ré</i>	<i>gàndù:ré-gè</i>	<i>gàndù:ré-gé dè:gà</i>
‘pond’	<i>fètɔ́</i>	<i>fètɔ́-gè</i>	<i>fètɔ́-gé dè:gà</i>
c. /L/ melody			
‘ear’	<i>sùgùlè</i>	<i>sùgùlè-gè</i>	<i>sùgùlè-gé dè:gà</i>
‘horn’	<i>kèlè</i>	<i>kèlè-gè</i>	<i>kèlè-gé dè:gà</i>
‘head’	<i>kò:</i>	<i>kò:-gè</i>	<i>kò:-gé dè:gà</i>

3.6.2.3 Grammatical tones for adjectives and numerals

Modifying adjectives that directly follow an unpossessed noun are {L}-toned (§6.3.1). In cases where the adjective can also be used as a noun and therefore has a determinable lexical tone, this requires tone-dropping, i.e. an {L} overlay.

A second adjective following the first adjective is {HL}-toned (§6.3.3.1). {HL} is also the overlay for an adjective following a possessed noun (§6.2.1.5).

Numerals ‘2’ to ‘10’ keep their lexical tones when they follow a noun or N-Adj sequence, possessed or unpossessed.

3.6.3 Tonal morphophonology

3.6.3.1 Tone breaks for contour melodies /HL/, /LHL/, and /LH/

Trisyllabic tonal domains provide the clearest data as to where the tone breaks occur. Nouns have lexical tone melodies that include contoured /HL/ and /LH/. For these lexical melodies, the tone break is as close as possible to the right edge: *póléngè* ‘egg’ (H.H.L syllable sequence), *bàndàgà:rí* ‘cart poles’ (L.L.L.H).

The {LH} overlay on a noun preceding a modifying adjective (§6.3.1) also has its tone break as close as possible to the right edge: *pòlèngé^{LH} L sìmà* ‘a white egg’ with L.L.H on the noun.

However, a possessor-controlled {HL} overlay on a noun, or the same overlay in a compound final, has its tone breaks near the **left edge**, i.e. at the edge adjacent to the possessor: *ń^{HL} póléngè* ‘my egg’ (H.L.L), *ń^{LHL} pòlèngè* ‘our egg’ (L.H.L). This suggests that the possessor-controlled {HL} overlay is structurally different from the usual {HL} tonosyntactic overlay. Contrast this with *ń^{LHL} bàndàgà:rí* ‘our cart poles’, where an {LHL} overlay is expressed on a quadrisyllabic as L.L.H.L, i.e. with the tone breaks clustered at the right edge.

Since all known primary adjectives are at most bisyllabic (§4.5.1.1), the /HL/ melody for the second of two adjectives, or for an adjective that is part of a possessed NP, can only appear as an H.L syllable sequences (<HL> for a monosyllabic). We cannot determine whether this is located with a bias toward the left or right edge of the stem.

Verb stems with {HL} or {LHL} overlays have tone breaks near the right edge of the stem or of the stem-suffix complex. Thus 1Pl imperfective *gù ń gùndùlò-mà* ‘we cause (sth) to roll’ (§10.2.2.1), 3Pl perfective negative *párá-gà:-ndì* ‘they did not cut’ (§10.2.3.1), 1Sg imperfective negative *ń párá-gó-lò* ‘I do/will not cut’ (§10.2.3.3).

3.6.3.2 Final Tone-Raising (prepausal)

Two postnominal morphemes that are L-toned in other positions are H-toned prepausally. These are definite *nò* and instrumental (and sometimes locative) *ndò*. The conditions under

which they are tone-raised prepausally are somewhat different. (For tone-raised *nó* when phrased with a following word, see the next subsection below.)

Definite *nò* is raised to H-toned *nó* after a lexically /L/-melody noun stem before a pause (36). The raising in this position is consistent after light stems (*Cv*; *CvCv*), possible but inconsistent after heavier stems (36a). The raising can occur after a multi-word NP ending in an L-toned word, such as noun plus adjective or plural noun plus ‘2’ (36b). *nò* is not usually tone-raised prepausally if there is any H-tone in preceding word.

(36) Raising of *nò* to *nó* after {L}-toned word

a. raising prepausally after /L/

light

sè: nó ‘the foot’

?àllà nó ‘the pig’

?òbò nó ‘the house’

heavy

sùgùlè nó ~ sùgùlè nò ‘the ear’

b. raising prepausally after L-toned modifier

?òbó^{LH} Lbàyⁿ nó ‘the big house’

?òbó^{LH} Lbàyⁿ-gé dè:gà nó ‘the two big houses’

c. no raising prepausally after word containing an H-tone

sê: nò ‘the horse’

pánáŋgè nò ‘the meal’

gàndù:ré nò ‘the yoke’

?òbó^{LH} Lbàyⁿ HL yó:lè nò ‘the big black house’

Instrumental *ndò* is raised to *ndó* prepausally when preceded by an L-toned syllable, including the final syllable of an /HL/-melody noun. Tone-raising occurs after /L/-melody nouns in *sè: ndó* ‘on foot’ (< *sè:*) and in *sèmbè ndó* ‘by force’ (< *sèmbè*). It also occurs after /HL/-melody nouns as in *gúlò ndó* ‘with an ax’ and *póléŋgè ndó* ‘with an egg’. It does not occur after an /LH/-melody noun in *jàbá ndò* ‘with an onion’ or *gàndù:ré ndò* ‘with a yoke’. See §8.1.2 for additional data.

At the end of the following subsection, the suggestion will be raised that synchronic Final Tone-Raising is the inversion of a historical sequence whereby certain H-toned morphemes dropped to L-toned in certain positions.

3.6.3.3 Final Tone-Raising (before another word or suffix)

Under some conditions a stem- or word-final L-toned syllable is raised to H-tone when followed by an L-tone. This result resembles, but is distinct from, that of Rightward

H-Movement, which relocates a preexisting H-tone onto the final syllable of the domain but does not affect L-toned inputs.

Definite *nò* is raised to *nó* before another word. This is most systematic after lexically /L/-toned nouns like *?àllà* ‘pig’ and *?òbò* ‘house’ and before a word beginning with an L-tone. (37) shows the preverbal environments where this raising happens.

- (37) a. before L-toned imperfective reduplicant/iteration
Cv̄ reduplicant (imperfective or stative)
[?àllà nó] sò sǒ:ngà ‘He/She will bring the pig.’
[?àllà nó] sò ñ sò:ngà ‘I will bring the pig.’
[?àllà nó] sò ñ sǒ:ngà ‘We will bring the pig.’
[?òbò nó] sǐ sǐmà ‘He will build the house.’
full-stem iteration
[?òbò nó] sǐmù lá = à sǐmà ‘Will you-Sg build the house?’
- b. before {L}-toned imperative or L-initial 3Sg subject predicate
[?àllà nó] sò:ngò ‘Bring-2Sg the pig!’
[?àllà nó] sò:ngò:-lì-Ø ‘He/She didn’t bring the pig.’

nò is tone-raised less consistently, and often partially, after /HL/-melody nouns like *póléngè* ‘egg’.

- (38) a. before L-toned imperfective reduplicant/iteration
Cv- reduplicant
[póléngè nó] sò sǒ:ngà ‘He/She will bring the egg.’
[pánángè nó] jù jà ‘He will eat the meal.’
full-stem iteration
[póléngè nó] pòlù lá pòlà ‘Will it lay the egg?’
- b. before {L}-toned stem
[póléngè nó] sò:ngò ‘Bring-2Sg the egg!’

Nouns like ‘saddle’ with a final H-toned syllable also allow (inconsistent, partial) tone-raising of *nò* to (39).

- (39) a. isolation
kìrké nò ‘the saddle’
- b. before {L}-toned stem
[kìrké nó] sò:ngò ‘Bring-2Sg the saddle!’
- c. before L-toned imperfective reduplicant
[kìrké nó] sò sǒ:ngà ‘He/She will bring the saddle.’
[kìrké nó] sò ñ sò:ngà ‘I will bring the saddle.’

Final Tone-Raising is also observed on plural *-gè* before the only {L}-toned numeral *dè:gà* ‘2’. In many contexts, H-toned *-gé* is attributable to Rightward H-Spreading, which only applies when there is a lexical or grammatical H-tone earlier in the word, as in *?óló-gé mbà* ‘in/to (the) villages’ (< *?ólò* ‘village’). By contrast, *-gè* is always tone-raised to *-gé* before *dè:gà* ‘2’, even after lexically /L/-toned nouns like *?òbò* ‘house’: *?òbò-gé dè:gà* ‘two houses’.

Accusative *ngù* is L-toned prepausally or before an H-tone, but H-toned *ngú* when immediately preceding a predicate and flanked by L-tones. The following word may be an imperative or any of the L-initial 3Sg subject verb forms. This tone-raising also applies to singular accusative pronouns like 1Sg *mì-ngù*, which I transcribe with hyphens.

- (40) ... *?ègè* *à-ngú* *tèbè*
 ... come.Pfv.3SgSbj 3Sg-Acc shatter.Pfv.3SgSbj
 ‘... came and destroyed it (=village)’ (2015 @ 00:11)

Raising to *ngú* is not usual when *ngù* occurs earlier in the clause, even when flanked by L-tones.

Instrumental-comitative (and sometimes locative) *ndò* is tone-raised after an L-toned noun in isolation (41a), and before an L-tone (41b), but not before an H-tone (41c).

- (41) a. *sèmbè* *ndó*
 force(n) Inst
 ‘by force, forcibly’
- b. [*sèmbè* *ndó*] *dè:*
 [force Inst] enter.3SgSbj
 ‘He/She entered by force.’
- c. [*sèmbè* *ndò*] *dé:*
 [force Inst] enter.3PlSbj
 ‘They entered by force.’

In composite postpositions that end in *ndò*, such as [*X dólóngù*] *ndò* varying with [*X dólóngù*] *ndò* ‘inside X’ (§8.2.4), *ndò* is raised to *ndó* before an L-tone, but not in isolation (prepausally) or before an H-tone. Examples are in (187c-e) in §8.2.4. The same is true of other composite postpositions like [*X géndè*] *ndò* ‘in front of X’ (§8.2.7), [*X púmbù*] *ndò* ‘behind X’ (§8.2.8). It is also true of *?èbégè ndò* ‘with what?’ (§13.2.2.2).

Another basic postposition of similar shape and overlapping meaning, locative *mbà*, is not subject to Final Tone-Raising: *dògù mbà* ‘in the forest’, [*dògù mbà*] *bò* ‘he/she is in the forest’. The difference in tonal behavior between the two suggests the possibility that *ndò* was originally H-toned. Compare especially Ampari instrumental *ró*, perhaps also Tomo Kan *ló*.

This suggests the possibility that at least some other morphemes that can undergo Final Tone-Raising were also originally H-toned but have dropped in some positions to L-toned. Definite *nò* is a leading candidate for this. It may be related, via some phonetic attrition and mutation, to demonstratives in other Dogon languages, such as Yanda Dom inanimate

proximate *ɲgó* and Togo Kan proximate *nó*. The bisyllabic preverbal morphemes *?émbè* and *?émbà* likely have a more complex history including analogy from verb paradigms.

Final Tone-Raising arguably also applies to a number of verb-complex extras preceding L-initial 3Sg-subject verbs. However, the optimal phonological analysis depends on the posited underlying tone melody of the affected word. In the cases of *?émbè*, *?émbà*, and the iterated stative (42a), taking the underlying melody as /HL/ is reasonable based on consideration of the respective full paradigms (see section references below). If so, the 3Sg forms should be accounted for by Rightward H-Movement rather than by Final Tone-Raising. However, there is no direct evidence for an underlying /HL/ melody for the imperfective iteration in (42b), so an analysis with Final Tone-Raising is attractive for these cases.

(42) a. cases best ascribed to Rightward H-Movement:

- progressive *?émbè* (§10.2.2.2)
- ?èmbé pàrà-gà* ‘He/She is cutting’ (progressive)
- sequential *?émbà* ‘then’ (§15.1.1.1)
- ?èmbá pàrà-gè* ‘Then he/she cut’
- iterated verb stem directly before stative (§10.4.1.2)
- bì-yá bì-yà* ‘He/She is lying down’

b. candidates for Final Tone-Raising

- iterated verb stem directly before imperfective (§10.5.1.1, §13.1.6)
- ɲènnú ɲènnà* ‘He/She is sweeping [focus].’
- iteration plus polar interrogative *là* before imperfective (§10.2.2.1)
- ?ègù lá ?ègà* ‘Will he/she come?’

3.6.3.4 Dissimilatory Tone-Lowering (before H-tone)

This process takes the form ...H#H → ...L#H where # is a boundary.

For example, a nonmonosyllabic noun ending in L.H or L.H.H syllable sequence lowers its final H-tone(s) to L before an H-toned subject proclitic (1Pl *ɲ́*, 2Pl *á*). The lowering also occurs before a verb or other predicate beginning with H-tone, with or without an intervening L-toned 1Sg *ɲ* or 2Sg *à* subject proclitic.

Examples with lexically /LH/-toned *fètó* ‘pond’, *gàndù:ré* ‘yoke’, *dògòtóró* ‘doctor’, and *sikòró* ‘sugar’ are in (43).

- (43) a. *fètò* *ɲ́* *tègè*
pond 1PlSbj see.Pfv
 ‘We saw a pond.’

- b. *gàndù:rè* *ɲ* *tègè*
yoke 1PlSbj see.Pfv
‘We saw a yoke.’
- c. *dògòtòrò* *ɲ* *tégè*
doctor 1SgSbj see.Pfv
‘I saw a doctor.’
- d. *sìkòrò* *?òrì-Ø*
sugar not.be-3SgSbj
‘There’s no sugar (left).’

Dissimilatory Tone-Lowering also applies to /LH/-melody nouns directly before a verb beginning with an H-tone, i.e. in some clause types with a subject other than 1st/2nd person. For example, *gòjé* ‘board game’ keeps its /LH/ melody in (44a) before an {L}-toned perfective negative 3Sg subject verb, but it drops to level L before the initial H-tone of the verb in (44b).

- (44) a. *gòjé* *kàrà:-lì-Ø*
board.game do-PfvNeg-3SgSbj
‘He/She didn’t play the board game.’
- b. *gòjè* *káni-Ø*
board.game do.Pfv-3SgSbj
‘He/She played the board game’

The difference between an underlying H-tone that drops to L by Dissimilatory Tone-Lowering in some environments, and an underlying L-tone that is raised by Final Tone-Raising in some environments, is subtle. The two may reflect the same diachronic development, differing only in what stage the development is. I make the distinction synchronically, because nouns like *gòjé* ‘board game’ and *gàndù:rè* ‘yoke’ consistently have final H-tone in prepausal position (e.g. in citation forms) and in a wide range of other contexts. By contrast, definite *nò* and instrumental *ndò* are L-toned not only before an H-tone but also in prepausal position under some conditions (depending on the tones of a preceding noun), making it less likely that their lexical representations are H-toned. But you may disagree.

A monosyllabic noun of lexical /HL/ melody, like *sé* (definite *sè: nò*) ‘horse’, lowers its tone before 1Pl *ɲ* and 2Pl *á*, but not before H-toned verbs. ‘Horse’ is therefore indistinguishable from *sè* ‘foot’ in (45a), but the two are distinct in (45b). Monosyllabics are the only /HL/-melody nouns that can end in an H-tone.

- (45) a. *sè / sè* *ɲ* *tègè*
horse / foot 1PlSbj see.Pfv
‘We saw a horse/a foot.’

- b. *sé/ sè* *ʔóri-Ø*
horse / foot not.be-3SgSbj
‘There is no horse/no foot.’

Another case of Dissimilatory Tone-Lowering is the full verb-stem iteration found in interrogative forms of imperfective verbs. The iteration for ‘come’ takes the LH-toned form *ʔègú* not only before the 3Sg imperfective, where this tone pattern might be attributed to Rightward Tone-Movement, but also before 1st/2nd person proclitics, which do not allow Rightward Tone-Movement (46a). This shows that the iteration has a primary {LH} overlay. In the 3Pl subject form, however, the final H-tone on the iteration disappears (46b).

- (46) ‘__ is/are coming [focus]’ ‘Is/Am/Are __ coming?’
- | | | | |
|----|-----|---------------------|------------------------|
| a. | 3Sg | <i>ʔègú ʔègà</i> | <i>ʔègù lá ʔègà</i> |
| | 1Sg | <i>ʔègú ñ ʔègà</i> | <i>ʔègù lá ñ ʔègà</i> |
| | 1Pl | <i>ʔègú íj ʔègà</i> | <i>ʔègù lá íj ʔègà</i> |
| b. | 3Pl | <i>ʔègù ʔégà</i> | <i>ʔègù là ʔégà</i> |

3.6.3.5 Rightward H-Movement

Rightward H-Movement most obviously affects nouns with lexical /HL/ melody. The H-tone jumps to the final syllable of the tonal domain (stem or word). The known morphosyntactic contexts for this rule are summarized in (47).

- (47) a. compound-initials (in quasi-possessive compounds);
b. bahuvrihi compound with numeral;
c. conjoined nouns (noun preceding *yà* ‘and’);
d. word before L-initial verb without proclitics (imperative, 3Sg subject forms, = *là* ‘it is not’);
e. word before preverbal existential proclitic *bò*;

To begin with (47a), this process affects nouns functioning as compound initials in the primary noun-noun compound construction, which otherwise mimics possessives. An example of Rightward H-Movement in a compound initial is lexically /HL/-toned *màrfā* ‘musket’ in *màrfā-pùnà* ‘gunpowder’, where it appears with LH-tones. The final has {L} overlay if prosodically light (as here), or L+{HL} if prosodically heavy, as in *màrfā-sùgùlè* ‘cock (of musket)’, literally “musket-ear.” Adding plural *-gè* makes the final in ‘gunpowder’ heavy: *màrfā-pùnà-ŋgè*. This is the regular tonal treatment of possessed nouns following a possessor that ends in an H-tone.

Lexically /L/-toned nouns have no H-tone that could slide right, so they appear in L-toned form as compound initials. More interestingly, lexically /LH/-toned nouns also appear in {L}-toned form as compound initials. In both cases, the compound final is regularly

{HL}-toned. This suggests that Rightward H-Movement applies to /LH/-toned nouns, but that the H-tone ends up merging with the initial H-tone of the final. An example is *gàndù:ré* ‘yoke’ in *gàndù:rè-síngì* ‘yoke rope’, where the initial H-tone on the final may have absorbed the final H-tone of the initial. Many additional examples of such compounds are in §5.1.1.

The formulation in (48) assumes that the basic {HL} overlay for compound finals has already applied.

(48) Rightward H-Movement (quasi-possessive compounds)

initial	final		initial	final
a. nonmonosyllabic initial				
/HL/	{HL}	→	...L.H	L+{HL}
/LH/	{HL}	→	...L.L	{HL}
b. monosyllabic initial				
/HL/	{HL}	→	H	L+{HL}
/LH/	{HL}	→	L	{HL}

For lexically /HL/-toned nouns, the output of Rightward H-Movement is identical to that produced by an {LH} overlay. However, lexically /L/- and /LH/-toned nouns have distinct outputs in the two processes.

Noun-adjective bahuvrihi compounds (47b) are based on 3Sg possessor forms of the noun. For example, *gírè* ‘eye(s)’, *gírè-nà* ‘his/her eye(s)’, bahuvrihi *gírè-ná-pèmbè* ‘person with a bad eye’ (i.e. ‘one-eyed person’) (§5.2.1.1). The tones of *gírè-nà* are due to an {LH} overlay. In the bahuvrihi, the H-tone that falls on the final syllable of the noun in the 3Sg possessor form moves onto 3Sg possessor *-nà* by Rightward H-Movement.

Conjunction *yà* ‘and’ (47c), cf. §7.1.1, induces Rightward H-Movement for /HL/-melody nouns. For example, /HL/-melody *ʔálámà* ‘sheep-Sg’ becomes *ʔàlà má yà* ‘sheep-Sg and ...’. /L/-melody *ʔàllà* keeps its tones: *ʔàllà yà* ‘a pig and ...’.

Rightward H-Movement also applies to words preceding 3Sg-subject perfective positive (unsuffixed type only), imperfective positive, and perfective negative verbs, and singular-addressee imperatives. These are the verbs that begin with L-tone and that may directly follow a noun or another verb without an intervening proclitic. Examples are in (49).

- (49) a. [ʔèbègé bè:lé] ʔùnè
/ʔèbégè bě:lè ʔùnè/
 [money get.Pfv.3SgSbj] say.Pfv.3SgSbj
 ‘He/She said (asked), what did he/she get?’
- b. [sé:dù gě:n nè] [tòndì-gé / jòmé bě:là]
/[sé:dù gě:ndè nè] [tòndì-gè / jòmé bě:là/
 [S go.Pfv.3SgSbj and.then] [money / hare get.Ipfv.3SgSbj]
 ‘Seydou will go and get money/a hare.’

- c. *t̀̀nd̀̀i-gé* *b̀̀l̀̀à:-l̀̀i-Ø*
 money get-PfvNeg-3SgSbj
 ‘He/She didn’t get (any) money.’
- d. *t̀̀nd̀̀i-gè* *b̀̀l̀̀i-l̀̀ò-Ø*
 money get-IpfvNeg-3SgSbj
 ‘He/She won’t get (any) money.’

In (49a), 3Sg perfective ‘he/she said’ verb triggers the shift from /b̥:lé/ to *b̀̀l̀̀é* in the preceding verb. Separately, *b̀̀l̀̀é* (even before its own H-tone shifts) triggers the shift from *ʔèb̀̀é* to *ʔèb̀̀é* in the initial ‘what?’ interrogative.

In (49b), /HL/-melody noun *t̀̀nd̀̀i-gè* ‘money’ shifts to *t̀̀nd̀̀i-gé* before 3Sg imperfective *b̀̀l̀̀à*. This shows that 3Sg imperfective as well as 3Sg perfective verbs can trigger Rightward H-Movement. In fact, even the subordinator *nè* in the first clause can become *né* by this process when directly followed by a 3Sg subject verb (examples in §15.1.2.1). In (49b), however, an object ‘money’ or ‘hare’ intervenes, so *nè* remains L-toned.

(49c) shows that a 3Sg perfective negative verb triggers shift from *t̀̀nd̀̀i-gè* to *t̀̀nd̀̀i-gé*. By contrast, the 3Sg imperfective negative verb in (49d) begins with H-tone, so no tone-shift in *t̀̀nd̀̀i-gè* occurs.

Imperatives are illustrated in (50). The singular-addressee imperative *s̀̀ò:ng̀̀ò* in (50a) begins with L-tone, and triggers the shift *t̀̀nd̀̀i-gè* ‘money’ to *t̀̀nd̀̀i-gé*. However plural-addressee imperative *s̀̀ó:ng̀̀à-y* (50b) and prohibitive *s̀̀ó:ng̀̀á-nd̀̀à* (50c) begin with H-tone and do not trigger the shift.

- (50) a. *t̀̀nd̀̀i-gé* *s̀̀ò:ng̀̀ò*
 money bring.Imprt
 ‘Bring-2Sg (the) money!’
- b. *t̀̀nd̀̀i-gè* *s̀̀ó:ng̀̀à-yⁿ*
 money bring.Imprt-PlAddr
 ‘Bring-2Pl (the) money!’
- c. *t̀̀nd̀̀i-gè* *s̀̀ó:ng̀̀á-nd̀̀à*
 money bring-Proh
 ‘Don’t-2Sg bring (the) money!’

Progressive *ʔémbè* precedes an imperfective-type verb (A-stem). Its form is *ʔémbè* before all 1st/2nd person subject verbs (which have subject proclitics) and before 3Pl verbs (which begin with H-tone). Before 3Sg verbs that begin with L-tone, it becomes *ʔémbé* by Rightward H-Movement (51d).

- (51) a. *ʔémbè* *ɲ* *g̀̀ò:nd̀̀à*
 Prog 1SgSbj go.out.Ipfv
 ‘I am going out.’

- b. *ʔémbè* *ɲ* *gǝ:ndà*
 Prog 1SgSbj go.out.Ipfv
 ‘We are going out.’
- c. *ʔémbè* *gó:ndà*
 Prog go.out.Ipfv.3PlSbj
 ‘They are going out.’
- d. *ʔèmbé* *gǝ:ndà*
 Prog go.out.Ipfv.3SgSbj
 ‘He/She is going out.’

When the progressive morpheme is separated from the verb by another constituent that does not begin with a proclitic, its form is *ʔémbà* before an H-tone, becoming *ʔémbá* by low-level Rightward H-Spreading (not -Movement) before an L-tone. Admittedly, the preferred order is *ʔémbà* directly before the verb, but the displaced order is elicitable. These facts show that the basic form is *ʔémbà*, and that *ʔémbá* occurs only before L-initial 3Sg imperfectives (which have no proclitic).

- (52) a. *ʔémbé* *wàlè* *ɲ* *kàná*
Prog work(n) 1SgSbj do.Ipfv
 ‘I am working.’
- b. *ʔémbé* *wàlè* *kàná*
Prog work(n) do.Ipfv
 ‘He/She is working.’

For full progressive paradigms, see §10.2.2.2.

The tone alternations for sequential *ʔémbà* ‘then’ are exactly the same as those for progressive *ʔémbè*, see §15.2.2.1. Any analysis that works for *ʔémbè* will also work for *ʔémbà*.

/HL/ and /LHL/ melody nouns undergo Rightward H-Movement before *=là* ‘it is not’, suggesting that it is treated as an L-initial verb (or predicate). See (346) below, especially (346c), for examples.

Another context for Rightward H-Movement is before an L-toned reduplicant in the imperfective positive. In (53), *námà* ‘meat’ shifts its H-tone to the final syllable, but /L/-toned *sùgùlè* ‘ear’ does not acquire an H-tone.

- (53) *námá / sùgùlè* *tà = à* *tègà*
 meat / ear Rdp=2SgSbj see.Ipfv
 ‘You-Sg will see meat / an ear.’ (*námà, sùgùlè*)

Existential proclitic *bò* triggers Rightward H-Movement on a preceding /HL/-melody word. It occurs in (54a) but, as expected, not in (54b-c).

(54) gloss X ‘X is lying down’

a. /HL/ melody

‘horse’	<i>sé (sé:)</i>	<i>sé: bò bì-yà</i>
‘cat’	<i>jà:lì</i>	<i>jà:lì bò bì-yà</i>
‘egg’	<i>póléngè</i>	<i>póléngé bò bì-yà</i>

b. /LH/ melody

‘pond’	<i>fêṭó</i>	<i>fêṭó bò bì-yà</i>
‘yoke’	<i>gàndù:ré</i>	<i>gàndù:ré bò bì-yà</i>

c. /L/ melody

‘foot’	<i>sè:</i>	<i>sè: bò bì-yà</i>
‘horn’	<i>kèlè</i>	<i>kèlè bò bì-yà</i>
‘ear’	<i>sùgùlè</i>	<i>sùgùlè bò bì-yà</i>

3.6.3.6 Initial Tone-Dissimilation (compound finals, possessed nouns)

As noted in the preceding section, when a compound initial ends up with an H-tone on its final syllable, the compound final changes from {HL} to L+{HL} overlay. In the case of quasi-possessive compounds, where the shift is from [... H.L] [H.L] to [...L.H] [L+H.L], one could argue that the initial L-tone in the compound final is in fact the underlying final L-tone of the compound initial. In this view, both the H-tone and L-tone of the compound initial shift leftward.

However, the same L+{HL} output is found with possessed nouns when preceded by a possessor that ends in an H-tone, e.g. 1Pl *ɲ*. For these possessors, there is no direct evidence for a final L-tone component, i.e. for an underlying falling tone, as in 1Sg /*ŋ*/. So the L+{HL} output for the compound final or possessed noun could be analysed as a tonal dissimilation, with an extra L-tone being inserted at the beginning of the compound final or possessed noun when immediately preceded by an H-tone.

(55) Initial Tone-Dissimilation (compounds, possessives)

$$\{ \dots H \} \{ HL \} \rightarrow \{ \dots H \} L + \{ HL \}$$

For verbs, the analogue of this tone-dissimilation applies after 1Pl *ɲ* and 2Pl *á* subject proclitics. In the imperfective positive, the L+{HL} pattern is found with heavy stems, as in *gù ɲ gùndùló-mà* ‘we cause (sth) to roll’, see (258a) in §10.2.2.1. However, in most inflectional categories, instead of L+{HL} the verb after 1Pl/2Pl proclitic has flat {L} even for heavy stems. For example, the imperfective negative has H-toned stem followed by L-toned suffix in e.g. 1Sg *ɲ párá-gó-lò* ‘I do not cut’ and *párá-gó-lò-Ø* ‘he/she doesn’t cut’, but the stem is entirely {L}-toned in 1Pl *ɲ párà-gò-lò* and 2Pl *á párà-gò-lò*.

3.6.3.7 {LH} tonosyntactic overlay

A tonosyntactic {LH} overlay applies to nouns followed by a modifying adjective (but not by a numeral) and by a few other elements (56). The H-tone occurs on the final syllable; preceding syllables are L-toned. Monosyllabic nouns are H-toned.

- (56) a. noun before ...
 modifying adjective (§6.3.1)
 3Sg possessor suffix *-nà* (§6.2.1.3) under some conditions
 ‘it is’ clitic (§11.2.1.1)
- b. verb plus ...
 clause-final interrogative *yà* (§13.2.1.4)

In (57), each X represents a syllable of any lexical tone. Superscript ^{LH} after a constituent indexes the application of an {LH} overlay onto the target, controlled by the element to the right.

- (57) Tonosyntactic {LH} overlay
- a. nonmonosyllabic target
 [(X...)X.X] [L ...] → [(L...)L.H]^{LH} [L ...]
- b. monosyllabic target
 [X] [L ...] → [H]^{LH} [L ...]

The diagnostic for tonosyntactic {LH} overlay is that nouns of /L/, /HL/, and /LH/ all appear with the same LH tone pattern, reduced to H for monosyllabics. For example, in (58), the lexically /L/-toned noun ‘horn’ shows the same final H-tone as the lexically /HL/-toned noun ‘egg’ when followed by a modifying adjective. Since lexical tones are irrelevant to the output tones, a tonosyntactic {LH} overlay is indicated. This distinguishes {LH} from Rightward H-Movement, whose effect is limited to HL-toned inputs.

- | | | | |
|------|----------------|--------|------------------------------------|
| (58) | noun | gloss | ‘a big ___’ |
| | <i>póléngè</i> | ‘egg’ | <i>pòlèngé^{LH} L bìgì</i> |
| | <i>kèlè</i> | ‘horn’ | <i>kèlé^{LH} L bìgì</i> |

The {LH} overlay could in theory be decomposed into an {L} overlay plus some further mechanism to account for the final H-tone on the affected stem, i.e. {L}+H. Since adjectives in Bunoge are {L}-toned following a noun, but {HL}-toned following another adjective, one could imagine an analysis whereby all adjectives are lexically {HL} but, when immediately postnominal, have the H-tone shift leftward onto the final syllable of the noun, on top of an {L} overlay. This analysis is technically viable, and it might recapitulate diachronic

developments. In most Dogon languages a N-Adj combination appears as N^L Adj, with lexical melody (e.g. {HL}, {H}, {LH}) preserved on the adjective, and shifting the adjective's H-tone leftward would result in $N^{LH}L$ Adj as in Bunoge.

Synchronically, under this analysis the derivation of $pòlèngé^{LH}L$ *bìgì* in (58) above would be (59).

- (59) *póléngè bìgì* input
pòlèngè^L bìgì tonosyntactic {L} overlay on the noun
pòlèngé^{L+H} bìgì H-tone shifts leftward

However, there is no independent synchronic evidence for an H-tone on 3Sg possessor suffix *-nà*, on the 'it is' enclitic, or on the interrogative particle that could shift leftward onto the final syllable of the noun. There is also no parallel for an {L} overlay on verbs before the interrogative particle. More significantly, no other case of leftward shifting of tone components is otherwise clearly attested in Bunoge. H-tones gravitate rightward, not leftward, in all clear cases. I therefore prefer the more direct and simpler tonosyntactic analysis for synchronic purposes.

Another way of analysing $N^{LH}L$ Adj would be as a single {LHL} overlay, realized over the two-word string, but with the H positioned just before the word-boundary.

In the case of 3Sg possessor *-nà*, an {LH} overlay or a process with the same effect is clearly needed in such combinations as *sùgùlé-nà* 'his/her ear' from trisyllabic /L/-melody noun *sùgùlè*. However, /L/-melody *CvCv* nouns do not undergo {LH}. For example, *tòni* 'mouth' shows {LH} overlay before an adjective, as in *tòni^{LH}L} bìgì* 'big mouth', but it remains L-toned in 3Sg possessor form *tòni-nà* 'his/her mouth'. The situation is somewhat like that for unsuffixed 3Sg-subject perfectives whose {LHL} overlay is fully realized on trisyllabics but reduced to {L} on prepausal *CvCv* verbs, see (243) below. The difference is that adding another morpheme permits realization of {LHL} on the verbs, while the *-nà* syllable in *tòni-nà* fails to have this effect.

3.6.3.8 Rightward H-Spreading

Rightward H-Spreading, as the name suggests, spreads (rather than shifts) an H-tone onto one or more following L-toned syllables. Whereas Rightward H-Movement converts H.L#L to L.H#.L, Rightward H-Spreading converts H.L#L to H.H#L (here # represents some boundary). Of the two, Rightward H-Spreading is closer to being a low-level tone sandhi rule. In both processes, L-toned inputs are unaffected; this distinguishes both of them from the {LH} overlay and from Final Tone-Raising.

(60) Rightward H-Spreading

a. nonmonosyllabic target

H.L#L → H.H#L

b. monosyllabic target

<HL>#L → H#L

Rightward H-Spreading applies to nouns when followed by an L-toned syllable in several morphosyntactic contexts, provided that Rightward H-Movement has not already shifted the H-tone. Spreading does not occur onto a final syllable before a 1Sg *ŋ* or 2Sg *à* proclitic. The L-toned elements that permit Rightward H-Spreading on the **preceding** word or stem are listed in (61).

(61) plural *-gè* (§4.1.1.2)

imperative verb (§10.8.1.1)

3Sg-subject verb forms with initial L-tone (summary in §10.3.3)

existential *bò* before statives (§11.2.2.1)

dè:gà ‘2’, the only L-toned nonsingular numeral (§4.6.1.2, §6.4)

some postpositions (e.g. locative *mbà*)

Examples with noun followed by plural *-gè*, by a 3Sg subject L-initial verb form (‘he/she does not have X’), and by an imperative verb are in (62). In these examples, Rightward H-Spreading occurs only in (62a). If another L-toned word is added to the plurals, the spreading would also apply in (62b). By definition, this spreading cannot occur after /L/-melody nouns (62c) in any context.

(62) gloss X X-plural ‘he/she does not have X’ ‘Bring X!’

a. /HL/ melody

‘horse’	<i>sé (sé:)</i>	<i>sé:-gè</i>	<i>sé: sà: = ndà-Ø</i>	<i>sé: sò:ngò</i>
‘cat’	<i>jà:li</i>	<i>jà:lí-gè</i>	<i>jà:lí sà: = ndà-Ø</i>	<i>jà:lí sò:ngò</i>
‘egg’	<i>póléngè</i>	<i>póléngé-gè</i>	<i>póléngé sà: = ndà-Ø</i>	<i>póléngé sò:ngò</i>

b. /LH/ melody

‘pond’	<i>fètó</i>	<i>fètó-gè</i>	<i>fètó sà: = ndà-Ø</i>	<i>fètó sò:ngò</i>
‘yoke’	<i>gàndù:rè</i>	<i>gàndù:rè-gè</i>	<i>gàndù:rè sà: = ndà-Ø</i>	<i>gàndù:rè sò:ngò</i>

c. /L/ melody

‘foot’	<i>sè:</i>	<i>sè:-gè</i>	<i>sè: sà: = ndà-Ø</i>	<i>sè: sò:ngò</i>
‘horn’	<i>kèlè</i>	<i>kèlè-gè</i>	<i>kèlè sà: = ndà-Ø</i>	<i>kèlè sò:ngò</i>
‘ear’	<i>sùgùlè</i>	<i>sùgùlè-gè</i>	<i>sùgùlè sà: = ndà-Ø</i>	<i>sùgùlè sò:ngò</i>

In some combinations, Rightward H-Spreading arguably applies recursively. Consider *?álamà* ‘sheep-Sg’, plural *?álamá-gè*, and *?álamá-gé dè:gà* ‘two sheep’. It is possible to derive ‘two sheep’ from *?álamà-gè dè:gà* by first spreading the H-tone onto the final stem syllable *mà* before L-toned *-gè* at word level, then spreading it onto *-gè* before the /L/-toned numeral at phrase level. Alternatively, *?álamà-gè dè:gà* could be directly converted to *?álamá-gé dè:gà* by allowing the H-tone to spread rightward across two syllables.

Rightward H-Spreading does not occur before 1Sg proclitic *ɲ* or 2Sg proclitic *à*, although these proclitics are L-toned. They syllabify with the preceding syllable, and require that it be L-toned: *námà ɲ tèmè* ‘I ate meat’.

In addition, Rightward H-Spreading does not occur between a word that has itself undergone Rightward H-Movement, e.g. from /HL/ melody to LH before an L-initial 3Sg subject predicate. *námà* ‘meat’ spreads to *námá* before plural *-gè* (63a). It fails to shift before progressive preverb *?émbè* when the latter preserves its initial H-tone (63b-c). In (64b), one might have expected *námá* with H spread to the right edge before the L-initial form *?èmbé*, which has undergone Rightward H-Movement triggered by 3Sg subject *tèmà*. However, *námà* remains HL-toned in this context.

- (63) a. *námá-gè*
meat-Pl
‘meats, kinds of meat’
- b. *námà* *?émbè* *tèmà*
meat Prog eat.meat.Ipfv.3PlSbj
‘They are eating meat.’
- c. *námà* *?émbè* *ɲ* *tèmà*
meat Prog 1PlSbj eat.meat.Ipfv
‘We are eating meat.’
- d. *námà* *?èmbé* *tèmà*
meat Prog eat.meat.Ipfv.3SgSbj
‘He/She is eating meat.’

One way to account for these data is to order Rightward H-Spreading before Rightward H-Movement. In this way, *?èmbé* in (63d) is still H-initial *?émbè* at the point where Rightward H-Spreading tries to apply. Or at least the word for ‘meat’ thinks so!

3.6.4 Low-level tone rules

3.6.4.1 Contour-Tone Mora-Addition

A case can be made for a process by which a monomoraic *Cv* syllable is lengthened to *Cv̄*: to allow clear expression of a contour tone, either <HL> or <LH>. However, this analysis can be questioned.

First, monosyllabic nouns belonging to the lexical /HL/-melodic class appear in the form *Cv̄* in isolation but *Cv̄:* before definite *nɔ̄*, hence *sé* ‘horse’, *sé: nɔ̄* ‘the horse’. On the face of it, the vowel is lengthened to accommodate an <HL> tone but not a flat H-tone. However, plural *sé:-gè* ‘horses’ suggests that the vowel length is lexical. Moreover, similar monosyllabics of /L/ class have similar length patterns in the absence of contour tones: *sè* ‘foot’ (isolation form), *sè:-gè* ‘feet’, *sè: nɔ̄* ‘the foot’. The evidence points instead to a shortening rule for *Cv*: nouns in isolation.

Second, *Cvyv* and *Cvww* verbs, and one *Cvlv* verb, lengthen the first vowel in certain inflections, namely the imperative, perfective (positive), and imperfective (positive), but not e.g. the perfective negative (64). Here too one could argue that the “lengthened” form is now lexically basic, in which case the remaining forms would require a shortening rule. For more details see §10.1.2.7-8.

(64)	gloss	imperative	Pfv 3Sg	Ipfv 3Sg	PfvNeg 3Sg
	‘sleep’	<i>dò:yò</i>	<i>dó:yè-Ø</i>	<i>dò dǒ:yà</i>	<i>dòyò:-lì-Ø</i>
	‘kill’	<i>gè:wà</i>	<i>gé:wè-Ø</i>	<i>gè gě:wà</i>	<i>gèwà:-lì-Ø</i>
	‘harvest’	<i>gì:wò</i>	<i>gí:wè-Ø</i>	<i>gì gǐ:wà</i>	<i>gìwà:-lì-Ø</i>
	‘get’	—	<i>bé:lè-Ø</i>	<i>bè bě:là</i>	<i>bèlà:-lì-Ø</i>

3.6.4.2 Stranded-Tone Re-Linking

If the vowel to which a tone was attached has fallen prey to syncope or apocope, the tone is reattached to the preceding syllable unless the deleted vowel had the same tone as an adjacent syllable (so the tone is not fully lost). Thus *Cv̄Cv̄Cv̄* → *Cv̄CCv̄*, with bimoraic rising-toned initial syllable. Examples are difficult to find because of the infrequency of LHL tone patterns in words that are subject to syncope. An example is *ɲ pàrà-gǎ-l-gà* ‘we didn’t cut’ (nonsubject focus form), see §13.1.1.5, syncopated from /-gà-lí-gà/.

In another nonsubject-focus verb form, *ɲ sówá:-lì-gà* ‘I did not buy’ is syncopated to *sówá:-l-gà*. There is no noticeable pitch decline on the l. This is because the L-tone of /-lì-/ is continued on *-gà*.

3.6.4.3 Contour-Tone Flattening

A case can be made for a process by which a contour tone is flattened to H or L on a monomoraic *Cv* syllable.

Monosyllabic nouns belonging to the /HL/-melody lexical type are pronounced *Cv̄* in isolation, but have falling tone in definite *Cv̄: n̄*. An example is *sé* ‘horse’, definite *sê: n̄* ‘the horse’ (§3.6.1.2). Since bisyllabic and longer stems can have /HL/ but not flat /H/ melody, I take nouns like ‘horse’ to be lexically /HL/. To get from /sê:/ to the isolation form *sé* requires vowel-shortening, followed by flattening of <HL> to H-tone.

Alternatively, if we reanalyse /HL/ melody in terms of a stem-initial tonal accent, for example /sée/ ‘horse’, there is no need for a flattening rule in this context.

There are also examples where an {LH} overlay is realized as H on a monosyllabic. For example, nonmonosyllabic nouns have {LH} overlay when followed by a modifying adjective, which itself then has {L} overlay (§6.3.1), as in *pòlèngé^{LH} bìgì^L* ‘a big egg’ and *ɲà:lí^{LH} bìgì^L* ‘a big cat’. A monosyllabic noun is realized with H-tone, as in *yó:^{LH} bìgì^L* ‘a big woman’. One could transcribe this as *yó:^H bìgì^L* reflecting the pronunciation, as *yó:^{LH} bìgì^L* with LH superscript showing the idealized maximal overlay (even though it is not fully realized), or as *yó:^{̄HL} bìgì^L*, with a strikethrough indicating the nonrealization of the relevant tone component. In any event a rule converting <LH> to H at single-syllable level is required.

Similarly, whereas heavy noun stems, regardless of tone-melodic class, have an {LH} overlay before 3Sg possessor *-nà*, as in *sùgùlé-nà* ‘his/her eat’ from *sùgùlè*, monosyllabics have H-toned forms, as in *sé:-nà* ‘his/her foot’ for expected #*sê:-nà* from *sê:* ‘foot’. This results in homophony with *sé:-nà* ‘his/her horse’ from *sé* (*sê:*) ‘horse’ (§6.2.1.3).

There are other contexts where even a bisyllabic or longer stem that one would expect to have a contoured tone sequence in fact show level tones. For example, 1Pl and 2Pl perfectives have {L} overlay on the stem, following the H-toned proclitic: *ɲ gùndùlò-mì* ‘we caused to roll’, *á gùndùlò-mì* ‘you-Pl caused to roll’ (§10.2.1.1). Since the other pronominal persons have {HL} (1Sg, 2Sg, 3Pl) or L+{HL} (3Sg) perfective overlays, and since the 3Sg L+{HL} flattens to {L} for mono- and light bisyllabic stems, one possibility is to analyse the apparent {L} for 1Pl/2Pl (as well as 3Sg) as flattened from L+{HL}.

Similarly, light bisyllabic /L/-melody nouns unexpectedly fail to raise the tone of their final syllable before 3Sg possessor *-nà*, as in *tònì-nà* ‘his/her mouth’ (§6.2.1.3).

4 Nominal, pronominal, and adjectival morphology

4.1 Nouns

4.1.1 Simple nouns (singular, plural *-gè*, associative plural *yà:*)

There are no transparent, productive animacy/number suffixes, and therefore no animacy distinctions in the morphology. Some frozen inanimate nominal suffixes (e.g. *-ngè*) are discussed below. Plurality of any countable noun is marked by a suffix *-gè* that has tonal effects on a preceding noun (§4.1.1.2). In fact, the tones of nouns are subject to tonal effects from a range of other elements.

There is an associative plural with *yà:* following a singular NP, but denoting a set of people associated with the referent of that NP. An example is *séydù yà:* ‘Seydou &co’. *yà:* may be related to *yà* ‘and’, perhaps with the ‘it is’ clitic accounting for the lengthening.

4.1.1.1 Tonal classes of noun stems

Each noun has one of three lexical tone melodies: /HL/, /LH/, and /L/, as summarized in (65). Slashes /.../ enclose lexical tone-melody representations. Angled brackets in <HL> indicate contour-toned syllables. Periods in e.g. L.H.L are syllable dividers.

(65)	monosyllabic	bisyllabic	trisyllabic and longer
	a. /HL/ melody <HL> ~ H	H.L	L.H.L
	b. /LH/ melody (none)	L.H (rare)	L.L.H
	c. /L/ melody L	L.L	L.L.L

Common melodies for nouns are /HL/, /L/, /LH/ (mostly borrowings), and a few cases of /LHL/. Trisyllabic and longer stems are well represented in all tone classes, with /LH/ stems common among loanwords. See §3.6.1.3 for more details and lists.

The lexical tones are heard in isolation and before definite *nɔ̀*, which has no tonal effect on the noun. *nɔ̀* is itself tone-raised prepausally to *nɔ́* after /L/-toned nouns (66c), though the raising is inconsistent after heavy stems like *C̀V̂C̀V̂C̀V̂* (§3.6.3.2).

(66)	noun (definite)	gloss
	a. /HL/ melody	
	<i>póléngè nò</i>	‘the egg’
	<i>jà:lì nò</i>	‘the cat’
	<i>yô: nò</i>	‘the woman’
	b. /LH/ melody	
	<i>fêtó nò</i>	‘the pond’
	<i>gàndù:ré nò</i>	‘the yoke’
	c. /L/ melody	
	<i>heavy</i>	
	<i>sùgùlè nó ~ sùgùlè nò</i>	‘the ear’
	<i>light</i>	
	<i>kèlè nó</i>	‘the horn’
	<i>kò: nó</i>	‘the head’

4.1.1.2 Plural *-gè* (*-ngè*)

This morpheme is added to nouns (N-*gè*) and to noun-adjective sequences (N Adj-*gè*), as well as to relative-clause participles and some other elements. (67) shows *-gè* added directly to nouns of various tone-classes. *-gè* is always L-toned in isolation pronunciations. It becomes H-toned *-gé* before the /L/-toned numeral *dè:gà* ‘2’ by Final Tone-Raising (§3.6.3.3) even after /L/-melody nouns, as in *ʔòbò-gé dè:gà* ‘two houses’. It also becomes H-toned *-gé* by Rightward H-Spreading (§3.6.3.8) after an /HL/-melody noun, as in *ʔóló-gé mbà* ‘in/to (the) villages’ (< *ʔólò* ‘village’). Specifically, H.H.L becomes H.H.H-*gè*, H.L becomes H.H-*gè*, and <HL> becomes H-*gè*.

(67)	noun	plural	gloss
	a. /HL/ melody (the H-tone spreads to the stem-final syllable)		
	<i>póléngè</i>	<i>póléngé-gè</i>	‘egg’
	<i>jà:lì</i>	<i>jà:lí-gè</i>	‘cat’
	<i>yô:</i>	<i>yó:-gè</i>	‘woman’
	b. /LH/ melody		
	<i>fêtó</i>	<i>fêtó-gè</i>	‘pond’
	<i>gàndù:ré</i>	<i>gàndù:ré-gè</i>	‘yoke’

c. /L/ melody

<i>sùgùlè</i>	<i>sùgùlè-gè</i>	‘ear’
<i>kèlè</i>	<i>kèlè-gè</i>	‘horn’
<i>kò:</i>	<i>kò:-gè</i>	‘head’

Though the distinction is subtle phonetically, especially when words are pronounced in isolation, plurals of prosodically light /L/-melody stems, like *sè:-gè* ‘feet’, are distinct from those of corresponding /HL/-melody stems, like *sé:-gè* ‘horses’.

A nasal variant *-ngè* occurs in plural ^{HL}*wé:-ngè* ~ ^{LHL}*wě:-ngè* ‘possessions’, used in ‘Y belong to X’ predicates (§11.5.2). It also occurs after nasal syllables, as in *ná:-ngè* ‘cows’. This should be distinguished from invariant *-ngè* in instrument nominals (§4.2.3.1) and from more-or-less frozen inanimate suffix *-ngè* ~ *-gè* (§4.1.1.3).

4.1.1.3 Frozen inanimate class suffixes (*-ngè*, *-gè*, *-gù*)

A number of nouns contain a frozen, no longer easily segmentable suffix that corresponds to a segmentable inanimate singular class suffix in Najamba. The suffix is usually *-ngè* or *-gè* with +ATR vowel regardless of the ATR value of nonfinal vowels.

(68)	singular	plural	gloss
a. <i>-ngè</i>			
<i>unsegmentable</i>			
	<i>kè:ngè</i>	<i>kè:ngè-gè</i>	‘inheritance’
	<i>nù:ngè</i>	<i>nù:ngè-gè</i>	‘cow-peas’
	<i>?òyngè</i>	<i>?òyngè-gè</i>	‘hearth’
	<i>pó:ngè</i>	<i>pó:ngè-gè</i>	‘fonio (grain)’
	<i>tè:ngè</i>	<i>tè:ngè-gè</i>	‘firewood’
	<i>kòlèngè</i>	<i>kòlèngè-gè</i>	‘boundary (of field)’
	<i>pánángè</i>	<i>pánángè-gè</i>	‘meal’
	<i>tébéngè</i>	<i>tébéngè-gè</i>	‘ladle’
	<i>tílingè</i>	<i>tílingè-gè</i>	‘tree; medicine’
	<i>túlúngè</i>	<i>túlúngè-gè</i>	‘neighborhood’
<i>marginally segmentable</i>			
	<i>dó:ngè</i>	—	‘(act of) pounding in mortar’, with verb <i>dé:</i>
	<i>?émè-ngè</i>	—	‘milk (n)’, cf. verb <i>?émè</i> ‘milk (a cow)’
	<i>?í:ngè</i>	—	‘height’, see §4.2.6
	<i>kélingè</i>	<i>kélingè-gè</i>	‘marriage’, verb <i>kéldè</i> ‘perform (marriage)’
	<i>kólangè</i>	<i>kólangè-gè</i>	‘neck’, cf. noun <i>kólà</i> ‘voice’
	<i>pólingè</i>	<i>pólingè-gè</i>	‘egg’, cf. verb <i>pólè</i> ‘lay (egg)’
	<i>sé:ngè</i>	<i>sé:ngè-gè</i>	‘millet’, cf. cpd final <i>-sè</i> ‘grain’ (§5.1.6)
	<i>pùnàngè</i>	—	‘powder, flour’, cf. cpd final <i>-pùnà</i>

b. -gè

unsegmentable

<i>ʔámgè</i>	—	‘seedstock’
<i>ʔèndègè</i>	—	‘rice’
<i>páligè</i>	—	‘sesame’
<i>sólágè</i>	—	‘roselle’
<i>sóggè</i>	<i>sóggé-gè</i>	‘clothing’
<i>yèlègè</i>	<i>yèlègè-gè</i>	‘trash, refuse’

marginally segmentable

<i>mèrègè</i>	<i>mèrègè-gè</i>	‘fun’, precedes verb <i>mérálè</i>
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tàndàngè ‘twin(s)’ may belong in (68a), but the ending could also be taken as plural.

ʔáŋkóngò ‘sky’ is a possible vestige of *-ŋgo, if derived from a compound with ‘God-’ (Bunoge *ʔàmànàngà*, Jamsay *ámà*, etc) as initial plus ‘head’ (Bunoge *kò:*) or related spatial term ‘top’ as final. Compare Penange *àmànà kó:lò* ‘sky’ (< “God(’s)-top”), cognate Mombo *àmànà kó:ló* ‘sky’, and semantically similar Tiranige *á: dàná* ‘sky’ (“God(’s)-head”).

There are a few nouns that appear to preserve an ending *-gù* ~ *-ŋgù* (69).

(69)	noun	gloss	comment or related form
	<i>dílà-gù</i>	‘barter, exchange’	<i>díla</i> ‘be equal’
	<i>nùmé-gù</i>	‘handful (of mud)’	plural <i>nùmé-[gũ:-gè]</i> ; <i>númè</i> ‘hand’
	<i>yà:gù</i>	‘yesterday’	eastern Dogon <i>yá:</i> (Jamsay, etc.)
	<i>X^{HL} dólóngù</i>	‘X’s interior’ (§8.2.4)	<i>dólè</i> ‘belly’

4.1.2 Basic nouns (‘woman’, ‘man’, ‘child’, ‘person’, ‘thing’)

The most common and basic nouns are shown in (70), in singular form then with plural *-gè* or variant.

(70)	singular	plural	gloss
a.	<i>sójò</i>	<i>sójó-gè</i>	‘person’
	<i>nólò</i>	<i>nóló-gè</i>	‘man’ (also ‘friend’)
	<i>yó (yô:)</i>	<i>yó:-gè</i>	‘woman’
	<i>bé (bé:)</i>	<i>bé:-gè</i>	‘child’
b.	<i>wè:</i>	<i>wè:-ŋgè</i>	‘thing’

The human nouns in (70a) are regular in form and are compatible with the dominant lexically /HL/ nominal type. They have /HL/ melody and become H-toned before the plural suffix by Rightward H-Spreading.

Forms of ‘child’, ‘woman’, and ‘man’ as compound initials or finals are covered in §5.1.4 and §5.1.7.

yé replaces *wè:* as default ‘thing’ before adjectives, as in *yé^{LH} L báyⁿ* ‘(a) big one, something big’. It also occurs in relatives (§14.4) and (especially negative) focalized clauses (§13.1.1.3, §13.1.1.9).

4.1.3 *ʔòbò* ‘house’

ʔòbò ‘house’ combines with adjectives in a phonologically regular manner in its focal sense denoting a construction: *ʔòbò^{LH} L báyⁿ* ‘(a) big house’. However, the same input lexical item also has a contracted form *ʔó:^{LH} L báyⁿ* meaning ‘a big household’ (i.e. lots of people in one house, e.g. of a man who has many children).

The high-frequency combination of *ʔòbò* with locative *mbà* is likewise contracted: *ʔò: mbà* ‘at/to the house, (at) home’. As noted in §8.2.3.1, *mbà* itself likely contains a frozen, contracted definite *nò*, so a comparison with *ʔòbò nó* ‘the house’ is appropriate.

4.1.4 Initial *CvN-* and *Cv-* reduplication in nouns

The nouns in (71) have *CvN-Cv(:)N(C)v* shapes with *N* a homorganic (assimilated) nasal. The final syllable is *-bè* in several cases (§5.1.4.1).

	singular	plural	gloss
(71)	a. L-toned reduplicant		
	<i>{HL}-toned base</i>		
	<i>sòn-sónì</i>	<i>sòn-sóní-gè</i>	‘saliva’ or ‘biting ant’
	<i>dàn-dángà-bè</i>	<i>dàn-dángà-bé-gè</i>	‘paper wasp’ (for <i>-bè</i> see §5.1.4.1)
	<i>kàŋ-ká:m-bè</i>	<i>kàŋ-ká:m-bè-gè</i>	‘pied crow’ (onomatopoeic)
	<i>pòm-pó:m-bè</i>	<i>pòm-pó:m-bè-gè</i>	‘shrub sp. (<i>Calotropis</i>)’
	b. H-toned reduplicant		
	<i>{LHL}-toned base</i>		
	<i>sín-sǐ:njà</i>	<i>sín-sǐ:njá-gè</i>	‘swift (bird)’
	<i>{L}-toned base</i>		
	<i>kúŋ-kùm-bè</i>	<i>kúŋ-kùm-bè-gè</i>	‘agama lizard’
	<i>tún-tùŋgè</i>	<i>tún-tùŋgè-gè</i>	‘stool’

The examples in (71a) with *-bè* have unusual tonal patterns in the plural. For ‘paper wasp’, *-bé-* has its own H-tone in the plural following an L-tone, rather than spreading the H-tone of *-dángà-* rightward across the morpheme boundary. For ‘pied crow’ and ‘shrub (*Calotropis*)’, *-bè-* remains L-toned following an H-toned long vowel, again failing to allow Rightward H-Spreading. However, ‘agama lizard’ (71b) has no tonal irregularities.

These frozen reduplications are generally treated tonally as composite. When possessed, both the reduplicant and the base show the possessor-controlled overlay. This is most obvious after a possessor ending in an L-tone, like 1Sg *ɲ*, where the noun surfaces with {HL}-{HL} melody, but the {L}-{HL} melody after final-H-toned possessors, like 1Pl *ɲ*, is also compatible with this structure.

- (72) noun ‘my__’ ‘our __’ gloss
- a. *sòn-sónì* *ɲ sòn-sónì* *ɲ sòn-sónì* ‘saliva’ or ‘biting ant’
- b. *tún-tùṅgè* *ɲ tún-tùṅgè* *ɲ tún-tùṅgè* ‘stool’

In the case of *sín-sĩ:ɲjà* ‘swift (bird)’, an alternative analysis is that *sín-* is an independent compound initial only accidentally similar to the compound final. This analysis is (shakily) supported by the fact that *sín-* also occurs in one other bird name, *sín-sǎ:lè* ‘firefinch’.

The compound *tôw-tôw-wò* ‘pick-hoe’ has a close but superficial resemblance to these *CvN-Cv(:)N(C)v* nouns. In this case the initial is recognizable as the noun *tôw* which occurs in the cognate noun-verb collocation *tôw tó:wè* ‘slash earth (with pick-hoe, to plant seeds)’. In fact, *tôw-tôw-wò* ‘pick-hoe’ belongs to the instrumental compound construction with suffix *-yò ~ -yò* (the *y* is subject to *y*-Assimilation) following a noun-verb sequence, see §5.1.11.2.

Nouns with apparent frozen initial *Cv-* reduplicant are uncommon. For bisyllabic *fú-fù* ‘scrubber’ and onomatopoeic *dú:-dù* ‘coucal (bird)’, it is difficult to distinguish (apparent) monosyllabic reduplication from (apparent) full-stem iteration. With nonmonosyllabic bases, I can cite *gó-górò* ‘padlock’ (a regionally widespread word), *bó-bólò* ‘tree sp. (*Anogeissus*)’, and *dù-dùggè* ‘gecko lizard’.

Noun *déné-nè* ‘fatigue’ is derived from verb *déné* ‘become tired’ by an apparent final *-Cv* reduplication (§4.2.6). However, no other derivative of this type is known, and apparent frozen reduplications like *bànðnò* ‘blister beetle’ are too rare to constitute a recognizable type.

4.1.5 Nouns with full-stem iteration

A number of nouns have the form of a full-stem iteration, though the base is not attested as a simple stem.

A monosyllabic base occurs in *ɲá:-ɲà:* ‘(lower) jaw’, with {H}-{L} melody. The two most important matrilineal kin terms, *nì-nì* ‘mother’ and *bò-bò* ‘mother’s brother’, have a reduplicative appearance with short vowels (§6.2.2.1).

Bisyllabic examples are in (73). They show various tone melodies.

(73) {H}-{L}

<i>dégé-dègè</i>	‘statuette’
<i>gúnú-gùnù</i>	‘mini-granary (in a house)’
<i>kàjò-kàjò</i>	‘gravel’
<i>kéjé-kèjè</i>	‘mastoid process (bone behind ear)’
<i>nómú-nòmù</i>	‘scorpion’
<i>píní-pìní</i>	‘stomach’
<i>ʔóló-ʔòlò</i>	‘throat’
<i>ʔóló-ʔòlò</i>	‘tree snake’
<i>yálá-yàlà</i>	‘wind scorpion’

{L}-{LH}

<i>pùsù-pùsú</i>	‘lungs’
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{L}-{HL}

<i>gìjì-gíjì</i>	‘bat (mammal)’
<i>pìrì-pírì</i>	‘winged termite’

{L}-{L}

<i>kùbù-kùbù</i>	‘machete blade’ (Fr. <i>coupe-coupe</i>)
<i>kùnà-kùnà</i>	‘fog’
<i>ʔùlè-ʔùlè</i>	‘skink lizard’

Iterated stems that also include a nasal linker, cf. §5.1.9, are in (74).

(74) a. {LH}-N-{L}

<i>kùlé-ŋ-kùlè</i>	‘dust’
<i>gòló-ŋ-gòlò</i>	‘stirring stick’

b. {H}-N-{HL}

<i>kùnè-ŋ-kúnè</i>	‘laughing dove’
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c. {L}-N-{L}

<i>gàlà-ŋ-gàlà</i>	‘gallbladder’
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I know of one iterated stem with **trisyllabic** base. It has {L}-{HL} melody, with just one syllable H-toned: *kèbèlè-kébèlè* ‘beetle, bug’.

4.2 Derived nominals

4.2.1 Characteristic derivative (-gà)

A noun or adjective defining a person (or animal) by reference to a distinctive body part or similar feature F has the form F-gà. The input noun shifts to {LH} tone when the derivative is used as a noun. The monosyllabic example in (75) flattens this to H-tone.

(75)	noun	gloss	characteristic	gloss
	<i>kùlè</i>	‘hair’	<i>kùlé-gà</i>	‘hairy’ or ‘bearded’
	<i>dòlé</i>	‘belly’	<i>dòlé-gà</i>	‘pregnant’
	<i>kúlù</i>	‘hump’	<i>kùlú-gà</i>	‘hunchback(ed)’
	<i>ʔúrù</i>	‘disease’	<i>ʔúrú-gà</i>	‘sick person, patient’
	<i>kò</i>	‘head’	<i>kó:-gà</i>	‘knobbed (stick)’

When used as modifying adjectives directly following other nouns (such as ‘person’), the usual {L} overlay of adjectives applied: *sòjò*^{LH H} *kùlè-gà* ‘a hairy (or bearded) person’, *sòjò*^{LH H} *kùlù-gà* ‘hunchback’, *yó:*^{LH H} *dòlè-gà* ‘a pregnant woman’, *tùmá*^{LH H} *kò:-gà* ‘staff (stick) with knobbed end’.

nùmá-gà ‘left hand’, cf. *númè* ‘hand’, is morphologically nontransparent but may belong here.

4.2.2 Verbal noun (-nà after O/U-stem)

A suffix *-nà* is added to a verb stem to produce a verbal noun. The stem ends in {o o u}, i.e. *o* or *o* depending on ATR-harmonic class for final-nonhigh-vowel verbs and *u* for final-high-vowel verbs (§3.3.6). The stem has {LH} overlay.

(76)	verb	verbal noun	gloss
a. monosyllabic			
	<i>nê:</i>	<i>nǎ:-nà</i>	‘drink’
	<i>jê:</i>	<i>jǎ:-nà</i>	‘eat (a meal)’
	<i>gê:</i>	<i>gǎ:-nà</i>	‘go out’ (variant)
	<i>ɲî:</i>	<i>ɲǎ:-nà</i>	‘draw water’
b. bisyllabic			
-ATR			
	<i>témè</i>	<i>témó-nà</i>	‘eat (meat)’
	<i>sójè</i>	<i>sòjǎ-nà</i>	‘tie’
	<i>ʔíj-jè</i>	<i>ʔíj-jǎ-nà</i>	‘stand, stop’

<i>jénnè</i>	<i>jènnó-nà</i>	‘sweep’
<i>jóṅgè</i>	<i>jòṅgó-nà</i>	‘treat (medically)’
<i>dóṅgè</i>	<i>dòṅgó-nà</i>	‘throw’
+ATR		
<i>ʔégè</i>	<i>ʔègó-nà</i>	‘come’
<i>sígè</i>	<i>sìgó-nà</i>	‘go down’
<i>tábè</i>	<i>tàbó-nà</i>	‘give’
<i>bánnè</i>	<i>bànnó-nà</i>	‘help’
nonfinal a vocalism		
<i>káni</i>	<i>kǎn-nà</i>	‘do’ (syncopated)
nonfinal high-vowel		
<i>símì</i>	<i>símú-nà</i>	‘build’
c. trisyllabic		
<i>dúnjúrè</i>	<i>dùnjùró-nà</i>	‘push’
<i>góṅgómì</i>	<i>gòṅgǒ-m-nà</i>	‘taking out’ (syncopated)
d. causative		
<i>gúndúlómì</i>	<i>gùndùlò-mú-nà</i>	‘roll (sth) along’

For *gè:ndè* ‘go’, the verbal noun is often truncated from *gè:ndó-nà* to *gě:n-nà*.

The verbal noun suffix *-nà* should not be confused with 3Sg possessor suffix *-nà* on noun stems (§6.2.1.3). However, the two have the same tonal morphophonology.

In addition to this productive verbal noun, many verbs have a phonologically related cognate nominal or other lexicalized nominal counterpart. For example, *dòróṅgè* ‘sleeping, sleep (n)’ corresponds to the verb *dó:yè* ‘sleep’.

4.2.3 Uncompounded deverbal instrument and product nominals

Many instrument nominals are compounds; see §5.1.11. This section describes various uncompounded derived nominals.

4.2.3.1 Instrument nominals with suffix *-ṅgè* or *-ṅgà*

A few nouns denoting instruments associated with a recurrent action are derived by adding *-ṅgè* (reduced to *-gè* after a nasal) or *-ṅgà* to a form of the verb ending in *i* or *u*. Syncope has occurred in ‘blanket’. Degemination has occurred in ‘broom’.

(77)	verb	gloss	nominal	gloss
	a. <i>-(ŋ)gè</i>			
	<i>ʔéb-bè</i>	‘sit’	<i>ʔébú-ŋgè</i>	‘seat, place to sit’
	<i>ɲám-bè</i>	‘cover (sb)’	<i>ɲám-gè</i>	‘blanket’
	b. <i>-ŋgà</i>			
	<i>ɲénnè</i>	‘sweep’	<i>ɲéní-ŋgà</i>	‘broom’

-ŋgè is also a frozen inanimate suffix found on several nouns (§4.1.1.3). *-ŋgà* is attested in one agentive derivative (§4.2.4).

4.2.3.2 Nominals with final *u* or *y*

Cognate nominals related to verbs often end in *u*, see (336b) in §11.1.2.4. In a few cases, nouns of this shape primarily denote instruments or products.

(78)	verb	gloss	nominal	gloss
	<i>bámbè</i>	‘carry on back’	<i>bàmbù</i>	‘wrap for carrying baby on back’
	<i>némbè</i>	‘make (bricks)’	<i>némbù</i>	‘mud-brick’

The nominal *dùy* ‘load (carried on the head or on a platform)’, cf. verb *dú-yyè* ‘carry (on head or platform)’ may belong here if apocopated from Pre-Bunoge **dùyù*, but the final **u* is doubtful (cognates include Jamsay *dú:*, Tommo So and Togo Kan *dúyó*, and Yorno So *dúwé:*).

4.2.3.3 Uncompounded instrument nominals with *-yò ~ -yɔ̀*

Most instrument nominals with *-yò ~ -yɔ̀* are compounds of the ‘fly-swatter’ type, including a prototypical object or cognate nominal as compound initial (§5.1.11.2). The *y* is subject to *y*-Assimilation (§3.4.4.1). I know of two uncompounded examples (79).

(79)	noun	gloss	verb	gloss
	<i>déb-bò</i>	‘carrying strap’	<i>débè</i>	‘hold, cling’
	<i>ná(í)-yò</i>	‘stirring stick’	<i>náryè</i>	‘stir (with stirring stick)’

A more complex phrasal example, resembling a nonsubject relative clause, is [*númè ndò*] *ɲ wàlè kán-yò* ‘what we work with by hand’, i.e. ‘our tools’; see T2015-05 @ 01:23 for mark-up. The verb is *káni* ‘do’, in collocation with noun *wàlè* ‘work’.

bí:mbò ‘file (tool)’, cf. verb *bímbè* ‘file, apply a file to (sth)’, may also belong here etymologically, cf. Mombo *bí:mbyé*.

4.2.4 Uncompounded agentive-like nominals (-*ndè*, -*ngà*, -*y*)

Array (80) lists derived agentive-like nominals denoting humans. They are not all deverbal, and some are made predicative by adding *káni* ‘do’ as auxiliary. Suffixes *-ndè* (80a) and *-ngà* (80b) are not otherwise attested in agentive function, but there is one example of *-ngà* in a semantically similar instrument nominal (‘broom’ from verb ‘sweep’, §4.2.3.1). Morphological segmentation of ‘hunter’ (80c) is obscure.

(80)	agentive	gloss	related form	gloss
	a. <i>-ndè</i>			
	<i>kámgá-ndè</i>	‘thief’	<i>kámgà káni</i>	‘commit theft’
	<i>díwá-ndè</i>	‘coward’	<i>dí:wè</i>	‘be afraid’, cf. <i>dìwò</i> ‘fear (n)’
	<i>kó:njí-ndè</i>	‘lazy one’	<i>kó:njà</i>	‘laziness’
	<i>tálágá-ndè</i>	‘pauper’	<i>tálágá-gè</i>	plural (‘paupers’)
	b. <i>-ngà</i>			
	<i>kónú-ngà</i>	‘sorcerer’	<i>kònú káni</i>	‘cast spells’
	c. <i>-y</i>			
	<i>dá:nâ:-y</i>	‘hunter’	<i>dâ:nàmà</i>	‘hunting (n)’

Most agentives are compounds with incorporated object and with *-bò* or *-gò* suffix (§5.1.3).

4.2.5 Deadjectival extent nominals

Nouns denoting scalar dimensions related to adjectives are in (81).

(81) Extent nominals

noun	gloss	related adjective
a. with medial gemination, from <i>CvCv</i> or <i>CvC</i>		
<i>góllà</i>	‘length’	<i>gòlò</i> ‘long’
<i>bánpà</i>	‘size, dimensions’	<i>bàyⁿ</i> ‘big’

b. from *CvCCv*

final vowel shifts to a

<i>gimbà</i>	‘depth’	<i>gimbò</i>	‘deep’
<i>nínjà</i>	‘weight’	<i>nìnjì</i>	‘heavy’

final vowel of adjective is already a

<i>bámbà</i>	‘width’	<i>bàmbà</i>	‘wide’
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c. suppletive

<i>ʔí:ŋgè</i>	‘height’	(cf. <i>gòlò</i>	‘long, tall’)
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The nouns in (81a-b) probably originated as deadjectival derivatives with suffix **-yà*, cf. Penange cognates like *bàmb-yà* ‘width’. A trace of the **y* remains in the geminated *ll* and *ŋŋ* in (81a), cf. *y*-Assimilation §3.4.4.1.

Since ‘long’ and ‘tall’ are expressed by the same adjective *gòlò*, the important distinction between ‘length’ and ‘height’ requires suppletion. *ʔí:ŋgè* ‘height’ is historically related to *ʔíj-jè* ‘stand, stop’, stative *ʔigà*, cf. English *stature* or (noun) *standing*.

These extent nominals are typically possessed: *bàmbá-nà* ‘its width’, *gimbá-nà* ‘its depth’.

4.2.6 Other nominalizations

The nominals in (82) are probably deverbal, but none represents a recognizable morphological pattern. *déné-nè* ‘fatigue’ could be interpreted synchronically as reduplicated, cf. §4.1.4.

(82)	nominal	gloss	related form(s)
	a. deverbal (or arguably so)		
	<i>jàmà-là</i>	‘damage, trouble’	<i>jàmì</i> ‘malfunction [intr]’ <i>jàmá-(ŋ)gè</i> ‘ruin, harm (sth)’
	<i>dòwà-rú</i>	‘condolences’	<i>dò:wà</i> ‘death’, <i>dó:wè</i> ‘die’
	<i>déné-nè</i>	‘fatigue’	<i>déné</i> ‘become tired’
	b. deadjectival		
	<i>sèmè-lémà</i>	‘slyness’	<i>sémé: bò-</i> ‘be sly’
	~ <i>sèmè-lámà</i>		

4.3 Pronouns

4.3.1 Basic personal pronouns

For first and second persons, the singular and plural forms are closely related. In independent and accusative forms, the plural adds *-yá* to the singular. In the proclitic series, the singular and plural differ only in their own tones and in their tonal effect on the following word.

(83) Personal pronouns

	independent	accusative	subject	
			proclitic	other
1Sg	<i>mì</i>	<i>mì-ηgù</i>	<i>ì</i> Vb	
1Pl	<i>mì-yá</i>	<i>mì-yá-ηgù</i>	<i>ì</i> Vb	
2Sg	<i>ò</i>	<i>ò-ηgù</i>	<i>à</i> Vb	
2Pl	<i>ò-yá</i>	<i>ò-yá-ηgù</i>	<i>á</i> Vb	
3Sg	<i>ǎwⁿ</i>	<i>à-ηgù</i>		Vb-Ø
3Pl	<i>à-yá</i>	<i>à-yá-ηgù</i>		Vb- <i>yè</i> etc. (variable suffix)

Accusative *mì-ηgù*, *ò-ηgù*, and *à-ηgù* are subject to Final Tone-Raising before an L-tone. 3Sg and 3Pl subject are expressed either suffixally as shown above, or by tones without suffixes, depending on the morphosyntactic context.

Bunoge has no distinct series of subject pronominals in nonsubject relatives (§14.3) and nonsubject focalized clauses.

4.3.2 Pronominal possessors

Pronominal possessors (like nonpronominal possessors) precede the possessed noun X except in the 3Sg category. The lexical tone of the possessed noun is erased by a tonal overlay. The L- and HL-toned preposed possessors (1Sg, 2Sg, 3Pl) control {HL} overlay on the following possessed noun. The H-toned preposed possessors (1Pl, 2Pl) control {L} contour on the following possessed noun. Suffixed 3Sg *-nà* controls {LH} on the preceding possessed noun. For examples with alienable possessums see §6.2.1.1-3. Inalienable examples have the same morphosyntax and tones.

(84) Pronominal possessor

1Sg	$\dot{\eta}^{\text{HL}} X$
1Pl	$\dot{\eta}^{\text{L}} X$
2Sg	$\acute{a}^{\text{HL}} X$
2Pl	$\acute{a}^{\text{L}} X$
3Sg	$X^{\text{LH}} -n\grave{a}$
3Pl	$\hat{a}\eta^{\text{HL}} X$

There are no traces of possessive classifiers. For more on possessed NPs see §6.2.

3Sg possessor *-nà* after a noun stem should not be confused with verbal noun suffix *-nà* (§4.2.2).

4.4 Determiners

4.4.1 Definite morpheme (*nò*)

This morpheme is invariant in form. It follows nouns, adjectives, the plural marker *-gè*, and numerals, but precedes ‘all’ quantifiers (§6.1.1).

nò has no effect on the tones of the preceding NP elements. In particular, it does not allow Rightward H-Spreading onto the final syllable of the preceding word. If that word is entirely {L}-toned, *nò* undergoes Final Tone-Raising to become *nó*, even in isolation, consistently for light stems (*Cv*; *CvCv*) and occasionally for heavier stems (§3.6.3.2). (85) illustrates with otherwise unmodified nouns. H-toned *nó* occurs only in (85c).

(85) noun definite gloss

a. HL-toned nouns

unpossessed with /HL/ melody

<i>bé</i> (<i>bê:</i>)	<i>bê: nò</i>	‘child’
<i>négè</i>	<i>négè nò</i>	‘elephant’
<i>ʔólò</i>	<i>ʔólò nò</i>	‘village’
<i>ʔálámà</i>	<i>ʔálámà nò</i>	‘sheep’

{HL} overlay erasing lexical melody

$\dot{\eta}^{\text{HL}} ʔólò$	$\dot{\eta}^{\text{HL}} ʔólò nò$	‘my village’
$\dot{\eta}^{\text{HL}} ʔálámà$	$\dot{\eta}^{\text{HL}} ʔálámà nò$	‘my sheep-Sg’

b. /LH/-toned nouns

<i>fêtó</i>	<i>fêtó nò</i>	‘pond’
<i>kirké</i>	<i>kirké nò</i>	‘saddle’
<i>là mù rú</i>	<i>là mù rú nò</i>	‘christening, name-giving ceremony’
<i>bàndàgà:rí</i>	<i>bàndàgà:rí nò</i>	‘cart poles’

c. /L/-toned nouns

<i>light</i>		
<i>kò:</i>	<i>kò: nó</i>	‘head’
<i>ʔòbò</i>	<i>ʔòbò nó</i>	‘house’
<i>heavy</i>		
<i>sàgàllà</i>	<i>sàgàllà nó ~ sàgàllà nò</i>	‘young man’

In most cases, multi-word NPs likewise keep their normal tones before *nò*, which is then raised to *nó* if the last word (which may include plural *-gè*) is {L}-toned.

(86)

NP	definite	gloss
a. noun plus adjective or numeral		
<i>H-toned nó</i>		
<i>ʔòbó^{LH} yá:lè</i>	<i>ʔòbó^{LH} yá:lè nó</i>	‘black house’
<i>ʔòbò-gé dè:gà</i>	<i>ʔòbò-gé dè:gà nó</i>	‘two houses’
<i>L-toned nò</i>		
<i>ʔòbò-gé tá:ndù</i>	<i>ʔòbò-gé tá:ndù nò</i>	‘three houses’
b. possessed NP		
<i>L-toned nò</i>		
<i>ɲ^{HL} ʔóbò</i>	<i>ɲ^{HL} ʔóbò nò</i>	‘my house’
<i>ɲ^{HL} ʔóbò yá:lè</i>	<i>ɲ^{HL} ʔóbò^{HL} yá:lè nò</i>	‘my black house’
<i>ɲ^{HL} ʔóbò tánà</i>	<i>ɲ^{HL} ʔóbò^{HL} tánà nò</i>	‘my other house’
c. plurals		
<i>L-toned nò</i>		
<i>nègé-gè</i>	<i>nègé-gè nò</i>	‘elephants’
<i>H-toned nó</i>		
<i>ʔòbò-gè</i>	<i>ʔòbò-gè nó</i>	‘houses’

The raising of *nò* to *nó* does not occur before an H-tone (87b-c), or before 1Sg *ɲ* or 2Sg *à* proclitics (87d). The raising does usually occur when followed by a predicate beginning with L-tone (87e)

- (87) a. *sìgɔ̀* *nɔ́*
 ‘breath(n) Def
 ‘breath, breathing’
- b. [*sìgɔ̀* *nɔ̀*] *sígɔ́-lɔ̀-Ø*
 [breath(n) Def] breathe-IpfvNeg-3SgSbj
 ‘He/She doesn’t breathe.’
- c. [*sìgɔ̀* *nɔ̀*] *sígè-Ø*
 [breath(n) Def] breathe.Pfv-3SgSbj
 ‘He/She breathed.’ (suffixed perfective)
- d. [*sìgɔ̀* *nɔ̀*] *ɲ* *sígè*
 [breath(n) Def] 1SgSbj breathe.Pfv
 ‘I breathed.’
- e. [*sìgɔ̀* *nɔ́*] *sígè*
 [breath(n) Def] breathe.Pfv.3SgSbj
 ‘He/She breathed.’ (unsuffixed perfective)

The tonal behavior of *nɔ̀* suggests that it may have once been H-toned; see end of §3.6.3.3.

4.4.2 Demonstratives

4.4.2.1 ‘This/that’ *mɔ́* (deictic demonstrative pronoun)

The only ‘this/that’ deictic is invariant *mɔ́*, which precedes the noun, in the same linear position as a possessor (*mɔ́* and a possessor may not cooccur). In the absence of a noun, *mɔ́* is directly followed by definite *nɔ̀*. Definite *nɔ̀* is also common in fuller noun-headed NPs that begin with *mɔ́*. There is no tonal interaction between *mɔ́* and a following noun.

The irregular plural of *mɔ́ nɔ̀* is *mɔ̀ ɲjé-gè nɔ̀*.

mɔ́ is deictic (‘this’ or ‘that over there’) rather than discourse-definite.

- (88) a. *mɔ́* *yɔ̀:* *nɔ̀*
 Dem woman Def
 ‘this/that woman’
- b. *mɔ́* *?òbò* *nɔ́*
 Dem house Def
 ‘this/that house’

- c. *[mɔ nɔ]* *ʔèbéǵè(=:)*
 [Dem Def] what?(=it.is)
 ‘What is this/that?’
- d. *mɔ ʔínǵé-gè nɔ*
 Dem dog-Pl Def
 ‘these/those dogs’
- e. *mɔ ʔòbò-gè nɔ*
 Dem house-Pl Def
 ‘these/those houses’

4.4.2.2 *ʔèmé* ‘that’ (discourse-definite) and related forms

A discourse-definite demonstrative ‘that’ (as in ‘that’s right!’) is *ʔèmé*. As a simple NP it regularly combines with the definite morpheme: *ʔèmé nɔ* ‘that (one)’. It can also combine with topic morpheme *kô:* as *ʔèmè kô:*. There is no plural form.

ʔèmé functions as a summative singular ‘that’ referring to an entire situation (not just a referent) that has been described in preceding discourse. This is often the case with the related adverbs *ʔèmè ndâ:* ‘for that reason’ (cf. purposive-causal *dâ:*, §8.3.1) and *ʔèmé-nǵi* ‘thus, like that’. When focalized preceding a new clause, these elements can translate as ‘that [focus]’s why ...’ and ‘that [focus]’s how ...’. For *ʔèmè ndâ:* see T2015-08 @ 02:06. For *ʔèmé-nǵi* see T2015-08 @ 02:11.

A textual example of summative NP *ʔèmé nɔ* is (89).

- (89) *[mì-yà kô:] ʔèmé nɔ ɲ tégó-lè*
 [1Pl Top] [that.Def Def] 1PlSgj see-Goal.Pfv
 ‘As for us, that (just described) is what we have been looking (=hoping) for.’
 [T2015-05 @ 00:50]

ʔèmé nɔ: ní ‘that very (same) thing’ is an emphatic version of *ʔèmé nɔ*. It occurs in (620) in T-Dict-1 below.

There is also a variant *ʔèméyⁿ nɔ*, see T2015-03 @ 00:29.

4.4.3 Demonstrative adverbs

4.4.3.1 Locative adverbs with suffix *-nâ:* and *-lò*

Some basic demonstrative locative adverbs are in (90). In addition to the demonstrative stems, *-nâ:* occurs as locative ending, and *-lò* as allative (or ablative) ending.

(90)	form	gloss
	a. (stative) locative	
	<i>mà:-nâ:</i>	‘here’
	<i>bò-nâ:</i>	‘there’
	b. allative/ablative	
	<i>má-lò</i>	‘(to/from) here’
	<i>bó-lò</i>	‘(to/from) over there’ (deictic)

Allative and ablative senses are distinguished by accompanying motion verbs like ‘go’ and ‘go away from, leave’. Even the remaining distinction between locative *-nâ:* and allative/ablative *-lò* is unusual in Dogon languages, since the regular use of motion verbs to specify direction obviates the need to distinguish location from direction (target) in adverbial phrases.

The adverbs are shortened to *mâ:* and *bò*, respectively, especially before *bò* ‘be (somewhere), be present’ and its negation *?óri* ‘not be (somewhere), be absent’. Thus *mâ: bò* ‘he/she/it is here’, *mâ: ?óri* ‘they are here’, and so forth. Polar interrogatives with *lá* (§13.2.1.1) can be formed from these phrases: *mâ: lá bò* ‘Is he/she/it here?’, *mâ: là bô:* ‘Are they here?’.

-lò is also present in interrogative *ná-lò* ‘where?’ (§13.2.3), but in that combination it is either (static) locative or allative. *-lò* is probably related to locative/instrumental postposition *ndò* (§8.2.3.2).

4.4.3.2 Demonstrative manner adverbs with suffix *-nji*

From *?émé* ‘that’ is derived *?émé-nji* ‘thus, like that’. It can be accompanied by a gesture, or it can resume preceding discourse. The same suffix occurs in *ná-nji* ‘how?’ For *X ójí ndi* ‘like X’ with other complements (pronouns, nonpronominal NPs), see §8.3.2.

4.4.4 Presentative *môwⁿ* (‘here’s ...!’)

Invariant *môwⁿ*, apparently a predicative form related to *mó* ‘this, that’, can be used as a presentative (‘here’s X’, ‘there’s X’). It may precede or follow an NP, but it always follows a pronoun.

(91)	a.	<i>[ɨ̃]</i>	^{HL} <i>?óbbò]</i>	<i>môwⁿ</i>
		[1SgPossoss	^{HL} house]	Prsent
		‘Here’s/There’s my house.’		
		[also: <i>môw̃ ɨ̃</i> ^{HL} <i>?óbbò]</i>		

- b. *mɔwⁿ* [*bé:-gè* *nɔ̀*]
 Prsent [child-Pl Def]
 ‘Here/There are the children.’
- c. *mì* *mɔwⁿ*
 1Sg Prsent
 ‘Here I am.’

A textual example is T2015-08 @ 00:25.

4.5 Adjectives

4.5.1 Form of adjectives

Adjectives occur both within NPs in modifying function, discussed here, and in predicative function (§11.4 below). Since there are no animacy distinctions in Bunoge there is no animacy agreement.

An adjective directly following a modified noun has {L} overlay. The noun itself has {LH} overlay, with just the final syllable H-toned; monosyllabics like ‘woman’ in (92a) realize {LH} as H. As a second adjective following the noun, the adjective is {HL}-toned. This is illustrated with ‘big’ in (92).

- (92) a. *pòlèngé^{LH L} bígì* ‘a big egg’ (< *póléngè*)
 kèlè^{LH L} bígì ‘a big horn’ (< *kèlè*)
 yó:^{LH L} bígì ‘a big woman’ (< *yó*)
- b. *yó:^{LH L} yò:lè^{HL} bígì* ‘a big black woman’
 yó:^{LH L} bígì^{HL} yó:lè ”

From these facts, it is not clear that adjectives have a determinable lexical tone, except for those that can occur separately as nouns (as in the cases of ‘male’/‘man’ and ‘female’/‘woman’). Since the most common form is immediately postnominal with {L} melody, I will use this as the citation form.

4.5.1.1 Simple adjective stems

A sample of adjectives is (93). They are shown in {L}-toned postnominal modifying form and in {HL} form as in second-adjective position. In some cases the predicative forms are significantly different.

(93) Adjectives

after N	{HL}	gloss
size and age		
^L <i>bâyⁿ</i>	HL <i>bâyⁿ</i>	‘big (e.g. house)’
^L <i>bìgì</i>	HL <i>bìgì</i>	‘big (stone)’ (also ‘stout, fat’)
^L <i>dà:mbè</i>	HL <i>dá:mbè</i>	‘small (house)’
^L <i>kèmnò</i>	HL <i>kémnò</i>	‘old (man, woman)’
^L <i>ʔilè</i>	HL <i>ʔilè</i>	‘old, used (object)’
^L <i>kàndà</i>	HL <i>kándà</i>	‘new’
dimension and measure		
^L <i>gìmbò</i>	HL <i>gímbò</i>	‘deep (well, hole)’
^L <i>nìnjì</i>	HL <i>nínjì</i>	‘heavy’
^L <i>gòlò</i>	HL <i>gólò</i>	‘long’ (= ‘tall’)
^L <i>tùmbù</i>	HL <i>túmbù</i>	‘short (rope, person)’
^L <i>bàmà</i>	HL <i>bámbà</i>	‘wide (passageway)’
^L <i>ʔòŋgò</i>	HL <i>ʔóŋgò</i>	‘slender (person)’
^L <i>bìgì</i>	HL <i>bìgì</i>	‘fat, stout (person)’
^L <i>pèŋgè</i>	HL <i>péŋgè</i>	‘narrow’
sex		
^L <i>nòlò</i>	HL <i>nólò</i>	‘male’ (cf. noun <i>nólò</i> ‘man’)
^L <i>yò</i>	HL <i>yó</i>	‘female’ (cf. noun <i>yó</i> ~ <i>yô</i> : ‘woman’)
temperature		
^L <i>jùŋgà</i>	HL <i>júŋgà</i>	‘hot’ = ‘fast’
^L <i>tòmbò</i>	HL <i>tómbò</i>	‘cold, cool’ (not ‘slow’)
evaluation		
^L <i>pò:lò</i>	HL <i>pó:lò</i>	‘good’
^L <i>ʔàmì</i>	HL <i>ʔámì</i>	‘bad; damaged, malfunctioning’
^L <i>sèlè</i>	HL <i>sélè</i>	‘pretty’
^L <i>dà (dà:)</i>	HL <i>dâ:</i>	‘nasty, evil’
texture and moisture		
^L <i>tèmbè</i>	HL <i>témbè</i>	‘wet (clothing)’
^L <i>ʔà:ŋì</i>	HL <i>ʔá:ŋì</i>	‘dry, hard, solid’
taste and smell		
^L <i>dènjì</i>	HL <i>dénjì</i>	‘sweet, delicious’
^L <i>ʔàmì</i>	HL <i>ʔámì</i>	‘sour (like lemon)’

color

^L <i>bòw</i>	^{HL} <i>bòw</i>	‘red (including brown)’
^L <i>yò:lè</i>	^{HL} <i>yò:lè</i>	‘black (dark)’
^L <i>sìmà</i>	^{HL} <i>sìmà</i>	‘white (light-colored)’
^L <i>bùlà-bùlà</i>	^{HL} <i>bùlà-bùlà</i>	‘blue’ (as noun: <i>bùlà-bùlà</i>)

other

^L <i>dènjì</i>	^{HL} <i>dènjì</i>	‘sharp (blade)’ (also ‘sweet’)
^L <i>kà.ndà</i>	^{HL} <i>kà.ndà</i>	‘difficult (work)’ = ‘expensive’
^L <i>kòŋè</i>	^{HL} <i>kòŋè</i>	‘skinny, lean (animal)’
^L <i>tànà</i>	^{HL} <i>tànà</i>	‘other’ (cf. noun <i>tànà</i> ‘other one’)
^L <i>bìlè</i>	^{HL} <i>bìlè</i>	‘ripe; cooked (meat); curdled (milk)’
^L <i>kàjì</i>	^{HL} <i>kàjì</i>	‘raw (meat), fresh (milk)’
^L <i>kùnè</i>	^{HL} <i>kùnè</i>	‘plump, fatty’

‘Sharp’ = ‘sweet’ and ‘hot’ = ‘fast’ syncretisms are regional patterns.

4.5.1.2 Adjectives with participial *-gà*

Some adjective-like senses are expressed by words ending in *-gà*. Other occurrences of *-gà* in Bunoge morphology are a) characteristic denominal derivative (§4.2.1), and b) relative-clause participle after negative verbs (§14.5.3-4). Adjectives with *-gà* lack the tonal features of characteristic nominals and are not derived from nouns, so a connection with participial *-gà* is indicated.

- (94) a. non-iterative
 bòràllà-gà ‘smooth, sleek (surface)’
- b. iterative
 kàr-kàr-gà ‘bitter’
 yàw-yàw-gà ‘lightweight’
 sèyⁿ-sèyⁿ-gà ‘pointed’

The *-gà* is absent from the corresponding predicative forms, e.g. *bòrállá bò* ‘it is smooth’ (§11.4.1.4).

The formation in *-gà* is distinct from ordinary deverbal participles that can be used in adjective-like fashion, such as *gòmè* ‘that has rotted’ = ‘rotten’ in *námá^{LH} gòmè* ‘rotten meat’.

4.5.1.3 Phrasal adjectives (exemplars)

For ‘yellow’ and ‘green’, the exemplars ‘floury powder inside pods of néré tree (*Parkia biglobosa*)’ and ‘fresh (moist) grass’ are used, respectively. In form, the first is a possessor plus noun, the second is a noun plus modifying adjective.

- (95) $pórí$ ^{HL} $púnà$ ^L ‘yellow’ (“néré-tree flour”)
 $kàjí$ ^{LH} $kàjí$ ^L ‘green’ (“fresh grass”)

4.5.1.4 Negative adjectives

Some adjectival senses are expressed only as negations of their antonyms. These require predicative rather than (simple) modifying form, but relative clauses can express modification. For example, ‘easy/cheap’ is phrased as ‘not difficult’ (96).

- (96) a. predicate
 $kájjà$ $ʔóri$ ‘be easy (work); be cheap’
- b. participle
 $[wàlè kájjà ʔóri-gá] bò ñ sà$ ‘I have an easy job’

4.5.2 Plural *-gè* after adjective

If a N-Adj or N-Adj-Adj sequence denotes a nonsingular set, the plural suffix is added just once, after the first adjective. In this context, plural *-gè* is always L-toned, since the first adjective is always {L}-toned, see §4.1.1.2.

- (97) a. $yó:$ ^{LH} $bìg(i)-gè$ ^L
 woman^{(L)H} ^Lfat-Pl
 ‘fat women’
- b. $yó:$ ^{LH} $bìg(i)-gè$ ^L $yó:lè$ ^{HL}
 woman^{(L)H} ^Lfat-Pl ^{HL}black
 ‘fat black women’

4.5.3 Adjectival intensifiers

Some regular adjectives have corresponding intensifiers. The association between adjective and intensifier is semantic, but the two are unrelated phonologically. The intensifier is a frozen iteration and is entirely {H}-toned. It follows the adjective, which may be a modifier within an NP or (more often and more freely) a predicate.

(98) adjective gloss with intensifier

a. iterated intensifiers without linker

^L <i>jùŋgà</i>	‘hot’	^L <i>jùŋgà táw-táw</i>
^L <i>bòw</i>	‘red’	^L <i>bòw cóy-cóy</i>
^L <i>simà</i>	‘white’	^L <i>simà pácá-pácá</i>
^L <i>yò:lè</i>	‘black’	^L <i>yò:lè kírúŋ-kírúŋ</i>
^L <i>gòmè</i>	‘rotten’	^L <i>gòmè dúgá-dúgá</i>

b. iterated intensifiers with nasal linker

^L <i>tòmbò</i>	‘cold’	^L <i>tòmbò yéré-ŋ-yéré</i>
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In predicates, *bò* ‘be’ can appear either after the primary adjective, or after the intensifier.

- (99) a. *jùŋgá* *bò* *táw-táw*
hot be.3SgSbj very.hot
‘It’s very hot.’ (e.g. scalding hot water)
- b. *jùŋgá* *táw-táw* *bò*
hot very.hot be.3SgSbj
[= (a)]

It was difficult to elicit NP-internal intensifiers in combination with plural *-gè* to determine where the latter appears. One elicited example did have *-gè* following the primary adjective, but the example is suspect and the intensifier was prosodically separate: *ʔòbó*^{LH} ^L*bòw-gè cóy-cóy* ‘very red (brown) houses’.

4.6 Numerals

4.6.1 Cardinal numerals

4.6.1.1 ‘One’ (*tò:lè*), ‘same (one)’, and ‘other’

tò:lè ‘1’ is syntactically an adjective. As part of an NP, it has {L} overlay as do other adjectives, so it appears as ^L*tò:lè*, as in *ʔòbó*^{LH} ^L*tò:lè* ‘one house’. For *tò:lè* in the sense ‘only’, see §19.4.1.

In a counting sequence (‘1, 2, 3, ...’) the form for ‘1’ is *n-tó:ró*. The nasal prefix is shared with ‘2’ (see below). *n-tó:ró* is followed by at least ‘2’ in the counting sequence and so has incantation-like nonterminal intonation which may disguise the phonological tone.

A common expression ‘one mother, one father’ is used to predicate full sibling relationships.

- (100) [séydù yà ↗] [mì yà ↘] [nìní^{LH} L_tò:lè] [bǎw^{LH} L_tò:lè]
 [Seydou and] [1Sg and] [mother ^Lone] [father ^Lone]
 ‘Seydou and I (are of) the same mother (and) the same father.’

tàná ‘other’ is an adjective, as in *?òbò^{LH L} tàná nó* ‘the other house’. Unlike most adjectives, it can also be used independently: *tàná nó* ‘the other (one)’.

4.6.1.2 ‘2’ to ‘10’

The numerals from ‘2’ to ‘10’ are in (101). Nonsingular numerals often (but optionally) combine with the plural form of the preceding NP, i.e. with plural suffix *-gè*. The numerals have the same forms when used by themselves in counting sequences (‘1, 2, 3, ...’), except that ‘2’ (like ‘1’) has a nasal prefix and a tone change in the counting sequence.

(101)	gloss	postnominal	in counting sequence
a.	‘2’	<i>dè:gà</i>	<i>n-dé:gà</i>
b.	‘3’	<i>tá:ndù</i>	<i>tá:ndù</i>
	‘4’	<i>nê:wⁿ</i>	<i>nê:wⁿ</i>
	‘5’	<i>nó:mò</i>	<i>nó:mò</i>
	‘6’	<i>kúléwⁿ</i>	<i>kúléwⁿ</i>
	‘7’	<i>só:wⁿ</i>	<i>só:wⁿ</i>
	‘8’	<i>sé:léⁿ ~ sé:léwⁿ</i>	<i>sé:léⁿ ~ sé:léwⁿ</i>
	‘9’	<i>tó:wà</i>	<i>tó:wà</i>
	‘10’	<i>kóbéⁿ ~ kóbéwⁿ</i>	<i>kóbéⁿ ~ kóbéwⁿ</i>

The term for ‘10’ has no cognates known to me in other Dogon languages.

With /L/-toned *?òbò* ‘house’ the combinations are those in (102). ‘2’ is always preceded by an H-tone, either by Rightward H-Spreading onto plural /-gè/ → *-gé* or by Final Tone-Raising (§3.6.3.3) in the case of /L/-melody nouns (102a). Numerals from ‘3’ up begin with H-tone and do not affect the tones of the noun (102b).

(102)	gloss	‘X houses’
a.	‘2’	<i>?òbò-gé dè:gà ~ ?òbó dè:gà</i>
b.	‘3’	<i>?òbò(-gè) tá:ndù</i>
	‘4’	<i>?òbò(-gè) nê:wⁿ</i>
	‘5’	<i>?òbò(-gè) nó:mò</i>
	‘6’	<i>?òbò(-gè) kúléwⁿ</i>
	‘7’	<i>?òbò(-gè) só:wⁿ</i>
	‘8’	<i>?òbò(-gè) sé:léwⁿ</i>

‘9’	<i>ʔòbò(-gè) tó:wà</i>
‘10’	<i>ʔòbò(-gè) kóbéwⁿ</i>

The final *wⁿ* in *sé:léwⁿ* ‘8’ and *kóbéwⁿ* ‘10’ is inconsistently articulated, and is absent before *yà* ‘and’ in complex numerals (see the following section).

More examples of ‘2’ and ‘3’, the latter representing the numerals ‘3’ to ‘10’, are in (103).

(103)	noun	gloss	plural	with ‘2’	with ‘3’
	a. /HL/ melody				
	<i>sé (sé:)</i>	‘horse’	<i>sé:-gè</i>	<i>sé:-gé dè:gà</i>	<i>sé:-gè tá:ndù</i>
	<i>ʔólò</i>	‘village’	<i>ʔóló-gè</i>	<i>ʔóló-gé dè:gà</i>	<i>ʔóló-gè tá:ndù</i>
	<i>ǰá:lì</i>	‘cat’	<i>ǰá:lí-gè</i>	<i>ǰá:lí-gé dè:gà</i>	<i>ǰá:lí-gè tá:ndù</i>
	<i>póléngè</i>	‘egg’	<i>póléngé-gè</i>	<i>póléngé-gé dè:gà</i>	<i>póléngé-gè tá:ndù</i>
	b. /LH/ melody				
	<i>fètó</i>	‘pond’	<i>fètó-gè</i>	<i>fètó-gé dè:gà</i>	<i>fètó-gè tá:ndù</i>
	<i>gàndù:ré</i>	‘yoke’	<i>gàndù:ré-gè</i>	<i>gàndù:ré-gé dè:gà</i>	<i>gàndù:ré-gè tá:ndù</i>
	c. /L/ melody				
	<i>sè:</i>	‘foot’	<i>sè:-gè</i>	<i>sè:-gé dè:gà</i>	<i>sè:-gè tá:ndù</i>
	<i>ʔòbò</i>	‘house’	<i>ʔòbò-gè</i>	<i>ʔòbò-gé dè:gà</i>	<i>ʔòbò-gè tá:ndù</i>
	<i>sùgùlè</i>	‘ear’	<i>sùgùlè-gè</i>	<i>sùgùlè-gé dè:gà</i>	<i>sùgùlè-gè tá:ndù</i>

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

The multiples of ‘10’ are given in (104). The base is ‘20’, and unsegmentable stems occur for ‘20’, ‘40’, and ‘80’, in each case unrelated in form to the corresponding digit term. ‘60’ is based on ‘20’ plus an element *sígò* that is not otherwise known. The ratio ‘60’ to ‘20’ implies that *sígò* formerly meant ‘3’, but no Dogon language has a cognate of this form meaning ‘3’. Instead, the most likely cognate is a ‘plus’ linker between decimal/vigesimal and digital numerals (as in ‘25’ = ‘twenty plus five’), e.g. Yorno So *sìgè*, Tiranige *sùgó*. The odd-numbered decimals ‘30’, ‘50’, ‘70’, and ‘90’ are conjunctions of the preceding even-numbered multiples of 20, plus ‘10’, with *yà* ~ *yá* ‘and’ after both elements. *tá:l(ú)mà* ‘20’ contracts with *yà* ~ *yá* to form *tá:lmá:* in ‘30’. Both *tá:lmà* ‘20’ and *dé:* ‘40’ are treated like lexically /L/-toned stems in their conjoined forms.

(104)	gloss	form	‘X houses’
	‘10’	<i>kóbéwⁿ</i>	<i>ʔòbò(-gè) kóbéwⁿ</i>
	‘20’	<i>tǎ:l(ú)mà</i>	<i>ʔòbò(-gè) tǎ:l(ú)mà</i>
	‘30’	<i>tà:l(ù)má: [kòbé yà]</i>	<i>ʔòbò(-gè) tà:l(ù)má: [kòbé yà]</i>
	‘40’	<i>dé:</i>	<i>ʔòbò(-gè) dé:</i>
	‘50’	<i>[dé: yá] [kòbé yà]</i>	<i>ʔòbò(-gè) [dé: yá] [kòbé yà]</i>
	‘60’	<i>tǎ:lúmà sígò</i>	<i>ʔòbò(-gè) tǎ:l(ú)mà sígò</i>
	‘70’	<i>[tǎ:lúmà sígò yá] [kòbé yà]</i>	<i>ʔòbò(-gè) [tǎ:l(ú)mà sígò yá] [kòbé yà]</i>
	‘80’	<i>yólò</i>	<i>ʔòbò(-gè) yólò</i>
	‘90’	<i>[yóló yà] [kòbé yà]</i>	<i>ʔòbò(-gè) [yóló yà] [kòbé yà]</i>

Composite numerals consisting of a decimal term and a digit term are illustrated in (105) below. They are of the type ‘10 and 2’ = ‘12’, with *yà* ~ *yá* ‘and’ following both elements. Rightward H-Movement (§3.6.3.5), which applies to some /HL/-melody nouns when conjoined, does not apply consistently to these numerals. The forms taken by ‘1’ and ‘2’ in these combinations are the forms used in the counting sequence, i.e. with initial prefix *n-*.

(105)	a.	<i>[kòbè yà]</i>	<i>[n-tò:ró yà]</i>	‘11’
		<i>[kòbè yà]</i>	<i>[n-dè:gá yà]</i>	‘12’
		<i>[kòbè yà]</i>	<i>[tá:ndù yà]</i>	‘13’
	b.	<i>tà:l(ù)má: [n-tò:ró yà]</i>		‘21’
		<i>tà:l(ù)má: [n-dè:gá yà]</i>		‘22’
		<i>tà:l(ù)má: [tá:ndù yà]</i>		‘23’

4.6.1.4 Large numerals (‘100’, ‘1000’, ...) and their composites

The stems in (106) are usually noun-like morphosyntactically.

(106)	gloss	form
	a. ‘hundred’	<i>tè:mèndèré</i> (< Fulfulde)
	b. ‘thousand’	<i>múnjù</i>
	c. ‘(one) million’	<i>milyóⁿ tò:lè</i> (< French in part)

Combinations with ‘2’ and ‘3’ are in (107). Before ‘2’, but not before ‘3’ through ‘10’, the plural morpheme is H-toned *-gé* and the noun is tonally flat (its initial tone spreading to the end). This results in unusual strings of consecutive H-toned syllables, which go against the pitch-accent tendencies of the rest of the language.

(107)	gloss	form
a.	‘200’ ‘300’	<i>tè:mèndèrè-gé dè:gà</i> <i>tè:mèndèrè-gè tá:ndù</i>
b.	‘2000’ ‘3000’	<i>múnjú-gé dè:gà</i> <i>múnjú-gè tá:ndù</i>
c.	‘2,000,000’ ‘3,000,000’	<i>milyòⁿ-gé dè:gà</i> <i>milyóⁿ-gè tá:ndù</i>

Lower numerals are conjoined to higher numerals. ‘220’ is [*tè:mèndèrè-gé dè:gà yà*] [*tà:lùmá yà*], literally ‘two hundred and twenty’. The modified noun precedes the entire sequence.

4.6.1.5 Currency

Currency amounts under one million F CFA are calculated in units equal to 5 FCFA, called *mbú:dù* in Bunoge.

4.6.1.6 Distributive numerals

Numerals are iterated to form distributive adverbs, with senses like ‘three at a time’ or ‘three each’. ‘6-‘8’ and ‘10’ treat the usually H-toned stem as /LH/ in these iterations. The resulting LH-LH pattern is often heard prepausally as LH-LL but the final H-tone is audible in careful speech and before an L-tone.

(108)	gloss	postnominal	distributive	tones
	‘1’	<i>tò:lè</i>	<i>tó:lè-tó:lè</i>	HL-HL
	‘2’	<i>dè:gà</i>	<i>dè:gà-dè:gà</i>	L-L
	‘3’	<i>tá:ndù</i>	<i>tá:ndì-tá:ndì</i>	HL-HL
	‘4’	<i>nê:wⁿ</i>	<i>nê:wⁿ-nê:wⁿ</i>	HL-HL
	‘5’	<i>nó:mò</i>	<i>nó:mò-nó:mò</i>	HL-HL
	‘6’	<i>kúléwⁿⁿ</i>	<i>kùléyⁿ-kùléyⁿ</i>	LH-LH
	‘7’	<i>só:wⁿ</i>	<i>sǒ:wⁿ-sǒ:wⁿ</i>	LH-LH
	‘8’	<i>sé:léwⁿ</i>	<i>sè:léⁿ-sè:léⁿ</i>	LH-LH
	‘9’	<i>tó:wà</i>	<i>tó:wà-tó:wà</i>	HL-HL
	‘10’	<i>kóbéⁿ</i>	<i>kòbéⁿ-kòbéⁿ</i>	LH-LH
	‘20’	<i>tǎ:l(ú)mà</i>	<i>tǎ:l(ú)mà-tǎ:l(ú)mà</i>	LHL-LHL
	‘40’	<i>dê:</i>	<i>dê:-dê:</i>	HL-HL
	‘100’	<i>tè:mèndèrè</i>	<i>tè:mèndèrè-tè:mèndèrè</i>	LH-LH
	‘100’	<i>múnjú</i>	<i>múnjú-múnjú</i>	HL-HL

The negative predicative form is with =lá ‘it is not’, as in *dè:gà-dè:gà=lá* ‘it isn’t two by two’.

For *?áŋgàwⁿ-?áŋgàwⁿ* ‘how many (each)?’ see §13.2.2.6.

4.6.2 Ordinal adjectives

4.6.2.1 ‘First’ (*kàndè*)

Ordinal ‘first’ is the adjective *kàndè*. Like other adjectives it is {L}-toned and requires {LH} overlay on a modified noun.

- (109) *?òbó^{LH} kàndè^L*
 house^{LH} first^L
 ‘(the) first house’

4.6.2.2 Other ordinals (*bàŋà*)

Other ordinals are formed by adding *bàŋà* to the essentially intact numeral, forming a possessive-type compound. {HL}-toned numerals move the H-tone to the final syllable in some cases (‘3’, ‘5-8’, ‘9’), but my assistant’s tonal pronunciations were variable. The modified noun does not have {LH} overlay.

(110)	form	with ‘house’	gloss
a.	single-digit numeral		
	<i>dè:gà bàŋà</i>	<i>?òbò dè:gà bàŋà</i>	‘second’
	<i>tà:ndú bàŋà</i>	<i>?òbò tà:ndú bàŋà</i>	‘third’
	<i>nê:wⁿ bàŋà</i>	<i>?òbò nê:wⁿ bàŋà</i>	‘fourth’
	<i>nò:mó bàŋà</i>	<i>?òbò nò:mó bàŋà</i>	‘fifth’
	<i>kùléwⁿ bàŋà</i>	<i>?òbò kùléwⁿ bàŋà</i>	‘sixth’
	<i>sǎ:wⁿ bàŋà</i>	<i>?òbò sǎ:wⁿ bàŋà</i>	‘seventh’
	<i>sè:léⁿ bàŋà</i>	<i>?òbò sè:léⁿ bàŋà</i>	‘eighth’
	<i>tó:wà bàŋà</i>	<i>?òbò tó:wà bàŋà</i>	‘ninth’
	<i>kóbéwⁿ bàŋà</i>	<i>?òbò kóbéwⁿ bàŋà</i>	‘tenth’
b.	decimal multiples		
	<i>tǎ:lmá bàŋà</i>	‘twentieth’	
c.	decimal plus single-digit numeral		
	<i>[kòbè yà] [n-tò:ró yá] bàŋà</i>	‘eleventh’	

d. hundred

tè:mëndêré bàjà

‘hundredth’

4.6.3 Fractions and portions

‘Half’, or more generally ‘(a) division’, is *fècèré* (< Fulfulde).

5 Nominal and adjectival compounds

5.1 Nominal compounds

5.1.1 Quasi-possessive compounds

In this compound type, the initial is a noun that functions in part like a possessor, but undergoes tone changes that are not typical of true possessors. The final has the form of a possessed noun, with either {HL} or L+{HL} overlay depending on whether the initial ends in an L- or H-tone.

If the “possessor” noun that serves as the initial has lexical /HL/ melody, it undergoes Rightward H-Movement to become LH-toned. The resulting H-final “possessor” causes the “possessum” to have L+{HL} rather than just {HL} overlay, see Initial Tone-Dissimilation (§3.6.3.6). The full L+{HL} is realized on prosodically heavy stems (*Cv:Cv*, *CvCvCv*, and longer). It is reduced to {L} on prosodically light stems (*CvCv*, *Cv:*) when unsuffixed, but if plural *-gè* is added the full L+{HL} is overt. (111) gives examples. In some compounds, either the initial or final does not occur independently. If neither occurs independently, segmentation is opaque, but tone patterns like *CvCvCv:Cv* point to compound-like phonological treatment (*CvCv-Cv:Cv*).

(111)	compound	gloss	components
a.	initial is /HL/-toned <i>màrfâ</i>	‘musket’	
	<i>full L+{HL} overlay audible on heavy final</i>		
	<i>màrfâ-tě:bè</i>	‘stock of rifle’	<i>tè:bè</i> ‘stick’
	<i>màrfâ-lǒ:sò</i>	‘barrel of rifle’	—
	<i>màrfâ-sùgùlè</i>	‘cock’	<i>sùgùlè</i> ‘ear’
	<i>màrfâ-ʔinjé-bè</i>	‘trigger’	<i>ʔinjé-bè</i> ‘puppy’
	<i>overlay on light final reduced to L</i>		
	<i>màrfâ-pùnà</i>	‘gunpowder’	<i>pùnàṅgè</i> ‘flour, powder’
	(plural <i>màrfâ-pùnà-ṅgè</i>)		
b.	initial is /HL/-toned <i>númè</i>	‘hand, arm’	
	<i>full L+{HL} overlay audible on heavy final</i>		
	<i>númè-kòbàlì</i>	‘fingernail’	<i>kòbàlì</i> ‘nail, hoof, shell’
	<i>númè-sǐ:wò</i>	‘ring (on finger)’	—
	<i>overlay on light final reduced to L</i>		
	<i>númè-sèrè</i>	‘pointing (out)’	—
	<i>númè-tèbò</i>	‘palm of hand’	<i>-tèbò</i> also in <i>sè:-tèbò</i> ‘sole’
	<i>númè-dè:</i>	‘extending hand’	—
	<i>númè-gù</i>	‘handful (of mud)’	—

c. initial is /HL/-toned *dóli* ‘knife’

full L+{HL} overlay audible on heavy final

dòlí-pòbólo ‘knife sheath’ *pòbòlo* ‘sheath’

overlay on light final reduced to L

dòlí-kùjò ‘knife handle’ *-kùjò* ‘handle’ (cpd final)

d. initial is /HL/-toned *tìlìngè* ‘tree’

full L+{HL} overlay audible on heavy final

tìlìngé-sǎ:li ‘tree gum (resin)’ *só:li* ‘gum arabic’

tìlìngé-bùgúndè ‘tree trunk’ —

tìlìngé-kòbàli ‘tree bark’ *kòbàli* ‘(finger-)nail’

overlay on light final reduced to L

tìlìngé-kàjè ‘tree root’ *kàjè* ‘root’

tìlìngé-kòbà ‘tree leaf’ *kòbà* ‘leaf’

tìlìngé-pùlo ‘tree flower’ *pùlo* ‘flower’

e. others with /HL/-toned initial

full L+{HL} overlay audible on final

kà:yⁿé bǒllè ‘mushroom’ *ká:yⁿè* ‘hyena’, *bǒllè* ‘tomtom’

ké-ǰǎ:li ‘wild cat’ *ké* ‘outback’, *ǰǎ:li* ‘cat’

sémǎ-pòlèngè ‘nit’ *sémǎ* ‘louse’, *pòlèngè* ‘egg’

wá: wàgàri ‘cold season’ *wàgàri(i)* ‘time’

(~ *wá: wǎ:ri*)

overlay on light final reduced to L

dòlé-ǰà:m ‘stomach ache’ *dòlé* ‘belly’, verb *ǰá:mi* ‘be sick’

dǎ:ngé-dùlù ‘pounding area’ *dǎ:ngè* ‘(act of) pounding’

dǎ:ní-kèbà ‘calabash shard’ *dǎ:ní* ‘calabash’

ʔélé-nù ‘shea-butter’ *ʔélé* ‘karite tree’, *nù* ‘oil’

gìré-gwì ‘eyelid’ *gìré-sè* ‘eye’, *gwì* ‘skin’

ʔíní-nàmà ‘gums’ *ʔíní* ‘tooth’, *nàmà* ‘meat’

kìbá-dòli ‘dagger’ *kìbà* ‘kidney’, *dòli* ‘knife’

ʔòndǎ-kùlè ‘beard’ *ʔòndǎ* ‘chin’, *kùlè* ‘hair’

sè:ngé-gò ‘swill’ *sè:ngè* ‘millet’, *gò* ‘water’

ná:-bùndù ‘herd of cattle’ *ná* ‘cow’, *bùndù* ‘herd’

tá:-sìngì ‘belt-cord’ *tá (tâ:)* ‘pants’, *sìngì* ‘rope’

f. initial and/or final not otherwise known

ʔélém-pùndù ‘whirlwind’

dǎ:-kòbà ‘paper’ *kòbà* ‘leaf’ (*dǎ* ‘mortar’ is unrelated)

One may contrast the tone shift in nonmonosyllabic initials in these compounds with the absence of tone shift in true possessives. Some other lexicalized, compound-like forms, such as *póri*^{HL} *púnà* ‘yellow powder from pods of *néré* tree (*Parkia*)’, also the exemplar for ‘yellow’, are in fact structured as possessives (“*néré*-tree’s powder”).

If the initial is lexically /L/-toned, it remains {L}-toned in the compound. The final can then take the simple {HL} overlay (112).

(112)	compound	gloss	components
	a. initial is /L/-toned <i>sùgùlè</i> ‘ear’		
	<i>sùgùlè-gólè</i>	‘earhole’	<i>gólè</i> ‘hole’
	<i>sùgùlè-gwí</i>	‘skin of ear’	<i>gwí</i> ‘skin’
	<i>sùgùlè-kúlè</i>	‘ear hair(s)’	<i>kúlè</i> ‘hair’
	b. others with /L/-toned initial		
	<i>pùmbù gá:yè</i>	‘backbone, spine’	<i>pùmbù</i> ‘back’, <i>gá:yè</i> ‘bone’
	<i>tè:ngè-dwí</i>	‘wood bundle’	<i>tè:ngè</i> ‘firewood’, <i>dwí</i> ‘bundle’
	<i>dèni-wálè</i>	‘day labor’	<i>dèni</i> ‘day’, <i>wálè</i> ‘work’
	<i>?àtè-góllè</i>	‘tea gear’	<i>?àtè</i> ‘tea’, <i>góllè</i> ‘gear’
	<i>?àllà-búndù</i>	‘herd of pigs’	<i>?àllà</i> ‘pig’, <i>búndù</i> ‘herd’
	<i>?àmàràngà-ká:yⁿà</i>	‘mantis’	<i>?àmàràngà</i> ‘God’, <i>ká:yⁿà</i> ‘grasshopper’

If the initial is lexically /LH/-toned, the final H-tone disappears, either by an ad hoc deletion rule or by absorption into the initial H-tone of the following {HL}-toned final (113).

(113)	compound	gloss	components
	a. initial is /LH/-toned <i>là mùrú</i> ‘name-giving ceremony, christening’		
	<i>là mùrú-nàngà</i>	‘name-giving day’	<i>-nàngà</i> ‘day, time’
	b. initial is /LH/-toned <i>gàndù:rè</i> ‘yoke’		
	<i>gàndù:rè-síngì</i>	‘yoke rope’	<i>síngì</i> ‘rope’
	c. initial is /LH/-toned <i>mèsèkèrè</i> ‘scissors’		
	<i>mèsèkèrè-tónì</i>	‘scissors blades’	<i>tónì</i> ‘mouth’

There are only a few monosyllabic *Cv* (*Cv*:) noun stems, and not all of them are attested as compound initials. Of the two common /L/-toned monosyllabic nouns, *sè* (*sè*:) ‘foot, leg’ remains L-toned as initial (114a), and is therefore distinct from *sé* (*sé*:) ‘horse’ in this position (114b), but *kò* (*kò*:) ‘head’ appears as H-toned *kó*: (114c).

(114)	compound	gloss	components
	a. initial is /L/-toned <i>sè</i> (<i>sè</i> :) ‘foot’		
	<i>sè:-tèbò</i>	‘sole of foot’	cf. <i>nùmé-tèbò</i> ‘palm’
	(plural <i>sè:-tèbó-gè</i>)		
	<i>sè:-kòbàlì</i>	‘toenail’	<i>kòbàlì</i> ‘(finger-/toe-)nail, hoof, shell’
	<i>sè:-kèlè</i>	‘ankle’	<i>kèlè</i> ‘horn’

- b. initial is /HL/-toned *sé* (*sê:*) ‘horse’
sé:-dìlò ‘horse tail’ *dílò* ‘tail’
(plural *sé:-dìlò-gè*)
- c. initial is /L/-toned *kò* (*kò:*) ‘head’
kó:-kùlè ‘head hair’ *kùlè* ‘hair’
kó:-dàlà ‘fontanel’ —
- d. others with /HL/-toned initial
gó:-kògà ‘thirst (n)’ *gó* ‘water’, *kògà* ‘hunger’

Even *sè:-* ‘foot’ as compound initial in (114a) behaves as though H-toned in that it requires L+{HL} or reduced {L} rather than {HL} overlay on a following compound final. Note L+{HL} in the final of *sè:-kòbáli* ‘toenail’, following the pattern of *tìlìngé-kòbáli* ‘tree bark’ and *nùmé-kòbáli* ‘fingernail’ with H-final initials.

The compound initial normally occurs in bare-stem form. However, a few cases with plural initial (suffix *-gè*) are arguably compounds rather than ordinary possessives. In (115), the initial *bé:-gè* ‘children’ undergoes Rightward H-Movement, which is typical of compound initials rather than possessors. The L+{HL} overlay on *ní:bè* ‘bird’ in this combination is compatible with either analysis. (The barn owl is thought to be dangerous to children.)

- (115) *bè:-gè ní:bè* ‘barn owl’ (“children’s bird”)

The brevity of the final and the tone pattern of ‘dew’ suggest that it is now treated as an uncompounded /HL/-melody noun.

- (116) *íwól-gò* ‘dew’ *gó* ‘water’

5.1.2 Compounds with final verbal noun

An object can appear in its regular tones before a verbal noun, with no special “compound” features.

- (117) *ʔàmmè nɔ:-nà* ‘drinking beer’ (< *ʔàmmè*)
ʔínjè tèmó-nà ‘eating dog(s)’ (< *ʔínjè*)
sé:ngè wàlò-nà ‘farming millet’ (< *sé:ngè*)

5.1.3 Agentive compounds of type [ń ÷-bò] or [ń ÷-gò]

Tones for these polysyllabic compounds are variable. The initial is a noun, sometimes with {LH} overlay. The initial may denote a prototypical object, or it may be a cognate nominal. The verb has {L} overlay and ends in the O-stem, i.e. {o ɔ} depending on the ATR and

back/front quality of the stem vocalism. The verb is suffix *-bò* or *-gò*, the choice being unpredictable. My assistant preferred one of these suffixes with each agentive, but it is difficult to motivate the choice. *-gò* is elsewhere attested as an imperfective positive participial suffix (§14.5.2), which is semantically close to agentive. The suffix is optionally dropped in the plural, where the verb ends in *u* (becoming *i* next to *y*). This U-stem is used even in the singular with ‘herder’ (118c). Before plural *-gè*, the final *u* (or *i*) is usually syncopated unless flanked by consonants that cannot easily cluster (like *b...g*). In cases like *nùṅṣ-nùṅ(ù)-gè*, the syncopated variant prolongs the preceding sonorant: [*nùṅṣnùṅ:gè*].

(118)	noun + verb	agentive		gloss
		singular	plural	
a. suffix <i>-gò</i>				
	<i>núṅṣ núṅṣ</i>	<i>nùṅṣ-nùṅṣ-gò</i>	<i>nùṅṣ-nùṅ(ù)-gè</i>	‘singer’
	<i>yóbù yóbè</i>	<i>yòbù-yòbù-gò</i>	<i>yòbù-yòbù-gè</i>	‘dancer’
	<i>jóṅgù jóṅgè</i>	<i>jóṅgù-jóṅgù-gò</i>	<i>jóṅgù-jóṅgù-gè</i>	‘healer’
	<i>tè:ṅgè bá:lè</i>	<i>tè:ṅgè-bà:ló-gò</i>	<i>tè:ṅgè-bà:l(ù)-gè</i>	‘wood-gatherer’
b. suffix <i>-bò</i>				
	<i>wòlì wálè</i>	<i>wòlì-wàlò-bò</i>	<i>wòlì-wàl-gè</i>	‘farmer’
	<i>gèjì tíyè</i>	<i>gèjì-tìyò-bò</i>	<i>gèjì-tìy(i)-gè</i>	‘(cloth-)weaver’
	<i>kò: bégè</i>	<i>kò:-bègò-bò</i>	<i>kò:-bèg(ù)-gè</i>	‘head-braider (braiding lady)’
	<i>dó:nì sélè</i>	<i>dò:ní-sèlò-bò</i>	<i>dò:ní-sèl(ù)-gè</i>	‘calabash-sawer’
	<i>tàjì tíyè</i>	<i>tàjì-tìyò-bò</i>	<i>tàjì-tìy(i)-gè</i>	‘basket-weaver’
c. irregular (final <i>u</i>)				
	<i>kòmbò gírè</i>	<i>kòmbò-gìrù</i>	<i>kòmbò-gìr(ù)-gè</i>	‘animal-tender (herder)’

5.1.4 ‘Child of X’ compounds

5.1.4.1 With *-bè* ‘child, fruit’

From *bé* (*bê*): ‘child’ are derived several compounds of the type *X-bè* meaning ‘child or product (e.g. fruit) of X’. The final is L-toned even after an /L/-melody initial. Several combinations (e.g. ‘heart’, ‘tongue’) are highly lexicalized. Semantically transparent ones like *ná:-bè* ‘calf’ (“cow-child”) are sometimes treated as productive compounds of *bé* (hence plural *-bé:-gè* instead of *-bè-gè*). A nasal linker (*-m-bè*) is found in at least one case; arguably it is really a prenasalized form of *-bè*, cf. §3.4.1.3.

(119)	noun	gloss	compound	gloss
	a. with nasal linker			
	<i>initial with /HL/ melody</i>			
	<i>túmà</i>	‘stick, staff’	<i>túmá-m-bè</i>	‘twig’
	b. segmentally regular			
	<i>initial with /HL/ melody</i>			
	<i>ná (ná:)</i>	‘cow’	<i>ná:-bè</i>	‘calf’
	<i>dó</i>	‘mortar’	<i>dó:-bè</i>	‘pestle’
	<i>tîw</i>	‘mission’	<i>tîw-bè</i>	‘messenger’
	<i>kúmù</i>	‘balanzan tree’	<i>kúmú-bè</i>	‘balanzan fruit’
	<i>kínì</i>	‘stone, rock’	<i>kíní-bè</i>	‘pebble, small stone’
	<i>kójì</i>	‘grass, herb’	<i>kójí-bè</i>	‘chewstick’
	<i>ʔínjè</i>	‘dog’	<i>ʔínjé-bè</i>	‘trigger’ or ‘puppy’
	<i>némmè</i>	‘big grindstone’	<i>némmé-bè</i>	‘small grindstone held in hand’
	<i>kóndì</i>	‘circumcision’	<i>kóndí-bè</i>	‘circumcised boy’
	<i>séngè</i>	‘flank of body’	<i>séngé-bè</i>	‘rib’
	<i>ɲóɲómè</i>	‘camel’	<i>ɲóɲómé-bè</i>	‘baby camel’
	<i>initial with /L/ melody</i>			
	<i>kìndò</i>	‘shade, shadow’	<i>kìndò-bè</i>	‘shadow; ghost’
	<i>sùgùlè</i>	‘ear’	<i>sùgùlè-bè</i>	‘eardrum’
	<i>frozen plural</i>			
	<i>tóndí(-)gè</i>	‘money’	<i>tóndí-bè</i>	‘cowry shell’
	<i>initial becomes {LH}-toned</i>			
	c. initial not otherwise attested			
	<i>no known cognate</i>			
	—	—	<i>kègè-bè</i>	‘carp (fish)’
	—	—	<i>nángá-lá-bè</i>	‘roof beam’
	—	—	<i>nínjó-bè</i>	‘orphan’
	—	—	<i>sèlè-bè</i>	‘cotton-ginning pin’
	<i>cognates of initial without -bè (see below)</i>			
	—	—	<i>dòngò-bè</i>	‘heart’
	—	—	<i>dèndè-bè</i>	‘tongue’
	—	—	<i>mòlím-bè</i>	‘holy man, marabou’
	—	—	<i>ní:bè</i>	‘bird’
	—	—	<i>yò:-bè</i>	‘millet grain spike’

Examples of cognates of the initials in (119c) are Penange *dòngò-sé*: ‘heart’, Penange *nèmdè* ‘tongue’, Mombo *mó:díbò* ‘holy man’ (< Fulfulde), Ben Tey *nì:yⁿí*: ‘bird’, and Ben Tey *yû*: ‘millet’.

-bè also occurs in a few reduplicated flora-fauna terms (120). For discussion of their forms, including tone patterns in plurals and after a possessor, see §4.1.4.

(120) *-bè* after reduplicated (or iterated) stem

—	—	<i>kàŋ-ká:m-bè</i>	‘crow’ (onomatopoeic)
—	—	<i>pòm-pó:m-bè</i>	‘shrub (<i>Calotropis</i>)’
—	—	<i>dàn-dáŋgà-bè</i>	‘paper wasp’
—	—	<i>kúŋ-kùm-bè</i>	‘agama lizard’

5.1.4.2 Gentilic *-nò-wè* ‘person from’

-nò-wè (singular) and *-nò:-gè* (plural) are added to village/town names to denote their residents. *-wè* is probably a lenited form of *-bè* ‘child’ etymologically. *nò-* ~ *nò:-* is a reflex of an old word for ‘person’, replaced in Bunoge *sóǰò*, but preserved in e.g. Dogul Dom and Najamba *nǒ:* and in Yanda Dom *nò*. /HL/-toned ‘Sangou’ undergoes Rightward Tone-Movement before the suffixes. /LH/-toned ‘Sevare’ shifts its final H-tone onto the first suffixal syllable.

(121)	village	Bunoge name	‘person of X’	‘people of X’
	a. Bunoge-speaking villages			
	Boudou	<i>bùrù</i>	<i>bùr-nò-wè</i>	<i>bùr-nò:-gè</i>
	Sangou	<i>sáŋgù</i>	<i>sàŋgù-nò-wè</i>	<i>sàŋgù-nò:-gè</i>
	Dakouma	<i>dàgùmà</i>	<i>dàgùmà-nò-wè</i>	<i>dàgùmà-nò:-gè</i>
	b. other towns			
	Konna	<i>kònnà</i>	<i>kònnà-nò-wè</i>	<i>kònnà-nò:-gè</i>
	Sevare	<i>sèwà:rè</i>	<i>sèwà:rè-nó-wè</i>	<i>sèwà:rè-nó:-gè</i>

5.1.5 Diminutive *-yè* and variants

‘Boy’ (*bé: nòlò-yè*) and ‘girl’ (*bé: yò:-yè*) consist of *bé* (*bé:*) ‘child’ plus adjective *nòlò* ‘male’ or *yò* (*yò:*) ‘female’ (cf. §5.1.7 below) and an archaic diminutive ending *-yè*.

-yè has gentilic singular function in *bàmbàlá-yè* ‘Bambara person’, plural *bàmbàlá-gè*.

Among kin terms, *sèǰ-jò* ‘grandchild’ originated as a diminutive of *sèǰi* ‘grandparent’ (§6.2.2.1).

sàbbè ‘amulet’ belongs here etymologically (cf. Yanda Dom *sàbíyè*, Mombo *sábú*) but not synchronically. If anything, native speakers might connect it with *-bè* compounds (§5.1.4.1 above).

5.1.6 Compounds with *-sè* ‘grain, unit’

A number of compounds, of variable segmentability, have a final element *-sè* (after H-tone, perhaps after Rightward H-Movement) or *-sé* (after L-tone). If the initial is independently

attested as a simple noun (122a), the compound denotes a unit or a discrete division. In other cases, the initial is not otherwise attested (122b). Some compounds with *-sè* ~ *-sé* are semantically similar to compounds with *-bè* (§5.1.4.1 above) and comparative data suggest that some switching between these finals may have occurred.

(122)	compound	gloss	initial
a. transparent compound			
	<i>nùmé-sè</i>	‘finger’	<i>númè</i> ‘hand, arm’
	<i>gén-sè</i>	‘hot coal, ember’	<i>gèni</i> ‘fire’
	<i>táw-sè</i>	‘arrow’	<i>tâw</i> ‘bow’
	<i>sè:-sé</i>	‘toe’	<i>sè (sè:)</i> ‘foot’
	<i>mùnjàlè-sé</i>	‘earthenware whorl’	<i>mùnjàlè</i> ‘spinning stick’
b. frozen combination			
	<i>pòndé-sè</i>	‘testicles’	
	<i>gìré-sè</i>	‘eye’	
	<i>bàndám-sè</i>	‘hail’	
	<i>mò:ré-sè</i>	‘bullet’	

-sè has (or at least originally had) the focal sense ‘grain/seed (of X)’, and it combines in this sense with many flora terms, cf. also *sé:ngè* (**sé:-ngè*) ‘millet’. Compounds with *-sè* have plural *-sě:-gè*.

On the other hand, in *dùbé-sè*, an archaic word for ‘bicycle’, *-sè* represents *sé (sè:)* ‘horse’, the compound as a whole having the literal sense “iron-horse.” Similarly, in *dìnjó-sè* ‘right foot’, *-sè* is from *sè (sè:)* ‘foot’.

5.1.7 Compounds with ‘man’ (*nólò*) and ‘woman’ (*yó*)

No irregularities have been observed in combinations including *nólò* ‘man’ or *yó (yô:)* ‘woman’ denoting humans. As adjectives, the regular forms are *nòlò* ‘male’ and *yò* ‘female’, with the usual {L} overlay of postnominal adjectives.

Tones are irregular in *yà:-nòlò* ‘leopard’, literally “night-man” (*yà:* ‘night’), where one might have expected #*yá:-nòlò*. In *kúŋ-kùmbè-nólò* ‘male agama lizard’ (distinctively colored) from *kúŋ-kùm-bè* ‘agama lizard’, *nólò* ‘man’ has the {HL} tones of a second adjective.

For ‘boy’ (*bé: nòlò-yè*) and ‘girl’ (*bé: yò:-yè*) see §5.1.7 above.

5.1.8 Compounds with *bá:ngà* ‘owner’

bá:ngà ‘owner’ can be compounded with an initial denoting a possession. The tones are as for quasi-possessive compounds.

(123)	noun	gloss	compound	gloss
	<i>ʔòbò</i>	‘house’	<i>ʔòbò-bá:ŋà</i>	‘home-owner’
	<i>wògòtòró</i>	‘cart’	<i>wògòtòrò-bá:ŋà</i>	‘cart-owner’
	<i>dùmò</i>	‘wealth’	<i>dùmò-bá:ŋà</i>	‘rich person’
	<i>gó (gô:)</i>	‘water’	<i>gó:-bǎ:ŋà</i>	‘water-owner’
	<i>tágà</i>	‘well (n)’	<i>tágà-bǎ:ŋà</i>	‘well-owner’

The plural is *X-bá:ŋà-gè* or *X-bǎ:ŋà-gè*.

5.1.9 Compound with nasal linker (*X-N-Y*)

An apparent nasal linker occurs in a few compounds. Some are rather frozen, making segmentation difficult. In some cases the tones are abnormal for compounds. In examples like ‘supper’ the initial ends in a nasal syllable which might have played a role in the origin of the nasal linker.

- (124) a. with *pánáŋgè* ‘meal’
- nasal final syllable in initial*
- dèná-m-pànàŋgè* ‘supper’, cf. *dèŋ* ‘mid-day’, *dénè* ‘spend mid-day’
(plural *dèná-m-pànàŋgè*)
- nonnasal final syllable in initial*
- bá-m-pànàŋgè* ‘lunch’, cf. *bá* ‘morning’
(plural *bá-m-pànàŋgè-gè*)
- b. other
- nasal final syllable in initial*
- dèmè-ŋ-súgùlè* ‘earwax’, also *sùgùlè-dèmè*, cf. *sùgùlè* ‘ear’
- kùmà-ŋ-gáŋgàlà* ‘tadpole’
- ŋèŋé-n-tèmbù* ‘hot season’, cf. *ŋéŋé* ‘sun’
- nonnasal final syllable in initial*
- dòlé-ŋ-kòndè* ‘intestines’, cf. *dólè* ‘belly’
- gíré-m-bùlù* ‘face’, cf. *gíré-sè* ‘eyes’
- kàlá-ŋ-kàmbù* ‘sideburns’
- kiná-n-dùrù* ‘nosebleed’, cf. *kinà* ‘nose’
- ʔòbó-n-tà:lù* ‘host (provider of lodging)’, cf. *ʔòbò* ‘house’
- ʔòndó-ŋ-kòlì* ‘tree sp. (*Annona senegalensis*)’
- tàlàgá-ŋ-kǎlmà* ‘poverty’, cf. *tálágá-ndè* ‘pauper’

A similar linker occurs in some frozen iterated noun stems (§4.1.4).

5.1.10 Iterative natural-species compounds (*X-...-X*) absent

Iterative natural-species compounds with a fixed medial element, of either the type *X-nà(:)-X* or *X-màn-X*, occur sparingly in several Dogon languages (including Penange) for taxa like ‘woodpecker’, ‘herb sp. (*Zornia*)’, and ‘burry herb sp. (*Pupalia*)’. Such compounds have not been observed in Bunoge.

5.1.11 Instrumental and similar compounds

5.1.11.1 Noun as semantic head, passive *-yè* on function-specifying verb

A noun may be modified by a deverbal expression denoting its normal use. A good example is *gɔ́* ‘water’ in (125).

- (125) *gɔ́*^{LH} *nà:-yè*^H ‘drinking water’
gɔ́^{LH} *dù-yyà-yè*^H ‘water for bathing, bathwater’

ʔòjí^{LH} *sìgà-yè*^H ‘a path for going down’ (< *ʔòjí* ‘road’ and *sìgè* ‘go down’) shows more clearly that the construction is (tono-)syntactically noun plus modifying adjective. It also shows that the verb stem before *-yè* is the A-stem as in the imperfective, not the A/O-stem.

In T2015-03 at (00:00) *ʔúná:-yè* follows the name of a village in the sense ‘(the place) that is called/that they call “X”’. It is based on *ʔúnè* ‘say’. Since *ʔúná:-yè* is clearly not an adjectival modifier, its tones suggest that the passive form has H-toned stem except when the modifying adjective {L} overlay is applied.

I have no explanation for why the *a* before *-yè* is long in *gɔ́*^{LH} *nà:-yè*^H and *ʔúná:-yè* but not in *gɔ́*^{LH} *dù-yyà-yè*^H or *ʔòjí*^{LH} *sìgà-yè*^H.

The noun has its regular form. The verb is followed by suffix *-yè*, which here has habitual or normative passive relative sense (‘N that is regularly/normatively Vb-ed’). The verbs associated with the phrases in (125) above are *né:* ‘drink’, (*gɔ́*) *dú-yyè* ‘bathe’ (homonym *dú-yyè* ‘carry on head’), and *sá:li* ‘coarsely stone-grind’. *síjál* is a variant of *síjáli* ‘cream of millet’.

If the head is unspecified, as in ‘something for Vb-ing’, it can take the default form *yé*, which is also the default noun with a modifying adjective (‘something good’, etc.). An example is ‘(any) type (of thing) to eat’ in T2015-05 @ 00:56.

The construction superficially resembles an imperfective object relative with 3Pl subject (‘water that they drink’), which of course would be reasonable semantically as long as the 3Pl subject is generic. Exactly such relative clauses are used in senses like ‘drinking water’ in some other Dogon languages, such as Jamsay. However, in Bunoge the 3Pl suffix *-yè* is confined to the perfective (positive), see §10.3.1, and cannot combine with imperfective stems, either in main or relative clauses. In the imperfective, 3Pl subject is distinguished from 3Sg subject by tones rather than by suffixation. Compare *gɔ́*^{LH} *nà:-yè*^H ‘drinking water’ from (125a) above with the relative clause in (126).

- (126) [gô: ná: nò] néy=là
 [water drink.Ipfv.3PlSbj Def] good=it.is.not
 ‘The water that they drink is not good.’

The 3Sg subject equivalent is *gô: ná: nò* ‘the water that he/she drinks ...’.

5.1.11.2 Noun denotes object (‘fly-swatter’), suffix *-yò* ~ *-yò* on verb

In this type, which resembles agentive compounds, an indefinite noun (which is often plural in form) denoting the prototypical object is followed by a form of the verb with suffix *-yò* ~ *-yò*. {HL}-toned nouns shift the H-tone to the final syllable by Rightward H-Movement, in which case the verb has L+{HL} overlay; otherwise it has HL. The suffixal *y* is subject to *y*-Assimilation (§3.4.4.1) after some consonants.

- (127) a. *nì:bè-gé* *tǎy-yò*
 bird-Pl shoot-InstNom
 ‘slingshot’, cf. *tá:yè* ‘shoot’, *ní:bè* ‘bird’
- b. *bòyè-gè* *píy-yò*
 mosquito-Pl chase.away-InstNom
 ‘mosquito shoo-er (=square hand-fan)’, cf. *píyá-gè* ‘chase away’
- c. *gòlè-gé* *gǒl-yò*
 hole-Pl drill.hole-InstNom
 ‘awl’, cf. verb *gólè* ‘drill (a hole)’, *gólè* ‘drilled hole’
- d. *kò:* *púl-yò*
 head undo.braid-InstNom
 ‘pointed tool for undoing braids’, cf. *púlè* ‘undo braids’, *kò:* ‘head’
- e. *kà:rà* *sěj-jò*
 soda.ash filter-InstNom
 ‘soda-ash straining pot’, cf. *kà:rà* ‘soda ash’, *sějè* ‘filter’
- f. *gìrè-gé* *tě:j-jò*
 eye-Pl look.at-InstNum
 ‘eyeglasses; mirror’, cf. *tě:jè* ‘look at’
- g. *tów* *tǒw-wò*
 slashing.earth slash.earth-InstNom
 ‘pick-hoe’ (used to slash the earth when planting seeds), cf. *tów tó:wè* ‘slash earth (to plant)’

- h. *màná* *tùmbí-yò*
 plastic measure-InstNom
 ‘plastic container for measuring millet grain’, cf. *màná* ‘plastic’, verb *tùmbè*
 ‘measure’
- i. *sòmbùló* *bàlí-yò*
 millet.cakes cook(v.)-InstNom
 ‘kitchen, cooking area’, cf. *sòmbùlò* ‘millet cakes’, *bálè* ‘cook (boil)’.

Uncompounded instrument nominals with *-yò* ~ *-yò* are uncommon, but a few are attested (§4.2.3.3).

5.1.11.3 Product-of-action nominals

In this construction, the noun denotes a general commodity such as a food, and the verb describes a transformative action such as cooking or peeling that has changed its state. The suffix is *-yè* ~ *-yè*.

- (128) *síjàl sá:l-yè* ‘ground millet’ *sá:lì* ‘coarsely stone-grind (grain)’
màndàmù^{LH} dàmì-yè ‘roasted peanuts’ *dámmè* ‘roast or fry in a little oil’

-yè ~ *-yè* resembles the most archaic mediopassive allomorph, and also resembles the 3Pl-subject perfective suffix, either of which would be semantically reasonable. However, a direct equation with either of these would not work. *dàmì-yè* ‘roasted’ as modifier contrasts with *dámm(i)-yè* ‘they roasted’.

5.2 Adjectival compounds

Bahuvrihis can function as modifying adjectives, or absolutely (as stand-alone nouns).

5.2.1 Bahuvrihi (“Blackbeard”) compounds

In a bahuvrihi, a noun associated with the referent (such as a body part) is the compound initial, and an adjectival quality or numerical quantity is the final. This is therefore an exocentric compound type, whose (semantic) head is neither the initial nor the final.

5.2.1.1 With adjectival compound final [n̄ -ná- à]

In this construction, H-toned *-ná-* intervenes between the qualified noun (e.g. body part) and the adjective. Positing a morphemic identity of *-ná-* and 3Sg possessor *-nà* is semantically

reasonable. 3Sg possessor *-nà* is often preceded by an H-tone (§3.6.3.7, §6.2.1.3), as in *gìré-nà* ‘his/her eye(s)’ from *gìré* ‘eye(s)’, and this H-tone could simply shift onto *-nà* before the final adjective, which is always {L}-toned. The same shift of the H-tone onto *-nà* occurs before plural *-gè* (§6.2.1.3); see Rightward H-Movement (§3.6.3.5). The modified noun denoting the entire entity (e.g. ‘person’) keeps its lexical tone.

- (129) a. *sójò* *gìrè-ná-pèmbè*
 person eye(s)-X-bad(eye)
 ‘one-eye, person with a blind eye’ (< *gìré* ‘eye(s)’, *pèmbè* ‘[eye] become blind’)
- b. *sójò* *dòlè-ná-bìgì*
 person belly-X-big
 ‘big-bellied person’ (< *dólè*)
- c. *námúgà* *kò:-ná-yò:lè*
 snake head-X-black
 ‘black-headed snake’

5.2.1.2 With numeral compound final

A bahuvrihi containing a numeral (‘two-headed’) rather than an adjective is (130a). It consists of the noun ‘snake’ and appositionally juxtaposed NP ‘two heads’, with no tonal interactions. Compare (130b) where ‘two heads’ is the object of ‘have’.

- (130) a. *námgà* [*kò:-gé* *dè:gà*]
 snake [head-Pl two]
 ‘two-headed snake’
- b. *námgà* [*kò:-gé* *dè:gà*] *sà*
 snake [head-Pl two] have.3SgSbj
 ‘(the) snake has two heads’

6 Noun Phrase structure

6.1 Organization of NP constituents

6.1.1 Linear order

The basic linear order of elements within an NP is (131). Pronominal possessors are omitted (they are expressed by affixes). My assistant rejected proposed combinations of a demonstrative (*mó*) with a possessor. The relative order of adjectives and numerals is fixed.

- (131)
- | | |
|----|---|
| -1 | demonstrative (<i>mó</i>) or possessor |
| 0 | noun |
| +1 | modifying adjective |
| +2 | plural suffix: <i>-gè</i> |
| +3 | cardinal numeral |
| +4 | definite: <i>nò</i> |
| +5 | universal quantifier ('all'): <i>kúndú</i> , <i>sàkáy</i> |
| +6 | discourse-functional element ('only', 'even', 'as for') |

Examples showing the ordering relationships are in (132). In each case the “formula” on the right is a schematic summary.

- (132)
- | | | | | formula | |
|----|--|--|---------------------|---------------------|-----------------------|
| a. | <i>ʔòbó</i> ^{LH}
house ^{LH} | ^L <i>yò:lè-gé</i>
^L black-Pl | <i>dè:gà</i>
two | [n-a-pl-num] | |
| | ‘two black houses’ | | | | |
| b. | <i>mó</i>
Dem | <i>ʔòbò-gé</i>
house-Pl | <i>dè:gà</i>
two | <i>nó</i>
Def | [dem-n-pl-num-def] |
| | ‘these/those two houses’ | | | | |
| c. | <i>ʔòbò-gè</i>
house-Pl | <i>nò</i>
Def | <i>kúndú</i>
all | [n-pl-def-‘all’] | |
| | ‘all (of) the houses’ | | | | |
| d. | <i>séydù</i>
Seydou | ^{HL} <i>ʔòbò-gé</i>
^{HL} house-Pl | <i>nò</i>
Def | <i>kúndú</i>
all | [poss-n-Pl-Def-‘all’] |
| | ‘All (of) Seydou’s houses’ | | | | |

- e. *sójó-gè* *nò* *kúndú* *fè* [n-Pl-Def-‘all’-‘even’]
 person-Pl Def all even
 ‘even all the people.’

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

Some elements other than nouns may appear to head the NP, when the nominal category is contextually understood or unspecified. The NPs in (133) can be used in contexts like ‘give me ___’. A demonstrative is normally accompanied by a definite morpheme (133a). A numeral may appear in bare form (133b). As for ‘all’ quantifiers, the adverb-like *sàkáy* but not *kúndú* can be used independently to denote the entirety of a mass (‘everything’).

- (133) a. *mó* *nò*
 Dem Def
 ‘this/that (one)’
- b. *tá:ndù*
 three
 ‘three’
- c. *sàkáy*
 all
 ‘everything’

For modifying adjectives, an overt noun is required. The default for nonhuman referents is *yé^{LH}*, a substitute for *wè:* ‘thing’ that also occurs in relative clauses (§14.4).

- (134) *yé^{LH}* ^L*bòw* / ^L*yò:lè* / ^L*bìgì* *nó*
 thing^{LH} ^Lred / ^Lblack / ^Lbig Def
 ‘the red / black / big one’

Likewise, a possessor requires at least a light noun like *wè:* ‘thing’.

- (135) *ì* ^{HL}*wè:*
 1SgPossoss ^{HL}thing
 ‘mine’

Definite *nò* and plural *-gè* do not occur without nouns.

6.1.3 Apparent “bifurcation” of relative-clause head NP

Relative clauses have internal head NPs. The internal head NP is maximally Dem/Poss-N-Adj-Num. However, definite *nɔ̀* and universal quantifiers *kúndú* and *sàkáy* ‘all’ follow the verb-participle and are therefore separated from the internal head. The entire construction functions as an expanded NP. An alternative analysis is that NPs have a maximal structure Dem/Poss-N-Adj-Num-RelCl-Def-Quant-DiscFunct, and that the portion of the NP to the left of the relative clause finds its way into the relativization site within that clause. See chapter 14 for details.

6.1.4 Internal bracketing and tone changes in unpossessed NP

In addition to linear order, NPs are internally structured by tonosyntactic processes. Exemplification will be provided in §6.3.1-6 below. A schematic summary is given here.

The most active tonosyntactic elements are adjectives, which control an {LH} overlay on the preceding noun, realized as H-tone on a monosyllabic. The first adjective itself has {L} overlay. A second adjective has {HL} (§6.3.3.1).

(136) formula realized as...

N-Adj	$N^{LH} \ LAdj$
N-Adj1-Adj2	$N^{LH} \ LAdj1 \ ^{HL}Adj2$

Using internal reconstruction, one might derive $N^{LH} \ LAdj$ from earlier $*N^L \ ^{HL}Adj$ by having the initial H-tone on the adjective drift leftward onto the final syllable of the noun. The double-adjective sequence $*N^L \ ^{HL}Adj1 \ ^{HL}Adj2$ would have been symmetrical in this proto-system.

tó:lè ‘1’ is treated as an adjective and appears as *^Ltò:lè* after a noun. Basic numerals from ‘3’ up, which follow the plural marker, have no tonal effect on the preceding words. *dè:gà* ‘2’, the only lexically /L/-toned numeral, triggers Final Tone-Raising on the preceding sequence, with the H-tone appearing on the plural marker (*-gé*) if present.

Prenominal demonstrative *mɔ́* has no tonal effect on the following sequence.

Definite *nɔ̀* shifts to H-tone after an L-toned word before pause and before an L-tone. The H-toned form was probably historically basic.

The addition of a possessor complicates all of these tonosyntactic patterns, as described in the next section.

6.2 Possessives

There is no systematic difference between alienable and inalienable possessives. I begin with alienables in §6.2.1, and cover inalienables (basically, kin terms) in §6.2.2.

A nonpronominal NP possessor directly precedes the possessed NP, with no intervening possessive (genitive) linker. There is no resumptive third-person possessor pronoun. All pronominal possessors except 3Sg are procliticized to the possessed noun, the forms being the same as for pronominal subjects of verbs. Preposed possessors (nonpronominal or proclitic pronominal) control either {HL} or L+{HL} overlay on the following possessed noun, depending on the final tone of the possessor. The extra L-tone in L+{HL} is, in effect, a dissimilation to the preceding H-tone (§3.6.3.6). 3Sg possessor is exceptionally expressed by a suffix *-nà* on the possessed noun. For the pronominal forms, see §4.3.2.

6.2.1 Alienable possession

6.2.1.1 Preposed L-final possessor with {HL} overlay on possessum

Possessors that **end in L-tone**, including 1Sg *ɲ*, 2Sg *à*, and 3Pl *âɲ* proclitic possessors as well as most nonpronominal NPs, control {HL} overlay on the possessed noun, erasing its lexical tones. Only the first syllable (the first mora for monosyllabics) is H-toned. For trisyllabic and longer nouns, like ‘meal’ and ‘knee’ in (137), the {HL} overlay is audibly distinct from a lexical /HL/ melody for nouns, which is realized as H.H.L.

(137)	noun	gloss	‘Seydou’s _’	‘my / your-Sg / their _’
	<i>yɔ</i> (<i>yɔ̀</i>)	‘woman’	<i>séydù</i> ^{HL} <i>yɔ̀</i>	<i>ɲ / à / âɲ</i> ^{HL} <i>yɔ̀</i>
	<i>kò</i>	‘head’	<i>séydù</i> ^{HL} <i>kò</i>	<i>ɲ / à / âɲ</i> ^{HL} <i>kò</i>
	<i>ʔólò</i>	‘village’	<i>séydù</i> ^{HL} <i>ʔólò</i>	<i>ɲ / à / âɲ</i> ^{HL} <i>ʔólò</i>
	<i>kélè</i>	‘horn’	<i>séydù</i> ^{HL} <i>kélè</i>	<i>ɲ / à / âɲ</i> ^{HL} <i>kélè</i>
	<i>fètò</i>	‘pond’	<i>séydù</i> ^{HL} <i>fètò</i>	<i>ɲ / à / âɲ</i> ^{HL} <i>fètò</i>
	<i>pánàngè</i>	‘meal’	<i>séydù</i> ^{HL} <i>pánàngè</i>	<i>ɲ / à / âɲ</i> ^{HL} <i>pánàngè</i>
	<i>kúnjúgà</i>	‘knee’	<i>séydù</i> ^{HL} <i>kúnjúgà</i>	<i>ɲ / à / âɲ</i> ^{HL} <i>kúnjúgà</i>
	<i>dògòtòrò</i>	‘doctor’	<i>séydù</i> ^{HL} <i>dògòtòrò</i>	<i>ɲ / à / âɲ</i> ^{HL} <i>dògòtòrò</i>

Examples with internally complex L-final possessors are in (138).

- (138) a. [*yɔ̀* *nɔ̀*] ^{HL}*ʔóbò* / ^{HL}*déndè-bè*
 [woman Def] ^{HL}house / ^{HL}tongue
 ‘the woman’s house/tongue’
- b. [*ɲ* ^{HL}*bâw*] ^{HL}*déndè-bè*
 [1SgPoss ^{HL}father] ^{HL}tongue
 ‘my father’s tongue’
- c. [*yɔ̀* *nɔ̀*] ^{HL}*déndè-bè*
 [woman Def] ^{HL}tongue
 ‘the woman’s tongue’

With possessions like ‘house’ that typically belong to multiple persons, it is usual to pluralize the possessor. For example, instead of ‘Seydou’s house’ one usually says ‘the house of Seydou &co’, i.e. with associative plural *yà:*, hence [*séydù yà:*] ^{HL} *ʔólò*. Likewise ‘our house’ instead of ‘my house’, and so forth.

6.2.1.2 Preposed H-final possessor with L+{HL} overlay

Possessors ending in an H-tone control **L+{HL}** overlay on the possessed noun. The most common possessors of this type are 1Pl *ɲ* and 2Pl *á* proclitics. Nouns ending in an H-tone, i.e. of /LH/ melody, are mostly inanimate and are more likely to occur as compound initials than as possessors. However, some numerals end in an H-tone, and a possessor NP ending in such a numeral also controls L+{HL}. This melody is probably just a (morpho-)phonological variant of the more basic {HL} overlay, involving tonal polarization of the onset of the possessed noun to the final tone of the possessor, see Initial Tone-Dissimilation (§3.6.3.6). This structure is suggested by the notation L+{HL}, though its realization is the same as {LHL} would be. The L+{HL} overlay as such appears only on the first word or stem of an internally complex possessed noun or NP, while subsequent words or stems have their own separate {HL} overlays.

The full tritonal L+{HL} overlay is audible on trisyllabic and longer nouns, but it is **flattened** to {L} for prosodically light *Cv:* and *CvCv* nouns (139a). Adding plural *-gè* to a prosodically light noun makes it prosodically heavy, so it can then express the full L+{HL}. Quadrisyllabic nouns realize L+{HL} as L.L.H.L syllable sequences, i.e. with tone breaks as close as possible to the right edge.

(139) Realization of L+{HL} overlay on possessed nouns

noun	gloss	‘our _’	‘your-Pl _’
a. prosodically light possessum, realized as {L}			
<i>yó</i> (<i>yò:</i>)	‘woman’	<i>ɲ</i> ^{L+HL} <i>yò:</i>	<i>á</i> ^{L+HL} <i>yò:</i>
<i>kò:</i>	‘head’	<i>ɲ</i> ^{L+HL} <i>kò:</i>	<i>á</i> ^{L+HL} <i>kò:</i>
<i>ʔólò</i>	‘village’	<i>ɲ</i> ^{L+HL} <i>ʔólò</i>	<i>á</i> ^{L+HL} <i>ʔólò</i>
<i>kèlè</i>	‘horn’	<i>ɲ</i> ^{L+HL} <i>kèlè</i>	<i>á</i> ^{L+HL} <i>kèlè</i>
<i>fètó</i>	‘pond’	<i>ɲ</i> ^{L+HL} <i>fètò</i>	<i>á</i> ^{L+HL} <i>fètò</i>
b. prosodically heavy possessive, realized as the full L+{HL}			
<i>pánáŋgè</i>	‘meal’	<i>ɲ</i> ^{L+HL} <i>pánáŋgè</i>	<i>á</i> ^{L+HL} <i>pánáŋgè</i>
<i>kúnjúgà</i>	‘knee’	<i>ɲ</i> ^{L+HL} <i>kúnjúgà</i>	<i>á</i> ^{L+HL} <i>kúnjúgà</i>
<i>dògòtórò</i>	‘doctor’	<i>ɲ</i> ^{L+HL} <i>dògòtórò</i>	<i>á</i> ^{L+HL} <i>dògòtórò</i>
<i>bàndàgá:rì</i>	‘yoke’	<i>ɲ</i> ^{L+HL} <i>bàndàgá:rì</i>	<i>á</i> ^{L+HL} <i>bàndàgá:rì</i>

Numerals at the end of the possessor are in (140a-b). ‘2’ ends in L-tone, requiring {HL} overlay on the possessum, while ‘10’ ends in H-tone, requiring L+{HL}, flattening to {L} on a light stem. Adding plural suffix to ‘house’ in (140b) allows the full L+{HL} overlay.

- (140) a. [sójó-gé dè:gà] ^{HL}ʔóbò
 [person-Pl two] ^{HL}house
 ‘a house of two people’
- b. [yò: kóbéyⁿ] ^{L+HL}ʔòbò / ^{L+HL}ʔòbó-gè
 [woman ten] ^{L+HL}house / ^{L+HL}house-Pl
 ‘a house/houses of ten women’

If the possessed noun is a transparent compound, both the initial and the final have the possessed-noun overlay. For example, *wòlì-[wáló-bò]* ‘farmer’ (agentive compound, §5.1.3) occurs as possessed noun in (141a-b). In (141a), the {HL} overlay is repeated on both parts of the compound, which surfaces with H.L-H.L-L syllable sequence. In (141b), the output melody is L.L-H.L-L, after the prosodically light initial flattens L+{HL} to {L}. This is compatible with the separate application of L+{HL} (following a final H-tone) to the compound initial and final.

- (141) a. *ɲ* ^{HL}wóli- ^{HL}[wálo-bò]
 1SgPoss ^{HL}farm.work-^{HL}[do.farming-Agent]
 ‘my farmer’
- b. *ɲ* ^{L+HL}wòli- ^{HL}[wálo-bò]
 1PIPoss ^{L+HL}farm.work-^{HL}[do.farming-Agent]
 ‘our farmer’

6.2.1.3 3Sg possessor suffix *-nà*

As mentioned above, 3Sg possessor is expressed by suffix *-nà*. This is the only possessor that follows the possessed noun. Its tonal behavior is brought out in (142).

- (142) noun gloss ‘his/her/its _’
- a. nouns with /L/ melody
- monosyllabic*
- sè:* ‘foot’ *sé:-nà ~ sè:-nà*
kò: ‘head’ *kó:-nà ~ kò:-nà*
- bisyllabic (bimoraic)*
- kèlè* ‘horn’ *kèlè-nà*
tòni ‘mouth’ *tòni-nà*
gèmbù ‘(leather) bag’ *gèmbù-nà*

<i>heavier (at least three moras)</i>		
<i>sùgùlè</i>	‘ear’	<i>sùgùlé-nà</i>
b. nouns with /HL/ melody		
<i>monosyllabic</i>		
<i>sé (sé:)</i>	‘horse’	<i>sé:-nà</i>
<i>yó (yô:)</i>	‘woman’	<i>yó:-nà</i>
<i>bisyllabic (bimoraic)</i>		
<i>ʔólò</i>	‘village’	<i>ʔòlò-nà</i>
<i>tágà</i>	‘well (n)’	<i>tàgá-nà</i>
<i>heavier (at least three moras)</i>		
<i>jà:lì</i>	‘cat’	<i>jà:lí-nà</i>
<i>yí:lì</i>	‘stream’	<i>yí:lí-nà</i>
<i>pánáŋgè</i>	‘meal’	<i>pànàŋgé-nà</i>
<i>ʔálámà</i>	‘sheep’	<i>ʔàlàamá-nà</i>
<i>kúnjúgà</i>	‘knee’	<i>kùnjúgá-nà</i>
c. /LH/-toned light stems		
<i>bisyllabic (bimoraic)</i>		
<i>fètó</i>	‘pond’	<i>fètó-nà</i>
<i>jòmé</i>	‘hare’	<i>jòmé-nà</i>
<i>heavier (at least three moras)</i>		
<i>jàppèré</i>	‘padding’	<i>jàppèré-nà</i>

The relationships between unpossessed and 3Sg possessor forms are variable, depending on prosodic heaviness. For heavy stems, i.e. *Cv:Cv* and trisyllabic, an {LH} overlay occurs on the presuffixal stem. It has no audible effect when the heavy noun is already lexically /LH/ as with *jàppèré* in (142c). The effect on heavy /HL/ nouns is that H.(H.)L is “flipped” to L.(L.)H, which (if treated in isolation) could alternatively be accounted for by Rightward H-Movement (142b). The effect on heavy /L/ nouns is that the final syllable becomes H-toned, which (if treated in isolation) could alternatively be attributed to Final Tone-Raising (142a). Positing {LH} overlay accounts for the tones of all of these heavy stems.

Monosyllabic *Cv(:)* stems, which can have /L/ or /HL/ melody, optionally merge as {H} before 3Sg possessor *-nà* (142a-b). Actual homophony is only a problem for *sè:* ‘foot’ and *sé (sé:)* ‘horse’. The 3Sg possessor form for ‘horse’ is always *sé:-nà*. For ‘foot’ it varies between *sé:-nà* and *sè:-nà*. Of the two variants, *sé:-nà* reflects the regular {LH} overlay before *-nà*, but flattens it to H on a monosyllabic stem. I did not hear this as #*sě:-nà* with rising tone.

Oddly, *CvCv* and *CvNCv* stems (i.e. light bisyllabics) differ tonally from both heavy and monosyllabic stems. If the noun has /HL/ melody, it does appear with LH tones, following the pattern for heavy and monosyllabic stems. If the noun has /LH/ melody, it surfaces with no overt tonal change. So /HL/ and /LH/ melody light bisyllabics are at least compatible with {LH} overlay. However, if the noun has /L/ melody, it too surfaces with no overt tonal change, see ‘horn’, ‘mouth’, and ‘bag’ in (142a) above. This rules out an {LH} overlay for /L/-melody light bisyllabics. It makes us wonder whether /LH/-melody light bisyllabics really

undergo an inaudible {LH} overlay. It also makes us consider the possibility that /HL/-melody light bisyllabics become LH-toned by {LH} overlay, or by Rightward H-Movement. So the morphotonology is especially murky here.

When definite *nò* follows 3Sg possessor suffix *-nà*, the tones shown above are retained in most cases (143a). However, /L/-melody monosyllabics like *sè:* ‘foot’ do not raise their tones in this combination. Adding definite *nò* restores the sharp lexical melodic difference between ‘foot’ and ‘horse’ (143b).

(143)	noun	3Sg possessor		gloss
		without <i>nò</i>	with <i>nò</i>	
a.	<i>tòni</i>	<i>tòni-nà</i>	<i>tòni-nà nó</i>	‘mouth’
	<i>gèmbù</i>	<i>gèmbù-nà</i>	<i>gèmbù-nà nó</i>	‘(leather) bag’
	<i>ná:li</i>	<i>nà:lí-nà</i>	<i>nà:lí-nà nò</i>	‘cat’
	<i>sùgùlè</i>	<i>sùgùlé-nà</i>	<i>sùgùlé-nà nò</i>	‘ear’
b.	<i>sè:</i>	<i>sé:-nà ~ sè:-nà</i>	<i>sè:-nà nó</i>	‘foot’
	<i>sé (sé:)</i>	<i>sé:-nà</i>	<i>sé:-nà nò</i>	‘horse’

3Sg *-nà* is suffixed to the possessed noun, preceding even a modifying adjective. The latter then appears with {HL} rather than {L} melody, as it does as second adjective in an N-Adj1-Adj2 sequence.

(144) 3Sg *-nà* before adjective

a. lexical /HL/	<i>sé:^{LH} L yò:lè</i>	<i>sé:-nà^{HL} yó:lè</i>	‘black horse’
	<i>ʔinjé^{LH} L yò:lè</i>	<i>ʔinjé-nà^{HL} yó:lè</i>	‘black dog’
	<i>ʔàlàma^{LH} L yò:lè</i>	<i>ʔàlàma-nà^{HL} yó:lè</i>	‘black sheep’
b. lexical /LH/	<i>jàppèré yò:lè</i>	<i>jàppèré-nà^{HL} yó:lè</i>	‘black padding’
c. lexical /L/ to {H} or {LH}	<i>prosodically light (two vocalic moras) to {H}</i>		
	<i>sé:^{LH} L bígì</i>	<i>sé:-nà^{HL} bígì</i>	‘big foot’
	<i>gèmbú^{LH} L yò:lè</i>	<i>gèmbú-nà^{HL} yó:lè</i>	‘black (leather) bag’
	<i>prosodically heavy (three or more vocalic moras) to {LH}</i>		
	<i>dèndèbé^{LH} L bígì</i>	<i>dèndèbé-nà^{HL} bígì</i>	‘big tongue’

When the 3Sg possessor suffix precedes plural *-gè*, the noun is {L}-toned and 3Sg *-nà* becomes H-toned *ná* by Rightward H-Movement (145a). The H-tone spreads to *-gè* when followed by an L-tone (145b).

- (145) a. *ʔòbò / ʔàlàrà / ʔínjè* *-ná-gè*
house / sheep / dog -3SgPoss-Pl
‘his/her (three) houses / sheep / dogs’ (< *ʔòbò, ʔàlàrà, ʔínjè*)
- b. *ʔòbò / ʔàlàrà / ʔínjè* *-ná-gé* *dè:gà*
house / sheep / dog -3SgPoss-Pl two
‘his/her (two) houses / sheep / dogs’ (< *ʔòbò, ʔàlàrà, ʔínjè*)

6.2.1.4 Possessives versus compounds

Noun-noun compounds resemble the possessor-possessed combination (§5.1.1). However, in compounds, an initial noun (which has generic reference) is subject to Rightward H-Movement. This process does not occur in productively formed possessives, i.e. those where the possessor denotes a specific individual or group (‘Seydou’, ‘my father’, ‘the dog’). Bare indefinite nouns and their plurals are usually treated as compound initials rather than as possessors for this purpose, and therefore undergo Rightward H-Movement (146). The compound final is treated like a possessed noun. If the initial now has a final H-tone, the final gets the L+{HL} overlay, reduced to {L} on light stems (unless pluralized). If the initial has no H-tone, the final has {HL} overlay.

- (146) a. *yó:-gé / nóló-gé* ^{L+HL}*ʔòbò* / ^{L+HL}*ʔòbó-gè*
woman-Pl / man-Pl ^{L+HL}house / ^{L+HL}house-Pl
‘women’s/men’s house(s)’ (< *yó:-gè, nóló-gè*)
- b. *ʔínjé* ^{L+HL}*dèndé-bè*
dog ^{L+HL}tongue
‘a dog’s tongue’ (< *ʔínjè*)
- c. *ʔàllà* ^{HL}*dèndé-bè* / ^{HL}*dèndé-bé-gè*
pig ^{HL}tongue / ^{L+HL}tongue-Pl
‘(a) pig’s tongue(s)’ (< *dèndé-bè*)

6.2.1.5 Tone patterns of N-Adj and N-Num after a possessor

When a possessed noun like ‘house’ in (147a) is modified adjectivally, as in (147b), a possessor controls {HL} or L+{HL} on the noun as described above, and separately it seemingly controls {HL} on each following adjective, resulting in Poss ^{(L+)HL}N ^{HL}Adj1 (^{HL}Adj2) (147b-c). However, it is questionable whether this output is produced by repeating the possessor-controlled {HL} overlay independently on the noun and the adjective. {HL} is also the overlay for adjectives following another adjective in an unpossessed NP, i.e. Adj2 and any later adjectives in unpossessed [^{N^{LH}} ^LAdj1 ^{HL}Adj2 ...]. Unpossessed examples like *ʔà:lí^{LH} kèmnò^L bígì^{HL} yó:lè^{HL}* ‘a big black old cat’ are in §6.3.3.1. This indicates that {HL}

is the overlay for an adjective following any combination of a noun and a modifier within the same NP that ends in an L-tone, and is not specifically associated with possessors.

- (147) a. $[y\acute{o}: \quad n\grave{o}]$ ^{HL} $\text{ʔ\acute{o}b\grave{o}(-g\acute{e})}$ $n\grave{o}$
 [woman Def] ^{HL}house(-Pl) Def
 ‘the woman’s house(s)’
- b. $[y\acute{o}: \quad n\grave{o}]$ ^{HL} $\text{ʔ\acute{o}b\grave{o}}$ ^{HL} $\text{k\acute{a}nd\grave{a}(-g\acute{e})}$ $n\grave{o}$
 [woman Def] ^{HL}house ^{HL}new(-Pl) Def
 ‘the woman’s new house(s)’
- c. $[y\acute{o}: \quad n\grave{o}]$ ^{HL} $\text{ʔ\acute{o}b\grave{o}}$ ^{HL} $\text{k\acute{a}nd\grave{a}}$ ^{HL} $\text{y\acute{o}:l\grave{e}(-g\acute{e})}$ $n\grave{o}$
 [woman Def] ^{HL}house ^{HL}new ^{HL}black(-Pl) Def
 ‘the woman’s new black houses’

A numeral following a possessed noun does not interact tonally with the preceding words,

- (148) $[y\acute{o}: \quad n\grave{o}]$ ^{HL} $\text{ʔ\acute{o}b\grave{o}-g\grave{e}}$ $d\grave{e}:g\grave{a} / t\acute{a}:nd\grave{u} / k\acute{u}l\acute{e}w^n$
 [woman Def] ^{HL}house-Pl two / three / six
 ‘the woman’s two/three/six houses’

1Sg \acute{y} and 2Sg \grave{a} are also L-toned possessors, and they have the same tonal interactions with following nouns and modifiers as do nonpronominal possessors like $y\acute{o}: n\grave{o}$ ‘the woman’ that end in an L-tone.

When the possessor ends in an H-tone, either lexically or by Rightward H-Spreading from /HL/, it controls L+{HL} on the possessed noun, reduced to {L} on light nouns (*Cv*; *CvCv*, *CvNCv*). The reduction to {L} is observed on ‘house’ in (149a). However, if plural *-g\grave{e}* is added, ‘house(s)’ is now trisyllabic and the full L+{HL} is overt. If a modifying adjective is added (149b), it has the same {HL} overlay illustrated in (147b-c) above.

- (149) a. \acute{y} ^{L+HL} $\text{ʔ\acute{o}b\grave{o}} / \text{ʔ\acute{o}b\acute{o}-g\grave{e}}$
 1PIPoss ^{L+HL}house / ^{L+HL}house-Pl
 ‘our houses’
- b. \acute{y} ^{L+HL} $\text{ʔ\acute{o}b\grave{o}}$ ^{HL} $\text{k\acute{a}nd\grave{a}(-g\grave{e})}$
 1PIPoss ^{L+HL}house ^{HL}new(-Pl)
 ‘our new house(s)’

Numerals in Poss-N-Num sequences likewise are indifferent to the final tone of the possessor.

- (150) a. $y\acute{o}:-g\acute{e}$ ^{L+HL} $\text{ʔ\acute{o}b\acute{o}-g\acute{e}}$ $d\grave{e}:g\grave{a}$
 woman-Pl ^{L+HL}house-Pl two
 ‘the women’s two houses’

- | | | | |
|----|--------------------------------|--------------------------------|-----------------------------------|
| b. | <i>yɔ̀:-gé</i> | ^{L+HL} <i>ʔòbó-gè</i> | <i>tá:ndù / kúléwⁿ</i> |
| | woman-Pl | ^{L+HL} house-Pl | two / three / six |
| | ‘the women’s three/six houses’ | | |

Plural pronominal possessors are H-toned (1Pl *ɨ́*, 2Pl *á*, 3Pl *áɨ*), and have the same tonal properties as nonpronominal possessors that end in an H-tone (after Rightward H-Movement).

6.2.2 Inalienable possession

6.2.2.1 Kin terms and similar relationship terms

There is no morphosyntactic or tonal distinction between alienable and inalienable possession. Some kin terms do show morphological peculiarities.

Morphologically simple kin and relationship terms are in (151a). The two kin terms in (151b) are *Cv-Cv* with a reduplicative appearance. *sèj-jò* ‘grandchild’ (151c) is an isolated compound consisting of *sèjì* ‘grandparent’ and an archaic diminutive ending, cf. Yanda Dom *sèzì-yè*. (151d) shows combinations of parental and elder/younger sibling terms. The latter are treated as modifying adjectives, hence the {LH} overlay on the parental term when unpossessed (left column).

(151)	unpossessed	‘my X’	gloss
	a. simple		
	<i>bàw</i>	<i>ɨ́^{HL}bàw</i>	‘father’ (vocative: <i>bá:</i>)
	<i>tòlò</i>	<i>ɨ́^{HL}tólò</i>	‘father’s sister’
	<i>tòrì</i>	<i>ɨ́^{HL}tórì</i>	‘grandfather’
	<i>nólò</i>	<i>ɨ́^{HL}nólò</i>	‘friend’
	<i>dèlì</i>	<i>ɨ́^{HL}délì</i>	‘elder sibling’
	<i>dèbò</i>	<i>ɨ́^{HL}débò</i>	‘younger sibling’
	<i>sèjì</i>	<i>ɨ́^{HL}séjì</i>	‘grandmother’
	<i>ʔínògù</i>	<i>ɨ́^{HL}ʔínògù</i>	‘parent-in-law’
	<i>sáɨnà</i>	<i>ɨ́^{HL}sáɨnà</i>	‘cross-cousin’
	<i>kábùɨgè</i>	<i>ɨ́^{HL}kábùɨgè</i>	‘agemate’
	<i>númbùlù</i>	<i>ɨ́^{HL}númbùlù</i>	‘person with the same name’
	b. reduplicative, cf. §4.1.4-5		
	<i>bò-bò</i>	<i>ɨ́^{HL}bó-bò</i>	‘mother’s brother’
	<i>nì-nì</i>	<i>ɨ́^{HL}ní-nì</i>	‘mother’ (3Sg <i>nì:-nà</i> ; vocative: <i>íné</i>)
	c. frozen diminutive		
	<i>sèj-jò</i>	<i>ɨ́^{HL}séj-jò</i>	‘grandchild’ (< <i>sèjì</i>)

d. composite

$b\check{a}w^{LH}$	$L+HL$	$d\grave{e}l\grave{i}$	$\grave{i}\eta^{HL}$	$b\hat{a}w^{HL}$	$d\acute{e}l\grave{i}$	‘father’s elder brother’
$b\check{a}w^{LH}$	$L+HL$	$d\grave{e}b\grave{o}$	$\grave{i}\eta^{HL}$	$b\hat{a}w^{HL}$	$d\acute{e}b\grave{o}$	‘father’s younger brother’
$n\grave{i}-n\acute{i}^{LH}$	$L+HL$	$d\grave{e}l\grave{i}$	$\grave{i}\eta^{HL}$	$n\acute{i}-n\grave{i}^{HL}$	$d\acute{e}l\grave{i}$	‘mother’s elder brother’
$n\grave{i}-n\acute{i}^{LH}$	$L+HL$	$d\grave{e}b\grave{o}$	$\grave{i}\eta^{HL}$	$n\acute{i}-n\grave{i}^{HL}$	$d\acute{e}b\grave{o}$	‘mother’s younger brother’

3Sg possessor *-nà* is tonally regular with kin terms: *bàw-nà* ‘his/her father’, *bò-bò-nà* ‘his/her uncle’, *sàṅàná-nà* ‘his/her cross-cousin’. Contracted 3Sg *nì:-nà* ‘his/her mother’, avoiding a pileup of three *n*’s in #*nì-nì-nà*, is noted in parentheses in (151b).

Some other nouns that can have kinship senses when possessed are *yó* ‘woman; wife’ and *bé* ‘child’.

6.2.2.2 Tone contour of modifiers following an inalienably possessed noun

As far as I can determine, the tonal (and morphological) treatment of postnominal adjectives and numerals is the same for inalienable as for alienable possession. My assistant was lukewarm about adding modifying adjectives to kin terms, except for the ‘elder’ and ‘younger’ modifiers illustrated in the preceding subsection. However, (152b) was elicitable, and shows the same tones that occur with alienable possessums. Numerals are readily added (152c-d). These examples involve possessors ending in an L-tone.

- (152) a. $[y\acute{o}:$ $n\grave{o}]$ $b\acute{o}-b\grave{o}(-g\acute{e})$ $n\grave{o}$
 [woman Def] HL uncle(-Pl) Def
 ‘the woman’s maternal uncle(s)’
- b. $[y\acute{o}:$ $n\grave{o}]$ $b\acute{o}-b\grave{o}$ HL *kémnò(-gé)* $n\grave{o}$
 [woman Def] HL uncle HL old(-Pl) Def
 ‘the woman’s old (aging) maternal uncle(s)’
- c. $[y\acute{o}:$ $n\grave{o}]$ $b\acute{o}-b\grave{o}-g\acute{e}$ $d\grave{e}:g\grave{a}$ / $t\acute{a}:nd\grave{u}$ / $k\acute{u}l\acute{e}w^n$
 [woman Def] HL uncle-Pl two / three / six
 ‘the woman’s two maternal uncle(s)’
- d. $[y\acute{o}:$ $n\grave{o}]$ $b\acute{o}-b\grave{o}-g\grave{e}$ $t\acute{a}:nd\grave{u}$ / $k\acute{u}l\acute{e}w^n$
 [woman Def] HL uncle-Pl three / six
 ‘the woman’s three/six maternal uncle(s)’

Similarly, when the possessor ends in an H-tone, either a plural pronoun like 1Pl *ǐ* or a plural noun after Rightward H-Movement, we get the same tones on the possessed noun and a following numeral in the inalienable example (153a-b) as in alienable examples given above.

- (153) a. $y\grave{o}:-g\acute{e}^{LH}$ $L+HL$ $b\grave{o}-b\acute{o}-g\acute{e}$ $d\grave{e}:g\grave{a}$
 woman-Pl^{LH} $L+HL$ uncle-Pl two
 ‘(some) women’s two uncles’
- b. $y\grave{o}:-g\acute{e}^{LH}$ $L+HL$ $b\grave{o}-b\acute{o}-g\grave{e}$ $t\acute{a}:nd\grave{u} / k\acute{u}l\acute{e}w^n$
 woman-Pl^{LH} $L+HL$ uncle-Pl three / six
 ‘(some) women’s three/six uncles’

6.2.3 Recursive possession

A possessed NP may itself function as possessor of another NP. In (154a), ‘father’ has {HL} overlay controlled by the 1Sg possessor, and ‘house’ has {HL} contour controlled by ‘my father’. In (154b), Rightward H-Movement puts the H-tone on the plural suffix in ‘our wives’, whereupon ‘house(s)’ has the tones appropriate for a possessed noun after a possessor ending in an H-tone.

- (154) a. $[i\grave{y}]$ HL $b\acute{a}w]$ HL $\text{?}\acute{o}b\grave{o}$
 [1SgPoss HL father] HL house
 ‘my father’s house’
- b. $[i\grave{y}]$ $L+HL$ $y\grave{o}:-g\acute{e}]$ $L+HL$ $\text{?}\acute{o}b\grave{o} / L+HL$ $\text{?}\acute{o}b\acute{o}-g\grave{e}$
 [1SgPoss $L+HL$ woman-Pl] $L+HL$ house / $L+HL$ house-Pl
 ‘our wives’ house(s)’

6.3 Unpossessed core NP (noun plus adjective)

6.3.1 Noun plus regular adjective

The order is noun-adjective. In this simple combination, the adjective controls an {LH} overlay on the noun, with just the last syllable H-toned. Depending on the number of syllables in the noun, it appears as L.L.H, L.H, or (monosyllabic) H. For the latter see discussion in §3.6.4.3. The adjective is {L}-toned. Examples with ^L*bìgì* ‘big’ are in (155).

(155)	N-Adj combination	gloss	noun
	$p\grave{o}l\grave{e}ng\acute{e}^{LH}$ L $b\grave{i}g\grave{i}$	‘a big egg’	$p\acute{o}l\acute{e}ng\grave{e}$
	$k\grave{u}nj\grave{u}g\acute{a}^{LH}$ L $b\grave{i}g\grave{i}$	‘a big knee’	$k\acute{u}nj\acute{u}g\grave{a}$
	$s\grave{u}g\grave{u}l\acute{e}^{LH}$ L $b\grave{i}g\grave{i}$	‘a big ear’	$s\grave{u}g\grave{u}l\grave{e}$
	$n\grave{a}:l\acute{i}^{LH}$ L $b\grave{i}g\grave{i}$	‘a big cat’	$n\acute{a}:l\grave{i}$
	$k\grave{e}l\acute{e}^{LH}$ L $b\grave{i}g\grave{i}$	‘a big horn’	$k\grave{e}l\grave{e}$
	$y\acute{o}:^{LH}$ L $b\grave{i}g\grave{i}$	‘a big woman’	$y\acute{o}:(y\acute{o}:)$
	$k\acute{o}:^{LH}$ L $b\grave{i}g\grave{i}$	‘a big head’	$k\acute{o}:(k\acute{o}:)$

When two or more adjectives follow the noun, all but the first have {HL} overlay; examples in §6.3.3.1 below.

For those adjectives that are not used absolutely (i.e. as unmodified nouns), the only other morphosyntactic context where an adjective can appear is adjectival predicates. As shown in §11.4, such predicates often have unusual morphophonological idiosyncrasies. The effect is that it is very difficult to peel away grammatical overlays to discover the lexical tone melody of any given adjective. Insofar as N^{LH} LAdj is the most basic construction including an adjective, it may be that most if not all such adjectives have lexical /L/ melody.

Examples of adjectives that can also function as nouns are *nólò* ‘man’ becoming ^L*nòlò* ‘male’ as modifying adjective, and characteristic derivative (§4.2.1) *dòlé-gà* ‘pregnant woman’ becoming ^L*dòlè-gà* ‘pregnant’ as modifying adjective. In cases like these, the tones of the nominal form can be taken as lexically basic.

In a N-Adj sequence, plural *-gè* is added to the adjective: *?òbó*^{LH} ^L*bàyn-gè* ‘big houses’.

tóndí-gè ‘money’ (cf. *tóndí-bè* ‘cowry shell’, formerly used as currency) is probably a frozen plural, but it now functions as a singular mass noun. *tóndí-gè* has 3Sg agreement, and keeps its *gè* syllable before an adjective: *tóndí-gé* ^L*ɲòngò* ‘thin money’, i.e. ‘change, coins’.

6.3.2 Adjective *tàngà* ‘certain (ones)’

The adjective *tàngà* ‘a certain (one), becoming ^L*tàngà* as postnominal modifier, denotes a specific but not overtly named individual, or (in the plural) a subset, from a larger set. The plural *tàngá-gè* or postnominal ^L*tàngà-gè* is more common. It occurs in parallelistic constructions that, in combination, exhaustively partition a set into two (occasionally more) subsets.

- (156) *tàngá-gè* *dú:nì* [*bùrkìn = à:* *gé:ndè*],
certain-Pl run.Pfv.3PlSbj [B=Loc go.Pfv.3PlSbj],
tàngá-gè *yóggò-yóggò*
certain-Pl hide-hide

‘Some fled to Burkina, some (=the others) were hiding ...’ (T2015-01 @ 00:18)

6.3.3 Expansions of adjective

6.3.3.1 Adjective sequences

Two or more adjectives can follow a single noun. Unless there is a clear scope asymmetry between the adjectives, the order of adjectives is free. For example, size and color adjectives occur in either order.

§6.3.1 showed that a single adjective following a noun has {L} overlay. When two or more adjectives follow a noun, the first one has this {L}, but subsequent ones have {HL}. See discussion of (136) above for a hypothesis about the history behind this. The examples in (157) involve *ɲá:li* ‘cat’, which appears with {LH} overlay before an adjectives.

- (157) a. N-Adj
nà:lí^{LH} *yò:lè*^L ‘a black cat’
nà:lí^{LH} *bìgì*^L ‘a big cat’
nà:lí^{LH} *kèmnò*^L ‘an old cat’
- b. N-Adj1-Adj2
nà:lí^{LH} *bìgì*^L *yó:lè*^{HL} ‘a big black cat’
nà:lí^{LH} *yò:lè*^L *bìgì*^{HL} ”
- c. N-Adj1-Adj2-Adj3
nà:lí^{LH} *kèmnò*^L *bìgì*^{HL} *yó:lè*^{HL} ‘a big black old cat’
 (other linear orders also possible)

Plural *-gè* is added only to the last adjective: *nà:lí*^{HL} *bìgì*^{HL} *yó:lè-gè*^{HL} ‘big black cats’.

Adjectives, including the first adjective, have {HL} melody when they follow a possessed noun; see §6.2.1.5 above.

All known primary (i.e. nonparticipial) adjectives are mono- or bisyllabic, so I cannot determine how {HL} is realized on trisyllabic or longer adjectives.

6.3.3.2 Adjectival intensifiers

Intensifiers are emphatic words associated with an adjectival or similar sense. For examples, see §4.5.3 above.

6.4 NP with numeral

6.4.1 Regular phrasing

Modifying numeral ‘1’ is *tó:lè*, treated tonally like an adjective. Basic numerals from ‘2’ up usually follow an overtly pluralized noun or NP ending with plural suffix *-gè*, toned. The examples in (158) involve the noun *?álámá* ‘sheep’, plural *?álámá-gè*.

- (158) a. *?àlà má*^{LH} *tò:lè*^L
 sheep^{LH} one^L
 ‘one sheep’
- b. *?álámá-gé* *dè:gà*
 sheep-Pl two
 ‘two sheep’

- c. *ʔálámá-gè* *tá:ndù / tá:l(ú)mà*
 sheep-Pl three / twenty
 ‘three/twenty sheep’

6.4.2 Adjective-Numeral Inversion absent

In several Dogon languages, the addition of a possessor, a demonstrative, or a relative clause licenses optional inversion of the numeral and adjective. However, my assistant denied that inversion is possible in Bunoge in examples like (159).

- (159) *séydù* ^{HL}*ʔálámà* ^{HL}*yó:lè-gè* *tá:ndù*
 Seydou ^{HL}sheep ^{HL}black-Pl three
 ‘Seydou’s three black sheep’

6.5 NP with determiner

6.5.1 Prenominal demonstrative *mó*

mó ‘this, that’ is a deictic demonstrative. It is NP-initial, occupying the same slot as a preposed possessor. In the absence of a noun, definite *mó nò* is very common.

mó has no tonal effect on the following noun: (*mó*) *ʔállà nò* ‘this pig’ (definite), (*mó*) *ʔálámà nò* ‘(this) sheep’ (definite), (*mó*) *gàndù:ré nò* ‘(this) yoke’. This suggests that *mó* is apposition-like or at least originated as an apposition.

mó occupies more or less the same prenominal linear “slot” as prenominal possessors. The only possessor that follows a noun is 3Sg pronominal *-nà* ‘his/her/its’. My assistant readily allowed this to combine with *mó*, as in *mó ʔállá-nà nò* ‘this pig of his/hers’. This shows that there is no real problem combining demonstrative with possessor. When both are prenominal the combination is awkward, but allowed (160).

- (160) [*mó* *ɲ* ^{HL}*ʔóbò* *nò*] *à* *tégé*↗
 [Dem 1SgPoss ^{HL}house Def] 2SgSbj see.Pfv.Q
 ‘Did you-Sg see this house of mine?’

6.5.2 Postnominal definite *nò*

The invariant definite morpheme *nò* follows nouns, adjectives, the plural marker, and numerals. It precedes ‘all’ quantifiers.

In spite of being (usually) L-toned, *nò* does not allow the final syllable of the preceding word to be raised to H-toned by Rightward H-Spreading. Instead, *nò* itself is raised to *nó* before a pause or an L-tone, when preceded by an L-tone under some conditions; see Final

Tone-Raising (§3.6.3.2-3). This tonal behavior suggests that *nɔ̀* was originally H-toned, but synchronic evidence for lexical H-tone is weak.

nɔ̀ is a high-frequency, nonemphatic definiteness marker. Syntactically, *nɔ̀* readily co-occurs with possessors and with demonstrative *mɔ́*.

In relative constructions, definite *nɔ̀* follows the verb-participle (§14.7.1).

6.6 Universal quantifiers

6.6.1 ‘All’ (*kúndú*, *sàkáy*)

Universal quantifiers (‘all’) occur at the very end of the NP. The most stylistically neutral is *kúndú*. It may be etymologically related to the noun *kúndúlè* ‘intact (unbroken) object’ (uncut log, entire melon, unsplit kola nut). *kúndú* can combine with a nonsingular pronominal proclitic (161a-b). In (161a) it drops its initial tone after the H-toned proclitic.

- (161) a. *ɔ̀ / á kùndú*
 1Pl / 2Pl all
 ‘all of us/you’
- b. *âɲ kúndú*
 3Pl all
 ‘all of them’

Examples of *kúndú* in nonpronominal NPs are (132c-d) in §6.1.1. They show that *kúndú* follows plural-marked definite nouns. There is also a reduced variant *kún*, attested in *wá:yà kún* ‘every year’, which also illustrates the use of *kún(dú)* after indefinite singular nouns in the sense ‘every’ or ‘each’.

sàkáy is more emphatic and adverb-like. It can occur in this function at the end of an NP in competition with *kúndú*, but unlike *kúndú* it can also be used as a stand-alone one-word NP meaning ‘everything’ (§6.1.2).

When added to an object NP, *kúndú* and *sàkáy* follow the accusative marker when the latter is present. An example of this for *kúndú*, as in [*bè:-gè nɔ̀ ɲgù kúndù*] *ɲ núbè* ‘I hit-Past all the children’; see (164b) in §6.7 for markup. Since the accusative marker is otherwise postposition-like, coming after the NP, the fact that ‘all’ quantifiers follow accusative suggests that the quantifiers have only a peripheral syntactic relationship to the main part of the NP.

My assistant resisted efforts to elicit an NP ending in *kúndú* or *sàkáy* followed by a postposition. In (162a-b), the expected postposition is simply omitted. This is another indication that these quantifiers are only loosely connected to NPs.

- (162) a. [*ʔóló-gè nɔ̀ kúndú*] *tágá-gè ɔ̀g-gè*
 [village-Pl Def all] well-Pl excavate.Pfv-3PlSbj
 ‘In every village they have dug wells.’

- b. [ʔóló nò kúndú] ò ǵé:ndè
 [village Def all] 1SgSbj go.Pfv
 ‘I went to every village.’

6.7 Accusative (*ngù* ~ *ò*)

The accusative marker *ngù* is obligatory with referentially specific human referents, including personal names (163a) and pronouns (examples below). For these objects, *ngù* is clearly audible in elicitation style, but in allegro style it is often reduced to *ò* and can be difficult to detect. With inanimates and with nonspecific referents, *ngù* is optional, i.e. it can be omitted even in elicitation (163b-d).

- (163) a. [séydù ngù] ò númbè
 [Seydou Acc] 1SgSbj hit.Pfv
 ‘I hit-Past Seydou.’
- b. nâ: ò sò:wè
 cow 1SgSbj buy.Pfv
 ‘I bought a cow.’
- c. yô: ò tégè
 woman 1SgSbj see.Pfv
 ‘I saw a woman.’
- d. [núngù nò] ò tébágè
 [waterjar Def] 1SgSbj break.Pfv
 ‘I shattered the waterjar.’

ngù is postposition-like, following a complete NP (164a), except that an ‘all’ quantifier follows it (164b).

- (164) a. [bé:-gè dè:gà nò ngù] ò númbè
 [child-Pl two Def Acc] 1SgSbj hit.Pfv
 ‘I hit the two children.’
- b. [bé:-gè nò ngù kúndù] ò númbè
 [child-Pl Def Acc all] 1SgSbj hit.Pfv
 ‘I hit-Past all the children.’

ngù does not raise its tone to H prepausally or before an H-tone. When NP-final, immediately preceding an L-initial predicate (3Sg subject or singular-addressee imperative), and flanked by L-toned, *ngù* appears as H-toned *ngú*. Since this applies even after L-toned pronouns like 1Sg *mì* and after /L/-melody nouns like *ʔàllà* ‘pig’, it must be ascribed to Final Tone-Raising

(§3.6.3.3) rather than to Rightward H-Movement. This is illustrated below with an imperative verb (165a) and with an L-initial unsuffixed 3Sg subject perfective verb (165b). (165a) also shows that verbs do not lose their transitivity when they are in imperative form.

- (165) a. *[séydù / ?àllà ɲgù] nùmbò*
 [Seydou / pig **Acc**] hit.Imprt
 ‘Hit-2Sg Seydou! / (a) pig!’
- b. *mì-ɲgù nùmbé mbà, ...*
 1Sg-**Acc** hit.Pfv.3SgSbj Pfv, ...
 ‘He/She hit me and ...’

The accusative is also regular in “dative” functions, i.e., for indirect objects of ‘say’ and ‘give’ and for objects of predicates like ‘be pleasing (to someone)’.

- (166) a. *[séydù ɲgù] tòndì-gé tàbù*
 [Seydou **Acc**] money give.Imprt
 ‘Give-2Sg the money to Seydou!’
- b. *[séydù mì-ɲgù yé ?ùnè] ?óri-Ø*
 [Seydou 1Sg-**Acc** which say.Pfv.3SgSbj.Ppl] not.be-3SgSbj
 ‘There is nothing that Seydou said to me.’
- c. *?èbégè ò-ɲgù ?ùnè / tà:yè*
 what? 2Sg-**Acc** say.Pfv.3SgSbj / speak.Pfv.3SgSbj
 ‘What did he/she say to you?’
- d. *pèjì-sòɲgúlò mì-ɲgù dènjá bò*
 millet.cakes 1Sg-**Acc** sweet be.3SgSbj
 ‘Millet cakes please me.’

Examples (166b-d) have pronominal accusatives, which are unremarkable in form. For the full set of pronominal accusatives, see §4.3.1.

7 Coordination

For “conjunction” of clauses, VPs, and verbs, see chapter 15.

7.1 NP coordination

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

The conjunction *yà* is added to both the left and right conjuncts. This construction is regular for NPs (including pronouns, and noun-like adverbs). There is a tendency to raise the pitch of the nonfinal *yà* and to lower that of the final *yà* (nonterminal versus terminal intonation. This asymmetric intonational pattern can be indicated by ↗ after the first segment and ↘ after the second. If the entire conjoined NP is pronounced seamlessly in a single prosodic phrase, this intonational differential is attenuated. In texts, I use ↗ and ↘ sparingly, when the differential is conspicuous.

- (167) a. [*ò yà ↗*] [*mì yà ↘*]
 [2Sg and] [1Sg and]
 ‘you-Sg and me.’
- b. [*mì yà ↗*] [*ì bǎw yà ↘*]
 [1Sg and] [1SgPoss father and]
 ‘me and my father’ (< *ì*^{HL} *bǎw*)
- c. [*séydù yà ↗*] [*bǎw-nà yà ↘*]
 [Seydou and] [father-3SgPoss and]
 ‘Seydou_x and his_x / his-or-her_y father’
- d. [*jòwⁿ yà ↗*] [*ʔògá yà ↘*]
 [today and] [tomorrow and]
 ‘today and tomorrow’ (*ʔógà*)

/HL/-melody nonmonosyllabics undergo Rightward H-Movement (§3.6.3.5) before *yà*. This rule may apply covertly to /HL/-melody monosyllabics, converting *Cv̄:* to /Cv̄:/, but since monosyllabic words cannot have rising tones, they are still realized as H-toned. /L/-melody nouns like ‘pig’ in (168c) keep their L-tones.

- (168) a. [*ʔàlámá yà ↗*] [*kíló yà ↘*]
 [sheep and] [goat and]
 ‘a sheep and a goat’ (< *ʔálámà, kílò*)

- b. [nòlò yà↗] [yó: yà↘]
 [man and] [woman and]
 ‘a man and a woman’ (< nólò, yó(yô:))
- c. [ʔàllà yà↗] [ʔínjé yà↘]
 [pig and] [dog and]
 ‘a pig and a dog’ (< ʔàllà, ʔínjè)

If at least one conjunct is a plural pronoun, it already ends in *-yá* (see §4.3.1). Instead of adding another *yà* ‘and’, the conjunction switches to comitative postposition *ndò*.

- (169) [ò-yá ndò] [mì-yá ndò]
 [2Pl Comit] [1Pl Comit]
 ‘you-Pl and us’

The conjoined NP functions syntactically as an NP. In (170), accusative *ngù* is added at the end of the entire conjoined NP rather than after each conjunct.

- (170) [[nòlò-gé yà] [yó:-gé yà] ngù] ń tégè
 [[man-Pl and] [woman-Pl and] Acc] 1PlSbj see.Pfv
 ‘We saw the men and the women.’

7.2 Disjunction

‘Or’ (*nà→* or *mà→*) is distinct from the polar interrogatives *là* or *yà* (§13.2.1). However, ‘or’ particles normally occur in interrogative and similar dubitative contexts.

7.2.1 ‘Or’ with NP disjuncts (*nà→*)

In (171), the subject and verb are the same in the two propositions, so the clausal disjunction reduces to an NP disjunction (‘sheep’ versus ‘goat’). It appears that the *nà→* variant for ‘or’ is preferred before nonpronominal NPs, though my assistant accepted *mà→* in (171a). He uses only *mà→* before independent pronouns (171b).

- (171) a. ʔálamà lá=á sèlà→, ná→ kílò
 sheep Q=2Pl slaughter.Ipfv, or goat
 ‘Do/Will you-Pl slaughter a sheep [focus], or (do you slaughter) a goat?’
- b. ò lá gè:ndó-gò mà→ mí
 2Sg Q go-Ppl.Ipfv or 1Sg
 ‘Are you-Sg [focus] going, or (am) I (going)?’

7.2.2 Clause-level disjunction (*nà→* ~ *mà→*)

When (at least) the verbs are different, there is no alternative to an overt clausal disjunction. Here the disjunctive particle is *mà→* in my data. It belongs semantically with the following disjunct. However, it can be phrased prosodically with either the preceding or following disjunct, or the entire sequence may form a single prosodic group. In (172a), *mà→* is grouped prosodically with the following disjunct. In (172b), there is no prosodic break. In both examples, the verb complex of the right disjunct clause is trimmed (no iteration of the imperfective verb stem), which does not occur in prosodically independent imperfective main clauses.

- (172) a. *gè:ndù* *lá* *gè:ndà,* *mà→* *lá* *dèngà*
 Iter Q go.Ipfv.3SgSbj, or Q stay.Ipfv.3SgSbj
 ‘Will he/she go, or (will he/she) stay?’
- b. [*gè:ndù* *lá=à* *gè:ndà*] *mà→* *à* *dèngà*^t
 [Iter Q=2SgSbj go.Ipfv] or 2SgSbj stay
 ‘Will you-Sg go or (will you) stay?’

8 Postpositions and adverbials

8.1 Dative and instrumental

8.1.1 Dative absent

There is no specifically dative postposition. Accusative marking is typical for indirect objects, see §6.7.

8.1.2 Instrumental-comitative (*ndò*)

The instrumental ('by means of') postposition is *ndò*. The complement is typically an NP denoting an instrument or tool, but may also be abstract (e.g. 'by force').

- (173) a. *[gúlò ndò tè:ŋgè ñ párá-gè]*
 [ax Inst wood 1SgSbj cut-Caus.Pfv
 'I chopped wood with an axe.' (can be reordered *tè:ŋgè [gúlò ndò] ñ párá-gè*)
- b. *[ñ ^{HL}gúlò (nó) ndò]*
 [1SgPoss ^{HL}ax (Def) Inst
 'with my axe'
- c. *sèmbè ndó*
 power Instr
 'by force, forcibly'
- d. *sè: ndó*
 foot Instr
 'on foot'

The same postposition occurs in comitative contexts ('with, accompanied by'). See also (169) above where this postposition replaces *yà* 'and'.

- (174) a) *[?ígè ndò ñ gě:ndè]*
 [honey Comit 1Pl go.Pfv
 'We went with some/the honey.' (= 'We took honey along.')
- b) *[mì ndó gě:ndè]*
 [1Sg Comit go.Pfv.3SgSbj
 'He/She went with me.'

For the use of *ndò* as locative postposition, often competing with *mbà*, see §8.2.3.1.

Additional forms with nouns of different tonal melodies are in (175).

(175)	gloss	X	‘with X’
a. /HL/ melody			
	‘horse’	<i>sé (sé:)</i>	<i>sé: ndó</i>
	‘ax’	<i>gúlò</i>	<i>gúlò ndó</i>
	‘stick’	<i>túmà</i>	<i>túmà ndó</i>
	‘stone’	<i>kínì</i>	<i>kínì ndó</i> [<i>kín:dó</i>]
	‘egg’	<i>póléngè</i>	<i>póléngè ndó</i>
b. /LH/ melody			
	‘onion’	<i>jàbá</i>	<i>jàbá ndò</i>
	‘yoke’	<i>gàndù:ré</i>	<i>gàndù:ré ndò</i>
	‘scissors’	<i>mèsèkèrè</i>	<i>mèsèkèrè ndò</i>
c. /L/ melody			
	‘foot’	<i>sè:</i>	<i>sè: ndó</i>
	‘horn’	<i>kèlè</i>	<i>kèlè ndó</i>
	‘ear’	<i>sùgùlè</i>	<i>sùgùlè ndó</i>
d. possessed noun			
	‘my ax’	<i>ɲ gúlò</i>	<i>ɲ gúlò ndó</i>
	‘my ax (definite)’	<i>ɲ gúlò nó</i>	<i>ɲ gúlò nó ndò</i>

In isolation, the postposition is H-toned *ndó* by Final Tone-Raising after an L-toned syllable (§3.6.3.2), as in (175a,c) above. When the PP is phrased with a following word, especially a verb or other predicate, the postposition is H-toned *ndó* when flanked by L-tones (176a) below, but L-toned *ndò* before an H-tone (§3.6.3.3), as in (176b). When the PP is earlier in the clause, and arguably topical, raising to *ndó* is often not carried out even when flanked by L-tones.

- (176) a. [*sè:* *ndó*] *gě:ndè*
 [foot Inst] go.Pfv.3SgSbj
 ‘He/She went on foot.’
- b. [*sè:* *ndò*] *gé:ndè*
 [foot Inst] go.Pfv.3PISbj
 ‘They went on foot.’

8.2 Locational postpositions

8.2.1 Locative, allative, and ablative functions

The distinction between static locative (‘in, at, on’), allative (‘to’), and ablative (‘from’) is not made within PPs or other adverbial phrases. Rather, allative and ablative are expressed by motion verbs, such as *gê:* and variants ‘go out, leave’ for the ablative, or by the directional suffix *-yà* on another verb (§10.6).

8.2.2 Simple and complex PPs

Several postpositions are composite, cf. English *in front of X*. The landmark X is an NP, arguably a kind of possessor. The orientational noun (e.g. ‘front’, ‘back’, ‘head’, ‘side’) is the “possessum.” It sometimes, but not always, has a tone pattern compatible with the possessor-controlled {HL} overlay. In any event, the orientational noun heads the NP that functions as complement to the simple locative postposition (‘in’).

8.2.3 Basic locative postpositions

There are three “simple” locative postpositions, *mbà* ~ *à* (§8.2.3.1), *ndò* ~ *lò* (§8.2.3.2), and *nâ:* (§8.2.3.3). *ndò* is also the primary instrumental-comitative postposition. Some other Dogon languages have wide-ranging postpositions that can be instrumental, locative, or even dative, the sense being inferrable from the semantics of the complement (e.g. ‘hammer’, ‘village’, ‘my father’). An example is Jamsay all-purpose postposition *lè*.

The two most common postpositions in spatial PPs with noun-headed complements like ‘village’ are *mbà* and *ndò*, while *nâ:* is more restricted. My assistant suggested that *mbà* is preferred when the location in question is out of sight, while *ndò* is used when it is in sight.

The initial nasals in *mbà*, *ndò*, and *nâ:* likely all reflect contractions of an earlier form of definite *nò* with a locative postposition. All three are normally added directly to an NP without the definite marker, whether the context is definite or indefinite. *nâ:* is likely a relatively recent contraction of *nó* (H-toned form of definite marker) and the *à* variant of *mbà* ~ *à*. If we peel off the initial nasals of *mbà* and *ndò*, we can internally reconstruct primary locative postpositions **bà*, implying spatial separation, cf. English *over* as in *over in Chicago*), and **dò*, with no such implication. Actually, since *ndò* is highly prone to Final Tone-Raising while *mbà* is not, we should reconstruct H-toned **dó* for the second postposition.

These internal reconstructions are buttressed by comparative Dogon data. Ampari instrumental *ró* supports reconstruction of instrumental **dó* or **ró* (tap *r* would harden to *d* after a nasal). Penange *bà* and Yanda Dom *bà* are marked locative postpositions that presuppose spatial displacement. They contrast with other locatives that do not imply displacement, *ù:*ⁿ (Penange) and *nà* (Yanda Dom). These data support reconstruction of locative **bà* marking displacement, a good match for Bunoge *mbà* ~ *à*.

It is therefore a good bet that *mbà* ~ *à* reflects *(nó) bà, and that *ndò* ~ *lò* reflects *(nó) Ró, where *R represents some voiced alveolar that is reflected intervocalically as Ampari *r* and Bunoge *l*. Candidates for *R are *r, *l, and *d (which lenites to *r* intervocalically in some Dogon languages). Definite *nó underwent syncope in *nó bà and *nó Ró, and ordinary CC-cluster processes converted the resulting *nbà and *nRò to *mbà* and *ndó* ~ *ndò*.

8.2.3.1 Locative *mbà* ~ *à* ~ *wà* ‘in, on’

mbà does not allow a preceding definite *nò*, suggesting that the initial nasal in *mbà* may itself be a syncopated and assimilated reflex of *nò* as explained above. However, *mbà* can also be used after semantically indefinite nouns, see (178) below. There is a variant *à* ~ *wà*, described at the end of this section, which reflects *bà, i.e. what *mbà* was before the fusion of the nasal definite marker.

mbà and its main competitor *ndò* are effectively interchangeable in many contexts involving common nouns (‘village’, ‘house’, etc.). My assistant favors *mbà* when notable spatial displacement is involved, versus *ndò* for more proximate locations or when displacement is not relevant. Only *à* ~ *wà* is used with names of villages and towns, perhaps because they tend to imply significant displacement.

Representative forms of *mbà* are in (177) along with definite forms of the same nouns. Rightward H-Spreading from /HL/-melody nouns before *mbà* is evident in (177a). ‘House’, which is frequently locative (‘go home’, ‘be at home’), has an irregular contraction (177d).

(177) Noun plus locative postposition

definite	locative	gloss
a. /HL/ melody		
<i>gó: nò</i>	<i>gó: mbà</i>	‘in/to (the) water’
<i>kê: nò</i>	<i>kê: mbà</i>	‘in/to the outback, (the) bush’
<i>ʔólò nó</i>	<i>ʔóló mbà</i>	‘in/to a/the village’
<i>tágà nò</i>	<i>tágá mbà</i>	‘at/to a/the well’
<i>yí:lì nò</i>	<i>yí:lí mbà</i>	‘in/to a/the stream, river’
<i>póngélè nó</i>	<i>póngélé mbà</i>	‘in/to a/the cemetery’
b. /LH/ melody		
<i>fêtó nò</i>	<i>fêtó mbà</i>	‘in/to a/the pond’
c. /L/ melody		
<i>yà:</i>	<i>yà: mbà</i>	‘at night’
<i>bilà nó</i>	<i>bilà mbà</i>	‘in/to a/the field(s)’
<i>dògù nó</i>	<i>dògù mbà</i>	‘in/to a/the forest’
<i>kèsè</i>	<i>kèsè mbà</i>	‘on the cheek’

d. irregular contraction

ʔòbò nɔ *ʔò: mbà* ‘at/in/to a/the house’

The neutralization of definiteness is exemplified by (178).

- (178) [*ʔóló mbà*] *í* *bò*
 [village **Loc**] 1PlSbj be
 ‘We are in a village (unspecified).’
 ‘We are in the village (contextually definite).’

The PP ending in L-toned *mbà* is itself subject to Rightward H-Spreading, for example before a 3Sg-subject verb or quasi-verb that begins with an L-tone. In (179a), the H-tone in *tágá mbà* (already spread from *tágà*) shifts another syllable to the right. In (179b), the combination of /L/-melody *dògù* and postposition *mbà* has no H-tone, showing that *mbà* is not subject to Final Tone-Raising.

- (179) a. [*tágà mbá*] *bò*
 [well(n) **Loc**] be.3SgSbj
 ‘He/she is at the well.’ (< *tágà, tágá mbà*)
- b. [*dògù mbà*] *bò*
 [forest **Loc**] be.3SgSbj
 ‘He/she is in the forest.’

PPs whose complement includes plural *-gè* are illustrated in (180). ‘House’ does not contract in the plural, being treated like other /L/-toned nouns (180c).

(180) Plural noun plus locative postposition

definite	locative	gloss
a. /HL/ melody		
<i>ʔóló-gè</i> (~ <i>ʔólé-gè</i>)	<i>ʔóló-gé mbà</i>	‘in/to (the) villages’
<i>tágá-gè</i>	<i>tágá-gé mbà</i>	‘at/to (the) wells’
<i>póngélé-gè</i>	<i>[póngélé-gé] mbà</i>	‘in/to (the) cemeteries’
b. /LH/ melody		
<i>fêtó-gè</i>	<i>fêtó-gé mbà</i>	‘in/to (the) ponds’
c. /L/ melody		
<i>bilà-gè</i>	<i>bilà-gé mbà</i>	‘in/to (the) fields’
<i>dògù-gè</i>	<i>dògù-gé mbà</i>	‘in/to (the) forests’
<i>ʔòbò-gè</i>	<i>ʔòbò-gé mbà</i>	‘at/in/to (the) houses’

An example with L-initial 3Sg-subject verb is [*ʔòlò-gè mbá*] *bò* ‘he/she is in the villages’. The derivational progression start with *ʔólò*, then *ʔóló-gè*, then *ʔóló-gé mbà*, by two applications of Rightward H-Spreading. Then finally *ʔòlò-gè mbá bò* by Rightward H-Movement triggered by the L-toned 3Sg quasi-verb.

mbà does not affect the tones of NPs that end in a modifying adjective or in a numeral. In (181), each NP would have the same form if *mbà* were omitted.

- (181) a. [*ʔòbò*^{LH} *yò:lè*^L] *mbà*
 [house^{LH} black] **Loc**
 ‘to a/the black house’
- b. [*ʔóló-gé* *dè:gà*] *mbà*
 [village-Pl two] **Loc**
 ‘in/to (the) two villages’
- c. [*ʔóló-gè* *tá:ndù*] *mbà*
 [village-Pl three] **Loc**
 ‘in/to (the) three villages’

mbà is also part of some complex postpositions: [*X kò:*] *mbà* ‘on X’ (§8.2.5.1), [*X púmbù*] *mbà* ‘in front of X’ (§8.2.8).

Another locative postposition *à* ~ *wà* is probably a variant of *mbà* at least etymologically. *à* contracts with a preceding vowel to form a long [a:]. It is attested after definite NPs (definite *nò* or *nó* plus *à* contracts to *nà = à* or *ná = à*). It is the regular locative postposition for village and town names.

- (182) a. [*ʔòbò* *ná = à*] *gó:ngè-Ø*
 [house **Def=Loc**] go.out.Pfv-3SgSbj
 ‘He/She came out of the house.’
- b. [*sèwà:rà = à*] *dé:-Ø*
 [Sevare=**Loc**] go.in.Pfv-3SgSbj
 ‘He/She entered Sevare (town).’ (< *sèwà:rè*)

Additional forms with *à* ~ *wà* after place names are in (183). There appears to be some lexicalization of the combinations, with respect both to the choice of allomorphs *à* and *wà* and to the application of Final Tone-Raising. A majority of place names in common use have allomorph *à* and tone-raising. The names of the three Bunoge-speaking villages (Boudou, Sangou, Dakouma) do not raise the final tone (in the case of Sangou this is predictable from its /HL/ melody). The allomorph *à* contracts with a preceding vowel to form a long [a:] phonetically, in which case I transcribe ...*a = à* with clitic notation.

(183) map name Bunoge name with locative

a. with *à*

stem already ends in H-tone

Fatoma	<i>fâtómá</i>	<i>fâtómá = à</i>
Sevare	<i>sèwà:ré</i>	<i>sèwà:rá = à</i>

stem-final of /L/-melody place name shifts to H-tone

Konna	<i>kònnà</i>	<i>kònná = à</i>
Goundaka	<i>gùndàkà</i>	<i>gùndàká = à</i>
Sambere	<i>sàmbèrè</i>	<i>sàmbèrá = à</i>
Bamako	<i>bàmàkò</i>	<i>bàmàká = à</i>

no tone shift

Sangou	<i>sáŋgù</i>	<i>sáŋgà = à</i>
Dakouma	<i>dàkùmà</i>	<i>dàkùmá = à</i>

b. with *wà*

stem-final shifts to H-tone

Mopti	<i>mòtì</i>	<i>mòtí wà ~ mòtí à</i>
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no tone shift

Boudou	<i>bùrù</i>	<i>bùrù wà</i>
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8.2.3.2 Locative *ndò* ~ *-lò* ‘in’

Like *mbà*, *ndò* appears to include definite *nò* in contracted form. Just as *mbà* varies with *à* ~ *wà*, *ndò* is probably related to *-lò*, an ending for demonstrative and interrogative locatives: *bó-lò* ‘over there’, *má-lò* ‘here’ (§4.4.3.1), *ná-lò* ‘where?’ (§13.2.2.3). For more on the etymology, see beginning of §8.2.3 above.

ndò is also the regular instrumental postposition (§8.1.2), but in that function it allows preceding definite *nò* and it does not have a nonnasal variant *-lò*.

Examples of locative *ndò* are in (184). *mbà* can be substituted for *ndò* in these examples, especially when spatial displacement (‘over in/at ...’) is indicated.

- (184) a. [*?òbò ndò*] *dé:-Ø*
 [house **Loc**] go.in.Pfv-3SgSbj
 ‘He/She went into the house.’
- b. [*gá:ŋgù ndò*] *ń bò*
 [roof **Loc**] 1PlSbj be
 ‘We are on the roof.’ (< *gá:ŋgù*)
- c. [*gà:ŋgù ndó*] *bò*
 [roof **Loc**] be.3SgSbj
 ‘He/She/It is on the roof.’ (< *gá:ŋgù*)

- d. *[yà: ndò] wàlè ñ̩ kàl-lò*
 [night **Loc**] work(n) 1PlSbj do-IpfvNeg
 ‘We don’t work at night.’ (< *kànù-lò*)

ndò is also part of some complex locative postpositions: *[X dólóngù] ndò* ‘inside X’ (§8.2.4), *[X géndè] ndò* ‘in front of X’ (§8.2.7), *[X púmbè] ndò* ‘behind X’ (§8.2.8).

8.2.3.3 Locative *nà: ~ nâ:*

A third locative is *nà: ~ nâ:*. When added to an NP headed by a common noun, it can still be segmented as definite *nò ~ nó*, plus locative allomorph *à*. I transcribe this as *nà = à* or *nâ = à* using the clitic boundary =.

- (185) *[[ʔòlò^{LH} tòmbo^L nà]=à] ʔégè ʔéb-bè*
 [[village^{LH} ^Ldeserted **Def**=**Loc** come.Pfv.3PlSbj sit-MP.Pfv.3PlSbj
 ‘They came and settled at Olo-Tombo (“deserted village”).’ (T2015-03 @ 00:05)

However, in demonstrative adverbs *mâ:-nâ:* ‘here’ and *bò-nâ:* ‘there’ (§4.4.3.1) this morphemic decomposition is synchronically unlikely since *mâ:* and *bò* do not elsewhere combine with definite *nò*. Cf. discussion of ‘in front of X’ postpositions in §8.2.7.

nà = à or *nâ = à* occurs frequently with terms for containers such as waterjars and sacks that can be filled with liquids, grains, or small objects such as garments. Typical verbs are *gálè* (for liquids and grains) and *túlè*. Examples are (186a-b).

- (186) a. *[[núngù nà]=à] gó ñ̩ gálè*
 [[waterjar **Def**=**Loc** water 1SgSbj put.in.Pfv
 ‘I put (=poured) water in the waterjar.’
- b. *[[pwé:-bè nà]=à] sé:ngè ñ̩ gálè*
 [[sack **Def**=**Loc** millet 1SgSbj put.in.Pfv
 ‘I put (=poured) millet grain into the sack.’
- c. *bà:gúlé-gè [[gèmbù nâ]=à] ñ̩ túlè*
 garment-Pl [[leather.bag **Def**=**Loc**] 1SgSbj put.in.Pfv
 ‘I put garments into the leather bag.’

8.2.4 ‘Inside X’ (*[X dólóngù] ndò*)

[X dólóngù] ~ [X dólóngù] by itself is an NP meaning ‘interior of X’, where X is an enclosed space (e.g. a house) or a bounded zone (e.g. a body of water). The first syllable *do* is H-toned after an L-tone, and L-toned after an H-tone, in the fashion of possessed nouns. The medial syllable is always H-toned. The variant *dólóngù* differs in tone-break position from the usual

H.L.L pronunciation of possessed trisyllabic nouns. The PP *[X dólóngù] ndò* means ‘inside X’, though in some contexts a better translation is ‘under X’. *dólóngù* is etymologically related to *dólè* ‘belly’, so the original construction was ‘in (the) belly of X’.

- (187) a. *ʔòbò / bìlà* *dólóngù*
house / field **interior**
‘interior of the house / area under the field’
- b. *gó* *dólóngù*
water **interior**
‘area in (=under) water’
- c. *[kì:ⁿ nò]* *[[gó dólóngù] ndó]* *bòm-bò-Ø*
[skiff Def] [[water **interior**] Loc] there-be-3SgSbj
‘The skiff is in the water (=underwater).’
- d. *[[gó dólóngù] ndò]* *bòm-bó-yà*
[[water **interior**] Loc] there-be-3PlSbj
‘They are in the water (=underwater).’
- e. *[[gó dólóngù] ndò]*
[[water **interior**] Loc]
‘in (=under) the water’

In this composite postposition, *ndò* is raised to *ndó* before an L-tone (187c), but not before an H-tone (187d) or in isolation (187e).

8.2.5 ‘Over’ and ‘under’

8.2.5.1 ‘On (top of) X’, ‘over X’ (*[X kó:] mbà*)

‘On X’ is expressed as ‘in/on X’s head’. After a possessor (i.e. an NP denoting a specific entity), *kò:* ‘head’ is L-toned after an H-tone, and H-toned after an L-tone, as usual for monosyllabic possessed nouns. Bare common nouns like ‘tree’ and ‘mat’ (188a-b) are treated tonally as compound initials, meaning that the initial is subject to Rightward H-Movement. Contrast (188) with possessed forms such as *ɲ^{HL} kô:* ‘my head’.

- (188) a. *[tílingé kò:] mbà*
[tree **head**] Loc
‘on a/the tree’ (e.g. bird is perched) (*tílingè*)

- b. *[bì:ŋgé kò:] mbà*
 [mat head] Loc
 ‘on a/the mat’ (*bì:ŋgé*)
- c. *[séydù kó:] mbà*
 [Seydou head] Loc
 ‘above Seydou’
- d. *[[?àllà (nð)] kó:] mbà*
 [[pig (Def)] head] Loc
 ‘on (the) pig’
- e. *[[?ðbó^{LH} ^Lyò:lè] kó:] mbà*
 [[house^{LH} ^Lblack] head] Loc
 ‘over a black house’

The pronominal paradigm is (189). For plural possessors, my assistant prefers to pluralize ‘heads’.

(189) ‘on top of X, above X’

- 1Sg *ɲ kó: mbà*
 1Pl *ɲ kò:-gé mbà ~ ɲ kò: mbà*
 2Sg *à kó: mbà*
 2Pl *á kò:-gé mbà ~ á kò: mbà*
- 3Sg *kò:-ná mbà*
 3Pl *âɲ kó:-gé mbà ~ âɲ kó: mbà*

Adverb ‘above, overhead, on top’, with no overtly specified landmark, is *kó: mbà*, i.e. locative of *kò:* ‘head’. Before an L-toned 3Sg subject verb it undergoes Rightward H-Movement and surfaces as *kò: mbá* (190a).

- (190) a. *[kò: mbá] bò*
 [head Loc] be.3SgSbj
 ‘He/she/it is overhead’
- b. *[kó: mbà] bó*
 [head Loc] be.3PlSbj
 ‘They are overhead.’

8.2.5.2 ‘Below, under X’, ‘over X’ (*[X bú:] mbà*)

The adverb ‘below, underneath, at the bottom’ is *bú: mbà*, antonymic and structurally parallel to of *kó: mbà* ‘above’ (previous subsection).

The noun is otherwise unattested in unpossessed form, but it can be possessed as a partonym, e.g. 3Sg *bú:-nà* ‘its bottom, base’, 1Sg *ɲ^{HL} bú:* ‘my bottom’, *ɲ^{LHL} bú:-gé* ‘our bottoms’. Adding a locative postposition turns these into complex postpositions (191b).

- (191) a. *[bú: mbà] bó*
 [base Loc] be.3PlSbj
 ‘They are below.’
- b. *[[ɲ bú:] mbà] bó*
 [[1Sg base] Loc] be.3PlSbj
 ‘They are below me.’

8.2.6 ‘Next to, beside X’ (*[X kúmà]*)

[X kúmà] without a following *mbà* or *ndò* means ‘beside, at the side of X’. There is no corresponding unpossessed noun or adverbial phrase.

- (192) a. *[ɲ kúmà] mà: bò*
 [1Sg beside] here be.3SgSbj
 ‘He/She is here next to me.’
- b. *[séydù kùmá] bò*
 [Seydou beside] be.3SgSbj
 ‘He/She is next to Seydou.’
- c. *[séydù kúmà] ɲ bò*
 [Seydou beside] 1SgSbj be
 ‘I am next to Seydou.’

8.2.7 ‘In front of X’ (*[X géndè] nà = à*, *[X géndè] ndò*)

From noun *géndè* ‘forehead’ are derived complex postpositions *[X géndè] nà à* and *[X géndè] ndò*. I take *nà = à* to be the contraction of definite *nò* and locative *à*. It undergoes tone-raising to *ná á* as a unit.

- (193) a. *[[ɲ géndè ná]=á] bò*
 [[1Sg forehead Def]=Loc] be.3SgSbj
 ‘He/She is in front of me.’

- b. [séydù géndè ndò] bó
 [Seydou forehead Loc] be.3PlSbj
 ‘They are in front of Seydou.’
- c. [[séydù géndè ná]=á] ñ bò
 [[Seydou forehead Def]=Loc] 1SgSbj be
 ‘I am in front of Seydou.’

géndé mbà is the adverbial phrase ‘forward, ahead, in front’.

‘In front of the house’ is phrased as ‘at the house-mouth (= door)’.

- (194) [ʔòbò-tòni ndó] bò ʔébà
 [house-mouth Loc] Exist sit.Stat.3PlSbj
 ‘They are sitting in front of the house.’

8.2.8 ‘Behind’ ([X pùmbù] mbà, [X pùmbù] ndò)

Possessed forms of *pùmbù* ‘back (of body)’ occur in complex postpositions meaning ‘behind X, at the back of X’. *pùmbù* contracts to *pù:* when directly followed by *mbà*, avoiding consecutive *mbv* syllables. This contraction is blocked when 3Sg possessor *-nà* intervenes (195b).

- (195) a. [[ñ pú:] mbá] bòm-bò-Ø
 [[1Sg back] Loc] there-be-3SgSbj
 ‘He/She is behind me.’
- b. [pùmbù-ná mbà] ñ bò
 [back-3SgPoss Loc] 1SgSbj be
 ‘I am behind him/her.’
- c. [séydù pùmbù ndò] bòm-bó-yà
 [Seydou back Loc] there-be-3PlSbj
 ‘They are behind Seydou.’
- d. [séydù pú: mbà] ñ bò
 [Seydou back Loc] 1SgSbj be
 ‘I am behind Seydou.’

Adverbial ‘behind, in the rear’ is *pú: mbà*.

Temporal ‘after X’ appears not to be expressed using these forms based on *pùmbù* ‘back’. Instead, conditional antecedent clauses of the type ‘if/when X has passed/elapsed’ are found.

- (196) *[[sèni nò] dábè mèn] [ʔòjì ìj ʔunà]*
 [[holy.day Def] **pass.Pfv** **if**] [road 1SgSbj travel.Ipfv]
 ‘I will travel after the holy day.’ (< *ʔòjì ʔúni* ‘travel’)

8.2.9 ‘Under X’ (*[X sé: bù:-nà = à]*)

For ‘under X’, the complex postposition is heard as *[X sé:bù:nà:]* or *[X sè:bú:nà:]*. or definite *nò* followed by locative allomorph *à*, but the morphology is not transparent. Comparison with adverb *bú: mbà* phrase ‘(down) below, underneath’ shows that *bù: ~ bú:* is a component morpheme, and therefore that *sé: ~ sè:* must be segmented. We can parse as a possessed form of *sè (sè:)* ‘foot’, which in turn is possessor of *bú:* ‘bottom, base’. The final [*nà:*] is definite *nò* contracted with locative postposition variant *à*. Compositionally the sense is ‘under the foot of X’. See comments at the beginning of §8.2.3 above about *-nà:* (and *-nâ:*).

- (197) a. *[[bí:ngè nò] sé:] bù: nà = à*
 [[mat Def] **foot** **bottom** Def Loc
 ‘under the mat’
- b. *[kíní sè:] bú: nà = à*
 [stone **foot** **bottom** Def Loc
 ‘under a/the stone’

8.2.10 ‘Between X and Y’ (*[X yà Y yà] bèlàngà ná = à* or *mbà*)

Noun *bélàngà* ‘middle’ is the basis for this complex postposition. The complement denotes a plurality and is often a conjoined NP. The possessed noun ‘middle’ may be followed by *nà = à ~ ná = à* or by *mbà*.

- (198) a. *[[mòtí yà] [sèwà:rè yà] bèlàngà ná = à ìj bò*
 [[Mopti and] [Sevare and] **middle** Def]=Loc 1SgSbj be
 ‘I am between Mopti and Sevare (cities)’
- b. *[ìj bèlàngà nà] = à*
 1Pl **middle** Def]=Loc
 ‘between us’
- c. *[ìj bèlàngá mbà*
 [1Pl **middle**] Loc
 [= (b)]

8.3 Other postpositions

8.3.1 Purposive-causal ‘for’ (*dâ:*)

Purposive *dâ:* is illustrated in prospective purposive function in (199).

- (199) a. [[*ʔíǵè nò*] *dâ:*] *ʔéǵè*
 [[honey Def] **Purp**] come.Pfv.3PlSbj
 ‘They have come for the honey [focus].’ (< *ʔíǵè*)
- b. [[*ʔíǵè nò*] *dá:*] *ʔèǵè*
 [[honey Def] **Purp**] come.Pfv.3SgSbj
 ‘He/She has come for the honey [focus].’

The postposition is exemplified in retrospective causal function in (200).

- (200) a. [[*ʔâyà nò*] *dâ:*] *ǵ* *dè:*
 [[rain(n) Def] **Purp**] 1PlSbj go.in.Pfv
 ‘We went into the house because of the rain (outside).’
- b. [*ǵ* *dá:*] *ʔéǵè* *sà*
 [1Sg **Purp**] come.3PlSbj Pfv.Foc
 ‘It’s for me [focus] that they have come.’
- c. [*ʔàmànàngà dá:*] *ò-ǵú* *ǵ* *bànnà*
 [God **Purp**] 2Sg-Acc 1SgSbj help.Ipfv
 ‘I will help you-Sg on account of God (i.e. as a charitable act).’

Combinations with demonstratives are *ʔèmè ndâ:* ‘for that reason’ (very common resuming preceding discourse) and *mó nò ndâ:* ‘because of (=thanks to) this (one)’. The extra nasal on *ndâ:* may be due historically to nasal spreading, especially in *mó nò ndâ:*, and/or to contraction of definite *nò*, especially in *ʔèmè ndâ:*.

For interrogative *ʔèbéǵè dâ:* ‘what for?, why?’ see §13.2.2.2.

8.3.2 ‘Like X’ (*X ʔójí ndì, ndì, -njì*)

X ʔójí ndì ‘like X’, derived from noun *ʔòǵì* ‘road, path’ (compare English *way* in manner expressions), may combine with a pronominal or nonpronominal possessor. 3Sg pronominal *ʔòǵì-nà ndì* ‘like him/her/it’ brings out the syntactic structure. Other pronominal forms include 1Sg *ǵ ʔójí ndì* ‘like me’, 2Pl *á ʔójí ndì* ‘like you-Pl’, and 3Pl *àn ʔójí ndì*. A nonpronominal complement is exemplified by *sé:dù ʔójí ndì* ‘like Seydou’. Before an L-tone, *ʔójí ndì* can undergo Rightward H-Spreading to *ʔójí ndí*.

ndì also occurs (without *ʔòǵì*) clause-finally in manner adverbial clauses.

- (201) *sé:dù* [*bánà* *ɨ̄* *jâ:* *ndí]* *jà*
 S [manner 1SgSbj eat.Ipfv like] eat.Ipfv.3SgSbj
 ‘Seydou eats like I eat.’

See also (527a-b) in §15.3.2.3.

Manner adverbial suffix *-n̄jì* occurs in demonstrative *?émé-n̄jì* ‘thus, like that’ (§4.4.3.2) and in interrogative *ná-n̄jì* ‘how?’ (§13.2.2.5). It is not attested in any other combination.

8.4 Other adverbs (or equivalents)

8.4.1 ‘Together’ (*bó*)

bó ‘together’ is an adverb.

- (202) a. *wàlè* *bò* *ɨ̄* *kànà*
 work(n) together 1PlSbj do.Ipfv
 ‘We will work together.’
- b. *wàlè* *bó* *kánà*
 work(n) together do.Ipfv.3PlSbj
 ‘They will work together.’

8.4.2 Spatiotemporal adverbials

8.4.2.1 Temporal adverbs

Some of the major temporal adverbs are in (203).

- (203) a. *jòwⁿ* ‘today; nowadays’
yá:gù ‘yesterday’
yà:gú n-tùnà ‘day before yesterday’
másà ‘now’
fǎ hándè ‘up to now, even now’ (< Fulfulde *hannde* ‘today’)
- b. *?ógà* ‘tomorrow’
?ògá n-tùnà ‘day after tomorrow’
- c. *gó:lì* ‘last year’
búlí-gènà ‘next year’
jàwⁿ ‘this year’

8.4.2.2 Spatial adverbs

The following are the main spatial adverbs.

- (204) a. *kó: mbà* ‘above, top, summit’
bú: mbà ‘below, bottom, down’
- b. *?iró pùjà* ‘east’
?iró òimà ‘west’

8.4.3 Expressive adverbials (EAs)

Expressive adverbials are syntactically adverbial phrases rather than adjectives. They are not readily incorporated into NPs or other multi-word phrases, but they can be made into predicates (and relative clauses based on predicates) using an auxiliary. For the syntax of EA predicates, see §11.1.3.1.

9 Verbal derivation

Suffixal derivations for verbs are reversive (‘un-’) and causative. There are also numerous pairs of underived mediopassive verbs and suffixed transitive verbs that add an agent. There are vestiges of an original mediopassive suffix.

There is a suffixed reciprocal derivative, see §9.5 below.

Many modifying adjectives have cognate inchoative (‘become’) and factitive (causative) verbs. The derivational relationship between an adjective and its associated verbs is not transparent.

9.1 Reversive verbs (-lè ~ -lè)

The reversive suffix is *-lè ~ -lè*. A reversive undoes a previous action or change of state. It is most common with transitives, but it can be intransitive.

CvCv inputs are phonologically unproblematic (205). *CvNCv* with nongeminate medial cluster (nasal plus voiced stop) is also straightforward (205b). Other input shapes may require adjustment to fit the *Cv(N)Cv* template. Vowel-shortening occurs in (205c), which also shows that a stem-final vowel is syncope when flanked by two *l*'s. Medial *mm* is degeminated in (205d).

(205)	input	gloss	reversive	gloss
a. <i>CvCv</i> input				
	<i>déŋè</i>	‘shut (door)’	<i>déŋú-lè</i>	‘open (door)’
	<i>sójè</i>	‘tie’	<i>sójú-lè</i>	‘untie’
	<i>dágè</i>	‘drive in (nail)’	<i>dágú-lè</i>	‘remove (nail)’
	<i>pégè</i>	‘lock’	<i>pégú-lè</i>	‘unlock’
	<i>bégè</i>	‘braid (rope)’	<i>bégú-lè</i>	‘unbraid (rope)’
b. <i>CvNCv</i> input with medial homorganic nasal-stop cluster				
	<i>ńámbè</i>	‘cover (person)’	<i>ńámbú-lè</i>	‘uncover (person)’
	<i>púndè</i>	‘fold’	<i>púndú-lè</i>	‘unfold’
	<i>díngè</i>	‘bury’	<i>díngú-lè</i>	‘disinter’
	<i>kónjè-</i>	‘bend (into arc)’	<i>kónjí-lè-</i>	‘unbend, straighten’
	<i>jánjè</i>	‘hook, hang’	<i>jánjú-lè</i>	‘unhook’
	<i>púndè</i>	‘roll up (pants)’	<i>púndú-lè</i>	‘unroll (pants)’
c. <i>Cv:lv</i> input syncope to <i>CvC-lè</i>				
	<i>bé:lè</i>	‘get, obtain’	<i>bél-lè</i>	‘dispossess, take away’

- d. *Cvmmv* with medial geminate
- | | | | |
|--------------|-------------------|----------------|---------------|
| <i>kámmè</i> | ‘crumple (cloth)’ | <i>kámú-lè</i> | ‘uncrumple’ |
| <i>kúmmè</i> | ‘shut (eyes)’ | <i>kúmú-lè</i> | ‘open (eyes)’ |

9.2 Deverbal causative verbs

9.2.1 Productive causative with suffix *-mì*

The default causative has suffix *-mì* (perfective), added to the A/O-stem of the verb (206a). It is productive and can be elicited from almost any intransitive or transitive verb, though in some cases a productive causative is effectively pre-empted by a more lexicalized causative. *-mì* is also added to deadjectival inchoatives to produce a factitive (‘make sth ADJ’).

As always with the A/O-stem, nonfinal -ATR vowels convert to +ATR, but a lexically -ATR verb ends in *a* while a lexically +ATR verb ends in *o* (206b).

(206)	causative	gloss	input	gloss
a. typical examples				
	<i>sígó-mì</i>	‘take/bring down’	<i>sígè</i>	‘go down’
	<i>gúndúló-mì</i>	‘roll (sth) along’	<i>gúndúlè</i>	‘(sth) roll along’
	<i>káná-mì</i>	‘cause to do’	<i>káni</i>	‘do’
	<i>ná:-mì</i>	‘let/have (sb) drink’	<i>nê:</i>	‘drink’
	<i>dá:-mì</i>	‘take/bring in’	<i>dê:</i>	‘go in’ (§10.1.2.3)
b. vocalic treatment of lexically -ATR and +ATR inputs				
<i>minimal pair</i>				
	<i>ʔóllá-mì</i>	‘take up, cause to go up’	<i>ʔóllè</i>	‘go up’
	<i>ʔólló-mì</i>	‘get (sb) up’	<i>ʔóllè</i>	‘(sb) get up, arise’
<i>other lexically -ATR inputs</i>				
	<i>débá-mì</i>	‘light (fire)’	<i>débè</i>	‘(fire) be lit’
	<i>wélá-mì</i>	‘teach’	<i>wélè</i>	‘learn’
	<i>díwá-mì</i>	‘scare’	<i>díwè</i>	‘be afraid’
<i>lexically +ATR inputs with penult a</i>				
	<i>ségálá-mì</i>	‘cause to assemble’	<i>ségálè</i>	‘(people) assemble’
	<i>pállá-mì</i>	‘separate (sth)’	<i>pállè</i>	‘be separated’
<i>other lexically +ATR inputs</i>				
	<i>tégó-mì</i>	‘show’	<i>tégè</i>	‘see’
	<i>dénjó-mì</i>	‘sweeten (sth)’	<i>dénjè</i>	‘become sweet’
c. irregular				
	<i>góndó-mì</i>	‘take/bring out, remove’	<i>gé:</i>	‘go out’ (§10.1.2.2)

d. vowel shortened

<i>ɲáɲá-mì</i>	‘dry (sth)’	<i>ɲá:ɲì</i>	‘(sth) dry out’
<i>síwó-mì</i>	‘melt (sth)’	<i>sí:wè</i>	‘melt’ (§10.1.2.7)

The inflectional paradigm is regular for final-high-vowel stems. A sample paradigm is (207). Like other final-high-vowel verbs, causatives are -ATR in the 3Pl perfective, but +ATR in the A/O-stem (e.g. perfective negative)

(207) ‘take/bring down’

a. indicative	3Sg	3Pl
Pfv	<i>sígó-mì</i>	<i>sígó-m-mè</i>
PfvNeg	<i>sìgò-mò:-lì</i>	<i>sígó-mò:-ndì</i>
Ipfv	<i>sì sìgó-mà</i>	<i>sì sìgó-mà</i>
IpfvNeg	<i>sígó-mú-lò-Ø</i>	<i>sígó-mì-ndà</i>
b. modal	singular addressee	
Imprt	<i>sìgò-m(ù)</i>	

9.2.2 Other causative suffixes (-gè, rarely -ɲgè)

A number of action verbs involving a change in state of the object are expressed by a suffix -gè (perfective), rarely -ɲgè. The input is semantically mediopassive (middle). The input verb is in the A/O-stem, which requires +ATR-compatible vocalism (208a-b). In all cases the stem preceding -(ɲ)gè is CvCv or CvNCv with homorganic nasal-stop cluster. Input stems that are not of this shape are filtered out, except that the only attested Cv:Cv is shortened to CvCv- (208c).

(208)	transitive	gloss	input	gloss
a. stem already +ATR				
	<i>kúró-gè</i>	‘muddy, roil (water)’	<i>kúré</i>	‘be roiled’
	<i>ɲámá-gè</i>	‘cause to malfunction’	<i>ɲámì</i>	‘malfunction’
	<i>páɲjá-gè</i>	‘tear, rip (sth)’	<i>páɲjè</i>	‘become torn’
	<i>párá-gè</i>	‘cut off; snap’	<i>páré</i>	‘(sth) snap’
	<i>with slight vocalic shift</i>			
	<i>móró-gè</i>	‘puncture (sth)’	<i>múré</i>	‘be punctured’
b. lexically -ATR stem shifts to +ATR				
	<i>mélá-gè</i>	‘break (sth) in half, snap’	<i>mélè</i>	‘(sth) snap’
	<i>tébé-gè</i>	‘shatter (sth)’	<i>tébè</i>	‘be shattered’
	<i>déná-gè</i>	‘tire (sb)’	<i>dénè</i>	‘(sb) be tired’

c. vowel is shortened

díbo-gè ‘cause to be lost’ *dí:bè* ‘be lost’

d. input is noun

gúmbú-gè ‘split (a nut)’ *gúmbù* ‘half of a nut’

dímó-ŋgè ‘extinguish (fire)’ *dímì* ‘(fire) go out’

e. suffix allomorph *-ŋgè*

It’s a good bet that this *-gè* is etymologically present in other trisyllabic transitive verbs like *píyágè* ‘drive out’ that do not have an intransitive counterpart.

Causative *-gè* is distinct from reciprocal derivational suffix *-gè* (§9.5), which is added to already transitive inputs.

For other causative-like derivatives see “transitive” *-rv* (§9.4.2).

9.3 Passives

9.3.1 Passive *-mì*

The usually causative suffix *-mì* is attested in passive sense (‘be VERB-able’) in imperfective *béla-mà* ‘it is obtainable (available)’ from *bé:lè* ‘obtain, get’ and *tégó-mà* ‘be (often) seen’. The imperfective negative is regular: *béla-mú-lò* ‘it isn’t obtainable’.

9.3.2 Resultative passive *-è: ~ -è: ~ -ì:* plus *bò*

This construction, which ends with a conjugated form of *bò* ‘be’, is based on active verbs, either transitive or intransitive. It denotes the resulting state of the affected referent, without specifying the agent.

(209) *déŋŋ-é:* *bò*
 shut-ResPass be.3SgSbj
 ‘It (door, house) is shut.’ (<*déŋŋ-è:*>)

The resultative passive is used mainly for third person, especially inanimate subjects, as with ‘be shut’ and ‘be cut’ in (210). Some resultative passives from intransitive inputs, such as ‘be tired’ in (210), allow human subjects. This example is directly derived from intransitive *dénè* ‘become tired’ rather than from transitive *déná-gè* ‘tire (sb)’. The paradigm shows that the lengthened stem-final vowel is L-toned except in the 3Sg, where it becomes H-toned by Rightward H-Spreading (not Rightward H-Movement). The onset remains H-toned even in the 3Sg form. The stem-final vowel contracts with 2Sg *à* and 2Pl *á*.

(210)	category	‘be shut’	‘be cut’	‘be tired’
	1Sg	—	—	<i>dén-è: ìj bò</i>
	1Pl	—	—	<i>dén-è: ìj bò</i>
	2Sg	—	—	<i>dén-à = à bò</i>
	2Pl	—	—	<i>dén-à = á bò</i>
	3Sg	<i>déññ-é: bò</i>	<i>sélag-é: bò</i>	<i>dén-é: bò</i>
	3Pl	<i>déññ-è: bó</i>	<i>sélag-è: bó</i>	<i>dén-è: bó</i>

Further examples showing the form of the verb before 3Sg subject *bò* are in (211). The morphological input is the perfective, i.e. the E-stem of final-nonhigh-vowel verbs and the I-stem of final-high-vowel verbs. The final vowel is lengthened before the auxiliary. In (211b) the medial consonant of the stem is geminated. This gemination is reminiscent of that in adjectival predicates of the type *bìggá bò* ‘be fat’ from modifying adjective ^L*bìgi* ‘fat’ (§11.4.1.1), where the geminate originated from *y*-final clusters like **gy*.

(211)	Pfv 3Sg	gloss	ResPass	gloss	
	a.	<i>pára-gè</i>	‘cut’	<i>pára-gé: bò</i>	‘be cut’
		<i>sélagè</i>	‘cut’	<i>sélagé: bò</i>	‘be cut’
		<i>dénè</i>	‘become tired’	<i>déné: bò</i>	‘be tired’
		<i>mélè</i>	‘snap (intr)’	<i>mélé: bò</i>	‘be snapped’
		<i>jámì</i>	‘malfunction’	<i>jámí: bò</i>	‘be not working’
	b.	<i>déñè</i>	‘shut (e.g. door)’	<i>déññé: bò</i>	‘be shut’

A negative counterpart can be formed by replacing *bò* ‘be (somewhere)’ by its suppletive negation *?óri* ‘not be’.

(212)	<i>déññè:</i>	<i>?óri-Ø</i>
	shut	not.be-3SgSbj
	‘it is not shut’	

9.4 Mediopassive and transitive

Several Dogon languages have a productive alternation between a mediopassive suffix *-yv* (e.g. *-yè ~ -yè*) and a paired transitive *-rv* or *-dv*, where *v* is some short vowel.

In many cases, Bunoge preserves the transitive suffix, but the original mediopassive suffix has been dropped. Verbs that follow this pattern have an underived form (originally the mediopassive derivative) and a marked, causative-like transitive form. One might speculate that the loss of the mediopassive suffix may have been partially motivated by problematic homophony with 3Pl perfective *-yè ~ -yè*.

However, the mediopassive suffix did survive under some conditions.

9.4.1 Mediopassive *-yv* or *-Cv* with geminate

Consider the data in (213). Here the archaic mediopassive (MP) *-yè* ~ *-yè* survives mainly in the form of medial consonant gemination (213a-b). The original suffixal *y is preserved after monosyllabic stems and after *r* (213c). The original suffixal *y is preserved after *r* (213c). The original suffixal *y in forms like *tíj-jè* ‘follow’ (< **tíg-jè* < **tíg-yè*) with geminated palatoalveolar *jj*, compare the *g* in *tígú-rè* ‘cause to follow’ (213d). Other cases of geminated *jj*, like that in ‘attach one’s belt’ (213d), are unrelated to any variants with *g*. For synchronic *y*-Assimilation see §3.4.4.1.

(213)	MP	gloss	related	gloss
a.	<i>yóg-gè</i>	‘hide (self)’	<i>yógè</i>	‘hide (sth)’
b.	<i>túl-lè</i>	‘put on (garment)’	<i>túlú-dè</i>	‘put (garment) on (sb)’
c.	<i>bí:-yè</i>	‘lie down’	<i>bí:-rè</i>	‘lay (sb) down’
	<i>dú-yyè</i>	‘carry on head’	<i>dú:-rè</i>	‘put on (sb’s) head’
	<i>nór-yè</i>	‘wait for’		
d.	<i>jj</i>			
	<i>no evidence for /gy/</i>			
	<i>sój-jè</i>	‘attach (one’s belt)’	<i>sójè</i>	‘tie (sth) up’
	<i>good evidence for /gy/</i>			
	<i>tíj-jè</i>	‘follow’	<i>tígú-rè</i>	‘cause to follow’

The historical derivations are of the type **yógí-yè* syncope to **yóg-yè* and then assimilating to *yóg-gè*.

Many deadjectival inchoative verbs are also of this type, see §9.6.

9.4.2 Transitive *-rè* ~ *-rè* (*-dè* ~ *-dè*, *-lè* ~ *-lè*)

There are alternations of derivationally unmarked verbs of roughly mediopassive (middle) sense and corresponding causative-like agentive transitives with suffix *-rè* ~ *-rè*, less often *-dè* ~ *-dè* or *-lè* ~ *-lè*. These citation forms are perfective.

Examples of the primary allomorph *-rè* ~ *-rè* are in (214).

(214)	MP	gloss	Tr	gloss
	a. stance			
	<i>bí:-yè</i>	‘lie down’	<i>bí-y-rè</i>	‘lay (sb) down’
			[alternative analysis: <i>bí:-rè</i>]	
	<i>ʔéb-bè</i>	‘sit down’	<i>ʔébu-rè</i>	‘have sit, seat’
	<i>ʔíj-jè</i>	‘stand up, stop’	<i>ʔígí-rè</i>	‘stop, erect (sth)’
	<i>kúndè</i>	‘bow’	<i>kúndú-rè</i>	‘lower (head)’
	b. carrying			
	<i>bámbè</i>	‘carry on one’s back’	<i>bámbú-rè</i>	‘put on sb’s back’
	<i>dú-yyè</i>	‘carry on one’s head’	<i>dú:-rè</i>	‘put on sb’s head’
	c. other			
	<i>tíj-jè</i>	‘follow’	<i>tígú-rè</i>	‘cause to follow’
	<i>dú-yyè</i>	‘bathe (oneself)’	<i>dú:-rè</i>	‘bathe (sb)’
	<i>níjì</i>	‘be smelly’	<i>níjú-rè</i>	‘sniff, smell (sth)’

In *dú:-rè* (both ‘bathe’ and ‘put on head’) from *dú-yyè* we see lengthening of the vowel of the *Cv-* stem. This provides some support for the view that ‘lay down’ should be transcribed *bí:-rè*, rather than as trimorphemic *bí-y-rè* with *-y-* syncope from *bí:-yè*.

There are also some examples with *-dv* instead of *-rv*. Some involve putting garments on another person (215a). In another case, *-dv* follows a nasal after syncope (215b), though here the semantic (and therefore derivational) relationships are nontransparent. For *kán-dè* see also §9.4.3 below.

(215)	a.	<i>túl-lè</i>	‘put on (garment)’	<i>túlú-dè</i>	‘put (garment) on (sb)’
		<i>sój-jè</i>	‘gird, wrap (on oneself)’	<i>sójí-dè</i>	‘wrap turban or wrap on (sb)’
	b.	<i>káni</i>	‘do; be done’	<i>kán-dè</i>	‘manufacture, produce’
				<i>kán-dá-mì</i>	‘repair’

Variant *-lv* occurs as the result of syncope of the preceding short high vowel (216a), followed by assimilation of /lr/ to *ll* (§3.4.4.2). It may also occur in one archaic derivative (216b), compare *ʔígí-rè* ‘stop, erect (sth)’.

(216)	a.	<i>yúlè</i>	‘wake up’	<i>yúl-lè</i>	‘wake (sb) up’
	b.	<i>ʔíj-jè</i>	‘stop, stand’	<i>ʔígí-lè</i>	‘straighten’

There are several verbs of the shape *Cv:ndè* or *Cv:ndè*. At least some of these may have originated as suffixal derivatives, to judge by parallels in e.g. Yanda Dom, where some *CvCv* verbs have contracted *Cv:-nde* transitive/causative counterparts. The best Bunoge example is *tú:ndè* ‘pour’, cf. intransitive *túyyè* ‘be spilled’. Bunoge transitives of this shape include

dí:ndè ‘collect (last bits of sauce in pot)’, *dá:ndè* ‘taste’, *sí:ndè* ‘convey, take (somewhere)’, and *dí:ndè* ‘accompany (sb) to the door, see (sb) out’.

9.4.3 Benefactive *-dè* ~ *-lè*

There are a handful of attestations of derivational suffix *-dè* adding a human beneficiary, and one of *-lè* adding a (human or nonhuman) goal. These resemble some variants of the transitivity suffix *-rè* ~ *-rè* (*-dè* ~ *-dè*, *-lè* ~ *-lè*) described above, which however adds an agent rather than a beneficiary or goal. What they have in common is increasing the valency by one.

The input verb in this case is transitive. The derivatives in (217a-b) are semantically benefactive, though *kán-dè* can also have a different, transitive sense ‘do/make (sth) well’. That in (217c), with the uncommon allomorph *-lè*, adds a goal or target.

(217)	input	gloss	benefactive	gloss
a.	<i>káni</i>	‘do; be done’	<i>kán-dè</i>	‘do (sth) for (sb)’ (more often ‘do/make well, manufacture’)
b.	<i>jáŋgè</i> <i>tímbè</i>	‘put (sth) up on (sth)’ "	<i>jáŋgú-dè</i> <i>tímbú-dè</i>	‘put up on (sth) for (sb)’ "
c.	<i>tégè</i>	‘see’	<i>tégó-lè</i>	‘look for’

The beneficiary NP takes accusative form. A clausal example of the benefactive is (218). for a textual example of *kán-dè* in benefactive sense see T2015-05 @ 00:45.

(218)	<i>mì-yá-ŋgù</i>	<i>tè:bù</i>	<i>kán-dí-yè</i>
	1Pl-Acc	a.lot	do-Ben.Pfv-3PlSbj
	‘They did a lot for us.’		

These forms reflect a suffixal benefactive better preserved in Tiranige with suffix *-ró-* ~ *-ró-*. Other vestiges in western Dogon include Najamba *ndirè-* variant of *ndè-* ‘give’, and Penange *ká:-ndè* ‘do (sth) for (sb)’ and *gá:-rè* ‘put (sth) for (sb)’.

9.5 Reciprocal *-gè* after A/O-stem

Reciprocals with coindexed clausemate subjects and objects are expressed by a verbal derivation, with *-gè* (perfective) added to the A/O-stem of the verb. The subject is plural. 3Pl perfective *-gí-yè/* is realized as *-g-gè* after syncope.

- (219) a. *ʔógà tè ńj tètò-gà*
 tomorrow Rdp 1PlSbj see-Recip.Ipfv
 ‘We will see each other tomorrow.’
- b. *yá:gù ńj tètò-gè*
 yesterday 1PlSbj see-Recip.Pfv
 ‘We saw each other yesterday.’
- c. *[bé:-gè nò] númbó-g-gè*
 [child-Pl Def] hit-Recip.Pfv-3PlSbj
 ‘The children hit-Past each other.’
- d. *géwá-gà:-ndì*
 kill-Recip-PfvNeg.3PlSbj
 ‘They didn’t kill each other.’ (< *gé:wè* ‘killed’)

Further perfective examples are in (220).

(220)	input	gloss	perfective reciprocal (‘each other’)	
			1Pl/2Pl	3Pl
	monosyllabic			
	<i>dé:</i>	‘insult’	<i>ńj / á dà:-gè</i>	<i>dá:-g-gè</i>
	bisyllabic			
	<i>gé:wè</i>	‘kill’	<i>ńj / á gètò-gè</i>	<i>gévá-g-gè</i>
	<i>númbè</i>	‘hit, beat’	<i>ńj / á nùmbò-gè</i>	<i>númbó-g-gè</i>
	<i>bánnè</i>	‘help’	<i>ńj / á bànnà-gè</i>	<i>bánná-g-gè</i>
	trisyllabic			
	<i>yígúré</i>	‘shake’	<i>ńj / á yìgùrò-gè</i>	<i>yígúró-g-gè</i>

Reciprocal *-gè*, which is added to transitive input verbs, should be distinguished from causative *-gè*, which is added to a small number of intransitive inputs.

9.6 Deadjectival inchoative verbs

Adjectives that denote states have predicative forms that denote transitions into the states or increases in the quantity or intensity of the state. In most cases there is a paired inchoative verb ‘become ADJ’.

In many cases the inchoative is based on the same phonological shape as the modifying form of the adjective, except that the inchoative has the usual range of vocalism in different inflectional categories (the citation form is, as usual, the perfective 3Sg). The adjective/verb

pairs in (221) are of this type, and belong to the majority final-nonhigh-vowel verb class. Most adjectives are *CvCv* or *CvNCv* shape, though I know of one trisyllabic (221c).

(221)	modifying	inchoative	gloss
	a. <i>CvCv</i>		
	^L <i>kèlè</i>	<i>kélè</i>	‘diluted, watered down’
	^L <i>kùrè</i>	<i>kúrè</i>	‘undiluted’
	^L <i>?ìlè</i>	<i>?ílè</i>	‘old, used (object)’
	^L <i>kòṅè</i>	<i>kóṅè</i>	‘skinny, lean (animal)’
	^L <i>bìlè</i>	<i>bílè</i>	‘ripe; cooked; curdled (milk)’
	b. <i>CvNCv</i>		
	^L <i>gìmbò</i>	<i>gímbè</i>	‘deep (well, hole)’
	^L <i>bàmbà</i>	<i>bámbè</i>	‘wide (passageway)’
	^L <i>jòṅgò</i>	<i>jóṅgè</i>	‘slender (person)’
	^L <i>jùṅgà</i>	<i>júṅgè</i>	‘become hot’
	^L <i>tèmbè</i>	<i>témbè</i>	‘get wet’
	^L <i>nìnjì</i>	<i>nínjè</i>	‘heavy’
	^L <i>dènjì</i>	<i>dénjè</i>	‘sweet; sharp (blade)’
	^L <i>tùmbù</i>	<i>túmbè</i>	‘short’
	c. trisyllabic		
	^L <i>bòràllâ-gà</i>	<i>bórállè</i>	‘smooth’

In a few cases, an adjective ending in *i* has a final-high-vowel inchoative verb.

(222)	modifying	inchoative	gloss
	a. <i>CvCi</i>		
	^L <i>?àmì</i>	<i>?ámì</i>	‘sour (like lemon)’
	b. <i>Cv:Ci</i>		
	^L <i>jà:ṅì</i>	<i>já:ṅì</i>	‘dry out, become dry’

In other word families, the inchoative verb reflects a phonological modification of the adjective, pointing to a *CvCCv* **template** for the verb. Historically, it is likely that the gemination in (223a-b) goes back to a mediopassive **-yv* suffix (§9.4.1), cf. synchronic *y*-Assimilation (§3.4.4.1). Corresponding adjectival predicates (e.g. ‘be heavy’) can be described as specialized stative forms based on the A-stem of the inchoatives (§11.4.1.1).

- (223) modifying inchoative gloss
- a. $CvC_2v \rightarrow CvC_2C_2v$
- | | | |
|--------------------------|--------------|-----------------------|
| ^L <i>sìmà</i> | <i>símmè</i> | ‘become white’ |
| ^L <i>gòlò</i> | <i>góllè</i> | ‘become long, tall’ |
| ^L <i>sèlè</i> | <i>séllè</i> | ‘become pretty’ |
| ^L <i>bìgì</i> | <i>bíggè</i> | ‘become fat, massive’ |
- b. $Cv:C_2v \rightarrow CvC_2C_2v$
- | | | |
|---------------------------|--------------|-------------------------------|
| ^L <i>yò:lè</i> | <i>yóllè</i> | ‘become black’ |
| ^L <i>kà:jà</i> | <i>kájjè</i> | ‘become difficult, expensive’ |
- c. $Cvy/w \rightarrow CvCCv$
- | | | |
|-------------------------------------|--------------|---|
| ^L <i>bàyⁿ</i> | <i>báppè</i> | ‘become big (e.g. house)’, see also (d) below |
| ^L <i>bòw</i> | <i>bómbè</i> | ‘become red’ |
- d. irregular
- | | | |
|-------------------------------------|--------------|---|
| ^L <i>dà:mbè</i> | <i>dággè</i> | ‘become small’ |
| ^L <i>bàyⁿ</i> | <i>bá:yè</i> | ‘become big; grow up; become excessive’ |

Miscellaneous inchoatives of other types are grouped in (224). In (224c), *káni* ‘do’ is an auxiliary. In (224d), *kàndà* ‘new’ appears to be treated as a noun (note plural *-gè*), but *-wò* is obscure.

- (224) modifying inchoative gloss of inchoative
- a. irregular
- | | | |
|---------------------------|---------------|---------------|
| ^L <i>tòmbò</i> | <i>tóṅólè</i> | ‘become cold’ |
|---------------------------|---------------|---------------|
- b. suppletive
- | | | |
|---------------------------|-------------|---------------|
| ^L <i>pò:lò</i> | <i>dágè</i> | ‘become good’ |
|---------------------------|-------------|---------------|
- c. predicate is adjective plus auxiliary *káni* ‘do’
- | | | |
|---------------------------|-------------------|-------------------|
| ^L <i>kèmnò</i> | <i>kèmnò káni</i> | ‘become old, age’ |
|---------------------------|-------------------|-------------------|
- d. predicate contains auxiliary *bílè* ‘become’
- | | | |
|---------------------------|-----------------------|--------------|
| ^L <i>kàndà</i> | <i>kàndá:-wò bílè</i> | ‘become new’ |
| | <i>~ kàndà bílè</i> | |
- cf. *kàndà-gè bíl-yè* ‘they have become new (ones)’

Factitives (e.g. ‘make sth big’) are produced by adding causative *-mì* (§9.2.1) to the inchoative.

9.7 Obscure verb-verb relationships

tégè ‘see’ is related not only to goal-directed *tégó-lè* ‘look for’ (§9.4.3), but also to *té:jè* ‘look’. One might parse this as a directional (‘go and VP’) derivative (§10.6) of *tégè*, i.e. from /*téj-yè*/, but the vowel length is incorrect, and the action denoted by *té:jè* ‘look’ does not require motion.

tów-rè ‘oversow, re-sow’ (i.e. in spots where the first seeds did not sprout) seems to be related to *tó:wè* ‘sow, plant (seeds)’. The latter occurs in the collocation *tów tó:wè* ‘plant seeds (by slashing earth with a pick-hoe)’.

See also the bisyllabic verbs from the word-families of *gê:* ‘go out’ and *dê:* ‘go in’ in §10.1.2.2-3.

10 Verbal inflection

10.1 Inflection of regular indicative verbs

Indicative (i.e. not imperative or hortative) active verbs are marked for aspect-negation. They are combined with subject-marking proclitics (1st/2nd persons) or suffixes (3Pl), with 3Sg being unmarked. 1Sg and 1Pl forms are identical segmentally, as are 2Sg and 2Pl, but singular and plural are distinguished by tones on the proclitic and, in many categories, also on the stem. For a summary of the pronominal markers, see §10.3 below. Pronominal-subject paradigms are given for each aspect-negation (AN) category. A summary of the AN categories is in §10.3.1 below.

AN forms presented in this chapter are for unfocalized main clauses. Some modifications in the morphology and tones occur in the presence of a focalized nonpredicative constituent (§13.1.1.4-5) and in relative clauses (§14.5.1-6). Both of these constructions make further distinctions depending on whether the NP focalized or relativized on is the subject or a nonsubject constituent.

10.1.1 Overview of inflectional categories

The core morphologically expressed categories of active verbs are those in (225). The primary dimensions are aspect (perfective/imperfective) and polarity (positive/negative).

- (225) perfective positive system
 perfective (E/I-stem, no AN suffix)
imperfective positive system
 imperfective (A-stem, no AN suffix)
 simple
 reduplicated
perfective negative system
 perfective negative (suffix *-li*, 3Pl *-ndi*)
imperfective negative system
 imperfective negative (suffix *-lɔ̃*, 3Pl *-ndã*)

In addition, there are some important periphrastically expressed aspectual categories (226).

- (226) experiential perfect ('have ever VPed') (positive and negative)
 progressive ('be VPing') (positive and negative)

Directional suffix *-yà* 'go and VP' can be added to imperfective forms of some verbs. Modal categories are imperative, hortative ('let's VP!'), capacitative ('can VP'), and their negations.

The categories listed above apply to active verbs, defined operationally as verbs that distinguish perfective from imperfective aspect in both positive and negative polarity. Stative verbs, some of which are lexical (§11.2.2, §11.2.5, §11.5.1) while others are derived from active verbs (§10.4), do not mark aspect and have a distinctive negation. Statives have much simpler morphology than active verbs.

10.1.2 Verb stem shapes

Underived verbs range from monosyllabic *Cv* to trisyllabics like *CvCvCv*. Every verb stem ends in a vowel.

A distinction is made between lexically **final-nonhigh-vowel** stems, which end in {*e ε a o o*}, and lexically **final-high-vowel** stems, which end in {*i u*}. The distinction is important in inflected forms based on the E/I-stem (perfective positive) or on the O/U-stem (imperfective negative, capacitative, verbal noun), but it is neutralized by vocalic ablaut in the A- and A/O-stems (imperfective positive, perfective negative, and in part the imperative) and in the U-stem (quoted imperative).

Stems are lexically -ATR or +ATR. The distinction is clear in the E/I-stem and the O/U-stem. It is neutralized in the A-stem, but it is expressed indirectly in the A/O-stem. Stems with *a* in the penult are treated as +ATR.

Since the E/I-stem and the O/U-stem bring out both the ATR-harmonic class and the high/nonhigh distinction in final vowels, either could be used as citation form. I will use the 3Sg perfective. I know of no construction using a bare stem of the type seen in eastern Dogon languages like Jamsay.

10.1.2.1 *Cv*: verb stems

Monosyllabic verbs are generally of *Cv* shape, but have *Cv* imperatives and imperfectives. The *Cv* shape is reminiscent of *Cv* with monosyllabic noun stems when they are not phrased with following elements (*sé* ‘horse’, compare definite *sê: nò*, plural *sé:-gè*). Nasalized vowels have not been observed.

(227) Monosyllabic with final vowel

	3Sg Pfv	O/U-stem	A/O-stem	Imprt	gloss
a. final nonhigh vowel					
-ATR					
	<i>dê:</i>	<i>dɔ:-</i>	<i>da:-</i>	<i>dà</i>	‘go in’
	<i>dê:</i>	<i>dɔ:-</i>	<i>da:-</i>	<i>dà</i>	‘insult’
	<i>dê:</i>	<i>dɔ:-</i>	<i>da:-</i>	<i>dà</i>	‘pound in mortar’
	<i>jê:</i>	<i>jɔ:-</i>	<i>ja:-</i>	<i>jà</i>	‘eat (meal)’
	<i>nê:</i>	<i>nɔ:-</i>	<i>na:-</i>	<i>nà</i>	‘drink’

<i>ɲê:</i>	<i>ɲɔ:-</i>	<i>ɲa:-</i>	<i>ɲà</i>	‘yank out’
<i>ɲê:</i>	<i>ɲɔ:-</i>	<i>ɲa:-</i>	<i>ɲà</i>	‘uproot’
<i>sê:</i>	<i>sɔ:-</i>	<i>sa:-</i>	<i>sà</i>	‘let out (fart)’
<i>tê:</i>	<i>tɔ:-</i>	<i>ta:-</i>	<i>tà</i>	‘leak’ (*téǵè)
<i>tê:</i>	<i>tɔ:-</i>	<i>ta:-</i>	<i>tà</i>	‘string (beads)’
+ATR				
<i>gê:</i>	<i>go:-</i>	<i>go:-</i>	<i>gò</i>	‘go out’
<i>pê:</i>	<i>po:-</i>	<i>po:-</i>	<i>pò</i>	‘weep’
<i>kê:</i>	<i>ko:-</i>	<i>ko:-</i>	<i>kò</i>	‘sew’

b. final high vowel

+ATR (mostly)

<i>ɲî:</i>	<i>ɲu:-</i>	<i>ɲo:-</i>	<i>ɲù</i>	‘draw water’
<i>ɲî:</i>	<i>ɲu:-</i>	<i>ɲo:-</i>	<i>ɲù</i>	‘(rain) fall’

These verbs have an unusual 3Pl perfective: *nú-yyè* ‘they drank’, *gú-yyè* ‘they went out’, *ɲú-yyè* ‘they drew water’. The last of these is interesting since it shows that the perfective of ‘draw water’ (and by extension ‘rain fall’) is treated as -ATR, although the O-stem as in *ɲò:-lì-* ‘did not draw water’ is +ATR.

Homonymous verbs are distinguished in context by their transitivity or by recurrent collocations (e.g. with cognate nominals). *dê:* ‘go in’ and *gê:* ‘go out’ also have bisyllabic related forms (§10.1.2.2-3). *dê:* ‘insult’ normally has a human object, *dê:* ‘pound (in mortar)’ combines with its cognate nominal *dó:ɲgè* or with objects like *sé:ɲgè* ‘millet’. *dê:* ‘go in’ is intransitive or has a locational complement.

The fact that monosyllabic imperatives have short vowels suggests the possibility that the long vowels in the other forms are secondary. Indeed, several of the inflections calling for long vowels have a contour tone (falling or rising), and since contour tones do not occur on *Cv* syllables in Bunoge we could envisage a rule lengthening short vowels with contour tones. However, the reduplicated imperfective has a long vowel with a flat L-tone, the length being audible when phrased with a following word: 3Sg *dù dâ:* ‘goes in’, *ɲù ɲà:* ‘draws water’. The generalization is therefore not that /Cv̄/ is lengthened to *Cv̄:*, rather that level-toned /Cv̄:/ and /Cv̄:/ but not *Cv̄:* can be shortened prepausally.

10.1.2.2 *gê:*, *gú:ndè*, and *gó:ɲgè* ‘exit (v)’ and stative *gà*

This word family has four variant stem-shapes, all used by my assistant in different contexts. There are two monosyllabic shapes that match cognates in other Dogon languages (e.g. Jamsay *gǒ:*). There are also bisyllabic forms that may have absorbed and re-purposed a suffix as a stem-extension.

(228)		‘be from’	‘leave, go out’	‘go out’	‘go out’
	Pfv		<i>gê:</i>	<i>gú:ndè</i>	<i>gó:ngè</i>
	PfvNeg		<i>gò:-li</i>	<i>gù:ndò:-li</i>	<i>gò:ngò:-li</i>
	stative	<i>gà</i>			
	Ipfv		—	<i>gù gǔ:ndà</i>	<i>gò gǔ:ngà</i>
	IpfvNeg		<i>gǔ:-lò</i>	<i>gù:ndó-lò</i>	<i>gò:ngó-lò</i>
	Imprt		<i>gò</i>	<i>gù:ndò</i>	<i>gò:ngò</i>

gá is a specialized stative used in the sense ‘be from (a place)’, indicating the subject’s home town or region. It is the stative of *gê:* (rather than *gú:ndè* or *gó:ngè*).

- (229) a. *nà-ló* *gà*
 where?-Loc be.from.3SgSbj
 ‘Where is he/she from?’
- b. *ná-lò* *gá*
 where?-Loc be.from.3PlSbj
 ‘Where are they from?’
- c. *ná-lò* *à* *gà*
 where?-Loc 2SgSbj be.from
 ‘Where are you-Sg from?’

The corresponding negative is not morphologically stative and is borrowed from the active paradigm of *gê:*.

gú:ndè and *gó:ngè* are classic ‘exit’ verbs. They denote the transition from inside to outside of a well-bounded enclosing space. A typical context is ‘go/come out (of the house)’. *gê:* occurs in more abstract contexts emphasizing departure or absence, i.e. being away from rather than merely outside. It can be used in contexts like ‘So-and-So has gone/stepped out’ (i.e. ‘is not in’), in response to a question ‘Is So-and-So there?’ addressed to someone at the person’s home or workplace. Other representative contexts are ‘the water has leaked out (of a container)’, and (to a child) ‘get away from that (e.g. filth)!’ Examples of *gú:ndè* are (522d) in §15.2.3 and T2015-08 @ 01:51. Examples of *gó:ngè* are (182a) in §8.2.3.1 and (574e) in §17.5.1.

gò:-mì ‘take out, remove’ is the regular causative of *gê:* ‘leave’. An example is T2015-08 @ 01:54. *góngó-mì* ‘cause to go out’ is an irregular causative for *gú:ndè* and *gó:ngè*. Etymologically, *góngó-mì* is doubly causative, with *-mì* added to an archaic irregular causative **gò-ngò* or **gù-ngó*, compare Jamsay (Pergue dialect) *gùngó*, Toro Tegu *gùngó*, etc. ‘take out, cause to go out’. This is also the likely formal source of Bunoge intransitive *gó:ngè* ‘go out’ in spite of the transitivity change. A competing irregular causative **gò-ndó*, as in Yanda Dom *gò-ndó* and Tommo So *gò-ndó*, is similarly the likely source of Bunoge intransitive *gú:ndè* ‘go out’ in spite of the transitivity change.

10.1.2.3 *dê:* and *dó:ngè* ‘enter’

Like its antonym ‘go out’ (preceding section), ‘go in’ occurs in both monosyllabic and extended bisyllabic forms. For ‘go in’, however, only one bisyllabic form is known, and there is no special stative.

(230)	‘go in’	‘go in’
	<i>dê:</i>	<i>dó:ngè</i>
	<i>dá:-lî</i>	<i>dó:ngó:-lî</i>
	<i>dù-dà:</i>	<i>dò dǒ:ngà</i>
	<i>dǒ:-lǎ</i>	<i>dò:ngó-lǎ</i>
	<i>dà</i>	<i>dò:ngò</i>

I heard the onset (before unrounded vowel) as *dw* in recordings made in Boudou, e.g. perfective *dwê:*.

The semantic distinction between *dê:* and *dó:ngè* ‘enter’ is weaker than that between *gê:* and its bisyllabic counterparts (preceding subsection). Both are used in the context ‘So-and-So went into the house’. Like *gê:*, however, *dê:* is used in resultative contexts like ‘ants have gotten into the food’.

dó:ngè ‘enter’ is obviously parallel to *gó:ngè* ‘exit’. I know of no Dogon source for *dó:ngè*, so I suspect it is an analogical creation within Bunoge.

Other Dogon languages have apparent cognates of *dê:*, but with the sense ‘arrive at (the edge of), approach’, e.g. Jamsay *dǒ:-* and Najamba *dwê:*. For this sense, Bunoge has *dinnè*, of obscure origin but possibly related in some way to *dê:*. In the sense ‘go in’, several other Dogon languages have a verb phonologically similar verb to Bunoge *dê:*, but beginning with *n* instead of *d*, e.g. Penange and Mombo *nwê:*. Some of these cognates meaning ‘go in’ are at least partially homophonous with another verb, ‘hear’, and homophony avoidance may have been a factor in lexical innovations.

10.1.2.4 *CvC* verb stems

There are no lexically *CvC* verb stems. *CvC-* can occur as surface form before a suffix due to syncope (§3.4.2.2) from */CvC₂i/* or */CvC₂u/* where *C₂* is an unclustered sonorant.

10.1.2.5 *NCv-* verbs absent

There are no *NCv* verb stems with initial nasal cluster. An initial homorganic nasal cluster would create problems, since such clusters would be regularly misparsed as containing 1Sg *ŋ* or 1Pl *ŋ* proclitics, whose nasals assimilate in position to following stem-initial consonants.

Several Dogon languages have a verb ‘give’ with a shape like *ndé*. In Bunoge, ‘give’ is an unrelated verb *tábè* with cognates in Penange and Ampari.

10.1.2.6 Regular bisyllabic stems

CvCv stems are final-nonhigh-vowel or final-high-vowel. *CaCv* stems in the final-nonhigh-vowel class are treated as +ATR. All *CvCv* stems of the final-high-vowel class are likely also +ATR. However, these verbs are bisyllabic, have a final high vowel in several of the vocalism stems, and have either a high or low vowel in the penult, so the only evidence for lexical +ATR status is that some (those with high vowel in the penult) have *o* rather than *a* in the A/O-stem. Tonally, *CvCv* stems are treated as prosodically light, like *Cv*:. However, most *Cvyv* and *Cvww* verbs lengthen the first vowel in perfective forms (§10.1.2.7 below).

(231) *CvCv* verbs

3Sg Pfv	O/U-stem	A/O-stem	imperative	gloss
a. final nonhigh vowel				
-ATR (penult vowel high or -ATR)				
<i>sójè</i>	<i>sɔjɔ-</i>	<i>soja-</i>	<i>sòjà</i>	‘tie’ or ‘pay’
<i>débè</i>	<i>dɛbɔ-</i>	<i>deba-</i>	<i>dèbà</i>	‘catch’
<i>kíjè</i>	<i>kijɔ-</i>	<i>kija-</i>	<i>kìjà</i>	‘reply’
<i>núnjè</i>	<i>nuɲɔ-</i>	<i>nuɲa-</i>	<i>nùnjà</i>	‘sing’
+ATR (penult vowel high or +ATR)				
<i>ʔégè</i>	<i>ʔego-</i>	<i>ʔego-</i>	<i>ʔègò</i>	‘come’
<i>sígè</i>	<i>sigo-</i>	<i>sigo-</i>	<i>sìgò</i>	‘go down’
<i>túlè</i>	<i>tulo-</i>	<i>tulo-</i>	<i>tùlò</i>	‘put in’
+ATR with <i>a</i> as penult				
<i>bárè</i>	<i>baro-</i>	<i>bara-</i>	<i>bàrà</i>	‘add’
b. final high vowel				
with high vowel as penult				
<i>símì</i>	<i>simu-</i>	<i>simo-</i>	<i>sìmù</i>	‘build’
<i>dúnjì</i>	<i>duɲu-</i>	<i>duɲo-</i>	<i>dùɲù</i>	‘set, put’
with <i>a</i> as penult				
<i>kánì</i>	<i>kanu-</i>	<i>kana-</i>	<i>kànà</i>	‘do’

3Pl perfectives of the final-high-vowel class are *sím-mè* ‘they built’, *dúnjì-yè* ‘they set’, *kánì-yè* ‘they did’. The 3Pl perfective is therefore -ATR, unlike the A/O-stem which is +ATR.

These *CvCv* verbs are all prosodically light. This is indicated by their {L}-toned imperfectives (3Sg, 1Pl, and 2Pl subjects), as in *sò sòjà* ‘he/she will tie (or pay)’, *sì sìmà* ‘he/she will build’, etc.

CvCCv verbs are either *CvNCv* with homorganic nasal plus voiced stop cluster, or *CvC_xC_xv* with geminated consonant (sonorant or voiced stop). All known examples have final nonhigh vowels (232).

(232) Vocalism of *CvCCv* verbs

	3Sg Pfv	O/U-stem	A/O-stem	imperative	gloss
a. final nonhigh vowel					
-ATR (penult vowel high or -ATR)					
	<i>dɔŋgè</i>	<i>dɔŋgɔ</i>	<i>dɔŋga</i>	<i>dòŋgà</i>	‘throw’
	<i>ʔóllè</i>	<i>ʔɔllɔ-</i>	<i>ʔolla-</i>	<i>ʔòllà</i>	‘go up’
	<i>bél-lè</i>	<i>bɛl-lɔ</i>	<i>bɛl-la</i>	<i>bèl-là</i>	‘dispossess’
	<i>dínnè</i>	<i>dinnɔ</i>	<i>dinna</i>	<i>dínnà</i>	‘arrive’
	<i>túbbè</i>	<i>tubbɔ-</i>	<i>tubba-</i>	<i>tùbbà</i>	‘fall’
	<i>ɲénnè</i>	<i>ɲennɔ-</i>	<i>ɲenna-</i>	<i>ɲènnà</i>	‘sweep’
+ATR (penult vowel high or +ATR)					
	<i>núndè</i>	<i>nundo-</i>	<i>nundo-</i>	<i>nùndò</i>	‘hear’
	<i>díllè</i>	<i>dillo-</i>	<i>dillo-</i>	<i>díllò</i>	‘keep’
	<i>ʔóllè</i>	<i>ʔollo-</i>	<i>ʔollo-</i>	<i>ʔòllò</i>	‘get up’
+ATR with <i>a</i> as penult					
	<i>bámbè</i>	<i>bambo-</i>	<i>bamba-</i>	<i>bàmbà</i>	‘carry on back’

The *CvCCv* verbs divide into one subclass that is treated as prosodically light (tonally similar to *Cv:* and *CvCv*), and another subclass treated as heavy (tonally similar to *Cv:Cv* and longer stems). Those with medial homorganic nasal/voiced-stop cluster are divided between the two classes, while those with medial geminate are heavy. The distinction is audible in imperfective forms (3Sg, 1Pl, and 2Pl subjects). Note the <LH>.L tone sequence of the 3Sg imperfectives in (233a), versus L.L in (233b).

(233) Light and heavy *CvCCv* stems

	3Sg Ipfv	3Sg Pfv
a. <i>Cṽ CṽCCà</i> (treated as prosodically heavy)		
<i>CvNCv</i> stem with nasal/voiced-stop cluster		
‘do well’	<i>kà kǎn-dà</i>	<i>kán-dè</i>
‘throw’	<i>dò dǒŋgà</i>	<i>dóŋgè</i>
‘carry on back’	<i>bà bǎmbà</i>	<i>bámbè</i>
‘hang up’	<i>jà jǎŋgà</i>	<i>jáŋgè</i>
‘jump’	<i>tò tǒmbà</i>	<i>tómbè</i>
‘pull’	<i>gì gǐmbà</i>	<i>gímbè</i>
<i>CvCCv</i> stem with geminated CC		
‘arrive’	<i>dì dínnà</i>	<i>dínnè</i>
‘go up’	<i>ʔò ʔòllà</i>	<i>ʔóllè</i>
‘dispossess’	<i>bè bèl-là</i>	<i>bél-lè</i>
‘carry (on head)’	<i>dù dǔyyà</i>	<i>dú-yyè</i>
‘keep’	<i>dì díllà</i>	<i>díllè</i>

‘fall’	<i>tù tǔbbà</i>	<i>túbbè</i>
‘fly’	<i>pì pǐllà</i>	<i>píllè</i>

b. *Cṿ CṿNCà* (treated as prosodically light)

CṿNCṿ stem with nasal/voiced-stop cluster

‘hear’	<i>nù nùndà</i>	<i>núndè</i>
‘hit’	<i>nù nùmbà</i>	<i>númbè</i>
‘treat (medically)’	<i>jò jòngà</i>	<i>jóngè</i>

Cṿ:Cṿ and *Cṿ:CCṿ* stems have the same vowel-quality combinations as *CṿCṿ* stems, though not all vowel combinations happen to be attested.

(234) *Cṿ:Cṿ* and *Cṿ:CCṿ* verbs

3Sg Pfv O/U-stem A/O-stem imperative gloss

a. final nonhigh vowel

-ATR (penult vowel high or -ATR)

tú:ndè *tu:ndo-* *tu:nda-* *tù:ndà* ‘pour’

-ATR (penult vowel high or +ATR)

sí:ndè *si:ndo-* *dillo-* *si:ndò* ‘convey’

té:jè *te:jo-* *te:jo-* *tè:jò* ‘look’

gé:ndè *ge:ndo-* *ge:ndo-* *gè:ndò* ‘go’

pó:lè *po:lo-* *po:lo-* *pò:lò* ‘winnow in wind’

-ATR with a as penult

ká:yè *ka:yo-* *ka:ya-* *kà:yà* ‘shave’

dá:ndè *da:ndo-* *da:nda-* *dà:ndà* ‘taste’

má:njè *ma:njo-* *ma:nja-* *mà:njà* ‘urinate’

b. final high vowel

with high vowel as penult

dú:nì *du:nu-* *du:no-* *dù:nù* ‘run’

with a as penult

já:nì *ja:nò* *ja:nà* *nà:nà* ‘call’ or ‘dry’

These stems are prosodically heavy: 3Sg imperfectives *tè tè:jà* ‘he/she will look’, *dù dǔ:nà* ‘he/she will run’, etc.

10.1.2.7 *Cṿwv* and *Cṿyv* stems with first-syllable vowel-lengthening

Original *CṿCṿ* stems with medial semivowel {*w y*} have been subject to a process that lengthens the first vowel in some inflected forms (§3.6.4.1). In the case of *Cṿyv*, and arguably (but ambiguously) *Cịyv*, the lengthening takes the form of gemination of the *y*. These stems

are distinct from true *Cv:yv* (and presumably from as-yet undiscovered true *Cv:wv*) stems, which have long vowels in all positions. In (235), ‘sleep’ and ‘kill’ show the lengthening, while ‘shave’ has a long *a*: in all forms and is a true *Cv:Cv* verb.

(235)	<i>Cvyv</i>	<i>Cvww</i>	<i>Cv:yv</i>	<i>Cv:wv</i>
	‘sleep’	‘kill’	‘shave’	[none]

a. lengthened (nonfinal short vowel becomes long)

Pfv 3Sg	<i>dó:yè</i>	<i>gé:wè</i>	<i>ká:yè</i>	—
Ipfv 3Sg	<i>dò dǒ:yà</i>	<i>gè gě:wà</i>	<i>kà kǎ:yà</i>	—
Imprt	<i>dò:yò</i>	<i>gè:wà</i>	<i>kà:yà</i>	—

b. unlengthened (lexical length of nonfinal vowel preserved)

PfvNeg	<i>dòyò:-lì</i>	<i>gèwà:-lì</i>	<i>kà:yà:-lì</i>	—
IpfvNeg	<i>dòyó-lǒ</i>	<i>gèwǒ-lǒ</i>	<i>kà:yó-lǒ</i>	—

The verbs known to me that are subject to lengthening are listed in (236a-b). In the case of ‘lie down’ (236a), it cannot be decided whether the correct transcription of the perfective is *bí:-yè* or *bí-yyè*, since there is no clearly audible distinction between the two, and because the morphemic composition of the corresponding transitive derivative *bí:-rè* (or *bí-y-rè*), and therefore the lexical length of the first vowel, is ambiguous.

(236)	Pfv 3Sg	PfvNeg	gloss
a.	<i>Cvyv</i>		
	after <i>o</i>		
	<i>dó:yè</i>	<i>dòyò:-lì</i>	‘sleep’
	after <i>i</i>		
	<i>bí:-yè (bí-yyè)</i>	<i>bì-yò:-lì</i>	‘lie down’
	after <i>u</i>		
	<i>dú-yyè</i>	<i>dù-yà:-lì</i>	‘bathe’ or ‘carry on head’
b.	<i>Cvww</i>		
	<i>gé:wè</i>	<i>gèwà:-lì</i>	‘kill’
	<i>gí:wè</i>	<i>gìwò:-lì</i>	‘harvest (with knife)’
	<i>dí:wè</i>	<i>dìwà:-lì</i>	‘fear’
	<i>tí:wè</i>	<i>tìwà:-lì</i>	‘send’
	<i>dó:wè</i>	<i>dòwà:-lì</i>	‘die’
	<i>só:wè</i>	<i>sòwà:-lì</i>	‘buy’
	<i>tó:wè</i>	<i>tòwà:-lì</i>	‘sow (seeds)’

Given that the lengthened forms like *nó:yè-* constitute a significant portion of the overall paradigm, we must consider an analysis where the “lengthened” forms are lexically basic, and “unlengthened” forms like *dòyò(-)* are produced by a shortening rule. However, such an

analysis would not explain why some *Cv:yv* verbs like ‘shave’ do not shorten. Either way, some lexicalization of the relevant vowel-length adjustment rule would be necessary (§3.6.4.1).

10.1.2.8 *bé:lè* ‘get’

This verb, whose many cognates in other Dogon languages are segmentally *bɛle* or *bɛrɛ* with short vowels, has developed lengthened forms parallel with those of *Cvyv* and *Cvvy* verbs that lengthen (preceding section).

(237) a. lengthened

bé:lè perfective 3Sg
bè bǝ:là imperfective 3Sg

b. unlengthened

bél-lò imperfective negative (syncopated)
bèlà:-lì perfective negative

In the collocation meaning ‘X be sleepy’, literally ‘sleep (n) got X’, the first vowel is short.

(238) *dòróngè* *mì-ŋgù* *bélè-Ø*
 sleep(n) 1Sg-Acc get.Pfv-3SgSbj
 ‘I am sleepy.’

There is a syncopated transitive reversive *bél-lè* ‘dispossess (sb, of sth)’ (§9.1).

10.1.2.9 *gé:ndè* ‘go’

This verb is generally regular, but it is truncated to *gé:n-* before a *-Cv* suffix (or subordinator *nè*) unless the suffix begins with *y* (3Pl subject *-yè* ~ *-yè*) or the stem-final vowel is lengthened. The effect is that the truncation occurs in the imperfective negative (where the *n* then assimilates to the suffixal *l*), as in *ŋ gé:l-lò* ‘I will not go’, in the verbal noun *gǝ:n-nà* ‘going’, and in the subordinated form *gǝ:n nè*.

Interestingly, cognates lack the initial *g*, hence Penange *ándè*, Mombo *ándé*. Could the noun *géndè* ‘forehead’ and adverb *géndé mbà* ‘forward, ahead’ be involved?

The collocation *?òjì ?úni* ‘travel, go on a trip’, cf. *?òjì* ‘road’, preserves another verb whose cognates are productive ‘go’ verbs in some other Dogon languages: Yanda Dom *ún*, Najamba *ín*, Tiranige *ún(ú)*. The restriction to this collocation in Bunoge is likely due to homophone avoidance with *?únè* ‘say’, which has some identical forms including imperfectives.

10.1.2.10 Trisyllabic stems

Trisyllabic stems may be underived or derived, though some “underived” stems probably originated as suffixal derivatives.

(239)	3Sg Pfv	U/O-stem	A/O-stem	imperative	gloss
a. final nonhigh vowel					
-ATR (penult high or -ATR)					
	<i>déŋú-lè</i>	<i>dɛŋu-lɔ-</i>	<i>dɛŋu-la-</i>	<i>dèŋù-là</i>	‘open (door)’
	<i>sójú-lè</i>	<i>sɔju-lɔ-</i>	<i>soju-la-</i>	<i>sòjù-là</i>	‘untie’
+ATR (penult high or +ATR)					
	<i>dúnjúrè</i>	<i>dunju-ro-</i>	<i>dunju-ro-</i>	<i>dùnjùrò</i>	‘push’
	<i>píríyè</i>	<i>piriyo-</i>	<i>piriyo-</i>	<i>pìriyò</i>	‘shake off’
	<i>bélóŋgè</i>	<i>beloŋgo-</i>	<i>beloŋgo-</i>	<i>bèlòŋgò</i>	‘find’
	<i>?ógújè</i>	<i>?ogujo-</i>	<i>?ogujo-</i>	<i>?ògùjò</i>	‘rinse (mouth)’
+ATR (penult a)					
	<i>para-gè</i>	<i>para-go-</i>	<i>para-ga-</i>	<i>pàrà-gà</i>	‘cut’
	<i>méralè</i>	<i>meralo-</i>	<i>merala-</i>	<i>mèràlà</i>	‘have fun’
b. final high vowel					
causative -mì					
	<i>tégó-mì</i>	<i>tego-mu-</i>	<i>tego-mo-</i>	<i>tègò-mù</i>	‘show’

The known quadrisyllabic verbs are suffixal derivatives like causative *gúndúló-mì* ‘roll (sth) along’.

10.1.2.11 Inventory of underived final-high-vowel verbs

For reference, all known final-high-vowel verbs, excluding causative derivatives, are listed in (240). All have a stem-final syllable beginning with a sonorant, usually nasal or nasalized. *ji:* in (240a) has no known Dogon cognates, so I cannot determine whether it originated as bisyllabic **jiyì*. It is clearly monosyllabic synchronically, as shown by forms like reduplicated imperfective *nù jà* ‘he/she will draw water’.

(240)	a. monosyllabic <i>Nv:</i>	
	‘draw water; (rain) fall’	<i>ji:</i>
	b. <i>CvNv</i> with medial nasal	
	<i>CiNi</i>	
	‘build’	<i>símì</i>
	‘(fire) go out, (sun) set’	<i>dímì</i>
	‘wring’	<i>pínì</i>

‘scoop’	<i>kíni</i>
‘be full (sated)’	<i>síni</i>
‘transplant’	<i>díni</i>
‘hold self up’	<i>tíni</i>
‘emit smell’	<i>níni</i>

CuNi

‘endure’	<i>múmi</i>	
‘set, put’	<i>dúni</i>	
‘travel’	<i>(?òji) ?úni</i>	(collocation with <i>?òji</i> ‘road’)

CaNi

‘become sour’	<i>?ámì</i>
‘sprinkle (grain)’	<i>?ámì</i>
‘go out of sight’	<i>dímì</i>
‘do’	<i>kánì</i>
‘malfunction’	<i>jàmì</i>
‘stone-grind’	<i>námì</i>

c. *Cv:Nv* with medial nasal or *Cv:Lv* with medial liquid

Cu:Ni

‘be patient’	<i>mú:mì</i>
‘run’	<i>dú:nì</i>

Ca:Ni

‘call’	<i>jà:ni</i>
‘dry [intr]’	<i>jà:ni</i>
‘be boiling’	<i>wá:ni</i>
‘get sick; hurt’	<i>jà:mì</i>

Ca:Li

‘coarsely stone-grind’	<i>sá:lì</i>
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10.2 Positive indicative AN categories

10.2.1 Perfective positive system (including perfect)

This system contains the (basic) perfective positive along with the experiential perfect (‘have ever VPed’).

10.2.1.1 Perfective (E/I-stem)

The perfective is used for temporally bounded events, generally entirely in the past from the perspective of the time of speaking or other reference time. For its use in conditionals see §16.1.

The perfective (positive) consists of the E/I-stem of the verb, with no further aspectual suffix. The stem ends in {*e* *ɛ*} for final-nonhigh-vowel verbs (the majority of verb stems), in *i* for final-high-vowel verbs. The choice between *e* or *ɛ* depends on the ATR-harmonic class of the verb. The 3Pl form has a suffix *-yè* ~ *-yè* (depending on ATR-harmonic value of stem), whose *y* may assimilate to a preceding consonant (§3.4.4.1).

The three possible final vowels can be illustrated with *CvCv* stems. (241) has 1st/2nd person forms for ‘see’ and ‘butcher’, which belong to the final-nonhigh-vowel class (perfective stems ends in *e* or *ɛ*), and for ‘build’, which belongs to the final-high-vowel verb class (perfective stem ends in *i*). The verbs have {HL} overlay after L-toned 1Sg and 2Sg proclitics, and {L} after H-toned 1Pl and 2Pl proclitics.

(241) 1st/2nd person perfectives of *CvCv* verbs

category	‘see’	‘butcher’	‘build’	tones including proclitic
1Sg	<i>ɨ̃ tégè</i>	<i>ɨ̃ ʔórè</i>	<i>ɨ̃ símì</i>	L {HL}
1Pl	<i>ɨ̃ tégè</i>	<i>ɨ̃ ʔòrè</i>	<i>ɨ̃ sìmì</i>	H {L}
2Sg	<i>à tégè</i>	<i>à ʔórè</i>	<i>à símì</i>	L {HL}
2Pl	<i>á tégè</i>	<i>á ʔòrè</i>	<i>á sìmì</i>	H {L}

For third person subjects (3Sg and 3Pl), there are two versions of the perfective positive depending on morphosyntactic context. In simple contexts (e.g. unfocalized main clauses), both 3Sg and 3Pl have {HL} overlays, and differ by presence/absence of 3Pl suffix *-yè* ~ *-yè*. After syncope of the stem-final vowel, the *y* assimilates to some preceding consonants (§3.4.4.1). Since 3Pl is overtly suffixed, I transcribe *-Ø* suffix for 3Sg as well (242).

(242) Suffixed third-person perfectives of *CvCv* stems

category	‘see’	‘butcher’	‘build’	tones including suffix
3Sg	<i>tégè-Ø</i>	<i>ʔórè-Ø</i>	<i>símì-Ø</i>	{HL}
3Pl	<i>tég-gè</i> (<i></tégí-yè</i>)	<i>ʔórí-yè</i>	<i>sím-mè</i>	{H-L}

In some other morphosyntactic contexts (see the end of this section), the suffixal distinction between 3Sg and 3Pl is replaced by a **tonal** distinction. One can think of the unsuffixed third-person perfectives as **defocalized**. The 3Sg begins with an L-tone while the 3Pl begins with an H-tone. The 3Sg perfective of *CvCv* stems is fully L-toned clause-finally (e.g. after a focalized constituent in a main clause) but LH-toned when nonfinal. This suggests that {LH} is the basic 3Sg overlay here, but is flattened to {L} clause-finally after prosodically light stems. We will see just below that the full form of the 3Sg overlay is actually {LHL}. There is no 3Pl suffix, so by extrapolation I do not show a zero 3Sg suffix *-Ø* in transcription (243).

(243) Unsuffixed third-person perfectives of *CvCv* stems

category	‘see’	‘butcher’	‘build’	tones
a. 3Sg				
clause-final	<i>tègè</i>	<i>ʔòrè</i>	<i>sìmì</i>	{L} (< {LH})
non-clause-final	<i>tègé</i>	<i>ʔòré</i>	<i>símí</i>	{LH}
b. 3Pl	<i>tégè</i>	<i>ʔórè</i>	<i>símì</i>	{HL}

Array (244) below has perfectives from heavier stems: *Cv:Cv*, trisyllabic, and quadrisyllabic. These heavy stems clarify the tone overlays. (244a-b) confirm that the overlay on verbs for 1Sg/2Sg subjects and for suffixed 3Sg and 3Pl is {HL}, realized on heavy stems as one or more H-toned syllables, followed by a single L-toned syllable. (244a) also confirms {L} as the overlay for 1Pl and 2Pl. However, (244b) shows that the unsuffixed 3Sg has {LHL} overlay, with an extra initial L not present in the suffixed 3Sg variant. This suggests that the apparent {LH} overlay in the *CvCv* verbs in (243a) above is a trimmed version of {LHL}, which requires a minimum of three moras for full expression. A corollary is that the apparent {L} overlay in (243a) above, for clause-final *CvCv* stems, is doubly reduced, from {LHL} by trimming to {LH} and then to {L} by clause-final flattening. Quadrisyllabic ‘cause to roll’ in (244) shows that tone breaks occur as far to the right as possible, without resulting in unnecessary contoured final syllables. Therefore quadrisyllabics realize {HL} as H.H.H.L, and {LHL} as L.L.H.L.

(244)	‘get’	‘cut’	‘cause to roll’	tones including proclitic
a. 1st/2nd persons				
1Sg	<i>ɲ bɛ:lè</i>	<i>ɲ párá-gè</i>	<i>ɲ gúndúló-mì</i>	L {HL}
1Pl	<i>ɲ bɛ:lè</i>	<i>ɲ pàrà-gè</i>	<i>ɲ gùndùlò-mì</i>	H (L)
2Sg	<i>à bɛ:lè</i>	<i>à párá-gè</i>	<i>à gúndúló-mì</i>	L {HL}
2Pl	<i>á bɛ:lè</i>	<i>á pàrà-gè</i>	<i>á gùndùlò-mì</i>	H (L)
b. third person				
<i>suffixed</i>				
3Sg	<i>bɛ:lè-Ø</i>	<i>párá-gè-Ø</i>	<i>gúndúló-mì-Ø</i>	{HL}
3Pl	<i>bɛ:l-lè</i>	<i>párá-g-gè</i>	<i>gúndúló-m-mè</i>	{HL}
<i>unsuffixed</i>				
3Sg	<i>bɛ:lè</i>	<i>pàrá-gè</i>	<i>gùndùlò-mì</i>	{LHL}
3Pl	<i>bɛ:lè</i>	<i>párá-gè</i>	<i>gúndúló-mì</i>	{HL}

Monosyllabic *Cv:* stems are illustrated in (245). The tones are like those of *CvCv* stems, including incomplete realization of {LHL} overlay in unsuffixed 3Sg forms. The suffixed 3Pl form is the irregular *Cú-yyè*, an archaism reflecting the origin of some monosyllabics as *Co(:) or *Cɔ(:) stems.

(245) ‘go out’ ‘eat meal’

a. 1st/2nd persons

1Sg	<i>ɲ gê:</i>	<i>ɲ jê:</i>
1Pl	<i>ɲ gè:</i>	<i>ɲ jè:</i>
2Sg	<i>à gê:</i>	<i>à jê:</i>
2Pl	<i>á gè:</i>	<i>á jè:</i>

b. third person

suffixed

3Sg	<i>gê:</i>	<i>jê:</i>
3Pl	<i>gú-yyè</i>	<i>jú-yyè</i>

unsuffixed

3Sg	<i>gè:</i>	<i>jè:</i>
3Pl	<i>gê:</i>	<i>jê:</i>

Stems that have the shape *Ca:-* in many other Dogon languages are bisyllabic in Bunoge, and have perfectives like 3Sg *ká:yè-Ø* ‘he/she shaved’.

A fuller list of perfective stems, with the tones found before 3Sg *-Ø*, is in (246).

(246) More perfectives, with {HL} tonal form as in suffixed 3Sg

a. quadrisyllabic

‘cause to go back’ *bíjóló-mì*

b. trisyllabic

‘snap (tr.)’ *mélá-gè*
 ‘winnow by shaking’ *págárè*
 ‘go back’ *bíjílè*
 ‘roll (intr.)’ *gúndúlè*
 ‘crawl’ *ʔábálè*

c. bisyllabic with heavy initial syllable

Cv:Cv

‘winnow in wind’ *pó:lè*
 ‘shave’ *ká:yè*
 ‘call’ *ná:ɲì*

CvCCv

‘go up’ *ʔóllè*
 ‘do/make well’ *kán-dè*

Cv:CCv

‘go’ *gé:ndè*
 ‘pour’ *tú:ndè*

d. bisyllabic with light initial syllable

‘step on’	<i>tɔŋɛ̀</i>
‘give birth’	<i>náɛ̀</i>
‘build’	<i>sími</i>

e. monosyllabic

‘drink’	<i>nê:</i>
‘weep’	<i>pê:</i> (after cognate nominal <i>pò:</i>)
‘draw water’	<i>ɲí:</i> (after noun <i>gô:</i> ‘water’)

The choice between suffixed and unsuffixed third-person perfectives depends on morphosyntactic context. Using *bé:lè* and variants ‘get’, (247) shows that suffixed 3Sg and 3Pl perfectives are required in unfocalized main clauses. In addition to the forms of the verb, note also the tones of ‘money’ in these and the following examples, since they adjust tonally to the verb.

- (247) a. *tɔndí-gè* *bé:lè-Ø*
 money-Pl get.Pfv-**3SgSbj**
 ‘He/She got (some/the) money.’
- b. *tɔndí-gè* *bé:l-lè*
 money-Pl get.Pfv-**3PlSbj**
 ‘They got (some/the) money.’

In (248) below, the object of ‘get’ is either a WH-word (intrinsically focal) or an optionally focalized constituent, here ‘money’. The distinction between 3Sg and 3Pl subject is now expressed by tones, 3Sg {LHL} versus 3Pl {HL}. This tonal distinction also affects the tones of the preceding word, which in these examples is either *tɔndí-gè* ‘money’ (always plural in form, but with singular agreement) or *ʔèbégè* ‘what?’ in these examples. Specifically, the initial L-tone of the 3Sg form triggers Rightward H-Movement in the preceding word, resulting in *ʔèbégé* and *tɔndí-gé*, respectively. This tonal change in the preceding word is conspicuous in texts and is very useful to listeners in processing Bunoge speech. For example, the most conspicuous acoustic difference between (248a) and (248c) is the final H- versus L-tone on ‘what?’

- (248) a. *ʔèbégé* *bé:lè*
 what? get.Pfv.**3SgSbj**
 ‘What did he/she get?’
- b. *tɔndí-gé* *bé:lè*
 money-Pl get.Pfv.**3SgSbj**
 ‘Money [focus] is what he/she got.’
 contrast (247a) above

- c. *ʔèbégè* *bé:lè*
 what? get.Pfv.**3PISbj**
 ‘What did they get?’
- d. *tóndí-gè* *bé:lè*
 money-Pl get.Pfv.**3PISbj**
 ‘Money [focus] is what they got.’
 contrast (247b) above

The distinction between suffixed and unsuffixed third person perfectives is also important in quoted speech. When the author(s) is/are **coindexed** with the subject of the quoted indicative clause, perfectives take unsuffixed form. This is exemplified in (249a-b), which also show that the quotative verb ‘say’ is itself in unsuffixed perfective form (suggesting that the quotation is automatically treated as a focalized constituent). All three words in (249a) have different tones from those in (249b), illustrating the ripple effects of otherwise subtle tonal distinctions in the verbs. In (249a), ‘money’ has undergone Rightward H-Spreading, and ‘get’ has undergone Rightward H-Movement.

- (249) a. [*tòndí-gé* *bè:lé*] *ʔùnè*
 [money-Pl get.Pfv.**3SgSbj**] say.Pfv.**3SgSbj**
 ‘He/She_i said that he/she_i got (some/the) money.’ (< *tóndí-gè, bǔ:lè*)
- b. [*tóndí-gè* *bé:lè*] *ʔúnè*
 [money-Pl get.Pfv.**3PISbj**] say.Pfv.**3PISbj**
 ‘They_i said that they_i got (some/the) money.’

If the author(s) and the subject of the quoted indicative clause are **disjoint**, a third-person perfective in the quoted clause has suffixed form. In (250a-b), ‘say’ has 1Sg subject, which of course is disjoint to the third-person subject in the quotation. When the subject of the quoted clause is 1Sg (or any other 1st/2nd person category), its form is constant (except for tone sandhi), regardless of whether the quoted author is coindexed 1Sg (250b) or some other category (250c). Rightward H-Movement has applied to ‘get’ in (250c) before an an L-tone.

- (250) a. [*tóndí-gè* *bé:lè-Ø*] *ɲ* *ʔúnè*
 [money-Pl get.Pfv-**3SgSbj**] 1SgSbj say.Pfv
 ‘I said that he/she got (some/the) money.’
- b. [*tóndí-gè* *ɲ* *bé:lè*] *ɲ* *ʔúnè*
 [money-Pl 1SgSbj **get.Pfv**] 1SgSbj say.Pfv
 ‘I said that I got (some/the) money.’
- c. [*tóndí-gè* *ɲ* *bè:lé*] *ʔùnè*
 [money-Pl 1SgSbj **get.Pfv**] say.Pfv.**3SgSbj**
 ‘He/She said that I got (some/the) money.’

When the quoted author(s) and the subject of the quoted indicative clause are disjoint, but both happen to be third person, a perfective in the suffixed clause is suffixed (251a-b). This distinguishes them structurally from coindexed-subject quotations illustrated above. However, since Rightward H-Movement converts both *bě:lè* and *bé:lè-Ø* to *bè:lé* (before an L-tone), the distinction between disjoint and coindexed may become covert, or as in (251a) expressed indirectly by the tones of the preceding work (here ‘money’). This indicates that Rightward H-Movement applies to ‘money’ before it applies to ‘get’ in (249a) and (251a).

- (251) a. *[tóndí-gè bē:lé-Ø] ?ùnè*
 [money-Pl get.Pfv-**3SgSbj**] say.Pfv.3SgSbj
 ‘He/She_i said that he/she_i (=someone else) got (some/the) money.’
 contrast (249a) above
- b. *[tóndí-gè bé:l-lè] ?únè*
 [money-Pl get.Pfv-**3PlSbj**] say.Pfv.3PlSbj
 ‘They_i said that they_i (=others) got (some/the) money.’
 contrast (249b) above

Unsuffixed third-person perfectives also occur in nonsubject relatives (252).

- (252) a. *nà-ló bò [tòndí-gé bē:lè nò]*
 where? be.3SgSbj [money-Pl get.Pfv.**3SgSbj** Def]
 ‘Where is the money that he/she got?’
- b. *nà-ló bò [tóndí-gè bē:lè nò]*
 where? be.3SgSbj [money-Pl get.Pfv.**3PlSbj** Def]
 ‘Where is the money that they got?’

In conditional antecedents, the suffixed forms occur, followed by *mè* ‘if’. However, an {LH} overlay applies to all perfectives, including 1st/2nd persons (253a-d).

- (253) a. *[tóndí-gè bē:lé-Ø mè]*
 [money-Pl get.Pfv-**3SgSbj** if]
 ‘if he/she gets (some/the) money’
- b. *[tóndí-gè bē:l-yé mè]*
 [money-Pl get.Pfv-**3PlSbj** if]
 ‘if they get (some/the) money’
- c. *[tóndí-gè ñ bē:lé mè]*
 [money-Pl **1SgSbj** get.Pfv if]
 ‘if I get (some/the) money’

- d. [tɔ́ndí-gé ò bɛ̀:lé mɛ̀]
 [money-Pl 1PISbj get.Pfv if]
 ‘if we get (some/the) money’

Suffixed 3Sg *bɛ̀:lé-Ø* in (253a) could be mis-parsed as unsuffixed 3Sg *bɛ̀:lé* after Rightward H-Movement, as in (249a) above. However, the two differ in their tonal effect on a preceding word like *tɔ́ndí-gè* ‘money’, which keeps its /HL/ tones in (253a) but surfaces as *tɔ́ndí-gé* after Rightward H-Spreading in (249a).

Clause-final polar interrogative *yà* (§13.2.1.4) has tonal effects like those of *mɛ̀* on a preceding perfective.

The perfective is the bare E/I-stem with no aspectual suffix in main clauses. However, it has distinctive participial auxiliaries, *sà*: in subject relatives (§14.5.1) and (optionally) *sà* in subject focalizations (§13.1.1.4).

10.2.1.2 Perfective-1a and -1b absent

There are no clearcut counterparts to the perfective-1a (*-yà-*, *-á-*, *-èrè*) or Perfective-1b (*-tí-*) in eastern languages such as Jamsay and Nanga. Perhaps the directional suffixes in Bunoge verbs, perfective *-yè* ~ *-yè* and imperfective *-yà*, are descendents of the same ‘go’ verb that was independently grammaticalized as perfective-1a in some eastern languages (and Tebul Ure).

10.2.1.3 Perfective-2 absent

There is no counterpart to the main-clause perfect-2 (or resultative) category, expressed by a suffix related to the ‘have’ quasi-verb (*-so-*, *-sa-*) in languages like Jamsay and Nanga. However, Bunoge participial *sà*: in perfective relatives, especially subject relatives (§14.5.1), and *sà* in perfective subject-focus clauses (§13.1.1.4), are derived from the ‘have’ quasi-verb and are therefore indirectly related to the perfective-2 in the other languages.

10.2.1.4 Experiential perfect ‘have (ever)’ (*wélè: bò / sà*)

The experiential perfect is expressed by adding *wélè:* plus a conjugated form of *bò* ‘be’ or less often *sà* ‘have’ to a verbal noun with suffix *-nà*. The experiential perfect denotes a non-ordinary event or milestone that has permanently changed the state (usually the memory) of the agent.

- (254) a. *nígè* *tègò-nà* *wélè:* ò *bò*
 elephant see-VblN ExpPrf 1SgSbj be
 ‘I have (once) seen an elephant’

- b. *nígè* *tègó-nà* *wélé:* *bò* / *wélè:* *bô:*
 elephant see-VblN ExpPrf be.3SgSbj / ExpPrf be.3PlSbj
 ‘He-or-she has / They have seen an elephant.’
- c. *bómókò* *gě:n-nà* *wélè:* *ɲ* *bò*
 B go-VblN ExpPrf 1SgSbj be
 ‘I have (once) gone (= been) to Bamako [capital city].’ (< *gè:ndó-nà*)

Example (254b) shows that the 3Pl form of the auxiliary is *bô:* (not *bó-yà*) in this construction.

The participial form in relative clauses is *wélé: sà:* §14.4.1).

The negative counterpart means ‘have never VP-ed’; see §10.2.3.2.

The etymology of *wélè:* in this function is obscure. Most Dogon languages have an experiential perfect auxiliary pointing to **tere-* or **tare-*. One Bunoge-internal source candidate is the verb *wélè* ‘learn (by training)’ or ‘become accustomed’. Another is *bé:lè* ‘get, obtain’, archaic variant *bélè* (§10.1.2.8). Numerous Dogon cognates of *bé(:)lè* mean ‘get, obtain’ but also double as capacitative auxiliaries (‘can VP’), and a perfective of this (‘was able to VP’) is not far from an experiential perfect. For a *b/w* alternation see locative postposition *mbà ~ à ~ wà* ‘in, on’ (§8.2.3.1).

10.2.1.5 Recent perfect/completive absent

I have not found a highly grammaticalized recent perfect/completive suffix (or auxiliary verb) of the type found in Jamsay (-*jè-*).

10.2.1.6 Reduplicated perfective absent

My assistant rejected reduplicated counterparts of the perfective stem.

10.2.2 Imperfective positive system

10.2.2.1 Imperfective (A-stem, reduplicated or iterated)

This is a basic imperfective form, used in general present (including habitual) and future contexts. Habitual sense can also be expressed by the progressive. The imperfective also gets some competition from derived statives like ‘be sitting (=seated)’ (§10.4.1.1). For ‘see’ and ‘hear’, see §10.4.1.3.

The imperfective consists of the A-stem, i.e. it always ends in *a*, and there is no suffix. -ATR vowels in nonfinal syllables are converted to +ATR (*ɛ* to *e*, *ɔ* to *o*). The A-stem is identical for some verbs to the A/O-stem, but those verbs that end in *o* in the A/O-stem

distinguish the A- and A/O-stems. Since the A-stem ends in *a* for all verbs, the imperfective does not distinguish final-high-vowel from final-nonhigh-vowel stem classes.

In the absence of a focalized preceding constituent, the imperfective has an initial **reduplication** (*Cṽ*) or, in some morphological contexts described below, full-stem **iteration**. In (255a), the focalization of ‘tomorrow’ disallows the reduplication, which is however present in (255b).

- (255) a. *ʔógà* *ɲ* *jà:*
tomorrow 1PlSbj eat.Ipfv
‘Tomorrow [focus] we will eat.’
- b. *jù:* *ɲ* *jà:*
Rdp 1PlSbj eat.Ipfv
‘We will eat (a meal).’

In ordinary indicative sentences, the reduplication is limited to *Cṽ*, copying the onset and nuclear vowel (shortened if not already short) of the first syllable of the stem. For monosyllabic stems the reduplicant is *Cù*, lengthening to *Cù:* before 1Sg and 1Pl proclitics. A 1st/2nd person proclitic (*ɲ, ɲ, à, á*), if present, intervenes between reduplicant and base. So does polar interrogative *là* (interlineal “Q”), but in this case the reduplicant is expanded to full-stem iteration of the stem, with {LH} basic tone overlay and with final *u*-vowel (256c-d). *là* precedes a 1st/2nd person subject proclitic (256e). That the *Cṽ* reduplicant is L-toned even for 3Sg subject is shown by the raising of the final tone of *mì-ɲgù* ‘1Sg-Accusative’ in (256f), which can only happen before an L-tone.

- (256) a. *ʔè* *ɲ* *ʔègà*
Rdp 1SgSbj come.Ipfv
‘I will come.’
- b. *ʔè* *ʔègà*
Rdp come.Ipfv.3SgSbj
‘He/She will come.’
- c. *ʔègù* *lá* *ʔègà*
Iter Q come.Ipfv.3SgSbj
‘Will he/she come?’
- d. *bìjìlù* *lá* *bìjìlâ*
Iter Q come.Ipfv.3SgSbj
‘Will he/she go back?’
- e. *ʔègù* *lá* *ɲ* *ʔègà*
Iter Q 1SgSbj come.Ipfv
‘Will I come?’

- f. *mì-ηgú* *tè* *tègà / tégà*
 1Sg-Acc Rdp see.Ipfv.3SgSbj / .3PlSbj
 ‘He-or-she/They will see me.’
- g. *kómbù* *gò* *gòjà*
 hole Rdp dig.Ipfv.3SgSbj
 ‘He/She will dig a hole.’
- h. *kómbù* *gòjù* *lá* *gòjà*
 pit(n) Iter Q dig.Ipfv.3SgSbj
 ‘Will he/she dig a hole?’

For the polar interrogatives, including pronominal-subject paradigms, see §13.2.1. A similar *u*-final stem-iteration occurs in the past imperfective (§10.5.1.1). In the regular (nonpast) imperfective, iteration can also be used to focalize the predicate (§13.1.6).

Paradigms for *CvCv* stems are given in (257). As mentioned above, 1st/2nd person proclitics intervene between the reduplicant and the base. 2nd person *a* proclitics contract with the final vowel of the reduplicant to form a long vowel, written here as two vowels to bring out the morphemic structure. The stem melody is {L} for 1st/2nd person and 3Sg forms. For 1Pl/2Pl and 3Sg we will see below that the full overlay is {LHL} and is here reduced to {L} for light verb stems. 3Pl has an {HL}-toned stem.

(257) category	‘see’	‘butcher’	‘build’	tone (stem only)
1Sg	<i>tè η tègà</i>	<i>?ò η ?òrà</i>	<i>sì η sì mà</i>	L
1Pl	<i>tè ηj tègà</i>	<i>?ò ηj ?òrà</i>	<i>sì ηj sì mà</i>	L (< LHL)
2Sg	<i>tà = à tègà</i>	<i>?à = à ?òrà</i>	<i>sà = à sì mà</i>	L
2Pl	<i>tà = á tègà</i>	<i>?à = á ?òrà</i>	<i>sà = á sì mà</i>	L (< LHL)
3Sg	<i>tè tègà</i>	<i>?ò ?òrà</i>	<i>sì sì mà</i>	L (< LHL)
3Pl	<i>tè tégà</i>	<i>?ò ?òrà</i>	<i>sì sí mà</i>	HL

The full tone melody of the base is revealed as {LHL} on the 3Sg and 1Pl/2Pl (but not 1Sg/2Sg) forms of prosodically heavy stems, defined here as those with three or more syllables plus bisyllabics that have a long vowel in the initial syllable.

(258) 3Sg imperfective, heavy stems

	3Sg	1Pl
a. quadrisyllabic ‘cause to roll’	<i>gù gùndùlò-mà</i>	<i>gù ηj gùndùlò-mà</i>

b. trisyllabic

‘snap (sth)’	<i>mè mèlá-gà</i>	<i>mè òj mèlá-gà</i>
‘winnow by shaking’	<i>pà pàgàrà</i>	<i>pà òj pàgàrà</i>
‘cut’	<i>pà pàrá-gà</i>	<i>pà òj pàrá-gà</i>
‘go back’	<i>bì bijílà</i>	<i>bì òj bijílà</i>
‘roll (intr.)’	<i>gù gùndúlà</i>	<i>gù òj gùndúlà</i>
‘crawl’	<i>?à ?àbálà</i>	<i>?à òj ?àbálà</i>

c. bisyllabic with heavy initial syllable

Cv:Cv

‘winnow in wind’	<i>pò pǒ:là</i>	<i>pò òj pǒ:là</i>
‘get’	<i>bè bǎ:là</i>	<i>bè òj bǎ:là</i>

Cv:CCv

‘go’	<i>gè gě:ndà</i>	<i>gè òj gě:ndà</i>
‘pour’	<i>tù tǔ:ndà</i>	<i>tù òj tǔ:ndà</i>

Sample paradigms of the trisyllabic stems are in (259). The 1Pl and 2Pl have the same stem tones as the 3Sg form. The 1Sg and 2Sg forms have {L}-toned stems after L-toned proclitics. The difference between 3Sg and 3Pl is expressed by the tone of the first syllable of the base.

(259)	‘cut’	‘snap (tr.)’	tone (omitting proclitics)
1Sg	<i>pà òj pàrà-gà</i>	<i>mè òj mèlà-gà</i>	L
1Pl	<i>pà òj pàrá-gà</i>	<i>mè òj mèlá-gà</i>	LHL
2Sg	<i>pà = à pàrà-gà</i>	<i>mà = à mèlà-gà</i>	L
2Pl	<i>pà = á pàrá-gà</i>	<i>mà = á mèlá-gà</i>	LHL
3Sg	<i>pà pàrá-gà</i>	<i>mè mèlá-gà</i>	LHL
3Pl	<i>pà párá-gà</i>	<i>mè mèlá-gà</i>	HL

Sample paradigms for *Cv:Cv* and *Cv:CCv* stems are in (260). The tones follow the same patterns just seen for multisyllabic stems.

(260)	‘get’	‘winnow in wind’	‘pour’	‘go’
1Sg	<i>bè òj bè:là</i>	<i>pò òj pò:là</i>	<i>tù òj tǔ:ndà</i>	<i>gè òj gě:ndà</i>
1Pl	<i>bè òj bǎ:là</i>	<i>pò òj pǒ:là</i>	<i>tù òj tǔ:ndà</i>	<i>gè òj gě:ndà</i>
2Sg	<i>bà = à bè:là</i>	<i>pà = à pò:là</i>	<i>tà = à tǔ:ndà</i>	<i>gà = à gě:ndà</i>
2Pl	<i>bà = á bǎ:là</i>	<i>pà = á pǒ:là</i>	<i>tà = á tǔ:ndà</i>	<i>gà = á gě:ndà</i>
3Sg	<i>bè bǎ:là</i>	<i>pò pǒ:là</i>	<i>tù tǔ:ndà</i>	<i>gè gě:ndà</i>
3Pl	<i>bè bǎ:là</i>	<i>pò pǒ:là</i>	<i>tù tǔ:ndà</i>	<i>gè gě:ndà</i>

CvCCv stems divide into a subclass with 3Sg *Cv̇ CṽCCà* (261a), consistent with the {LHL} melody just illustrated for prosodically heavy stems, and another with {L}-toned 3Sg *Cv̇ CṽCCà* (261b), following the pattern of prosodically light stems. Stems with medial nasal-stop cluster are divided among the two classes, while stems with a medial geminate are all of the first subclass.

(261) 3Sg imperfective, *CvCCv* stems

a. *Cv̇ CṽCCà* (treated as prosodically heavy)

CvNCv stem with nasal/voiced-stop cluster

‘do well’	<i>kà kǎndà</i>
‘hang up’	<i>jà jǎngà</i>
‘jump’	<i>tò tǒmbà</i>
‘pull’	<i>gì gǐmbà</i>
‘throw’	<i>dò dǒngà</i>
‘carry on back’	<i>bà bǎmbà</i>

CvCCv stem with geminated CC

‘arrive’	<i>dì dǐnnà</i>
‘go up’	<i>?ò ?ǒllà</i>
‘dispossess’	<i>bè bǐllà</i>
‘carry (on head)’	<i>dù dǔ-yyà</i>
‘keep’	<i>dì dǐllà</i>
‘fall’	<i>tù tǔbbà</i>
‘fly’	<i>pì pǐllà</i>

b. *Cv̇ CṽNCà* (treated as prosodically light)

CvNCv stem with nasal/voiced-stop cluster

‘hear’	<i>nù nùndà</i>
‘hit’	<i>nù nùmbà</i>
‘treat (medically)’	<i>jò jòngà</i>

Sample paradigms are in (262). The first subclass, represented by ‘go up’ and ‘do well’, has a rising tone on the first syllable of the base in the 3Sg, 1Pl, and 2Pl, following the pattern seen for multisyllabic and *Cv:(C)Cv* stems described above. The second subclass, represented by ‘hit’ and ‘treat (medically)’, has {L}-toned bases in all 1st/2nd person forms and in the 3Sg. Therefore the differences in the two subclasses are in the 1Pl, 2Pl, and 3Sg forms, while the 1Sg, 2Sg, and 3Pl are the same in the two subclasses.

(262)	‘go up’ (heavy)	‘do well’ (heavy)	‘hit’ (light)	‘treat’ (light)
1Sg	<i>ʔò ɲ ʔòllà</i>	<i>kà ɲ kàn-dà</i>	<i>nù ɲ nùmbà</i>	<i>jò ɲ jòŋgà</i>
1Pl	<i>ʔò ɲ ʔòllà</i>	<i>kà ɲ kǎn-dà</i>	<i>nù ɲ nùmbà</i>	<i>jò ɲ jòŋgà</i>
2Sg	<i>ʔà = à ʔòllà</i>	<i>kà = à kàn-dà</i>	<i>nà = à nùmbà</i>	<i>jà = à jòŋgà</i>
2Pl	<i>ʔà = á ʔòllà</i>	<i>kà = á kǎn-dà</i>	<i>nà = á nùmbà</i>	<i>jà = á jòŋgà</i>
3Sg	<i>ʔò ʔòllà</i>	<i>kà kǎn-dà</i>	<i>nù nùmbà</i>	<i>jò jòŋgà</i>
3Pl	<i>ʔò ʔòllà</i>	<i>kà kán-dà</i>	<i>nù númbà</i>	<i>jò jóŋgà</i>

CvCv bisyllabics have 3Sg *Cv CvCà* (263).

(263) 3Sg imperfective, *CvCv* stems

Cv CvCà

‘step on’	<i>tò tòŋà</i>
‘forget’	<i>ʔà ʔàlà</i>
‘give birth’	<i>nà nàlà</i>
‘build’	<i>sì sìmà</i>
‘do’	<i>kà kànà</i>
‘add’	<i>bà bàrà</i>
‘butcher’	<i>ʔò ʔòrà</i>

Monosyllabic verbs have reduplicant vowel *u*. There are no traces of the synchronic lexical vocalism. A large subset of monosyllabic stems did originally have **o* or **ɔ* vocalism, and the *u* evidently a vestige of this, generalized to all monosyllabics.

(264) 3Sg imperfective, monosyllabic stems

a. -ATR

‘eat (meal)’	<i>jù jà(:)</i>
‘go in’	<i>dù dà(:)</i>
‘draw water’	<i>nù nà(:)</i>

b. +ATR

‘sew’	<i>kù kà(:)</i>
-------	-----------------

Sample paradigms are in (265).

(265)		‘eat (meal)’	‘draw water’
	1Sg	<i>jù: ñ jà(:)</i>	<i>nù: ñ nà(:)</i>
	1Pl	<i>jù: ñ jà(:)</i>	<i>nù: ñ nà(:)</i>
	2Sg	<i>jâ = à jâ:</i>	<i>nâ = à nâ(:)</i>
	2Pl	<i>jâ = á jâ:</i>	<i>nâ = á nâ(:)</i>
	3Sg	<i>jù jâ(:)</i>	<i>nù nâ(:)</i>
	3Pl	<i>jù jâ:</i>	<i>nù nâ:</i>

The vowel of the stem is underlyingly long. Prepausally, it is shortened in the L-toned forms, i.e. all but 3Pl. The shortening is exemplified in (266a-b) below for 3Sg and 1Sg subjects. The length of the stem-vowel is audible when the verb is phrased with a following word, such as a ‘say’ verb (266c). The <HL>-toned vowel of the stem in the 3Pl combination is not shortened (or tonally flattened), even prepausally (266d).

- (266) a. *jù* *jâ*
 Rdp eat.Ipfv.3SgSbj
 ‘He/She will eat.’ (prepausal)
- b. *jù:* *ñ* *jâ*
 Rdp 1SgSbj eat.Ipfv
 ‘I will eat.’ (prepausal)
- c. [*jù* *jà:]* *?ùnè*
 [Rdp eat.Ipfv.3SgSbj] say.Ipfv.3SgSbj
 ‘He/She_x said that he/she_x will eat.’
- d. *jù* *jâ:*
 Rdp eat.Ipfv.3PlSbj
 ‘They will eat.’ (prepausal or not)

With these monosyllabic stems, the reduplicant is short *Cù* in the 3Sg and 3Pl, but long *Cù:* before 1Sg *ñ* and 1Pl *ñ*, as shown in (265) above. Because of vocalic contraction, underlying length of the reduplicant is indeterminate in the 2Sg and 2Pl combinations. The lengthened form *Cù:* also occurs before interrogative *là* (267a-c).

- (267) a. *dù:* *lá* *dâ*
 Rdp Q enter.Ipfv.3SgSbj
 ‘Will he/she go in?’
- b. *dù:* *là* *dâ:*
 Rdp Q enter.Ipfv.3SgSbj
 ‘Will they go in?’

c.	<i>dù:</i>	<i>lá</i>	<i>à</i>	<i>dà</i>
	Rdp	Q	2SgSbj	enter.Ipfv
	‘Will you-Sg go in?’			

10.2.2.2 Progressive (*?émbè, bò*)

There are two progressive constructions, both periphrastic.

The main one contains *?émbè* preceding the substantive verb. The verb itself appears in the A-stem, as in the imperfective. The verb has {L} overlay except {HL} in the 3Pl form. Sample paradigms are in (268).

(268)	‘be cutting’	‘be coming’	‘be eating (meal)’
1Sg	<i>?émbè ñ pàrà-gà</i>	<i>?émbè ñ ?ègà</i>	<i>?émbè ñ jà</i>
1Pl	<i>?émbè ñ pàrà-gà</i>	<i>?émbè ñ ?ègà</i>	<i>?émbè ñ jà</i>
2Sg	<i>?émbà = à pàrà-gà</i>	<i>?émbà = à ?ègà</i>	<i>?émbà = à jà</i>
2Pl	<i>?émbà = á pàrà-gà</i>	<i>?émbà = á ?ègà</i>	<i>?émbà = á jà</i>
3Sg	<i>?èmbé pàrà-gà</i>	<i>?èmbé ?ègà</i>	<i>?èmbé jà</i>
3Pl	<i>?émbè párà-gà</i>	<i>?émbè ?égà</i>	<i>?émbè já</i>

The combinations with 2Sg/2Pl subject proclitics, e.g. 2Sg *?émbà = à*, are homophonous with the corresponding combinations with *?émbà* ‘then’, another preverbal particle (§15.2.2.1). If the following verb has the E/I-stem, only *?émbà* ‘then’ is possible. If it has the A-stem, either interpretation is possible for the clause in isolation, but context normally disambiguates since *?émbà* ‘then’ is always preceded by a perfective clause, often ending in subordinator *mbà* or *nè*.

An alternative progressive construction with conjugated final *bò* ‘be’ was elicitable for some verbs, with the A/O-stem. The 3Pl form is *bô:* rather than *bó-yà*. The construction seems to be uncommon in main clauses for my Sangou assistant, who suggested that it was more typical of Mombo, a neighboring Dogon language.

(269)	‘be eating (meal)’	‘be coming’
1Sg	<i>jâ: ñ bò</i>	<i>?égò ñ bò</i>
1Pl	<i>jâ: ñ bò</i>	<i>?égò ñ bò</i>
2Sg	<i>já = à bò</i>	<i>?égà = à bò</i>
2Pl	<i>jâ = á bò</i>	<i>?égà = á bò</i>
3Sg	<i>jâ: bò</i>	<i>?égó bò</i>
3Pl	<i>jâ: bô:</i>	<i>?égò bô:</i>

Although the type with *bò* is not productive as a main-clause progressive, its virtual existence is presupposed by its parallelism with the only progressive negative form that has been elicited so far (§10.2.3.4 below). It is also the regular progressive construction in relative clauses (§14.5.2).

10.2.3 Negation of indicative verbs

The basic negative morphemes are perfective negative *-lì* (3Pl *-ndì*) and imperfective negative *-lò* (3Pl *-ndà*).

10.2.3.1 Perfective negative (*-lì* after A/O-stem, 3Pl *-ndì*)

Except for 3Pl subject, the perfective negative is formed by adding suffix *-lì* to the A/O-stem of the verb. The stem-final vowel is lengthened, but pronunciations with unlengthened vowel are also heard (in general, vowel length in noninitial syllables is inconsistently pronounced). The stem plus suffix have {L} overlay in the zero 3Sg, and in the 1Pl/2Pl after H-toned proclitic. 1Sg/2Sg have {LHL} after L-toned proclitic, with the final L realized on the suffix. The distinctive 3Pl form has a portmanteau suffix *-ndì* and {HL} overlay, with the tone break before the lengthened stem-final vowel.

(270)	‘cut’	‘winnow in wind’	‘dig’	‘drink’	tones incl. proclitic
1Sg	<i>ɲ pàrà-gá:-lì</i>	<i>ɲ pò:ló:-lì</i>	<i>ɲ gòjá:-lì</i>	<i>ɲ nǎ:-lì</i>	L LH-L
1Pl	<i>ɲ pàrà-gà:-lì</i>	<i>ɲ pò:lò:-lì</i>	<i>ɲ gòjà:-lì</i>	<i>ɲ nà:-lì</i>	H L-L
2Sg	<i>à pàrà-gá:-lì</i>	<i>à pò:ló:-lì</i>	<i>à gòjá:-lì</i>	<i>à nǎ:-lì</i>	L LH-L
2Pl	<i>á pàrà-gà:-lì</i>	<i>á pò:lò:-lì</i>	<i>á gòjà:-lì</i>	<i>á nà:-lì</i>	H L-L
3Sg	<i>pàrà-gà:-lì-Ø</i>	<i>pò:lò:-lì-Ø</i>	<i>gòjà:-lì-Ø</i>	<i>nà:-lì-Ø</i>	L
3Pl	<i>párá-gà:-ndì</i>	<i>pó:lò:-ndì</i>	<i>gójà:-ndì</i>	<i>nâ:-ndì</i>	HL-L

Examples with final-high-vowel verb stems (those that have perfectives with final *i*) are in (271). They do not differ from the other verbs in the perfective negative, since the stem-final vowel is that of the A/O-stem.

(271)	‘show’	‘run’	‘do’	‘draw water’	tones incl. proclitic
1Sg	<i>ɨ̀ tɛ̀gò-mó:-lì</i>	<i>ɨ̀ dù:nó:-lì</i>	<i>ɨ̀ kàná:-lì</i>	<i>ɨ̀ ɲǒ:-lì</i>	L LH-L
1Pl	<i>ɨ̀ tɛ̀gò-mò:-lì</i>	<i>ɨ̀ dù:nò:-lì</i>	<i>ɨ̀ kàná:-lì</i>	<i>ɨ̀ ɲò:-lì</i>	H L-L
2Sg	<i>à tɛ̀gò-mó:-lì</i>	<i>à dù:nó:-lì</i>	<i>à kàná:-lì</i>	<i>à ɲǒ:-lì</i>	L LH-L
2Pl	<i>á tɛ̀gò-mò:-lì</i>	<i>á dù:nò:-lì</i>	<i>á kàná:-lì</i>	<i>á ɲò:-lì</i>	H L-L
3Sg	<i>tɛ̀gò-mò:-lì</i>	<i>dù:nò:-lì</i>	<i>kàná:-lì</i>	<i>ɲò:-lì</i>	L-L
3Pl	<i>tɛ̀gò-mò:-ndì</i>	<i>dù:nò:-ndì</i>	<i>kàná:-ndì</i>	<i>ɲò:-ndì</i>	HL-L

In regular (hypothetical) conditional antecedents (§16.1.1), tonal changes occur on the 1Sg/2Sg forms (the H-tone shifts to the negative suffix) and in the 3Pl (the portmanteau suffix becomes H-toned), resulting in *-lí* and *-ndí*, respectively. Synchronic analysis of the tone shift is difficult. Historically, the perfective negative suffix may have originally been H-toned, as in eastern Dogon languages.

10.2.3.2 Experiential perfect negative (*wélè: ʔóri*)

The experiential perfect is negated by replacing *bò* ‘be’ with its negative counterpart *ʔóri* ‘not be’. The remainder of the negative construction is unchanged from the positive.

- (272) a. *nígè* *tègò-nà* *wélè:* *ɨ̀* *ʔóri*
 elephant see-VbIN ExpPrf 1SgSbj **not.be**
 ‘I have never seen an elephant’
- b. *nígè* *tègò-nà* *wélè:* *ʔóri-Ø*
 elephant see-VbIN ExpPrf **not.be-3SgSbj**
 ‘He/She has never seen an elephant’

10.2.3.3 Imperfective negative (*-lǎ* after O/U-stem, 3Pl *-ndà*)

Except for 3Pl subject, the imperfective negative suffix is *-lǎ* added to the O/U-stem. For 3Pl subject the suffix is *-ndà*, added to the E/I-stem.

The O/U-stem ends in *u* for final-high-vowel verbs, including derived causatives. The stem overlay is {H} for 3Sg, 1Sg, and 2Sg. For 1Pl and 2Pl, the stem has {L} overlay following the H-toned proclitic. For 3Pl, which in this case has no morphological or tonal connection to 1Pl/2Pl, the tone melody is {HL}. ‘Do’ (cf. perfective *káni*) syncopates its final vowel before *-lǎ*, and the /n/ cluster assimilates to *ll*.

(273)	‘show’	‘build’	‘do’	‘draw water’	tones
1Sg	<i>ɲ tégó-mú-lò</i>	<i>ɲ símú-lò</i>	<i>ɲ kál-lò</i>	<i>ɲ nú:-lò</i>	L H-L
1Pl	<i>ɲ tégò-mù-lò</i>	<i>ɲ sìmù-lò</i>	<i>ɲ kàl-lò</i>	<i>ɲ nù:-lò</i>	H L-L
2Sg	<i>à tégó-mú-lò</i>	<i>à símú-lò</i>	<i>à kál-lò</i>	<i>à nú:-lò</i>	L H-L
2Pl	<i>á tégò-mù-lò</i>	<i>á sìmù-lò</i>	<i>á kàl-lò</i>	<i>á nù:-lò</i>	H L-L
3Sg	<i>tégó-mú-lò-Ø</i>	<i>símú-lò-Ø</i>	<i>kál-lò-Ø</i>	<i>nú:-lò-Ø</i>	H-L
3Pl	<i>tégó-mì-ndà</i>	<i>sìmì-ndà</i>	<i>kàní-ndà</i>	<i>ní:-ndà</i>	HL-L

For other verbs, the stem ends in {o ɔ} depending on the ATR-harmonic class of the verb. ATR features are not neutralized in nonfinal syllables.

(274)	‘cut’	‘pay/tie’	‘eat (meal)’
1Sg	<i>ɲ párá-gó-lò</i>	<i>ɲ sǎǎ-lò</i>	<i>ɲ jǎ:-lò</i>
1Pl	<i>ɲ pàrà-gò-lò</i>	<i>ɲ sǎǎ-lò</i>	<i>ɲ jǎ:-lò</i>
2Sg	<i>à párá-gó-lò</i>	<i>à sǎǎ-lò</i>	<i>à jǎ:-lò</i>
2Pl	<i>á pàrà-gò-lò</i>	<i>á sǎǎ-lò</i>	<i>á jǎ:-lò</i>
3Sg	<i>párá-gó-lò-Ø</i>	<i>sǎǎ-lò-Ø</i>	<i>jǎ:-lò-Ø</i>
3Pl	<i>párá-gè-ndà</i>	<i>sǎǎ-ndà</i>	<i>jê:-ndà</i>

The imperfective negative generally does not show the reduplication or iteration of the stem that is found in the imperfective positive in unfocalized main clauses. However, iteration is found in one relative-clause example, see (485c) in §14.5.4 (‘the person who does not sweep’).

10.2.3.4 Progressive negative (with *ʔóri*)

This construction involves *ʔóri* ‘not be’ added to an {L}-toned form of the verb, in its A-stem.

(275)	‘not be cutting’	‘not be eating (meal)’
1Sg	<i>pàrà-gà ɲ ʔóri</i>	<i>jà: ɲ ʔóri</i>
1Pl	<i>pàrà-gà ɲ ʔòrì</i>	<i>jà: ɲ ʔòrì</i>
2Sg	<i>pàrà-gà à ʔóri</i>	<i>jà: à ʔóri</i>
2Pl	<i>pàrà-gà á ʔòrì</i>	<i>jà: á ʔòrì</i>
3Sg	<i>pàrà-gà ʔòrì-Ø</i>	<i>jà: ʔòrì-Ø</i>
3Pl	<i>pàrà-gà ʔòrì-yà</i>	<i>jà: ʔòrì-yà</i>

10.3 Pronominal paradigms for indicative verbs

10.3.1 Subject pronominal affixes

As illustrated in the paradigms for specific AN categories (preceding sections), the pronominal paradigm is as in (276). X here represents the inflected verb stem.

(276)	category	suffix
	1Sg	<i>ɲ</i> X
	1Pl	<i>ɲ</i> X
	2Sg	<i>à</i> X
	2Pl	<i>á</i> X
	3Sg	X-∅
	3Pl	(various, see below).

In the unaffixed 3Sg and 3Pl perfectives, the suffixes shown above are absent and the number distinction is made by tone patterns. The 1st/2nd person proclitics follow the reduplicant in the imperfective (positive) category.

The 3Pl variants are summarized in (277).

- (277) a. initial H-tone on verb, no segmental pronominal morpheme
 unaffixed perfective
 imperfective and progressive (positive)
 derived statives, §10.4.1.1-2
 quoted imperative, §10.8.3.1
bò ‘be’ (*bó* ~ *bô:*), §11.2.2.2
sà ‘have’ (*sá* ~ *sâ:*), §11.5.1
- b. suffix on verb
3Pl subject suffix
-yè ~ *-yè* perfective (/y/ may assimilate to preceding C)
-yà *óri* ‘not ‘be’ (*óri-yà*), §11.2.2.2
 stative negative (= *ndà-yà*), §10.4.2
 capacitative (*-mò-yà*), §10.7
 ‘know’ (*ɛyⁿ-yà*) and ‘want’ (*kàⁿ-yà*), §11.2.5.1-2
 ‘not know’ (*ɛndò-yà*), ‘not want’ (*kà:-là-yà*), §11.2.5.1-2
- portmanteau for 3Pl subject and an aspect-negation category*
-ndì perfective negative (portmanteau replacing *-li*)
-ndà imperfective negative (portmanteau replacing *-lò*)

10.3.2 Vocalic contraction involving pronominal-subject proclitics

2Sg *à* and 2Pl *á* contract with the final vowel of certain preceding morphemes, including the initial reduplication, to form a long [a:]. In these combinations the 2nd person morpheme is transcribed as an enclitic.

10.3.3 Tones of subject pronominal proclitics

1Sg *ɲ* and 2Sg *à* proclitics, for subjects of verbs but also for possessors, are distinguished by tone from the corresponding plurals, 1Pl *ɲ* and 2Pl *á*.

The association of L-tone with singular and H-tone with plural in 1st/2nd persons has only partial parallels in third person forms. In the unsuffixed perfective positive, the imperfective positive, and positive statives (derived and underived), 3Pl subject forms begin with H-tone while 3Sg subject forms begin with L-tone. One might identify H-tone as a transpersonal plural-subject morpheme that is realized on a pronominal proclitic if there is one (1Pl, 2Pl), but on the stem onset if there is no proclitic.

However, this analysis cannot be extended in a straightforward manner to other inflectional categories (negatives, positive perfective), where the distinction between 3Sg and 3Pl subjects is expressed by various idiosyncratic tonal and/or suffixal oppositions.

The summary formulae below show the melody of the verb stem in curly brackets in combination with various subject categories. Tones are marked on *x* (aspect-negation morpheme), *y* (1st/2nd person pronominal), *z* (3Pl suffix), and *r* (initial reduplication or iteration). Absence of a tone indicates atonality (e.g. a consonant). Unhyphenated *xz* in 3Pl forms indexes fusion into one syllable or into a portmanteau. The constant feature is that the verb begins with L-tone after H-toned 1Pl/2Pl proclitics. It may begin with either L- or H-tone after L-toned 1Sg/2Sg proclitics.

(278)	category	1Pl/2Pl	1Sg/2Sg	3Sg	3Pl
	a. {HL...} after 1Sg/2Sg				
	<i>3Sg is H-initial</i>				
	Pfv	ɣ̣ {L}	ɣ̣ {HL}	{HL}	{HL}-ẓ̌
	IpfvNeg (-ḷà, 3Pl -nḍà)	ɣ̣ {L}-x̣	ɣ̣ {H}-x̣	{H}-x̣	{HL}-x̣ẓ̌
	capacitative	ɣ̣ {H}	ɣ̣ {HL}	{HL}	{HL}-ẓ̌
	‘not be’ (?óri)	ɣ̣ {L}	ɣ̣ {HL}	{HL}	{HL}-ẓ̌
	<i>3Sg is L-initial, 3Pl is {L} before H-toned suffix</i>				
	bare stative (-w ⁿ)	ɣ̣ {L}-x̣	ɣ̣ {HL}-x̣	{L}-x̣	{L}-x̣-ẓ̌
	‘know’ (?èy ⁿ)	ɣ̣ {L}	ɣ̣ {HL}	{L}	{L}-ẓ̌
	‘not know’ (?indò)	ɣ̣ {L}	ɣ̣ {HL}	{L}	{L}-ẓ̌
	‘want’ (kây ⁿ)	ɣ̣ {L}	ɣ̣ {HL}	{L}	{L}-ẓ̌
	‘not want’ (kà:-ḷà)	ɣ̣ {L-L}	ɣ̣ {HL-L}	{L-L}	{L-L}-ẓ̌
	derived stative negative	ɣ̣ {L-L}	ɣ̣ {HL-L}	{L-H}	{L-L}-ẓ̌
	‘not resemble’ (pimà = nḍà)	ɣ̣ {L-L}	ɣ̣ {HL-L}	{L-H}	{L-L}-ẓ̌

3Sg is L-initial, 3Pl is H-initial and unsuffixed or portmanteau

Ipfv (light)	$\hat{i} \acute{y}$ {L}	$\hat{i} \acute{y}$ {HL}	\hat{i} {L}	\hat{i} {HL}
derived stative (iterated)	$\hat{i} \acute{y}$ {L}	$\hat{i} \acute{y}$ {HL}	\acute{r} {L}	\hat{i} {HL}
‘resemble’ (<i>pímà</i>)	\acute{y} {L}	\acute{y} {HL}	{L}	{HL}
Ipfv (heavy)	$\hat{i} \acute{y}$ {LHL}	$\hat{i} \acute{y}$ {HL}	\hat{i} {LHL}	\hat{i} {HL}
PfvNeg (<i>-lì</i> , 3Pl <i>-ndì</i>)	\acute{y} {L} - \acute{x}	\acute{y} {H} - \acute{x}	{L} - \acute{x}	{HL} - $\acute{x}\acute{z}$

b. L-initial after 1Sg/2Sg

3Sg is L-initial, 3Pl is H-initial and unsuffixed

‘be (somewhere)’ (<i>bò</i>)	\acute{y} {L}	\acute{y} {L}	{L}	{H}
‘have’ (<i>bò ... sà</i>)	$\acute{x} \acute{y}$ {L}	$\acute{x} \acute{y}$ {L}	\acute{x} {L}	\acute{x} {H}
derived stative (<i>bò</i>)	$\acute{x} \acute{y}$ {L}	$\acute{x} \acute{y}$ {L}	\acute{x} {L}	\acute{x} {HL}
Prog (after <i>?èmbè</i>)	$\acute{x} \acute{y}$ {LH}	$\acute{x} \acute{y}$ {L}	\acute{x} {L}	\acute{x} {HL}

10.4 Stative form of verbs (reduplicated and unreduplicated)

This section covers stative forms derived from regular (active) verbs. For defective stative quasi-verbs that do not have active forms, notably ‘be (somewhere)’, ‘have’, ‘want’, and ‘know’, see chapter 11.

10.4.1 Stative positive with A-stem

There are two stative constructions involving regular verbs. Both are based on the A-stem of the verb, and therefore have affinities to the imperfective positive. One contains existential *bò* (279a) the other involves full-stem iteration (279b).

- (279) a. *bò* *sòmbà*
Exist squat.Ipfv
‘He/She is squatting.’
- b. *sòmbá* *sòmbà*
Iter squat.Ipfv
[=(a)]

Regular verbs that occur in stative constructions include stance verbs (‘sit’, ‘lie down’, etc.) and verbs of holding. Perception verbs ‘see’ and ‘hear’ have stative-like forms that occur without either iteration or *bò* and have several distinctive morphological features (§10.4.1.3).

10.4.1.1 Stative with preposed existential *bò*

In this construction, both the existential particle *bò* and the A-stem of the verb are L-toned in the 3Sg subject form. A medial geminate in *CvCCV* is reduced to a single consonant, but nongeminate clusters in *CvNCV* are retained. The predicate denotes a fixed position, not a change of state ('be sitting = be seated' as opposed to 'sit down'). Ambiguous English glosses like 'be sitting' are to be interpreted as stative, not progressive.

(280)	perfective	stative	gloss (stative)
	a. <i>CvCv</i> → <i>CvCa</i>		
	<i>ʔéb-bè</i>	<i>bò ʔèbà</i>	'be sitting (already seated)'
	<i>bí-yyè</i>	<i>bò bì-yà</i>	'be lying down'
	<i>yógè</i>	<i>bò yògà</i>	'be hidden'
	b. <i>CvCCV</i> with geminate cluster → <i>CvCa</i>		
	<i>ʔíj-jè</i>	<i>bò ʔìgà</i>	'be standing'
	<i>tóllè</i>	<i>bò tòlà</i>	'(bird) be perched'
	<i>tábbè</i>	<i>bò tàbà</i>	'prop oneself (on sth, by hand)'
	c. <i>CvCCV</i> with nongeminate cluster → <i>CvCCa</i>		
	<i>bàngè</i>	<i>bò bàngà</i>	'be leaning (one's hand) on'
	<i>sómbè</i>	<i>bò sòmbà</i>	'be squatting'

A sample paradigm is (281). 1st/2nd person subject proclitics occur on the verb stem, following *bò*. The stem has {L} overlay except {HL} in the 3Pl form. *bò* does not contract with 2Sg *à* or 2Pl *á*.

(281) 'Be lying down'

1Sg	<i>bò ìj bì-yà</i>
1Pl	<i>bò ìj bì-yà</i>
2Sg	<i>bò à bì-yà</i>
2Pl	<i>bò á bì-yà</i>
3Sg	<i>bò bì-yà</i>
3Pl	<i>bò bí-yà</i>

As elsewhere, existential *bò* is dropped here when a nonpredicative constituent is focalized, or in a relative clause (§11.2.2.1).

10.4.1.2 Iterated stative

The alternative positive stative predication involves full iteration of the A-stem of the verb, without *bò*. The construction superficially resembles the reduplicated imperfective, which however has only a monosyllabic initial *Cv-* reduplication. Moreover, even when the imperfective switches from *Cv-* reduplication to full iteration, the iteration has a basic {LH} tone overlay. By contrast, the basic tonal form of the stative iteration is {HL}, though it becomes {LH} in the 3Sg subject form by Rightward H-Movement.

(282)	perfective	stative (3Sg)	gloss (stative)
	a. <i>CvCv</i> → <i>CvCa</i>		
	<i>ʔíjè</i>	<i>ʔígá ʔígà</i>	‘be standing’
	<i>ʔébé</i>	<i>ʔèbá ʔèbà</i>	‘be sitting (already seated)’
	<i>bí-yyè</i>	<i>bì-yá bì-yà</i>	‘be lying down’
	<i>yógè</i>	<i>yògá yògà</i>	‘be hidden’
	b. <i>CvCCv</i> with geminate cluster → <i>CvCa</i>		
	<i>tóllè</i>	<i>tòlá tòlà</i>	‘(bird) be perched’
	<i>tábbè</i>	<i>tàbá tàbà</i>	‘prop oneself (on sth, by hand)’
	c. <i>CvNCv</i> with nongeminate cluster → <i>CvNCa</i>		
	<i>bàngè</i>	<i>bàngá bàngà</i>	‘be leaning (one’s hand) on’
	<i>sómbè</i>	<i>sòmbá sòmbà</i>	‘be squatting’

The paradigm of the iterated stative is illustrated in (283). 1st/2nd person subject proclitics intervene between the two iterations. The second iteration has the same vocalic and tonal form as in the *bò* stative (preceding section), i.e. {L} except {HL} for 3Pl. The first iteration is {HL}, becoming {LH} in the 3Sg by Rightward Tone-Movement.

(283)	‘be lying down’	‘be squatting’
1Sg	<i>bí-yà ì bì-yà</i>	<i>sómbà ì sòmbà</i>
1Pl	<i>bí-yà í bì-yà</i>	<i>sómbà í sòmbà</i>
2Sg	<i>bí-yà = à bì-yà</i>	<i>sómbà = à sòmbà</i>
2Pl	<i>bí-yà = á bì-yà</i>	<i>sómbà = á sòmbà</i>
3Sg	<i>bì-yá bì-yà</i>	<i>sòmbá sòmbà</i>
3Pl	<i>bí-yà bí-yà</i>	<i>sómbà sómbà</i>

(284) shows that the iteration is treated as though still H-initial even in the tone-moved 3Sg form, so it triggers Dissimilatory Tone-Lowering in the preceding /LH/-melody noun *mòtó*.

- (284) *mòtò* *ʔigá* *ʔigà*
 motorcycle Iter stand.Stat.3SgSbj
 ‘A motorcycle is standing (there).’

10.4.1.3 Bare stative with *-wⁿ* (A-stem, perception verbs)

‘See’ and ‘hear’ have forms based on the A-stem that morphologically resemble both the (reduplicated or iterated) imperfective and the regular derived stative as described above. Since these verbs also occur in the reduplicated or iterated imperfective but have no (other) stative forms, and since their negative counterparts are stative in form, I classify them as a special type of stative. The morphology, however, is different from that of regular derived statives. There is no reduplication or iteration and no preposed *bò* morpheme, 1Sg/2Sg subject forms are {HL}-toned, there is a nasal suffix *-wⁿ* (or just nasalization of the vowel), and the 3Pl has a final suffix *-yà*. A similar morphology occurs with predicative adjectives in comparatives (§12.1.1), and in some imperfective predicates (§17.2.2.2).

(285) Bare stative of perception verbs

	‘see’	‘hear’
1Sg	<i>ʔ tégà-wⁿ</i>	<i>ʔ nùndà-wⁿ</i>
1Pl	<i>ʔ tégà-wⁿ</i>	<i>ʔ nùndà-wⁿ</i>
2Sg	<i>à tégà-wⁿ</i>	<i>à nùndà-wⁿ</i>
2Pl	<i>á tégà-wⁿ</i>	<i>á nùndà-wⁿ</i>
3Sg	<i>tégà-wⁿ</i>	<i>nùndà-wⁿ</i>
3Pl	<i>tégà-(w)ⁿ-yà</i>	<i>nùndà-(w)ⁿ-yà</i>

These forms of ‘see’ and ‘hear’ are used in present-tense contexts rather like English general present *I see/hear*. For these verbs, the regular imperfective seems to have mainly future sense, as in *tè ʔ tégà* ‘I will see’.

The past morpheme *mbè* may be added (§10.5.1.5).

10.4.2 Stative negative (=*ndà*)

Conjugatable stative negative =*ndà* is added to the same A-stem verb as in the positive, but without stem-iteration or auxiliary *bò*. I use the clitic boundary =, which conveniently distinguishes the stative negative from *-ndà* suffixes (prohibitive, 3Pl imperfective negative). An example is *ʔèbà = ndà* ‘he/she is not sitting’. In the 1Sg and 2Sg forms, the stem has {HL} overlay. In remaining forms, it has {L} overlay. Negative forms of stative ‘see’ and ‘hear’ (preceding section) have similar paradigms.

(286) Negative of derived statives

	‘not be sitting’	‘not see’
1Sg	<i>ɨ̃ ʔébà = ndà</i>	<i>ɨ̃ tégà = ndà</i>
1Pl	<i>ɨ̃ ʔèbà = ndà</i>	<i>ɨ̃ tègà = ndà</i>
2Sg	<i>à ʔébà = ndà</i>	<i>à tégà = ndà</i>
2Pl	<i>á ʔèbà = ndà</i>	<i>á tègà = ndà</i>
3Sg	<i>ʔèbà = ndà-Ø</i>	<i>tégà = ndà-Ø</i>
3Pl	<i>ʔèbà = ndà-yà</i>	<i>tégà = ndà-yà</i>

The past morpheme *mbè* may be added (§10.5.1.5).

The stative negative enclitic is also used with stative forms of adjectives in comparatives (‘is not ADJ-er than ...’) (§12.1.1), and in *sà: = ndà* ‘not have’

10.5 Temporal clitics and particles

10.5.1 Past marker (*mbè* ~ *wè*)

The past particle is unconjugated, and follows an inflected verb. *mbè* is the form used after imperfective and stative positive verb forms, frequently with a final long *a:* on the preceding verb. *wè* (or H-toned *wé*) is used after perfective positive and all negative verb forms. *mbè* looks like a nasalized version of *wè*, suggesting that some morpheme *N or *Nv formerly intervened between the preceding inflected verb and the past morpheme. A likely suspect is past imperfective/stative *-m = bε. Several Dogon languages have a related past enclitic, either conjugated (e.g. Najamba and Ben Tey =bε-) or unconjugated (Ampari *wé*, perhaps Penange *yè*), and some of them have reflexes of past imperfective/stative *-m̃ = bε with the *-m̃ sometimes replaced by lengthening and falling tone on the stem-final vowel.

The past particle is not used to report simple events that were completed in the past (‘they ate’). The perfective aspect suffices for this purpose. Rather, the past particle shifts the entire deictic center to some time in the past. Imperfective becomes past imperfective (‘used to dance’), progressive becomes past progressive (‘was dancing’), stative becomes past stative (‘was sitting’), and perfective becomes past perfect (‘had danced’).

No cases of Rightward H-Spreading occur before *wè*, and under limited conditions this allomorph can be H-toned *wé* in the past perfect (§10.5.1.3). These facts suggest that the past morpheme may have originally been at least sometimes H-toned.

bò ‘be’ assimilates to the -ATR vowel of the past morpheme: *bǔ: mbè* ‘he/she/it was’.

10.5.1.1 Past imperfective (positive and negative)

In the past imperfective, the initial *Cv̂* reduplication in the nonpast counterpart is normally replaced by full-stem iteration, with final *u* on the first iteration, and {LH} as basic tone overlay, cf, interrogatives *lâ* (§13.2.1.1). Spillage occurred between past imperfective and past progressive senses in elicitation. My assistant preferred the latter. I assume that the past imperfective is at least possible in the senses ‘used to VP’ or ‘was going to/was about to VP’.

- (287) a. *ɲènnú ɲènná: mbè*
 Iter sweep.Ipfv.3SgSbj Past
 ‘He/She was sweeping (used to sweep).’ (< *ɲénnè*)
- b. *ʔálámá-gè sèlù sélá: mbè*
 sheep-Pl Iter slaughter.Ipfv.3PlSbj Past
 ‘They were slaughtering (=used to slaughter) sheep.’ (< *sélè*)
- c. *[námúgá-gè] gèwú ɲ gèwá: mbè*
 [snake-Pl] Iter 1PlSbj kill.Ipfv Past
 ‘We were killing (used to kill) snakes.’ (*gè:wè*)

The replacement of *Cv̂* reduplication by full-stem iteration does not occur in counterfactual conditional consequent clauses, see (535) below.

A past imperfective **negative** example is (288). As in the regular imperfective negative, there is no reduplication or iteration, just the verb (O/U-stem) plus suffix *-lò*.

- (288) *ɲ ɲènnó-lò wè*
 1SgSbj sweep-IpfvNeg Past
 ‘I was not sweeping (did not use to sweep).’

A sample positive and negative paradigm is in (289). In the positive, the tone of the second stem syllable (*la:*) is the most reliable acoustic clue distinguishing 1Sg and 2Sg from 1Pl and 2Pl. The tones of the first stem syllable (*se*) and of the final syllable of the reduplicant (*selu*) distinguish 3Sg from 3Pl. In the negative, singular and plural are multiply distinguished tonally in the 1st/2nd person forms. The 3Pl negative has the usual portmanteau *-ndà*.

- | (289) | ‘used to slaughter’ | ‘used to not slaughter’ |
|-------|---------------------------|-------------------------|
| 1Sg | <i>sèlú ɲ sèlà: mbè</i> | <i>ɲ séló-lò wé</i> |
| 1Pl | <i>sèlú ɲ sèlá: mbè</i> | <i>ɲ sèlò-lò wè</i> |
| 2Sg | <i>sèlá = à sèlà: mbè</i> | <i>à séló-lò wé</i> |
| 2Pl | <i>sèlá = á sèlá: mbè</i> | <i>á sèlò-lò wè</i> |
| 3Sg | <i>sèlú sèlá: mbè</i> | <i>séló-lò-Ø wé</i> |
| 3Pl | <i>sèlù sèlá: mbè</i> | <i>sélè-ndà wè</i> |

In the (positive) past imperfective, the unfocalized main-clause forms given above are based on the A-stem, which requires +ATR-compatible vocalism throughout the stem. In focalized clauses, and in relative clauses, the A-stem is replaced by the O/U-stem, which does not shift -ATR to +ATR vocalism. This applies to the (nonpast) imperfective as well. See §13.1.1.7 for focalized clauses, and §14.5.2 and §14.5.5 for relative clauses.

10.5.1.2 Past progressive (positive and negative)

For the regular progressive see §10.2.2.2 above. Examples of the past progressive with particle *ʔémbè* are in (290). As usual, *mbè* lengthens a preceding vowel.

- (290) a. *séydù ʔémbé jènná: mbè*
 Seydou Prog sweep.3SgSbj Past
 ‘Seydou was sweeping.’ (< *jénnè*)
- b. *núǵò ʔémbè núǵá: mbè*
 song Prog sing.3PlSbj Past
 ‘They were singing.’ (< *núǵè*)
- c. *ʔémbè ǵ jènná: mbè*
 Prog 1SgSbj sweep Past
 ‘I was sweeping.’
- d. [*wá:yà kún] bòmòká = à*
 [year all] Bamako=Loc
ʔémbè ǵ gè:ndá: mbè
 Prog 1SgSbj go Past
 ‘I was going (= used to go) to Bamako every year.’ (< *kúndú, gé:ndè*)

For the regular progressive negative with *ʔóri* ‘not be’, see §10.2.3.4. Positive and negative past progressive paradigms are in (291).

- | | | |
|-------|----------------------------|-------------------------|
| (291) | ‘was slaughtering’ | ‘was not slaughtering’ |
| 1Sg | <i>ʔémbè ǵ sèlá: mbè</i> | <i>sèlà ǵ ʔóri wè</i> |
| 1Pl | <i>ʔémbè ǵ sèlá: mbè</i> | <i>sèlà ǵ ʔòrì wè</i> |
| 2Sg | <i>ʔémbà = à sèlá: mbè</i> | <i>sèlà = à ʔóri wè</i> |
| 2Pl | <i>ʔémbà = á sèlá: mbè</i> | <i>sèlà = á ʔòrì wè</i> |
| 3Sg | <i>ʔémbé sèlá:-Ø mbè</i> | <i>sèlà ʔóri-Ø wè</i> |
| 3Pl | <i>ʔémbè sèlá: mbè</i> | <i>sèlà ʔóri-yà wè</i> |

10.5.1.3 Past perfect (positive and negative)

The construction that functions as past perfect ('had VPed'), taking the perspective of a given point in the past, is morphologically the combination of the perfective (E/I-stem in the positive, A-stem plus *-li* or 3Pl portmanteau *-ndi* in the negative) with the past enclitic, which in this case appears in the allomorph *wè* rather than *mbè*. Paradigms are in (292). After an {L}-toned verb, *wè* itself is tone-raised to *wé* (1Pl/2Pl forms, plus the 3Sg negative).

(292)		'had tied'		'had not tied'
	1Sg	<i>ɲ sɔ̀jè wè</i>		<i>ɲ sòjà:-li wè</i>
	1Pl	<i>ɲ sòjè wé</i>		<i>ɲ sòjà:-li wé</i>
	2Sg	<i>à sɔ̀jè wè</i>		<i>à sòjà:-li wè</i>
	2Pl	<i>á sòjè wé</i>		<i>á sòjà:-li wé</i>
	3Sg	<i>sɔ̀jè-Ø wè</i>		<i>sòjà:-li-Ø wé</i>
	3Pl	<i>sòjí-yè wè</i>		<i>sòjà:-ndi wè</i>

10.5.1.4 Past experiential perfect (positive and negative)

The past morpheme is added to the (nonpast) experiential perfect, with the addition of the past morpheme, hence *bɔ́: mbè* 'was' for *bò* 'be', and of *ʔóri wè* 'was not' for *ʔóri* 'is not'.

(293)	<i>nígè</i>	<i>tègó-nà</i>	<i>wélè:</i>	<i>bɔ́:</i>	<i>mbè</i>
	elephant	see-VblN	ExpPrf	be.3SgSbj	Past
	'He/She had (once) seen an elephant.'				

10.5.1.5 Past stative (positive and negative)

Examples of the past stative, derived from an active verb, are (294), compare nonpast *ʔèbá* *ʔèbà* 'he/she is sitting' (§10.4.1.2). The final vowel is lengthened before *mbè* in the positive.

(294)	a.	<i>séydù</i>	<i>ʔèbá</i>	<i>ʔèbá:</i>	<i>mbè</i>
		Seydou	Iter	sit.Stat.3SgSbj	Past
		'Seydou was sitting.'			
	b.	<i>ʔèbà = ndà-Ø</i>	<i>wé</i>		
		sit=StatNeg-3SgSbj	Past		
		'He was not sitting.'			

A sample paradigm is (295)

(295)	positive	negative
1Sg	<i>ʔébà ñ ʔébà: mbè</i>	<i>ñ ʔébà = ndà wé</i>
1Pl	<i>ʔébà ñ ʔèbá: mbè</i>	<i>ñ ʔébà = ndà wé</i>
2Sg	<i>ʔébà = à ʔébà: mbè</i>	<i>à ʔébà = ndà wé</i>
2Pl	<i>ʔébà = á ʔèbá: mbè</i>	<i>á ʔébà = ndà wé</i>
3Sg	<i>ʔèbá ʔèbá: mbè</i>	<i>ʔèbà = ndà wé</i>
3Pl	<i>ʔébà ʔébà: mbè</i>	<i>ʔébà = ndà wé</i>

Stative quasi-verbs not derived from active verbs are exemplified in (296).

(296)	gloss	regular	Past
	positive		
	‘be (somewhere)’	<i>bò</i>	<i>bǒ: mbè</i>
	‘have’	<i>bò sà</i>	<i>bò sǎ: mbè</i>
	‘want’	<i>kàyⁿ</i>	<i>kàyⁿ mbé</i>
	‘know’	<i>ʔèyⁿ</i>	<i>ʔèyⁿ mbé</i>
	negative		
	‘not be’	<i>ʔóri</i>	<i>ʔóri wè</i>
	‘not have’	<i>sà: = ndà</i>	<i>sà: = ndà wé</i>
	‘not want’	<i>kà:-là</i>	<i>kà:-là wé</i>
	‘not know’	<i>ʔìndò</i>	<i>ʔìndò wé</i>

Statives with *-wⁿ ~ -yⁿ* have similar past forms with *mbè* (297). The *-wⁿ ~ -yⁿ* is usually not separately audible before the nasal of *mbè*.

(297)	nonpast	past	gloss of past
	a. comparative adjectival predicate (§12.1.1)		
	<i>ñ gólè-yⁿ</i>	<i>ñ gólè(-yⁿ) mbè</i>	‘I was taller’
	<i>ñ gólè = ndà</i>	<i>ñ gólè = ndà mbè</i>	‘I was not taller’
	b. bare stative of perception verb (§10.4.1.3)		
	<i>ñ tégà-wⁿ</i>	<i>ñ tégà(-wⁿ) mbè</i>	‘I saw (=could see)’
	<i>ñ tégà = ndà</i>	<i>ñ tégà = ndà mbè</i>	‘I didn’t (=couldn’t) see’

10.5.1.6 Past capacitative (positive and negative)

mbè may be added to the capacitative (§10.7): *dùnjùró-mò-Ø mbè* ‘he/she could push’, *dùnjùró-mà = ndà-Ø wé* ‘he/she could not push’.

10.5.2 ‘Still’, ‘up to now’, ‘(not) yet’

For ‘still’, an expression with *fǎ*→ ‘all the way to/until’ (§15.3.3) plus ‘today’ or the like is used (298a). ‘(Not) yet’ is adverb *táfǎ*ⁿ is used after a negative predicate. Cognates of *táfǎ*ⁿ occur widely in western Dogon, suggesting a fairly old borrowing from Fulfulde *tafo*.

- (298) a. *[kèmnò nɔ]* *[fǎ→ jòwⁿ]* *wólì* *wàlú-mò-Ø*
 [old Def] [until today] farming(n) do.farming-Capac-3SgSbj
 ‘The old person can still do farm work.’
- b. *jí* *ḡ* *já:-li* *táfǎⁿ*
 food 1SgSbj eat-PfvNeg yet
 ‘I haven’t eaten yet.’

10.6 Directional verbs (perfective *-yè* ~ *-yè*, imperfective *-yà*)

A verbal derivation with suffix *-yè* ~ *-yè* (perfective) or *-yà* (imperfective) has the sense ‘go and VP’. The suffix may be related to cognates meaning ‘go’, e.g. Jamsay and Tommo So *yǎ*:. However, the only western Dogon language that has a ‘go’ verb similar to those of Jamsay and Tommo So is Tebul Ure, which has a suppletive paradigm that combines this verb (*yǎy-yà* perfective, *yà-dá* imperative) with another ‘go’ verb *ó-* ~ *ò-* (other categories). The Bunoge verb ‘go’ is the unrelated *gé:ndè*.

Only a few Bunoge verbs could be elicited with the directional ending. Examples are in (299a-d). Rightward H-Movement occurs in the word before the 3Sg form, as in (299b).

- (299) a. *bó-lò* *ḡ* *bí:-yá:-yà*
 there-Loc 1SgSbj lie.down-MP-Direc.Ipfv
 ‘I will go there and lie down (to sleep).’
- b. *bò-ló* *bì:-yá:-yà*
 there-Loc lie.down-MP-Direc.Ipfv.3SgSbj
 ‘He/She will go there and lie down (to sleep).’
- c. *pánángè* *à* *jâ:-yà^t*
 meal 2SgSbj eat-Direc.Ipfv
 ‘Will you-Sg go eat a meal?’
- c. *mèrègé* *mèràlà-yè*
 fun have.fun-Direc.Pfv.3SgSbj
 ‘He/She went and had fun.’

A textual example is *?émbà sélá:-yè* ‘then they went and slaughtered’ T2015- @ 00:29.

Sample imperfective paradigms are in (300). The reduplication (*bì, mè*) is omitted if there is a focalized preverbal constituent.

(300) Imperfective paradigms of directional derivatives

	‘go lie down’	‘go have fun’
1Sg	<i>bì ñ bí:-yá:-yà</i>	<i>mè ñ mérálá:-yà</i>
1Pl	<i>bì ñ bì:-yá:-yà</i>	<i>mè ñ mèràlá:-yà</i>
2Sg	<i>bà = à bí:-yà:-yà</i>	<i>mà = à mérálá:-yà</i>
2Pl	<i>bà = á bì:-yá:-yà</i>	<i>mà = á mèràlá:-yà</i>
3Sg	<i>bì bì:-yá:-yà</i>	<i>mè mèràlá:-yà</i>
3Pl	<i>bì bí:-yá:-yà</i>	<i>mè mérálá:-yà</i>

Sample perfective paradigms are in (301). The lengthening of the vowel before *-yè* is optional in the perfective.

(301) Perfective paradigms of directional derivatives

	‘go lie down’	‘go have fun’
1Sg	<i>ñ bí:-yá:-yè</i>	<i>ñ mérálá:-yè</i>
1Pl	<i>ñ bì:-yà:-yè</i>	<i>ñ mèràlà:-yè</i>
2Sg	<i>à bí:-yá:-yè</i>	<i>à mérálá:-yè</i>
2Pl	<i>á bì:-yà:-yè</i>	<i>á mèràlà:-yè</i>
suffixed third person		
3Sg	<i>bì:-yá:-yè-Ø</i>	<i>mèràlá:-yè-Ø</i>
3Pl	<i>bì:-yá:-y-yè</i>	<i>mèràlá:-y-yè</i>
unaffixed third person		
3Sg	<i>bì:-yà:-yè</i>	<i>mèràlà:-yè</i>
3Pl	<i>bì:-yá:-yè</i>	<i>mèràlá:-yè</i>

In perfective contexts, this morphological construction competes with the perfective-chain construction (§15.1.1), with the first verb *gé:ndè* ‘go’.

- (302) [*bó-lò ñ gé:ndè*] [*ñ bí:-yè*]
 [there 1SgSbj go.Pfv] [1SgSbj lie.down-MP.Pfv]
 ‘I went there and lay down (to sleep).’

See also the remarks on *té:jè* ‘look’ in §9.7.

10.7 Capacitative (-mò ‘can’)

The suffix *-mò* is added to the O/U-stem of the verb. The form is stative. The sense is ‘can VP, is able to VP’. The vowel of *-mò* is not subject to ATR harmony.

(303)	gloss	perfective (3Sg)	capacitative (3Sg)
	a. monosyllabic		
	‘go in’	<i>dê:</i>	<i>dó:-mò</i>
	‘draw water’	<i>nî:</i>	<i>jú:-mò</i>
	b. bisyllabic		
	‘touch’	<i>nárè</i>	<i>nàró-mò</i>
	‘dance’	<i>yóbè</i>	<i>yòbò-mò</i>
	‘catch’	<i>débè</i>	<i>débo-mò</i>
	‘do’	<i>káni</i>	<i>kànú-mò</i>
	‘build’	<i>símì</i>	<i>símú-mò</i> ~ <i>sím-mò</i> (syncopated)
	‘go up’	<i>?ólè</i>	<i>?òlló-mò</i>
	‘shave’	<i>ká:yè</i>	<i>kà:yó-mò</i>
	‘run’	<i>dú:nì</i>	<i>dù:nú-mò</i>
	‘taste’	<i>dá:ndè</i>	<i>dà:ndó-mò</i>
	c. trisyllabic and longer		
	‘push’	<i>dúnjùrè</i>	<i>dùnjùró-mò</i>
	‘roll (tr)’	<i>gùndúló-mì</i>	<i>gùndùlǒ-m-mò</i> (syncopated)

The paradigm is (304). Negative *-mà = ndà* ends in the conjugatable stative negative morpheme (§10.4.2). Singular pronominals have {LHL} overlay on the verb, including the suffix. 1P/2P have {L}, 3P has {HL}. The tones are similar to those of statives (§10.4.1.1) allowing for the bisyllabic bias of statives.

(304)	‘can push’	‘cannot push’
1Sg	<i>ɲ dùnjùró-mò</i>	<i>ɲ dùnjùró-mà = ndà</i>
1Pl	<i>ɲj dùnjùrò-mò</i>	<i>ɲj dùnjùrò-mà = ndà</i>
2Sg	<i>à dùnjùró-mò</i>	<i>à dùnjùró-mà = ndà</i>
2Pl	<i>á dùnjùrò-mò</i>	<i>á dùnjùrò-mà = ndà</i>
3Sg	<i>dùnjùró-mò-Ø</i>	<i>dùnjùró-mà = ndà-Ø</i>
3Pl	<i>dúnjùró-mò-yà</i>	<i>dúnjùró-mà = ndà-yà</i>

Perhaps related etymologically to the capacitative suffix is an isolated stative verb *?imà* attested only in *yé ?imà* ‘what one can’ (in contexts like ‘I’ll do what I can, I’ll do my best’).

10.8 Imperatives and hortatives

10.8.1 Imperatives and prohibitives

10.8.1.1 Imperative (unsuffixed A/O-stem, plural A-stem plus *-yⁿ*)

For final-nonhigh-vowel verb stems (the majority), the singular-addressee positive imperative consists of the **A/O-stem** of the verb, with stem-wide {L} overlay. The corresponding plural-addressee positive imperative is the **A-stem** with {HL} plus suffix *-yⁿ* (which falls within the L-toned portion of the word). Both the A/O-stem and the A-stem require that nonfinal -ATR vowels shift to +ATR.

(305) Imperative of final-nonhigh-vowel stems

gloss	Sg addressee	Pl addressee
a. A/O-stem ends in <i>o</i>		
<i>prosodically light</i>		
‘go out’	<i>gò</i>	<i>gâ-yⁿ</i>
‘come’	<i>ʔègò</i>	<i>ʔégâ-yⁿ</i>
‘go down’	<i>sìgò</i>	<i>sígâ-yⁿ</i>
<i>heavy bisyllabic</i>		
‘fly away’	<i>pìllò</i>	<i>píllâ-yⁿ</i>
‘winnow in wind’	<i>pò:lò</i>	<i>pó:lâ-yⁿ</i>
‘bring’	<i>sò:ŋgò</i>	<i>só:ŋgâ-yⁿ</i>
<i>trisyllabic</i>		
‘push’	<i>dùnjùrò</i>	<i>dúnjúrâ-yⁿ</i>
b. A/O-stem ends in <i>a</i>		
<i>prosodically light, -ATR</i>		
‘pound’	<i>dà</i>	<i>dâ-yⁿ</i>
‘slaughter’	<i>sèlà</i>	<i>sélâ-yⁿ</i>
<i>prosodically light, +ATR with penult a</i>		
‘beat’	<i>bàla</i>	<i>bálâ-yⁿ</i>
<i>heavy bisyllabic, -ATR</i>		
‘dispossess’	<i>bèl-là</i>	<i>bél-lâ-yⁿ</i>
<i>heavy bisyllabic, +ATR with penult a</i>		
‘shave’	<i>kà:yà</i>	<i>ká:yâ-yⁿ</i>
‘carry on back’	<i>bàmbà</i>	<i>bámbâ-yⁿ</i>
‘taste’	<i>dà:ndà</i>	<i>dá:ndâ-yⁿ</i>
<i>trisyllabic, -ATR</i>		
‘open (door)’	<i>dèŋù-là</i>	<i>déŋú-lâ-yⁿ</i>
<i>trisyllabic, +ATR with nonfinal a</i>		
‘cut, chop’	<i>pàrà-gà</i>	<i>pára-gâ-yⁿ</i>

Final-high-vowel stems divide into one set (bisyllabics with *a*-vowel in the penult) whose singular imperatives end in *a*, and a broader set (monosyllabics, bisyllabics with high-vowel in the penult, and causatives) that have singular imperatives with final *u*. The *u* is not always audible in causative *-mu*. The plural-addressee imperative is formed in the same way as that for final-nonhigh-vowels, i.e. by adding *-yⁿ* to A-stem with {LHL} overlay, reduced to {HL} for prosodically light stems.

(306) Imperative of final-high-vowel stems

gloss	Sg addressee	Pl addressee
a. imperative ends in <i>a</i>		
<i>bisyllabic with penultimate a</i>		
‘do’	<i>kàná</i>	<i>kánà-yⁿ</i>
b. imperative ends in <i>u</i> (Sg)		
<i>monosyllabic</i>		
‘draw water’	<i>ɲù</i>	<i>ɲâ-yⁿ</i>
<i>bisyllabic with penultimate high vowel</i>		
‘build’	<i>sìmù</i>	<i>símà-yⁿ</i>
‘run’	<i>dù:nù</i>	<i>dú:nà-yⁿ</i>
<i>causative</i>		
‘roll (tr.)’	<i>gùndùlò-m(ù)</i>	<i>gùndùlò-mà-yⁿ</i>

Idiosyncratically, *tábè* ‘give’ has an imperative *tàbù* rather than the expected *#tàbà*.

The direct object of a transitive verb has accusative marking under the same conditions as in indicative clauses.

- (307) a. *[ʔínjé nò ɲù]* *númbè-Ø*
 [dog Def Acc] hit.Pfv-3SgSbj
 ‘He/She hit the dog.’
- b. *[ʔínjé nò ɲú]* *nùmbò*
 [dog Def Acc] hit.Imprt
 ‘Hit-2Sg the dog!’

Short spatial adverbs like ‘here’ and ‘there’ that normally precede verbs (308a) can appear after the imperative verb (308b). French translation cues may be an influence, but (308b) is clearly in use. Fuller adverbial phrases still precede (308c).

- (308) a. *bó-lò* *gê:-Ø*
 there-Loc go.out.Pfv-3SgSbj
 ‘He/She got away from there.’

- b. *gò* *bó-lò*
 go.out.Imprt there-Loc
 ‘Get-2Sg away from there!’ (also: *bó-ló gò*)
- c. *[[ʔòbò ná]=à]* *gò*
 [[house Def]=Loc] go.out.Imprt
 ‘Get-2Sg out of the house!’

10.8.1.2 Prohibitive (A-stem plus *-ndà*, plural *-ndà-yⁿ*)

The prohibitive (negative imperative: ‘don’t!’) for singular addressee adds suffix *-ndà* to the A-stem with {HL} overlay, the final L expressed on the suffix. Plural-addressee prohibitives add *-yⁿ* to the singular and have the same {HL} overlay.

(309) Prohibitives

gloss	Sg addressee	Pl addressee
a. final-nonhigh-vowel verbs		
‘pound’	<i>dá:-ndà</i>	<i>dá:-ndà-yⁿ</i>
‘come’	<i>?égá-ndà</i>	<i>?égá-ndà-yⁿ</i>
‘go down’	<i>sígá-ndà</i>	<i>sígá-ndà-yⁿ</i>
‘shave’	<i>ká:yá-ndà</i>	<i>ká:yá-ndà-yⁿ</i>
‘winnow’	<i>pó:lá-ndà</i>	<i>pó:lá-ndà-yⁿ</i>
‘bring’	<i>só:ngá-ndà</i>	<i>só:ngá-ndà-yⁿ</i>
‘push’	<i>dúnjúra-ndà</i>	<i>dúnjúra-ndà-yⁿ</i>
b. final-high-vowel verbs		
‘draw water’	<i>ná:-ndà</i>	<i>ná:-ndà-yⁿ</i>
‘do’	<i>káná-ndà</i>	<i>káná-ndà-yⁿ</i>
‘build’	<i>símá-ndà</i>	<i>símá-ndà-yⁿ</i>
‘run’	<i>dú:ná-ndà</i>	<i>dú:ná-ndà-yⁿ</i>
‘roll (tr.)’	<i>gúndúló-má-ndà</i>	<i>gúndúló-má-ndà-yⁿ</i>

10.8.2 Hortatives

10.8.2.1 Hortative (*-yⁿ*)

I did not find a distinction between singular-addressee and plural-addressee hortatives (‘let’s VP!’). The invariant form elicited for each verb has *-yⁿ* suffix. For nonmonosyllabics, the suffix is added to the E/I-stem, i.e. to {*e ε*} for most verbs, but to *i* for the final-high-vowel class (unless the penult has *a*). For monosyllabics, the suffix is added to the A-stem, the stem-

vowel being lengthened. The tone overlay, including the suffix $-\dot{y}^n$, is {LHL} after H-toned 1Pl proclitic $\dot{ɲ}$. If the first L is attributed to dissimilation from the H-toned proclitic, the overlay can be represented as L+{HL}.

(310) Hortatives

gloss

a. final-nonhigh-vowel class

monosyllabic

‘pound’ $\dot{ɲ} \text{d}ä:-\dot{y}^n$

‘eat’ $\dot{ɲ} \text{j}ä:-\dot{y}^n$

nonmonosyllabic

‘come’ $\dot{ɲ} \text{èg}é-\dot{y}^n$

‘go down’ $\dot{ɲ} \text{sìg}é-\dot{y}^n$

‘dance’ $\dot{ɲ} \text{y}ðbé-\dot{y}^n$

‘leave (sth)’ $\dot{ɲ} \text{m}èŋé-\dot{y}^n$

‘bring’ $\dot{ɲ} \text{sò:ŋg}é-\dot{y}^n$

‘push’ $\dot{ɲ} \text{dùnjù}é-\dot{y}^n$

‘cut’ $\dot{ɲ} \text{pàrà-g}é-\dot{y}^n$

b. final-high-vowel class

monosyllabic

‘draw water’ $\dot{ɲ} \text{n}ě:-\dot{y}^n$

bisyllabic with penultimate a

‘do’ $\dot{ɲ} \text{kàné}-\dot{y}^n$

bisyllabic with penultimate high vowel

‘run’ $\dot{ɲ} \text{dù:ní}-\dot{y}^n$

causative

‘roll (tr.)’ $\dot{ɲ} \text{gùndùlò-mí}-\dot{y}^n$

10.8.2.2 Hortative negative

This combination is not common, but with effort (311) was elicited. In form it is a plural-addressee prohibitive with 1Pl subject, which adds an L-tone to the onset of the verb. My assistant indicated that the form does not depend on the number of addressees.

- (311) $\dot{ɲ}$ dù:nâ-ndâ-y^n
 1PlSbj run-Proh-PlAddr
 ‘Let’s not run!’

10.8.3 Non-first-person hortatives

10.8.3.1 Quoted imperative (U-stem) in quoted imperatives

A quoted imperative (**QuotImprt**) verb form is used in quoted imperatives ('They told me/you/Seydou to come'). The verb is in the **U-stem**.

There are two constructions. In one (312a), the original addressee is expressed as the object of 'say', and the jussive clause contains the QuotImprt verb plus suffix *-yè ~ -yè* (312a), compare English *X told me [to go]*. In the other (312b-d), 1st/2nd person proclitic subject pronouns are directly combined with the U-stem verb, compare English *X said [for me to go]* or *X said [that I should go]*. Rightward H-Movement has affected the verbs in (312a-b,d) before an L-tone. The underlying tone is retained in (312c) *ɲénnù*.

- (312) a. *mì-ɲgú* *ɲènnù-yé* *ʔùnè*
 1Sg-Acc sweep-QuotImprt say.Pfv.3SgSbj
 'He/She told me to sweep.'
- b. *[ɲ]* *ɲènnú]* *ʔùnè*
 [1SgSbj sweep.QuotImprt] say.Pfv.3SgSbj
 'He/She told me to sweep.'
- c. *[ɲ]* *ɲénnù]* *ʔúnè*
 [1SgSbj sweep.QuotImprt] say.Pfv.3PISbj
 'They told me to sweep.'
- d. *[[námà nò]* *ɲ* *sèlà-gú]* *ʔùnè*
 [[meat Def] 1SgSbj cut-Caus.QuotImprt] say.Pfv.3SgSbj
 'He/She told me to cut the meat.'

For more on the syntax and for further examples see §17.1.4.1. In type (312a), there is no pronominal-subject paradigm for the QuotImprt verb. In the construction type (312b-d), the paradigm for 'cut' is (313). A following 3Sg *ʔùnè* 'he/she said' induces Rightward H-Movement of *séla-gù* to *sèlà-gú* as in (312d).

(313) subject	QuotImprt
1Sg	<i>ɲ séla-gù</i>
1Pl	<i>ɲj sèlà-gù</i>
2Sg	<i>à séla-gù</i>
2Pl	<i>á sèlà-gù</i>
3Sg	<i>sèlà-gù</i>
3Pl	<i>séla-gù</i>

More 3Sg subject examples of the quoted imperative without *-yè* ~ *-yè* are in (314), in the L-toned form used with 3Sg and 1Pl/2Pl subjects, alongside the 3Sg perfective citation form.

(314)		perfective 3Sg	QuotImprt (1Pl/2Pl and 3Sg)
	‘come’	<i>ʔégè</i>	<i>ʔègù</i>
	‘dig’	<i>gɔ́jè</i>	<i>gɔ̀jù</i>
	‘go down’	<i>sígè</i>	<i>sìgù</i>
	‘do farming’	<i>wálè</i>	<i>wàlù</i>
	‘sleep’	<i>dó:yè</i>	<i>dò:yù</i>
	‘kill’	<i>gé:wè</i>	<i>gè:wù</i>
	‘carry’	<i>dú-yyè</i>	<i>dù-yyù</i>

Further examples of the unconjugated variant quoted imperative form with *-yè* ~ *-yè* are in (315), alongside the 3Sg perfective citation form. The stem-final *u* is subject to syncope after some unclustered consonants (§3.4.2.2), and the resulting *Cy* cluster may undergo *y*-Assimilation (§3.4.4.1). Monosyllabics have forms *Cu-yye/-yye* or *Ci:-ye/-ye* (arguably *Ci-yye/-yye*).

(315)		perfective 3Sg	QuotImprt
	a. final-nonhigh-vowel		
	-ATR		
	‘sing’	<i>núnjè</i>	<i>nùnjù-yè</i>
	‘dig’	<i>gɔ́jè</i>	<i>gɔ̀j-jè</i> (syncopated)
	‘sweep’	<i>ɲénnè</i>	<i>ɲènnù-yè</i>
	+ATR		
	‘come’	<i>ʔégè</i>	<i>ʔèg-gè</i> (syncopated)
	‘go down’	<i>sígè</i>	<i>sìg-gè</i> (syncopated)
	‘go’	<i>gé:ndè</i>	<i>gè:n-dè</i> (syncopated)
	<i>a-vowel type</i>		
	‘do farming’	<i>wálè</i>	<i>wàlù-yè</i>
	<i>monosyllabic, -ATR</i>		
	‘eat (meal)’	<i>jé:</i>	<i>jì:-yè</i> (or <i>jìy-yè</i>)
	<i>monosyllabic, +ATR</i>		
	‘go out’	<i>gê:</i>	<i>gù-yyè</i>
	b. final-high-vowel		
	<i>high-vowel type</i>		
	‘build’	<i>símì</i>	<i>sìmù-yè</i>
	<i>a-vowel type</i>		
	‘do’	<i>kánì</i>	<i>kànù-yè</i>
	<i>monosyllabic</i>		
	‘draw water’	<i>ɲî:</i>	<i>ɲù-yyè</i>

10.8.3.2 Quoted prohibitive (-ndà)

Quoted prohibitives (‘He told me not to come’), are expressed with the regular prohibitive verb form (‘Don’t come!’) plus pronominal-subject inflection. The paradigm is (316). The 3Pl subject form in the left column resists Rightward H-Movement and therefore remains distinct from the 3Sg subject form. The two are distinguished in the right column by the tone of the first syllable. See §17.1.4.1 for more clause-level examples.

(316)		‘He/She told __ not to come.’		‘They told __ not to come.’	
	1Sg	<i>ɲ ʔègà-ndá</i>	<i>ʔùnè</i>	<i>ɲ ʔégá-ndà</i>	<i>ʔúnè</i>
	1Pl	<i>ɲ ʔègà-ndà</i>	<i>ʔùnè</i>	<i>ɲ ʔègà-ndà</i>	<i>ʔúnè</i>
	2Sg	<i>à ʔègà-ndá</i>	<i>ʔùnè</i>	<i>à ʔégá-ndà</i>	<i>ʔúnè</i>
	2Pl	<i>á ʔègà-ndà</i>	<i>ʔùnè</i>	<i>á ʔègà-ndà</i>	<i>ʔúnè</i>
	3Sg	<i>ʔègà-ndá</i>	<i>ʔùnè</i>	<i>ʔégá-ndà</i>	<i>ʔúnè</i>
	3Pl	<i>ʔégá-ndá</i>	<i>ʔùnè</i>	<i>ʔégá-ndà</i>	<i>ʔúnè</i>

The underlying tonal form of the prohibitive is clearer in the ‘They told’ combinations (right-hand column). In the ‘He/She told’ combinations on the left, Rightward H-Movement shifts the H-tone onto the suffix before the initial L-tone of ‘said’. This applies to the 1Sg, 2Sg, and 3Sg forms, which are based on *ʔégá-ndà* as in (unquoted) ‘don’t come!’ (singular addressee). The 1Pl and 2Pl forms have {L} overlay, as in several inflectional categories. The 3Pl is based on *ʔégá-ndà*, with {HL} overlay. This is tonally consistent with the unquoted plural-addressee prohibitive, e.g. *ʔégá-ndà-yⁿ*, but plural-addressee suffix *-yⁿ* is absent.

11 Clause, VP, and predicate structure

11.1 Clausal constituents

Linear order is SOV and generally predicate-final except for subordinators (§2.5). Postverbal constituents occur in some of my elicited examples, perhaps influenced by French cues. Of course afterthoughts are also possible and would follow the main clause including the predicate. Temporal-setting adverbs like ‘yesterday’ are typically clause-initial, preceding even a nonpronominal subject NP.

11.1.1 Subjects

11.1.1.1 Subjects in indicative main clauses

Subject NPs have the following characteristics in indicative main clauses:

- (317)
- a. zero case-marking on subject NPs (contrast accusative objects, PPs);
 - b. pronominal-subject agreement (proclitics, suffixes, tones) on the predicate;
 - c. distinctive verb-participles for subject focalization (§13.1.1.4) and relativization (§14.5);
 - d. the clausemate subject is the antecedent for reflexives and reciprocals (§18.1, §9.5).

11.1.1.2 Subjects in relative and other subordinated clauses

There is a distinction between subject and nonsubject relatives. There is no difference in the form of the internal head NP in the two constructions. However, the form of the verb-participle differ from one to the other. Subject relatives like ‘the man who hit the dog’ have verb-participles that lack the pronominal-subject agreement (1st/2nd person proclitics, 3Pl suffix) that occur in main clauses, though they resemble the zero 3Sg forms. Nonsubject relatives do have subject agreement. See chapter 14 for details.

The main clause-linking constructions that denote sequenced events (‘went and sat’, ‘will go and sit’) are compatible with both same-subject and different-subject relationships between the two clauses (§15.1.1-2). However, imperfective subordinators expressing temporal overlap of background and foreground events do make this distinction (§15.2.1.2-3).

When the complement is limited to a VP, expressed as a verbal-noun complement, the logical subject of the complement is coindexed with either the main-clause subject (‘dare to VP’, ‘consent to VP’, ‘want to VP’, ‘forget to VP’, ‘be afraid to VP’, ‘begin to VP’, ‘cease to

VP’) or with some other main-clause NP (‘prevent X from VPing’, ‘help X to VP’). See §17.3 for details.

11.1.1.3 Subjects of imperative and hortative verbs

Imperatives have subject-addressees. The addressee category (2Sg, 2Pl) is marked by presence or absence of plural-addressee suffix *-yⁿ*. In Bunoge, unlike some other Dogon languages, there is no clear evidence that the addressee is not also a true syntactic subject. Imperatives can bind ‘head’ reflexive objects, like indicative-clause subjects (318a-b).

- (318) a. *[[kó: nà] ñ] númbè-Ø*
 [[head 3SgPoss] Acc] hit.Pfv-3SgSbj
 ‘He hit himself.’
- b. *[[à ^{HL}kô:] ñgú] nùmbò*
 [[2SgPoss ^{HL}head] Acc] hit.Imprt
 ‘Hit-2Sg yourself!’

Similarly, reciprocal verbs have imperative forms (319a-b).

- (319) a. *númbó-g-gè*
 hit-Recip.Pfv-3PlSbj
 ‘They hit each other.’
- b. *númbó-gà-yⁿ*
 hit-Recip.Imprt-PlAddr
 ‘Hit-2Pl each other!’

11.1.1.4 Subjects of lexicalized subject-verb combinations

Lexicalized combinations of a subject noun (often of low referentiality) and a verb are common in connection with meteorological or seasonal processes and transitions. One verb that recurs is *wá:yè* ‘be depleted, be used up’ (320). The noun *bé* in (320) has nothing to do with *bé* ‘child’; rather it belongs to a class of nouns in Dogon languages denoting time-of-day or seasonal transitions, some of which are cognate (Yanda Dom *bà nǎ*; Yorno So *bá: éjè*, and Donno So *bâ: yâ*: all mean ‘day break’). Given the semantics of *wá:yè*, one infers that *bé* in (320) means ‘night’ or ‘the wee hours’.

(320) with *wá:yè* ‘be depleted’

- bé wá:yè* ‘day break’
yénà wá:yè ‘rainy season end (c. October-November)’

tómbè ‘console’ elsewhere denotes the soft, purring sound of a mother consoling a weeping child. In (321) it suggests gradual (rather than abrupt) seasonal transitions. *yénà* is ‘rainy season’, and *yénà*^{HL} *wá:yó-nà* ‘the depletion (=end) of the rainy season’ contains the verbal noun of *wá:yè* (cf. above), though the combination of a possessor (*yénà*) and a 3Sg possessor form with *-nà* is irregular.

(321) with *tómbè* ‘console’

<i>[yénà nò] tómbè</i>	‘rainy season approach (c. May)’
<i>[yénà</i> ^{HL} <i> wá:yó-nà] tómbè</i>	‘rainy season be near its end’ (“rainy.season’s depletion console”)

Some other subject-verb collocations are in (322). *ji:* elsewhere means ‘draw water (at a well)’. *[ʔáyà*^{HL} *gírè] té:jè* is literally ‘[rain’s eye] look(s)’. *sígè* means ‘descend’, here denoting the full force of the monsoonal rains.

(322) <i>ʔáyà ji:</i>	‘rain fall’
<i>[ʔáyà</i> ^{HL} <i> gírè] té:jè</i>	‘lightning flash (v)’
<i>yénà sígè</i>	‘be (mid-)rainy season (c. July)’ (“rainy.season descend”)

Similar collocations involving the verb *káni* ‘do’ or ‘be done’ are in (333) in §11.1.2.2 below.

Emotion expressions are often of similar type in Dogon languages, with a noun like ‘liver’ (seat of the emotions) in possessed form or as a pseudo-subject alongside a real subject. However, some basic emotion expressions in Bunoge are not of this syntactic type. In (323a), the human experiencer is a direct object. In (323b), he or she is subject of an intransitive verb.

(323) a.	<i>[X ŋgù] dénjè-Ø</i>	‘X is happy.’ (lit. “it pleased X”)
b.	<i>X kólè-Ø</i>	‘X become sad/angry.’
	<i>X kólé: bò</i>	‘X is sad/angry.’ (3Pl <i>kólé: bô:</i>)

However, there is at least one bodily expression for an emotion. (324) denotes a more powerful disappointment or sadness. *dòngò-bè* ‘heart’ rather than *kìndà* ‘liver’ is the possessed noun. Compare English *heartbroken*.

(324)	<i>[sé:dù</i>	^{HL} <i>dòngò-bè</i>	<i>nò]</i>	<i>ńámì-Ø</i>
	[S	^{HL} heart	Def]	be.damaged.Pfv-3SgSbj
	‘Seydou is devastated.’			

‘X’s nose bleed(s)’ is expressed by a combination of a possessed noun ‘nosebleed’ (unpossessed form *kíná-n-dùrù*), probably functioning as object rather than as secondary subject, and a true human subject. The verb means ‘cause to drip’.

- (325) a. *[ɨ̃* ^{HL}*kínà-n-dùrù]* *ɨ̃* *tégá-mì*
 [1SgPoss ^{HL}**nosebleed**] 1SgSbj drip-Caus.Pfv
 ‘I had a nosebleed.’
- b. *[bé:-gè nò]* *[âɨ̃* ^{HL}*kínà-n-dùrù]* *tégá-m-mè*
 [child-Pl Def] [3PlPoss ^{HL}**nosebleed**] drip-Caus.Pfv-3PlSbj
 ‘The children had nosebleeds.’

11.1.2 Simple transitives

11.1.2.1 Direct objects of simple transitives

Impact verbs like ‘cut’, ‘break/snap’, ‘make’, ‘cut’, and ‘kill’ are canonical transitives. Accusative *ɨ̃gù ~ ɨ̃gú* marks direct objects, especially when human and referentially specific. It is often reduced to *ɨ̃ ~ ɨ̃* in allegro speech, and it is not obligatory with nonspecific or nonhuman NPs. Objects regularly follow nonpronominal subject NPs.

- (326) a. *[bé:-gè nò]* *[ʔálamà nò (ɨ̃gù)]* *sél-yè*
 [child-Pl Def] [sheep Def (Acc)] slaughter.Pfv-3PlSbj
 ‘The young people slaughtered the sheep-Sg.’
- b. *[sé:dù ɨ̃gù] / mî-ɨ̃gù* *númbè-Ø*
 [S Acc] / 1Sg-Acc hit.Pfv-3SgSbj
 ‘He/She hit-Past Seydou/me.’

Non-impact perception verbs ‘see’ and ‘hear’ are also transitive. They have full aspect-negation paradigms (327a-b), like canonical transitives, but they also have a distinctive stative form (§10.4.1.3) with suffix *-wⁿ*. In either case, the object may be marked accusative.

- (327) a. *[bé:-gè nò]* *[ʔálamà nò (ɨ̃gù)]* *tég-gè / núndí-yè*
 [child-Pl Def] [sheep Def (Acc)] see. / hear.Pfv-3PlSbj
 ‘The young people saw/heard the sheep-Sg.’
- b. *[sé:dù ɨ̃gù] / mî-ɨ̃gù* *tégè-Ø / núndè-Ø*
 [S Acc] / 1Sg-Acc see. / hear.Pfv-3SgSbj
 ‘He/She saw/heard Seydou/me.’
- c. *ò-ɨ̃gù* *ɨ̃* *tégà-wⁿ / núndà-wⁿ*
 2Sg-Acc 1SgSbj see-Stat / hear-Stat
 ‘I see/hear you-Sg.’

Verbs of holding/carrying are transitive, with accusative objects, even though some of them still have archaic mediopassive (middle) marking (328).

- (328) [*bê: nò ngù*] *ì* *bám̀bè*
 [child Def Acc] 1SgSbj carry.on.back.Pfv
 ‘I carried the child on (my) back.’

Stative transitives like ‘know’ and ‘resemble’ that require no co-presence are illustrated in (329).

- (329) a. [*?ólo nò ngù*] / [*sé:dù ngù*] *ì* *?éy^m*
 [village Def Acc] / [S Acc] 1SgSbj know
 ‘I know the village / Seydou.’
- b. [*ì* ^{HL}*bâw ngù*] / *ò-ngù* *ì* *pímà*
 [1SgPoss ^{HL}father Acc] / 2Sg-Acc 1SgSbj resemble.Stat
 ‘I resemble my father / you-Sg.’

Some verbs are commonly collocated with cognate nominals (‘dance a dance’, ‘belch a belch’). The latter could be considered syntactic objects, but they are usually inanimate or abstract and nonspecific. They are not accusative-marked, and only occasionally quantified over. See §11.1.2.4 below for lists of such collocations.

If there is an overt referential object, the cognate nominal is normally omitted. All of the verbs in (330a-d) have cognate nominals (‘treat a treatment’, ‘write a writing’, etc.), but the nominals are omitted in these examples.

- (330) a. [*dòg̀tòró nò*] *mì-ngù* *jóng̀è-Ø*
 [doctor Def] 1Sg-Acc treat.Pfv-3SgSbj
 ‘The doctor treated me.’
- b. *lè:tèrè* *ì* *nónè*
 letter 1SgSbj write.Pfv
 ‘I wrote a letter.’
- c. *sé:dù* *sé:ngè* *tó:wè-Ø*
 S millet plant(v).Pfv-3SgSbj
 ‘Seydou planted the millet.’
- d. [*ì* ^{HL}*bâw*] *mì-ngù* *yébè-Ø*
 [1SgPoss ^{HL}father] 1Sg-Acc curse(v).Pfv-3SgSbj
 ‘My father cursed me.’

11.1.2.2 *káni* ‘do’ in collocations

There are many collocations of ‘do’ or intransitive ‘be done, take place’ with a stem (syntactically a noun or at least noun-like) that denotes an action or the product of an action.

This is a common pattern especially in western Dogon languages. The collocations that denote actions rather than things are generally loanwords from Fulfulde, and less often from Bambara, French, or other languages.

In (331), the primary stem also occurs independently, generally as a noun, and undergoes no phonological changes in the collocation.

- (331) *ʔáníyà kání* ‘have the intention’ (*ʔáníyà* ‘intention, plan’)
báru kání ‘have a meeting or discussion’ (*báru* ‘meeting’)
fà:mì kání ‘understand’ (*fà:mì* ‘understanding’)
jám̀bà kání ‘betray’ (*jám̀bà* ‘betrayal’)
kál̀bà kání ‘entrust’ (*kál̀bà* ‘entrusting’)
kám̀gà kání ‘steal’
kèmnò kání ‘grow old’
kóló kání ‘do fast’ (also iterated *kòlò-kóló kání*)
kònù kání ‘perform black magic’
kòr-kà kání ‘fast, be fasting’
kúnà kání ‘swear an oath’
mèlè kání ‘be ashamed’ (noun *mèlè* ‘shame’)
mùmù kání ‘grow reddish fuzz’ (also *mùmù dú-yyè*)
nímsì kání ‘regret, rue’ (noun *nímsì* ‘regret’)
pù̀là kání ‘foam, be frothy’ (*pù̀là* ‘froth, foam, suds’)
sèni kání ‘pray, perform the Muslim prayer’ (*sèni* ‘prayer’)
tè:bù kání ‘become abundant’ (*tè:bù* → ‘a lot’)
tó:lè kání ‘make bunches or heaps’ (*tó:lè* ‘bunch, heap’)
wàlè kání ‘work’ (noun *wàlè* ‘work’)
yám̀írì kání ‘authorize, order’ (*yám̀írì* ‘authorizing’)

In (332) below, the main stem is a noun (or noun-like stem) with lexical /LH/ melody, i.e. that ends in an H-toned-syllable. When it is immediately followed by H-initial *kání*, the final lexical H-tone is obscured. The main stem loses its final H-tone by Final Tone-Lowering. The H-tone is heard before forms of *kání* beginning in an L-tone, and not preceded by a 1st/2nd person subject proclitic, but these verbs forms induce Final Tone-Raising even on a lexically /L-toned stem. Therefore it is only in the independent occurrences of the main stem as a noun that we can clearly identify the lexical /LH/ melody. My practice is to write the final H-tone in the lexicon, even though it is suppressed or redundant in the some actual collocations with H-initial forms of *kání*. For example, *fà:mí kání* occurs in actual collocations as e.g. *fà:mì kání-Ø* ‘he/she understood’.

- (332) *fà:mí ...kání* ‘understand’ (*fà:mì* ‘understanding’)
gà:jèré ...kání ‘converse, chat’ (*gà:jèré* ‘conversation’)
gòjé ...kání ‘play the board game’ (*gòjé* ‘board game’)
hà:sí ...kání ‘card (cotton)’ (*hà:sí* ‘carding’)
hòwliní ...kání ‘pressure (sb) impatiently’ (also *hòwli kání*)
jàngí ...kání ‘study, go to school’ (*jàngí* ‘studies’)

<i>jàyré ...kání</i>	‘poke fun at’ (<i>jàyré</i> ‘mockery’)
<i>jùkkí ...kání</i>	‘fine (sb)’ (<i>jùkkí</i> ‘fine, penalty’)
<i>là:mú ...kání</i>	‘govern, be in authority’ (<i>là:mú</i> ‘authority’)
<i>ɲècí ...kání</i>	‘spur (a horse)’ (<i>ɲècí</i> ‘spurring’)
<i>sàllìgí ...kání</i>	‘perform ablutions’ (<i>sàllìgí</i> ‘ablutions’, also <i>sàllìgí débè</i>)
<i>sè:ré ...kání</i>	‘bear witness, testify’ (<i>sè:ré</i> ‘witness’)
<i>sìfá ...kání</i>	‘give a description’ (<i>sìfá</i>)
<i>tòngí ...kání</i>	‘hobble (a quadruped)’ (<i>tòngò:dé</i> ‘hobbling rope’)
<i>wà:jú ...kání</i>	‘preach a sermon’ (<i>wà:jú</i> ‘Muslim sermon’)
<i>wirdí ...kání</i>	‘say one’s beads’ (<i>wirdí</i> ‘saying one’s beads’)
<i>yà:fi ...kání</i>	‘forgive’ (<i>yà:fi</i>)

In (333), the noun preceding *kání* functions as subject of the clause. These are fixed subject-verb collocations similar to those in §11.1.1.4 above.

(333) <i>déndà kání</i>	‘be late afternoon’
<i>dèni kání</i>	‘be mid-day’
<i>wâ: kání</i>	‘(weather) be cold’
<i>yà kání</i>	‘night fall’
<i>yàlè kání</i>	‘be windy, wind pick up’

There are, however, a number of such collocations where the main stem does not readily occur independently. This makes it difficult or impossible to determine whether the main stem is lexically /L/- or /LH/-toned. In this situation I transcribe the main stem as L-toned in the lexicon, although I suspect that native speakers do not distinguish them sharply from the cases in (336) above. The examples I have in mind are those in (334). In many cases there is a related independent noun, but it does not have the same segmental form as that used in the collocation with *kání*, which is a bisyllabic noun-like form ending in a short high vowel.

(334) <i>bàntì kání</i>	‘postpone (an event)’
<i>bàrmì kání</i>	‘be wounded’ or ‘wound (sb)’, (<i>bàrmèndé</i> ‘injury’)
<i>dùwì kání</i>	‘bestow a blessing on’ (<i>dùwà:wú</i> ‘blessing’)
<i>fòdì kání</i>	‘(God) mete out fate (to sb)’ (<i>fòdò:ré</i> ‘divine fate’)
<i>hár kání</i>	‘prevent, obstruct’
<i>hàwnì kání</i>	‘amaze (sb)’ (<i>hàwndé</i> ‘amazement’)
<i>hò:lì kání</i>	‘trust (sb)’ (<i>hò:là:ré</i> ‘confidence’)
<i>jì:bì kání</i>	‘(animal) die’ (<i>jì:bé</i>)
<i>màntì kání</i>	‘be a dandy’ (<i>màntò:ré</i> ‘being a dandy’)
<i>mùpù kání</i>	‘be patient’ (<i>mú:mù</i> ‘patience’, verb also <i>mú:mi</i>)
<i>nìwì kání</i>	‘become invisible’
<i>ɲìɲì kání</i>	‘accuse’ (<i>ɲìɲé</i> ‘accusing’)
<i>pìkì kání</i>	‘give an injection to, vaccinate’ (<i>pìkìrì</i> ‘injection’)
<i>sàrsì kání</i>	‘load (sth)’ (Fr. <i>charger</i>)
<i>sòrnì kání</i>	‘sheathe (e.g. knife)’

<i>wàjì kání</i>	‘be a dandy’
<i>yùrmì kání</i>	‘have pity’ (noun <i>yùrmèndé</i> ‘pity’)

An interesting case that shows how easily Fulfulde forms are borrowed is intransitive *jì:²bì kání* ‘(e.g. rope) become tangled’ and its transitive counterpart *jítì kání* ‘(sb) tangle (sth)’, where the valency distinction is made by borrowing both corresponding Fulfulde verbs.

11.1.2.3 Lexicalized verb-object combinations with low-referentiality objects

There are a considerable number of lexicalized verb-object collocations. In most cases, the object noun is not quantified over or determined. Some examples are in (335).

- (335)
- | | | |
|----|---------------------------|--------------------------------|
| a. | <i>[X kólàngè] ?éjámì</i> | ‘clear one’s throat’ |
| b. | <i>sòn-sónì sê:</i> | ‘spit, emit a spit’ |
| c. | <i>kòròrò númbè</i> | ‘snore’ |
| d. | <i>tèbè bálè</i> | ‘clap, applaud’ |
| e. | <i>?élélè dágè</i> | ‘(woman) emit cry of joy’ |
| f. | <i>síyà wálè</i> | ‘tell a lie, speak an untruth’ |
| g. | <i>gó dú-yyè</i> | ‘bathe’ (< <i>gó</i> ‘water’) |

In (335a), *kólàngè* ‘neck’ is possessed; the verb *?éjámì* means ‘clean (sth)’. In (335b), *sòn-sónì* ‘saliva’ is the object; the verb *sê:* also occurs in two other collocations involving gaseous or liquid bodily emissions: *súgò sê:* ‘fart’ (compare *súgò súgè* ‘defecate’ with cognate noun and verb), and *sú: sê:* ‘vomit’ (also with cognate noun and verb). In (335c), *númbè* ‘hit’ is added rather graphically to a semi-onomatopoeic noun. In (335d), *tèbè* conveys the precise sense, while *bálè* is a general verb that can mean ‘knock (on door)’ or ‘beat (tomtom), play (musical instrument)’. It also occurs in the collocation *pè:lè bálè* ‘(give out a) whistle’. *bálè* ‘cook (a meal)’ is cognate etymologically, but synchronically it may be a homonym with no obvious connecting thread. In (335e), the noun is again semi-onomatopoeic, while the verb *dágè* occurs elsewhere in the senses ‘turn out well, be well-done’ and (transitive) ‘stick on, post (on wall), drive in (nail)’. In (335f), noun *síyà* ‘untruth, lie’ is combined with verb *wálè*, which is attested elsewhere only in the common collocation (with cognate noun and verb) *wólì wálè* ‘do farm work, grow (crops)’. *gó dú-yyè* ‘bathe’ (335g) is parsable synchronically as ‘carry water’ (*gó* ‘water’, *dú-yyè* ‘carry on head’), though comparative evidence suggests that the syncretism ‘bathe’/‘carry’ is an innovative merger (cf. Ben Tey *nî: dî-yé* ‘bathe’ versus *dǔ* ‘carry on head’).

11.1.2.4 Cognate nominals associated with verbs

Examples of collocations involving a verb and an object noun from the same word-family are in (336). These are distinct from the productive verbal nouns of the same verbs (which can also function as cognate nominals). Except in (336d) the nominals are not easily segmentable,

but the type with L-toned final *ù* (336b) is sufficiently common to suggest a once-productive nominalization.

(336) a. monosyllabic

<i>jí jê:</i>	‘eat a meal’
<i>sû: sê:</i>	‘vomit’
<i>dò: dê:</i>	‘make an insult’
<i>pò: pê:</i>	‘weep’

b. nominal ends in a high vowel or {*y w*}

final u or w, other vowels already +ATR-compatible

<i>dígórù dígórè</i>	‘count (recite numbers)’
<i>dírù dírè</i>	‘wrestle’
<i>?éjárù ?éjárè</i>	‘ask a question’
<i>kájù kájè</i>	‘scold’
<i>màndù mándè</i>	‘laugh’
<i>nàmbù námbè</i>	‘take a step’
<i>nújù nújè</i>	‘let out a groan’
<i>púlù púlè</i>	‘make noise’
<i>púlù púló-gè</i>	‘quarrel’
<i>síjù síjè</i>	‘draw a line’
<i>tágù tágè</i>	‘speak, talk’
<i>tínù tínè</i>	‘stutter’

final u or w plus ATR alternation

<i>dòjù dójè</i>	‘forge (tools)’
<i>hégù hégè</i>	‘hiccup’
<i>jóngù jóngè</i>	‘treat (medically), provide care to’
<i>nèllù nèllè</i>	‘have a rest’
<i>nónù nónè</i>	‘write, do some writing’
<i>ségù ségè</i>	‘pay dues, make a contribution’
<i>tôw tó:wè</i>	‘slash (to plant seeds)’
<i>yébù yébè</i>	‘curse, utter a curse’
<i>yóbù yóbè</i>	‘dance a dance’

*final i or y (with vowel change {*o ɔ*} to *a* in penult)*

<i>mó:njì má:njè</i>	‘urinate’
<i>mò:y má:yè</i>	‘dream a dream’
<i>wólì wálè</i>	‘do farm work’

c. nominal ends in mid-height vowel

*noun ends in {*o ɔ*}*

<i>núŋò núŋè</i>	‘sing, perform a song’
<i>nòŋò nòŋè</i>	‘fight, engage in a fight’
<i>sìgò sígè</i>	‘breathe’

<i>súgò súgè</i>	‘defecate, take a shit’
<i>tìgò tígè</i>	‘cough’
<i>noun ends in {e e}</i>	
<i>dábálè dábúlè</i>	‘tell a story’

d. nominal ends in frozen inanimate suffix (§4.1.1.3)

<i>mèrègè mэрálè</i>	‘have fun’
<i>póléngè pólè</i>	‘lay egg’

11.1.2.5 Grammatical status of cognate nominal

The cognate nominal is often generic (unquantified, nonspecific, and barely referential), but it can be made definite and/or quantified by addition of modifiers. This is easy with collocations like ‘sing (a song)’, where the activity itself can be readily segmented into units (songs). My assistant did not accept similar quantification for e.g. *mèrègè mэрálè* ‘have fun’. This assistant typically rejected phrasings that are probably grammatical but that are atypical or improbable semantically.

- (337) [*núnj-ǵè tá:ndù*] *núnjè-Ø*
[song-Pl three] sing.Pfv-3SgSbj
‘He/She sang three songs.’

11.1.3 Clauses with additional arguments and adjuncts

11.1.3.1 Syntax of expressive adverbials (EAs)

Expressive adverbials (§8.4.3) do not normally occur in NPs or other syntactic phrases, but they can be made predicative by adding a conjugatable auxiliary. For static/durative quality the auxiliaries are the quasi-verb *bò* ‘be’ and its negation *ǵóri* ‘not be’ (§11.2.2.2), as in (338a-b). The inchoative predicate is the regular verb *bílè* ‘become’ (338c). The EA does not undergo phonological modifications of the sort that are typical of superficially similar adjectival predicates (§11.4.1 below).

- (338) a. *téyⁿ-téyⁿ bò / bô:*
straight be.3SgSbj / be.3PlSbj
‘It (e.g. road) is/They are straight.’
- b. *téyⁿ-téyⁿ ǵóri-Ø*
straight not.be-3SgSbj
‘It (e.g. road) is not straight.’

- c. *téyⁿ-téyⁿ bilè*
 straight become.Pfv.3SgSbj
 ‘It (e.g. road) became straight.’

11.1.3.2 Adverbial phrases with verbs of motion, being in, and putting

Locative adverbial phrases are regular with verbs of motion. Even names of towns and villages regularly have an overt locative postposition (339a).

- (339) a. [*bòmðká=à*] *ɲ* *gé:ndè*
 [B=Loc] 1SgSbj go.Pfv
 ‘I went to Bamako.’
- b. [[*ɲ* *ʔòlò*] *mbà*] *ɲ* *gé:ndè*
 [[1PIPoss village] Loc] 1SgSbj go.Pfv
 ‘I went to our village.’
- c. [*yó:-gè* *nò*] [*tága* *mbà*] *ʔég-gè*
 [woman-Pl Def] [well(n) Loc] come.Pfv-3PISbj
 ‘The women have come back from the well.’

There are several ‘put X (in Y)’ verbs. They may take objects (generally inanimate) and locative adverbial phrases. Verbs like *tímbè* ‘put up on’ do not require overt adverbials like ‘on the burner’, since the verb itself suffices to evoke putting a tea kettle up on a burner (an action repeated many times daily).

- (340) a. [*ʔàtè* ^{HL}*núŋù*] [*fùrní* *nà*]=à *ɲ* *tímbè*
 [tea ^{HL}jar] [burner Def]=Loc 1SgSbj put.up.on.Pfv
 ‘I put-Past the tea-kettle up on the burner.’
- b. [*fùrní* *nà*]=à *bò* *tìmbà*
 [burner Def]=Loc Exist be.put.up.Stat.3SgSbj
 ‘The kettle is (put) up on the burner.’
- c. [*má:ŋgórò* *nò*] [*bí:ŋgè* *nà*]=à *ɲ* *dúŋì*
 [mango Def] [mat Def]=Loc 1SgSbj put.down.Pfv
 ‘I put-Past the mango on the mat.’
- d. [*bwàtí* *nà*]=à *sìkòrò* *ɲ* *gálè*
 [box Def]=Loc sugar 1SgSbj put.in.Pfv
 ‘I put sugar in the box.’

11.1.3.3 Ditransitives

Instead of a special dative PP, ‘give’ and ‘show’ treat the recipient as a direct object. The recipient is normally human and can take accusative marking. The theme is usually nonhuman and appears without case-marking or a postposition (341a-b). The indirect object of ‘say’ is likewise treated as a direct object (341c).

- (341) a. [ʔá:mádù ηgù] tóndí-gè ìj tábè
 [Amadou Acc] money 1SgSbj give.Pfv
 ‘I gave the money to Amadou.’
- b. [ʔòbò nɔ́] [ʔá:mádù ηgù] ìj tégò-mì
 [house Def] [Amadou Acc] 1SgSbj see-Caus.Pfv
 ‘I showed the house to Amadou.’
- c. ʔèbégè á ʔùnè [ʔá:mádù ηgù]
 what? 2SgSbj say.Pfv [Amadou Acc]
 ‘What did you-Sg say to Amadou?’

11.1.3.4 Valency of causatives

Downstairs subject NPs become upstairs direct objects under causativization. If human, they get accusative marking, as with ‘children’ in (342).

- (342) [tè:ηgè nɔ́] [bé:-gè nɔ́ ηgù] ìj párá-gá-mì
 [wood Def] [child-Pl Def Acc] 1SgSbj cut-Caus-Caus.Pfv
 ‘I made/had the children chop the wood.’

11.1.4 Verb phrase

The syntactic category of VP (i.e. a clause minus subject NP and aspect-negation inflections) is relevant to same-subject chaining (§15.1) and to verbal-noun complements (§17.3).

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

11.2.1 ‘It is’ clitics

11.2.1.1 Positive ‘it is’ (=)

An identificational predicate (‘it is X’ for some NP X), corresponding in part to copula *be* in English, is expressed by lengthening the final vowel of the predicated NP. This is transcribed here as =: where = is a clitic boundary. The lengthening is not always clearly audible.

The subject (or topic) is expressed as an independent NP or pronoun, or (in the case of a third-person referent that is understood in context) it is omitted, cf. French *c'est* __. I will gloss it as 'it.is' in interlinears.

- (343) a. *mì* *pú:ndè = :*
 1Sg Fulbe=it.is
 'I am (a) Fulbe person.' (< *pú:ndè*)
- b. *mì-yá* *yò:lè-gé = :*
 1Pl Dogon-Pl=it.is
 'We are Dogon.' (< *yò:lè*)
- c. *yò:lé = :*
 Dogon=it.is
 'He/She is (a) Dogon.' (< *yò:lè*)
- d. [*mó* *nò*] *?òbò = : / yí:lì = : / fêtó = :*
 [Dem Def] house=it.is / stream=it.is / pond=it.is
 'That is a house / a stream / a pond.'
- e. [*kó:nò* *nò*] *ǎwⁿ = :*
 [blacksmith Def] 3Sg=it.is
 'The blacksmith is him.'

Further examples of regular and predicative forms are in (344). The tone melody of the predicate NP is often the same as in isolation. However, simple nouns of /L/ melody acquire a final H-tone before the 'it is' clitic (344c), by Final Tone-Raising (§3.6.3.3).

(344)	regular form	'it is' form	gloss
a. pronouns			
	<i>mì</i>	<i>mí = :</i>	'It's me'.
	<i>mì-yá</i>	<i>mì-yá = :</i>	'It's us'.
	<i>ò</i>	<i>ó = :</i>	'It's you-Sg'.
	<i>ò-yá</i>	<i>ó-yá :</i>	'It's you-Pl'.
	<i>ǎwⁿ</i>	<i>ǎwⁿ = :</i>	'It's him/her/it'.
	<i>à-yá</i>	<i>à-yá = :</i>	'It's them'.
b. demonstrative			
	<i>mó nò</i>	<i>mó nò = :</i>	'It's that one/him/her/'.

c. simple noun

/HL/ melody

<i>kúnjúgà</i>	<i>kúnjúgà = :</i>	‘It’s a knee’.
<i>póléngè</i>	<i>póléngè = :</i>	‘It’s an egg’.
<i>ná:lì</i>	<i>ná:lì = :</i>	‘It’s a cat’.
<i>sójò</i>	<i>sójò = :</i>	‘It’s a person’.
<i>yó (yô:)</i>	<i>yô: = :</i>	‘It’s a woman’.

/L/ melody

<i>sùgùlè</i>	<i>sùgùlé = :</i>	‘It’s an ear’.
<i>sùgùlè-gè</i>	<i>sùgùlè-gé = :</i>	‘It’s (some) ears’.
<i>kèlè</i>	<i>kèlé = :</i>	‘It’s a horn’.
<i>kò:</i>	<i>kǒ: = :</i>	‘It’s a head’.
<i>sè:</i>	<i>sě: = :</i>	‘It’s a foot’.

/LH/ melody

<i>fètó</i>	<i>fètó = :</i>	‘It’s a pond’.
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d. multi-word NP

<i>yì:lì nó</i>	<i>yì:lì nó = :</i>	‘It’s the river’.
<i>ʔòbó^{LH} L dâ:mbè</i>	<i>ʔòbó^{LH} L dâ:mbè = :</i>	‘It’s a small house’.
<i>bé:-gè nò</i>	<i>bé:-gè nò = :</i>	‘It’s the children’.

e. possessed noun

<i>ɲ^{HL} ʔóbò</i>	<i>ɲ^{HL} ʔóbò = :</i>	‘It’s my house’.
<i>ɲ^{L+HL} ʔòbò</i>	<i>ɲ^{L+HL} ʔòbò = :</i>	‘It’s our house’.

kǒ: = : and *sě: = :* in (344b) are rare cases of rising-toned monosyllabics. This is possible because the prolongation represented by *= :* makes the vowel long enough to support a rising tone that is not ordinarily allowed in *Cv(:)* words.

11.2.1.2 ‘It is not’ (*= là*)

The corresponding negative NP predicate, ‘it is not X’ for some NP X, is expressed by the clitic *= là*. The syntax is the same as for the positive ‘it is’ clitic (345).

- (345) a. *mì* *pù:ndé = là*
 1Sg Fulbe=it.is.not
 ‘I am not (a) Fulbe.’ (< *pú:ndè*)
- b. *mì-yá* *yà:lè-gè = là*
 1Pl Dogon-Pl=it.is.not
 ‘We are not Dogon.’ (< *yà:lè, yà:lè-gè*)

- c. *yò:lè = là*
Dogon=it.is.not
'He/She is not (a) Dogon.' (< *yò:lè*)
- d. [*mò* *nó*] *?òbò = là / fêtó = là*
[Dem Def] house=it.is / pond=it.is
'That is not a house / a pond.'

=là triggers Rightward Tone-Movement in an immediately preceding /HL/ or /LHL/ melody common noun (but not personal name). Otherwise, nonfinal words within a multi-word NP keep their regular tones before *=là*. In particular, nouns of /L/ melody do not raise the tone of their final syllable. Representative forms of simple nouns along with independent pronouns and demonstratives, and of multi-word NPs, are in (346).

(346)	regular form	'it is' form	gloss
a. pronouns			
	<i>mì</i>	<i>mí = là</i>	'It isn't me.'
	<i>mì-yá</i>	<i>mì-yá = là</i>	'It isn't us.'
	<i>ò</i>	<i>ó = là</i>	'It isn't you-Sg.'
	<i>ò-yá</i>	<i>ò-yá = là</i>	'It isn't you-Pl.'
	<i>ǎwⁿ</i>	<i>ǎwⁿ = là</i>	'It isn't him/her/it.'
	<i>à-yá</i>	<i>à-yá = là</i>	'It isn't them.'
b. demonstrative			
	<i>mó nò</i>	<i>mó nò = là</i>	'It isn't that one/him/her.'
c. simple noun			
	/HL/ melody		
	<i>sé (sé:)</i>	<i>sé: = là</i>	'It isn't a horse.'
	<i>yó (yô:)</i>	<i>yó: = là</i>	'It isn't a woman.'
	<i>sójò</i>	<i>sòjò = là</i>	'It isn't a person.'
	<i>jà:lì</i>	<i>jà:lí = là</i>	'It isn't a cat.'
	<i>yí:lì</i>	<i>yí:lí = là</i>	'It isn't a stream.'
	<i>kúnjúgà</i>	<i>kùnjùgá = là</i>	'It isn't a knee.'
	<i>póléngè</i>	<i>pòlèngé = là</i>	'It isn't an egg.'
	/LHL/ melody		
	<i>kòlàngè</i>	<i>kòlàngé = là</i>	'It isn't a neck.'
	/LH/ melody		
	<i>fêtó</i>	<i>fêtó = là</i>	'It isn't a pond.'
	/L/ melody		
	<i>kò:</i>	<i>kò: = là</i>	'It isn't a head.'
	<i>sè:</i>	<i>sè: = là</i>	'It isn't a foot.'

<i>kèlè</i>	<i>kèlè = là</i>	‘It isn’t a horn.’
<i>sùgùlè</i>	<i>sùgùlè = là</i>	‘It isn’t an ear.’
<i>personal name</i>		
<i>sé:dù</i>	<i>sé:dù = là</i>	‘It isn’t Seydou.’

d. multi-word NP

<i>yí:lì nó</i>	<i>[yí:lì nó] = là</i>	‘It isn’t the river.’
<i>sójò nò</i>	<i>[sójò nò] = là</i>	‘It isn’t the man.’
<i>ʔòbó^{LH L} dà:mbè</i>	<i>[ʔòbó^{LH L} dà:mbè] = là</i>	‘It isn’t a small house.’
<i>bé:-gè nò</i>	<i>[bé:-gè nò] = là</i>	‘It isn’t the children.’

e. possessed noun

<i>ɲ^{HL} ʔóbò</i>	<i>[ɲ^{HL} ʔóbò] = là</i>	‘It isn’t my house.’
<i>sé:dù^{HL} bāw</i>	<i>[sé:dù^{HL} bāw] = là</i>	‘It isn’t Seydou’s father.’
<i>sé:dù^{HL} sê:</i>	<i>[sé:dù^{HL} sê:] = là</i>	‘It isn’t Seydou’s foot.’
<i>sé:dù^{HL} ʔínjè</i>	<i>[sé:dù^{HL} ʔínjè] = là</i>	‘It isn’t Seydou’s dog.’
<i>ɲ wótòrò</i>	<i>[ɲ^{HL} wótòrò] = là</i>	‘It isn’t my cart.’

There is some variation in the tonology of *=là* in these data. /HL/ melody nouns of all syllable counts undergo Rightward H-Spreading (346c). Nouns with possessor-controlled {HL} overlay also undergo this process if prosodically light *Cv:* or *CvCv* (‘house’, ‘father’, ‘foot’), but not if *CvNCv* or longer (‘dog’, ‘cart’) (346e).

If the possessor-controlled overlay is L+{HL}, for example after 1Pl *ɲ* or 2Pl *á*, Rightward H-Spreading can occur from the medial H-tone on (347).

- (347) *[ɲ^{L+HL} wòtòró] = là*
 [1PlPoss^{L+HL} cart]=it.is.not
 ‘It isn’t our cart.’

Possessums with 3Sg possessor *-nà* allow Rightward H-Movement before *=là*. The H-tone that is normally on the syllable preceding *-nà* is shifted onto *-nà* itself before *=là* (348a). If there is no lexical H-tone in the stem, *-nà* remains L-toned (348b).

- (348) a. *ʔòlò-ná = là*
 village-3SgPoss=it.is.not
 ‘It isn’t his/her village.’ (< *ʔólò*, *ʔòlò-nà*)
- b. *ʔòbò-nà = là*
 house-3SgPoss=it.is.not
 ‘It isn’t his/her house.’ (< *ʔòbò*, *ʔòbò-nà*)

‘It is not’ forms of pronominals plus *tó:lè* ‘only’ are in (349). *tó:lè* is prosodically heavy, and behaves like a possessum (§19.4.1). The tones in (349a-c) conform to the comments stated above.

- (349) a. *[ɨ̃ / âɨ̃]* ^{HL}*tó:lè* = *là*
 [1SgPoss / 3PlPoss ^{HL}only]=it.is.not
 ‘It’s not just me/them.’
- b. *[ɨ̃]* ^{L+HL}*tó:lé* = *là*
 [1PlPoss ^{L+HL}only]=it.is.not
 ‘It’s not just us.’ (< *ɨ̃* ^{L+HL}*tó:lè*)
- c. *tò:lè-ná = là*
 only-3SgPoss=it.is.not
 ‘It’s not just him/her/it.’ (< *tò:lé-nà*)

11.2.2 Existential and locative quasi-verbs and particles

11.2.2.1 Existential proclitic (*bò*)

In other Dogon grammars I use the term “existential” for a proclitic to certain stative predicates, especially ‘be (present), exist’ and ‘have’. In those languages the existential particle has the form *yé*, *yó*, *yá*, or *á* and is probably derived from an original ‘there (definite)’ adverb of this form. Bunoge has a proclitic *yé* that has other functions in focalized (§13.1.1.9) and relative clauses (§14.4). It derives from a classifier-like ‘thing(s)’ noun (§4.1.2) rather than from a ‘there’ adverb, and it has a very different distribution than the existential proclitic.

bò rather than *yé* is now the Bunoge existential proclitic. It is probably a spinoff from demonstrative *bo-* as in *bò-lò* ‘there’, following the same trajectory from ‘there’ to existential as the more widespread Dogon existential particle just mentioned.

Existential *bò* occurs before the ‘have’ quasi-verb and in one stative construction. It does not occur before *bò* ‘be (somewhere)’. The latter does occur in a combination *bòm-bò* ‘be there’, but *bòm-* here is a contraction of *bò-nâ*: ‘there’; see §11.2.2.3 below.

Existential *bò* in ‘have’ clauses has the characteristic syntactic distribution of Dogon existential particles, suggesting that it may have simply replaced an earlier existential particle without much change in the syntax. It is obligatory in positive, unfocalized main clauses with ‘have’ (350a). It is not allowed in the presence of a focalized constituent (350b) or of negation (350c), and it is absent in relative clauses (350d).

- (350) a. *[ná:-ɨgɛ]* *dè:gà* *bò* *ɨ̃* *sà*
 [cow-Pl two] **Exist** 1SgSbj have
 ‘I have two cows.’
- b. *?èbégè* *à* *sà*
 what? 2SgSbj have
 ‘What do you-Sg have?’

- c. *ná* *ɲ* *sá: = ndà*
 cow 1SgSbj have=StatNeg
 ‘I don’t have a cow.’
- d. *ná* *sà:* *ɲ* *tègò-là*
 cow have.Ppl 1SgSbj look.for.Ipfv
 ‘I’m looking for someone who has a cow.’

Existential *bò* occurs under the same syntactic conditions in one of two productive stative predicate constructions derived from regular (active) verbs (351a). The alternative is to iterate the verb, without *bò* (351b). Both constructions use a form identical to the imperfective positive (based on the A-stem). See §10.4.1.1 for details.

- (351) a. *bò* *sòmbà*
 Exist squat.Stat.3SgSbj
 ‘He/She is squatting.’
- b. *sòmbá* *sòmbà*
 Iter squat.Ipfv.3SgSbj
 [= (a)]

bò always immediately precedes the conjugated verb form. The two are separated only by 1st/2nd person subject proclitics. In (352), for example, *bò* follows the subject ‘bird’ and the locative adverbial PP ‘on the tree’.

- (352) *ní:bè* *[[tìlɪŋgé* *kò:]* *mbà]* *bò* *tòlà*
 bird [[tree head] Loc] Exist perch.Stat.3SgSbj
 ‘A bird is perched on the tree.’

Existential *bò* is always L-toned. An immediately preceding NP may undergo Rightward H-Movement in 3Sg subject clauses (353a), contrast 3Pl (353b).

- (353) a. *bó-ló* *bò* *ʔèbà*
 there Exist sit.Stat.3SgSbj
 ‘He/She is sitting over there.’ (< *bó-lò*)
- b. *bó-lò* *bò* *ʔébà*
 there Exist sit.Stat.3PlSbj
 ‘They are sitting over there.’

11.2.2.2 Locational-existential ‘be (somewhere)’ (*bò*, negative *?óri*)

The locational-existential verb ‘be present, be (in a place)’ is *bò*. Unlike existential *bò*, which is uninflectable and precedes 1st/2nd person subject proclitics, locational-existential quasi-verb *bò* has a regular pronominal-subject conjugation. The paradigm is (354).

(354)	positive	negative
1Sg	<i>ń bò</i>	<i>ń ?óri</i>
1Pl	<i>ń bò</i>	<i>ń ?òrì</i>
2Sg	<i>à bò</i>	<i>à ?óri</i>
2Pl	<i>á bò</i>	<i>á ?òrì</i>
3Sg	<i>bò-Ø</i> <i>bò</i> (after locational)	<i>?óri-Ø</i>
3Pl	<i>bó-yà</i> (in <i>bòm-bó-yà</i> , §11.2.2.3) <i>bò-yⁿyⁿà</i> ‘be present’ <i>bô:</i> (after locational)	<i>?óri-yà</i>

3Sg *bò(-Ø)* triggers Rightward H-Movement in preceding words.

Combinations with *?ólorí mbà* ‘in the village’ (< *?ólorí* ‘village’) are in (355). The L-toned 3Sg form *bò* triggers Rightward H-Movement in the preceding locational (355b).

(355)	a.	<i>[?ólorí mbà]</i>	<i>ń bò</i>	‘I am in the village.’
			<i>ń bò</i>	‘We are in the village.’
			<i>à bò</i>	‘You-Sg are in the village.’
			<i>á bò</i>	‘You-Pl are in the village.’
			<i>bó ~ bô:</i>	‘They are in the village.’
	b.	<i>[?òlò mbá]</i>	<i>bò</i>	‘He/She/It is in the village.’

Further examples of 3Sg versus 3Pl are in (356).

(356)	a.	3Sg	<i>mà:</i>	<i>bò</i>	‘He/She/It is here.’
			<i>Rightward H-Movement</i>		
			<i>mà-ló</i>	<i>bò</i>	"
			<i>Final Tone-Raising (town name) plus Rightward H-Spreading</i>		
			<i>mòtí wá</i>	<i>bò</i>	‘He/She/It is in Mopti [city].’

b. 3Pl

<i>mà:</i>	<i>bô:</i>	‘They are here.’
<i>no Rightward H-Movement before H-tone</i>		
<i>má-lò</i>	<i>bô:</i>	”
<i>mòtí wà</i>	<i>bô:</i>	‘They are in Mopti [city].’

There is no special tonal treatment of locationals before 3Sg *ʔóri*.

- (357) [*ʔóló mbà*] *ʔóri-Ø*
 [village Loc] not.be-3SgSbj
 ‘He/She/It is not in the village.’

bò and *ʔóri* may occur without an overt locational expression. That is, there is no obligatory default locational such as the “existential” particle in eastern Dogon languages with positive ‘be’. In the absence of a locational, the sense is existential (‘there is’), perhaps with implicit reference to a vaguely defined ‘here’. The 3Pl subject form in this case is *bò-yⁿyⁿà* (358c).

- (358) a. *sikàró* *bò-Ø*
 sugar be-3SgSbj
 ‘There is some sugar.’
- b. *sikàrò* *ʔóri-Ø*
 sigar not.be-3SgSbj
 ‘There is no sugar.’
- c. *bé:-gé* *bò-yⁿyⁿà*
 child-Pl be-3PlSbj
 ‘There are some children.’

bò ‘be present’ and *ʔóri* ‘be absent’ can be used with subject NPs of all semantic types. For NPs denoting physical entities, it is also possible to use a derived stative that gives additional information about their positions. For humans and animals, the positions are descriptive: ‘be standing’, ‘be sitting’, ‘be lying down’, etc. ‘Be standing’ is normal with subjects like ‘house’, ‘vehicle’, ‘motorcycle’, and even ‘skiff (boat)’, when the referents are in their normal right-side-up position. For small inanimate objects like ‘calabash’, ‘shoe’, and ‘tea kettle’, the choice of positional stative is related to the relevant transitive verb of putting, e.g. *tìmbà* ‘be put up (on sth)’ or *dùṅà* ‘be put down (on the ground)’.

11.2.2.3 *bòm-bò* ‘be (somewhere)’ and related forms

bò- ‘be’ and its negative *ʔóri* may combine with reduced variants of *bò-nâ:* ‘there’ and *mâ:-nâ:* ‘here’ (§4.4.3.1), without the *-nâ:* morpheme.

The forms with ‘there’ are in (359). They are most common with third-person pronominals. The form of ‘there’ is L-toned *bò* throughout the negative paradigm (right-hand column). In the positive paradigm, it is H-toned *bó* before L-toned 1Sg and 2Sg pronominals, otherwise L-toned. In the 3Sg forms it is *bòm-* with an extra nasal, possibly a vestige of *-ná:*.

(359)		‘be there’		‘not be there, be absent there’
a.	3Sg	<i>bòm-bò-Ø</i>		<i>bò ?óri-Ø</i>
	3Pl	<i>bòm-bó-yà</i>		<i>bò ?óri-yà</i>
b.	1Sg	<i>bó ñ bò</i> [bômbò]		<i>bò ñ ?óri</i>
	1Pl	<i>bò ñ bò</i> [bômbò]		<i>bò ñ ?òrì</i>
c.	2Sg	<i>bó à bò</i>		<i>bò à ?óri</i>
	2Pl	<i>bò á bò</i>		<i>bò á ?òrì</i>

For an example of 3Pl *bòm-bó-yà*, see (195c) in §8.2.8 (‘they are behind Seydou’).

Synchronically it is likely that third person *bòm-bò-* in particular is a fused portmanteau. For example, it may co-occur with a more explicit locational phrase, as in [*wòtóró ndó*] *bòm-bò-Ø* ‘it is on the cart’.

My assistant pointed out that the phonetically similar *bò: ñ bò* means ‘we are together’, cf. *bò: á bò* ‘you-Pl are together’, *bò: bó* ‘they are together.’

The combinations with ‘here’ instead of ‘there’ are in (360). These forms are most common with first person pronominals. 3Sg *mà: bò* and 2Sg *mà = à bò* are homophonous, as are their negations, in spite of my clever orthographic distinctions.

(360)		‘be here’		‘not be here, be absent’
a.	3Sg	<i>mà: bò</i> [mà:bò]		<i>mà: ?óri-Ø</i>
	3Pl	<i>mà: bò:</i>		<i>mà: ?óri-yà</i>
b.	1Sg	<i>mà: ñ bò</i> [mà:mbò]		<i>mà: ñ ?óri</i>
	1Pl	<i>mà: ñ bò</i> [mă:mbò]		<i>mà: ñ ?òrì</i>
c.	2Sg	<i>mà = à bò</i> [mà:bò]		<i>mà = à ?óri</i>
	2Pl	<i>mà = á bò</i> [mă:bò]		<i>mà = á ?òrì</i>

11.2.3 ‘Be in/on X’

‘Be in X’ and ‘be on X’ are expressed with the regular ‘be (somewhere)’ quasi-verb *bò* and accompanying adverbial phrases, rather than by specialized stative verb forms as in some Dogon languages.

- (361) a. *[bónḁà nḁ]* *[[bì:ḁgé kò:] mbà]* *bò*
 [shoulderbag Def] [[mat head] Loc] be.3SgSbj
 ‘The shoulderbag is on the mat.’
- b. *[dù-dùggè nḁ]* *[píngì ndó]* *bò*
 [gecko Def] [wall Loc] be.3SgSbj
 ‘The gecko is on the wall.’
- c. *gó:* *[nùḁgù ndó]* *bò*
 water [pottery Loc] be.3SgSbj
 ‘Water is in the (earthenware) waterjar.’

11.2.3.1 Stative stance/position quasi-verbs

Stance verbs and some others have a regular derived stative form based on the A-stem (§10.4).

11.2.4 ‘Become’, ‘happen’, and ‘remain’ predicates

11.2.4.1 ‘Remain’ (*déḁgè*)

déḁgè means ‘remain (in a place)’. Morphologically it is a regular verb.

- (362) *mà:-nâ:* *ḁ* *déḁgà*
 here 1SgSbj remain.Ipfv
 ‘I’m staying here.’

11.2.4.2 ‘Become, be transformed into’ (*bílè*)

‘Become (an) X, turn/develop into (an) X’ with an NP X is expressed by the regular active verb *bílè*. The corresponding transitive ‘turn Y into (an) X’ is the regular causative *bíló-mì*.

- (363) a. *ní:bè* *bílè-Ø*
 bird become.Pfv-3SgSbj
 ‘He/She/It became (turned into) a bird.’
- b. *à-ḁgù ní:bè ḁ bíló-mì*
 3Sg-Acc bird 1SgSbj become-Caus.Pfv
 ‘I turned him/her into a bird [focus].’

11.2.5 Mental and emotional statives

‘Know’, ‘want’, and ‘resemble’ are expressed by lexical statives that have no active (i.e. aspectually marked) counterparts. ‘Resemble’ has the morphological and tonal form of a derived stative, while ‘know’ and ‘want’ are specialized quasi-verbs.

11.2.5.1 ‘Know’ (*?èyⁿ*), ‘not know’ (*?índò*)

This is a defective stative verb that makes no aspectual (perfective versus imperfective) distinctions. It does not co-occur with existential proclitic *bò*. The negative counterpart is suppletive. The 3Pl form has suffix *-yà* in the positive as well as negative.

(364)		‘know’	‘not know’
	1Sg	<i>ḥ ?èy^m</i>	<i>ḥ ?índò</i>
	1Pl	<i>ḥ ?èyⁿ</i>	<i>ḥ ?índò</i>
	2Sg	<i>à ?èyⁿ</i>	<i>à ?índò</i>
	2Pl	<i>á ?èyⁿ</i>	<i>á ?índò</i>
	3Sg	<i>?èyⁿ-Ø</i>	<i>?índò-Ø</i>
	3Pl	<i>?èyⁿ-yà</i>	<i>?índò-yà</i>

The object is marked accusative, especially if human (365a-b). These examples also confirm the L-tone of the 3Sg and 3Pl forms, inducing Final Tone-Raising on the accusative pronoun.

- (365) a. *mì-ḥgú ?èyⁿ-Ø*
 1Sg-Acc know-3SgSbj
 ‘He/She knows me.’
- b. *mì-ḥgú ?èyⁿ-yà*
 1Sg-Acc know-3PlSbj
 ‘They know me.’

For factive complements of ‘know’, see §17.2.1.

11.2.5.2 ‘Want, like’ (*kàyⁿ*), ‘not want’ (*kà:-là*)

kàyⁿ is an irregular stative quasi-verb meaning ‘want’. It does not co-occur with existential proclitic *bò*. The negative counterpart is *kà:-là*, whose *-là* is related to stative negative *=ndà* (366c-d).

- (366) a. *ʔèbégè* *à* *kâyⁿ*
 what? 2SgSbj want
 ‘What do you-Sg want?’
- b. *gó:* *kâyⁿ-Ø*
 water want-3SgSbj
 ‘He/She wants water.’
- c. *gó* *ɲ* *kâ:-là*
 water 1SgSbj want-StatNeg
 ‘I don’t want water.’
- d. *gó* *kâ:-là-Ø*
 water want-StatNeg-3SgSbj
 ‘He/She doesn’t want water.’
- e. *mì-ɲgú* *kâyⁿ-Ø*
 1Sg-Acc want-3SgSbj
 ‘He/She likes (or wants) me.’

The paradigms are parallel to those of ‘know’ (preceding section).

(367)		‘want’	‘not want’
	1Sg	<i>ɲ kâyⁿ</i>	<i>ɲ kâ:-là</i>
	1Pl	<i>ɲ kâyⁿ</i>	<i>ɲ kâ:-là</i>
	2Sg	<i>à kâyⁿ</i>	<i>à kâ:-là</i>
	2Pl	<i>á kâyⁿ</i>	<i>á kâ:-là</i>
	3Sg	<i>kâyⁿ-Ø</i>	<i>kâ:-là-Ø</i>
	3Pl	<i>kâyⁿ-yà</i>	<i>kâ:-là-yà</i>

11.2.5.3 ‘Resemble’ (*pìmà*), ‘not resemble’ (*pìmà = ndà*)

This is another lexically stative verb, but it behaves like a derived stative (§10.4.1.1) both morphologically (note the tonal distinction between 3Sg and 3Pl in the positive) and by co-occurring with existential proclitic *bò* (§11.2.2.1). My assistant rejected active forms like perfective #*pímè* or #*pímì*.

(368)		‘resemble’	‘not resemble’
	1Sg	<i>ɲ pímà</i>	<i>ɲ pímà = ndà</i>
	1Pl	<i>ɲ pìmà</i>	<i>ɲ pìmà = ndà</i>
	2Sg	<i>à pímà</i>	<i>à pímà = ndà</i>
	2Pl	<i>á pìmà</i>	<i>á pìmà = ndà</i>
	3Sg	<i>pìmà</i>	<i>pìmà = ndà-Ø</i>
	3Pl	<i>pímà</i>	<i>pìmà = ndà-yà</i>

11.3 Quotative verb

11.3.1 ‘Say’ (*ʔúnè, tá:yè*)

The unmarked ‘say’ verb following a quoted clause is *ʔúnè*. For the syntax of quoted clauses see §17.1.2-3. *ʔúnè* may also take an NP complement (369).

- (369) a. [*yé ʔúnè*] *ʔóri-Ø*
 [thing say.Pfv.3PlSbj] not.be-3SgSbj
 ‘They said nothing.’ (lit. “what they said is absent”)
- b. *ʔèbégè à ʔúnè*
 what? 2SgSbj say.Pfv
 ‘What did you-Sg say?’

‘Speak’ verbs are *tágè* and *tá:yè*, cf. noun *tágù* ‘words, talk, language’.

11.4 Adjectival predicates

11.4.1 Positive stative adjectival predicates

11.4.1.1 Template *CʋCCà* plus *bò* ‘be’

Stative predicates of the type ‘X is heavy’, denoting a stable characteristic, are distinct from inchoative verbs (‘become heavy’), which denote transitions.

The majority of adjectives form positive stative predicates with *bò* ‘be’ as auxiliary. More than half of the basic adjectives take a special ablaut form before *bò*. The output template is *CʋCCà*, with only +ATR-compatible vowels allowed. There is a definite phonological similarity between the vocalism of these forms and the A-stem of inflected verbs (§3.3.6), which occurs in imperfective and derived stative forms. In many cases a direct comparison with corresponding inchoative verbs is appropriate (§9.6). The adjectival predicate could be considered a specialized stative form of the inchoative, but the combination with following *bò* ‘be’ does not coincide with the usual derived stative combinations (§10.4.1).

Assuming that the regular modifying form of the adjective is lexically basic, several adjustments must be made to fit it into the output template. First, any -ATR vowel in the nonfinal syllable must shift to +ATR. Second, if the first vowel is long, it must be shortened. Third, if the medial consonant is unclustered, it must be geminated. Fourth, the final vowel shifts to *a*.

The known examples of this fairly productive type are in (370), using the 3Sg subject form. The overlay on the adjective is {HL}, but it undergoes Rightward H-Movement before 3Sg subject *bò*, the form shown in (370). This shift does not occur with other pronominal-subject categories. For example, compare *yòllá bò* ‘he/she/it is black’ with 3Pl *yóllà bò:* ‘they are black’.

(370) Templatic *CvCCà* plus *bò* (3Sg *CvCCá bò*, 3Pl *CvCCà bò:*)

predicate (3Sg)	gloss	modifying form
a. medial <i>C</i> geminated to <i>CC</i>		
<i>-ATR</i> → <i>+ATR</i> , long vowel shortened		
<i>yòllá</i>	<i>bò</i> ‘is black’	^L <i>yò:lè</i>
<i>input vocalism already +ATR-compatible</i>		
<i>wàggá</i>	<i>bò</i> ‘is distant’	^L <i>wàgì</i>
<i>gòllá</i>	<i>bò</i> ‘is long’	^L <i>gòlò</i>
<i>sìmmá</i>	<i>bò</i> ‘is white’	^L <i>sìmà</i>
<i>bìggá</i>	<i>bò</i> ‘is fat’	^L <i>bìgì</i>
<i>sèllá</i>	<i>bò</i> ‘is pretty’	^L <i>sèlè</i>
<i>dàggá</i>	<i>bò</i> ‘is small’	^L <i>dà:mbè</i>
b. input is already <i>CvCCv</i>		
<i>-ATR</i> → <i>+ATR</i>		
<i>dènjá</i>	<i>bò</i> ‘is sweet’	^L <i>dènjì</i>
<i>nòṅgá</i>	<i>bò</i> ‘is slender’	^L <i>nòṅgò</i>
<i>input vocalism already +ATR-compatible</i>		
<i>tùmbá</i>	<i>bò</i> ‘is short’	^L <i>tùmbù</i>
<i>jùṅgá</i>	<i>bò</i> ‘is hot’	^L <i>jùṅgà</i>
<i>gìmbá</i>	<i>bò</i> ‘is deep’	^L <i>gìmbò</i>
<i>nìnjá</i>	<i>bò</i> ‘is heavy’	^L <i>nìnjì</i>
c. <i>CvCCà</i> predicate irregularly related to modifying adjective		
<i>monosyllabic input</i>		
<i>bàṅṅá</i>	<i>bò</i> ‘(house) is big’	^L <i>bàyⁿ</i>
<i>bàmbá</i>	<i>bò</i> ‘is wide’	^L <i>bàmbà</i>
<i>bòmbá</i>	<i>bò</i> ‘is red’	^L <i>bòw</i>
<i>input medial cluster replaced</i>		
<i>kàjjá</i>	<i>bò</i> ‘is difficult’	^L <i>kà:ndà</i>
<i>dàggá</i>	<i>bò</i> ‘is small’	^L <i>dà:mbè</i>

The secondary gemination of medial consonants in several of these predicate adjectives may reflect an original **-yà* suffix that triggered syncope followed by *y*-Assimilation (§3.4.4.1). Compare the Penange adjectival predicate type ADJ-*yà bù*. However, there is no reason to think that Bunoge speakers analyse the forms in this manner. A templatic analysis makes more sense synchronically.

A sample paradigm is (371). The {HL} overlay is heard without modification in all forms except 3Sg, which triggers Rightward H-Movement.

(371) ‘be fat’

1Sg	<i>bíggà ñ bò</i>
1Pl	<i>bíggà ñ bò</i>
2Sg	<i>bíggà = à bò</i>
2Pl	<i>bíggà = á bò</i>
3Sg	<i>bíggá bò</i>
3Pl	<i>bíggà bô:</i>

11.4.1.2 Nontemplate adjective with *-è: ~ -è: ~ -i:* plus *bò*

Several adjectives form predicates with *bò*, but without the *CvCCà* templatic form shown in the preceding section, and without the forced shift to +ATR vocalism. The stem is bisyllabic. The predicative form ends in *-è: ~ -è: ~ -i:*, which can be thought of as a prolongation of the stem-final vowel. The stem again has {HL} overlay, flattening to H by Rightward H-Spreading before L-toned 3Sg *bò*.

The same construction is used in the resultative passive, from transitive or intransitive verb inputs (§9.3).

(372) Nontemplatic with *-è: ~ -è: ~ -i:* plus *bò*

predicate (3Sg)	gloss	modifying form
a. medial consonant lengthened		
<i>CvCCv: from CvCv</i>		
<i>kóŋŋé:</i>	<i>bò</i> ‘is lean, malnourished’	^L <i>kòŋè</i>
b. medial consonant unchanged or already clustered		
<i>CvCv:</i>		
<i>ʔámí:</i>	<i>bò</i> ‘is sour’	^L <i>ʔàmi</i>
<i>kájí:</i>	<i>bò</i> ‘is fresh’	^L <i>kàjì</i>
<i>kúné:</i>	<i>bò</i> ‘is plump’	^L <i>kùnè</i>

<i>CvNCv:</i>			
<i>témbé:</i>	<i>bò</i>	‘is wet’	^L <i>tèmbè</i>
<i>péngé:</i>	<i>bò</i>	‘is narrow’	^L <i>pèngè</i>
<i>Cv:Cv:</i>			
<i>ná:ńí:</i>	<i>bò</i>	‘is dry’	^L <i>ná:ńì</i>
<i>tó:lé:</i>	<i>bò</i>	‘is one (=the same)’	^L <i>tò:lè</i>

A sample paradigm is (373).

(373)	‘be wet’
1Sg	<i>témbè: ñ bò</i>
1Pl	<i>témbè: ń bò</i>
2Sg	<i>témbà = à bò</i>
2Pl	<i>témbà = á-bò</i>
3Sg	<i>témbé: bò-Ø</i>
3Pl	<i>témbè: bó</i>

11.4.1.3 ‘Be good’ (*némbò*)

A special case is ‘(be) good’ (374).

(374)	‘good’	
	modifying adjective	^L <i>pò:lò</i>
	predicate (positive)	<i>némbò-Ø</i> (3Sg) <i>némbò-yà</i> (3Pl) <i>ñ némbò</i> (1Sg)
	predicate (negative)	<i>né: = là</i> ‘is not good, is bad’
	comparative	<i>ná-wⁿ nêyⁿ</i> ‘be better’, §12.1.4

The modifying adjective is suppletive. The other forms are based on a monosyllabic proto-form **néŋ* or similar, preserved in the comparative form and the negative predicate. In the positive predicate, **néŋ* has fused with **bò*, producing a new bisyllabic form *némbò* that fits the *CvCCv* template for the adjectives in (374a) above, though it ends in *o* rather than *a*. (The only other monosyllabic adjective with a predicative form, ‘full’, is also irregular, see the following section.)

The paradigm has been adjusted to the fused bisyllabic status of *némbò*. 1st/2nd person proclitics precede *némbò* rather than being intercalated between **néŋ* and **bò*. The 3Pl form has a suffix *-yà*, suggesting an affinity to stative verbs and quasi-verbs (§10.3.1).

11.4.1.4 Adjectival predicates paired with participial modifiers (*sà*, *-gà*)

Some adjectival predicates do not correspond to a morphologically simple modifying adjective.

In (375a), *yé: bò* ‘is full’ is based on *yê:*. The 3Pl form is *yê: bô:*. The modifying form, however, is not directly related to this adjectival predicate. Rather, it is a perfective participle from the related inchoative verb *yê:* ‘become full, fill up’. Preceding subsections have shown that adjectives have a strong bisyllabic bias, and ‘full’ along with ‘good’ are the two exceptions, both showing irregularities.

(375b) has two trisyllabic adjectives (with hints of final reduplication), and three iterative adjectives. The modifying forms have *-gà* suffix (§4.5.1.2), which also occurs in relative clauses (mostly negative) as a participial suffix (§14.5.3-4).

In (375c), *tê:bú* ‘a lot’ is syntactically an adverb, but like some other adverbials (§11.1.3.1) it can be made predicative by adding *bò* as auxiliary. It does not have a modifying adjectival form that can be part of N^{LH} LAdj phrases. Instead, *tê:bú(→)* with or without “intonational” prolongation can be loosely juxtaposed to an NP in adverbial function (‘greatly’), with no tonal interactions. Any accusative marker or postposition attaches to the NP, not to *tê:bú(→)*.

(375)	predicate (3Sg)	gloss	modifying form
a.	monosyllabic, participial modifying form		
	<i>yé:</i>	<i>bò</i> ‘is full’	<i>yé: sà</i> (perfective participle) (< <i>yê:</i> ‘become full’)
b.	adjectival predicates corresponding to participial modifying adjectives with <i>-gà</i> <i>simple stem</i>		
	<i>kílóló</i>	<i>bò</i> ‘(e.g. water) is cold’	^L <i>kìlòlò-gà</i> (participial, §4.5.1.2) also suppletive ^L <i>tòmbò</i> ‘cold’
	<i>bórállá</i>	<i>bò</i> ‘is smooth’	^L <i>bòrállà-gà</i> (§4.5.1.2)
	<i>iterated stem</i> (§4.5.1.2)		
	<i>ká-rí-ká-rí</i>	<i>bò</i> ‘is bitter’	^L <i>kà-r-kà-r-gà</i> (participial, §4.5.1.2)
	<i>yá-w-yá-w</i>	<i>bò</i> ‘is lightweight’	^L <i>yà-w-yà-w-gà</i> (participial, §4.5.1.2)
	<i>sé-yⁿ-sé-yⁿ</i>	<i>bò</i> ‘it is pointed’	^L <i>sè-yⁿ-sè-yⁿ-gà</i> (participial, §4.5.1.2)
c.	adverb		
	<i>tê:bú</i>	<i>bò</i> ‘be many’ (3Pl <i>tê:bú bô:</i>)	<i>tê:bú(→)</i> ‘a lot’ (adverb)

An example of modifying function with *-gà* is (376).

(376)	<i>gɔ</i> ^{LH}	^L <i>kìlòlò-gà</i>
	water ^{LH}	^L cold
	‘water that is cold’ (= ‘cold water’)	

11.4.2 “Adjective” with noun-like predicative forms

kèmnò ‘old, aged’ behaves in NPs as an ordinary modifying adjective: *nòlò^{LH H} kèmnò* ‘old man’, *yó:^{LH H} kèmnò* ‘old woman’. However, a more noun-like character is evident in predicates, which use either *bílè* ‘become (sth)’ or *káni* ‘do/be done’ (*kèmnò káni-Ø* ‘he/she has gotten old’).

11.4.3 Adjectives resistant to predicative form

No predicative form could be elicited for *dà:* ‘nasty, evil’ or *kàndà* ‘new’. To make them predicative, the speaker must add a noun and convert the NP into a nominal predicate (‘be/become a bad man/woman/...’, ‘be a new house’, etc.).

tòmbò ‘cold’ also has no predicative form. This is odd, since it could easily have fit into the *CǎCCà* template as *#tòmbá bò* ‘it is cold’, compare *bòmbá bò* ‘it is red’ (3Pl *bómbà bò:* ‘they are red’). As predicate, *tòmbò* is supplented by *kílóló bò*, see (375b) in §11.4.1.4 above.

11.4.4 Negative adjectival and stative predicates (*ǎóri*)

The negative counterpart of the positive stative adjectival predicate type with *bò* ‘be’ replaces *bò* by *ǎóri* ‘not be’. Templatic *CǎCCà*, with {HL} overlay, is illustrated in in (377).

(377) Templatic *CǎCCà ǎóri*

predicative form	gloss	modifying form
a. medial <i>C</i> geminated to <i>CC</i>		
<i>-ATR</i> → <i>+ATR</i> , long vowel shortened		
<i>yóllà</i>	<i>ǎóri</i> ‘is not black’	<i>yò:lè</i>
<i>input vocalism already +ATR-compatible</i>		
<i>wággà</i>	<i>ǎóri</i> ‘is not distant’	<i>wàgì</i>
b. input already has medial cluster		
<i>input vocalism already +ATR-compatible</i>		
<i>dénjà</i>	<i>ǎóri</i> ‘is not sweet’	<i>dènjì</i>
<i>jùngà</i>	<i>ǎóri</i> ‘is not hot’	<i>jùṅgà</i>
c. irregular		
<i>monosyllabic input adapted to template</i>		
<i>bómbà</i>	<i>ǎóri</i> ‘is not red’	<i>bòw</i>
<i>input medial cluster replaced</i>		
<i>kájjà</i>	<i>ǎóri</i> ‘is not difficult’	<i>kà:ndà</i>

Nontemplatic adjectives are in (378). The tones are somewhat different in the 3Sg form shown from that in positive predicates, with {HL} favored.

(378) Nontemplatic plus *ʔóri*

	predicative form	gloss	modifying form
a. monosyllabic	<i>yé:</i> <i>ʔóri</i>	‘is not full’	<i>yé: sà</i>
b. bisyllabic	<i>ɲá:ɲì:</i> <i>ʔóri</i>	‘is not dry’	^L <i>ɲà:ɲì</i>
	<i>témbè:</i> <i>ʔóri</i>	‘is not wet’	^L <i>tèmbè</i>
	<i>kóɲɲè:</i> <i>ʔóri</i>	‘is not lean’	^L <i>kòɲè</i>
	<i>ʔámì:</i> <i>ʔóri</i>	‘is not sour’	^L <i>ʔàmì</i>
c. other			
	<i>{H} dropped to L</i>		
	<i>kìlòlò</i> <i>ʔóri</i>	‘(water) is not cold’	^L <i>kìlòlò-gà</i>
	<i>kàrì-kàrì</i> <i>ʔóri</i>	‘is not bitter’	^L <i>kàr-kàr-gà</i>
d. irregular			
	<i>né:-là</i>	‘is not good’ (cf. <i>némbò</i> ‘is good’)	

11.5 Possessive predicates

11.5.1 ‘X have Y’ (*bò sà*)

sà ‘have’ is obligatorily combined with existential proclitic *bò* in positive, unfocalized main clauses. *bò* is absent in the presence of negation or a focalized constituent and in relatives; see §11.2.2.1 for the syntax. The paradigm of *sà* ‘have’ and of its (stative) negation *sà: = ndà* are in (379).

(379) category	‘have X’	‘not have X’
1Sg	<i>X bò ɲ sà</i>	<i>X ɲ sá: = ndà</i>
1Pl	<i>X bò ɲ sà</i>	<i>X ɲ sà: = ndà</i>
2Sg	<i>X bò à sà</i>	<i>X à sá: = ndà</i>
2Pl	<i>X bò á sà</i>	<i>X á sà: = ndà</i>
3Sg	<i>X bò sà</i>	<i>X sà: = ndà-Ø</i>
3Pl	<i>X bò sá</i>	<i>X sà: = ndà-yà</i>

11.5.2 ‘Y belong to X’ predicates (*wê:*)

When the possessed entity is backgrounded (i.e. given) and the focus is on who owns/has it, the construction is ‘X (is/are) [Y’s thing(s)]’ with noun *wê:* ‘thing’ in possessed form ^{HL}*wê:* (I usually omit the superscripts). The paradigm is (380). The marked plural form with suffix *-(ŋ)gè* is optional; the unmarked form is often used since the possessed NP (with its plural marking) is usually overt, so plural marking in the predicate would be redundant.

(380)	singular	plural
1Sg	<i>[ŋ wê:] = Ø</i>	<i>[ŋ wê:-ŋgè] = Ø</i>
1Pl	<i>[ŋ wê:] = Ø</i>	<i>[ŋ wê:-ŋgè] = Ø</i>
2Sg	<i>[à wê:] = Ø</i>	<i>[à wê:-ŋgè] = Ø</i>
2Pl	<i>[á wê:] = Ø</i>	<i>[á wê:-ŋgè] = Ø</i>
3Sg	<i>[wê:-ná] = :</i>	<i>[wê:-ná-gè] = Ø</i>
3Pl	<i>[âŋ wê:] = Ø</i>	<i>[âŋ wê:-ŋgè] = Ø</i>

I assume that the ‘it is’ clitic is present in all such cases, but it is usually inaudible except in the 3Sg possessor singular form *[wê:-ná] = :*, where the final long vowel is audible.

Examples are in (381). In *?òbò nó* ‘the house’, the tone-raising of *nò* to *nó* occurs before the 3Sg form *wê:-ná:* (381b), and in isolation, but not before the other possessive predicates.

- (381) a. *[?òbò nò]* *[ŋ wê:] = Ø*
 [house Def] [1SgPoss **thing**]=it.is
 ‘The house is mine.’
- b. *[?òbò nó]* *[wê:-ná] = :*
 [house Def] [**thing**-3SgPoss]=it.is
 ‘The house is his/hers.’
- c. *[ná:lì nò]* *[ŋ ^{HL}wê:] = Ø*
 [cat Def] [1SgPoss ^{HL}**thing**]=it.is
 ‘The cat is mine.’
- d. *[ná:lí-gè nò]* *[séydù ^{HL}wê:] = Ø*
 [cat-Pl Def] [S ^{HL}**thing**]=it.is
 ‘The cats are Seydou’s.’

For interrogative ‘That is whose house?’, see §13.2.2.1.

12 Comparatives

12.1 Asymmetrical comparatives

12.1.1 Predicative adjective with stative $-w^n \sim -y^n$ and direct object

In this construction, the adjective is predicative and conjugated for pronominal subject. The adjectival stem is followed by $-w^n \sim -y^n$, which is phonetically realized in various ways including an assimilated nasal consonant preconsonantly, elsewhere [wⁿ] after back or low vowel and [jⁿ] after front vowel, or just vocalic nasalization. This suffix is also found in the bare stative form of perception verbs (§10.4.1.3). The conjugation is stative, with 3Pl $-yà$, before which $-w^n$ assimilates to $-y^n$, and with stative negative = $ndà$ (§10.4.2).

The comparandum is treated as direct object. Human objects take accusative form.

- (382) a. [séydù ngù] ò gólè-wⁿ
 [Seydou Acc] 1SgSbj long-Stat
 ‘I am longer (=taller) than Seydou (is).’
- b. [bé:-gè nò] mì-ngú gòlè-yⁿ-yà
 [child-Pl Def] 1Sg-Acc long-Stat-3PlSbj
 ‘The children are longer (=taller) than I (am).’

The positive and negative paradigms for ‘long’ are in (383). $gòlè = ndà$ might be derived from /gòlè-yⁿ = ndà/, but if so the $-y^n$ is absorbed by the following nasal. Likewise $sìmà = ndà$ ‘not be whiter’ if analysed as /sìmà-wⁿ = ndà/. The forms shown in (383) shift the second o of $gòlò$ ‘long, tall’ to e . Unshifted $gólò-w^n$ is also possible. One might try to reinterpret the forms with final e as inchoative perfectives, but the inchoative perfective for ‘become long’ is $góllè$ with geminated ll , and its 3Pl form is $góllí-yè$ ‘they became long’. The optional shift to e is more likely a local assimilation to $-y^n$.

(383)	‘be longer’	‘not be longer’
1Sg	ò gólè-y ⁿ	ò gólè = ndà
1Pl	ò gólè-y ⁿ	ò gólè = ndà
2Sg	à gólè-y ⁿ	à gólè = ndà
2Pl	á gólè-y ⁿ	á gólè = ndà
3Sg	gòlè-y ⁿ -Ø	gòlè = ndà-Ø
3Pl	gòlè-y ⁿ -yà	gòlè = ndà-yà

Forms of adjectives in this comparative construction (3Sg subject form) are given along with the regular postnominal modifying form in (384).

(384) Adjectives

	modifying	comparative (3Sg)	gloss
a.	-y ⁿ after {i e ε}		
	^L bìgì	bìgì-y ⁿ	‘big (stone)’ (also ‘stout, fat’)
	^L nìnjì	nìnjì-y ⁿ	‘heavy’
	^L dà:mbè	dà:mbè-y ⁿ	‘small (house)’
	^L yò:lè	yò:lè-y ⁿ	‘black (dark)’
b.	-y ⁿ after o shifted to e		
	^L gòlò	gòlè-y ⁿ	‘long’ (= ‘tall’)
c.	-w ⁿ after back or low vowel		
	^L tùmbù	tùmbù-w ⁿ	‘short (rope, person)’
	^L kèmnò	kèmnò-w ⁿ	‘old (man, woman)’
	^L gìmbò	gìmbò-w ⁿ	‘deep (well, hole)’
	^L jùṅgà	jùṅgà-w ⁿ	‘hot’ = ‘fast’
	^L sìmà	sìmà-w ⁿ	‘white’
d.	C-final		
	^L bày ⁿ	bày ⁿ -y ⁿ	‘big (e.g. house)’ (also ‘wide’)
	^L bòw	bòw-w ⁿ	‘red’

The past morpheme *mbè* may be added (§10.5.1).

12.1.2 *nà-wⁿ* ‘be more’ and direct object with domain phrase

An alternative to the type ‘I am taller than Seydou’ with ‘long/tall’ as predicate adjective is a phrasing of the type ‘I am more than Seydou (with respect to) height.’ Here the domain of comparison (height) is specified by a separate NP, typically a bare noun without a postposition. *nà-wⁿ* ‘be more’ is conjugated for pronominal subject category in the same fashion as ‘long, tall’ in the preceding section. The 3Pl form is *nà-yⁿ-yà*. In negative *nà-wⁿ = ndà* I do sometimes hear the *wⁿ*.

- (385) a. [séy dù ṅgù] ?í:ṅgè [ɲ nâ-wⁿ] / [ɲ nâ-wⁿ]
 [Seydou Acc] height [1SgSbj be.more] / [1PlSbj be.more]
 ‘I am/We are taller than Seydou.’

- b. *séydù* *mì-ηgù* *ʔi:ηgè* *nà-wⁿ = ndà-Ø*
 Seydou 1Sg-Acc height be.more-Stat=StatNeg-3SgSbj
 ‘Seydou is not taller than I (am).’

12.1.3 Verbal-noun domain with *nà-wⁿ* ‘more’

If the domain of comparison is expressed as a verb or a VP rather than as an adjectival predicate, the domain takes the form of a verbal noun with suffix *-nà* (§4.2.2). The verbal noun may be accompanied by a direct object or other complement. Asymmetry is expressed by a conjugated form of *nà-wⁿ*.

- (386) a. *séydù* *mì-ηgú* *nà-wⁿ-Ø* *[jî: jó:-nà]*
 Seydou 1Sg-Acc be.more-Stat-3SgSbj [meal eat.meal-VbIN]
 ‘Seydou eats more than I (do).’
- b. *séydù-ηgù* *η* *nâ-wⁿ* *[jî: jó:-nà]*
 Seydou-Acc 1SgSbj be.more-Stat [meal eat.meal-VbIN]
 ‘I eat more than Seydou (does).’
- c. *[bé:-gè nò]* *[jî: jó:-nà]* *mì-ηgú* *nà-yⁿ-yà*
 [child-Pl Def] [meal eat.meal-VbIN] 1Sg-Acc more-Stat-3PlSbj
 ‘The children eat more than I (do).’

12.1.4 ‘Be better, be more’ (*nèyⁿ*, *nâ-wⁿ nèyⁿ*)

The suppletive predicative form of ‘good’ is *némbo* ‘be good’ (§11.4.1.3), negated as *né: = là* ‘not be good, be bad’. Comparative predicate ‘be better’ is attested as *nèyⁿ*. The paradigm of *nèyⁿ* is (387). The ‘than’ comparandum is accusative.

- (387) 1Sg *η nèyⁿ*
 1Pl *η nèyⁿ*
 2Sg *à nèyⁿ*
 2Pl *á nèyⁿ*
- 3Sg *nèyⁿ-Ø*
 3Pl *nèyⁿ-yà*

An example is (388).

- (388) *mì-ηgú* *nèyⁿ-Ø*
 1Sg-Acc be.better-3SgSbj
 ‘He/She is better than I (am).’

nèyⁿ can also be reinforced by a form of *nâ-wⁿ* ‘be more’. The combination is *nâ-wⁿ nèyⁿ*, pronounced [nân:èjⁿ]. In this construction, a nonpronominal NP expressing the less-good comparandum appears not as an accusative NP, rather as a postposed phrase with *kâ:* ‘than’ (389a). 1st/2nd person subject proclitics, if present, precede *nèyⁿ*.

- (389) a. *má:ngórò nâ-wⁿ nèyⁿ-Ø [lèmbùrù kâ:]*
 mango **be.more** be.good-3SgSbj [citrus than]
 ‘A mango is better than a lemon.’
- b. *à-ngù nâ-wⁿ [ì] nèyⁿ]*
 2Sg-Acc **more** [1SgSbj be.good]
 ‘I am better than you-Sg (are).’
- c. *mì-ngù nâ-wⁿ [à nèyⁿ]*
 1Sg-Acc **more** [2SgSbj be.good]
 ‘You-Sg are better than I (am).’

12.1.5 *dábè* ‘pass’ in asymmetrical comparatives

dábè means ‘go past, pass by’ as simple motion verb. In comparative contexts it is a transitive verb ‘surpass, exceed’.

- (390) *sèmè-lámà mì-ngù à dábè*
 slyness 1Sg-Acc 2SgSbj **pass.Pfv**
 ‘You were more clever than (=outwitted) me.’

12.2 Symmetrical comparatives

12.2.1 ‘Equal; be as good as’ (*dínà*)

The stative verb *dínà* means ‘equal (sb/sth), be the equal (or equivalent) of (sb/sth)’ or ‘be worth (sth)’. It is related to *dínnè* ‘arrive (at), reach, attain’.

- (391) a. *sé:dù [bâw-nà ngù] dìnà = ndà-Ø*
 S [father-3SgPoss Acc] **be.equal(v)=StatNeg-3SgSbj**
 ‘Seydou isn’t as good as his father.’
- b. *[bé:-gè nò] [âŋ ^{HL}bâw ngù] dìnà-yà*
 [child-Pl Def] [3PIPoss ^{HL}father Acc] **be.equal(v).Stat-3PlSbj**
 ‘The children are as good as their father.’

12.2.2 *tó:lè* ‘one’ in comparatives

Predicative *tó:lé: b̀-Ø* ‘be one’, hence ‘be the same’ may specify identity, or equality on some scale. In (392), the conjoined NP is a preclausal topic and is resumed by a possessor.

- (392) *[[m̀ ỳ] [s̀:d̀ ỳ]] [ŋ̃^{L+HL} ʔi:ŋgè] tó:lé: b̀-Ø*
[[1Sg and] [S and]] [1PlPoss ^{L+HL}height] **one** be-3SgSbj
‘Seydou and I are of the same height.’

See also T2015-08 @ 00:40.

13 Focalization and interrogation

13.1 Focalization

Syntactic focalization is possible for nonpredicative NPs and adverbial phrases within main clauses. One constituent is singled out for focus, while the remainder of the clause (including the verb or other predicate) is backgrounded (**defocalized**). Content interrogatives are intrinsically focal, but they do not always trigger syntactic focalization. The ‘it is’ clitic consisting of final-vowel lengthening can mark the focalized constituent. However, it is not reliably audible, so it is of limited practical use as a phonetic cue. The tones and morphology of the verb, in some case including participial morphemes, are therefore important cues.

Focalization is closely related to relativization (chapter 14).

13.1.1 Basic syntax of focalization

13.1.1.1 Which constituents can and cannot be focalized?

Overt syntactic focalization applies to NPs, including pronouns and noun-like adverbs, and to PPs and similar adverbial phrases.

- (393) a. *yá:gù* *ʔégè* *sà*
yesterday come.3PISbj have.3PISbj
‘It was yesterday [focus] that they came.’
- b. *séydù* *gè:ndó-gò*
Seydou go-Ppl.Ipfv
‘It’s Seydou [focus] who will go.’
- c. [*ó* *já:tì*] *gè:ndó-gò*
[2Sg indeed] go-Ppl.Ipfv
‘It’s you [focus] who will go.’
- d. *ʔálámà = :* *ḡ* *só:wà*
sheep=Foc 1SgSbj buy.Ipfv
‘It’s a sheep [focus] that I will buy.’
- e. *[[ʔòbò* *dólóngù]* *ndò* *dó:yè*
[[house interior] Loc] sleep.Pfv.3PISbj
‘It’s in the house [focus] that they slept.’

VPs and clauses cannot be syntactically focalized in a comparable fashion. The truth value of a proposition may be focalized, i.e. insisted on, by using emphatic particles (§19.5). A kind of verb focus can be created by iterating it (§13.1.6).

13.1.1.2 Subject marking in nonsubject focalizations

1st/2nd person pronominal subjects are expressed in the usual way as proclitics, in nonsubject-focalized clauses as in regular main clauses. 3Sg and 3Pl subjects in perfective nonsubject-focalized clauses take unaffixed rather than affixed form. In perfective positive as well as in other aspect-negation categories, 3Sg and 3Pl are distinguished by tones. Syllabic suffixes, where present, are included in the domain of the tone overlay. Correlations of tone overlays with pronominal-subject categories are summarized in (394). {LHL} includes L+{LH} after 1Pl/2Pl proclitics.

- (394) a. {HL}
 unaffixed 3Pl
 after 1Sg *ɲ* and 2Sg *à*
- b. {LHL}
 unaffixed 3Sg
 after 1Pl *ɲ* and 2Pl *á*

In both {HL} and {LHL}, the tone breaks occur near the right edge.

In each of the following arrays (395-398), the {HL} overlay is found in the (a,d) examples with 1Sg/2Sg and 3Pl subjects, the {LHL} overlay in the (b,c) examples with 1Pl/2Pl and 3Sg subjects.

Perfective positive examples are in (395). The verb has the usual E/I-stem form. *ʔèbéǵè* ‘what?’ becomes *ʔèbéǵé* by Rightward H-Spreading in (395c) and (396c) before the L-initial 3Sg verb. The ‘have’ auxiliary, optionally added in subject focalizations, is absent in these nonsubject-focalized clauses.

- (395) a. *ʔèbéǵè* *ɲ / à* *só:wè / párá-gè*
 what? 1SgSbj / 2SgSbj buy.Pfv / cut-Caus.Pfv
 ‘What did I/you-Sg buy/cut?’
- b. *ʔèbéǵè* *ɲ / á* *sǒ:wè / pàrá-gè*
 what? 1PlSbj / 2PlSbj buy.Pfv / cut-Caus.Pfv
 ‘What did we/you-Pl/ buy/cut?’
- c. *ʔèbéǵé* *sǒ:wè / pàrá-gè*
 what? buy.Pfv.3SgSbj / cut-Caus.Pfv.3SgSbj
 ‘What did he/she buy/cut?’

- d. *ʔèbéḡè* *só:wè / párá-gè*
 what? buy.Pfv.3PISbj/ cut-Caus.Pfv.3PISbj
 ‘What did they buy/cut?’

Imperfective positive examples are in (396). The verb has the usual A-stem form.

- (396) a. *ʔèbéḡè* *ḡ / à* *só:wà*
 what? 1SgSbj / 2SgSbj buy.Ipfv
 ‘What will I/you-Sg buy?’
- b. *ʔèbéḡè* *ḡ / á* *sǒ:wà*
 what? 1PISbj / 2PISbj buy.Ipfv
 ‘What will we/you-Pl buy?’
- c. *séydù* *ʔèbéḡé* *sǒ:wà*
 Seydou what? buy.Ipfv.3SgSbj
 ‘What will Seydou buy?’
- d. *bé:-gè* *ʔèbéḡè* *só:wà*
 child-Pl what? buy.Ipfv.3PISbj
 ‘What will the children buy?’

Perfective negative examples are in (397). The verb has the usual A/O-stem form (§10.2.3.1). *sówá:-lí-gà* and *sòwà:-lí-gà* normally syncopate. In the latter, the stranded H-tone is realized as <LH> tone on the preceding vowel after syncope. Preverbal *yé* is regularly present in negative focalized clauses (§13.1.1.9 below). It also occurs in various types of relative clause, not all negative (§14.4).

- (397) a. *ʔèbéḡè* *yé* *ḡ / à* *sówá:-lí-gà*
 what? which 1SgSbj / 2SgSbj buy-PfvNeg-Ppl.Neg
 ‘What did I/you-Sg not buy?’ (< *sówá:-lí-gà*)
- b. *ʔèbéḡè* *yé* *ḡ / á* *sòwǎ:-lí-gà*
 what? which 1SgSbj / 2SgSbj buy-PfvNeg-Ppl.Neg
 ‘What did we/you-Pl not buy?’ (< *sòwà:-lí-gà*)
- c. *séydù* *ʔèbéḡé* *yé* *sòwǎ:-lí-gà*
 Seydou what? which buy-PfvNeg-Ppl.Neg
 ‘What did Seydou not buy?’
- d. *bé:-gè* *ʔèbéḡè* *yé* *sówá:-lí-gà*
 child-Pl what? which buy-PfvNeg-Ppl.Neg
 ‘What did the children not buy?’

Imperfective negative examples are in (398). The verb is in the usual O/U-stem. Preverbal *yé* is common, as in the perfective negative.

- (398) a. *ʔèbéǵè* *yé* *ɲ / à* *sówó-lò-gà*
 what? which 1SgSbj / 2SgSbj buy-IPfvNeg-Ppl.Neg
 ‘What will I/you-Sg not buy?’
- b. *ʔèbéǵè* *yé* *ɲ / á* *sòwò-ló-gà*
 what? which 1SgSbj / 2SgSbj buy-IPfvNeg-Ppl.Neg
 ‘What will we/you-Pl not buy?’
- c. *séydù* *ʔèbéǵè* *yé* *sòwò-ló-gà*
 Seydou what? which buy-IPfvNeg-Ppl.Neg
 ‘What will Seydou not buy?’
- d. *bé:-ǵè* *ʔèbéǵè* *yé* *sówó-lò-gà*
 child-Pl what? which buy-IPfvNeg-Ppl.Neg
 ‘What will the children not buy?’

Array (399) gives comparable forms for two additional verbs, including one monosyllabic (‘drink’).

(399)		‘drink’	‘tie’
a. perfective			
1Sg/2Sg/3Pl	<i>né</i>	<i>sójè</i>	
1Pl/2Pl/3Sg	<i>nè</i>	<i>sòjè</i>	
b. perfective negative			
1Sg/2Sg/3Pl	<i>ná:-l-gà</i>	<i>sójá:-l-gà</i>	
1Pl/2Pl/3Sg	<i>nǎ:-l-gà</i>	<i>sòjǎ:-l-gà</i>	
c. imperfective			
1Sg/2Sg/3Pl	<i>ná</i>	<i>sójà</i>	
1Pl/2Pl/3Sg	<i>nà</i>	<i>sòjà</i>	
d. imperfective negative			
1Sg/2Sg/3Pl	<i>nó:-lò-gà</i>	<i>sójó:-lò-gà</i>	
1Pl/2Pl/3Sg	<i>nò:-ló-gà</i>	<i>sòjò:-ló-gà</i>	

For ‘drink’, the difference between H- and L-toned monosyllabic words is evident when the unsuffixed 3Sg and 3Pl are compared. In (400a), the L-toned 3Sg-subject verb is reinforced perceptually by triggering Rightward H-Movement on ‘what?’.

- (400) a. *ʔèbègé nè*
 what? drink.Pfv.3SgSbj
 ‘What did he/she drink?’ (< *ʔèbégé*)
- b. *ʔèbégé nê:*
 what? drink.Pfv.3PlSbj
 ‘What did they drink?’

13.1.1.3 Linear position and form of focalized constituent

The focalized constituent is not systematically moved, either to clause-initial or to preverbal position. The order is subject-object-verb regardless of whether the object (401a) or the subject (401b) is focalized. However, in (401a) the verb has the {HL} tone overlay of an unsuffixed 3Pl perfective, which excludes the possibility of subject focus, while in (401b) the verb has the {L} overlay of a subject-focus perfective. This tonal difference on the verb has ripple effects on the tones of the preceding 1Sg accusative.

- (401) a. *[bé:-gè nò] mî-ŋgù tégè [ʔibà ndó]*
 [child-Pl Def] 1Sg-Acc see.Pfv.3PlSbj [market Loc]
 ‘It was me [focus] that the children saw in the market.’
- b. *[bé:-gè nò] mî-ŋgú tégè [ʔibà ndó]*
 [child-Pl Def] 1Sg-Acc see.Pfv.Defoc [market Loc]
 ‘It was the children [focus] who saw me in the market.’

The focalized constituent is optionally marked by the ‘it is’ clitic =:, but here as in some other positions the clitic is not reliably audible.

13.1.1.4 Form of subject-focus verb (participial *sà, -gà, -gò*)

If the focalized constituent is the clause subject, a participle-like form of the verb is used, similar to the participle found in the corresponding subject relative (§14.5).

The participial forms for **subject focus** are summarized in (402), with subject relative participle forms shown for comparison. Except for the imperfective positive, subject focus can be expressed either by a simple form, or by adding an auxiliary ‘have’ (*sà*) or ‘be’ (*bò*) to the simple form. The simple form includes participial suffixes except in the perfective positive. *-gà* is the participial suffix for both negative forms, and *-gò* is the suffix for imperfective positive. In the perfective positive, tonal patterns distinguish focalized from unfocalized clauses with third-person subjects.

(402)	subject focus		subject relative	inflectional category
	simple	with Aux		
a.	(zero)	<i>sà</i>	<i>sà:</i>	perfective (positive)
b.	<i>-lì-gà</i>	<i>-l-gá bò</i>	<i>-lì-gà</i>	perfective negative
c.	<i>-gò</i>	—	<i>-gò</i>	imperfective (positive)
d.	<i>-lò-gà</i>	<i>-lò-gá bò</i>	<i>-lò-gà</i>	imperfective negative

Participial *-gà* is L-toned, except that it becomes H-toned *-gá* before *bò*. In addition, *-gà* does not allow Rightward H-Spreading to raise to the tone of the preceding syllable. These facts suggest that the participial suffix was once H-toned **-gá*. For a similar case of a formerly H-toned morpheme becoming L-toned but preserving H-tone in some combinations, see postposition *ndò* (§8.1.2).

Sample paradigms of subject-focus verb forms are in (403-406) below, starting with perfective positive. The unfocalized 3Sg subject forms are shown on the left in each of these arrays for comparison.

The perfective positive subject-focus forms are in (403) below. The optional auxiliary is participial *sà* ‘have’ (rightmost column). I write it as a separate word by analogy to nonsubject-focus counterparts where it can be separately conjugated. It behaves phonologically like a 3Sg subject form of *sà* ‘have’, inducing LH tones (after Rightward H-Movement) on a preceding perfective verb. However, the combination of the perfective verb plus *sà* functions like a single word, insofar as the LH is fully realized on a monosyllabic verb, as in *jě: sà*. In fact, one could think of this as a single word with the full 3Sg perfective {LHL} overlay, as also seen in unfocalized trisyllabic 3Sg perfective *pàrà-gè* (leftmost column). By contrast, the simple subject-focus versions in the middle column, like the unfocalized versions, reduce {LHL} to {L} on *Cv*: and *CvCv* stems. {LHL} is also the full form of the overlay on the unfocalized 3Sg unsuffixed perfective, fully realized in *pàrà-gè* (lefthand column).

(403) Perfective positive subject-focus verb forms

unfocalized 3Sg (unsuffixed)	subject focus		gloss
	simple	with ‘have’	
<i>jè:</i>	<i>jè</i>	<i>jě: sà</i>	‘ate (meal)’
<i>tègè</i>	<i>tègè</i>	<i>tègé sà</i>	‘saw’
<i>pàrà-gè</i>	<i>pàrà-gè</i>	<i>pàrà-gé sà</i>	‘cut’
<i>sìmì</i>	<i>sìm(i)</i>	<i>sìmí sà</i>	‘built’

Array (404) below has perfective negative forms. *-l-* is syncopated from */-lì-/*. The resulting *lg* cluster prevents the usual lengthening of the stem-final vowel in nonmonosyllabics (§13.1.1.8 below). The overlay is {HL}, with the final L on the perfective negative suffix */-lì-/*, contrasting with {L} on the unfocalized 3Sg (lefthand column). In the simple subject-focus form with L-toned suffix *-gà*, the vowel of */-lì-/* is syncopated along with its tone. Since its

L-tone was part of a word-final two-syllable L-tone string including *-gà*, the stranded L-tone of the syncopated vowel is not repositioned leftwards. However, when *bò* is added, *-gà* becomes H-toned (not by spreading), so */-li-/* is now an L-toned syllable flanked by H-tones. Under these conditions the stranded L-tone shifts leftward after syncope, combining with the H-tone as <HL>.

(404) Perfective negative subject-focus verb forms

unfocalized 3Sg	subject focus		gloss
	simple	with 'be'	
<i>jà:-li-Ø</i>	<i>já:-l-gà</i>	<i>jâ:-l-gá bò</i>	'didn't eat'
<i>tègò:-li-Ø</i>	<i>tégó-l-gà</i>	<i>tégô-l-gá bò</i>	'didn't see'
<i>pàrà-gà:-li-Ø</i>	<i>pára-gà-l-gà</i>	<i>pára-gâ-l-gá bò</i>	'didn't cut'
<i>símò:-li-Ø</i>	<i>símó-l-gà</i>	<i>símô-l-gá bò</i>	'didn't build'

Imperfective positive forms are in (405). No auxiliary is added. The reduplication or iteration of the verb in unfocalized main clauses is absent under focalization (§13.1.1.6). The tone of the verb is {LHL} with the final L on the participial suffix *-gò*, matching the {LHL} on the unfocalized 3Sg (lefthand column), fully realized in *gè gě:ndà* and *pà pàrà-gà*. The additional syllable provided by this suffix allows full expression of the {LHL} overlay in the subject-focus forms, even for monosyllabic verbs like 'eat'. Before *-gò* in the subject-focus construction, the verb appears in the O/U-stem (§13.1.1.7), versus the A-stem in unfocalized imperfectives.

(405) Imperfective positive subject-focus verb forms

unfocalized 3Sg	subject focus	gloss
<i>jù jà</i>	<i>jǔ:-gò</i>	'will eat'
<i>tè tègà</i>	<i>tégó-gò</i>	'will see'
<i>gè gě:ndà</i>	<i>gè:ndó-gò</i>	'will go'
<i>pà pàrà-gà</i>	<i>pàrà-gó-gò</i>	'will cut'
<i>sì sìmà</i>	<i>sǐm-gò</i>	'will build'

Finally, imperfective negative forms are in (406). The overlay is {HL}, as in the unfocalized 3Sg. Before L-toned (but formerly H-toned) *-gà*, *-lè-* fails to undergo Rightward H-Spreading. When auxiliary *bò* 'be' is added, *-gà* becomes *-gá* (not by spreading).

(406) Imperfective negative subject-focus verb forms

unfocalized 3Sg	subject focus		gloss
	simple	with ‘be’	
<i>jó:-lò-Ø</i>	<i>jó:-lò-gà</i>	<i>jó:-lò-gá bò</i>	‘won’t eat’
<i>tégó-lò-Ø</i>	<i>tégó-lò-gà</i>	<i>tégó-lò-gá bò</i>	‘won’t see’
<i>pára-gó-lò-Ø</i>	<i>pára-gó-lò-gà</i>	<i>pára-gó-lò-gá bò</i>	‘won’t cut’
<i>símú-lò-Ø</i>	<i>sím(ú)-lò-gà</i>	<i>sím(ú)-lò-gá bò</i>	‘won’t build’

I was unable to elicit a specifically progressive focus form distinct from the imperfective.

In stative subject-focus forms, the overlay is {L} in the positive (407a) and {HL} in the negative (407b). There is no preposed iteration or existential proclitic (§13.1.1.6).

(407) Subject-focus forms of statives

unfocalized 3Sg	subject focus	gloss
a. positive, with {L} in unfocalized 3Sg and in subject focus		
<i>bò ?igà</i>	<i>?igà</i>	‘be standing’ (§10.4.1.1)
<i>sà</i>	<i>sà</i>	‘have’
<i>bò(-Ø)</i>	<i>bò</i>	‘be’
<i>?èyⁿ-Ø</i>	<i>?èyⁿ</i>	‘know’
<i>kàyⁿ-Ø</i>	<i>kàyⁿ</i>	‘want’
b. negative, with {L} in unfocalized 3Sg and {HL} in subject focus		
<i>?igà = ndà-Ø</i>	<i>?ígá = ndà-gà</i>	‘not be standing’
<i>sà: = ndà-‘</i>	<i>sá: = ndà-gà</i>	‘have’
<i>?òrì-Ø</i>	<i>?ór-gà</i>	‘not be’
<i>?índò-Ø</i>	<i>?índò-gà</i>	‘not know’
<i>kà:-là-Ø</i>	<i>ká:-là-gà</i>	‘not want’

Past marker *mbè* can occur in focalized clauses. In (408a-b), it follows quasi-verbs ‘be (somewhere) and ‘have’, whose vowels are lengthened as in unfocalized clauses (§10.5.1.5). (408c) is a past imperfective (or progressive). *mbè* in focalized clauses has an effect on the vocalism of the preceding verb. In (408a), *bò: mbè* shows ad hoc ATR-assimilation of *bò* ‘be’, as in main clauses (*bǒ: mbè* ‘he/she/it was’). In (408c), *sèlǒ: mbè* has an O/U-stem without ATR shift, versus unfocalized past imperfective *sèlú sèlá: mbè* ‘used to slaughter’ (§10.5.1.1-5). See §13.1.1.7 below.

(408) a. *mà:-ná* *?à:yè* *bò:* *mbè*
 here who? be Past
 ‘Who was here?’

- b. *ʔà:yè* *ʔòbò* *sà:* *mbè*
 who? house have Past
 ‘Who had a house?’
- c. *ʔà:yè* *ʔálamá-gé* *sèlɔ́:* *mbè*
 who? sheep-Pl slaughter.Ipfv Past
 ‘Who used to slaughter/was slaughtering sheep?’

Further examples of subject-focus clauses are in §13.1.2 below.

13.1.1.5 Form of nonsubject-focus verb

For nonsubject focus, verbs have full pronominal-subject conjugations.

As indicated in §13.1.1.2, with examples, a nonsubject-focus perfective positive verb has {HL} melody after after L-toned 1Sg *ɲ* and 2Sg *à* and in the unsuffixed 3Pl form, but {LHL} melody after H-toned 1Pl *ɲ* and 2Pl *á* and in the unsuffixed 3Sg form. The full {LHL} melody is audible with trisyllabic stems like ‘cut’. The rightmost column of (410) comments on changes in form from unfocalized to nonsubject-focus forms.

(409) Nonsubject-focus perfective positive forms of ‘cut’

unfocalized	nonsubject focus	category	change?
a. perfective			
<i>{HL} for nonsubject focus</i>			
<i>ɲ párá-gè</i>	<i>ɲ párá-gè</i>	1Sg	none
<i>à párá-gè</i>	<i>à párá-gè</i>	2Sg	none
<i>párá-gí-yè</i>	<i>párá-gè</i>	3Pl	suffixed to unsuffixed 3Pl
<i>{LHL} for nonsubject focus</i>			
<i>ɲ pàrà-gè</i>	<i>ɲ pàrà-gè</i>	1Pl	{L} to {LHL} like 3Sg
<i>á pàrà-gè</i>	<i>á pàrà-gè</i>	2Pl	{L} to {LHL} like 3Sg
<i>párá-gè-Ø</i>	<i>pàrà-gè</i>	3Sg	suffixed to unsuffixed 3Sg
b. perfective negative			
change beside adding <i>-gà</i>			
<i>{HL} for nonsubject focus</i>			
<i>ɲ pàrà-gá:-lì</i>	<i>ɲ párá-gá-l-gà</i>	1Sg	{LHL} to {HL} like 3Pl
<i>à pàrà-gá:-lì</i>	<i>à párá-gá-l-gà</i>	2Sg	{LHL} to {HL} like 3Pl
<i>párá-gà:-ndì</i>	<i>párá-gá-l-gà</i>	3Pl	<i>-ndì</i> to <i>-l-</i>
<i>{LHL} for nonsubject focus</i>			
<i>ɲ pàrà-gà:-lì</i>	<i>ɲ pàrà-gǎ-l-gà</i>	1Pl	{L} to {LHL}
<i>á pàrà-gà:-lì</i>	<i>á pàrà-gǎ-l-gà</i>	2Pl	{L} to {LHL}
<i>pàrà-gà:-lì-Ø</i>	<i>pàrà-gǎ-l-gà</i>	3Sg	{L} to {LHL}

For the perfective positive nonsubject focus, the form without an overt aspect-negation suffix competes with a construction with bare perfective verb followed by *sà* ‘have’ as auxiliary. Both the main verb and the auxiliary are conjugated by 1st/2nd person proclitics. 3Pl is expressed as H-toned *sá*, without a suffix.

- (410) a. *mà:* *[ɨ]* *ʔégè]* *[ɨ]* *sà]*
 here [1SgSbj come.Pfv] [1SgSbj have]
 ‘It was here [focus] that I came.’
- b. *mà:* *ʔégè* *sá*
 here come.Pfv.3PlSbj have.3PlSbj
 ‘It was here [focus] that they came.’
- c. *mà:* *ʔègé* *sà*
 here come.Pfv.3SgSbj have.3sgSbj
 ‘It was here [focus] that he/she came.’

The paradigm for ‘come’ in this alternative marked form is (411).

- (411) category ‘came’ (perfective, nonsubject focus)

1Sg	<i>[ɨ ʔégè] [ɨ sà]</i>
1Pl	<i>[ɨ ʔégè] [ɨ sà]</i>
2Sg	<i>[à ʔégà] = [à sà]</i>
2Pl	<i>[á ʔégà] = [á sà]</i>
3Sg	<i>ʔègé sà</i>
3Pl	<i>ʔégè sá</i>

Imperfective positive nonsubject-focus forms are illustrated in (413) below. Trisyllabic ‘cut’ brings out the tone overlays well. Disregarding the tones of the reduplicant and proclitics, the overlays are {HL} for 1Sg/2Sg and 3Pl, and {LHL} for 1Pl/2Pl and 3Sg, as in main clauses. In the imperfective negative, the final H of {LHL} falls on the aspect-negation suffix (*-l̥-*, becoming *-l̥-*) and the final L falls on the participial suffix *-gà*. The resulting sequence *-l̥-gà* is an exception to the tendency to avoid H-toned syllables before *-gà*.

To avoid confusion between participial suffix *-gà* and imperfective causative derivational *-gà* in *pàrà-gà* (cf. perfective *párá-gè*), I omit the internal hyphens between stem and causative suffix (*-gà*, *-gó*, etc.) throughout (412).

(412) Nonsubject-focus forms of ‘cut’ (imperfective)

main-clause	nonsubject focus	category	change in stem?
a. imperfective (positive)			
<i>{HL}</i> for nonsubject focus			
<i>pà ñ pàràgà</i>	<i>ñ páragà</i>	1Sg	none
<i>pà = à pàràgà</i>	<i>à páragà</i>	2Sg	none
<i>pà páragà</i>	<i>páragà</i>	3Pl	none
<i>{LHL}</i> for nonsubject focus			
<i>pà ñ páragà</i>	<i>ñ páragà</i>	1Pl	none
<i>pà = á páragà</i>	<i>á páragà</i>	2Pl	none
<i>pà páragà</i>	<i>páragà</i>	3Sg	none
b. imperfective negative			
<i>{HL}</i> for nonsubject focus			
<i>ñ páragó-lò</i>	<i>ñ páragó-lò-gà</i>	1Sg	none
<i>à páragó-lò</i>	<i>à páragó-lò-gà</i>	2Sg	none
<i>páragè-ndà</i>	<i>páragó-lò-gà</i>	3Pl	<i>-ndà</i> to <i>-lò-</i>
<i>{LHL}</i> for nonsubject focus			
<i>ñ pàràgò-lò</i>	<i>ñ pàràgò-ló-gà</i>	1Pl	{L} to {LHL}
<i>á pàràgò-lò</i>	<i>á pàràgò-ló-gà</i>	2Pl	{L} to {LHL}
<i>pàràgò-lò-Ø</i>	<i>pàràgò-ló-gà</i>	3Sg	none

Monosyllabic and light bisyllabic (*CvCv*) verbs reduce {LHL} to {L} in both the perfective positive and imperfective positive nonsubject-focus forms. These stems therefore have only two tonal forms, {L} for one set of pronominals and either {HL} (bisyllabic) or {H} (monosyllabic) for the others. The data in (413) can be compared to the central columns in (409) and (412) above.

(413) Nonsubject-focus forms of ‘dance’ and ‘eat’

‘dance’	‘eat’	category
a. perfective (positive)		
<i>{L}</i> reduced from <i>{LHL}</i>		
<i>ñ yǎbè</i>	<i>ñ jè</i>	1Pl
<i>á yǎbè</i>	<i>á jè</i>	2Pl
<i>yǎbè-Ø</i>	<i>jè-Ø</i>	3Sg
<i>{HL}</i> (bisyllabic) or <i>{H}</i> (monosyllabic)		
<i>ñ yǎbè</i>	<i>ñ jé</i>	1Sg
<i>à yǎbè</i>	<i>à jé</i>	2Sg
<i>yǎbè</i>	<i>jé</i>	3Pl

b. imperfective (positive)

{L} reduced from {LHL}

<i>ń yòbà</i>	<i>ń jà</i>	1Pl
<i>á yòbà</i>	<i>á jà</i>	2Pl
<i>yòbà</i>	<i>jà</i>	3Sg

{HL} (bisyllabic) or {H} (monosyllabic)

<i>ń yóbà</i>	<i>ń já</i>	1Sg
<i>à yóbà</i>	<i>à já</i>	2Sg
<i>yóbà</i>	<i>já</i>	3Pl

A progressive example is *bó-lò wàlà ń bò* ‘it’s there [focus] that we cultivate (=do farming)’, see T2015-03 at 00:22 for mark-up.

It was easier to elicit nonsubject-focus forms for transitive as opposed to intransitive statives. Transitive statives like ‘have’ readily take focalized objects (414).

(414) Nonsubject focus (positive statives)

1Sg/2Sg	1Pl/2Pl	3Sg	3Pl	gloss
a. positive				
<i>X bò</i>	<i>X bò</i>	<i>X bò</i>	<i>X bò:</i>	‘be’
<i>X sà</i>	<i>X sà</i>	<i>X sà</i>	<i>X sà:</i>	‘have’
<i>X ʔèyⁿ</i>	<i>X ʔèyⁿ</i>	<i>X ʔèyⁿ</i>	<i>X ʔèyⁿ</i>	‘know’
<i>X kàyⁿ</i>	<i>X kàyⁿ</i>	<i>X kàyⁿ</i>	<i>X kàyⁿ</i>	‘want’
b. negative				
<i>X ʔòrí-gà</i>	<i>X ʔòrí-gà</i>	<i>X ʔòrí-gà</i>	<i>X ʔòrí-gà</i>	‘not be’
<i>X sá: = ndà-gà</i>	<i>X sà: = ndá-gà</i>	<i>X sà: = ndá-gà</i>	<i>X sá: = ndà-gà</i>	‘not have’
<i>X ʔíndò-gà</i>	<i>X ʔíndó-gà</i>	<i>X ʔíndó-gà</i>	<i>X ʔíndò-gà</i>	‘not know’
<i>X ká:-lâ-gà</i>	<i>X kà:-lá-gà</i>	<i>X kà:-lá-gà</i>	<i>X ká:-l-â-gà</i>	‘not want’

The negative forms in (414) above co-occur with preverbal proclitic *yé* (§13.1.1.9).

- (415) *ʔèbégè yé sá: = ndà-gà / ʔíndò-gà / ká:-lâ-gà*
 what? which have=StatNeg-/not.know-/want=StatNeg-Ppl.Neg
 ‘What does he/she not have/know/want?’

Past marker *mbè* occurs in nonsubject-focus examples in (416).

- (416) a. *ʔèbégè sá: mbè*
 what? have.3PlSbj Past
 ‘What did they (use to) have?’

- b. *ʔèbégè* *já:* *mbè*
 what? eat.Ipfv.3PlSbj Past
 ‘What did they use to eat?’

13.1.1.6 Trimming of verbal accessories under focalization

Initial reduplication and full-stem iteration in the imperfective positive and in the stative positive are not allowed in the presence of a focalized constituent. Preposed *bò* is also absent from positive statives in a focalized clause.

- (417) a. *ʔà:yè* *gè:ndó-gò*
 who? go-Ppl.Ipfv
 ‘Who will go?’
- b. *ná-lò* *à* *gè:ndà*
 where?-Loc 2SgSbj go.Ipfv
 ‘Where will you-Sg go?’
- c. *à:yè* *ʔèbà* *bó-lò*
 who? sit.Stat over.there-Loc
 ‘Who is sitting over there?’

13.1.1.7 Imperfective shift from A- to O/U-stem for subject focalization

Imperfective (positive) verbs are normally based on the A-stem, which requires +ATR-compatible vocalism throughout the stem. In subject-focus constructions, imperfective verbs shift to the O/U-stem, which does not require an ATR shift. This shift also occurs under similar conditions in imperfective subject relatives (§14.5.2).

For final-nonhigh-vowel verbs, I have also recorded a hybrid form with stem-final *a* (for expected *ɔ*) after an unshifted -ATR stem, e.g. *selá-* for expected *selɔ-* for ‘slaughter’ (compare true A-stem *sela-*). The relationship between regular and subject-focus forms of imperfective verbs is illustrated in (418).

- | (418) | unfocalized
(3Sg subject) | subject focus | category |
|-------|------------------------------|------------------------------|-------------------|
| a. | <i>sélè</i> ‘slaughter’ | | |
| | <i>sè sèlà</i> | <i>sèlɔ-gò ~ sèlá-gò</i> | imperfective |
| | <i>sèlá: mbè</i> | <i>sèlɔ: mbè ~ sèlá: mbè</i> | past imperfective |

b. <i>nĕ:</i> ‘drink’			
<i>nù nà</i>	<i>nó:-gò</i>		imperfective
<i>nǎ: mbè</i>	<i>nǎ: mbè ~ nǎ: mbè</i>		past imperfective
c. <i>ʔégè</i> ‘come’			
<i>ʔè ʔègà</i>	<i>ʔègó-gò</i>		imperfective
<i>ʔègá: mbè</i>	<i>ʔègó: mbè ~ ʔègá: mbè</i>		past imperfective
d. <i>dú:nì</i> ‘run’			
<i>dù dǔ:nà</i>	<i>dù:nú-gò</i>		imperfective
<i>dù:ná: mbè</i>	<i>dù:nú: mbè</i>		past imperfective

Examples are in (419).

- (419) a. *ʔà:yè* *ʔálámá-gè* *sèló:* *mbè*
 who? sheep-Pl slaughter.Ipfv.3SgSbj Past
 ‘Who used to slaughter/was slaughtering sheep-Pl?’
- b. *ʔà:yè* *dù:nú:* *mbè*
 who? run.Ipfv Past
 ‘Who used to run/was running?’
- c. *ʔà:yè* *ʔálámá-gé* *sèlá-gò*
 who? sheep-Pl slaughter.Ipfv-Ppl.Ipfv
 ‘Who will slaughter sheep?’

There is no shift from A-stem to O/U-stem in nonsubject focus constructions. The regular imperfective A-stem with +ATR vocalism occurs in the object-focus examples (420a-b).

- (420) a. *ʔèbègé* *sèlá:* *mbè*
 what? slaughter.Ipfv.3SgSbj Past
 ‘What did he/she use to slaughter?’
- b. *ʔèbègé* *sèlà*
 what? slaughter.Ipfv.3SgSbj
 ‘What will he/she slaughter?’

13.1.1.8 No stem-final lengthening in perfective negative

In focalization clauses, the perfective negative with *-l-gà* (or *-l-gá bò*) omits the usual stem-final vowel lengthening that occurs before perfective negative *-lì* in unfocalized main clauses. Monosyllabic *Cv:* verbs retain their lexical length. These comments apply to subject and nonsubject focalization. Syncope of *-lì-gà* to *-l-gà* would combine with a preceding long

vowel to form a word with a superheavy penult (*CvCv:-l-gà*). This may have been a factor in blocking lengthening.

(421)	unfocalized	focus	category (3Sg subject)
a.	<i>sélè</i> ‘slaughter’		
	<i>sélá:-lì-Ø</i>	<i>sélà-l-gà</i>	perfective negative
b.	<i>nê:</i> ‘drink’		
	<i>ná:-lì-Ø</i>	<i>ná:-l-gà</i>	perfective negative
c.	<i>dú:nì</i> ‘run’		
	<i>dú:nó:-lì-Ø</i>	<i>dú:nò-l-gà</i>	perfective negative

Examples are in (422).

(422)	a.	<i>ʔà:yè</i>	<i>ʔálámà</i>	<i>sélà-l-gà</i>	
		who?	sheep	slaughter-PfvNeg-Ppl.Neg	
		‘Who did not slaughter a sheep?’			
	b.	<i>ʔèbégè</i>	<i>yé</i>	<i>sèlǎ-l-gà</i>	
		what?	which	slaughter-PfvNeg-Ppl.Neg	
		‘What did he/she not slaughter?’			

13.1.1.9 Proclitic *yé* before verb

A proclitic *yé* may precede the defocalized verb and any 1st/2nd person subject proclitic that may be present. In elicitation, *yé* regularly occurred in negative focalized clauses, both perfective and imperfective. See §13.1.1.2 for examples. *yé* is also common in relative clauses (§14.4). For historical background see the end of §4.1.2.

13.1.2 Subject focalization

The verb takes the form of a focus participle, differing at most slightly from subject-relative participles (§13.1.1.3). There is no pronominal agreement in the verb for the focalized subject, which is always expressed separately.

In (423), the **perfective** subject-focus participle is invariant and {L}-toned, allowing the second syllable of *mì-ŋgù* ‘me’ to be tone-raised. The focalized subject is expressed by a clause-initial NP or pronoun.

- (423) *ò:/ séydù / [bé:-gè nò] mì-ŋgú tégè*
 2Sg / Seydou / [child-Pl Def] 1Sg-Acc see.Pfv
 ‘It was you-Sg / Seydou / the children [focus] who saw me.’

Participial morphemes *sà* (perfective positive), *gò* (imperfective positive), and *-gà* (negative, added to an aspect-negation suffix) are illustrated in (424).

- (424) a. *?à:yè ?ègé sà*
 who? come.Pfv have.Ppl
 ‘Who came?’
- b. *?à:yè ?égo gò*
 who? come Ppl.Ipfv
 ‘Who will come?’
- c. *?à:yè ?égo:-l-gà*
 who? come-PfvNeg-Ppl.Neg
 ‘Who didn’t come?’
- d. *?à:yè gé:l-là-gà*
 who? go-IpfvNeg-Ppl.Neg
 ‘Who will not go?’ (< *gě:ndè*)

13.1.3 Object focalization

The focalized object occurs in the usual object position after a nonpronominal subject NP. The object may have accusative marking. The verb is conjugated for pronominal person. Perfective examples are in (425). The tonal difference on the verb in (425a) and (425c) is accentuated by its effect on the tones of *mì-ŋgù*, which becomes *mì-ŋgú* before an L-toned syllable (425a). If perfective participial auxiliary *sà* is present, both the main verb and the auxiliary are conjugated, in the fashion of verb chains. Before the sibilant in perfective *sà*, 1Sg *ŋ* and 1Pl *ŋ* are usually heard as vowel nasalization or as *yⁿ*.

- (425) a. *mì-ŋgú tégé sà*
 1Sg-Acc see.Pfv.3SgSbj have.3SgSbj
 ‘It was me [focus] who(m) he/she saw.’
- b. *séydù mì-ŋgú tégé sà*
 Seydou 1Sg-Acc see.Pfv.3SgSbj have.3SgSbj
 ‘It was me [focus] who(m) Seydou saw.’

- c. *mì-ηgù* *tégè* *sá*
 1Sg-Acc see.Pfv.3PlSbj have.3PlSbj
 ‘It was me [focus] who(m) they saw.’
- d. [*séydù* *ηgù*] [*η* *tégè*] [*η* *sà*]
 [Seydou Acc] [1SgSbj see.Pfv] [1SgSbj have]
 ‘It was Seydou [focus] that I saw.’
- e. [*séydù* *ηgù*] [*η* *tégè*] [*η* *sà*]
 [Seydou Acc] [1SgSbj see.Pfv] [1SgSbj have]
 ‘It was Seydou [focus] that we saw.’
- f. [*séydù* *ηgù*] [*à* *tégà*] = [*à* *sà*]
 [Seydou Acc] [2SgSbj see.Pfv] [2SgSbj have]
 ‘It was Seydou [focus] that you-Sg saw.’

sà can occur on perfective motion verbs after purposive clause, see (574f) in §17.5.1.

An imperfective example, without participial auxiliary, is (426).

- (426) [*séydù* *ηgù*] *η* *tégólà*
 [Seydou Acc] 1SgSbj look.for.Ipfv
 ‘It’s Seydou [focus] that I (will) look for.’

The object NP is queried in (427). In this case, polar interrogative *là* follows the queried constituent, replacing clause-final interrogative *yà*.

- (427) [*séydù* *ηgù*] *lá* *à* *tégè*
 [Seydou Acc] Q 2SgSbj see.Pfv
 ‘Was it Seydou [focus] that you-Sg saw?’

13.1.4 Focalization of PP or other adverb

An adverbial phrase such as a locative PP may be focalized, though the only sign of focalization is reduction of the verb phrase. This reduction is quite common when a preverbal constituent is present, so the focalization is usually not strong.

- (428) a. [*bilà* *mbà*] *η* *gé.ndà*
 [field Loc] 1SgSbj go.Ipfv
 ‘I’m going to the field(s) [focus].’ (*bilà*)
- b. [*gúlò* *ndò*] *η* *kérà*
 [axe Inst] 1SgSbj chop.Ipfv
 ‘I chop (wood) with an axe [focus].’

13.1.5 Focalization of postpositional complement

A postposition may not be separated from its complement NP in focalization, so only the full PP may be overtly focalized.

13.1.6 Focalization of verb or VP

There is no general, all-purpose mechanism for focalizing a verb or VP. However, the absence of a focalized nonpredicative constituent might be taken as implicitly focalizing the predicate. This is particularly relevant to imperfectives, which have extras (reduplication, iteration, preverbal existential *bò*) that are absent when a nonpredicative constituent is focalized. In the case of imperfective positive verbs, replacing the usual *Cv* reduplication with full-stem iteration puts focal emphasis on the action type itself, as in answers to ‘what are you doing?’ like (429). The iteration, e.g. *nènnú* for ‘sweep’, is basically {LH}-toned, but drops its final H-tone before an H-tone in the 3Pl subject combination (429c). For the tonology see (46) above.

- (429) a. *nènnú* *ɲ* *nènnà*
Iter 1SgSbj sweep.Ipfv
‘I am sweeping [focus].’
- b. *nènnú* *nènnà*
Iter sweep.Ipfv.3SgSbj
‘He/She is sweeping [focus].’
- c. *nènnù* *nénnà*
Iter sweep.Ipfv.3PlSbj
‘They are sweeping [focus].’
- d. *gòjú* *ɲ* *gòjà*
Iter 1SgSbj dig.Ipfv
‘I am digging (a hole) [focus].’

13.2 Interrogatives

13.2.1 Polar (yes/no) interrogatives

A sharp distinction is made between a) positive imperfectives/stative clauses, which have *là* preceding (N.B.) the conjugated predicate, and b) other clauses, which have **clause-final** *yà*. *là* also occurs clause-finally after the ‘it is’ clitic.

13.2.1.1 With *là* ~ *lá* before imperfective or stative predicate

là ~ *lá* is the polar interrogative marker in positive imperfectives and positive statives. Other inflectional categories including all negatives have clause-final *yà* (§13.2.1.4). *là* ~ *lá* precedes the inflected verb, and is itself always preceded by another element. This suggests that *là* ~ *lá* is **attracted** to this position by the element preceding the final verb. Perfective positive verbs and negative verbs have no such nonfinal element within the verb complex.

The H-toned form *lá* occurs before an L-tone. The L-toned form occurs before an H-tone. It is debatable which form is basic (lexical). If *lá* is basic, it is tone-dropped before an H-tone by Dissimilatory Tone-Lowering (§3.6.3.4). If *là* is basic, it is tone-raised by Final Tone-Raising. The data presented below favor *lá* as basic form.

Positive imperfective verbs are queried by inserting *lá* between the iteration and the stem. In this combination, the usual *Cv* reduplication is expanded as full-stem **iteration**, {L}-toned and with final *u*-vowel. This is the U-stem, in the variant that imposed stem-wide +ATR or +ATR-compatible vocalism. An identical stem-iteration occurs in the past imperfective (§10.5.1.1). The paradigm for ‘Will X come?’ is in (430). The iteration in the imperfective has a basic {LH} tone overlay, e.g. *ʔègù* for ‘come’; see (46) above. H-toned *lá* in all but the 3Pl subject form in (430) may be either a lexical tone, or it could be attributed to Rightward Tone-Movement.

(430)	1Sg	<i>ʔègù lá ñ ʔègà</i>	‘Will I come?’
	1Pl	<i>ʔègù lá ñ ʔègà</i>	‘Will we come?’
	2Sg	<i>ʔègù lá = à ʔègà</i>	‘Will you-Sg come?’
	2Pl	<i>ʔègù lá = á ʔègà</i>	‘Will you-Pl come?’
	3Sg	<i>ʔègù lá ʔègà</i>	‘Will he/she/it come?’
	3Pl	<i>ʔègù là ʔégà</i>	‘Will they come?’

lá is also used with derived statives. This category already has a full-stem iteration (in the form of the A-stem). The basic tone overlay for the stative iteration is {HL}, like *ʔéba* for ‘be sitting’. *là* is inserted between the iteration and the base.

(431)	1Sg	<i>ʔéba lá ñ ʔéba</i>	‘Am I sitting?’
	1Pl	<i>ʔéba lá ñ ʔéba</i>	‘Are we sitting?’
	2Sg	<i>ʔéba lá = à ʔéba</i>	‘Are you-Sg sitting?’
	2Pl	<i>ʔéba lá = á ʔéba</i>	‘Are you-Pl sitting?’
	3Sg	<i>ʔéba lá ʔéba</i>	‘Is he/she/it sitting?’
	3Pl	<i>ʔéba là ʔéba</i>	‘Are they sitting?’

Comparison of the 3Sg and 3Pl forms above with their noninterrogative counterparts, 3Sg *ʔéba ʔéba* ‘he/she is sitting’ and 3Pl *ʔéba ʔéba* ‘they are sitting’, supports the thesis that the basic interrogative form is H-toned *lá*. It is tone-dropped to *là* before an H-tone, but even in

this case its presence prevents the preceding syllable in the 3Pl from being tone-raised by Rightward H-Spreading.

The stative can alternatively be preceded by existential *bò* instead of by the iterated stem. The position of the interrogative particle is the same: *bò lá ?èbà* ‘Is he/she/it sitting?’, *bò là ?éba* ‘Are they sitting?’.

là is also used with positive statives ‘have’ and ‘be (somewhere)’. In the case of ‘have’, *là* follows existential *bò*.

(432)	1Sg	<i>X</i>	<i>bò</i>	<i>lá</i>	<i>ỳ sà</i>	‘Do I have (an) X?’
	1Pl	<i>X</i>	<i>bò</i>	<i>là</i>	<i>ỳ sà</i>	‘Do we have (an) X?’
	2Sg	<i>X</i>	<i>bò</i>	<i>lá</i>	<i>à sà</i>	‘Do you-Sg have (an) X?’
	2Pl	<i>X</i>	<i>bò</i>	<i>là</i>	<i>á sà</i>	‘Do you-Pl have (an) X?’
	3Sg	<i>X</i>	<i>bò</i>	<i>lá</i>	<i>sà-Ø</i>	‘Does he/she have (an) X?’
	3Pl	<i>X</i>	<i>bò</i>	<i>là</i>	<i>sá</i>	‘Do they have (an) X?’

With ‘be (somewhere)’, *là* is inserted between the locational expression, e.g. *mà:* ‘here’, and the inflected form of *bò* ‘be’.

(433)	1Sg	<i>mà:</i>	<i>lá</i>	<i>ỳ bò</i>	‘Am I here?’
	1Pl	<i>mà:</i>	<i>lá</i>	<i>ỳ bò</i>	‘Are we here?’
	2Sg	<i>mà:</i>	<i>lá =</i>	<i>à bò</i>	‘Are you-Sg here?’
	2Pl	<i>mà:</i>	<i>lá =</i>	<i>á bò</i>	‘Are you-Pl here?’
	3Sg	<i>mà:</i>	<i>lá</i>	<i>bò</i>	‘Is he/she/it here?’
	3Pl	<i>mà:</i>	<i>là</i>	<i>bó</i>	‘Are they here?’

‘Is he/she/it there’ is likewise *bò lá bò*. Both *mà:* and *bò* are short versions of demonstrative adverbs *mà:-nâ:* ‘here’ and *bò-nâ:* ‘there’ (§4.4.3.1).

The data in (434), with *mà:* ‘here’ from the previous examples replaced by *?ibà ndò* ‘in the market’, shows that *ndò* is not tone-raised even before L-toned *là* in the 3Pl. Since *ndò* is often tone-raised before an L-tone, this suggests that the interrogative is lexically H-toned *lá*. It is later tone-dropped to *là* before an H-tone, but not before it blocks tone-raising on the preceding syllable.

(434)	<i>[?ibà ndò]</i>	<i>lá</i>	<i>bò</i>	‘Is he/she in the market?’
	<i>[?ibà ndò]</i>	<i>là</i>	<i>bô:</i>	‘Are they in the market?’
	<i>[?ibà ndò]</i>	<i>lá =</i>	<i>à bò</i>	‘Are you-Sg in the market?’

13.2.1.2 With clause-final *lá* or *lá-gè* after ‘it is’ predicate

Clause-final *lá* is the polar interrogative for the ‘it is’ clitic (435a). The two possible responses to each question in (435a) are the negative statements (435b) and the positive

statements (435c). Only tones distinguish the negative statements from the questions. Rightward H-Movement applies to ‘sheep’ in *ʔàlàamá=là* ‘It is not a sheep’ (435b). Dissimilatory Tone-Lowering applies to ‘sugar’ in *sìkòrò lá* ‘Is it sugar?’ (435a). Only the tone of the final grammatical morpheme distinguishes ‘Is it a pig?’ (435a) from ‘It is not a pig’ (435b).

- (435) a. *ʔáلامà / ʔàllà / sìkòrò lá*
 sheep / pig / sugar Q
 ‘Is it a sheep?/a pig?/sugar?’
- b. *ʔàlàamá=là / ʔàllà=là / sìkòró=là*
 sheep=/ pig=/sugar=it.is.not
 ‘It is not a sheep/a pig/sugar.’
- c. *ʔáلامà=: / ʔàllà=: / sìkòró=:*
 sheep=/ pig=/ sugar=it.is
 ‘It’s a sheep/a pig/sugar.’

The form *lá-gè* is also in use in the same contexts, i.e. in the interrogative verbion of ‘it is X’. The *-gè* here seems to be a filler to allow *lá* to occur nonfinally. It does not indicate plurality (cf. nominal plural suffix *-gè*), and the preceding ‘it is X’ may have either singular or plural X. An example is in T2015-03 @ (00:08).

One could speculate whether *lá* as ‘it is’ interrogative originated as a negative (‘is it not?’). This would be plausible if it can be shown by comparative Dogon evidence that *=là* ‘it is not’ was originally H-toned (or rising-toned). There is in fact evidence that it was at least rising-toned.

13.2.1.3 With *-wⁿ*

This polar interrogative is attested with *bò* ‘be (present)’. It may be based on a stative morpheme *-wⁿ* (§10.4.1.3).

- (436) *sìkòrò [ʔóló mbá] bò-wⁿ*
 sugar [village Loc] be.3SgSbj-Q
 ‘Is there sugar in the village?’

The paradigm is (437). Among other things, it is unusual in that plural *-yà* occurs in all three persons. The relationship between this *-yà* and interrogative *yà* (see the next subsection) is obscure.

(437) ‘Is it (somewhere)?’

1Sg	<i>ɲ bò-ŵⁿ</i>
2Sg	<i>à bò-ŵⁿ</i>
3Sg	<i>bò-ŵⁿ</i>
1Pl	<i>ɲ bò-ýⁿ-yà</i>
2Pl	<i>á bò-ýⁿ-yà</i>
3Pl	<i>bò-ýⁿ-yà</i>

13.2.1.4 With clause-final *yà*

Clause-final *yà* or variant is the polar interrogative with (positive) perfective and stative verbs, and with all negative verbs. It is not attested with (positive) imperfectives and statives.

yà has the same tonal effects on preceding predicates as *mè* ‘if’ (§16.1.1). {LH} is overlaid on the verb preceding *yà*. This includes L-toned inputs as in (438a-b), showing that the tones are due to an overlay rather than to Rightward H-Movement (which has no effect on L-toned inputs). The noninterrogative form is in parentheses after the free translation in this and some later examples.

- (438) a. *ʔɛyⁿ-Ø^{LH}* *yà*
 know-3SgSbj^{LH} Q
 ‘Does he/she know?’ (< *ʔɛyⁿ-Ø*)
- b. *ʔɛyⁿ-yá^{LH}* *yà*
 know-3PlSbj^{LH} Q
 ‘Do they know?’ (< *ʔɛyⁿ-yà*)

Positive perfective examples are in (439). Suffixed forms are used for third person subjects (439a-b).

- (439) a. *ʔègè-Ø^{LH}* *yà*
 come.Pfv-3SgSbj^{LH} Q
 ‘Did/Has he/she come?’ (< *ʔègè-Ø*)
- b. *ʔèg-gé^{LH}* *yà*
 come.Pfv-3PlSbj^{LH} Q
 ‘Did/Have they come?’ (< *ʔèg-gè* from */ʔéǵí-yè/*)
- c. *à* *ʔègè^{LH}* *yà*
 2SgSbj come.Pfv^{LH} Q
 ‘Did/Have you-Sg come?’ (*à ʔègè*)

- d. [sɛ́ydù ngù] à tɛ́gɛ^{LH} yà
 [Seydou Acc] 2SgSbj see.Pfv^{LH} Q
 ‘Have you-Sg seen/Did you-Sg see Seydou?’

Even in such perfective clauses, if a constituent of a polar interrogative is focalized, clause-final *yà* is omitted and *là* occurs after the relevant constituent; see (427) in §13.1.3.

The existential-locational ‘be’ quasi-verb is normally *bò*, e.g. 3Sg *bò-Ø*. The combination with *yà* comes out irregularly as *bǒ-Ø yⁿyⁿà*, as in (440). This could also be written as *bǒ-yⁿ-yⁿà*, as segmentation is nontransparent.

- (440) *sikàró* *bǒ-Ø* *yⁿyⁿà*
 sugar be-3SgSbj Q
 ‘Is there any sugar?’ (*sikàró*)

The gemination of *y* here is parallel to that in some forms of *Cvyv* and *Cvww* verbs, see §10.1.2.7, suggesting that *bǒ-Ø yⁿyⁿà* is treated phonologically as a single word. However, I know of no parallels to the nasalization.

Examples of *yà* after **perfective negative** verbs are in (441).

- (441) a. *?ègò:-lí* *yà*
 come-PfvNeg.3SgSbj^{LH} Q
 ‘Did/Has he/she not come?’
 b. *?ègò:-ndí* *yà*
 come-PfvNeg.3PlSbj^{LH} Q
 ‘Did/Have they not come?’
 c. *à* *?ègò:-lí* *yà*
 2SgSbj come-PfvNeg^{LH} Q
 ‘Did/Have you-Sg not come?’

Similar examples of *yà* after **imperfective negative** verbs are in (442). Again we see the {LH} overlay on the verb.

- (442) a. *à* *gè:l-ló* *yà*
 2SgSbj go-IPfvNeg^{LH} Q
 ‘Are you-Sg not going?’
 b. *gè:ndè-ndá* *yà*
 go-IPfvNeg.3PlSbj^{LH} Q
 ‘Are they not going?’

yà is also used with **negative statives**, derived and underived.

- (443) a. *mà:* *?òrí* *yà*
 here not.be.3SgSbj^{LH} **Q**
 ‘Is he/she not here?’
- b. *tóndí-gè* *à* *sà: = ndá^{LH}* *yà*
 money 2SgSbj have=StatNeg^{LH} **Q**
 ‘Do you-Sg not have any money?’
- c. *?èbà = ndá^{LH}* *yà*
 sit=StatNeg.3SgSbj^{LH} **Q**
 ‘Is he/she not sitting?’

13.2.2 Content (WH) interrogatives

Content interrogatives are syntactically nouns/NPs (‘who?’, ‘what?’), adverbs (‘where?’, ‘when?’, ‘how?’), and adjectives (‘which?’). The interrogative word or the NP/PP containing it is either predicative, or a nonpredicative constituent; in the latter case it is normally focalized.

13.2.2.1 ‘Who?’ (*?à:yè*)

Nonpredicative examples are in (444). The verb in (444a) has a focus participle, as usual under subject focalization.

- (444) a. *?à:yè* *gè:ndó* *gò*
who? go Ppl.Ipfv
 ‘Who [focus] will go?’
- b. *?à:yè* *[kó:nò* *nò] = :*
who? [blacksmith Def]=it.is
 ‘Who is the blacksmith?’

Predicative examples are in (445). As usual the ‘it is’ clitic, expressed only by vowel lengthening, is not always audible.

- (445) a. *?à:yè = :*
who?=it.is
 ‘Who is it?’
- b. *[mó* *nó]* *?à:yè(= :)*
 [Dem Def] **who?**(=it.is)
 ‘That is who?’

In (446), the possessor is queried. The possessed noun has the possessor-controlled {HL} overlay.

- (446) *mó* [*ʔà:yè* ^{HL}*ʔóbò*] = :
 Dem [who?-Poss ^{HL}house]=it.is
 ‘That is whose house?’

The optional plural form is *ʔàyyà*. For the ending, compare plural pronouns like 1Pl *mì-yá*.

- (447) a. [*ʔàyyà* ^{HL}*ʔóbò-gè*] = :
 [^{HL}who?.Pl.Poss ^{HL}house.Pl]=it.is
 ‘(They are) whose-Pl houses?’
- b. [*ʔàyyà* ^{HL}*gó:-gè*] = :
 [^{HL}who?.Pl.Poss ^{HL}water.Pl]=it.is
 ‘(It is) whose-Pl water(s)?’

13.2.2.2 ‘What?’ (*ʔèbéǵè*), ‘with what?’, ‘why?’

Nonhuman ‘what?’ is *ʔèbéǵè*. Nonpredicative examples are in (448). In object function, *ʔèbéǵè* lacks overt accusative marking.

- (448) a. *ʔèbéǵè* *à* *kàyⁿ*
 what? 2SgSbj want
 ‘What do you want?’
- b. *ʔèbéǵè* *à* *kànà*
 what? 2SgSbj do.Ipfv
 ‘What are you doing?’
- c. *ʔèbéǵè* *ò-ŋgú* *jà:mú-gò*
 what? 2Sg-Acc hurt-Ppl.Ipfv
 ‘What (e.g. which body part) hurts you-Sg?’

A predicative example is (449). As usual the ‘it is’ clitic is difficult to hear.

- (449) [*mó* *nò*] *ʔèbéǵè(=)*
 [Dem Def] **what?**(=it.is)
 ‘What is that?’

The optional plural form is *ʔèbéǵé-gè*, which shows the effects Rightward H-Spreading. This process also applies to *ʔèbéǵè* before a perfective verb form beginning with an L-tone. An example is *ʔèbéǵè nè* ‘what did he/she drink’, (400a) in §13.1.1.2.

‘With (by means of) what?’ is *?èbégè ndò*, with instrumental *ndò* (§8.1.2).

‘For what?’, i.e. ‘why?’, is *?èbégé dà:*, including purposive-causal *dà:* (§8.3.1).

13.2.2.3 ‘Where?’ (*ná-lò*)

‘Where?’ is *ná-lò*. It becomes *nà-ló* before L-initial 3Sg subject predicates by Rightward H-Movement. *-lò* sometimes contracts with 2Sg *à* or 2Pl *á* to form a phonetic long [a:]. For the locative ending *-lò* see the demonstrative locative adverbs in §4.4.3.1.

Nonpredicative examples are in (450).

- (450) a. *ná-lò* *à* *gé:ndà*
where?-Loc 2SgSbj go.Ipfv
 ‘Where are you-Sg going?’
- b. *séydù* *nà-ló* *bò*
 Seydou **where?-Loc** be.3SgSbj
 ‘Where is Seydou?’
- c. *ná-là = à* *bò*
where?-Loc=2SgSbj be
 ‘Where are you-Sg?’
- d. *nà-ló* *gà*
where?-Loc be.from.3SgSbj
 ‘Where is he/she from?’
- e. *ná-lò = :*
where?-Loc=it.is
 ‘Where is it?’

13.2.2.4 ‘When?’ (*nà: wá:rì*, *?èbégé wàgâr*), ‘which day?’ (*nà nájgà*)

One general ‘when?’ interrogative is *nà: wá:rì* ~ *nà: wágá:rì*. The final element is a borrowed noun ‘time, moment’ that occurs in many variants in Fulfulde and other languages of the zone, including *waati* and *wakkati*. It derives from Arabic *waqt-* ‘time’. *nà:* is probably a variant form for ‘which?’ (§13.2.2.7).

The other ‘when?’ interrogative is *?èbégé wàgâr* (~ *wágá:rì*) consisting of *?èbégé* ‘what?’ in the sense ‘which?’ and *wágâr* (~ *wágá:rì*), which is the most common form in Bunoge of the borrowed ‘time, moment’ noun just mentioned.

- (451) a. [nà: wá:rì] à ?ègà
 [which? time] 2SgSbj come.Ipfv
 ‘When will you-Sg come (back)?’
- b. [ʔèbégé wàgâr] à ?ègà
 [which? time] 2SgSbj come.Ipfv
 [= (a)]

ná nángà ‘what time?’ or ‘what day?’ is probably similar in structure, cf. *nàngà* in temporal adverbial relatives (§14.2.5).

- (452) [ná nángà] à ?égè
 [which? day] 2SgSbj come.Pfv
 ‘(On) which day did you come?’

13.2.2.5 ‘How?’ (*ná-njì*)

The manner interrogative ‘how?’ is *ná-njì*. It can combine with the verb *káni* ‘do’, producing ‘do how?’, i.e. ‘do what?’. ‘How do you VP?’ is phrased as ‘(after) doing how, you will VP?’

- (453) [ná-njì à kǎn nè] à ?òllà
 [how? 2SgSbj do and.then] 2SgSbj go.up.Ipfv
 ‘How will you-Sg go up?’

For *nè* in the subordinated clause in this example, see §15.1.2.

The suffix *-njì* is also found in *?émé-njì* ‘like that’ (§4.4.3.2). A distinct construction *X^H ójí ndi* ‘like X’ is used with NP complements (§8.3.2).

13.2.2.6 ‘How much/many?’ (*?ángàwⁿ*)

‘How many?’ (less often ‘how much?’ of a mass) is *?ángàwⁿ*. A nonpredicative example is (454), with *?ángàwⁿ* following a plural NP. Accusative *ngù* is not common after *?ángàwⁿ* but my assistant accepted the variant of (454b) with accusative marking. Normally L-toned locative *mbà* becomes H-toned *mbá* before L-initial 3Sg verb in (454c).

- (454) a. sójó-gè ?ángàwⁿ ?égè
 person-Pl how.many? come.Pfv.3PlSbj
 ‘How many people came?’
- b. sójó-gè ?ángàwⁿ (ngú) gě:wè
 person-Pl how.many? (Acc) kill.Pfv.3SgSbj
 ‘How many people did he kill?’

- c. *[[ʔóló-gè^{HL} ángàwⁿ] mbá] jì*
 [[village-Pl ^{HL}how.many?] Loc] rain.fall.Pfv.3SgSbj
 ‘In how many villages did it rain?’

The predicative form is (455a). However, in asking unit prices, a distributive iteration is usual (455b).

- (455) a. *ʔángàwⁿ = :*
how.much?-it.is
 ‘It’s how much?’
- b. *ʔángàwⁿ-ʔángàwⁿ*
 Iteration-**how.many?**
 ‘It’s how many (currency units) each?’ (unit price)

I was unable to elicit an ordinal.

13.2.2.7 ‘Which?’ (*nónò:*, *ʔèbégè*, *nà*)

nónò: is a ‘which?’ interrogative. It is generally appositional to an NP denoting the larger set, which has partitive function. *nónò:* may precede or follow the partitive NP. It is invariant for number; there is no plural #*nónò:-gè*, and agreement is singular. When affected by Rightward Tone-Spreading it takes the form *nónó:*.

- (456) a) *bé:-gè nò, nónó: bò [à^{HL} bé:]*
 child-Pl Def, **which?** be.3SgSbj [2SgPoss ^{HL}child]
 ‘Which (one) of the children is yours-Sg?’
- b) *bé:-gè nò, nónó: bò [à^{HL} bé:-gè]*
 child-Pl Def, **which?** be.3SgSbj [2SgPoss ^{HL}child-Pl]
 ‘Which (ones) of the children are yours-Sg?’
- c. *ʔálámà nónò: à sò:wà*
 sheep which? 2SgSbj buy.Ipfv
 ‘Which sheep-Sg will you-Sg buy?’
- d. *ʔálámá-gè nónò: á sǒ:wà*
 sheep-Pl which? 2SgSbj buy.Ipfv
 ‘Which sheep-Pl will you-Pl buy?’

ʔèbégè ‘what?’ can also function as a preposed ‘which?’ interrogative. In this case the H-tone shifts to the right (457a), and the following noun is tone-dropped. However, cues with

‘which?’ are rephrased where contextually possible as ‘where?’ interrogatives. In (457b), ‘where?’ is treated as possessor of ‘house’.

- (457) a. [*ʔèbégé* ^L*ʔàlàmə* / ^L*kìlò*] *à* *sò:wà*
 [what? ^Lsheep / ^Lgoat] 2SgSbj buy.Ipfv
 ‘Which sheep-Sg/goat will you-Sg buy?’ (< *ʔálàmə*, *kìlò*)
- b. [*ná-lò* ^{HL}*ʔóbò*] *à* *dò:yà*
 [where? ^{HL}house] 2SgSbj sleep.Ipfv
 ‘(In) which house will you-Sg sleep?’

nà(:) in the combinations *nà nángà* ‘and *nà: wá:ri*, both of which mean ‘when?’ (§13.2.2.4), is another ‘which?’ expression (‘which time?’ = ‘when?’).

13.2.3 Embedded interrogatives

Embedded interrogatives, as in ‘X doesn’t know ...’, are based on unembedded interrogative clauses. An embedded polar interrogative with *là* is in (458).

- (458) [*ŋ* ^{HL}*bâw*] [*ŋ* *ʔégè* *lá* *ʔíndò-Ø*]
 [1SgPoss ^{HL}father] [1SgSbj come.Pfv Q] not.know-3SgSbj
 ‘My father doesn’t know that/whether I have come.’

Embedded WH-interrogatives contain the regular content interrogative (WH) word, along with *là* (459).

- (459) a. [*ʔà:yè* *ʔégò* *bò* *là*] [*ŋ* *ʔíndò*]
 [who? come be Q] [1SgSbj not.know]
 ‘I don’t know who is coming.’ (progressive)
- b. [*ʔèbégé* *ŋ* *jà:* *là*] [*ŋ* *ʔíndò*]
 [what? 1PISbj eat.meal.Ipfv Q] [1SgSbj not.know]
 ‘I don’t know what we will eat.’

For ‘don’t know how to VP’, see §15.3.2.1.

14 Relativization

14.1 Basics of relative clauses

Here is a schematic summary of Bunoge relatives.

- The core of the head NP is internal to the relative clause. The **internal head** consists maximally of Dem/Poss-N-Adj-Num. The internal head has the same morphological and tonal form that it would have as a singular main-clause NP, except that an NP-final plural marker, definite marker, or ‘all’ quantifier is not allowed. If the head directly precedes the participle, it may undergo tone sandhi processes;
- The **verb-participle** of the relative clause is followed by the plural suffix, the definite marker, and/or by universal quantifiers that have scope over the entire NP;
- In subject relatives, the verb is usually followed by a **participial** suffix or auxiliary, but it has no pronominal-subject agreement;
- In nonsubject relatives, the verb usually has its regular main-clause form in positive inflections, and participial suffixes in negative inflections (occasionally in positive inflections); the verb also has pronominal-subject agreement (regular 1st/2nd person proclitics, tonal marking for 3Pl as in nonsubject focalized clauses);
- A morpheme *yé* (also used as default ‘thing’ with adjectives) can resume the head NP, appearing directly before the verb-participle;
- A noun *dégè* ‘(any) one who ...’ may serve as a (unusually nonspecific) human head;
- Under some conditions, an echo (copy or synonym) of just the noun from the head NP may also be doubled (echoed), appearing after the participle.

As in several other Dogon languages, the structure of Bunoge relatives makes most sense if the overall NP is taken as having the linear structure Dem/Poss-N-Adj-Num-RelCl-Def-Quant-DiscFunct, with the relative clause in the position between numeral and definite. The string to the left of the relative clause then moves into the relativization site within the relative clause. However, in Bunoge (unlike most of the other languages), relative clauses do not have tonosyntactic effects on the internal head NP.

14.2 Internal head NP and NP coda

The head NP is seemingly “bifurcated” into a maximal Dem/Poss-N-Adj-Num phrase that constitutes the internal head, and a coda or tail that follows the verb-participle consisting maximally of plural *-gè*, definite *nɔ̀*, and ‘all’ quantifiers. If the suggestion made just above is accepted, this apparent bifurcation is due to the position of the relative clause between numeral and definite in the larger NP.

14.2.1 Position of head NP in relative clause

The overt head NP may precede all (other) constituents clearly belonging to the relative clause (460a), or it may be medial, following at least one internal constituent and preceding at least the verb (460b). The head is unquestionably internal to the relative clause in (460b). I take it to also be internal to the clause in spite of being clause-initial, in (460), though there is no way to prove this.

The noun *dégè* ‘(any)one who ...’ can function as default human head NP in a relative. The NP may be definite (460a) but is usually a nonspecific indefinite. The latter sense can be made explicit by adding *kúndú* ‘all’ at the end of the NP (460b). See also T2015-08 @ 02:06, where *dégè* is noninitial in the relative clause.

- (460) a. *ʔálámà yá:gù ʔègé (sà:) nò*
sheep yesterday come.Pfv (have.Ppl) Def
 ‘the sheep-Sg who came yesterday’
- b. *yá:gù ʔálámá ʔègé sà: nò*
 yesterday **sheep** come.Pfv have.Ppl Def
 [= (a)]
- c. *[dégé t̀ndì-gé sà: nɔ́]*
 [**one.who** money have.Ppl Def]
 ‘the person who has money’
- d. *[dégé t̀ndì-gé sà: kúndú] mì-ɲú tà̀bù*
 [**one.who** money have.Ppl all] 1Sg-Acc give.QuotImpert
 ‘Anyone who has money, may he/she give me (some)!’

yá:gù ‘yesterday’ and *ʔálámà* ‘sheep’, which directly precede the L-initial perfective verb in these examples, undergo regular Rightward H-Spreading (into their final syllables).

14.2.2 Form of internal head NP in relative clause

Example (460b) above shows that a head NP (‘sheep’) can interact tonally with the verb-participle. When the head NP is initial in the relative clause, at least in elicitation it is optionally set off prosodically, in which case this locally motivated tone change is suspended (461a). If the head is plural, the plural marker is obligatory after the verb. In elicitation, my assistant sometimes produced versions with an extra *-gè* at the end of the internal head NP (461b), but would then repeat the construction more fluently without the extra *gè*. My sense is that the extra *-gè* at the end of the internal head is an aberration of elicitation-ese and is not part of the regular grammar. (I show below, however, that *-gè* is required medially inside the internal head when followed by a numeral.)

- (461) a. *yó / nóló / ?álamà, ?ègé sà: nó*
 woman / man / sheep come have.Ppl Def
 ‘the woman / man / sheep-Sg who came’
- b. [*yó(:) / nóló / ?álamá*] *?ègé sà:-gè nó*
 [woman / man / sheep] come.Pfv have.Ppl-Pl Def
 ‘the women / men /sheep-Pl who came’

The internal head NP consists maximally of Dem/Poss-N-Adj-Num. An N-Adj combination has its usual tonal form, with {LH} overlay on the noun and {L}-toned adjective (462a). Similarly, the N-Adj-Num combination in (462b) has its usual tones. Plural *-gè* (here raised to *-gé* before ‘2’) is required before the numeral, as well as after the participle. A possessor may occur in the head NP; it controls the usual {HL} contour on the possessed noun (462c).

- (462) a. [*yó:^{LH} ^Lbìgì*] *?ègé sà: nó*
 [woman^{LH} ^Lbig] come.Pfv have.Ppl Def
 ‘the big woman who came’
- b. [*yó:^{LH} ^Lbìg(i)-gé dè:gà*] *?ègé sà:-gè nó*
 [woman^{LH} ^Lbig-Pl two] come.Pfv have.Ppl -Pl Def
 ‘the two big women who came’
- c. [*séydù ^{HL}yô:*] *?ègé sà: nó*
 [Seydou ^{HL}woman] come.Pfv have.Ppl Def
 ‘Seydou’s wife who came’
- d. [*bé:-gè tá:ndù*] *tùbbé sà:-gè nó*
 [child-Pl three] fall.Pfv have.Ppl-Pl Def
 ‘the three children who fell’

Before an {LHL}-toned 3Sg subject perfective verb-participle in a nonsubject relative, an unmodified head noun has {LH} overlay.

- (463) *?àlamá^{LH} / ?àllá^{LH} / sikhòró^{LH} sò:wè nó*
 sheep^{LH} / pig^{LH} / sugar^{LH} buy.Pfv.3SgSbj.Ppl Def
 ‘the sheep-Sg/pig/sugar that he/she bought’
 (< *?álamá, ?àllà, sikhòró*)

14.2.3 Restrictions on the head of a relative clause

The head is a nonpronominal NP, in most cases consisting of at least a noun. However, headless relatives are permitted; see T2015-02 @ 00:18. The head cannot be a pronoun or a

demonstrative. Expressions meaning e.g. ‘you who have come’ are rephrased appositionally as ‘you, the people/the ones who have come’, and so forth.

The head NP may be subject, object, possessor, adverb (time, place, manner), or postpositional complement within the relative clause.

14.2.4 Conjoined NP as head

A conjoined NP may function as internal head of a relative. (464a) is a main clause with conjoined NP subject. The corresponding subject relative is (464b).

- (464) a. *[nòlò-gé yà] [yð:-gé yà] nðŋð nɔŋ-yè*
 [man-Pl **and**] [woman-Pl **and**] fight(n) fight(v)-3Pl.Pfv
 ‘(The) men and (the) women fought.’
- b. *[nòlò-gé yà] [yð:-gé yà] nðŋð nðŋè-gè nɔ*
 [man-Pl **and**] [woman-Pl **and**] fight(n) fight.PplPfv-Pl Def
 ‘the men and women who fought.’

14.2.5 Echo of head noun after relative clause

A postparticipial word *nàŋgà* can function as an echo for ‘day’ or ‘year’ as internal heads in (465). My assistant rejected *nàŋgà* with spatial relatives (‘the place where...’). Compare interrogative *nà náŋgà* ‘on which day?’ (§13.2.2.4), which likely has possessum overlay {HL} on the noun. It is unclear whether *nàŋgà* includes participial suffix *-gà* in a nasalized variant *-ŋgà*, at least etymologically.

- (465) *[[dèni / wáyà ñ] ?égè] nàŋgà dɔ:wè*
 [[**day / year** 1SgSbj come.Pfv] **time**] die.Pfv.3SgSbj
 ‘He/She died (on) the day/(in) the year I came.’

Several Dogon languages have analogues of this echoing pattern. A noun that is either a duplicate of the noun in the head NP, a near-synonym thereof, or an ontological classifier (‘person’, ‘time’, ‘place’), follows the relative-clause proper. The echoed noun is often marked morphologically (Jamsay) or tonally (several languages) as a possessum, or else it is tone-dropped. In some of those languages, like Bunoge, echoing is limited to adverbial relatives where the echoed noun is one of a small set of time, space, and/or manner nouns. In some eastern languages, like Togo Kan, the echoing system is more elaborate and includes classifiers such as human singular and human plural.

14.3 Subject pronominals in nonsubject relatives

In nonsubject relatives, the verb has the same conjugation as in main clauses. 1st/2nd person pronominal subjects are expressed as usual with proclitics. 3Sg and 3Pl forms are unsuffixed, the two being distinguished from each other by tones.

- (466) a. *jàbà* *ké* *ɲ* *só:wè* *nò*
 onion place **1SgSbj** buy.Pfv.Ppl Def
 ‘the place where I bought the onions’ (< *jàbá*)
- b. *jàbà* *ké* *ɲ* *só:wè* *nò*
 onion place **1SgSbj** buy.Pfv.Ppl Def
 ‘the place where we bought the onions’
- c. *jàbà* *ké* *só:wè* *nò*
 onion place buy.Pfv.**3SgSbj**.Ppl Def
 ‘the place where he/she bought the onions’
- d. *jàbá* *ké* *só:wè*
 onion place buy.Pfv.**3PlSbj**.Ppl
 ‘the place where they bought the onions’

More examples are in §14.8.2 and elsewhere in this chapter.

14.4 Proclitic *yé* before verb-participle

An optional noun-like element *yé* occurs directly before the verb-participle in several examples. In focalized clauses, *yé* is strongly associated with negation, but it occurs in positive as well as negative relative clauses. Examples are in (467a-e). It is attested with various aspect-negation categories, with different animacy categories of head NP, and in both subject and nonsubject relatives. It also occurs in focalized clauses, especially negative ones (§13.1.1.9).

- (467) a. *ɲɲjè / bé* *mì-ɲgù* *yé* *nùnjè* *nó*
 dog / child 1Sg-Acc **which** bite-Pfv.3SgSbj.Ppl Def
 ‘the dog / child that bit me’
- b. *námà* *yé* *à* *témè* *nò*
 meat **which** 2SgSbj eat.meat.Pfv Def
 ‘the meat that you-Sg ate’

c. *námà* *yè* *ń* *témé* *nò*
 meat **which** 1PlSbj eat.meat.Pfv Def
 ‘the meat that we ate’

d. *nâ:* *yé* *tùbbó-gò* *nó*
 cow **which** fall.Ipfv-Ppl.Ipfv Def
 ‘the cow that will fall’

e. [*yé* *ń* *kâyⁿ* *ʔóri-Ø*]
 [**which** 1SgSbj want] not.be-3SgSbj
 ‘I don’t want anything.’ (lit. “[what I want] does not exist”)

In (467a) *yé* is separated from the internal head NP by another constituent, showing that it is a proclitic to the verb-participle. In (467e) it functions as a default relative head, like English *what* (or *that which*) in *what you don’t know won’t hurt you*. In the other examples, where *yé* coexists with an overt head, it may be appositional to the head. I will gloss it as ‘which’.

In this type of example *yé* betrays its origin as a noun ‘thing(s)’ (cf. Penange *yè:*, Ampari *yé* ‘thing’). In Bunoge itself *wè:* is now the regular noun for ‘thing’ (§4.1.2). Comparative Dogon evidence (e.g. Najamba) points to reconstruction of inanimate singular **ko* ‘thing’ and plural **ye* ‘things’, and homonym animate singular **ye* ‘critter’. They occur in the daughter languages as nouns, or more often as class-marking suffixes and as possessive classifiers. The original distinctions have been consolidated in different ways in the various languages, sometimes merging inanimate with animate.

14.5 Verb-participle

Since the verb in a relative clause is followed by NP-final elements (plural, definite, ‘all’), it is here described as a participle. However, dedicated relative-clause forms of the verb occur only in subject relatives, many of which have participial suffixes or auxiliaries following the verb. These are summarized in (468).

(468) Subject-relative participles

inflection	participle	unfocalized main clause
perfective positive	<i>sà:</i>	E/I-stem
experiential perfect positive	<i>wélè: bò:</i> <i>wélè: sà:</i>	<i>wélè: bò</i> <i>wélè: sà</i>
perfective negative	<i>-lí-gà</i>	<i>-lí</i>
experiential perfect negative	<i>wélè: ʔóri-gà</i>	<i>wélè: ʔóri</i>
imperfective positive	<i>-gò</i> after A/O-stem	A-stem, reduplication
progressive positive	<i>bò</i>	<i>bò</i>
imperfective negative	<i>-lò-gà</i>	<i>-lò</i>

Nonsubject-relative participles are identical in form to regular main-clause-like verbs, including regular pronominal-subject marking, but can be pluralized like nouns. Perfective participial auxiliary *sà:* is mainly associated with subject relatives but occasionally spreads into nonsubject relatives.

The following sections describe subject and nonsubject participles for each aspect-negation category.

14.5.1 Participles of positive perfective-system verbs (E-stem or *sà:*)

Nonsubject relatives often have verb-participles identical in form to regular inflected perfective verbs. For 3Sg and 3Pl the unsuffixed perfective forms are used, the two being distinguished by tones. (A variant with participial auxiliary *sà:* is described later in this section.) Like all relative-clause participles, these may be followed by plural *-gè*, by definite *nò*, by an ‘all’ quantifier, and/or by a discourse-functional particle. The definite marker is especially common.

- (469) a. *ʔálámà ké à sɔ:wè nò*
 sheep place 2SgSbj buy.Pfv Def
 ‘the place where you-Sg bought (a/the) sheep.’
- b. *ʔálámà (yé) à sɔ:wè-gè nò*
 sheep (which) 2SgSbj buy.Pfv-Pl Def
 ‘the sheep-Pl that you bought’
- c. *ʔòbò à sɔ:wè nò*
 house 2SgSbj buy.Pfv Def
 ‘the house that you-Sg bought’
- d. *ʔòbó^{LH} sɔ:wé-gè nò*
 house^{LH} buy.Pfv.3SgSbj-Pl Def
 ‘the houses that he/she bought’ (< *ʔòbò*)
- e. *ʔòbò sɔ:wè-gè nò*
 house buy.Pfv.3PlSbj-Pl Def
 ‘the houses that they bought’ (< *ʔòbò*)

A sample paradigm is (470), including definite *nò*. The head (not shown) would be ‘meat’ or a similar NP.

(470) category ‘(meat) that ___ ate’

1Sg	<i>[ɪ̃ tɛ̀mɛ̀] nɔ̀</i>
1Pl	<i>[ɪ̃ tɛ̀mɛ̀] nɔ̀</i>
2Sg	<i>[à tɛ̀mɛ̀] nɔ̀</i>
2Pl	<i>[á tɛ̀mɛ̀] [nɔ̀]</i>
3Sg	<i>tɛ̀mɛ̀ nɔ̀</i>
3Pl	<i>tɛ̀mɛ̀ nɔ̀</i>

An alternative for nonsubject relatives is with auxiliary *sà:* ‘have’, as in (471).

(471) *[námá tɛ̀mɛ̀ sǎ: nɔ̀ né: = là-Ø]*
 [meat eat.meat.Pfv.3SgSbj have.3SgSbj Def] be.good=StatNeg-3SgSbj
 ‘The meat that he/she ate is bad.’

In this construction, both the main verb and *sà:* are conjugated for pronominal-subject category, in the fashion of verb chains. 1st/2nd person proclitics therefore appear twice. The paradigm for ‘ate meat’, with definite *nɔ̀*, is (472). 1Pl/2Pl and 3Sg have *sǎ: nɔ̀*, 1Sg/2Sg and 3Pl have *sá: nɔ̀*.

(472) category ‘(meat) that ___ ate’

1Sg	<i>[ɪ̃ tɛ̀mɛ̀] [ɪ̃ sá:] nɔ̀</i>
1Pl	<i>[ɪ̃ tɛ̀mɛ̀] [ɪ̃ sǎ:] nɔ̀</i>
2Sg	<i>[à tɛ̀mɛ̀] [à sá:] nɔ̀</i>
2Pl	<i>[á tɛ̀mɛ̀] [á sǎ:] nɔ̀</i>
3Sg	<i>tɛ̀mɛ̀ sǎ: nɔ̀</i>
3Pl	<i>tɛ̀mɛ̀ sá: nɔ̀</i>

In **subject** relatives *sà:* is optional but fairly common after the verb. There is no pronominal-subject conjugation, but plural *-gè* may be added to *sà:*. The main verb is in perfective form and has {LH} overlay before *sà:*, or equivalently {LHL} if *sà:* is included. *sà:* may be followed by plural *-gè*, agreeing with the head NP (473b). *sà:* is optional and it is omitted in (473c).

(473) a. *bé tùbbé sà: nó*
 child fall.Pfv have.Ppl Def
 ‘the child who fell’

b. *sójó tùbbé sà:-gè nó*
 person fall.Pfv have.Ppl-Pl Def
 ‘the people who fell’

- c. [nâ: túb̀b̀è nɔ́], nà-ló b̀ò
 [" túb̀b̀é sà: "], " "
 [cow fall.Pfv (have.Ppl) Def] where?-Loc be.3SgSbj
 ‘Where is the cow that fell?’

The experiential perfect (§10.2.1.4) has a participial form *wélé: sà:* in subject relatives.

- (474) *sójò nígè tégó-nà wélé: sà: mbè nɔ́*
 person elephant see-VblN ExpPrf have.Ppl Past Def
 ‘the person who had (once) seen an elephant’

14.5.2 Participles of positive imperfective-system and stative verbs (zero or *-gò*)

Imperfective **nonsubject** relatives have regular conjugated imperfective verbs, based on the **A-stem**, with slight tonal changes and without the reduplication that occurs in main clauses. 1Sg and 2Sg subjects have {HL} overlay on the verb, versus {L} in main clauses (after the reduplication). As in main clauses, 3Sg and 3Pl subjects are distinguished tonally rather than by 3Pl suffixation (475).

- (475) a. *bé: à númbà nɔ́*
 child 2SgSbj hit.Ipfv.Ppl Def
 ‘the child that you-Sg will hit’
- b. *yó ?émè-ɲgé sǒ:-là-∅ nɔ́*
 woman milk buy-Rev.Ipfv.3SgSbj.Ppl Def
 ‘the milk that the woman sells’
- c. *?émè-ɲgè só:-là nɔ́*
 milk buy-Rev.Ipfv.3PlSbj.Ppl Def
 ‘the milk that they sell’

Imperfective **subject** relatives have participial *-gò* suffixed to the **O/U-stem** of the verb, with {LH} overlay on the stem proper, equivalent to {LHL} melody if the suffix is included. The change from the A-stem (with stem-wide +ATR-compatible vocalism) in main clauses to the O/U-stem in subject relatives is striking. The same change in vocalism stem occurs in subject-focalization clauses (§13.1.1.7). The *o*-vowel of participial *-gò* may have been a factor in this vocalic-stem switch.

- (476) a. *?ínjè bé:-gè ǹ̀njó-gò nɔ́*
 dog child-Pl bite.Ipfv-Ppl.Ipfv Def
 ‘the dog that bites children’

- b. *yó* *ʔèmè-ṣgè* *sò:-lò-gò* (*nó*)
 woman milk buy-Rev.Ipfv-Ppl.Ipfv (Def)
 ‘a (the) woman who sells milk’
- c. *ʔínjè* *mánjì* *kàno-gò* *nó*
 dog like.this do.Ipfv-Ppl.Ipfv Def
 ‘the dog who does thus (= that)’

Most verbs whose perfectives have *a...e* vocalism have the expected *a...o* in the imperfective participle. To *kàno-gò* ‘who does’ in (476c) above may be added *tàbó-gò* ‘who gives’. However, *bánnè* ‘help’ unexpectedly has *bànnó-gò* (T2015-05 @ 01:16), in spite of verbal noun *bànnó-nà* ‘help (n)’ (§4.2.2).

Progressive subject relatives have postverbal auxiliary *bò* ‘be’ as in (477), rather than preposed *ʔémbè* as usual in main clauses (§10.2.2.2).

- (477) a. *sójò* *mà:* *ʔégò* *bò* *nó*
 person here come.Ipfv be.Ppl Def
 ‘the person who is coming (will come) here’
- b. *yó* *ṣènnó* *bò* *nó*
 woman sweep.Ipfv be.Ppl Def
 ‘the woman who is sweeping’

My assistant rephrased progressive **nonsubject** participles as regular imperfectives (478), with ‘now’ optionally added to clarify the ongoing nature of the action.

- (478) a. *másà* *námà* *ṣ* *témà* *nó*
 now meat 1SgSbj eat.meat.Ipfv Def
 ‘the meat that I am eating now’
- b. *yó* *gòmbólò* *ṣènnà* *nó*
 woman courtyard sweep Def
 ‘the courtyard that the woman is sweeping’

Stative relatives have {L}-toned participles. (479a-b) are subject relatives, (479c-d) are nonsubject relatives.

- (479) a. *bé* *bó-ló* *ʔìgà* *nó*
 child there-Loc stand.Stat Def
 ‘the child who is standing there’
- b. *bé:-gè* *bó-ló* *ʔìgà-gè* *nó*
 child-Pl there-Loc stand.Stat-Pl Def
 ‘the children who are standing there’

- c. *gàbà ké jàṅgà nò*
 boubou place be.hung.Stat Def
 ‘the place where the boubou (garment) is hanging’
- d. *gàbà ké jàṅgà-gè nò*
 boubou-Pl place be.hung.Stat-Pl Def
 ‘the places where (the) boubous are hanging’

Subject and nonsubject participles for ‘be (somewhere)’ and ‘have’ are *bò:* and *sà:* .

14.5.3 Participles of negative perfective-system verbs (*-lì-gà*, 3Pl *-ndì-gà*)

Participial suffix *-gà* is added to both nonsubject and subject participles. The suffix complexes are *-lì-gà*, often syncopated to *-l-gá*, and for 3Pl *-ndì-gà*. Examples of **nonsubject** relatives are in (480). Here the verb has main-clause-like pronominal-subject inflection and stem tones, but adds participial *-gà*. The latter is H-toned before definite *nò*.

- (480) a. [*námà tèmà:-ndì-gá nò*]
 [meat eat.meat-PfvNeg.3Pl-Ppl.Neg Def]
 [*nà-ló bò*]
 [where?-Loc be.3SgSbj]
 ‘Where is the meat that they didn’t eat?’
- b. *námà yé à tèmà:-l-gá nò*
 meat which 2SgSbj eat.meat-Pfv.Neg-Ppl.Neg Def
 ‘the meat that you-Sg didn’t eat’
- c. *dénì jí ñ já:-lì-gá nò*
 day food 1SgSbj eat.meal-PfvNeg-Ppl.Neg Def
 ‘the day when I didn’t eat.’
- d. *námà yé ñ tèmà:-l-gá nò*
 meat which 1PlSbj eat.meat-Pfv.Neg-Ppl.Neg Def
 ‘the meat that you-Sg didn’t eat’

Subject relatives are in (481). The verb is now uninflected for pronominal subject, and the participle has word-level {HL} overlay, or {HLH} when *-gà* is realized with H-tone. Subject (i.e. head NP) plurality and definiteness are expressed as usual by plural *-gè* and/or definite *nò* following the verb (481b).

- (481) a. *bé túbbà:-l-gá nò*
 child fall-PfvNeg-Ppl.Neg Def
 ‘the child who didn’t fall’

- b. *sójó* *túbbà:-l-gá-gè* *nò*
 person fall-PfvNeg-Ppl.Neg-Pl Def
 ‘the people who didn’t fall’

Since *-gà* occurs in both subject and nonsubject relatives, and since 3Sg subject is the zero category, subject relative (482a) is homophonous to object relative (482b). In one session my assistant attempted to distinguish them by different tones on the verb, but the difference was not confirmed in a subsequent session.

- (482) a. [*bé* *námà* *témà:-l-gá* *nò*]
 [child meat eat.meat-PfvNeg-Ppl.Neg Def]
nà-ló *bò*
 where?-Loc be.3SgSbj
 ‘Where is the child who didn’t eat (the) meat?’
- b. [*bé* *námà* *témà:-l-Ø-gá* *nò*]
 [child meat eat.meat-PfvNeg-3SgSbj-Ppl.Neg Def]
nà-ló *bò*
 where?-Loc be.3SgSbj
 ‘Where is the meat that (a/the) child didn’t eat?’

Adding definite *nò* or plural *-gè* to one of the preverbal NPs would eliminate that NP as a candidate for head NP.

The experiential perfect negative (§10.2.3.2) has a participial form *wélè: ʔór(i)-gà*.

- (483) *sójò* *nígè* *tègò-nà* *wélè:* *ʔór(i)-gà* *nò*
 person elephant see-VblN ExpPrf not.be-Ppl.Neg Def
 ‘the person who has never seen an elephant’

14.5.4 Participles of negative imperfective-system and stative verbs (*-lò-gà*)

Participial *-gà* is suffixed to imperfective negative *-lò* in both nonsubject and subject relatives. The overlay on stem plus imperfective negative suffix *-lò-*, but excluding *-gà*, is {HLH} with the second H on *-lò-* (→ *-lò*).

In **nonsubject** relatives, the verb has pronominal-subject marking (484). In (484a,c), *nàngà* is an echo of *dèni*, a tonally specialized head noun form of *dèni* ‘day’.

- (484) a. *déní* *wàlà=* *à* *kâl-lò-gà*
 day work(n)= 2SgSbj do-IpfvNeg-Ppl.Neg
 ‘(the) day when you-Sg do not work’ (*wàlè*)

- b. *sójó-gè déní wàlè káni-ndá-gà*
 person-Pl day work(n) do-IpfvNeg.3PlSbj-Ppl.Neg
 ‘(the) day when the people don’t work’
- c. *séydù déní wàlè kâl-ló-Ø nàngà*
 Seydou day work(n) do-IpfvNeg-3SgSbj time
 ‘the day when Seydou doesn’t work’
- d. *gàndà ?áyà nū:-ló-Ø-gà*
 country rain(n) rain.fall-IpfvNeg-3SgSbj-PplNeg
 ‘a land where it doesn’t rain (rain doesn’t fall)’

In **subject** relatives, participial *-gà* occurs, but there is no pronominal-subject marking (485).

- (485) a. *bé wàlè kâl-ló-gà nò*
 child work(n) do-IpfvNeg-Ppl.Neg Def
 ‘the child who does not work’
- b. *sójò tágù ?ábò-ló-gá-gè*
 person talk(n) accept-IpfvNeg-Ppl.Neg-Pl
 ‘people who do not agree (to proposals)’
- c. *sójó jènnù jénnò-ló-gà nò*
 person Iter sweep-IpfvNeg-Ppl.Neg Def
 ‘the person who does not sweep’

14.5.5 Participle of past marker (*sà: mbè*, etc.)

Past *mbè* is attested in perfective participles, following *sà:*. This construction is past perfect in sense.

- (486) a. *[[ná: bigì] tùbbé sà: mbè nò]*
 [[cow big] fall.Pfv have.Ppl Past Def]
nà-ló bò
 where?-Loc be.3SgSbj
 ‘The big cow that had fallen, where is it?’
- b. *[[ná:-ngé^{LH} ^Lbìgì] tùbbé sà: mbè-gè nò]*
 [[cow-Pl^{LH} ^Lbig] fall.Pfv have.Ppl Past-Pl Def]
ná-lò bó
 where?-Loc be.3PlSbj
 ‘The big cows that had fallen, where are they?’

- c. *[bé túbbé sà: mbè nò]*
 [child fall.Pfv have.Ppl Past Def]
 ‘the child who had fallen’

A past imperfective subject relative is (487a). The imperfective verb is in the A/O-stem rather than the A-stem in the relative-clause version (487a), contrast the main-clause version (487b). The two also differ in the initial tone of the main ‘sweep’ verb, which has a ripple effect on the tone of the iteration *jènnù*.

- (487) a. *yó jènnù jénnó: mbè nò*
 woman Iter sweep.Ipfv Past Def
 ‘the woman who was sweeping’
- b. *[yô: nò] jènnú jènná: mbè*
 [woman Def] Iter sweep.Ipfv Past
 ‘the woman was sweeping.’

14.6 Relative clause involving verb- or VP-chain

Chain-like combinations of two or more verbs can be relativized. In (488), ‘fall’ and ‘go down’ are components of a single event. Main clauses are illustrated in (488a-b) for perfective aspect and in (488d) for imperfective. Corresponding relative clauses are (488c) and (488e), respectively. Only the final verb is participialized, the nonfinal verb taking the same chained or subordinated form it has in nonrelative clauses.

- (488) a. *[íj túbbé] [íj sigè]*
 [1PISbj fall.Pfv] [1PISbj go.down.Pfv]
 ‘We fell down.’
- b. *túbbé sigí-yè*
 fall.Pfv go.down.Pfv-3PISbj
 ‘They fell down’
- c. *sòjó túbbé sigè-gé nò*
 person fall.Pfv go.down.Pfv-Pl Def
 ‘the people who fell down’
- d. *[túbbé nè] sì sigà*
 [fall and.then] Rdp go.down.Ipfv.3PISbj
 ‘they will fall down’

- e. *sòjò* [tùbbé nè] *sìgò-gé* *nò*
 person [fall and.then] go.down.Ipfv-Pl Def
 ‘the people who will fall down’

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

14.7.1 Determiners (demonstrative and definite)

Definite *nò* is very common in relative constructions, following the verb-participle and plural *-gè*. Examples of *nò* occur throughout this chapter.

My assistant did not accept demonstrative *mó* with the internal head, presumably because of the awkwardness of e.g. ‘this sheep that I bought’. If such a construction does exist, demonstrative *mó* ‘this/that’ would presumably occur in its usual position just before the noun.

14.7.2 Plural suffix (-gè)

Plural suffix *-gè* follows the verb-participle. In elicitation, it occasionally appeared at the end of the internal head as well as on the participle. The first *-gè* was usually dropped in more fluent repetitions, and it does not seem to be current in natural speech in this position. However, if the internal head noun contains a nonsingular numeral, plural *-gè* is required on the preceding noun or N-Adj (489b). This is presumably because the *-gè* in this case is trapped in medial position within the head NP.

- (489) a. *yó* / (? *yó:-gè* ?) *ʔègé* *sà:-gè* *nò*
 woman(-Pl ?) come.Pfv have.Ppl-Pl Def
 ‘the women who came’
- b. [*yó:-gè* *tá.ndú*] *ʔègé* *sà:-gè* *nò*
 [woman-Pl three] come.Pfv have.Ppl-Pl Def
 ‘the three women who came’

14.7.3 Non-numeral quantifiers (‘all’)

‘All’ quantifiers come at the end of the relative construction, after the definite marker.

- (490) a. [*ʔálámà* *ɲ* *só:wé-gè* *nò* *sàkáy*] *gé.ndè*
 [sheep 1SgSbj buy.Pfv-Pl Def all] go.Pfv.3PlSbj
 ‘All of the sheep that I bought have gone away.’

- b. [ʔálamà gè:ndé sà:-gè nò sàkáy] ɲ tège
 [sheep go.Pfv have.Ppl-Pl Def all] 1PlSbj see.Pfv
 ‘We have seen (= located) all of the sheep that got away.’

14.8 Grammatical relation of relativized-on NP

14.8.1 Subject relative clause

As noted above, subject relative clauses have a head NP along with a verb-participle. The latter has an overt participial morpheme in negative clauses and optionally in positive clauses (§14.5).

- (491) a. [sòjó ʔègé sà: nò] nà-ló gá
 [person come.Pfv have.Ppl Def] where?-Loc go.out.Stat.3SgSbj
 ‘The person who came, where is he/she from?’
- b. [sòjó ʔègé sà:-gè nò]
 [person come.Pfv have.Ppl -Pl Def]
 ná-lò gá
 where?-Loc go.out.Stat.3PlSbj
 ‘The people who came, where are they from?’

Since Bunoge is an SOV language, subjects are usually clause-initial, in relative clauses as well as main clauses. However, some adverbs can precede the subject, showing that the subject is internal to the relative clause.

- (492) yá:gú sòjó ʔègé sà: nò
 yesterday person come.Pfv have.Ppl Def
 ‘the person who came yesterday’

14.8.2 Nonsubject relative clause

An object as head has the usual reduced form of the head NP. It does not have accusative marking. The verb has basically the same form as in main clauses, including pronominal-subject affixation. Plural and definite marking associated with the head NP follow the verb.

- (493) a. [ná: à sǎ:wè nò] [nà-ló bò]
 [cow 2SgSbj buy.Pfv Def] [where?-Loc be.3SgSbj]
 ‘Where is the cow that you-Sg bought?’

- b. [*ʔálámá (gè)*] *à* *sǔ:wè-gè* *nò*
 [sheep (Pl)] 2SgSbj buy.Pfv-Pl Def
 ‘the sheep-Pl that you-Sg bought’
- c. *sójò* *à* *tégè* *nò*
 person 2SgSbj see.Pfv Def
 ‘the person who(m) you-Sg saw’

If the subject of an object relative is expressed as a nonpronominal NP, it precedes the head NP. Therefore the object and head NP ‘sheep’ is clearly clause-internal in (494).

- (494) [*ɪ̄*] *bâw*] *ʔàlàamá^{LH}* *sǔ:ŋgè-Ø* *nò*
 [1SgPoss father] sheep^{LH} bring.Pfv-3SgSbj Def
 ‘the sheep-Sg that my father brought’ (< *ʔálámà*)

For adverbial relatives, the other common nonsubject relative type with head nouns like ‘day’, ‘place’, and ‘manner’, see §15.2.1.1 and §15.3 below.

14.8.3 Possessor relative clause

In a possessor relative, the possessor remains in its usual position preceding the possessed NP within the relative clause. The possessor NP has the normal reduced form of a head NP. The possessed noun has fixed 3Sg possessor suffix *-ná* resuming the possessor, even when the possessor is plural. The verb does not have subject-relative participial form even when the possessed NP is subject of its clause.

- (495) a. [*yó* *bè:-ná* *tùbbè* *nò*] *nà-ló* *bò*
 [woman child-3SgPoss fall.Pfv Def] where-Loc be.3SgSbj
 ‘Where is the woman whose child fell?’
- b. [*yó* *ʔòbò-ná* *tùbbè-gè* *nò*] *ná-lò* *bó*
 [woman house-3SgPoss fall.Pfv-Pl Def] where-Loc be.3PlSbj
 ‘Where are the women whose house fell?’

14.8.4 Relativization on the complement of a postposition

In (496), the head noun ‘axe’ is separated from a preverbal segment *ʔèmé ndò* containing instrumental postposition *ndò* preceded by discourse-definite *ʔèmé* that resumes ‘axe’.

- (496) *gúlò* *tè:ŋgè* [*ʔèmé ndò*] *à* *pára-gà* *nò*
 ax firewood [that.Def Inst] 2SgSbj cut-Caus.Ipfv.Ppl Def
 ‘the axe that you-Sg chop wood with’

In (497), *ké* ‘place’ likewise seems to resume ‘house’.

(497) *ʔòbò* *ké* *ɲ* *túlà* *nò*
house place 1SgSbj dwell.Ipfv Def
‘the house where I live’

15 Verb (VP) chaining and adverbial clauses

In grammars of other Dogon languages, I have defined “direct” chains as sequences of two verbs in which the first is a bare verb stem (or a specialized chaining form) and the second has full aspect-negation and pronominal-subject inflection. Usually the two verbs cannot be separated, except by pronominal-subject proclitics.

“Loose” chains are more flexible. A subordinated clause ending in a verb plus a subordinating suffix or particle is followed by another clause, perhaps a main clause. Various other constituents, and perhaps a pause, may intervene between the verbs of the two clauses.

15.1 Direct verb chaining

There is no “bare” verb form like that used in verb chains in eastern Dogon languages. Instead, nonfinal verbs/VPs in chains are either conjugated for pronominal subject (like the final verb/VP in the chain), or are overtly subordinated. Closely related sequenced events like ‘come and go (back)’ are expressed with a perfective form of the first verb, and either perfective or imperfective for the second verb depending on the temporal location of the event sequence vis-a-vis the speech event (or shifted temporal reference point).

15.1.1 Perfective chains for completed event sequences

In the constructions described below, both verbs are perfective and both are conjugated. The second clause optionally begins with *?émbà* ‘then’. The first clause optionally ends in *mbà*, apparently the locative postposition. The subjects are usually coindexed. However, since both verbs are conjugated, noncoindexed subjects are possible.

15.1.1.1 Same-subject perfective chains with and without *?émbà* ‘then’

Completed event sequences are expressed by two parallel pronominally-inflected perfective verbs (498a). For third-person subject, the first verb is in the unsuffixed perfective form, so 3Sg and 3Pl are distinguished only by tones. The second verb may be a suffixed perfective as in a simple main clause, or the sequential construction with *?émbà* ‘then’ plus unsuffixed perfective (§15.2.2.1). In the 3Sg subject case, the unsuffixed perfective in the first clause, whose full tone overlay is normally {LHL}, is realized as {L} (498c-d). In examples like (498c) with two adjacent 3Sg subject verbs, one could argue that the {LHL} overlay is realized over the two-verb sequence. In other words, the 3Sg {LHL} overlay on the first (unsuffixed) perfective verb merges with the 3Sg {HL} on the second (suffixed) perfective verb. 3Pl subject has its normal {HL} overlay in both verbs (498b).

The examples in (498) involve same-subject sequences.

- (498) a. *[ɪ̃ gé:ndè] [ʔémbà ɪ̃ ʔégè]*
 [1SgSbj go.Pfv] [then 1SgSbj come.Pfv]
 ‘I went and came (back).’
- b. *tùbbè sígí-yè*
 fall.Pfv.3PISbj go.down.Pfv-3PISbj
 ‘They fell down.’
- c. *tùbbè sígè-Ø*
 fall.Pfv.3SgSbj go.down.Pfv-3SgSbj
 ‘He/She fell down.’
- d. *[séydù ʔégè] [ʔèmbá gě:ndè]*
 [Seydou come.Pfv.3SgSbj] [then go.Pfv.3SgSbj]
 ‘Seydou came and went (back).’
- e. *[sé:dù [námà nò] pàrà-gè] [ʔèmbá gě:ndè]*
 [S [meat Def] cut-Caus.Pfv.3SgSbj] [then go.Pfv.3SgSbj]
 ‘Seydou cut the meat and went (away).’
- f. *bíjìlè [ʔèmbá dǒ:yè]*
 go.back.Pfv.3SgSbj [then sleep.Pfv.3SgSbj]
 ‘He/She went back and slept.’
- g. *bíjìlè [ʔémbá dǒ:yè]*
 go.back.Pfv.3PISbj [then sleep.Pfv.3PISbj]
 ‘They went back and slept.’

The sense ‘finish VPing’ is expressed by a perfective chain with the main verb preceding the (perfective) ‘finish’ verb, see §17.4.1.

There is no way to make a specifically perfective verbal noun, whether or not the final verb is chained to a preceding one. The verbal noun of a verb-chain is expressed using the future-time subordinator *nè* for the first verb, followed by the regular verbal-noun form for the second. See §15.1.2.3 below.

15.1.1.2 Same-subject perfective chains with subordinator *mbà* in first clause

It is also possible to add a perfective subordinator *mbà* to the first verb. In this case, the 3Sg perfective {LHL} is fully expressed in the first clause. The last two examples in the preceding subsection can be rephrased as (499a-b). The second clause may or may not begin with *ʔémbà* ‘then’ (499c-d).

- (499) a. *[bìjìlé mbà]* *[ʔémbá dǒ:yè]*
 [go.back.Pfv.3SgSbj Pfv] [then sleep.Pfv.3SgSbj]
 ‘He/She went back and slept.’
- b. *[bìjìlé mbà]* *[ʔémbá dǒ:yè]*
 [go.back.Pfv.3PlSbj Pfv] [then sleep.Pfv.3PlSbj]
 ‘They went back and slept.’
- c. *[ɲ bíjìlé mbà]* *[ʔémbá ɲ dǒ:yè]*
 [1Sg go.back.Pfv Pfv] [then 1Sg sleep.Pfv]
 ‘I went back and slept.’
- d. *[ɲ bíjìlé mbà]* *[ɲ dǒ:yè]*
 [1Sg go.back.Pfv Pfv] [1Sg sleep.Pfv]
 [= (c)]

A sample paradigm is (500). The third person forms are based on the unsuffixed perfective. 1Sg/2Sg and 3Pl have {HL} overlays on the combination verb plus *mbà*, while 1Pl/2Pl and 3Sg have {LHL}. Some +ATR stems like *sígè* ‘go down’ allow final *o* as an alternative to final *e*, as in *sígó mbà* ‘went down (=retired for the night) and ...’ T2015-08 @ 01:19.

(500)	‘looked (and then)’	‘went down (and then)’	
1Sg	<i>ɲ tɛ:jé mbà</i>	<i>ɲ sígé mbà</i>	~ <i>ɲ sígó mbà</i>
1Pl	<i>ɲ tɛ:jé mbà</i>	<i>ɲ sígé mbà</i>	~ <i>ɲ sígó mbà</i>
2Sg	<i>à tɛ:jé mbà</i>	<i>à sígé mbà</i>	~ <i>à sígó mbà</i>
2Pl	<i>á tɛ:jé mbà</i>	<i>á sígé mbà</i>	~ <i>á sígó mbà</i>
3Sg	<i>tɛ:jé mbà</i>	<i>sígé mbà</i>	~ <i>sígó mbà</i>
3Pl	<i>tɛ:jé mbà</i>	<i>sígé mbà</i>	~ <i>sígó mbà</i>

This construction with *mbà* in the first clause is obligatory when the two verbs are separated by constituents that are part of the second clause (§15.1.3 below).

Oddly, *mbà* is homophonous with the locative postposition (§8.2.3.1), which makes little sense conceptually as a subordinator in a perfective chain. Comparison of subordinator *mbà* with *ʔémbá* ‘then’ and perhaps with past enclitic *mbè* (§10.5.1) may be closer to the mark etymologically.

15.1.1.3 Different-subject perfective chains

Since both verbs in the perfective-chain construction are pronominally conjugated, the construction can be used in different-subject sequences, as long as the two events are closely sequenced.

- (501) a. *[séydù tá:-bè mì-ŋgú tàbè]*
 [Seydou door-child 1Sg-Acc give.Pfv.3SgSbj],
[ʔémbà ñ gé:ndè]
 [then 1SgSbj go.Pfv]
 ‘Seydou gave me the key and I left.’
- b. *[bé:-gè nò] tá:-bè mì-ŋgú tàbè]*
 [child-Pl Def] door-child 1Sg-Acc give.Pfv.3PlSbj,
[ʔémbà ñ gé:ndè]
 [then 1SgSbj go.Pfv]
 ‘The children gave me the key and I left.’

15.1.2 Future-time event chains with sequential *nè ~ nè*

15.1.2.1 Same-subject future-time chains with or without *ʔémbà* ‘then’

Future-time event sequences are expressed by the future-time sequential subordinator *nè* added directly to the perfective (E/I-stem) of the nonfinal verb(s). The usual form of the subordinator is *nè*, but it optionally assimilates to a preceding +ATR stem to become *nè*. The second verb is a stripped-down imperfective (A-stem without reduplication or iteration). Both verbs are conjugated for pronominal subject. If the subject is third person, the first verb takes unsuffixed perfective form before *nè* (3Sg and 3Pl are distinguished by tones). If it is 3Sg, the normal 3Sg {LHL} overlay for unsuffixed perfective is seemingly leveled to {L}, followed by H-tone on *nè* and again {L} on the second verb (502c-d,h). Arguably the {LHL} overlay is realized on the entire Vb1-*nè*-Vb2 sequence.

The examples in (502) involve same-subject clause sequences. See below for disjoint subjects. *gé:ndè* ‘go’, which is very common as first verb in this construction, is truncated to *gě:n nè*.

- (502) a. *[ñ gě:n nè] [ñ ʔégà]*
 [1SgSbj go.Pfv and.then] [1SgSbj come.Ipfv]
 ‘I will go and come (back).’
- b. *[gé:n nè] ʔégà]*
 [go.Pfv.3PlSbj and.then] come.Ipfv.3PlSbj
 ‘They will go and come (back).’
- c. *[gè:n né] ʔégà]*
 [go.Pfv.3SgSbj and.then] come.Ipfv.3SgSbj
 ‘He/She will go and come (back).’

- d. [sɛydù ʔɛ̀gɛ̀ né] bijilà
[Seydou come.Pfv.3SgSbj and.then] go.back.Ipfv.3SgSbj
‘Seydou will come and go back.’
- e. [[bé:-gɛ̀ nɔ̀] ʔɛ̀gɛ̀ nɛ̀] bijilà
[[child-Pl Nom] come.Pfv.3PlSbj and.then] go.back.Ipfv.3PlSbj
‘The children will come and go back.’
- f. [bé:-gɛ̀ gɛ́:n nɛ̀] ʔɛ̀gà
[child-Pl go.Pfv.3PlSbj and.then] go.back.Ipfv.3PlSbj
‘The children will go and come (back)’
- g. [ɲ ʔɛ̀gɛ̀ nɛ̀] [ɲ bijilà]
[1SgSbj come.Pfv and.then] [1SgSbj go.back.Ipfv]
‘I will come and go back.’
- h. [sé:dù [námà nɔ̀] pàrà-gɛ̀ né] bijilà
[S [meat Def] cut-Caus.Pfv.3SgSbj and.then] go.back.Ipfv.3SgSbj
‘Seydou will cut the meat and go back.’

Additional partial paradigms for the first verb are in (503). The tonal forms shown are those immediately preceding a same-subject second verb, so that the first two parts of the {LHL} overlay associated with 3Sg is expressed, L on the first verb and H on *nɛ̀*. In other contexts the {LHL} is expressed on the first verb plus *nɛ̀ ~ nɛ̀*, e.g. 3Sg ʔɛ̀gɛ̀ nɛ̀ for ‘come’.

(503)	Pfv 3Sg	gloss	with <i>-nɛ̀</i> when the subject is...			
			1Sg	1Pl	3Pl	3Sg
	<i>ʔɛ̀gɛ̀</i>	‘come’	<i>ɲ ʔɛ̀gɛ̀ nɛ̀</i>	<i>ɲ ʔɛ̀gɛ̀ nɛ̀</i>	<i>ʔɛ̀gɛ̀ nɛ̀</i>	<i>ʔɛ̀gɛ̀ né</i>
	<i>gɛ́:ndɛ̀</i>	‘go’	<i>ɲ gɛ́:n nɛ̀</i>	<i>ɲ gɛ́:n nɛ̀</i>	<i>gɛ́:n nɛ̀</i>	<i>gɛ́:n né</i>
	<i>dúnjúɾɛ̀</i>	‘push’	<i>ɲ dúnjúɾɛ̀ nɛ̀</i>	<i>ɲ dúnjúɾɛ̀ nɛ̀</i>	<i>dúnjúɾɛ̀ nɛ̀</i>	<i>dúnjúɾɛ̀ né</i>
	<i>pàrá-gɛ̀</i>	‘cut’	<i>ɲ pàrá-gɛ̀ nɛ̀</i>	<i>ɲ pàrá-gɛ̀ nɛ̀</i>	<i>pàrá-gɛ̀ nɛ̀</i>	<i>pàrá-gɛ̀ né</i>
	<i>túbbɛ̀</i>	‘fall’	<i>ɲ túbbɛ̀ nɛ̀</i>	<i>ɲ túbbɛ̀ nɛ̀</i>	<i>túbbɛ̀ nɛ̀</i>	<i>túbbɛ̀ né</i>
	<i>ʔɔ́llɛ̀</i>	‘go up’	<i>ɲ ʔɔ́llɛ̀ nɛ̀</i>	<i>ɲ ʔɔ́llɛ̀ nɛ̀</i>	<i>ʔɔ́llɛ̀ nɛ̀</i>	<i>ʔɔ́llɛ̀ né</i>

It is also possible to begin the second clause with *ʔɛ̀mbà* (or tonal variant) ‘then’. In this case, if the subject is 3Sg or 1Pl/2Pl, the first verb and *nɛ̀* are {L}-toned (504a).

- (504) a. [sé:dù bijilɛ̀ nɛ̀] [ʔɛ̀mbà dɔ́:yà]
[S go.back.Pfv.3SgSbj and.then] [then sleep.Ipfv.3SgSbj]
‘Seydou will go back and sleep.’

- b. *[[bɛ:-gè nò] bɔ́jílɛ nɛ̀] [ʔémbà dó:yà]*
 [[child-P1 Def] go.back.Pfv.3PISbj and.then] [then sleep.Ipfv.3PISbj]
 ‘The children will go back and sleep.’

15.1.2.2 Different-subject future-time chains

The same nonfinal perfective clause plus *nɛ̀* can be used when the subjects of the two clauses are disjoint (505).

- (505) *[[bɛ:-gè nò] pánáŋgè só:ŋgé nɛ̀]*
 [[child-P1 Def] meal bring.Pfv-3PISbj and.then]
ʔémbà ɔ́ jà
 then 1PISbj eat.Ipfv
 ‘The children will bring the meal and we will eat.’

15.1.2.3 Verbal noun of chained verbs

A verbal noun elicited for a verb-verb combination (‘go and come [back]’) makes us of the *nɛ̀* construction for the first verb and the morphological verbal noun for the second. The rising tones and vocalism of the verb before *nɛ̀* point to the 3Sg form of the *nɛ̀* construction, but without Rightward H-Movement.

- (506) a. *[gě:n nɛ̀] ʔègò-nà*
 [go.Pfv.3SgSbj and.then] come-VbIN
 ‘going and coming back’
- b. *[ʔègé nɛ̀] gè:ndó-nà*
 [come.Pfv.3SgSbj and.then] go-VbIN
 ‘coming and going (back)’

Although *nɛ̀* is elsewhere found in chains denoting future events, in the verbal noun there is no time reference.

15.1.3 Arguments of chained verbs

If a nonpredicative constituent is shared by two chained verbs, it is normally placed before the first verb.

- (507) *ʔálamà [ɲ sélɛ̀] [ɲ ʔórɛ̀]*
 sheep [1SgSbj slaughter.Pfv] [1SgSbj skin.butcher.Pfv]
 ‘I slaughtered and (skinned and) butchered a sheep.’

In perfective chains, if the second verb has arguments not shared by the first verb, the *mbà* subordinator on the first verb becomes obligatory.

- (508) a. *[dú:ní mbà] [[kómbú mbà] ?émbà túmbè]*
 [run.Pfv.3PlSbj Pfv] [[hole Loc] then fall.Pfv.3PlSbj]
 ‘They ran and fell into the hole.’
- b. *[dù:ní mbà] [[kómbú mbà] ?èmbá tùm̀bè]*
 [run.Pfv.3SgSbj Pfv] [[hole Loc] then fall.Pfv.3SgSbj]
 ‘He/She ran and fell into the hole.’
- c. *[?òllé mbà] [?émbà mì-ḡú nùmbè]*
 [get.up.Pfv.3SgSbj Pfv] [then 1Sg-Acc hit.Pfv.3SgSbj]
 ‘He/She got up and hit me.’

15.1.4 Chains of deontic modals

15.1.4.1 Imperative chains

In (509a-b), all of the verbs are identical to or slightly trimmed versions of regular imperative forms. In (509a), *?òllò* ‘get up!-2Sg’ and *sò:ḡò* ‘bring!-2Sg’ are identical to regular singular-addressee imperatives. In (509b), *só:ḡà-yⁿ* ‘bring!-2Pl’ is a regular plural-addressee imperative, and except for losing its final *-yⁿ* so is *?óllà*, cf. *?óllà-yⁿ* ‘get up!-2Pl’. Although *-yⁿ* is the plural-addressee suffix, its loss of little consequence, since the remaining *?óllà* differs in tone and vocalism from singular-addressee *?òllò* and from any other verb form that could occur clause-initially.

- (509) a. *?òllò [pànàḡé sò:ḡò]*
 get.up.Imprt [meal bring.Imprt]
 ‘Get up-2Sg and bring the food!’ (< *pánáḡè*)
- b. *?óllà [pánáḡè só:ḡà-yⁿ]*
 get.up.Imprt.PlAddr [meal bring.Imprt-PlAddr]
 ‘Get up-2Pl and bring the food!’

In (509a), the two imperative verbs are separated by an object noun that belongs with the second verb. Removing this intervening constituent creates a verb-verb sequence. When the addressee is plural, both verbs are still based on regular plural-subject imperatives, and the first verbs still have their final *-yⁿ* trimmed off (510a-b).

- (510) a. *gé:ndà ?éḡà-yⁿ*
 go.Imprt.PlAddr come.Imprt-Pl.Addr
 ‘Go-2Pl and come (back)!’

- b. *ʔégà* *bí:-yà-yⁿ*
come.Imprt.PIAddr lie.down-MP.Imprt-Pl.Addr
'Come-2Pl and lie down (=go to bed)!'

However, when the two adjacent imperatives are singular-addressee forms, the situation becomes more complex. (511a-b) are singulars corresponding to the plurals in (510a-b) above.

- (511) a. *gè:ndà =* *(à)* *ʔégù*
go.Imprt 2SgSbj come.QuotImprt
'Go-2Sg and come (back)!'
- b. *ʔègà =* *(à)* *bí:-yù*
come.Imprt 2SgSbj lie.down-MP.QuotImprt
'Come-2Sg and lie down (=go to bed)!'

There are two surprises in (512a-b). To begin with, the first imperative ends in *à* rather than *ò*, and the *à* is often (though not always) heard as long. Since 'go' and 'come' have final *o* in their singular-addressee imperatives *gè:ndò* and *ʔègò*, the final *a(:)* suggests that a 2Sg proclitic *à* has been intercalated between the two verbs and that /*oa*/ has contracted. It is syntactically bracketed with the second verb, but cliticizes phonologically to the first. As for the second verb, instead of normal main-clause imperative form (*ʔègò* 'come!', *bí:-yò* 'lie down!'), it has the U-stem and {HL} overlay, which are regular for the 2Sg subject quoted imperative (§10.8.3.1) rather than main-clause imperative. The shift to U-stem is more conspicuous for verbs whose regular singular-addressee imperative ends in *a*, like 'eat' in (512), cf. *jà* 'eat!-2Sg'.

- (512) *ʔòllà =* *à* *jù:*
get.up 2SgSbj eat.Imprt
'Get up-2Sg and eat!' (< *ʔòllò*)

An imperative chain can also be structured as a single final imperative form, preceded by a future-time sequential subordinated clause with *nè*. There are no surprises in this construction.

- (513) [*à* *ʔóllé* *nè]* *pànàngé* *jà*
[2SgSbj go.up.Pfv and.then] meal eat.Imprt
'Go up-2Sg and eat a meal!' (< *pánàngè*)

15.1.4.2 Hortative chains

In (514), both verbs are hortative, with 1Pl proclitic and suffix *-yⁿ*. The only comment needed is that since the second *í* is syllabified with the final syllable of the first verb, this syllable

should have ended up as [dɛ̀ỹⁿɛ̀] with an unpronounceable <HLH> tone. Instead it is leveled to H-tone.

- (514) [ɛ̀] gèndé-yⁿ] [ɛ̀] ʔégé-yⁿ]
 [1PlSbj go-Hort] [1PlSbj come-Hort]
 ‘Let’s go (there) and come (back)!’

15.2 Temporal adverbial clauses

15.2.1 Adverbial clauses expressing temporal simultaneity or overlap

15.2.1.1 Noun-headed temporal relative clause (‘[at] the time when ...’)

In (515), *déni* ‘day’ is the head, so the relative clause functions as a temporal adverbial clause. My assistant pronounces *déni* with H-tone as head noun, but *dèni* as ordinary noun ‘day’, as in *dèni-gè tá:ndù* ‘three days’. *nàngà* functions as an echo for *déni* following the relative clause proper, cf. interrogative *nà nánà* ‘(on) which day?’ (§13.2.2.4).

- (515) [dèni ɛ̀ ʔégé nánà] dǔ:wè
 [day 1SgSbj come.Pfv day] die.Pfv.3SgSbj
 ‘He/She died (on) the day I came.’

Logically, there should be a spatiotemporal postposition. However, like English *on* in the free translation of (515), the postposition is understood and usually omitted. Alternatively, we can think of *nàngà* as a specialized postposition used only in temporal relatives with specific heads.

15.2.1.2 Same-subject imperfective (‘while’) clause with lengthened A/O-stem

This construction is possible when the subjects are coindexed. In (516a), the time-of-day verb (‘spend night’) is clause-final in normal main-clause form. The subordinated VP has a somewhat compound-like construction in which object nouns that have an H-tone, like *núnǔ* ‘song’ (516a) and *dòróngè* ‘sleep (n)’ in (516c-d), undergo Rightward H-Movement (→ *núnǔ́*, *dòróngé*). The subordinated verb has a unique A/O/U-stem, with A/O-stem for final-nonhigh-vowel verbs. Final-high-vowel verbs usually have final *u*-vowel, though the important verb *káni* ‘do’ can have either *a* or *u* vowel. In any event, the final vowel is lengthened. The lengthened vowel is <HL>-toned before 3Pl subject verbs and before 1Pl *ɛ̀* and 2Sg *á*, i.e. before any H-tone. In the 1Pl and 2Pl cases, this creates unpronounceable <HLH> syllables which are simplified to <HL> (1Pl) or H (2Pl). The lengthened vowel is L-toned before 3Sg subject verbs and before 1Sg *ɛ̀* and 2Sg *à*, i.e. before any L-tone. This tonal behavior is unlike anything else in Bunoge tonology. Nonfinal syllables of the subordinated verb are L-toned. In the second person forms, contraction with 2Sg *à* or 2Pl *á* disguises stem-final vowel length.

- (516) a. *[bé: nò]* *[nùŋɔ̀ nùŋà:]* *dá:yè-Ø*
 [child Def] [song sing.**Ipfv**.3SgSbj] spend.night.Pfv-3SgSbj
 ‘The child spent the night singing (=sang all night).’
- b. *[yà: nɔ̀]* *[wàlè kànà:]* *ŋ́* *dǎ:yè*
 [night Def] [work(n) do.**Ipfv**] 1PlSbj spend.night.Pfv
 ‘(Last) night we spent the night working.’
- c. *[yà: nɔ̀]* *[wàlè kànâ:]* *dá:yè*
 [night Def] [work(n) do.**Ipfv**.3PlSbj] spend.night.Pfv.3PlSbj
 ‘(Last) night they spent the night working.’
- d. *[dòròŋgé dò:yò:]* *dènè*
 [sleep(n) sleep.**Ipfv**.3SgSbj] spend.day.Pfv.3SgSbj
 ‘He/She spent the (mid-)day sleeping [focus].’ (< *dòróŋgè*)
- e. *dù:nú:* *dénè*
 run.**Ipfv**.PlSbj spend.day.Pfv.3PlSbj
 ‘They spent the (mid-)day running [focus].’
- f. *[nènnù-ŋgè nènnâ:]* *dénè*
 [sweep-Nom sweep.**Ipfv**] spend.day.Pfv.3PlSbj
 ‘They spent the (mid-)day sweeping [focus].’

‘Spent the (mid-)day sleeping’ as in (516d) for various pronominal-subject categories is tabulated in (617). For reasons given above, the tones of the lengthened vowel are somewhat unstable especially in 1Pl/2Pl forms.

(517) subject ‘__ spent the day sleeping’

1Sg	<i>dòròŋgé</i>	<i>dò:yò:</i>	<i>ŋ́</i>	<i>dénè</i>
1Pl	<i>dòròŋgé</i>	<i>dò:yô:</i>	<i>ŋ́</i>	<i>dènè</i>
2Sg	<i>dòròŋgé</i>	<i>dò:yà =</i>	<i>à</i>	<i>dénè</i>
2Pl	<i>dòròŋgé</i>	<i>dò:yá =</i>	<i>á</i>	<i>dènè</i>
3Sg	<i>dòròŋgé</i>	<i>dò:yò:</i>		<i>dènè</i>
3Pl	<i>dòròŋgé</i>	<i>dò:yô:</i>		<i>dénè</i>

15.2.1.3 Different-subject imperfective (‘while’) clause with *-wⁿ*

If the subjects are disjoint, the ‘while’ clause is expressed as an imperfective nonsubject relative clause, with imperfective suffix *-wⁿ*.

- (518) [wàlè òj kàná-wⁿ] [dòróngé dò:yá: mbè]
 [work(n) 1Pl do.Ipfv-while] [sleep(n) sleep.Ipfv.3SgSbj Past]
 ‘Yesterday he was sleeping while we worked’

For this *-wⁿ* in perception-verb complements, see §17.2.2.2. A phonologically similar *-wⁿ* occurs in bare statives of perception verbs (§10.4.1.3) and in adjectival predicates in comparatives (§12.1.1).

15.2.1.4 ‘Since ...’ clauses (*mbà dìgì*)

With an adverb X, ‘since’ is [*X dìgì*], as in *yà:gú dìgì* ‘since yesterday’. A ‘since’ clause has *mbà dìgì* after a perfective verb. For perfective subordinator *mbà* see §15.1.1.2.

- (519) *mà: òj ?égè mbà dìgì,*
 here come 1SgSbj Pfv since,
námà òj tèmá:-lì
 meat 1SgSbj eat.meat-PfvNeg
 ‘Since I came here I haven’t eaten any meat.’

15.2.2 Adverbial clauses expressing a chronological sequence

15.2.2.1 Sequential *?émbà* ‘then’ plus perfective

The preverbal particle *?émbà* combines with a following conjugated perfective or (less often) imperfective verb. These *?émbà* clauses are noninitial in chains expressing event sequences. The preceding verb is perfective, regardless of whether the overall sequence has been completed or is in the future. *?émbà* may be glossed as ‘then’.

Following *?émbà*, perfective verbs have their usual forms for 1st/2nd person subjects, and unsuffixed forms for third person subjects (3Sg and 3Pl distinguished by tones). Imperfective verbs lack their reduplications.

?émbà itself remains {HL}-toned except in the 3Sg, where it undergoes Rightward H-Movement to *?èmbá* before {LHL}-toned verb. The distinct surface tones for 3Sg and 3Pl subjects give the third-person portion of the *?émbà* paradigm the superficial appearance of a conjugated verb paradigm. The 3Sg LH pattern versus 3Pl HL pattern is reminiscent of the unsuffixed perfective which has similar tones. However, 1st/2nd person proclitics occur only on the following verb, not on *?émbà*, which is therefore clearly not an auxiliary verb.

(520)		‘then __ ran’				‘then __ (will) run’		
	1Sg	<i>ʔémbà</i>	<i>ɲ</i>	<i>dú:nì</i>		<i>ʔémbà</i>	<i>ɲ</i>	<i>dù:nà</i>
	1Pl	<i>ʔémbà</i>	<i>ɲ</i>	<i>dǔ:nì</i>		<i>ʔémbà</i>	<i>ɲ</i>	<i>dǔ:nà</i>
	2Sg	<i>ʔémbà = à</i>		<i>dú:nì</i>		<i>ʔémbà = à</i>		<i>dù:nà</i>
	2Pl	<i>ʔémbà = á</i>		<i>dǔ:nì</i>		<i>ʔémbà = á</i>		<i>dǔ:nà</i>
	3Sg	<i>ʔèmbá</i>		<i>dǔ:nì</i>		<i>ʔèmbá</i>		<i>dǔ:nà</i>
	3Pl	<i>ʔémbà</i>		<i>dú:nì</i>		<i>ʔémbà</i>		<i>dú:nà</i>

ʔémbà should be distinguished from *ʔémbè*, a preverbal particle in the progressive construction (§10.2.2.2). Because of contractions, the two constructions can be confused in the second person forms, but the verb is perfective (E/I-stem) in the ‘then’ construction and imperfective (A-stem) in the progressive.

The etymology of sequential *ʔémbà* ‘then’ is obscure. It may be connected in some way with perfective subordinator *mbà*, with which it may co-occur (§15.1.1.2). However, *ʔémbà* ‘then’ may precede imperfective as well as perfective verbs.

15.2.2.2 ‘Worked until got tired’ = ‘worked for a very long time’

In (521a-b), a first clause denoting a prolonged activity is followed by a same-subject clause meaning ‘until X got tired’, emphasizing the extreme prolongation of the first activity. The emphasis is not always on literal fatigue as seen in (521b).

- (521) a. [*dù:nù* *ɲ* *dú:nì*] [*fá→* *ɲ* *dénè*]
 [running(n) 1SgSbj run.Pfv] [until 1SgSbj be.tired.Pfv]
 ‘I ran and ran until I got tired.’
- b. [*námà* *ɲ* *témè*] [*fá→* *ɲ* *dénè*]
 [meat 1SgSbj eat.meat.Pfv] [until 1SgSbj be.tired.Pfv]
 ‘I ate meat until I got tired.’ (= ‘I gorged myself on meat.’)

15.2.3 ‘Before ...’ clauses with *ʔúnà* ‘says’

ʔúnà is the 3Pl-subject short imperfective of *ʔúnè* ‘say’. In this construction, it follows another verb, which is in imperfective form even when denoting a past-time event (because this event is/was in the future from the temporal perspective of the chronologically prior event). Specifically, it has the form of an {HL}-toned 3Pl subject form imperfective in a nonsubject focalized clause. The clause denoting the prior event, e.g. ‘go inside’ in (522a), is in whatever inflectional category it would have in the absence of the ‘before’ clause (perfective, imperfective, imperative, hortative, etc.).

Examples of this construction are in (522).

- (522) a. *[[ʔáyà nò] ʔégà ʔúnà] ñ dê:*
 [[rain(n) Def] come.Ipfv.3SgSbj **say**.Ipfv.3PlSbj] 1SgSbj go.in.Pfv
 ‘I went inside before the rain came down.’
- b. *[ʔégà ʔúnà] ñ yóg-gè*
 [come.Ipfv.3PlSbj **say**.Ipfv.3PlSbj] 1SgSbj hide-MP.Pfv
 ‘I hid (myself) before they came.’
- c. *[ñ ʔégà ʔúnà] dú:ní-yè*
 [1SgSbj come.Ipfv **say**.Ipfv.3PlSbj] run.Pfv-3PlSbj
 ‘They fled before I came.’
- d. *ñ gù:ndê-yⁿ [[ʔòbò nò] túbba ʔúnà]*
 1PlSbj go-Hort [[house Def] fall.Ipfv.3SgSbj **say**.Ipfv.3PlSbj]
 ‘Let’s go outside, before the house falls.’

15.3 Spatial and manner relatives

15.3.1 Spatial relative clause (‘where ...’)

The noun ‘place’ is *ké* (definite *kê: nò*). Relative clauses with *ké* as head can function as NP arguments, or (with a locative postposition) as spatial adverbial clauses. In (523), the relative construction (ending with *túbba*) is followed by locative postposition *ndò*.

- (523) *[[à baw ñgù] ñ tégè]*
 [[2SgPoss father Acc] 1SgSbj see.Pfv]
[[[ná:-ñgè nò] ké túbba] ndò]
 [[[cow-Pl Def] **place** fall.Pfv.3PlSbj] Loc]
 ‘I saw your-Sg father in the place where the cows fell.’

15.3.2 Manner relative clause (‘how ...’) with *bánà* ‘way, manner’

15.3.2.1 Subjectless manner clause with *-y* after lengthened A-stem

This construction is used when the manner adverbial has an unexpressed generalized agent. *bánà* ‘way, manner’ (becoming *báná* by Rightward H-Movement) is combined with an invariant (unconjugated) verb form ending in *-y* based on the imperfective (A-stem) but with final lengthening. I know of no other construction with this verb form in Bunoge. Historically, *-y* might be a phonetically degraded form of an echo noun corresponding to head noun *bánà*, compare *ndi* (§15.3.2.3 below).

- (524) a. [bó-lò bǎná ʔòllà:-y] ñ ʔíndò
 [there manner go.up.Ipfv-**how**] 1SgSbj not.know
 ‘I don’t know how to go up there.’ (< ʔóllè)
- b. [bé: nò] [bǎná ʔòllà:-y] ʔíndò-Ø
 [child Def] [manner go.up.Ipfv-**how**] not.know-3SgSbj
 ‘The child doesn’t know how to go up (=climb).’
- c. [bé:-gè nò] [bǎná ʔòllà:-y] ʔíndò-yà
 [child-Pl Def] [manner go.up.Ipfv-**how**] not.know-3PlSbj
 ‘The children don’t know how to go up (=climb).’

Representative *-y* forms of verbs are in (525). The verb is in the A-stem, with +ATR vocalism in nonfinal syllables, as in the imperfective.

- (525) verb with *-y* gloss
- a. monosyllabic
- | | | |
|------------|--------------|--------------|
| <i>dê:</i> | <i>dâ:-y</i> | ‘pound’ |
| <i>kê:</i> | <i>kâ:-y</i> | ‘sew’ |
| <i>ñí:</i> | <i>ñâ:-y</i> | ‘draw water’ |
- b. bisyllabic
- | | | |
|---------------|-----------------|-----------------|
| <i>yébè</i> | <i>yòbâ:-y</i> | ‘dance’ |
| <i>sójè</i> | <i>sòjà:-y</i> | ‘tie’ |
| <i>sígè</i> | <i>sìgâ:-y</i> | ‘go down’ |
| <i>símì</i> | <i>sìmâ:-y</i> | ‘build’ |
| <i>gé:wè</i> | <i>gèwâ:-y</i> | ‘kill’ |
| <i>bé:lè</i> | <i>bèlà:-y</i> | ‘get, obtain’ |
| <i>dú-yyè</i> | <i>dù-yâ:-y</i> | ‘carry on head’ |
- homophonous in -y form*
- | | | |
|--------------|-----------------|----------|
| <i>ʔóllè</i> | <i>ʔòllâ:-y</i> | ‘go up’ |
| <i>ʔóllè</i> | <i>ʔòllâ:-y</i> | ‘get up’ |
- c. trisyllabic
- | | | |
|----------------|-------------------|--------|
| <i>dúnjúrè</i> | <i>dùnjùrà:-y</i> | ‘push’ |
|----------------|-------------------|--------|

15.3.2.2 Imperfective manner clause with subject and no subordinator

Examples (526a-c) exemplify imperfective manner clauses, similar in function to the subjectless ones described above, but this time with a conjugated verb in the manner clause. The verb is a simple imperfective (without reduplication). *bánà*, the tonal variant of *bànà*

‘manner’ used as relative head, undergoes Rightward H-Movement before an L-initial 3Sg verb (526c).

- (526) a. [bɛː-gɛ̀ nò] bǎnà sígà] ?índò-yà
 [child-Pl Nom] manner go.down.Ipfv.3PlSbj.Ppl] not.know-3PlSbj
 ‘The children don’t know how to go down.’
- b. [bǎnà ñ̩ sígà] ñ̩ ?índò
 [manner 1SgSbj go.down.Ipfv.Ppl] 1SgSbj not.know
 ‘I don’t know how to go down.’
- c. [sɛːdù bǎnà sígà] ?índò-Ø
 [S manner go.down.Ipfv.3SgSbj.Ppl] not.know-3SgSbj
 ‘Seydou doesn’t know how to go down.’
- d. [ʔálamà bǎnà à sɛ̀là nò] néː = lǎ
 [sheep manner 2SgSbj slaughter.Ipfv.Ppl Def] be.good=it.is.not
 ‘The way you-Sg slaughter a sheep is not good.’

15.3.2.3 Imperfective manner clause with subject and *ndì* ‘like’

ndì ‘like, in the manner of’ may occur after a manner clause (527). It might be analysed as an echo of internal head *bǎnà* ‘manner’, cf. §14.2.5.

- (527) a. [[sɛ̀ydù wàlè bǎnà kǎnà] ndì]
 [[Seydou work(n) manner do.Ipfv.3SgSbj.Ppl] like]
 ñ̩ kǎnà
 1SgSbj do.Ipfv
 ‘I do (work) the (same) way that Seydou does work.’
- b. [[sɛ̀ydù bǎnà dùːnǎ ndì] ñ̩ dùːnǎ
 [[Seydou manner run.Ipfv.3SgSbj.Ppl like] 1Sg run.Ipfv]
 ‘I run the (same) way that Seydou runs.’

15.3.3 ‘From (when) X, until Y’ (*mbà, fǎ→*)

The ‘from (the time when)’ clause in (528) has a perfective verb (*nálè* ‘they bore, they gave birth to’) and perfective subordinator *mbà*. The ‘until’ clause has a simple (unreduplicated) imperfective verb following *fǎ→* ‘until, all the way to’. The two clauses are differentiated intonationally with incomplete ↗ (final high pitch) followed by completed ↘ (low pitch).

- (528) [à-yá-ŋgù nálè mbà↗], [fá→ dó:wà↘],
 [3Pl-Acc give.birth.Pfv.3PlSbj Pfv] [until die.Ipfv.3PlSbj]
 [sòjò^{LH} dà:-gè] bô:
 [person^{LH} evil-Pl] be.3PlSbj
 ‘From when they’re born (lit. “they [their mothers] bear them”), until they die, they are wicked people.’

16 Conditional constructions

Conditional constructions consist of an antecedent clause (occasionally more than one) and a consequent clause. In the main type (hypothetical), the realization or truth of the antecedent event entails the realization or truth of the consequent event. In hypothetical conditionals, the antecedent event is usually in the future or is otherwise uncertain, and the consequent event would follow the antecedent event in time. There is usually a causal relationship between antecedent and consequent. Other types of conditionals are counterfactuals and ‘even if’ conditionals.

16.1 Hypothetical conditional with *mè* ‘if’

mè ‘if’ is clause-final after an inflected verb. The antecedent denotes a possible future eventuality, but it takes perfective form, on the grounds that it is completed prior to the consequent event. The consequent is an ordinary main clause, normally imperfective or a deontic modal (imperative, hortative). The two clauses need not have the same subject. The verbs of both clauses have regular pronominal-subject marking.

16.1.1 Regular antecedent clause

Hypothetical conditional antecedents are in (529). The tone overlays are discussed at the end of this section.

- (529) a. [sèn nò] dàbé mè, ʔóji ñ ʔùnà
 [holy.day Def] pass.Pfv.3SgSbj if, road 1SgSbj say.Ipfv
 ‘When the holy day has passed (= after the holy day), I plan to travel.’
- b. à-ɲgù ñ tégé mè,
 3Sg-Acc 1SgSbj see.Pfv if,
 tóndí-gè à-ɲgú tà ñ tàbà
 money 3Sg-Acc Rdp 1SgSbj give.Ipfv
 ‘If I see him, I’ll give him the money.’
- c. [ʔá:mádù ɲgù] à tégé mè, dù:nù
 [Amadou Acc] 2SgSbj see if, run.Imprt
 ‘If you see Amadou, run!’

Paradigms of perfective positive verbs plus *mè* are in (530). The third person perfectives are suffixed, as in simple main clauses. However, all subject categories including 1st/2nd persons require an {LH} overlay on a perfective verb preceding *mè*.

(530)	category	‘eat’	‘slaughter’	‘go back’
	1Sg	<i>ɲ jě: mè</i>	<i>ɲ sèlé mè</i>	<i>ɲ bijilé mè</i>
	1Pl	<i>ɲ jě: mè</i>	<i>ɲ sèlé mè</i>	<i>ɲ bijilé mè</i>
	2Sg	<i>à jě: mè</i>	<i>à sèlé mè</i>	<i>à bijilé mè</i>
	2Pl	<i>á jě: mè</i>	<i>á sèlé mè</i>	<i>á bijilé mè</i>
	3Sg	<i>jě:-Ø mè</i>	<i>sèlé-Ø mè</i>	<i>bijilé-Ø mè</i>
	3Pl	<i>jù-yyé mè</i>	<i>sèl-yé mè</i>	<i>bijil-lé mè</i>

The antecedent may be perfective negative (531).

(531)	<i>jí</i>	<i>jâ:-ndí</i>	<i>mè,</i>	<i>wàlè</i>	<i>káni-ndà</i>
	food	eat.meal-PfvNeg.3PISbj	if,	work(n)	do-IpfvNeg.3PISbj
	‘If they don’t eat, they won’t work.’				

Perfective negative verbs plus *mè* are in (632). The segmental form (stem type and suffix) are as in main clauses. There is no tonal change in 1Pl/2Pl or 3Sg, which are entirely {L}-toned (including the suffix) as in main clauses. However, 1Sg/2Sg have an LH pattern with the H on the perfective negative suffix, versus {LHL} in main clauses. Alternatively we could think of {LHL} as including *mè*, in which case the only change is a shift of the H-tone onto the suffix. Compare *ɲ sèlà:-lí mè* ‘if I do not slaughter’ in (532) below with main clause *ɲ sèlá:-lí* ‘I did not slaughter’. 3Pl has {HLH}, with the final H realized on the suffix, and with the initial H spread rightward into the antepenult of a quadrisyllabic word form (trisyllabic stem plus syllabic suffix). This contrasts with {HL} in main clauses, the H again spreading only into the antepenult; compare *sèlà:-ndí mè* ‘if they do not slaughter’ in (532) below with main clause *sèlà:-ndí* ‘they do not slaughter’.

(532)	category	‘not eat’	‘not slaughter’	‘not go back’
	1Sg	<i>ɲ jâ:-lí mè</i>	<i>ɲ sèlà:-lí mè</i>	<i>ɲ bijìlò:-lí mè</i>
	1Pl	<i>ɲ jâ:-lí mè</i>	<i>ɲ sèlà:-lí mè</i>	<i>ɲ bijìlò:-lí mè</i>
	2Sg	<i>à jâ:-lí mè</i>	<i>à sèlà:-lí mè</i>	<i>à bijìlò:-lí mè</i>
	2Pl	<i>á jâ:-lí mè</i>	<i>á sèlà:-lí mè</i>	<i>á bijìlò:-lí mè</i>
	3Sg	<i>jâ:-lí-Ø mè</i>	<i>sèlà:-lí-Ø mè</i>	<i>bijìlò:-lí-Ø mè</i>
	3Pl	<i>jâ:-ndí mè</i>	<i>sèlà:-ndí mè</i>	<i>bijìlò:-ndí mè</i>

Tonal analysis is difficult. For the 1st/2nd persons and for 3Sg, the data are consistent with Rightward H-Movement, shifting an H-tone onto the final syllable of the verb. An {LH} overlay would not work since the 1Pl/2Pl and 3Sg perfective negatives have no H-tone.

However, Rightward H-Movement would not work for the 3Pl perfective negative, e.g. *jâ:-ndí mē*, which has two H-tones on the flanks of the verb. Here it seems that we must invoke Final Tone-Raising.

16.2 Alternative ‘if’ particles

16.2.1 ‘Even if ...’ (*mēⁿ fè*)

To indicate that the realization of the antecedent will not affect the consequent, the regular ‘if’ morpheme *mē* is expanded as *mēⁿ fè* ‘even if’.

- (533) [*séydù* *ʔégé* *mēⁿ* *fè*] *jǔ:-lò-Ø*
 [Seydou come.Pfv.3SgSbj **if** **even**] eat-IpfvNeg-3SgSbj
 ‘Even if Seydou comes, he won’t eat.’

Compare NP-final particle *fè* ‘also; even’ (§19.1.2).

16.3 Counterfactual conditional (*mbǔ:ndò*)

The antecedent event did not in fact take place during a relevant past time interval. The speaker claims that had it been realized, the consequent event would also have been realized.

An initial attempt to elicit a true counterfactual was unsuccessful. The assistant quite reasonably rephrased ‘if it hadn’t rained, we would have gone to sleep here’ as ‘it rained, if not for that (i.e. otherwise) we would have gone to sleep here’ (534). The consequent clause does have the usual Dogon form for a counterfactual consequent clause, i.e. with a past imperfective verb.

- (534) [*ʔáyà* *nò*] *ʔégè-Ø*,
 [rain(n) Def] come.Pfv-3SgSbj,
 [*ʔèmè=lá* *mè*] *mà:-ná:* *íj* *bì-yá:* *mbè*
 [that.Def=it.is.not **if**] here-Loc 1PlSbj lie.down-MP.Ipfv **Past**
 ‘It rained. If not for that, we were going to lie down here.’

True counterfactuals that were elicited later have an antecedent with a type of past perfect verb, with *mbǔ:ndò* instead of the usual past morpheme *mbè*. The *ndò* ending is homophonous with the instrumental and locative postposition, but etymologically it may really be an archaic ‘if’ particle (cf. Yanda Dom *dè* and its cognates in eastern Dogon). The consequent is in past imperfective form (§10.5.1.1), with reduplication instead of full-stem iteration.

- (535) *sèwà:rá=à* *ɨ́* *dèngé* *mbǒ:ndò*],
 Sevare=Loc 1PlSbj remain.Pfv **Past.if**
[mì-yá-ɨgù *gè* *gèwá:* *mbè]*
 [1Pl-Acc Rdp kill.Ipfv.3PlSbj **Past**]
 ‘If we had stayed in Sevare, they would have killed us.’

An example with two negative clauses is (536). The fact that unreduced *mbǒ:ndò* follows past morpheme *wé*, shows that *mbǒ:ndò* is no longer transparently segmentable into past *mbè* and some following morpheme.

- (536) *nà:-lì-Ø* *wé* *mbǒ:ndò*,
 drink-PfvNeg-3SgSbj **Past** **Past.if**,
[nâ: nò *ɨgù]* *dónjɔ-lò-Ø* *wè*
 [cow Def Acc] bump-IpfvNeg-3SgSbj **Past**
 ‘If he hadn’t drunk (=been drinking), he would not have collided with the cow.’

17 Complement and purposive clauses

17.1 Quotative complements

The material quoted may be based on prior or imagined speech events, or mental events (decisions, intentions, desires).

There is no ‘that’ complementizer. Quotations can be marked by a clause-final unconjugated quotative particle *wà* (§17.1.3), and/or by a conjugated ‘say’ verb *?ùnè* (§11.3). Logophoric pronouns are absent, but the use of unsuffixed versus suffixed third-person perfective verbs may indicate logophoric subject. Quoted clauses have some special features, such as a quoted imperative verb form replacing an original imperative (§17.1.4.1).

17.1.1 Direct versus indirect in quotative complements

Because the primary clause-level indicative categories are aspect-negation rather than tense categories, the categories used in the original quote do not require conversion.

Pronominal-person categories, however, are usually updated to conform to those of the current speech event, as in English indirect discourse. If the original speech-event participants (quoted speaker and addressee) were distinct from the current participants, they are usually converted from first and second to third person. In the first part of (537), lion’s original 2Sg pronoun (addressing the child) is phrased as 3Sg. In the second part, child’s original 1Sg pronoun is also phrased as 3Sg. The free translation shows the original direct quotation, before these pronominal conversions.

- (537) *nà-ló* *bè:lé* *wà,* *mó* *nè,*
 where? get.Pfv.3SgSbj Quot, this Def
[?ibà *mbà]* *gájágà-wⁿ* *bè:lé* *wà,*
 [market Loc] scramble-while get.Pfv.3SgSbj Quot,
 ‘(Lion) said, “where did you-Sg get (it)?” (Child) said, “I managed to get (it) at the market.”’ (T2015-08 @ 01:28)

Direct quotation is also possible, with original first and second pronouns retained. Direct quotation occurs occasionally in tales, favored by lively back-and-forth discourse.

- (538) *[à* *?égé* *mèⁿ* *táⁿ]* *ò-ηgù* *tém-mè,*
 [2SgSbj come.Pfv if only] 2Sg-Acc devour.Pfv-3PlSbj,
sàbì *ká:yⁿè,* *[ŋ* ^{HL}*bâw* *ηgù]* *kálábù* *káni-Ø,*
 because hyena, [1SgPoss ^{HL}father Acc] trickery do.Pfv-3SgSbj
 ‘(Child to mother:) “As soon as you come (=arrive), they will devour you. Because hyena has tricked my father”.’ (T2015-08 @ 01:11)

17.1.2 ‘Say that ...’ with inflectable ‘say’ verb (*ʔúnè*)

The verb *ʔúnè* ‘say’ (§11.3) is illustrated in (539). It is phrased prosodically with the preceding quotation, which is usually (but not always) treated as focus. When it is so treated, a third-person-subject verb takes unsuffixed (defocalized) form, e.g. {L}-toned 3Sg *ʔùnè* rather than suffixed *ʔúnè-Ø* (539c) and 3Pl *ʔúnè* rather than suffixed *ʔúní-yè* (539d). If the author of the quoted material is overtly expressed as a nonpronominal NP, it precedes the quotation. This can result in bracketing ambiguities, shown in (539c) by the alternative bracketings associated with different translations.

- (539) a. [*ʔémbè ɰ ʔègà*] *ɰ ʔúnè*
 [Prog 1SgSbj come.Ipfv] 1SgSbj say
 ‘I said I am coming.’
- b. [*séydù ʔèmbé ʔègà*] *ɰ ʔúnè*
 [Seydou Prog come.Ipfv.3SgSbj] 1SgSbj say.Pfv
 ‘I said that Seydou is coming.’
- c. *séydù ʔèmbé ʔègá ʔùnè*
 Seydou Prog come.Ipfv.3SgSbj say.Pfv.3SgSbj
 ‘Seydou_x said that he_x is coming.’ *sé:dù [ʔèmbé ʔègá] ʔùnè*
 ‘Seydou_x said that he/she_y is coming.’ " " "
 ‘He/She said that Seydou is coming.’ [*sé:dù ʔèmbé ʔègá*] *ʔùnè*
- d. [*bé:-gè nɔ̃*] [*ʔémbè ʔégà*] *ʔúnè*
 [child-Pl Def] [Prog come.Ipfv.3PlSbj] say.Pfv.3PlSbj
 ‘The children_x said that they_x are coming.’
 ‘The children_x said that they_y are coming.’

The combination of quoted imperfective verb with same-subject ‘say’ (in the sense ‘think, say to oneself’) often means ‘intend/plan to (do)’ (§17.1.5). 3Pl imperfective *ʔúnà* ‘they say’ is also part of the ‘before (doing)’ construction (§15.2.3).

17.1.3 Quotative clitic *wà*

Unconjugatable clause-final particle *wà* occurs after quoted clauses (540). It conditions Rightward H-Movement in a preceding word.

- (540) *à-ɲgú dàgâm kàní wà*
 3Sg-Acc taste(n) do.Pfv.3SgSbj Quot
 ‘(Hyena) said, “you have outwitted (“tasted”) me.” (< *kàní*) (T2015-08 @ 00:34)

wà may be omitted when the conjugated ‘say’ verb is present. However, unlike the case in other Dogon languages, the two may co-occur (541).

- (541) *[ká:yⁿè yà] [jòmé yà],*
 [hyena and] [hare and],
[âŋ n^{HL}í-nì ŋgù] sò:l-â: wà ?únè,
 [3PIPoss ^{HL}mother Acc] buy-Rev-Purp **Quot** say.Pfv.3PlSbj,
 ‘Hyena and hare decided to sell their mothers.’

As in other Dogon languages, when the original quoted utterance ended in a clause-final emphatic particle like *kò(y)* ‘exactly’ (§19.5.1), *wà* is inserted between the predicate and the emphatic. A textual example of this is in T2015-08 @ 00:25. What this shows is that, if the emphatic is analysed as part of the clause, *wà* is enclitic to the predicate rather than “clause-final.”

17.1.4 Jussive complement (quoted imperative or hortative)

17.1.4.1 Quoted imperative (U-stem) and prohibitive (*-ndâ*)

The quoted imperative (QuotImprt) verb form, consisting of the U-stem (§10.8.3.1), converts an original imperative to a quoted imperative (jussive). A further suffix *-yè* ~ *-yè* or variant *-rè* ~ *-rè* is added when the subject (agent) of the imperative verb is treated as the (accusative) object of ‘say’ (542a-f below). The suffix becomes H-toned if closely phrased with a following 3Sg *?ùnè* ‘he/she said’. The *y* of the suffix assimilates to some preceding consonants (542c-d) after syncope of the *u*, see *y*-Assimilation (§3.4.4.1). The variant with *r* instead of *y* is attested in *dâ:-mù-r* ‘bring (it) in!’ in T2015-08 @ 01:25, and in *kà:yè-ré* ‘shave!’ (606) in T-Dict-1, though the latter is repeated later as (syncopated) *kà:y-yé* in (617) in that text.

The ‘say’ verb is in unsuffixed (=defocalized) form, as in nonsubject focalized clauses, so the 3Sg subject form is {L}-toned *?ùnè*, while the 3Pl form is {HL}-toned *?únè*. The accusative object of ‘say’ precedes the entire jussive clause, including the quoted imperative and any constituents bracketed with it, see especially (542d-f).

- (542) a. *mì-ŋgú ?èbù-yé ?ùnè*
 1Sg-Acc sit-**QuotImprt** say.Pfv.3SgSbj
 ‘He/She told me to sit.’
- b. *mì-ŋgú jènnù-yè ?únè*
 1Sg-Acc sweep-**QuotImprt** say.Pfv.3PlSbj
 ‘They told me to sweep.’

- c. [à^{HL} bāw] ò-ŋgú ʔèg-gé ʔùnè
 [2SgPoss^{HL} father] 2Sg-Acc come-QuotImprt say.Pfv.3SgSbj
 ‘Your father told you-Sg to come.’
- d. mì-ŋgú [bòmðká = à gè:n-dé] ʔùnè
 1Sg-Acc [Bamako=Loc go-QuotImprt] say.Pfv.3SgSbj
 ‘He/She told me to go to Bamako.’ (< gè:ndù-yé)
- e. mì-yá-ŋgù [gó ʔù:-yé] ʔùnè
 1Sg-Pl-Acc [water draw.water-QuotImprt] say.Pfv.3SgSbj
 ‘He/She told us to draw water (at the well).’
- f. mì-ŋgù [[ʔálamà nò ŋgù] sì:ndi-yé] ʔùnè
 1Sg-Acc [[sheep Def Acc] convey-QuotImprt] say.Pfv.3SgSbj
 ‘He/She told me to take the sheep away.’

In an alternative construction, the verb in the jussive clause is directly conjugated and the higher ‘say’ verb does not have an overt object. For example, (542b) above can alternatively be phrased as (543). The jussive verb is still in the U-stem but there is no *-yè* ~ *-yè*. The original addressee optionally also appears as accusative object of ‘say’.

- (543) (mì-ŋgú) [ŋ] ʔénnù] ʔúnè
 (1Sg-Acc) [1SgSbj sweep.QuotImprt] say.Pfv.3PlSbj
 ‘They told me to sweep.’

Quoted prohibitives (negative imperatives) contain the prohibitive verb form with *-ndà* (§10.8.1.2), plus pronominal-subject conjugation.

- (544) a. [ŋ] ʔégà-ndá] ʔùnè
 [1SgSbj come-Proh] say.Pfv.3SgSbj
 ‘He/She told me not to come.’
- b. [[à^{HL} bāw] à gè:ndà-ndá] ʔùnè
 [[2SgPoss^{HL} father] 2SgSbj go-Proh] say.Pfv.3SgSbj
 ‘Your-Sg father said for you-Sg not to go.’

17.1.4.2 Quoted hortative

Quoted hortatives were difficult to elicit. The elicited example in (545a) has a simple imperfective verb (A-stem without reduplication) and 1Pl subject marking. However, textual example (545b) shows a more authentic quoted hortative. The original 1Pl subject proclitic *ŋ* is optionally omitted, but the verb has the hortative suffix. There is a slight tonal shift from

gèndé-yⁿ to *gèndé-yⁿ* due to the following quotative *wà*, which induces Rightward H-Movement. A similar example is T2015-08 @ 01:02.

- (545) a. [*à* ^{HL}*bâw*] *bò* *ɲ* *gè:ndá* *ʔùnè*
 [2SgPoss ^{HL}father] together 1PlSbj go.Ipfv say.Pfv.3SgSbj
 ‘Your-Sg father said (to us), “we’ll go together!”’
- b. *hà:* *ndàgé* *wà,* *ɲ* *gèndé-yⁿ* *wà* [*ʔibà mbà*]
 well, all.right Quot, 1PlSbj go-Hort Quot [market Loc]
 ‘(said:) “Well, all right. Let’s go to the market!”’ (T2015-08 @ 01:14)

17.1.5 ‘Intend to’ (imperfective plus ‘say’)

The sense ‘intend/plan to VP’ can be expressed by the combination of a conjugated imperfective and a final inflected same-subject ‘say’ verb, which here means ‘say to oneself, think’. Both verbs are conjugated.

- (546) a. [*mì-ɲgú* *nùmbá*] *ʔùnè*
 [1Sg-Acc hit.Ipfv.3SgSbj] say.Pfv.3SgSbj
 ‘He/She intended to hit me.’
- b. [*dòròɲgé* *dò:yá*] *ʔùnè*
 [sleep(n) sleep.Ipfv.3SgSbj] say.Pfv.3SgSbj
 ‘He/She intended to sleep.’ (< *dòróɲgè*)
- c. [*dòróɲgè* *dó:yà*] *ʔúnè*
 [sleep(n) sleep.Ipfv.3PlSbj] say.Pfv.3PlSbj
 ‘They intended to sleep.’
- d. [*à-ɲgú* *ɲ* *nùmbà*] [*ɲ* *ʔúnè*]
 [3Sg-Acc 1SgSbj hit.Ipfv] [1SgSbj say.Pfv]
 ‘I intended to hit him/her.’
- e. [*bé:* *ɲgù*] *nùmbá* *ʔùnè*
 [child Acc] hit.Ipfv.3SgSbj say.Pfv.3SgSbj
 ‘He/She intended to hit a child.’

The 3Sg forms with final H-toned *á* due to Rightward H-Movement as in *nùmbá ʔùnè* ‘he/she intended to hit’ in (546e) should be distinguished from phonetically similar purposive verbs with final *-â:* (§17.5.1), as in *nùmb-â: ʔégè* ‘he/she came in order to hit’. The difference is phonetically much sharper with non-3Sg categories like 3Pl, e.g. *nùmbà ʔúnè* ‘they intended to hit’ versus *nùmb-â: ʔég-gè* ‘they came in order to hit’.

17.2 Factive (indicative) complements

This type of complement is a full proposition whose truth is more or less presupposed when the matrix clause is a positive form of ‘know’, or of perception verbs (‘see’, ‘find’, ‘hear’) in inferential or hearsay contexts.

In my current data, the complement has the form of a main clause except that the verb complex may undergo the same reductions that are found in nonsubject focalization clauses. That is, preverbal extras (reduplication, iteration, nonpronominal proclitics) can be omitted, and 3Sg and 3Pl perfectives are of the unsuffixed type. However, fuller forms may also be used. There is no ‘that’ complementizer, and I have observed no definite marking of the clause as a whole.

17.2.1 ‘Know that ...’ complement clause

ʔɛyⁿ ‘know’ (§11.2.5.1) takes a factive complement in the form of a regular indicative main clause. The ‘know’ predicate may precede or follow the factive complement. The order of clauses is variable (547a-b).

- (547) a. *[séydù ʔɛyⁿ-Ø]* *[ɲ]* *ʔégè]*
 [Seydou **know**-3SgSbj] [1SgSbj come.Pfv]
 ‘Seydou knows that I have come.’
- b. *séydù* *[ɲ]* *ʔégè]* *ʔɛyⁿ-Ø*
 Seydou [1SgSbj come.Pfv] **know**-3SgSbj
 [= (a)]
- c. *[séydù ʔɛyⁿ-Ø]* *[à]* *ʔégó-lò]*
 [Seydou **know**-3SgSbj] [2SgSbj come-IpfvNeg]
 ‘Seydou knows that you-Sg are not coming.’
- d. *[ɲ]* *ʔɛyⁿ]* *[séydù]* *ʔégè-Ø]*
 [1Sg **know**] [Seydou come.Pfv-3SgSbj]
 ‘I know that Seydou has come.’
- e. *[ɲ]* *ʔɛyⁿ]* *[bé:-gè nò]* *ʔég-gè]*
 [1Sg **know**] [child-Pl Def] come.Pfv-3PlSbj]
 ‘I know that the children have come.’

17.2.2 ‘See (find, hear) that ...’

Complements of ‘see’, ‘find’ (in the sense ‘notice, observe’), and ‘hear’ can denote directly perceived events (‘I saw/found/heard them fight[ing]’) or eventualities discovered indirectly and after the fact by inference or hearsay (‘I saw/found/heard that he had jumped’).

17.2.2.1 Direct-perception perfective type (subject relative)

Perfective complements denoting bounded events are in subject relative clause form (548).

- (548) a. *[ná: tùbbè]* *ɲ* *tégè*
 [cow fall.Pfv.Ppl] 1SgSbj see.Pfv
 ‘I saw (the) cow fall.’
 (lit. “I saw (the) cow that fell.”)
- b. *[ná: tùbbè-gè]* *ɲ* *tégè*
 [cow fall.Pfv.Ppl-PI] 1SgSbj see.Pfv
 ‘I saw (the) cows fall.’
 (lit. “I saw (the) cows that fell.”)

17.2.2.2 Direct-perception imperfective complement (-wⁿ)

Imperfective examples denoting unbounded activities are in (549). Here the complement takes a conjugated verb with final -wⁿ, glossed ‘while’ in interlinears (§15.2.1.3). 3Sg and 3Pl subjects are distinguished by tone (549a-b). The added suffix allows the full {LHL} overlay of the 3Sg and 1Pl/2Pl imperfective to be expressed even for prosodically light verbs such as CvCv (549b). However, in the bare statives and adjectival predicates the 3Pl form is suffixal.

- (549) a. *[bé:-gè yóbà-wⁿ]* *ɲ* *tégè*
 [child-PI dance.Ipfv.3PlSbj-while] 1SgSbj see.Pfv
 ‘I saw (the) children dancing.’
- b. *[bé: yòbâ-wⁿ]* *ɲ* *tégè*
 [child dance.Ipfv.3SgSbj-while] 1SgSbj see.Pfv
 ‘I saw (a/the) child dancing.’
- c. *[à túbbà-wⁿ]* *tégè-Ø*
 [2SgSbj fall.Ipfv-while] see.Pfv-3SgSbj
 ‘He/She saw you-Sg falling.’

17.2.2.3 Recognition (inference, hearsay) construction

In this construction, the perceiver recognizes or infers a prior event from indirect evidence. The verb in the complement has main-clause form. ‘See’ has derived stative form in these examples.

- (550) a. *ɲ tégà [dùmò-bá:ŋgà à bɪlè]*
 1SgSbj **see.Stat** [wealth-owner 2SgSbj become.Pfv]
 ‘I see that you-Sg have become a rich person.’
- b. *ɲ tégà [dùmò-bá:ŋgá-gè bɪl-yè]*
 1SgSbj **see.Stat** [wealth-owner-Pl become.Pfv-3PlSbj]
 ‘I see that they have become rich people.’

17.2.3 Main clause with *tá'jára* ‘certainty’

Fulfulde loanword *tá'jára* ‘certainty’, with *ʔj* representing preglottalized [*ʔdʒ*] varying with [*j*], can be added to an ordinary main clause, either by itself or as part of a phrase with *káni* ‘do’ specifying a subject. The verb-complex reductions in the true factitive complements (e.g. of ‘know’ or ‘see’) described in the preceding sections do not occur here; note the imperfective reduplication in (551a). The proposition in question may denote a future eventuality, or a past-time eventuality whose factuality is at issue.

- (551) a. *tá'jára [ʔè ʔègà]*
certainty [Rdp come.Ipfv.3SgSbj]
 ‘He/She will certainly (definitely) come.’
- b. *[tá'jára ɲ káni] [ʔè ʔègà]*
[certainty 1SgSbj do.Pfv] [Rdp come.Ipfv.3SgSbj]
 ‘I’m sure that he/she will come.’
- c. *tá'jára [kámgà káni-Ø]*
certainty [stealing do.Pfv-3SgSbj]
 ‘It’s certain that he/she stole (it)’.

17.3 Verbal noun (and other nominal) complements

For verbal nouns in suffix *-nà*, see §4.2.2.

17.3.1 Structure of verbal noun complement

Verbal-noun complements are in most cases subordinated VPs, with an implicit subject that is coindexed to the matrix subject. Objects and other nonsubject constituents have the same form as in main clauses. (552a) has an accusative object ('me'), while (552b) has a locational expression ('to Mopti').

- (552) a. *[sójó-gè nɔ̃] [mì-ŋgú gèwɔ́-nà] káyⁿ-yà*
 [person-Pl Def] [1Sg-Acc kill-VbIN] want-3PlSbj
 'The people want to kill me.'
- b. *[[mòtí wà] gě:n-nà] ñ káyⁿ mbè*
 [[Mopti Loc] go-VbIN] 1SgSbj want Past
 'I wanted to go to Mopti.' (< *gè:ndó-nà*)

If the subject of a verbal-noun complement is overtly expressed, it takes the form of a possessor of the verbal noun. This is possible in constructions with matrix-clause verbs that require different-subject complements ('prevent') or that allow them as an option ('consent').

17.3.2 'Prevent' (*gáyá-mi*) plus verbal-noun complement

The native Dogon verb *gáyá-mi* 'prevent, obstruct' competes with the Fulfulde borrowing *hár kání* (with *kání* 'do'). The logical agent of the embedded proposition appears as direct object of 'prevent' in the main clause.

- (553) a. *[ʔáyà nɔ̃] mì-ŋgú gáyá-mi-Ø ʔègó-nà*
 [rain(n) Def] 1Sg-Acc **prevent**-Caus.Pfv-3SgSbj come-VbIN
 'The rain prevented me from coming here.'
- b. *[púlù nɔ̃] mì-ŋgú gàyà-mà:-lì-Ø dòyó-nà*
 [noise Def] 1Sg-Acc **prevent**-Caus-PfvNeg-3SgSbj sleep-VbIN
 '(The) noise did not prevent me from sleeping.'
- c. *[ñ bāw] mì-ŋgú hár kání-Ø*
 [1SgPoss father] 1Sg-Acc **prevent** do.Pfv-3SgSbj
[bòmðká = à gě:n-nà]
 [Bamako=Loc go-VbIN]
 'My father prevented me from going to Bamako.' (< *gè:ndó-nà*)

17.3.3 ‘Dare’ (*ná:lè*) plus verbal-noun complement

ná:lè is the verb ‘dare to VP, have the nerve/effrontery to VP’. It can also mean ‘think, worry’. It takes a verbal noun complement.

- (554) [*mà:* *ègó-nà*] *à* *ná:lè*
 [here come-VbIN] 2SgSbj **think.Pfv**
 ‘You-Sg have dared to come here?’

17.3.4 ‘Consent’ (*?ábè*) plus verbal-noun or imperfective complement

?ábè ‘accept, receive’ can be used with a verbal-noun complement in the sense ‘agree, consent (to do something)’, when the subject of the embedded clause is coindexed with the matrix subject.

- (555) [*?àmì:rú* *nò*] *?égó-nà* *?ábè-Ø*
 [chief Def] come-VbIN **accept.Pfv-3SgSbj**
 ‘The chief agreed to come.’

If the subjects are different, the complement is a finite imperfective clause (without reduplication or iteration of the verb stem).

- (556) *?àmì:rú* [*ì*] *?égò*] *?ábè-Ø*
 chief [1Sg come.Ipfv] **accept.Pfv-3SgSbj**
 ‘My father agreed/consented that I come.’

17.3.5 ‘Want’ (*kâyⁿ*) plus verbal-noun or *-nè* ~ *-nè* complement

kâyⁿ ‘want’ (§11.2.5.2) can take verbal-noun complements.

- (557) a. *gè:ndó-nà* *ì* *kâyⁿ*
 go-VbIN 1SgSbj **want**
 ‘I want to go.’
- b. [*ná:* *sòwó-nà*] *ì* *kâyⁿ*
 [cow buy-VbIN] 1SgSbj **want**
 ‘I want to buy a cow.’

When the subjects of the two clauses are disjoint, the complement has *nè* subordinator (§15.1.2).

- (558) a. [ɨ̃ ^{HL}bâw] [bòmðká = à ɨ̃ gè:n né]
 [1SgPoss ^{HL}father] [Bamako=Loc 1SgSbj go.Pfv **and.then**]
 kàyⁿ-Ø
want-3SgSbj
 ‘My father wants me to go to Bamako.’
- b. [yóbù ɨ̃ yòbè né] kàyⁿ-Ø
 [dance(n) 1SgSbj dance.Pfv **and.then**] **want-3SgSbj**
 ‘He/She wants me to dance’

See also ‘we want it to go forward’, T2015-05 @ 01:21.

17.3.6 ‘Forget’ (ʔálè) plus verbal-noun complement

The verb ‘forget (something)’ is ʔálè. It is unrelated in form to ʔéjɲè ‘remember’ (in some other Dogon languages ‘remember’ is the reversive derivative of ‘forget’). In the sense ‘forget to VP’, the complement takes verbal-noun form.

- (559) ʔègó-nà ʔálè-Ø
 come-VbIN **forget.Pfv-3SgSbj**
 ‘He/She forgot to come.’

When the complement is factive (‘forget that ...’), it appears as a regular main-like clause.

- (560) a. [ɨ̃ ʔálè] [jáka à ʔégè]
 [1SgSbj **forget.Pfv**] [lo! 2SgSbj come.Pfv]
 ‘I forgot (the fact) that you-Sg have come.’
- b. [ɨ̃ ʔálè] [tóndí-gè ɨ̃ sá: = ndà]
 [1SgSbj **forget.Pfv**] [money 1SgSbj have=StatNeg]
 ‘I forgot that I don’t have any money.’

17.3.7 Obligational (wá:jíbi ‘duty’) plus main clause

wá:jíbi ‘obligation, duty’ (< Arabic via Fulfulde) can be juxtaposed to an imperfective main clause to indicate external obligation.

- (561) wá:jíbi bòmðká = à gè ɨ̃ gè:ndà
obligation Bamako=Loc Rdp 1SgSbj go.Ipfv
 ‘I have to go to Bamako.’

17.3.8 ‘Be afraid to’ (*díwè*) with verbal-noun or imperfective complement

The verb ‘be afraid of, fear (sth)’ is perfective *díwè*, perfective negative *díwá:-lì*. Unlike many *Cvww* stems, it does not lengthen its first vowel in the perfective or imperfective positive (§10.1.2.7).

This verb may have an NP object (562).

- (562) *[námgà nɔ́ ɲgù] ɲ dí:wè*
 [snake Def Acc] 1SgSbj **fear(v).Pfv**
 ‘I was afraid of the snake.’

If the complement is a clause with the same subject, in the sense ‘X be afraid to VP’, the result is a verbal-noun complement (563).

- (563) *[bòmǎká=à gě:n-nà] ɲ dí:wè*
 [Bamako=Loc go-VbIN] 1SgSbj **fear(v).Pfv**
 ‘I am (=have become) afraid to go to Bamako.’ (< *gè:ndó-nà*)

If the feared eventuality has a different subject, the complement is a regular imperfective clause including reduplication. In (564), the initial ‘I am afraid’ has no effect on the main proposition.

- (564) *[ɲ dí:wè] [[ɲ ^{HL}bâw] mî-ɲgú nù nùmbà]*
 [1SgSbj **fear(v).Pfv**] [1SgPoss ^{HL}father] 1Sg-Acc Rdp hit.**Ipfv.3SgSbj**
 ‘I’m afraid that my father might hit me.’

17.3.9 ‘Begin’ (*dógúlè*) with verbal-noun complement

dógúlè ‘begin’ can take an NP complement.

- (565) *[wàlè nɔ́] ɲ dógúlè*
 [work(n) Def] 1SgSbj **begin.Pfv**
 ‘I began the work.’

A clausal complement is expressed with a verbal noun in *-nà* (§4.2.2). The matrix and subordinated clauses must have the same subject.

- (566) a. *[wàlè kǎn-nà] dógúlè-Ø*
 [work(n) do-VbIN] **begin.Pfv-3SgSbj**
 ‘He/She began to (perform) work.’

- b. *dù:n-nà* *dógúlè-Ø*
 run-VbIN **begin**.Pfv-3SgSbj
 ‘He/She began to run.’
- c. [*pò* *pǒ:-nà*] *dógúlè-Ø*
 [weeping weep-VbIN] **begin**.Pfv-3SgSbj
 ‘He/She began to weep.’
- d. [[*?álamà* *nò*] *sèlò-nà*] *dógúlè-Ø*
 [[sheep Def] slaughter-VbIN] **begin**.Pfv-3SgSbj
 ‘He/She began to slaughter the sheep-Sg.’

17.3.10 ‘Stop’ (*?íj-jè*) with verbal-noun complement

In the context of motion, ‘stop’ can be expressed by the mediopassive verb *?íj-jè* ‘stop, stand’. In (567) it combines with a verbal noun complement.

- (567) *dù:nú-nà* *?íj-jè-Ø*
 run-VbIN **stop**-MP.Pfv-3SgSbj
 ‘He/She stopped running.’

17.3.11 ‘Help’ (*bánnè*) with verbal-noun complement

As a simple transitive with accusative NP object, ‘help’ is *bánnè*.

- (568) *mì-ngù* *bánnè-Ø*
 1Sg-Acc **help**.Pfv-3SgSbj
 ‘He/She helped me.’

A verbal noun complement can be added, but the subject of the complement is still expressed as a main-clause direct object, rather than as possessor of the verbal noun (569).

- (569) *bì-yé-nà* *mì-ngù* *bánnè-Ø*
 lie.down-MP-VbIN 1Sg-Acc **help**.Pfv-3SgSbj
 ‘He/She helped me to lie down.’

17.3.12 ‘Cease’ (*méñè*) with verbal-noun complement

The verb *méñè* has a primary sense ‘leave (sth), leave alone, abandon’, with an NP object.

- (570) [ɨ̃ ^{HL}bóndà nò] [bìlà mbà] ɨ̃ mé̃ɲɛ̃
 [1SgPoss ^{HL}shoulderbag Def] [field Loc] 1SgSbj **leave.Pfv**
 ‘I left my shoulderbag in the field.’

mé̃ɲɛ̃ can also take a verbal noun complement. The cessation may be definitive (571a) or situational (571b).

- (571) a. [námà tèmɔ́-nà] mé̃ɲɛ̃-Ø
 [meat eat.meat-VbIN] **leave.Pfv-3SgSbj**
 ‘He/She stopped (ceased) eating meat.’
- b. [núɲò nùɲɔ́-nà] mé̃ɲɛ̃-Ø
 [song sing-VbIN] **leave.Pfv-3SgSbj**
 ‘He/She stopped (ceased) singing.’

17.4 Chained perfective complements

‘Be able to, can’ is expressed morphologically by a conjugated verb with capacitative suffix *-mò*, see §10.7.

17.4.1 ‘Finish’ (*púllè*) with chained perfective

The verb ‘finish, complete (an activity)’ is *púllè*. A simple NP complement is possible (572).

- (572) *pánángè* *púllè-Ø*
 meal finish.Pfv-3SgSbj
 ‘He finished the meal.’

A clausal complement used with *púllè* is most often a chained perfective clause (§15.1), although a verbal noun complement like that for *dógúlé* ‘begin’ (§17.3.9) is also possible. I focus here on perfective complements. For third person subject, the complement verb is unaffixed, while the final ‘finish(ed)’ verb can be suffixed. Both verbs are conjugated for pronominal person. For example, ‘finished eating’ is expressed as ‘ate (and) finished’. For 3Sg subject, the {LHL} perfective overlay is (arguably) spread over the two-verb sequence (573a,d,e).

- (573) a. *jè:* *púllè-Ø*
 eat.meal.Pfv.3SgSbj finish.Pfv-3SgSbj
 ‘He/She finished eating.’

- b. *bé:-gè* *jê:* *púllí-yè*
 child-Pl eat.meal.Pfv.3PlSbj finish.Pfv-3PlSbj
 ‘The children finished eating.’
- c. [*ɪ̃* *jê:*] [*ɪ̃* *púllé* *nè̃*]
 [1SgSbj eat.meal] [1SgSbj finish.Pfv and.then]
 ‘when I (will) finish eating.’
- d. [*wàlè* *kànĩ*] *púllè-Ø*
 [work(n) do.Pfv.3SgSbj] finish.Pfv-3SgSbj
 ‘He/She finished working’
- e. *jènnè* *púllè-Ø*
 sweep.Pfv-3SgSbj finish.Pfv-3SgSbj
 ‘He/She finished sweeping.’

17.5 Purposive and causal clauses

Purposive clauses are generally prospective: ‘we are digging a well (now) so that we may have water in the dry season (later)’. A special case is matrix motion verb plus purposive clause, where the motion directly precedes the purposeful action.

Causal clauses (‘because’) are generally retrospective: ‘we went into the house because the rain had started’.

17.5.1 Purposive clause with suffix *-â:* before motion verb

A motion verb like ‘go’ or ‘come’ can combine with a purposive clause whose verb is in imperfective-like form (A-stem), but with the final *a*-vowel lengthened and falling-toned. The subjects of the main and purposive clause are coindexed. The purposive clause may be focalized (574a-b below). Object NPs including a determiner or possessor have their usual tonal form. Rightward H-Movement is usual in undetermined objects before the purposive verb, as in compound initials. Therefore undetermined object nouns of /HL/ and /LHL/ melodies, but not other nouns, end up as LH-toned before the purposive verb (574c-f). The variant of (574f) with *jòmé* ‘hare’ becoming *jòmè* shows that an /LH/-melody noun loses its final H-tone. (574g) shows that the object of a purposive verb can have normal accusative marking.

- (574) a. *[[núŋgù* *nò̃*] *tèbà-g-â:]*
 [[waterjar Def] smash-Caus-**Purp**]
?ègé *sà*
 come.Pfv.3SgSbj have.3SgSbj.Ppl
 ‘He/She came to smash the waterjar [focus].’ (< *núŋgù*)

- b. *[[ɲ́ núnɣù nɔ́ dùg-â:]*
 [[1SgPoss ^{HL}waterjar Def] take-**Purp**]
ʔègé sà
 come.Pfv.3SgSbj have.3SgSbj.Ppl
 ‘He/She came to take my waterjar [focus].’
- c. *[yòbú yòb-â:] ʔég-gè*
 [dance(n) dance-**Purp**] come.Pfv-3PlSbj
 ‘They came to dance.’ (< *yóbù, yóbè*)
- d. *[dòròngé dòy-â:] ʔégè-Ø*
 [sleep(n) sleep-**Purp**] come.Pfv-3SgSbj
 ‘He/She came to sleep.’ (< *dòròngè, dó:yè*)
- e. *[gèní òmò-ɲg-â:] gó:ɲgè-Ø*
 [fire fire.go.out-Caus-**Purp**] go.out.Pfv-3SgSbj
 ‘He/She went out in order to put out the fire.’ (< *gèni*)
- f. *[ʔòbò / ʔàllà / nà:lí / ʔàlámá / kíló / ná: / jòmè sòw-â:]*
 [house / pig / cat / sheep / goat / cow / hare buy-**Purp**]
ʔègé sà
 come.Pfv.3SgSbj have.3SgSbj
 ‘He/She came in order to buy a house/pig/cat/sheep/goat/cow/hare.’
 (*ʔòbò, ʔàllà, nà:li, ʔàlámà, kíló, ná (ná:), jómé*)
- g. *[mì-ɲgú nùmb-â:] ʔégè*
 1Sg-Acc hit-**Purp**] come.Pfv.3SgSbj
 ‘He/She came in order to hit me.’

Examples with monosyllabic verbs in the purposive clause are in (575). The <LHL> tone on *jà-â:* and *nà-â:* is not clearly articulated (they sound closer to <HL>). However, the tones of the preceding nouns are those expected before an L-tone.

- (575) a. *[sóm búlɔ́ jà-â:] ɲ́ gé:ndà*
 [millet.cake eat.meal.**Purp**] 1SgSbj go.Ipfv
 ‘I’m going (there) to eat millet cakes [focus].’ (< *sóm búlò*)
- b. *[gó: nà-â:] gé:ndè-Ø*
 [water draw.water.**Purp**] go.Pfv-3SgSbj
 ‘He went (there) to draw water [focus].’ (< *gó (gò:)*)

A different construction is seen in (576). Here the purposive verb ‘eat’ is L-toned, and this induces Rightward H-Movement on the preceding noun (*pánánɣè* → *pánàɲgè*). This is

similar to the compound-like object-verb purposes marked by special tones in other Dogon languages.

- (576) *[pànáŋgé jà:] ʔégè-Ø / ʔég-gè*
 [meal eat.Purp] come.Pfv-3SgSbj / -3PlSbj
 ‘He-or-she/They came to eat.’ (< *pánáŋgé*)

17.5.2 Different-subject purposive clauses with *bàná*

bàná ‘manner’ appears in different-subject purposive clauses, as head noun of a relative in the form *bánà*. These can be analysed as manner relative clauses (§15.3.2). The verb is imperfective, and *bánà* is treated tonally as a second imperfective verb agreeing in pronominal-subject category with the main verb. It is therefore {HL}-toned in 1Sg, 2Sg, and 3Pl subject clauses, but {L}-toned in 1Pl, 2Pl, and 3Sg subject clauses.

- (577) a. *[[mòtó-nà nò] mì-ŋgù tábè-Ø]*
 [[motorcycle-3SgPoss Def] 1Sg-Acc give.Pfv-3SgSbj]
[sáŋgà = à bánà ò gè:ndà]
 [Sangou=Loc manner 1SgSbj go.Ipfv.Ppl]
 ‘He gave me his motorcycle so that I (might) go to Sangou.’
- b. *[bármà àyá-ŋgù ò tábè]*
 [pot 3Pl-Acc 1SgSbj give.Pfv]
[jî: bánà bálà]
 [meal manner cook.Ipfv.3PlSbj.Ppl]
 ‘I gave them a pot, so they could cook meals.’
- c. *[bármà à-ŋgù ò tábè]*
 [pot 3Pl-Acc 1SgSbj give.Pfv]
[jî: báná bàlà]
 [meal manner cook.Ipfv.3SgSbj.Ppl]
 ‘I gave him/her a pot, so he/she (might) cook meals.’

The paradigm of *bánà* plus ‘cook’ is (578). The 3Sg form *báná* reflects Rightward H-Movement before the 3Sg verb.

- (578)
- | | | | |
|-----|-----------------|----------|-------------|
| 1Sg | <i>bánà</i> | <i>ò</i> | <i>bálà</i> |
| 1Pl | <i>bànà</i> | <i>ò</i> | <i>bàlà</i> |
| 2Sg | <i>bánà = à</i> | | <i>bálà</i> |
| 2Pl | <i>bànà = á</i> | | <i>bàlà</i> |
| 3Sg | <i>báná</i> | | <i>bàlà</i> |
| 3Pl | <i>bánà</i> | | <i>bálà</i> |

17.5.3 Causal ('because') clause (*sàbi* ~ *sàbù*)

Clause-initial *sàbi* (variant *sàbù*) means 'because'. It is a form of a regionally widespread 'because' form ultimately from Arabic.

- (579) *sáŋgà = à* *íj* *gè:ndò-mà = ndà,*
Sangou=Loc 1Pl go-Capac=StatNeg,
sàbi [*?óji* *nò*] *ɲámí: bò,*
because [road Def] ruined be.3SgSbj
'We can't go to Sangou because the road is no good.'

18 Anaphora

Anaphora as defined here is the overt expression of coindexation between an anaphor (such as a reflexive pronoun) and an antecedent, which might be the clause-mate subject or, for logophorics, the attributed author of the quotation.

18.1 Reflexive

18.1.1 Reflexive object based on possessed *kò* ‘head’

When the object is coindexed with the clausemate subject, the object is expressed as the relevant possessed form of *kò* ‘head’, cf. *(my/your)-self* in English reflexives. (580a-b) are reflexive, (580c) is nonreflexive.

- (580) a. *[ɪ̃ kô: ɲgù] ɪ̃ númbè*
 [1SgPoss head Acc] 1SgSbj hit.Pfv
 ‘I hit-Past myself.’
- b. *[kò:-nà ɲgù] númbè-Øce*
 [head-3SgPoss Acc] hit.Pfv-3SgSbj
 ‘He_x hit himself_x.’ or ‘She_x hit herself_x.’
- c. *à-ɲgù númbè-Ø*
 3Sg-Acc hit.Pfv-3SgSbj
 ‘He_x/She_x hit him_y/her_y.’

18.1.2 Reflexive possessor not a distinct form

There is no special anaphoric form for reflexive possessor, i.e. when the possessor of a nonsubject NP such as the object is coindexed with the clausemate subject. The regular pronominal possessor affixes, including 3Sg and 3Pl, are used. In the case of a third person subject, there is no overt marking of coindexation, so coindexed and noncoindexed readings are possible.

- (581) a. *[ɪ̃ ^{HL}?álamà ɲgù] ɪ̃ só:-lè*
 [1SgPoss ^{HL}sheep Acc] 1SgSbj buy-Rev.Pfv
 ‘I sold my sheep-Sg.’

- b. *séydù* [*ʔàlàamá-nà* *ŋgù*] *só:-lè-Ø*
 Seydou [sheep-3SgPoss Acc] buy-Rev.Pfv-3SgSbj
 ‘Seydou_x sold his_x (own)/his_y-or-her_y sheep-Sg.’

18.2 Emphatic pronouns

‘My head’ and related forms can also be used adverbially, with an instrumental postposition, as equivalents of emphatic pronouns.

- (582) a. *[[ɛ̃]* ^{HL}*kó:]* *ndò*] *ɛ̃* *símì*
 [[1SgPoss ^{HL}head] Inst] 1SgSbj build.Pfv
 ‘I built (it) myself.’
- b. *[kò:-nà* *ndó*] *símì*
 [head-3SgPoss Inst] build.Pfv.3SgSbj
 ‘He built (it) himself.’
- c. *[[âŋ* ^{HL}*kô:]* *ndò*] *símì*
 [[3PlPoss ^{HL}head] Inst] build.Pfv.3PlSbj
 ‘They built (it) themselves.’

18.3 Logophoric and indexing pronouns

18.3.1 Logophoric pronouns absent

There is no logophoric pronoun, replacing a regular third person pronoun inside a quoted segment when coindexed with the attributed author of the quotation (‘he_x said that he_x is coming’). In 583a), the verb ‘come’ has its regular form (allowing for the tonal effect of the ‘say’ verb). In (583b), the usual 3Sg accusative form is used for the object of ‘see’, regardless of whether or not it is coindexed with Seydou.

- (583) a. *sé:dù* [*ʔèmbé* *ʔègá*] *ʔùnè*
 Seydou [Prog come.Ipfv.3SgSbj] say.Pfv.3SgSbj
 ‘Seydou_x said he_x/he_y-or-she_y is coming.’
- b. *séydù* *[[ʔìbà* *mbà]* *à-ŋgù* *à* *tègé]* *ʔùnè*
 Seydou [[market Loc] 3Sg-Acc 2SgSbj see.Pfv] say.Pfv.3SgSbj
 ‘Seydou_x said that you-Sg saw him_x/him_y-or-her_y in the market.’

18.4 Reciprocal

Reciprocals with coindexed clausemate subjects and objects are expressed by a verbal derivation, with *-gè* (perfective) added to the A/O-stem of the verb, see §9.5.

19 Grammatical pragmatics

19.1 Topic

19.1.1 Topic (*kó* ~ *kô:*, *kó-nì*)

The topic particle *kó* ‘as for’ or an elaboration *kó-nì* follows the relevant NP or pronoun. The simple form *kó* is more common than *kó-nì*. It can be extended as *kô:* before a pause. The topicalized constituent is preclausal. It is resumed by a pronoun within the clause proper (584a-b).

- (584) a. [*mì* *kô:*] *mì-ŋgù* *númbò:-li-Ø*
 [1Sg Top] 1Sg-Acc hit-PfvNeg-3SgSbj
 ‘As for me, he/she didn’t hit me.’
- b. [*mì* *kó-nì*] *ŋ* *gé:l-lò*
 [1Sg Top] 1SgSbj go-1pfvNeg
 ‘As for me, I’m not going.’ (< *gé:ndè*)

Independent pronouns are L-toned (1Sg *mì*, 2Sg *ò*) or LH-toned (1Pl *mì-yá*, 2Pl *ò-yá*, 3Sg *ǎwⁿ*, 3Pl *à-yá*). The LH-toned pronouns drop to L before *kó(-nì)*, as in *mì-yà kó(-nì)* ‘as for us’; see Dissimilatory Tone-Lowering (§3.6.3.4). Other NPs with final H-tone, whether lexical or phonologically induced, likewise drop this H-tone. Lexically /LH/ *jòmé* ‘hare’ has topic form *jòmè kô:*. From definite *sàgàllà nò* ‘the young man’ the topic form is *sàgàllà nò kó(-nì)* ‘as for the young man’. NPs ending in falling tone sequences are not altered: [*ŋ* ^{HL}*bâw*] *kó(-nì)* ‘as for my father’, *séydù kó(-nì)* ‘as for Seydou’.

19.1.2 ‘Also’ or ‘even’ (*fè*)

pé ‘also, too’ follows the constituent it has scope over, which may be a nonpredicative constituent such as an NP, or the entire clause.

- (585) a. *mì / m̀i-yá* *fè*
 1Sg / 1Pl **too**
 ‘me/us too’
- b. *núŋ̀* *ʔembé* *nùŋ̀* *pé*
 song Prog sing.Ipfv.3SgSbj **too**
 ‘He/She sings too (e.g. in addition to dancing).’

‘Even X’ can be expressed in several ways. The best equivalent is *fê* following the emphasized constituent. More emphatic phrase-initial particles *fǎ→* and *hâl*, both meaning roughly ‘as far as, all the way to, until’, can also be used.

- (586) a. [*fǎ→* *bé:*] *ʔɔllɔ-mò-Ø*
 [until child] go.up-Capac-3SgSbj
 ‘Even a child can go up (=climb).’
- b. [*hâl* *bè:-ná-ɲgè* *ɲgù* *fě]* *nù* *nùmbà*
 [as.far.as child-3SgPoss-Pl Acc even] Rdp hit-Ipfv-3SgSbj
 ‘He/She even hits his/her children.’

Directly adding *fě* ‘even, also’ to a verb is disfavored, but if there is no suitable NP or adverb in the clause, *fě* may occur clause-finally, with scope over the entire predicate (587a). An alternative is clause-initial *fǎ* ‘until, all the way to, even’ (587b).

- (587) a. *mì-ɲgú* *tìyà-mà:-lì-Ø* *fê*
 1Sg-Acc greet-Caus-PfvNeg-3SgSbj even
 ‘He/She didn’t even say hello to me.’
- b. *fǎ* *mì-ɲgú* *tìyà-mà:-lì-Ø*
 until 1Sg-Acc greet-Caus-PfvNeg-3SgSbj
 [= (a)]

19.2 Preclausal discourse markers

19.2.1 ‘But ...’ (*kà:*)

‘But’ is *kà:*. It may be phrased prosodically with the preceding or following clause, or the two may be prosodically seamless. *kà:* is a variant of a regionally widespread form.

- (588) *ʔégè-Ø* [*kà:* *jà:-lì-Ø]*
 come.Pfv-3SgSbj [but eat.meal-PfvNeg-3SgSbj]
 ‘He/She came but didn’t eat.’

19.3 Pragmatic adverbs or equivalent

19.3.1 ‘Again’ (*kásìn*)

kásìn ‘again’ (< Fulfulde) is exemplified in (589).

- (589) *[mó nɔ̃] táǵá-ndà kásìn*
 [Dem Def] speak-Proh again
 ‘Don’t-2Sg say that again!’

19.4 ‘Only’ particles

19.4.1 ‘Only X’ (X *tò:lè*)

‘Only X’ with some NP (or noun-like adverb) X, is expressed by possessed forms of the numeral *tò:lè* ‘1’ (§4.6.1). Pronominal examples are in (590).

- (590) 1Sg *ɲ tò:lè* ‘only me’
 1Pl *ɲ tò:lè* ‘only us’
 2Sg *à tò:lè* ‘only you-Sg’
 2Pl *á tò:lè* ‘only you-Pl’

 3Sg *tò:lé-nà* ‘only him/her/it’
 3Pl *âɲ tò:lè* ‘only them’

Nonpronominal NPs are illustrated in (591).

- (591) a. *nòlò-gè nɔ̃ tò:lè*
 man-Pl Def one
 ‘only the men’

 b. *ʔòbó^{LH} ^Lbây nɔ̃ tò:lè*
 ‘house^{LH} ^Lbig Def one
 ‘only the big house’

When ‘only’ has scope (pragmatically) over an entire VP or clause, it is normally grouped syntactically with an NP (or adverbial) constituent. In (592), for example, the cognate nominal ‘sleep’ rather than the verb is followed by *tò:lè*.

- (592) *[wàlè kǎl-lɔ̃-Ø] [[dòròngé tò:lé] dò:yà-Ø]*
 [work(n) do-IpfvNeg-3SgSbj] [[sleep(n) only] sleep.Ipfv-3SgSbj
 ‘He/She doesn’t work, he/she only sleeps.’

19.5 Phrase-final emphatics

kóy and *dè* are local variants of regionally widespread clause-final emphatic particles with different pragmatic functions.

19.5.1 Clause-final *kò* ~ *kòy* ‘exactly’ (confirming)

Clause-final *kò* ~ *kòy* is a confirmational emphatic, either answering a polar interrogative or confirming a statement by an interlocutor.

- (593) *jùṅgá* *bò* *kòy*
hot be.3SgSbj Emph
‘It sure is hot!’

A textual passage with two occurrences is *môwⁿ kòy [yé^{LH} L^L báyⁿ] wà kòy* ‘there it is, a big thing indeed, he thought’ in T2015-08 @ 00:25. For the linear order *wà kòy* see §17.1.3.

19.5.2 Clause-final *dè* (admonitive)

dè is used after imperatives and statements with a warning note. For example, (594) might be used to warn someone not to pick up a hot object.

- (594) *jùṅgá* *bò* *dè*
hot be.3SgSbj Emph
‘(Watch out,) it’s hot!’

19.6 Greetings

Metalinguistic verbs are *tíyá-mì* ‘greet’ and *dámbe* ‘greet in the morning, say good morning to’.

The good-morning greeting sequence is (595). *káná yà* is somewhat opaque but has the pragmatic effect of ‘did you spend the night (=sleep) well?’ *yà* may be the ‘and’ conjunction. In B’s two-part response, we can identify *ń dǎ:yè* ‘we spent the night’ and *á dǎ:yè* ‘you-PI spent the night’. *nà* in *nà ń dǎ:yè* may be a severe contraction of *?èlà ndò*, which is heard as such in the follow-up question in B’s turn. *èlà ndò* itself is slightly contracted from *hé:là ndò* ‘with well-being’.

- (595) A: *káná yà* ‘Good morning!’

B: *nà ń dǎ:yè* ‘We spent the night (well).
[?èlà ndò] á dǎ:yè ‘Did you-PI spend the night (well)?’

In the afternoon and evening, the sequence is (596). *tíyà yà* (with *yà* ‘and’) is related to the verb *tíyá-mì* ‘greet’.

(596) A: *tíyà yà* ‘Good afternoon/evening!’

B: *ś → ná: dènè* ‘We spent the day (well).
[ʔèlà ndò] á dènè Did you-Pl spend the day (well)?’

Conjunctions of a second person pronoun and a noun associated with an activity can be used as situation-specific greetings. For example, the greetings in (597) can be uttered to someone seen working in a field or at a worksite.

(597) a. *[ó yà] [wàlè yà]*
 [2Sg and] [work and]
 ‘you-Sg and work!’

b. *[ò-yà ndó] [wàl-gè ndó]*
 [2Pl with] [work-Pl with]
 ‘you-Pl and work!’

A departing traveler is sent off with (598).

(598) *[ʔèlà ndò] à dínù*
 [well.being Inst] 2SgSbj arrive.QuotImprt
 ‘May you-Sg arrive in well-being!’

When one or more strangers arrive from another Bunoge village, the sequence is (599), with B representing the visitor(s).

(599) A: single addressee: *(dó:njì) à sòngè*
 plural addressee: *(dò:njí-gè) á sòngé yà*
 B: *àwó*
 A: *[hè:là ndò] lá á bò*
 B: *[hè:là ndó] ń bò*

The first turn begins with *dó:njì* ‘stranger, guest’ or plural *dò:njí-gè*, as vocatives. 2Sg *à* and 2Pl *á* subject proclitics are followed by an apparent perfective verb, which however does not occur elsewhere. *àwó* is an unsegmentable greeting reply. The third turn means ‘are you-Pl with (good) health, and the fourth means ‘we are with (good) health’. The third turn can also take the somewhat opaque form *kòràndá:bò*.

On the two main Muslim holy days and at ceremonies such as weddings, villagers greet each other with prospective good wishes like (600).

(600) *bǔl-gènà tégò-mù*
 next.year see-Caus.QuotImprt
 ‘May (God) show (you/us) next year!’

Texts

The texts presented below were obtained as indicated:

(601)	number	village	type	title
	T-Dict-1	Sangou	dictated	The old man and the djinn (tale)
	T2005-02	Boudou	recorded	History, part 1
	T2005-03	Boudou	recorded	History, part 2
	T2005-05	Boudou	recorded	Carts and gardening
	T2005-08	Boudou	recorded	Hyena and hare (tale)
	T2005-09	Boudou	recorded	The lion, the old woman, and the hyena (tale)

The dictated text is organized by consecutive numbers, like the examples and arrays in the grammar. The recorded texts are organized by times (minutes and seconds) beginning 00:00.

T-Dict-1: The old man and the djinn (tale)

dictated, Sangou speaker

- (602) *dábúlè* *ɲ* *dàbùlà*,
 story 1SgSbj narrate.Ipfv,
 [[*bùr-nò:-gè* ^{HL}*tábù*] *ndò*] *dábúlè* *ɲ* *dàbùlà*,
 [[Boudou-person-PI ^{HL}language] Inst] story 1SgSbj narrate.Ipfv,
 ‘I will tell a story. I will tell a story in Bunoge language.’

- (603) [*nòló*^{LH} ^L*kèmnò* ^{HL}*tó:lè*] [*bílà-nà* *ɲgù*]
 [person^{LH} ^Lold ^{HL}one] [field-3SgPoss Acc]
 [*kàmòlò* *mbà*] *kéré* *mbà*,
 [brousse Loc] chop Pfv,
 ‘An old man was chopping (clearing) his field in the distant outback.’
 [*N-Adj1-Adj2 realized tonally as N^{LH}LAdj1 ^{HL}Adj2, §6.3.1.1*]

- (604) *bó*, *bòm-bò-Ø* [*wà:r kún*] *bòm-bò-Ø*
 there, there-be-3SgSbj [time all] there-be-3SgSbj
 ‘There, he was there, he was there all the time.’

- (605) *málágè* [*nòló*^{KH} ^L*kèmnò*] *?émbà*, [*kùmà-nà* *mbá*] *?ègè*
 djinn [man^{LH} ^Lold] then, [side-3SgPoss Loc] come.Pfv.3SgSbj
 ‘Then a djinn came up to the old man.’

- (606) [kò:-nà à-ηγú kà:yè-ré] ?ùnè
 [head-3SgPoss 3Sg-Acc shave-QuotImprt] say.Pfv.3SgSbj
 ‘He (=djinn) told him (=old man) to shave his (=djinn’s) head.’
 [-rè for usual -yè quoted imperative §17.1.4.1; à-ηγú could refer either to the old man as object of ‘say’ or to the djinn as object of ‘shave’]
- (607) [nòlò^{LH} Lkèmnò nò] ?àbà:-li-Ø
 [man^{LH} Lold Def] accept-PfvNeg-3SgSbj
 ‘The old man refused.’
- (608) [nòlò^{LH} Lkèmnò nó ηγù] tòmbà-wⁿ, tòmbà-wⁿ,
 [man^{LH} Lold Def Acc] cajole-Ipfv, cajole-Ipfv,
 ‘He (=djinn) kept pleading with the old man.’
 [tòmbè ‘console, sweet-talk’; -wⁿ ‘while’ §15.2.1.3]
- (609) [nòlò^{LH} Lkèmnò nò] ?èmbá ?àbè,
 [man^{LH} Lold Def] then accept.Pfv.3SgSbj,
 ‘Then (=eventually) the old man consented.’
- (610) ?émbà [kò:-nà nò] ?èmbá kǎ:yè,
 then [head-3SgPoss Def] then shave.Pfv.3SgSbj
 ‘Then he shaved his head.’
 [first ?émbà is superfluous]
- (611) [kò:-nà nò] kà:yé pòllé mbà,
 [head-3SgPoss Def] shave.Pfv.3SgSbj finish.Pfv.3SgSbj Pfv,
 a, à-ηγú kò:-kùlé-nà [[bàná bò: mbé] ndì]
 well, 3Sg-Acc head-hair-3SgPoss [[manner be.3SgSbj Past.Ppl] like]
 sò:ηg-yé ?ùnè,
 bring-QuotImprt say.Pfv.3SgSbj,
 ‘When he (=old man) had finished shaving his head, he (=djinn) told him to bring (=restore) his head hair the (same) way it had been.’
 [cf. 3Pl bánà bò: mbé ndì ‘the way they had been’]
- (612) [kò:-nà ^{HL}kùlé nò]
 [head-3SgPoss ^{HL}hair Def]
 [bàná [mó nò] yé kǎ:yè nò]
 [manner [this Def] which shave.Pfv.3SgSbj.Ppl Def]
 [[bàná bò: mbé] ndì] sò:ηg-yé ?ùnè,
 [[manner be.3SgSbj Past.Ppl] like] bring-QuotImprt say.Pfv.3SgSbj
 ‘He (=djinn) told him (= old man) to bring (=restore) the hair of his (=dji.nn’s) head as it had been, the way he (=old man) had shaved it.’

- (613) *a, ?émbà kírýó-g-gè kírýóg-gè mbà,*
 ah, then argue-Recip-Pfv-3PISbj argue-Recip.Pfv-3PISbj Pfv,
a, [bàná sò:ngà:-y kúndú] ?óri-Ø,
 ah, [manner bring.Ipfv-how all] not.be-3SgSbj,
kóndò kání-Ø
 failure do.Pfv-3SgSbj
 ‘Well, they argued and argued then. There was no way to bring (=restore) it. He (=old man) tried and failed.’
[reciprocal §9.5; sò:ngà:-y, §15.3.2.1]
- (614) *[nòlò^{LH} L kèmnò nò] [bé:-gè tá:ndù] bò sá:ⁿ-Ø mbè*
 [man^{LH} L old Def] [child-Pl three] Exist have-3SgSbj Past
 ‘The old man had three children (=sons).’
[existential with ‘have’ §11.5.1]
- (615) *a, [bè:-gé-nà nò] ?ég-gè*
 ah, [child-Pl-3SgPoss Def] come.Pfv-3PISbj
 ‘Well, his children came.’
- (616) *?émbà [âŋ^{HL} bâu nò ŋù] ?éjáraè*
 then [3PlPoss^{HL} father Def Acc] asked.Pfv.3PISbj
[?èbègé kání]
 [what? be.done.Pfv.3SgSbj]
 ‘Then they asked their father, what had happened?’
- (617) *âwⁿ, [mó [kò:-nà ŋú] kà:y-yé] ?ùnè*
 Well, [that [head-3SgPoss Acc] shave-QuotImpert] say.Pfv.3SgSbj
 ‘Well, that one (=djinn) had told (him) to shave his head.’
- (618) *[kó:-nà nò] ká:yè-Ø*
 [head-3SgPoss Def] shave.Pfv-3SgSbj
 ‘He (old man) had shaved his head.’
- (619) *[[kó:-kùlè nò] [bàná bò: mbé] ndì]*
 [[head-hair Def] [manner be.3SgSbj Past.Ppl] like]
sò:ng-yé ?ùnè
 bring-QuotImpert say.Pfv.3SgSbj
 ‘He (=djinn) had said to bring (=restore) his head hair the (same) way it had been.’
- (620) *?ăwⁿ fè, [?émé nò: ní] kóndò,*
 3Sg even, [that.Def Def exactly] failure,
[másà kó] ?émbà kóndó kání sà
 [now Emph] then failure do.Pfv.3SgSbj have.3SgSbj.Ppl
 ‘Now he too [focus] failed then (at) that very thing.’

[somewhat broken passage; ?èmé nò: ní §4.4.2.2; sà for perfective subject focus, §13.1.1.4]

- (621) a, [bé:-gè nò] ?únè
 well, [child-Pl Def] say.Pfv.3PlSbj
 [?èmé kó] kájjà ?óri-Ø
 [that Top] be.difficult not.be-3SgSbj
 ‘Well, the children said, that is not difficult.’
 [kájjà ?óri, §11.4.4, cf. modifying form kà:ndà ‘difficult’]
- (622) [?ǎwⁿ fè] ?á:ⁿ bìlà-ná = à
 [3Sg too] 3Sg field-3SgPoss=Loc
 tònè yé ?ègé nò]
 step.Pfv.3SgSbj which come.Pfv.3SgSbj.Ppl Def
 [sé:-nà ^{HL}tébò-gé nò]
 [foot-3SgPoss ^{HL}sole.of.foot-Pl Def]
 [bàllé-Ø nè] [fá→ wà:yà]
 [gather.Pfv-3SgSbj and.then] [all.the.way.to finish.Ipfv]
 ‘(Where) he (=djinn) had stepped coming to his (=old man’s) field, he (=djinn) must gather up the soles of his (= djinn’s) feet (=footprints) in their entirety.’
 [yé proclitic to verb-participle of relative, §14.4]
- (623) bàllè wà:yé-Ø mèⁿ táⁿ
 gather.Pfv.3SgSbj finish.Pfv-3SgSbj if only
 [kó:-nà ^{HL}kúlè nò] sò sò:ngà
 [head-3SgPoss ^{HL}head Def] Rdp bring.Ipfv.3SgSbj
 ‘As soon as he (=djinn) finishes gathering, he (= old man) will bring the hair of his (=djinn’s) head.’
- (624) a, [ǎŋ fè]
 well, [3SgSbj also]
 [sé:-nà ^{HL}tébò-gé nò] dègùlé-Ø mè
 [foot-3SgPoss ^{HL}sole-Pl Def] begin.Pfv-3SgSbj if
 [bàllà: gè:ndé-Ø mè] [pùmbù-nà ndó] bòm-bò-Ø
 [gather.Ipfv go.Pfv-3SgSbj if] [rear-3SgPoss Loc] there-be-3SgSbj
 ‘Well, he himself, when he (=djinn) began (with) his footprints, when he went (along) gathering (his original footprints), there were (more footprints) behind him.’
 [bàllà: §15.2.1.2]
- (625) kóndò kání-Ø mbà, ?èmbá dū:nì
 failure do.Pfv-3SgSbj when, then run.Pfv.3SgSbj
 ‘He tried and failed, then he (too) fled.’

(626) *dábúlè* *péndégélé*
story story.is.finished
'The story is finished.'

Text 2015-02: History part 1

recorded, Boudou

- (00:08) *búrù*, *tòmbò*, [*tòmbò-kàbè*] *lá-gè* *ʔúnà*,
 Boudou, deserted, [deserted-low.point] Q say.Imprt,
 [*tòmbò-kàbè mbà*] *bǔ:-Ø* *ɲ*, [*tòmbò-kàbè mbà*] *bǔ:-Ø* *ɲ*,
 [T-K Loc] be-3SgSbj Past, [T-K Loc] be-3SgSbj Past,
 ‘Boudou, Tombo. [to a bystander] say whether it is Tombo-Kabe? It (=village) was at Tombo-Kabe.’

[tòmbò-kàbè is the name of the former site of Boudou village. tòmbò is an adjective ‘deserted, depopulated’, chiefly in ʔòló tòmbò ‘abandoned village’; kàbé means ‘depression or valley between elevations’; lá-gè variant of polar interrogative là ~ lá with ‘it is X’ construction §13.2.1.2, bǔ:-ɲ = bǔ: mbè]

- (00:16) *bàmbàlá-gè* *égè* ↗, *à-yá-ɲgù* *díyá-mì* \,
 Bambara-Pl come.Pfv.3PlSbj, 3Pl-Acc fear(v)-Caus.Pfv.3PlSbj,
à-yá-ɲgù píyág-gè,
 3Pl-Acc expel.Pfv-3PlSbj,
 ‘The Bambara came. They (= Bambara) scared (=threatened) them (=Dogon), they drove them (=Dogon) out.’

- (00:18) *à-yá-ɲgù* *píyág-gè* ↗,
 3Pl-Acc expel.Pfv-3PlSbj,
táŋgá-gè dú:nì *bùrkìnà = à* *gé:ndè*, *táŋgá-gè* *yóggò-yóggò*
 certain-Pl run.Pfv.3PlSbj B=Loc go.Pfv.3PlSbj, certain-Pl hide-hide
fá: mà: ʔégè *ʔéb-bè* *nò*,
 until here come.Pfv.3PlSbj.Ppl sit-MP.Pfv.3PlSbj.Ppl Def,
 ‘(When) they drove them out, some fled to Burkina, some (others) were hiding here and there until when they came here.’

[yóggò-yóggò adverbial < mediopassive yóg-gè ‘hide (oneself)’ < transitive yóggè ‘hide (sth)’; headless relative with covert ‘time’ as head]

Text 2015-03: History part 2

recorded, Boudou

(00:00) [màndè wà:] gwê:,
 [Mande Loc] exit.Pfv.3PlSbj,
 [màndè wà:] gwê:↗ ?égè,
 [Mande Loc] exit.Pfv.3PlSbj come.Pfv.3PlSbj
 ?òlò^{LH} Lkàndà, ?úná:-yè bò ?ébà,
 village^{LH} Lnew, say-Pass Exist sit.Stat.3PlSbj,
 ‘They left Mande. They left Manda and came (here). They settled at (the place) called Olo-Kanda (“new village”).’
 [passive ?úná:-yè ‘(place) that is called X’ §5.1.11.1]

(00:05) bò-ná: ?égè ?éb-bè,
 there come.Pfv.3PlSbj sit-MP.Pfv.3PlSbj,
 bò-ná: —, [[?òlò^{LH} Ltòmbò ná]=à] ?égè ?éb-bè-Ø,
 there —, [[village^{LH} Ldeserted Def]=Loc come.Pfv.3PlSbj sit-MP.Pfv.3PlSbj,
 [?òlò^{LH} Ltòmbò] —, kà:ní-gògònò —,
 [village^{LH} Ldeserted] —, K-G —,
 ‘They came and settled there. There—, they came and settled at the Olo-Tombo (“deserted village”). Olo-Tombo. Kani-Gogono.’
 [Kani-Gogono was the name of a Dogon war chief.]

(00:11) [bàmbàlá-yè nò] ná-ŋjì ?únà, dàmóⁿsòⁿ,
 [Bambara-Dim Def] how? say.Ipfv.3PlSbj, D,
 dàmóⁿsòⁿ ?égè à-ŋgú tètèè,
 D come.Pfv.3SgSbj 3Sg-Acc shatter.Pfv.3SgSbj,
 ?èmbá sà:kì kání,
 then dispersion do.Pfv.3SgSbj,
 ‘What did they call (=what was the name of) the Bambara? Damoso. Damoso came and destroyed it (=village), then it (=our group) scattered.’
 [bàmbàlá-yè ‘Bambara (person)’, §5.1.5]

(00:18) tángá-gè bùrkìnà = à búrjàngà ?úná:-yè bó-lò jé:ndè ↗,
 certain-Pl B=Loc B be.called there go.Pfv-3SgSbj
 tángá-gè má-lò yóg-gí-yè má-lò ?égè déngí-yè,
 certain-Pl here hide-MP.Pfv-3PlSbj here come.Pfv stay.Pfv-3PlSbj,
 [jòwⁿ kè ɲ bö: nò] áwⁿ,
 [today place 1PlSbj be.Ppl Def] 3Sg,
 ‘Some of them (went) to Burkina, it (=village) is called Burjanga, it (=group) went there. Some (=others) hid here, they came and stayed here. It’s the place where we are to this day.’
 [jé:ndè = gé:ndè]

(00:22) *sògò-bílá-gè,* [íj ^{L+HL}*bílá-gè* *fêcèrè* *sàkáy*]
 ground-field-Pl, [1PlSbj ^{L+HL}field-Pl half all]
bó-lò wàlà íj bò,
 there cultivate.Ipfv 1PlSbj be,
 ‘The fields, an entire half of our fields, it’s there [focus] that we cultivate (=do farming).’

(00:26) [*mì-yà kó*] [*?èmé nò*] *íj nùndè,*
 [1Pl Top] [that.Def Def] 1PlSbj hear.Pfv,
fá: jòwⁿ mäsà,
 until today now,
 ‘That is what we heard (=learned it from our elders). All the way to today now.’

(00:29) *fá: jòwⁿ mäsà ké íj ðiné íj sä: nò,*
 until today now place 1PlSbj arrive.Pfv 1PlSbj Ppl.Pfv Def,
 [*mì-yà kó*] [*?èméⁿ nò*] *íj nùndè,*
 [1Pl Top] [that.Def Def] 1PlSbj hear.Pfv,
 ‘All the way to where we have arrived today now. That is what we heard (=learned from our elders).’

(00:32) [*?èmé nò*] [*yé ðèngè* *nó*]
 [that.Def Def] [which remain.Pfv.3SgSbj.Ppl Def]
[tánjá bùrkìnà = à bò],
 [certain B=Loc be,3SgSbj]
sà:kì káni-Ø,
 dispersion do.Pfv-3SgSbj,
 ‘That, some (a part) of it, are in Burkina. It has dispersed.’

(00:36) *?émbà íj ?èb-bè íj sä,*
 then 1PlSbj sit.Pfv 1PlSbj PfvRel,
 [*mì-yà kó*] [*?èméⁿ nò*] *íj nùndè*
 [1Pl Top] [that Def] 1PlSbj hear.Pfv
 [*[kèmnò-gè ^{HL}tónì] mbà],*
 [[old.person-Pl ^{HL}mouth] Loc],
 ‘The fact that we are sitting (here), that’s what we heard in (=from) the mouths of the old people.’

(00:39) *ndénnò [ò-yá fè] [á ?ègè] [mì-yá-ηgù á ?èjàrè ↗],*
 so [2Pl also] [2PlSbj come.Pfv] [1Pl-Acc 2PlSbj ask.Pfv],
 [*mì-yá-ηgù fè*] *ðénjè-Ø,*
 [1Pl-Acc also] be.sweet.Pfv-3SgSbj,
 ‘So (now) you-Pl too have come and have asked us (about it). We too are pleased.’

(00:43) [á ʔègù nɔ] mì-yá-ŋgù dénjè-Ø,
 [2SgPoss come.Nom Def] 1Pl-Acc be.sweet.Pfv-3SgSbj,
 fá→ dàgè
 until be.well.made.Pfv.3SgSbj,
 ‘Your coming has pleased us, very much.’

(00:45) [íj L+HL tàgù nɔ] ǎwⁿ
 [1PlPoss L+HL talk(n) Def] 3Sg
 ‘It (=that) is our talk.’

Text 2015-05: Carts and gardening

recorded, Boudou

- (00:05) *mì-yá*, *yénà* *sìgé-Ø* *mè*,
 1Pl, rainy.season go.down.Pfv-3SgSbj if,
[yénà ?ègé-Ø mè] *kálámà* *í* *kànà*,
 [rainy.season come.Pfv-3SgSbj if] clearing(n) 1PlSbj do.Ipfv,
 ‘Us, when the rainy season has come down, when the rainy season has come, we do the (re-)clearing.’

[kálámà is the re-clearing of a previously cultivated field prior to planting, i.e. removing bushes and weeds that have grown up there since the previous harvest]

- (00:10) *kálámà* *í* *kàn* *nè*, *?áyà* *ní-Ø* *mè*,
 clearing(n) 1PlSbj do.Pfv and.then, rain(n) rain.fall.Pfv-3SgSbj if,
tòw *í* *tò:wè*,
 planting(n) 1PlSbj plant(v).Pfv,

‘We do the (re-)clearing, (and) when the rain falls, we plant (the seeds).’

[tòw tò:wè is cognate collocation ‘plant (seeds)’, traditionally by slashing earth with a long pick-hoe while someone else (often a child) comes behind, drops seeds into the disturbed earth, and tamps it down by foot]

- (00:15) *[tòw* *í* *tò:wè* *nè]*
 [planting(n) 1PlSbj plant(v).Pfv and.then]
[wólì *í* *wàlè* *(nè)]*,
 [cultivation 1PlSbj cultivate.Pfv (and.then)]

‘We plant (the seeds) and, we do the (first round of) cultivating and,’

[wólì wálè is a cognate collocation ‘cultivate’, referring focally to working an already planted field with a daba (hoe) to kill weeds and thin out millet seedlings; here it refers specifically to the first and most laborious round of weeding; in several points in this text a parenthesized clause-final nè ‘and then’ is inaudible on the tape, but its presence is implied by the use of a perfective verb in a habitual present context, and my assistant pronounced it when repeating these segments during transcription]

- (00:17) *sàmbò* *í* *sàmbè* *(nè)* *[í kànì]*
 second.cultivation 1PlSbj do.second.cultivation.Pfv (and.then), [1PlSbj do.Pfv]
[[sé:ngè nò] bìlé-Ø mè] [í gí:wè (nè)]
 [[millet Def] ripen.Pfv-3SgSbj if] [1PlSbj harvest(v).Pfv (and.then)],

‘We do the second round of cultivating. (When) we’ve done it, when the millet has ripened, we harvest (it) and,’

[the second (and less laborious) round of weeding, sàmbò, can begin shortly after the first round is completed; verb gí:wè ‘harvest’ refers to harvesting grain spikes of the main cereal crops (millet, sorghum) by cutting them off with a blade attached to the palm of one’s hand]

- (00:22) *[[dálà ndò] dù-yyà:] ñ sò:ngá: mbè,*
 [[crown.of.head Loc] carry.on.head-MP.Ipfv] 1PISbj bring.Ipfv Past,
ʔálhámdùlilà:y, wòtóró-gè, [dù-yyé nè] sò:ngá,
 praise.God, cart-Pl, [carry-MP.Pfv and.then] bring.Ipfv.3PISbj,
 ‘We used to bring it (=harvested millet) (to the village) carrying it on our heads.
 (Now) carts carry and bring (it).’

[millet grain spikes are piled up in the fields, then either bound into bundles or placed in a large basket, then traditionally carried on one’s head (dù-yyè) back to the granaries in the village; dù-yyé ‘carry (on head or on another horizontal surface)’ like other ‘carry/hold’ verbs, is morphologically mediopassive but takes an object; lengthened final imperfective à: ‘while’ §15.2.1.2]

- (00:30) *[dálà ndò]=lá [yè ñ ʔèyⁿ] ʔóri-Ø,*
 [crown.of.head Loc]=it.is.not [which 1PISbj know.Ppl] not.be-3SgSbj,
[bìlà mbà] [sò-gè nê:wⁿ],
 [field Loc] [time-Pl four],
 ‘(In the past) there was nothing that we knew other than carrying on the head, from the field, four times (from field to village).’

[lit. “(if) it is not on the head, what we knew does/did not exist”; this segment broken on tape, repaired by assistant during transcription]

- (00:34) *[bá: mbà] [sò-gè tá:ndù],*
 [morning Loc] [time-Pl three],
déndà-gò: [só^L tò:lè],
 afternoon [time^L one]
 ‘In the morning, three times. In the afternoon, once.’

- (00:40) *nè:mà dé:-Ø, wòtóró-gè,*
 pleasant.times enter.Pfv-3SgSbj, cart-Pl,
[...multi-person discussion, not transcribable...]
hàya [mòbèl fè] jòwⁿ [ñ kùmà] ʔégè,
 well [vehicle too] today [1Pl beside] come.Pfv.3PISbj,
 ‘(Nowadays) things have gotten easier. Carts. *[discussion]* Well, motor vehicles too have come to our area.’

[reference is to large carts drawn in this zone by oxen or donkeys; ‘vehicles’ refers mainly to vans that work the weekly markets]

- (00:45) *mì-yá-ngú ʔèjàrà: mà: bó-yà,*
 1Pl-Acc ask.Ipfv here be-3PISbj,
ʔàmànàngà mì-yá-ngù yé kàn-dè kúndú,
 God 1Pl-Acc which do-Ben.Pfv.3SgSbj.Ppl all,
[màsà kô:]
 [now Top]

‘They are here asking us. Everything that God has done for us, nowadays.’

[ʔèjàrà: ‘while asking’ §15.2.1.2; kán-dè ‘do (sth) for (sb)’ (§9.4.3), here in an object relative]

- (00:50) [mì-yà kô:] [ʔémé nò] íj tégó-lè,
 [1Pl Top] [that.Def Def] 1PlSgj see-Goal.Pfv,
 wólì íj wàlà, sàrdíngé, sé:ngè ʔémbè íj wàlà,
 cultivation 1PlSbj cultivate.Ipfv, garden, millet Prog 1PlSbj cultivate.Ipfv,
 ‘As for us, that is what we have been looking (=hoping) for. We do farming, (and) gardening. We cultivate millet.’

[1Pl perfective íj tégó-lè with {LHL} overlay for nonsubject focus, §13.1.1.5, contrast unfocalized íj tégòlè ‘we looked for’; ʔémé discourse-definite ‘that’ §4.4.2.2]

- (00:56) [[yé já:-yè] ^{HL}sí:] yé íj wâl-ló-gà]
 [[[which eat-Pass] ^{HL}type] which 1PlSbj cultivate-IpfvNeg-Neg.Ppl]
 [fá tó:lè] ʔóri-Ø,
 [even one] not.be-3SgSbj,
 ‘There is not a single type (of thing) to eat that we don’t cultivate.’
 [yé já:-yè ‘something to eat’, §5.1.11.1]

- (00:59) sàrdíngé fè, [[yéna nò] ^{HL}ʔáyà nò] mènégé-Ø mè,
 garden too, [[rainy.season Def] ^{HL}rain(n) Def] leave.Pfv-3SgSbj if,
 [sàrdíngé ná]=à íj dà,
 [garden Def]=Loc 1PlSbj go.in.Ipfv,
 ‘Gardens too. When the wet season’s rain has stopped, we go into the garden(s).’
 [off-season farming, mainly of cash crops rather than staples, in enclosed gardens using other than rainwater]

- (01:02) [sàrdíngé nò fè], yè íj kànà,
 [garden Def too], which 1PlSbj do.Ipfv.Ppl,
 tēw, tàrà:tí, dándì, yâ:,
 eggplant, tomato, chili.pepper, onion,
 ‘The garden(s) too. What we (will) do (is) eggplant, tomato, chili pepper, onion.’
 [list of the main off-season cash crops raised in gardens]

- (01:11) tout sàkáy,
 all all,
 [[sàrdíngé ^{HL}wé:] yè íj kâl-ló-gà] ʔóri-Ø,
 [[garden ^{HL}thing] which 1PlSbj do-IpfvNeg-Neg.Ppl] not.be-3SgSbj,
 bírgì íj dù-yyé nè, íj gálé nè,
 manure 1PlSbj carry.on.head-MP.Pfv and.then, 1PlSbj put.Pfv and.then,
 ‘Everything. There is no garden thing (=vegetable) that we do not do. We carry fertilizer and put it down and,’

[‘garden-thing’ is a possessive-type compound with /LH/ melody on the initial reduced to L, and with {HL} on the possessum; bírgì ‘manure (plus other compost)’]

(01:16) *sàkáy* [*?èmé nò*] [*wálé mbà*] *ń* *tùlà*,
 all [that.Def Def] [work(n) Loc] 1PlSbj put.down.Ipfv
 [[*mì-yá-ngù* *bànnó-gò*] *ń* *bè:lé* *mè*]
 [[1Pl-Acc help.Ipfv-Ipfv.Ppl] 1PlSbj get.Pfv if]
?àlhámdùlilà:y [*ń*] *kàyⁿ*,
 praise.God [1PlSbj want],
 ‘All of that we put in (our) work. If we find (someone) who helps us, praise God, we want (that).’

(01:21) [*fá hándè*], [*gèndè mbá*] *gè:n* *nè*] *ń* *kàyⁿ*,
 [until nowadays], [forward Loc] go.Pfv.3SgSbj and.then] 1PlSbj want,
 ‘Even nowadays, we want it (=gardening) to go forward.
[géndé mbà ‘forward, ahead’ undergoes Rightward H-Movement before 3Sg perfective; *gè:n né* truncated < *gè:ndé nè* ; different-subject ‘want’ construction §17.3.5]

(01:23) *kórógò*, *dònjògò*, *dèmbè*, *númè* *ndò*, *kó:nò*,
 trimming.ax, pick.hoe, daba, hand Inst, blacksmith
 [*númè ndò*] *ń* *wàlè* *kán-yò*, *?à-yâ = :*
 [hand Inst] 1PlSbj work(n) do-Inst, 3Pl=it.is
 ‘Trimming-ax, pick-hoe, daba (hoe), (tools) by hand, blacksmith. What we work with by hand (=our tools), it’s them.’
[the first few words are lexical items proposed by two speakers, suggesting topics to be mentioned; kán-yò instrument nominal, §4.2.3.3]

Text 2015-08: Hyena and hare (tale)

recorded, Boudou

(00:02) *kà:yⁿé yà, [kà:yⁿé yà] [jòmé yà],*
hyena and, [hyena and] [hare and],
[kà:yⁿé yà] [jòmé yà],
[hyena and] [hare and],
[[âŋ ^{HL}ní-nì ŋgù] sò:l-â: wà] ?únè,
[[3PIPoss ^{HL}mother Acc] buy-Rev-Purp Quot] say.Pfv.3PIsBj,
‘Hyena and, hyena and hare. Hyena and hare decided to sell their mothers.’
[Transcription assistant suggests emending by adding plural -gè to ‘their mother(s)’]

(00:09) *[[âŋ ^{HL}ní-nì ŋgú] sò:lá wà] ?únè mbà,*
[[3PIPoss ^{HL}mother Acc] sell.Ipfv Quot] say.Pfv.3PIsBj Pfv,
ká:yⁿè, jòmé nǎ-wⁿ sèmé sà,
hyena, hare more be.clever.Pfv.3SgSbj Pfv.SbjFoc,
‘When they decided to sell their mothers, hyena—, hare [focus] was more clever.’

(00:14) *jòmé pàllé sòjè ↗,*
hare separate(v).Pfv.3SgSbj tie.Pfv.3SgSbj
[ká:yⁿè nò] [sìŋgí^{LH} ^Lbìgì] sòjè,
[hyena Def] [rope^{LH} ^Lbig] tie.Pfv.3SgSbj
‘Hare went off to the side and tied (his mother). The hyena tied a heavy rope (on his mother).’
[Hare’s mother was either not tied up, or tied up lightly so that she could escape]

(00:18) *[sìŋgí^{LH} ^Lbìgì] sòjé-Ø mbà,*
[rope^{LH} ^Lbig] tie.Pfv-3SgSbj Pfv,
gwé kání gé:ndè,
exit(v).Pfv.3PIsBj do.Pfv.3PIsBj go.Pfv.3PIsBj,
[[sòjó-tèm-gè nò] gé:ndè tèt-j-â:] ?ég-gé mbà,
[[person-devour.Agent-Pl Def] go.Pfv.Pfv look-Purp] come.Pfv-3PIsBj Pfv,
‘When he (=hyena) had tied the big rope, they set off. They came and visited (“looked at”) the cannibals.’
[sòjó-tèm-gè compound agentive §5.1.3]

(00:24) *[ká:yⁿè [jòmè ^{HL}ní-nì nò] tèt:jé mbà] póllo-Ø,*
[hyena [hare ^{HL}mother Def] look.at.Pfv.3SgSbj Pfv] escape.Pfv,
[ká:yⁿè ^{HL}ní-nì nò] póllo-li-Ø,
[hyena ^{HL}mother Def] escape-PfvNeg-3SgSbj,
‘Hyena watched hare’s mother escape. Hyena’s mother did not escape.’

- (00:27) *ʔémbà* *débé* *sí:ndè,*
 then hold.Pfv.3PISbj convey.Pfv.3PISbj,
débé *sí:ndè,*
 hold.Pfv.3PISbj convey.Pfv.3PISbj,
 ‘Then they held and took (hyena’s mother) (there)
- (00:29) *sòjó-sèlù-gè* *débé* *sí:ndè*
 person-slaughter.Agent-Pl hold.Pfv.3PISbj convey.Pfv.3PISbj
ʔémbà *séla:-yè,*
 then slaughter(v)-Direc.Pfv.3PISbj
 ‘They held and took (hyena’s .mother), then they went and slaughtered (her).’
 [*séla:-yè*, §10.6]
- (00:31) *sélè* *yúgó-g-gé* *mbà,*
 slaughter.Pfv.3PISbj meet-Recip.Pfv-3PISbj Pfv,
[à-ŋgú *dàgâm* *kàní* *wá]* *ʔùnè,*
 [3Sg-Acc taste(n) do.Pfv.3SgSbj Quot] say.Pfv.3SgSbj,
 ‘They slaughtered (her) and (hyena and hare) met. (Hyena) said, “you (=hare) have outwitted me (=hyena).” ’
[in quotations, original addressee and original speaker are both converted to third person pronominals (unless identical to current speaker or addressee)]
- (00:34) *à-ŋgú* *dàgâm* *kàní* *wà*
 3Sg-Acc taste(n) do.Pfv.3SgSbj Quot
bàná *dèbè* *né,*
 manner.3SgSbj hold.Pfv.3SgSbj and.then,
tèmá *ʔùnè* *mbà,*
 devour.Ipfv.3SgSbj say.Pfv.3SgSbj Pfv,
 ‘(Hyena) said, “you (=hare) have outwitted me (=hyena).” The way he (=hyena) intended to get hold of and devour (hare).’
- (00:36) *dúnó-g-gé* *mbà* *[jòmè* *ŋgú]* *dinnà:-li-Ø,*
 run-Recip.Pfv-3PISbj Pfv [hare Acc] reach-PfvNeg-3SgSbj,
[ká:yⁿè *[jòmè* *ŋgú]* *dinnà:-li-Ø]*
 [hyena [hare Acc] reach-PfvNeg-3SgSbj,
jòmé *sèmè-lá-mà* *à-ŋgù* *dábè-Ø,*
 hare slyness 3Sg-Acc pass.Pfv-3SgSbj
 ‘They raced. He (=hyena) didn’t get (=catch) hare. Hyena didn’t catch up to hare. Hare was more clever than him (=hyena).’

(00:40) *âŋ* ^{HL}*dégá-gè*, *âŋ* ^{HL}*sémé-lámá-gè* *tô:l=là*,
 3Pl ^{HL}two-Pl, 3PlPoss ^{HL}slyness-Pl one=it.is.not,
âŋ ^{HL}*sémé-lámá-gè* *tô:l=là*,
 3PlPoss ^{HL}slyness-Pl one=it.is.not,
 ‘The two of them, their degrees of slyness were not the same.’
 [syncopated < /tô:lè=là/]

(00:45) *nàmbálà*, *yó:* *dùgè*,
 lion, woman take.Pfv.3SgSbj,
[ʔàni ngú] *dùgè*, *[kílò ń]*,
 [whatchamacallit? Acc] take.Pfv.3SgSbj, [goat Acc],
[kílò ngú] *dùgé mbà*,
 [goat Acc] take.Pfv.3SgSbj Pfv,
 ‘Lion, he took (=married) a woman. He took (=married) whatchamacallit? A goat, he took a goat.’

(00:53) *kílò*, *fá* *bé* *[[âŋ* ^{HL}*bélàngà]* *mbà]* *dwê:*,
 goat, until child [[3Pl ^{HL}between] Loc] enter.Pfv.3SgSbj,
[ʔibà mbà] *gé:ndè*,
 [market Loc] go.Pfv.3SgSbj,
 ‘A goat. Until eventually a child entered (was born) between (=to) them. He went to the market.’
 [dwê: ‘entered’, pronounced *dê:* in Sangou]

(00:57) *[ʔibà mbà]* *gé:ndé* *mbà*,
 [market Loc] go.Pfv.3SgSbj Pfv,
[ʔègà ʔúnà] *ká:yⁿè* *ʔégè-Ø*,
 [come.Ipfv.3SgSbj say.Ipfv.3SgSbj] hyena come.Pfv-3SgSbj,
 ‘He went to the market, but before he came (back), hyena came.’

(00:59) *[mó nò ngù]* *yó:-nà* *mèlè* *bó:* *wà*,
 [this Def Acc] woman-3SgPoss shame(n) be.3SgSbj Quot,
[mó nò ngù] *yó:-nà* *mèlè* *bó:* *wà*
 [this Def Acc] woman-3SgPoss shame(n) be-3SgSbj Quot,
 ‘(Hyena) said (to lion), “This one, your wife is shameful. This one, your wife is shameful”.’

(01:02) *ʔégé-Ø* *mèⁿ* *táⁿ*, *tèmé-yⁿ* *wà*,
 come.Pfv-3SgSbj if only, devour.Hort Quot,
[nàmbálà ngù] *tòmbè* *bé:lè-Ø*,
 [lion Acc] cajole.Pfv.3SgSbj get.Pfv-3SgSbj,
 ‘(Hyena said:) “As soon as it (=goat) comes, let’s eat (it)!” He persuaded lion (by sweet-talk).’
 [quoted hortative §17.1.4.2]

- (01:05) *hà: ndàgè wá ?ùnè,*
 well, all.right Quot say.Pfv.3SgSbj,
[bé: nò] núndè-Ø,
 [child Def] hear.Pfv-3SgSbj,
 ‘He (=lion) said, “Well, all right.” The child heard (that).’
- (01:08) *[ni:-ná ngù] yùg-â: gè:ndé mbà,*
 [mother-3SgPoss Acc] meet-Purp go.Pfv-3SgSb Pfv,
[ni:-ná ngù] tá:yè-Ø,
 [mother-3SgPoss Acc] speak.Pfv-3SgSbj,
 ‘He (=child) went to meet with his mother. He spoke to his mother.’
- (01:11) *[à ?égé mèn táⁿ] ò-ngù tém-mè,*
 [2SgSbj come.Pfv if only] 2Sg-Acc devour.Pfv-3PlSbj,
sàbì ká:yⁿè, [ŋ ká^{HL}bâw ngù] kálábù kání-Ø,
 because hyena, [1SgPoss ^{HL}father Acc] trickery do.Pfv-3SgSbj,
 ‘(Child to mother:) “As soon as you come (=arrive), they will devour you. Because hyena has tricked my father”.’
[mèn táⁿ < mè táⁿ]
- (01:15) *hà: ndàgè wà, gèndé-yⁿ wà [ʔibà mbà],*
 well, all.right Quot, go-Hort Quot [market Loc].
[ʔibà mbà], ?igé bò sà,
 [market Loc], honey Exist have.3SgSbj,
 ‘(Mother i.e. goat) said: “Well, all right. Let’s go to the market!” In the market, he (=child) had honey.’
[quoted hortative, §17.1.4.2; ‘to the market’ following rather than preceding the verb, probably as afterthought; ?igè ‘honey’]
- (01:19) *[?igè ndó] gè:ndé mbà,*
 [honey with] go.Pfv.3SgSbj Pfv,
bâw-ná à-ngú sigó-mì-Ø,
 father-3SgPoss 3Sg-Acc descend-Caus.Pfv-3SgSbj
sigó mbà kólè: bò-Ø,
 descend.Pfv.3SgSbj Pfv angry be-3SgSbj,
 ‘He (=child) went (there) with the honey. His father (=lion) lodged him. He (=lion) went down (=retired for the night) and got angry (at the hyena).’
[sigé mbà ~ sigó mbà §15.1.1.2; kólè: bò §11.1.1.4]

(01:22) [bàw-nà à-ŋgú tiyà-mì]
 [father-3SgPoss 3Sg-Acc greet-Caus.Pfv.3SgSbj]
 [mó nò] [ʔègè né] dà:-mú wà,
 [this Def] [come and.then] enter-Caus.QuotImprt Quot,
 ‘His father (=lion) greeted him (=child). He (=lion) said, “come and bring this (honey) in!”’

(01:25) ʔèbègé wà, [ʔègè né] dà:-mǔ-r wà,
 what? Quot, [come and.then] enter-Caus-QuotImprt Quot,
 ʔèmbá ʔàbé dǎ:-mì,
 then.3SgSbj catch.Pfv.3SgSbj enter-Caus.Pfv.3SgSbj,
 ‘(Lion) said, “What is it? Come and bring it in for (me)!” Then he (=child) took it and brought it in.’
 [dà:-mù-r quoted imperative, §17.1.4.1]

(01:28) nà-ló bè:lé wà, mó nò,
 where? get.Pfv.3SgSbj Quot, this Def
 [ʔìbà mbà] gájágà-wⁿ bè:lé wà,
 [market Loc] scramble-while get.Pfv.3SgSbj Quot,
 ‘(Lion) said, “where did you-Sg get (it)?” (Child) said, “I managed to get (it) at the market.”’
 [gájágá- evokes a scramble to get something, e.g. children fighting over a pile of candy]

(01:31) ná-lò gájágá ʔùné mbà, [ká:yⁿè ñ] gé:wè,
 where? scramble say.Pfv.3SgSbj Pfv [hyena Acc] kill.Pfv.3PlSbj,
 ká:yⁿè — [Làn nó] — Lbùgè nó,
 hyena — [Lwhatchamacallit? Def] — Lbrain Def
 ‘(Lion) said, “where did you manage (to get it)?” They killed the hyena. The hyena’s whatchamacallit, brains.’
 [‘whatchamacallit?’ and ‘brain’ are possessed by ‘hyena’, cf. kà:yⁿé^Lbùgè ‘hyena’s brains’]

(01:36) gájágà-wⁿ ʔèmbá gàjàgé bè:lé wà,
 scramble-while then scramble.Pfv.3SgSbj get.Pfv.3SgSbj Quot,
 ká:yⁿè nónò: —,
 hyena which? —,
 ‘(Child) said, “I scrambled to get (some).’ Which hyena?—’

(01:39) [kà:yⁿé — ^Lbùgè nò] [mó nò] ǎwⁿ wà, ?ùn^é mbà
 [hyena — ^Lbrain Def] [this Def] 3Sg Quot, say.Pfv.3SgSbj Pfv
 [gê:ⁿ kàní] tǔ:jè,
 [looking.furtively do.Pfv.3SgSbj] look.Pfv.3SgSbj,
 ‘(Child) said: “Hyena’s brains, this is it.” (The father) looked (at it, furtively) out of
 the corner of his eye.’
 [búgè ‘marrow; brain (tissue)’]

(01:42) t^è:jé mbà,
 look.at.Pfv.3SgSbj Pfv,
 [mó ká:yⁿé nò] (^{HL}kó:) ñ t^èbàgé m^è,
 [this hyena Def] (^{HL}head)] 1SgSbj break.Pfv.3SgSbj if,
 [mó nò] ǎwⁿ=là,
 [this Def] 3Sg=it.is.not,
 ‘He looked out of the corner of his eye. “When I broke open this hyena’s (head), —
 This isn’t it.” ’
 [The passage from 01:42 to 01:47 is spoken very rapidly and is difficult to make
 out]

(01:44) [[mó nò] ^{HL}kó: nò] t^ébá-gé sà,
 [[this Def] ^{HL}head Def] shatter-Caus.Pfv.3PISbj Pfv.Foc,
 [kà:bò-ná kò:] t^ébá-gé sà,
 [peer-3SgPoss head] shatter-Caus.Pfv.3PISbj Pfv.Foc,
 ?embá bè:lé wà,
 then.3SgSbj get.Pfv.3SgSbj Quot,
 ‘(Child) said, “It was this (other) one’s head [focus] that they shattered. It was his
 companion’s (=another hyena’s) head [focus] that they shattered, then I got (some).’
 [kà:bó-nà ‘his companion, peer, agemate’, here ‘the other one, the counterparty’,
 i.e. denoting a second, non-primary topical referent, French son semblable]

(01:48) [dù:l-ló] ?ùn^é mbà]
 [run-IpfvNeg.3SgSbj say.Pfv.3SgSbj Pfv]
 [?émbà dúnò-gè],
 [then.3PISbj run-Recip.Pfv.3PISbj]
 dùnó-gè dinné dèbè,
 run-Recip.Pfv.3SgSbj arrive.Pfv.3SgSbj catch.Pfv.3SgSbj,
 ‘He said, “I won’t run.” Then they ran together. He ran (with them), he caught up
 with (hyena) and seized (him).’
 [original 1Sg changed to 3Sg in quotation; dú:nì ‘run’ and derivatives; dinnè
 ‘arrive’]

- (01:51) *dinné* *dèbé* *mbà* *táwⁿ*,
 arrive.Pfv.3SgSbj catch.Pfv.3SgSbj Pfv only,
dú:nì [*bàndá* *mbà*] *gú:ndè* *mbà*,
 run.Pfv.3PlSbj [outside(n) Loc] exit(v).Pfv.3PlSbj Pfv,
 ‘When they reached (hyena) and seized (hm), they (all) ran outside.’
 [*bàndà* ‘outside (n)’]
- (01:54) [[*bé:* *nò*] *ń*] *dèbé* *gǔ:-mì*,
 [[child Def] Acc] catch.Pfv.3SgSbj exit(v)-Caus.Pfv.3SgSbj,
hà: *ń* *gèndé-yⁿ*,
 well 1Pl go-Hort,
 ‘He caught the child and took him out (and said) “let’s go!”’
- (01:57) [*bé:* *nò*] [*à-yà* *kó*] *dú:nì* *gé:ndè*,
 [child Def] [3Pl Top] run.Pfv.3PlSbj go.Pfv.3PlSbj,
 [*ká:yⁿè* *nó* *ń*] — *tèbà-gé*,
 [hyena Def Acc] — shatter-Caus.Pfv.3SgSbj,
 ‘The child, as for them (=child and others), they went running. He (=lion) shattered the hyena. He shattered the hyena.’
- (01:59) [*kò:* *nò* *ń*] *tèbà-gé* *mbà*,
 [head Def Acc] shatter-Caus.Pfv.3SgSbj Pfv,
 [*kò:* *nó*] *sébé-sébé* *bò-Ø*,
 [head Def] unsweetened be-3SgSbj,
 ‘He shattered the head (=skull). The head (=brain) tasted bland (not sweet).’
- (02:01) [*bé:* *nò* *yà*] [*nì-n* *nó* *yà*] *dú:nì* *gé:ndè*,
 [child Def and] [mother Def and] run.Pfv.3PlSbj go.Pfv.3PlSbj,
hà: [*kálábù* *yé* *kǎn* *nò*]
 well [troublemaking which do.Ppl.3SgSbjPfv Def]
 [*kò:-ná* *mbà*] *fì:tí* *kàni*,
 [head-3SgPoss Loc] land.on do.3SgSbj,
 ‘The child and the mother had run away. Well, the trouble that he (=hyena) made landed on himself.’
 [*Fulfulde fì:tì*, rephrased with *Bunoge sigè* ‘comes down’ in the following segment]
- (02:06) [*?èmè* *ndâ:*] *kálábù* *dégé* *kàni* *kúndú*
 [that.Def Purp] trouble.making one.who do.Pfv.Ppl all]
 [*kò:-ná* *mbá*] *sigà*,
 [head-3SgPoss on] descend.Ipfv.3SgSbj,
 ‘That’s why (if there is) anyone who makes trouble (e.g. incites disputes), it comes down on himself.’
 [*dégè* §14.2.1]

(02:08) [fɔ:lɔ̀ à kání mɛ̀]
 [good(n) 2SgSbj do.Pfv if]
 [[à ^{HL}kò:] mbá] sigà,
 [[2SgSbj ^{HL}head] on] descend.Ipfv.3SgSbj,
 ‘If you do good, it (=good) will come down on (=come back to) you.’

(02:10) dà: à kání mɛ̀,
 bad(n) 2SgSbj do.Pfv if,
 [[à ^Hkò:] mbá] sigá wà,
 [[2SgSbj ^Hhead] on] descend.Ipfv.3SgSbj Quot,
 ‘If you do evil, it (=bad) will come down on you, as they say.’

(02:11) [kèmnò-gè kò:] ?émé-njì ?únè,
 [old-Pl Top] that-like say.Pfv.3Plsbj,
 ‘As for the old people, that’s what they said.’

Text 2015-09: The lion, the old woman, and the hyena (tale)

recorded, Boudou

(00:05) *nàmbálà,* *yɔ^{LH}* *kèmnɔ̀,*
lion, woman^{LH} old,
á lá [*kílɔ̀-nà* *ɲ]* *tò:rí* *kàní* *sà,*
lo! [goat-3SgPoss Acc] harassment do.Pfv Pfv.SbjFoc,
ʔègò: *dèbà:* *témà,*
come.Ipfv catch.Ipfv devour.Ipfv-3SgSbj,
‘Lion, an old woman. Lo it was he (=lion) who harrassed her goat(s). He would
come, catch, and eat (them).’
[ʔègò: *dèbà:*, §15.2.1.2]

(00:12) [*yɔ^{LH}* *kèmnɔ̀]* *kóndò* *kàní-Ø,*
[woman^{LH} old] failure do.Pfv-3SgSbj,
ʔémbà [*nàmbálà* *nó* *ɲgù]* *tá:yè-Ø,*
then [lion Def Acc] speak.Pfv-3SgSbj,
‘The old woman was helpless (could do nothing about it). Then she spoke to the
lion.’

(00:16) [*kílɔ̀-ná-gè* *nò]* *ʔèmbé* *wà:-má* *wà*
[goat-3SgPoss-Pl Def] Prog exhaust-Caus.Ipfv.3SgSbj Quot
[*nàmbálà* *nò]* [*ndàgè* *wá]* *ʔùnè,*
[lion Def] [be.good.Pfv-3SgSbj Quot] say.Pfv.3SgSbj,
‘(She said:) he (=lion) was finishing her goats off. The lion said, “all right.”’
[< *ndàgé wà* < *ndàgè]*

(00:19) *ʔègé* *mbà,*
come.Pfv.3SgSbj Pfv,
gwí:-gè *nò,* *ká:yⁿè,* *gwí:-gè* *nò,*
skin-Pl Def, hyena, skin-Pl Def,
[*kílɔ̀* *gwí:-gè* *nò]* [*nàmbà-nàmbà* [*kò:-nà]* *mbá]* *kàní-Ø,*
[goat skin-Pl Def] cover-cover [[head-3SgPoss] Loc] do.Pfv-3SgSbj
‘He (=lion) came. The (goat) skins, hyena, the skins. He (=lion) covered himself
with goatskins.’
[The lion disguises himself as a goat. The first line of this segment is somewhat
broken; repaired in the second line]

(00:25) *hà:* [tè^{má} ?ùnè ká:yⁿè ?ègé mbà,
 well, [devour.Ipfv.3SgSbj say.Pfv.3SgSbj] hyena come.Pfv.3SgSbj Pfv,
*mǝwⁿ wà, mǝwⁿ kòy [yé^{LH} ^Lbàyⁿ] wà kòy,
 Prsntv Quot, Prsnt Emph [thing^{LH} ^Lbig] Quot Emph,
 ‘Well, hyena came, intending to devour (a goat). There it is, there it is, a big thing
 indeed, he thought.’*

[yé ^Lbàyⁿ ‘big thing’ or ‘(a) big one’, with yé (archaic noun) as default noun;
 elsewhere wè: is the word for ‘thing’; mǝwⁿ presentative §4.4.4]

(00:30) [yé ^Lbàyⁿ] [wòtòrò ndó] bòm-bó-Ø wà,
 [big thing] [cart in] there-be-3SgSbj Quot,
 ?ègé dèbá ?ùnè mbà,
 come.Pfv.3SgSbj catch.Ipfv.3SgSbj say.Pfv.3SgSbj Pfv,
 ‘A big thing is on the cart (he thought). He came, intending to catch (it).’ (< wòtóró)

(00:32) *dèmbùlà-dèmbùlà* *kání* *mbà,*
 uncover-uncover do.Pfv.3SgSbj Pfv,
dèb-á: ?ùnè *mbà* *jáka* *nàmbálà,*
 catch-Purp say.Pfv.3SgSbj Pfv lo! lion,
[sàmári káná:] ?ègé wà,
 [joke(n) do-Purp] come.Pfv.3SgSbj Quot,
 ‘He (=hyena) took off (the skins), intending to catch (goats), but lo! it was the lion.
 He said (to the lion) that he had come to make a joke.’

(00:38) *nàmbálà* *ndàgé* *wà,*
 lion all.right Quot,
 ?èmbá dèbé tèmè,
 then catch.Pfv.3SgSbj devour.Pfv.3SgSbj
 ‘The lion said, “all right.” Then he caught and devoured (hyena).

(00:40) *à-ŋgú* *dèbé* *tèmé* *mbà,*
 3Sg-Acc catch.Pfv.3SgSbj devour.Pfv.3SgSbj Pfv,
kilǝ-ŋgé-nà ?èmbà *póllè* *bé:lè,*
 goat-Pl-3SgPoss then escape.Pfv.3PlSbj get.Pfv.3PlSbj,
 ‘When he caught and devoured (hyena), her goats became free (of predators).’

(00:43) [yǝ^{LH} ^Hkèmnǝ nǝ], nǝwⁿ [tò: ǎwⁿ] rè:ní kàni,
 [woman^{LH} ^Hold Def], ?? [?? 3Sg] safety do.Pfv.3SgSbj,
 [yǝ^{LH} ^Hkèmnǝ nǝ], [tò: ǎwⁿ] rè:ní kàni,
 [woman^{LH} ^Hold Def] [?? 3Sg] safety do.Pfv.3SgSbj,
 ‘The old woman, she was saved thanks to him (=lion). The old woman, that’s it, she
 was saved.’

[tò: ǎwⁿ, morphologically obscure but possibly containing 3Sg pronoun ǎwⁿ, means
 ‘it (tale) is finished’]

(00:47) *kìlò-ṅgé-nà kèmə wà:-mâ-wⁿ, [yɔ^{LH} ^Hkèmnò nɔ],*
 goat-Pl-3SgPoss devour finish-Caus-Ipfv, [woman^{LH} ^Hold Def],
à-ṅgú dùgé sǒ:ṅgè tàbé mbà
 3Sg-Acc take.Pfv.3SgSbj bring.Pfv.3SgSb give.Pfv.3SgSb Pfv
wá:-yè-Ø,
 finish-MP.Pfv-3SgSbj,

‘He (=hyena) was eating up her goats. The old woman got and brought (the lion) and he (=hyena) was finished.’

(00:53) *[nàmbála nò-ṅ] tǔm mbà táⁿ,*
 [lion Def-Acc] devour.Pfv.3SgSbj Pfv only,
á! [ká:yⁿ nò-ṅ] tèmè, ?èmbá rè:ní kàni,
 ah! [hyena Def-Acc] devour.pfv.3SgSbj, then safety do.Pfv.3SgSbj,
 ‘As soon as he devoured the lion—ah, (or rather) he devoured the hyena. Then she was saved.’
 [*< tèmé mbà*]

(00:58) *à-ṅgú ñàmà-ṅgá ?ùnè mbà,*
 3Sg-Acc ruin-Caus.Ipfv.3SgSbj say Pfv,
[mó nò-ṅ] tèmè-Ø, ?èmbá rè:ní kàni
 [Dem Def-Acc] devour.Pfv-3SgSbj, then safety do.Pfv.3SgSbj
 ‘He (=hyena) intended to ruin her. He (=lion) devoured that one (=hyena). Then she (=old woman) was saved.’

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Abbreviations and symbols

Abbreviations

Acc	accusative
Adj	adjective
Addr	addressee
ATR	advanced tongue root (vowel feature)
C	consonant (in formulae like <i>CvCv</i>)
Capac	capacitative, §10.7
Caus	causative
Char	characteristic nominal derivational suffix, §4.2.1
Def	definite marker
Dem	demonstrative
Dim	diminutive
DiscFunct	discourse-functional particle at end of NP ('even', 'only', 'as for')
EA	expressive adverbial, §8.4.3, §11.1.3.1
Emph	emphatic (clause-final particle)
Exist	existential particle
ExpPrf	experiential perfect
Foc	focus
H	high (tone)
Hort	hortative
Ipfv	imperfective
Imprt	imperative
Inch	inchoative ('become' with adjective)
Inst	instrument(al)
InstNom	instrument nominal (e.g. §5.1.11.2)
Iter	iteration (full-stem reduplication, e.g. of stative or imperfective verb)
L	a) low (tone) b) any sonorant (in e.g. <i>CvL</i>)
Loc	locative
MP	mediopassive
N	a) noun (in e.g. "N-Adj") b) nasal consonant (in e.g. <i>CvN</i>)
(n)	noun, in interlinear glosses like 'work (n)'
Neg	negative
Nom	nominalization
NP	noun phrase
Num	numeral

O	object (in e.g. “SOV”)
Ord	ordinal adjective
Pass	passive (in function-specifying compounds), §5.1.11.1
Pfv	perfective
Pl	plural
Poss	possessive, possessor
PP	postpositional phrase
Ppl	participle, in relative clauses
Prf	perfect (in ExpPrf)
Prog	progressive
Proh	prohibitive
Prsent	presentative
Purp	purposive
Q	question marker
Quant	quantifier
Quot	quotative particle
Rdp	reduplication
Recip	reciprocal
RelCl	relative clause
ResPass	resultative passive, §9.3.2
Rev	reversive
S	subject (in e.g. “SOV”)
Sbj	subject
Sg	singular
Stat	stative
Tr	transitive derivational suffix, §9.4.2
V	a) verb (in e.g. “SOV”)
v	vowel (in e.g. <i>CvCv</i>)
(v)	verb, in interlinear glosses like ‘fight (v)’
Vb	verb
VblN	verbal noun
VP	verb phrase

Symbols

*	reconstructed
#	ungrammatical, unacceptable, unattested
<i>á, à, â, ã, ä</i>	tones on vowels (or syllables)
<i>ā, â, ǎ, ǣ</i>	tone overlays on stems in compounds, Chapter 5
/.../	a) lexical tone melody, e.g. /LH/, /H/ b) underlying or lexical representation
{...}	a) tone overlay, e.g. {HL}, {H}, {L} b) enclosing any set, e.g. { <i>u a i</i> }
[...]	a) phonetic (IPA) representation, e.g. [bǔ:]; or phrasal grouping
↓	downstep
[...]ᵀ	{L} tone overlay depending on constituent to the right
^{HL} [...]	{HL} tone overlay depending on constituent to the left
^L [...]	{L} tone overlay on depending on constituent to the left
⊂...⊃	tonosyntactic island
→	(prolongation of final vowel or sonorant, no special pitch effect) <i>fǎ→</i> , ‘until, all the way to’, §15.3.3 <i>nà→</i> or <i>mà→</i> , ‘or’, §7.2 <i>tè:bú→</i> , ‘a lot’, §11.4.1.4 <i>ó→</i> , in greetings, §19.6
↗	terminal pitch rise (incompletion)
↘	terminal pitch drop (completion)
=	clitic boundary

Index

1. selected morphemes

notes: *v* is a variable vowel, *C* is a variable consonant; verbs are cited in E-stem (perfective); vowel-length and initial *ʔ* are disregarded in alphabetical ordering

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 - b) *á*, 2Pl proclitic (subject, possessor, postpositional complement), §4.3.1, §10.3.1
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