

A Grammar of Bunoge

Dogon language family
Mali

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- brown** text from the template or from other grammars, to be gradually replaced (disregard)
- black** new material typed in for this language
- blue** transcriptions for this language
- green** transcriptions for other languages, reconstructions, phonetic transcriptions, and formulas
- pink** data to be incorporated later into the section
- red** comments to myself (e.g. data to be elicited, section to be rewritten)
- orange** temporary cross-refs to examples in other sections
- dk yellow** Jamsay forms in sample index, to be replaced by forms from the language in question

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1 Introduction

1.1 Dogon languages

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

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

Bunoge belongs to a western Dogon division in which its closest relatives appear to be Ampari, Penange, and Mombo (aka Kolu). This group also has affinities to Tiranige, Najamba-Kindige, Yanda Dom, Tebul Ure, and perhaps Dogulu, in opposition to eastern Dogon, but we are not yet sure of the overall genetic subgrouping.

1.2 Bunoge language

Bunoge is arguably the most endangered Dogon language. It is spoken in only three villages (one of which has small offshoots) on the western extremity of the Dogon plateau between Bandiagara and Douentza in eastern Mali.

The language is called *[bùr nɔ̀-gè] tàgù* 'language of the people of Boudou', cf. *tágù* 'speech, language', *bùrù ?ólò* 'Boudou village'. Plural *nɔ̀-gè* (singular *nɔ̀-wè*) appears to be a gentile derivation (cf. *New Yorker*, *Chicagoan*). *[bùr nɔ̀-gè] tàgù* optionally contracts /rɪ/ to *nr*.

The Bunoge-speaking villages are close to several Fulbe (including Rimaibe) villages. The residents of Sangou have been observed communicating with each other in Fulfulde as well as Bunoge. I am told that Fulfulde is less commonly used among Dogon in Boudou and Dakouma.

The villages are those in (xx1). Coordinates are degrees, minutes, and decimal fractions of minutes (.000 to .999).

(xx1)	official name	Bunoge name	coordinates
	Boudou	<i>bùrù ?ólò</i>	N 14 39.194, W 03 47.617
	Sangou	<i>sàngú ?òlò</i>	N 14 42.793, W 03 49.390
	Dakouma	<i>dàkùmà ?ólò</i> (~ <i>dàgùmà ?ólò</i>)	N 14 41.533, W 03 48.808

The full names contain *?ólò* 'village'. Short names are *bùrù* 'Boudou', *sàngù* 'Sangou', and *dàkùmà* ~ *dàgùmà*.

The main village in Boudou remains in its original location on the high plateau. Two "lower Boudou" offshoots, both called *bùrù fólì*, occur in the plains below. Dakouma is also on a rise.

Sangou village moved en bloc in approximately 2008 from a now abandoned original 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 Tomborgel (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 is also frequented. There is a small Monday market at Piro (Tommo So speaking), which is most convenient for people from Boudou village.

The most common other language spoken by Bunoge speakers is Fulfulde, which appears to be replacing Bunoge among younger generations. Bambara is also widely known by adults, due to the large number of Bunoge speakers who migrate during the dry season to southern Mali for seasonal work, or who have spent long periods in southern Mali before returning permanently.

Bunoge speakers have some 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 extending from the open plains, 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 in below, in the plains and valleys. Secondary rainy-season crops are sorghum, peanut, groundnut, cow-pea, sesame, and roselle, along with a little 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 grow in the valleys. The shoots and fruit segments are edible and are sold in markets or consumed directly.

Small-scale herding (sheep, goats, cattle) is a secondary industry, both on the high plateau and below. Dogon formerly entrusted livestock to Fulbe herders, who had the right to consume and sell the milk, but this is less common now.

There are still two families of blacksmiths (hoe and ax blades, knives) at Boudou. 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," which was said to be the endonym, but this information was from neighboring Dogon groups.

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 informant from Sangou full-time for two weeks in April 2012, and later part-time over one month in June 2012. The work was done in our base in Sevare and later in Bobo Dioulasso. He was one of two native speakers

of Bunoge known to us who understood French. The work was primarily grammatical but included some basic vocabulary and some flora-fauna terminology.

1.4.3 Acknowledgements

The fieldwork on Bunoge is being carried out under grant BCS-0853364 from the National Science Foundation (NSF), Documenting Endangered Languages (DEL) program, 2009-13.

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

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

2 Sketch

This is a quick synopsis of some of the major features of the language.

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 ɔ 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 ɲ 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>. 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 falling /<(L)HL/, rising /LH/, or low /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 much of the tonosyntactic complexity found in several (mainly eastern) Dogon languages. There are no clear cases where one element controls tone-dropping on another element with a NP. The main tonosyntactic processes are a {LH} overlay, for example on a noun followed by an adjective, and a {HL} overlay 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 *ḡ* and 2Sg *ḡ*. 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.

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 disfiguring of these assimilations 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 (from mediopassive input), and causative. There are vestiges of a former mediopassive derivative paired with transitive derivatives, but most original mediopassives now have no suffix.

Regular (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'), along with their negations.

A 'go and VP' construction with suffix *-yā* is the only known directional element in verb morphology.

Some regular verbs also have a corresponding stative form, which marks polarity but not aspect. There are also some stative quasi-verbs with senses like 'be (somewhere)', 'have', 'want', and 'know' that do not correspond to regular 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 noun.

The other element that can precede a noun 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. Numerals above '2' and the 'all' quantifier do not interact tonally with preceding elements. An adjective directly following a noun is {L}-toned (perhaps lexically) but controls {LH} contour on the preceding noun. A second adjective is {HL}-toned and has no tonal effect on the preceding N-Adj sequence.

Plural *-gè* interacts tonally with a preceding noun or N-Adj in a phonological rather than tonosyntactic fashion, and is therefore treated here as a suffix. *-gè* triggers Rightward H-Spreading, by which the H-tone on a falling-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 the preceding string, resulting in H-toned plural *-gè*.

Definite *nɔ̀* does not trigger any tonal changes on preceding strings. *nɔ̀* itself polarizes tonally to a preceding {L}-toned word, becoming *nɔ́*. *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 *ngù* 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

Basic order is SOV when subject and object are nonpronominal NPs. Pronominal subjects are expressed in the inflected verb. Setting adverbs like 'yesterday' are usually clause-initial, preceding the subject.

In imperatives but not in corresponding indicatives, simple spatial adverbs ('here', 'there') sometimes appear postverbally in elicited data. It is not clear whether the informant reproduced the linear order of the French cues in such examples.

2.6 Relative clauses

The overt head NP, maximally Poss-N-Adj-Num, is internal to the relative clause. Definite and 'all' quantifiers, as well as the plural suffix *-gè*, follow the verb, which is therefore syntactically a participle.

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 (*-nè ~ -nè*) 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.

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 only examples I have of *(C)v:CCv* have medial homorganic nasal/voiced-stop clusters {*mb nd nj ŋg*}, and syllabification as [*gé: ndè*] would make recognition of *(C)v:L* syllables unnecessary. I know of no basic vocabulary items beginning with {*mb nd nj ŋg*}, but many Fulfulde words begin in such sequences and a full Bunoge lexicon would undoubtedly include some of them, given heavy Bunoge-Fulfulde bilingualism. It may then 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 ŋg*} 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:-Ø mbè* 'he/she used to slaughter' and similar forms with lengthened vowel before past *mbè*, see §10.5.1.1-5. 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:ŋí: bò* 'be dry', lengthened from *jà:ŋí* 'dry', see §11.4.1. 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 *Cṿ* occur as surface forms. However, the distinction between the two is not lexically important, and *Cṿ* is lexically basic. Nouns of this type are always *Cṿ*: before plural *-gè* and definite *nò*, so I analyse them as basically *Cṿ*; but lexically falling-toned /*Cṿ̂*/ nouns are shortened to *Cv̂* in isolation (*ná* 'cow', *ná̂*: *nò* 'the cow'), see §3.6.1.3. Monosyllabic verbs are *Cṿ*; but shorten to *Cv̂* in the imperative and the imperfective (*dé*: 'went in' and *dǎ̂:-lò* 'does not go in', but *dù dà* 'goes in' and *dà* 'go in!'). Defective stative quasi-verbs can be *Cv* (*sà* 'have', *bò* 'be') or *CvL* (*?èyⁿ* 'know', *kâyⁿ* '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' (§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 (xx1ab). Some vestigial mediopassives similarly show syncope (xx1c).

(xx1)	derivative	gloss	input	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>?ébè</i>	'sit down'
	<i>yúl-lè</i>	'wake (sb) up'	<i>yúlè</i>	'wake up'
	c. mediopassive			
	<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 syncope of the medial vowel.

3.2 Consonants

The inventory of consonants is (xx1). Parentheses enclose marginal consonant phonemes, which are described in following sections.

(xx1) 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>v</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 *ʔb* and and preglottalized *ʔy* occur in unassimilated Fulfulde loanwords, as in *sáʔdà* 'expense' and *táʔyikò.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*} before front vowels {*i e e*}. *k* and *g* are common before front as well as back/low vowels. *c* is rare overall and is confined to cultural vocabulary, probably borrowed, e.g. *nicùrgá* '(mouth) bit'. *j* is common before back/low vowels (*sójó* 'person', *sí:jà* 'chicken'), but rare and probably confined to loanwords before front vowels. (xx1) exemplifies the four consonants before front vowels.

- (xx1) a. *ɲècì (káni)* 'spur (v.)'
 b. *kàsàŋkí* 'shroud(n)'

<i>kibà</i>	'hip'
<i>kìndà</i>	'liver'
<i>kènsè</i>	'side of face'
<i>kirké</i>	'saddle(n)'
c. <i>jì:bì (kání)</i>	'(animal) die with being slaughtered'
<i>kájè</i>	'tendon'
d. <i>pòngèlè</i>	'cemetery'
<i>-gè</i>	plural suffix
<i>búgè</i>	'marrow'
<i>géndè</i>	'forehead'
<i>gěngè</i>	'be bent, tilted'

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

(xx2)	perfective (E/I)	imperfective (A)	perfective negative (A/O)	gloss
	<i>sójè</i> <i>díngè</i>	<i>só-sójà</i> <i>dí-díngà</i>	<i>sójá:-lì</i> <i>díngó:-lì</i>	'pay' or 'tie' 'bury' (perfective)

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

There is no noticeable spirantization of *g* between two {*a* *ɔ*} vowels: *sàgàllà* 'young man'.

3.2.3 Back nasals (*ŋ, ɲ*)

I have observed no confusion 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 *kání* '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.)', *pánángè* 'meal', *píngì* '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. *ʔébè* '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.

3.2.6 Sibilants (*s*, *š*, *z*, *ž*)

s is a full-fledged phoneme: *sójò* 'person', *pùsù-pùsú* 'lung(s)', *sàgàllà* 'young man', *sé* (*sé:*) 'horse', *sè* 'foot'.

{*š z ž*} do not occur except in a few loanwords.

3.2.7 Nasalized sonorants absent (*rⁿ*) or rare (*wⁿ*, *yⁿ*)

Nasalized sonorants do not occur stem-internally. *rⁿ* was not observed (inherited *n* does not lenite). *wⁿ* occurs word-finally in several numerals (e.g. *nè:wⁿ* 'four', *kúléwⁿ* 'six', *só:wⁿ* 'seven') and in a few other words like *jòwⁿ* 'today' and 3Sg pronoun *ǎwⁿ*. *yⁿ* occurs at a morpheme boundary in 3Pl pronoun *à-yⁿá* (compare 1Pl *mí-yá*), and finally in hortatives and (plural-subject) imperatives with suffix *-yⁿ*.

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. In two stems, I hear a bilabial approximant that is subtly distinct from the usual *w*. I will transcribe it as [β] phonetically (since I use "v" as a cover symbol for vowels in formulae like *CvCv*). The examples I know of are in (xx1a). Since 'learn' in (xx1) is clearly the same verb as the experiential perfect auxiliary in *wélè: bò* in (xx1b), there is insufficient evidence to warrant recognition of a phonemic opposition. Both cases of [β] involve word-initial position before a front vowel.

- (xx1) a. bilabial approximant
βénámà ~ *wénámà* 'body'
βélè ~ *wélè* 'learn, be trained'

b. semivowel	
<i>initial w</i>	
<i>wírdì</i>	'saying one's beads' (<Arabic)
<i>wè</i>	past enclitic (allomorph)
<i>wè:</i>	'thing'
<i>wélè: bò</i>	experiential perfect auxiliary
<i>initial Cw</i>	
<i>gwí</i>	'skin'
<i>intervocalic</i>	
<i>sí:wè</i>	'melt'
<i>è:wè</i>	'splinter gear'
<i>final</i>	
<i>tów</i>	'planting (seeds)'

3.2.9 Consonant clusters

3.2.9.1 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.

(xx1)	stem	gloss
a.	<i>mb</i>	
	<i>mbásâm</i>	'bassam (fine fabric)'
	<i>mbólérì</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 *ŋ* and 1Pl *ŋ* 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 *ŋ* and 1Pl *ŋ* to bring out the morphemic structure. Thus *ŋ bò* 'I am' is pronounced [m̀bò]. 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 *-ngè* in a few combinations, e.g. *wè:-ngè* 'possessions' (§11.5.2), and suffix *-ngè* also occurs in instrument nominals (§4.2.3). Locative postposition *mbà* alternates with *à*. Instrumental/locative postposition *ndò* does not appear to have other variants. In these forms, the nasal does not have a separate tone. Instead, the nasal is more or less syllabified with the preceding syllable, whose tone spreads to the nasal.

3.2.9.2 Medial geminated *CC* clusters

Medial geminated clusters arise most often from syncope followed by consonantal assimilations. A frequent culprint is 3Pl subject perfective *-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.xxx). There are also some cases of *ll* from */nl/* or */rl/* after syncope.

Some other medial geminates probably originated by syncope plus *y*-Assimilation, in mediopassive suffixal derivations, but the synchronic phonology is less transparent in these cases (§3.4.4.1).

3.2.9.3 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 ng*}. (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 (xx1) I give one example each of attested medial clusters, focusing on stem-medial as opposed to suffix-boundary examples.

(xx1)	<i>mb</i>	<i>gém̀b̀ù</i>	'shard'
	<i>nd</i>	<i>sóǹd̀ò</i>	'gutter spout'
	<i>nj</i>	<i>múǹj̀ù</i>	'thousand'
	<i>ng</i>	<i>síǹg̀ì</i>	'rope'
	<i>mp</i>	<i>lám̀p̀á</i>	'lamp'
	<i>nt</i>	<i>sìnt̀ù̀g̀ú</i>	'a spice (<i>Ammodaucus</i>)'

<i>ŋk</i>	<i>bà̀nà̀ŋkú</i>	'cassave'
<i>ns</i>	<i>kè̀nsè</i>	'side of face'
<i>mj</i>	<i>kámjè</i>	'squeeze'
<i>lb</i>	<i>hè̀lbò:ré</i>	'flint'
<i>ld</i>	<i>kè̀ldè</i>	'perform (marriage)', cf. <i>kè̀lé̀ngè</i> 'marriage'
<i>lj</i>	<i>ʔà̀ljènné</i>	'paradise'
<i>lg</i>	<i>bù̀l-gè̀nà</i>	'next year' (variant of <i>bù̀lí-gè̀nà</i>)
<i>lp</i>	—	
<i>lt</i>	—	
<i>lk</i>	<i>ʔà̀lkè:mbé</i>	'harvesting knife'
<i>ls</i>	<i>ʔà̀silà:mí</i>	'Muslim'
<i>lm</i>	<i>wà̀njà̀lmà</i>	'calabash clapper'
<i>ln</i>	—	
<i>lp</i>	—	
<i>lŋ</i>	—	
<i>rb</i>	—	
<i>rd</i>	<i>wírdí</i>	'saying one's beads (with rosary)'
<i>rj</i>	—	
<i>rg</i>	<i>nìcùrgá</i>	'spur(n)'
<i>rp</i>	—	
<i>rt</i>	<i>mà̀rtó</i>	'hammer' (< French <i>marteau</i>)
<i>rk</i>	<i>kírké</i>	'donkey saddle'
<i>rs</i>	<i>sà̀rsì (kání)</i>	'load' (< French <i>charger</i>)

3.2.9.4 Medial triple *CCC* clusters

lmb and *wnd* are attested stem-medially.

- (xx1) a. *lmb*
símbè 'folding knife' (Mombo *sílémbè*)
kòlmbò 'burrgrass'
sùlmbò 'vine sp. (*Leptadenia*)'
- b. *wnd*
líwndù 'shepherd's staff' (< Fulfulde)

3.2.9.5 Final *CC* clusters

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

3.3 Vowels

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

(xx1)	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 vocalism-stem ablaut (§3.3.6).

Interesting lexical oppositions that may have originated by splitting a proto-stem into two with different ATR values are in (xx2). Since most native medicinal products are vegetal, a syncretism 'tree' and 'medicine' is reasonable, and has exact parallels in some other Malian languages such as Tondi Songway Kiini.

- | | | | |
|-------|----|----------------|--|
| (xx2) | a. | <i>tílíngè</i> | 'tree' |
| | | <i>tílingè</i> | 'medicine (medication)' (§4.1.1.3) |
| | b. | <i>?ǎllè</i> | 'go up, rise' |
| | | <i>?òllè</i> | 'get up, arise (from sitting or lying position)' |

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/. They simplify to *Cv* in isolation or prepausally. The /HL/ tonal type becomes H-toned in this shortened form, revealing its falling tone and long vowel before

definite *n̄*. Examples: *sè* 'foot', definite *sè: n̄*, *sé* 'horse', definite *sé: n̄*. I take all such nouns to be lexically of the form *Cv:*, subject to shortening prepausally. See §3.xxx 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 *CV̄*. For example, 'pound (in mortar)' has imperative *dà*, perfective *dé:*, 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* (*bé:*) 'child' shifts to /L/ melody as a compound final, but lengthens before definite and plural markers in the same way as the uncompounded stem does: *X-bè*, definite *X-bè: n̄*, plural *X-bé:-gè* (§5.xxx).

3.3.2 Nasalized vowels

Nasalized vowels are not typical of Bunoge. I can cite *kì:ⁿ* 'skiff (boat)', a likely loanword, *táⁿ* (from Fulfulde) in *mèⁿ táⁿ* 'as soon as', and *tó:ⁿ-tó:ⁿ* '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 end in a nasalized vowel or semivowel (*wⁿ*). The nasalization may be a morpheme-like element here. See §4.xxx for examples and discussion.

3.3.3 Initial vowels

Lexical stems (nouns, verbs) with initial vowel are articulated with a glottal stop (§3.xxx). 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 *?ándō* 'chin', *?òbò* 'house', *?ùjéré* 'sweat', *?ínjè* 'dog', and *?àlámà* 'sheep'.

Examples of vowel-initial verbs are *?ébé* 'sit', *?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 {*ɛ ɔ*} or one or more +ATR vowels {*e o*}, but they 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 *-ŋge* or *-ge* which can occur after stems that otherwise have either -ATR or +ATR vowels. See §4.xxx 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 *núŋè*) 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 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', *nàló-lò* 'does not give birth'. However, *ʔámmè* 'swell; be inflated' and homonym *ʔámmè* '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 reversible *-lv* and transitive *-rv*. It does not apply to inflectional suffixes that contain a

vowel, i.e. to perfective negative *-li* (whose high vowel is extraharmonic anyway) or, more interestingly, imperfective negative *-lɔ*, 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 (xx1).

(xx1) 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: jussive (§10.8.3.1, §17.1.4.1) b) requires +ATR or +ATR-compatible vocalism: verb-stem iteration before imperfective or stative (§10.5.1.1, §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 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. The E/I-stem (specifically, the E-stem for final-nonhigh-vowel verbs) and the O/U-stem (specifically, the O-stem for final-nonhigh-vowel verbs) 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 jussive. 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 (xx2). Tones are omitted. Vowel-length of monosyllabics is also omitted here.

(xx2)	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>
a-vowel type						
	'do farming'	<i>wale</i>	<i>walo</i>	<i>walu</i>	<i>wala</i>	<i>wala</i>
monosyllabic, -ATR						
	'eat (meal)'	<i>je</i>	<i>jɔ</i>	<i>ju</i>	<i>ja</i>	<i>ja</i>
monosyllabic, +ATR (defective)						
	'go out'	<i>ge</i>	<i>go</i>	<i>gu</i>	<i>go</i>	—
b. final-high-vowel						
high-vowel type (<i>CiCi</i> , <i>CuCi</i> , etc.)						
	'build'	<i>simi</i>	<i>simu</i>	<i>simu</i>	<i>simo</i>	<i>sima</i>
a-vowel type (<i>CaCi</i> etc.)						
	'do'	<i>kani</i>	<i>kanu</i>	<i>kanu</i>	<i>kana</i>	<i>kana</i>
monosyllabic						
	'draw water'	<i>ni</i>	<i>nu</i>	<i>nu</i>	<i>no</i>	<i>na</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-tye 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 in suffixal derivatives of verbs

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.

(xx1)	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 of the preceding stem are transmitted to a non-high suffixal vowel. The relevant suffixes are those in (xx1).

- (xx1) a. verbal inflection
-yè ~ -yè 3Pl subject, perfective
- b. verbal derivation (shown in perfective form)
-lè ~ -lè reversive
-rè ~ -rè, -dè ~ -dè transitive
- c. syntactic
-gà ~ -gò ~ -gò participial

Suffixes and clitic-like particles with nonhigh vowels that are not sensitive to harmony are in (xx2).

- (xx2) a. suffixes
-lò imperfective negative
-gè plural
- b. particle
nò 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 entails Stranded-Tone Re-Linking (§3.6.4.xxx), 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 *gúndúlò-m-mè* 'they caused (sth) to roll' from /gúndúlò-mí-mè/ (§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-mi* 'repair'. Syncope also appears to occur, along with /r/ → ll, in *yúl-lè* 'wake (someone) up' for /yúlú-rè/ from *yúle* 'wake up', but contrast this with unsyncope *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)' from syncopated from /túlú-yè/.

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

Capacitative *-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 *tà:lúmà ~ tá:lmà* '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 stable. For example, perfective negative suffix *-li* (§10.2.3.1) does not reduce to *-l*.

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. *sò:ngí-yè* 'they brought' and *ʔárí-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.

(xx1) Assimilations for perfective 3Pl *-ye ~ -yè*

	process	example	input	gloss
a.	/gy/ → <i>gg</i>	<i>ʔég-gè</i>	/ʔègí-yè/	'they came'
b.	/ndy/ → <i>nd</i>	<i>gè:n-dè</i>	/gè: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 *wággá bò* 'it is distant', see §11.4.1.

3.4.4.2 Assimilations involving liquids

(xx1)	process	example	underlying	gloss
a.	/nl/ → <i>ll</i>	<i>kǎl-lè</i>	/kànú-lè/	'doesn't do'
b.	/lr/ → <i>ll</i>	<i>yǎl-lè</i>	/yùlú-rè/	'wake (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 (xx1).

(xx1)	3Sg	<i>tè tègà-Ø</i>	'he/she sees'
-------	-----	------------------	---------------

1Sg	<i>tè j̄ tɛ̀gà</i>	'I see'
2Sg	<i>tà = à tɛ̀gà</i> [t̄à:tɛ̀gà]	'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 *bòmàkà à* 'in Bamako (city)', from *bòmàkó*.

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.xxx). 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

No cases are known.

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 must be 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 a stress/accent system, the distinction between elitics 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 (§13.1.1.7, §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 (§6.2.1.2, §6.2.2.2).

While 1st/2nd person subject and possessor morphemes are syntactically proclitic to the following stem, phonologically they 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 tégà* 'you-Sg see' from reduplicated /*tè à tégà*/. Similarly, 1Sg *ɲ* and 1Pl *ɲ* syllabify phonetically with a preceding vowel, as in *tè ɲ tégà* '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 =*ndá* ~ =*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. The biggest challenge in transcribing tones is distinguishing L.H.L from H.H.L syllable sequences. This is because in H.H.L the peak in pitch and intensity is on the final H-tone preceding the L-tone. Some stems and words initially transcribed with L.H.L have now been corrected to H.H.L. A good example is *gùndúló-mì-Ø* 'he/she rolled (sth) along', whose H.H.H.L syllable sequence was initially transcribed as *gùndùlóló-mì-Ø* (L.L.H.L) because of the pitch and intensity peak on *ló*. That the first three syllables are H-toned is suggested by the failure of a preceding word like 1Sg

accusative *mì-ŋgù* to undergo Tone-Raising in *mì-ŋgù gúndúló-mì-Ø* 'he/she rolled me along'.

3.6.1 Lexical tone patterns

3.6.1.1 Lexical tones of verbs

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 for unsegmentable noun stems

Three basic lexical tone melodies for noun stems can be identified (xx1). The lexical tone melody is in slashes /.../, with typical spelled-out syllabic sequences below.

(xx1)	monosyllabic	bisyllabic	trisyllabic and longer
a. falling	/H(L)/ <i>Cṽ ~ Cṽ:</i>	/HL/ <i>CṽCṽ</i>	/HL/ <i>CṽCṽCṽ</i>
b. rising	—	/LH/ <i>CṽCṽ</i>	/LH/ <i>CṽCṽCṽ</i>
c. low	/L/ <i>Cṽ:</i>	/L/ <i>CṽCṽ</i>	/L/ <i>CṽCṽCṽ</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'.

The lexical tones as shown are audible in isolation and before definite *nò* (with no other element following). For the /H(L)/-toned monosyllabics in (xx1a), the isolation form is *Cṽ* and the definite form is *Cṽ: nò*.

Some examples of each type follow. The **falling** melody is common with native Dogon nouns of one to three syllables. In trisyllabic stems, the peak of pitch and intensity in the H.H.L syllable sequence is on the penult (i.e. just

before the tone break). I initially transcribed some such words with L.H.L tones. My current view is that they are H.H.L, i.e. that they all have /HL/ rather than /LHL/ lexical melody. It is possible that further study will bring out a distinction between H.H.L and L.H.L. In any event, all trisyllabic nouns vary between H.L.L and L.H.L possessed forms, depending on the final tone of the preceding possessor.

(xx2) Falling melody

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

Cv̄ ~ Cv̄:

<i>bá</i>	'morning' (in: <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 (jí:)</i>	'food, meal'
<i>jú (jú:)</i>	'thorn'
<i>ké (kê:)</i>	'place' or '(the) bush, outback'
<i>kú (kú:)</i>	'sweet potato'
<i>ná (ná:)</i>	'cow'
<i>nú (nú:)</i>	'oil, butter'
<i>sé (sê:)</i>	'horse'
<i>tá (tá:)</i>	'pants' or 'door shutter'
<i>wá (wá:)</i>	'cold weather'

Cwv

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

Cv̄L 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 Cv̄L syllable

<i>nánây</i>	'mint'
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final Cv̄ syllable (partial list)

<i>bémbò</i>	'chest'
<i>bó:lò</i>	'metal straining ladle'

<i>bóyè</i>	'watermelon'
<i>búgè</i>	'marrow'
<i>dándì</i>	'chili pepper'
<i>dá:mbò</i>	'tinder'
<i>dá:ngól</i>	'paired hitching posts and cord'
<i>dólè</i>	'belly'
<i>gém̀bè</i>	'forehead'
<i>gór̀r̀</i>	'kola nut'
<i>ʔínjè</i>	'dog'
<i>jóŋgò</i>	'basket-holder'
<i>kánù</i>	'gold'
<i>kífl̀</i>	'goat'
<i>kǎjì</i>	'grass'
<i>kómbò</i>	'animal'
<i>kúl̀ù</i>	'hump (in back)'
<i>múl̀è</i>	'sugar cane'
<i>ní:bè</i>	'bird'
<i>nól̀ò</i>	'man'
<i>ɲá:li</i>	'cat'
<i>ʔójjè</i>	'breast'
<i>ʔól̀ò</i>	'village'
<i>ʔóndò</i>	'chin'
<i>pómbà</i>	'squash'
<i>sá:mbè</i>	'waterbag (for well)'
<i>séŋgè</i>	'flank (of body)'
<i>sóggè</i>	'clothing'
<i>sí:jà</i>	'chicken'
<i>só:yè</i>	'strap, whip'
<i>sój̀ò</i>	'person'
<i>tágà</i>	'well'
<i>tá:rà</i>	'Tuesday'

c. trisyllabic /HL/ (see comments above)

<i>ʔálábà</i>	'Wednesday'
<i>ʔálámà</i>	'sheep'
<i>ʔáŋkóŋgò</i>	'sky'
<i>bá:gúl̀è</i>	'clothing'
<i>bám̀búl̀à</i>	'hat'
<i>bárálá</i>	'(a) bargain'
<i>bél̀áŋgà</i>	'middle'
<i>bél̀éŋgè</i>	'fodder'
<i>bél̀ógò</i>	'sauce'
<i>béndél̀è</i>	'side'
<i>bóŋgél̀è</i>	'navel'
<i>búgúndè</i>	'buttock'

<i>déboǵè</i>	'umbilical cord'
<i>dénénè</i>	'fatigue', cf. <i>dénè</i> 'become tired'
<i>dílimà</i>	'maize'
<i>dólóngò</i>	'bottom'
<i>ʔéndúmù</i>	'darkness'
<i>gómbólò</i>	'courtyard'
<i>hó:lá:rè</i>	'trust, confidence'
<i>jónǵúlè</i>	'star'
<i>kálóngò</i>	'hourglass tomtom'
<i>kéléǵè</i>	'marriage'
<i>kémbúlè</i>	'piece of meat'
<i>kíbarù</i>	'news'
<i>kógáli</i>	'stem'
<i>kólómù</i>	'donkey'
<i>kólángè</i>	'neck'
<i>kómbóli</i>	'shell, scab'
<i>kónú-ǵà</i>	'sorcerer'
<i>kómúnù</i>	'salt'
<i>kórǵò</i>	'trimming ax'
<i>kúléǵè</i>	'bits of millet grain spike'
<i>kúndúlè</i>	'log'
<i>lásá:sì</i>	'(modern) rifle'
<i>lówóǵà</i>	'collective hunt'
<i>máláǵè</i>	'djinn'
<i>mándámù</i>	'peanut'
<i>má:ǵóró</i>	'mango'
<i>má:nípò</i>	'ant-lion larva'
<i>mbólérì</i>	'small gourd'
<i>ménjélè</i>	'needle'
<i>mínjili</i>	'mosque'
<i>nánsímbè</i>	'giant millipede'
<i>númbúlù</i>	'namesake'
<i>nónǵmè</i>	'camel'
<i>nónǵónì</i>	'fly (insect)'
<i>ʔólándù</i>	'rest(n)'
<i>páligè</i>	'sesame'
<i>pánáǵè</i>	'meal'
<i>póléǵè</i>	'egg'
<i>pónǵélè</i>	'cemetery'
<i>sáǵánà</i>	'cross-cousin'
<i>sáráǵà</i>	'alms, sacrifice'
<i>síjálà</i>	'cream of millet'
<i>sǵúlé</i>	'rags'
<i>sóláǵè</i>	'roselle'
<i>sómbúlò</i>	'millet cakes with baobab sauce'

<i>sómbúlè</i>	'Abdim's stork'
<i>tébéngè</i>	'ladle'
<i>tónónò</i>	'truth'
<i>túlúngè</i>	'neighborhood'
<i>túgúnè</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:jíbi</i>	'duty, necessity'
<i>wénámà</i>	'body'

d. quadrisyllabic /HL/

<i>ʔálámínjà</i>	'Thursday'
<i>ʔégésélè</i>	'macari (spice)'

In the loanword *kórs-bòrò* 'Songhay', {HL} is realized as H.H.L.L instead of as H.H.H.L.

The **rising** melody is found in loanwords from e.g. Fulfulde and Bambara. Many of these nouns are trisyllabic or longer.

(xx3) Rising melody

a. bisyllabic /LH/

<i>final CvC</i>	
<i>gálbál</i>	'animal market'
<i>cèllál</i>	'health'
<i>CvCCv arguably for CvCvCv</i>	
<i>ʔálwá</i> (1)	'locally produced candy'
<i>ʔálwá</i> (2)	'tablet for koranic-schoolboy'
<i>ʔáksí</i>	'candy-like cough drops'
<i>fəyрэ</i>	'light, illumination'
<i>jürké</i>	'native guitar'
<i>kirké</i>	'saddle'
<i>sèrdú</i>	'rifle barrel'
<i>final Cv</i>	
<i>bóné</i>	'misfortune'
<i>bò:ró</i>	'waterskin'
<i>càrdí</i>	'silver'
<i>dàwá</i>	'ink'
<i>dùdá</i>	'log'
<i>fètó</i>	'pond'
<i>gílé</i>	'grains of Selim (<i>Xylopi</i> a spice)'
<i>híjjí</i>	'pilgrimage to Mecca'
<i>jàbá</i>	'onion'

<i>jàkká</i>	'zakat'
<i>jòmé</i>	'hare'
<i>jùggá</i>	'hitching post'
<i>kàsū</i>	'jail'
<i>làmpá</i>	'lamp'
<i>lèllí</i>	'cow tick'
<i>lòkò</i>	'minnow'
<i>mà:njó</i>	'papaya'
<i>mà:rí</i>	'soumbala (spice)'
<i>màrtó</i>	'hammer'
<i>mò:ndé</i>	'saltlick'
<i>mòtó</i>	'motorcycle'
<i>nàfá</i>	'value, use'
<i>nè:má</i>	'pleasant weather'
<i>ṅò:ńí</i>	'rice or millet cake'
<i>pèccú</i>	'tiny bee sp.'
<i>pùddí</i>	'henna'
<i>sà:fó</i>	'evening prayer'
<i>sà:kó</i>	'sack'
<i>sìttí</i>	'sulfur'

b. trisyllabic /LH/

<i>final CvC</i>	
<i>bàlámín</i>	'lever'
<i>final Cv</i>	
<i>ʔàljènné</i>	'paradise'
<i>ʔàljùmà:ré</i>	'Friday'
<i>ʔàlkè:mbé</i>	'harvesting knife'
<i>ʔàlmà:mí</i>	'imam'
<i>ʔàlmùjilí</i>	'muezzin'
<i>ʔàlsilà:mí</i>	'Muslim'
<i>ʔàmì:rú</i>	'chief'
<i>ʔámúnù</i>	'guinea-fowl'
<i>ʔànàsà:rá</i>	'white person'
<i>ʔàndàlú</i>	'knowledge'
<i>ʔà:ràbú</i>	'Arab'
<i>ʔàrkìllé</i>	'mosquito net'
<i>ʔàsílí</i>	'Saturday'
<i>bàlâ: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>kòròṅó</i>	'genet'
<i>làbàngá</i>	'(mouth) bit'
<i>làcírí</i>	'couscous'
<i>làràrú</i>	'name-giving, christening'
<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>sàlfáná</i>	'2 PM prayer'
<i>sàllígí</i>	'ablutions'
<i>sàtálá</i>	'kettle'
<i>sìntùgú</i>	'spice (<i>Ammodaucus</i>)'
<i>tàmàró</i>	'date (fruit)'
<i>tèṅgà:dé</i>	'conical hat'
<i>tùbàbù</i>	'white person'
<i>wà:wà:dé</i>	'shield'
<i>yàmbùré</i>	'fishhook'

c. quadrisyllabic /LH/

<i>?àgàlà:wó</i>	'(drinking) trough'
<i>?àlàmpilé</i>	'airplane'
<i>?àlbà:nà:jí</i>	'amber'
<i>?àlbàrkà:jí</i>	'bdellium (incense)'
<i>bàndàgà:rí</i>	'cart poles'
<i>màdàràsá</i>	'Islamic school'
<i>mèsèkèré</i>	'scissors'
<i>tà[?]yìkò:[?]yó</i>	'breakfast'
<i>tùbàlà:jí</i>	'baggy pants'
<i>?ùrù?àná</i>	'Coran'

In *dògò-tóó* '(modern) doctor' and *tè:mèndéré* 'hundred', both loanwords, the {LH} melody is realized as L.L.H.H rather than as L.L.L.H as in (xx3c).

{LHL} is not clearly established as a lexical melody. However, trisyllabics of type {HL}, with syllable sequence H.L.L, are heard with variable pitch that can approach L.H.L. It is possible that further study of those trisyllabics will lead to recognition of a distinction between {LHL} and {HL} nouns. My current view is that {LHL} as a distinct melody is limited to compounds and other composite word forms, such as characteristic derivatives with *-gà*. The compounds in question are mostly those with {LH} initial (after Rightward H-Movement) and {L}-toned final, but also include a few unclassified compounds like *sémè-lémà* 'cleverness, trickery' (*sémé: bò* 'be clever').

The **low** melody competes with the falling melody for native Dogon nouns of one to three syllables.

(xx4) 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>ʔàllà</i>	'pig'
<i>ʔàmmè</i>	'millet beer'
<i>ʔàtè</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>ʔími</i>	'tooth'
<i>kà:yⁿà</i>	'grasshopper'
<i>kènsè</i>	'side of face'
<i>kibà</i>	'hip'

<i>kinà</i>	'nose'
<i>kòlò</i>	'bier'
<i>kùlè</i>	'hair'
<i>kùmà</i>	'crowned crane'
<i>ṅàṅà</i>	'shed, shelter'
<i>ṅṅò</i>	'life'
<i>ʔòbò</i>	'house'
<i>ʔò:gè</i>	'scraper'
<i>ʔóji</i>	'road'
<i>ʔólò</i>	'granary'
<i>sògò</i>	'ground'
<i>pùmbù</i>	'back'
<i>tè:bù</i>	'hawk'
<i>tè:ṅè</i>	'firewood'
<i>tòni</i>	'mouth'
<i>yàlè</i>	'wind (airflow)'

c. trisyllabic /L/

<i>ʔàmbàrà</i>	'aardvark'
<i>ʔà:tènè</i>	'Monday'
<i>dà:namà</i>	'hunt(n)'
<i>dèndè-bè</i>	'tongue'
<i>dùndùlù</i>	'bundle of millet grain spikes'
<i>ʔèmèṅgè</i>	'milk'
<i>fèccèrè</i>	'half'
<i>gàmbàgù</i>	'share, division'
<i>gùntàbà</i>	'harvest pile'
<i>jàngùlā</i>	'finery'
<i>jògòlò</i>	'comb (of rooster)'
<i>kàmbàlā</i>	'back of head'
<i>kèjèlè</i>	'scale'
<i>kindò-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>kùyèṅgè</i>	'gourd vine'
<i>mùnjàlè</i>	'cotton-spinning stick' (cf. <i>mùnjàlè-sé</i> 'whorl')
<i>ʔònjèlè</i>	'mortar axe'
<i>pòbòlò</i>	'sheath'

<i>sàgàllà</i>	'young man'
<i>sikòrò</i>	'sugar'
<i>sùgùlè</i>	'ear'
<i>wànjàlmà</i>	'calabash clapper'

c. quadrisyllabic /L/
tà:gàlèmmè 'neighbor'

Lexical tones are subject to modification by tone rules when nouns are followed by other elements, within and external to the NP itself. They are also subject to tonal overlays from a preceding possessor NP or pronoun. 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. One can argue whether this is a lexical /L/ tone or a tonosyntactic overlay. Since all modifying adjectives have this melody it does not have to be learned at the lexical level. When a noun is followed by two adjectives, the first is again {L}-toned, but the second is {HL}, which I attribute to a tonosyntactic overlay.

Some adjectives can also be used as nouns, and in that function a lexical tone melody can be determined. For example, *nólò* 'man' (with falling 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 a H-tone (§4.7.1.2). However, '2' is {L}-toned *dè:gà*, before which plural *-gè* is tone-raised to *-gè*. Numeral '1' (*tó:lè*) is treated as a modifying adjective and therefore drops to {L}-toned *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 (xx1).

(xx1) a. {H}
 [none]

- b. {HL}
 1. perfective (1Sg, 2Sg, 3Sg, 3Pl)
 2. reduction of {LHL} with prosodically light verbs
 - a. perfective (1Sg, 2Sg, 3Sg)
 - b. imperfective (3Sg)
 - c. perfective negative (3Pl)
 3. imperfective (3Pl)
 4. imperfective negative (1Pl, 2Pl, 3Pl)
- c. {LH}
 1. perfective negative (1Sg, 2Sg)
- d. {LHL}
 1. perfective (1Sg, 2Sg, 3Sg), also 3Pl if L-toned suffix is included
 2. imperfective (1Pl, 2Pl, 3Sg)
 3. perfective negative (3Pl)
 4. imperfective negative (3Pl), also 1Sg, 2Sg, 3Sg {LH-L} if L-toned suffix is included
 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. imperative (singular addressee)

3.6.2.2 Grammatical tones for noun stems

Lexical tone melodies are falling (including trisyllabic /LHL/), rising, and low (§3.xxx). 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 stem-wide tone overlay that erases lexical tone melodies. Morphophonological processes make reference both to input phonological form and, to varying extents, to morphological information, and generally have a more local effect such as a rightward shift or spread of a H-tone.

The major tonosyntactic processes affecting noun stems are those in (xx1). The choice between {HL} and L+{HL} overlays in (xx1a) is phonologically rather than syntactically determined. We can think of {HL} as the basic overlay

for possessed nouns, with L+{HL} analysed as {HL} plus an extra initial L dissimilating to a preceding H-tone.

- (xx1) 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. The L+{HL} version is realized as L.H.L.L on quadrisyllabics. The {LH} overlay is realized as L.L.H on trisyllabics. In each case, the H-tone appears on just one syllable.

The major morphophonological (as opposed to tonosyntactic) process affecting noun stems are Rightward H-Movement (§3.6.3.6) and Rightward H-Spreading (§3.6.3.9). Both affect {HL} sequences. For example, bisyllabic H.L syllable sequence becomes L.H by Rightward H-Movement, and H.H by Rightward H-Spreading. Nouns with lexical low melody have no H-tone that could move or spread, and such stems are therefore unaffected.

As an example of how the tones of a noun change in different positions, consider *póléngè* 'egg', a trisyllabic falling-melody noun.

- (xx2) Trisyllabic H-initial noun
- a. H.H.L
lexical
póléngè 'egg'
póléngè nɔ́ 'the egg'
before 1st/2nd person proclitic (requires final L-tone)
póléngè ñ sá:-ndà 'I do not have an egg'
- b. H.L.L
possessor-controlled {HL} overlay (possessor ends in L-tone)
séydù póléngè 'Seydou's egg'
ñ póléngè (nɔ́) 'my egg'
à póléngè (nɔ́) 'your-Sg egg'
- c. L.H.L
possessor-controlled L+{HL} overlay (possessor ends in H-tone)
íj póléngè (nɔ́) 'our egg'
á póléngè (nɔ́) 'your-Pl egg'

d. L.L.H

{LH} overlay before adjective or 3Sg possessor

<i>pòlèngé tò:lè</i>	'one egg'
<i>pòlèngé bigì</i>	'a big egg'
<i>pòlèngé-nà (nò)</i>	'his/her egg'

e. H.H.H

Rightward H-Spreading

<i>póléngé-gè</i>	'eggs'
<i>póléngé-gè nò</i>	'the eggs'
<i>póléngé sà:-ndà-Ø</i>	'he/she does not have an egg'
<i>póléngé-gé dè:gà</i>	'two eggs'

The lexical {HL} melody surfaces as syllable sequence H.H.L in isolation and before definite *nò* (xx2a). We get the same H.H.L before 1st/2nd person proclitics, which require final-tone L but otherwise preserve lexical tones. A preceding possessor controls {HL} tone realized as H.L.L (xx2b). A L.L.H sequence is the result either of a {LH} overlay or of Rightward H-Movement (xx2c). The {LH} overlay is applied to the plural noun including suffix *-gè* in (xx2d) only when it precedes the numeral '2', so the noun stem itself is L.L.L while *-gè* is raised to *-gé*.

We now consider a noun with other lexical tone melodies. Before a 1st/2nd person proclitic, rising-melody stems lower the tone of their final syllable, by Dissimilatory Tone-Lowerings (before H-toned 1Pl *íj* or 2Pl *á*) or by Assimilatory Tone-Lowering (before L-toned 1Sg *ìj* or 2Sg *à*). Monosyllabic falling-melody nouns like 'woman' are H-toned before L-toned 1Sg/2Sg proclitics, but drop to L-tone before H-toned 1Pl/2Pl proclitics.

(xx3) Before 1st/2nd person proclitic

gloss	lexical	before 1st/2nd proclitic
a. falling		
'egg'	<i>póléngè</i>	<i>póléngè</i>
'cat'	<i>jà:li</i>	<i>jà:li</i>
'woman'	<i>yó (yó:)</i>	<i>yó</i> (before L-toned <i>ìj, à</i>) <i>yò</i> (before H-toned <i>íj, á</i>)
b. rising		
'pond'	<i>fètó</i>	<i>fètò</i>
'yoke'	<i>gàndù:ré</i>	<i>gàndù:rè</i>
c. low		

'ear'	<i>sùgùlè</i>	<i>sùgùlè</i>
'horn'	<i>kèlè</i>	<i>kèlè</i>
'head'	<i>kò (kò:)</i>	<i>kò</i>

Preposed possessors (nonpronominal NPs, or 1st/2nd person proclitics) control {HL}, which erases lexical melodies.

(xx4) Possessor-controlled {HL} overlay

gloss	lexical	after possessor
a. falling		
'egg'	<i>póléngè</i>	<i>pólèngè</i>
'cat'	<i>ná:li</i>	<i>ná:li</i>
'woman'	<i>yó (yó:)</i>	<i>yó:</i>
b. rising		
'pond'	<i>fètó</i>	<i>fètò</i>
'yoke'	<i>gàndù:ré</i>	<i>gándùrè</i>
c. low		
'ear'	<i>sùgùlè</i>	<i>sùgùlé</i>
'horn'	<i>kèlè</i>	<i>kélè</i>
'head'	<i>kò (kò:)</i>	<i>kò:</i>

Tonosyllabic {LH} overlay is exemplified in (xx5). The final H-tone occurs with lexically low-melody nouns as well as with lexical falling and rising melodies. In other words, the overlay again erases lexical melodies.

(xx5) {LH} overlay

gloss	lexical	preadjectival	'his/her'
a. falling			
'egg'	<i>póléngè</i>	<i>pòlèngé</i>	<i>pòlèngé-nà</i>
'cat'	<i>ná:li</i>	<i>nà:lí</i>	<i>nà:lí-nà</i>
'woman'	<i>yó (yó:)</i>	<i>yó:</i>	<i>yó:-nà</i>
b. rising			
'pond'	<i>fètó</i>	<i>fètó</i>	<i>fètó-nà</i>
'yoke'	<i>gàndù:ré</i>	<i>gàndù:ré</i>	<i>gàndù:ré-nà</i>
c. low			
'ear'	<i>sùgùlè</i>	<i>sùgùlé</i>	<i>sùgùlé-nà</i>

'horn'	<i>kèlè</i>	<i>kèlé</i>	<i>kèlé-nà</i>
'head'	<i>kò (kò:)</i>	<i>kó:</i>	<i>kó:-nà</i>

Rightward H-Movement is illustrated in (xx6). The output mimics the {LH} overlay for nouns with falling and rising lexical melodies. However, low-melody nouns have no H-tone that can shift rightward, so they surface with {L} melody.

(xx6) Rightward H-Movement

gloss	lexical	plural	before <i>sà:-ndà</i> 'does not have'
a. falling			
'egg'	<i>póléngè</i>	<i>póléngé-gè</i>	<i>pòlèngé</i>
'cat'	<i>ná:li</i>	<i>ná:lí-gè</i>	<i>ná:lí</i>
'woman'	<i>yó (yó:)</i>	<i>yó:-gè</i>	<i>yó:</i>
b. rising			
'pond'	<i>fètó</i>	<i>fètó-gè</i>	<i>fètó</i>
'yoke'	<i>gàndù:ré</i>	<i>gàndù:ré-gè</i>	<i>gàndù:ré</i>
c. low			
'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 '2' are in (xx7). This numeral idiosyncratically controls H-tone on plural *-gè*, which appears as *-gé*. Otherwise the tone is the same as in the simple plural. Numerals from '3' up do not require H-tone on plural *-gè*.

(xx7) 'Two X's

gloss	lexical	plural	before <i>dè:gà</i> '2'
a. falling			
'egg'	<i>póléngè</i>	<i>pòlèngé-gè</i>	<i>pòlèngé-gé dè:gà</i>
'cat'	<i>ná:li</i>	<i>ná:lí-gè</i>	<i>ná:lí-gé dè:gà</i>
'woman'	<i>yó (yó:)</i>	<i>yó:-gè</i>	<i>yó:-gé dè:gà</i>
b. rising			
'pond'	<i>fètó</i>	<i>fètó-gè</i>	<i>fètó-gé dè:gà</i>
'yoke'	<i>gàndù:ré</i>	<i>gàndù:ré-gè</i>	<i>gàndù:ré-gé dè:gà</i>

c. low			
'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. a {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 (§6.2.1.3).

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}

To study how contour melodies are applied to stems and words, trisyllabic tonal domains provide the clearest data as to where the tone breaks occur.

Nouns have lexical tone melodies that include {HL} and {LH}. For these lexical melodies, the tone break is as close as possible to the right edge: *pólèngè* 'egg' (H.H.L syllable sequence), *bàndàgà:rí* 'cart poles' (L.L.L.H).

The {LH} overlay on a noun controlled by a following modifying adjective (§6.3.1) also has its tone break as close as possible to the right edge: *pòlèngé simà* 'a white egg' with L.L.H on the noun.

However, a possessor-controlled {HL} or L+{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: *ɲ pólèngè* 'my egg' (H.L.L), *ɲ pólèngè* 'our egg' (L.H.L), *ɲ bàndàgà:rì* 'our cart poles' (L.H.L.L). This suggests that the possessor-controlled overlay is structurally different from the usual {HL} tonosyntactic overlay.

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 a H.L syllable sequences (or <HL> for a monosyllabic). We cannot determine whether this is based on the left or right edge of the stem.

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

3.6.3.2 Final Tone-Raising (prepausal)

Definite *nò* is raised to H-toned *nó* after a lexically /L/-toned noun stem before a pause (xx1).

(xx1) Raising of *nò* to *nó* after {L}-toned word

a. raising prepausally after /L/

<i>sè: nó</i>	'the foot'
<i>?àllà nó</i>	'the pig'
<i>?òbò nó</i>	'the house'

b. no raising prepausally after word containing a H-tone

<i>sé: nò</i>	'the horse'
<i>pánàngè nò</i>	'the meal'
<i>gàndù:ré nò</i>	'the yoke'

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 a L-tone. (xx1) shows the preverbal environments where this raising happens.

(xx1) a. before L-toned imperfective reduplicant/iteration

Cv reduplicant (imperfective or stative)

<i>[?àllà nó] sò sò:ngà</i>	'He/She will bring the pig.'
<i>[?àllà nó] sò ñ sò:ngà</i>	'I will bring the pig.'
<i>[?àllà nó] sò ñ sò:ngà</i>	'We will bring the pig.'
<i>[?òbò nó] si simà</i>	'He will build the house.'
<i>[pánàngè nó] jù jà</i>	'He will eat the meal.'

full-stem iteration
 [ʔòbò nɔ́] simù lá = à simà 'Will you-Sg build the house?'

- b. before {L}-toned imperative or 3Sg subject verb form
 [ʔàllà nɔ́] sò:ngò 'Bring-2Sg the pig!'
 [ʔàllà nɔ́] sò:ngò:-li-Ø 'He/She didn't bring the pig.'

nò is tone-raised less consistently, and often partially, after nouns like *póléngè* 'egg' that end in a H.L syllable sequence.

- (xx2) a. before L-toned imperfective reduplicant/iteration
Cv- reduplicant
 [póléngè nɔ́] sò sò:ngà 'He/She will bring the egg.'
full-stem iteration
 [póléngè nɔ́] pòlù lá pòlà 'Will it lay the egg?'
- b. before {L}-toned stem
 [póléngè nɔ́] sò:ngò 'Bring-2Sg the egg!'

Nouns like 'saddle' with a final H-toned syllable also allow (inconsistent, partial) tone-raising of *nò* to (xx3).

- (xx3) a. isolation
 kirké nò 'the saddle'
- b. before {L}-toned stem
 kirké nɔ́ sò:ngò 'Bring-2Sg the saddle'
- c. before L-toned imperfective reduplicant
 [kirké nɔ́] sò sò:ngà 'He/She will bring the saddle'
 [kirké nɔ́] sò ì sò:ngà 'I will bring the saddle'

Final Tone-Raising arguably also applies to a number of verb-complex extras preceding 3Sg-subject verbs that have an initial L-tone. However, the optimal phonological analysis depends on the posited underlying tone melody of the affected word. In the cases of *ʔémbè*, *ʔémbà*, and the iterated stative, taking the underlying melody as {HL} is reasonable based on consideration of the respective full paradigms (see section references). 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 (xx4d-e), so an analysis with Final Tone-Raising is preferred at least for these cases.

- (xx4) a. progressive *ʔémbè* (§10.2.2.2)
ʔèmbé pàrà-gà-Ø 'He/She is cutting' (progressive)
- b. sequential *ʔémbà* 'then' (§15.2.2.1)
ʔèmbá pàrà-gè-Ø 'then he/she cut'
- c. iterated verb stem directly before stative (§10.4.1.2)
bì-yá bì-yà-Ø 'He/She is lying down'
- d. iterated verb stem directly before imperfective (§10.5.1.1, §13.1.6)
ʔènnú ʔènnà-Ø 'He/She is sweeping [focus].'
- e. iteration plus polar interrogative *lá* before imperfective (§10.2.2.1)
ʔègù lá ʔègà-Ø 'Will he/she come?'

Whatever the mechanism, the final H-tones in (xx4a-e) provide useful acoustic cues that help distinguish 3Sg from 3Pl subject forms. 3Pl subject forms begin with a H-tone and do not allow tone-raising on the final syllable of the preceding word.

Tone-raising is also observed on **plural -gè** before the only {L}-toned numeral *dè:gà* '2'. The combination is always heard as *-gé dè:gà*. A lexically /L/-toned noun like *ʔòbò* 'house' appears in this combination as *ʔòbò-gé dè:gà* 'two houses', showing that this is not Rightward H-Movement. The tone-raised plural *-gé* can follow another H-toned syllable, as in *póléngé-gé dè:gà* 'two eggs' (*póléngè* 'egg', plural *póléngé-gé* after Rightward H-Spreading).

3.6.3.4 Dissimilatory Tone-Lowering (before H-tone)

A nonmonosyllabic noun ending in L.H syllable sequence lowers its final H-tone to low **before a H-toned subject proclitic** (1Pl *íj*, 2Pl *á*), and in the absence of such a proclitic **before a H-toned verb**. I distinguish this Dissimilatory Tone-Lowering from another tone-lowering process that applies before 1Sg *íj* and 2Sg *á* but not before other L-toned words. Both tone-lowering rules have the effect of neutralizing the distinction between lexical /LH/ and lexical /L/ melodies.

Examples with lexically /LH/-toned *fètó* 'pond' and *gàndù:ré* 'yoke' are in (xx1).

- (xx1) a. *fètó* *íj* *tègè*
 pond 1PlS see.Perf
 'We saw a pond.'

- b. *gàndù:rè* *ɲ* *tègè*
 yoke 1SgS see.Perf
 'We saw a yoke.'

A monosyllabic noun of lexical /HL/ tone, like *sé* (definite *sê: nɔ*) 'horse', does not lower its tone.

- (xx2) *sé* *ɲ* *tègè*
 horse 1PlS see.Perf
 'Wesaw a horse.'

Dissimilatory Tone-Lowering applies to the preverbal particles *ʔémbè* (progressive, §10.2.2.2) and *ʔémbà* (sequential, §15.2.2.1) before 1Pl *ɲ* and 2Pl *á*. The outputs are *ʔèmbè* and *ʔèmbà*, with the initial H-tone lowered.

Dissimilatory Tone-Lowering also applies to {LH}-toned nouns directly **before a verb beginning with a H-tone**, i.e. in clauses with other than a 1st/2nd person subject. For example, *gɔ́jé* 'board game' keeps its {LH} melody in (xx3a) before a {L}-toned perfective negative 3Sg subject verb, but drops to {L} before the initial H-tone of the verb in (xx3b).

- (xx3) a. *gɔ́jé* *kàná:-li-Ø*
 board.game do-PerfNeg-3SgS
 'He/She didn't play the board game.'
- b. *gɔ́jè* *káni-Ø*
 board.game do.Perf-3SgS
 'He/She played the board game'

3.6.3.5 Assimilatory Tone-Lowering (before 1Sg/2Sg proclitic)

The final H-toned syllable of a lexically /LH/-toned noun is lowered to L-tone before 1Sg *ɲ* and 2Sg *á* subject proclitics.

- (xx1) a. *fētò* *ɲ* *tégè*
 pond 1SgS see.Perf
 'I saw a pond.'
- b. *gàndù:rè* *ɲ* *tégè*
 yoke 1SgS see.Perf
 'I saw a yoke.'

Since this tone-lowering does not apply when the noun is directly followed by a {L}-toned verb, I conclude that it is specific to 1Sg/2Sg proclitics, which co-syllabify with the preceding syllable.

Assimilatory Tone-Lowering does not apply to monosyllabic nouns (xx2).

(xx2) *sé* *ij* *tégè*
horse 1SgS see.Perf
'I saw a horse.'

3.6.3.6 Rightward H-Movement

Rightward H-Movement most obviously affects nouns with lexical falling /HL/ melody. The H-tone slides to the final syllable of the tonal domain (often the stem).

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 *márfā* 'musket' in *màrfá-pùnà* 'gunpowder', where it appears with {LH} melody. The following compound final appears with {L} overlay if prosodically light (as here), or with {LHL} melody if prosodically heavy, as in *màrfā-sùgùlè* 'cock (of musket)', literally "musket-ear." This is the regular tonal treatment of possessed nouns following a possessor that ends in a 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:rè* 'yoke' in *gàndù:rè-sìngì* '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 (xx1) recognizes that the shift occurs only in quasi-possessive compounds, and assumes that the basic tone overlay for compound finals is {HL}, becoming L+{HL} after a (quasi-possessor) initial that ends in a H-tone.

(xx1) Rightward H-Movement (quasi-possessive compounds)

a. nonmonosyllabic target
{HL} {HL} → [...L.H] L+{HL}

$$\begin{array}{l} \{LH\} \{HL\} \quad \rightarrow \quad [\dots L.L] \{HL\} \\ \text{b. monosyllabic target} \\ \{HL\} \{HL\} \quad \rightarrow \quad [H] L+\{HL\} \end{array}$$

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

A case can be made for Rightward H-Movement in some **nonfinal elements in verb complexes**. The elements in question are progressive *?émbè*, sequential *?émbà* 'then', full-stem iterations (with *u* replacing the final vowel) in some imperfective constructions. However, the underlying tone melodies are not completely transparent so the analysis is not certain.

Progressive *?émbè* precedes an imperfective-like verb (A-stem). The surface forms are *?émbè* before 1Sg *ɲ* and 2Sg *à* and before a verb with initial H-tone (3Pl subject), *?èmbè* before 1Pl *ɲ* and 2Pl *á*, and *?èmbé* before a verb with initial L-tone (3Sg subject). If *?èmbè* is ascribed to Dissimilatory Tone-Lowering, the best candidate for lexical representation is *?émbè*. In this case, *?èmbé* before L-toned verb onset must be attributed to Rightward H-Movement. For full progressive paradigms, see §10.2.2.2.

The tone melodies for sequential *?émbà* are exactly the same, see §15.2.2.1. Whatever analysis is accepted for *?émbè* will also apply to *?émbà*.

If this is accepted, one might further extend it to imperfective and stative verb complexes with an **iterated verb** followed by a 3Sg subject verb. For the regular (nonpast) imperfective, full-stem iterations (with the U-stem) occur in focalized-predicate clauses (§13.1.6) and in polar interrogatives with *là* (§13.2.1.1). The same full-stem iteration also occurs in the past imperfective, where clitic *mbè* follows the main verb (§10.5.1.1). Another full-stem iteration occurs in statives (§10.4.1.2). The combinations that are the best candidates for Rightward H-Movement are those where the iterated verb is followed by a 3Sg subject verb, with or without intervening interrogative *là*.

- (xx2) a. *ɲènnú* *ɲènnà-Ø*
 Iter sweep-3SgS
 'He/She is sweeping [focus].'
- b. *?ègù* *lá* *?ègà-Ø*
 Rdp Q come.Impf-3SgS
 'Will he/she come?'
- c. *ɲènnú* *ɲènná:-Ø* *mbè*
 Iter sweep.Impf-3SgS Past
 'He/She was sweeping (used to sweep).'

- d. *bì-yá* *bì-yà-Ø*
 Iter lie.down-MP-3SgS
 'He/She is lying down.'

This analysis works for the statives, where the iteration has an initial H-tone in the 3Pl, 1Sg, and 2Sg forms, e.g. *bí-yà bí-yà* 'they are lying down'; see §10.4.1.2. However, in the imperfectives, we get forms like 3Pl *?ègù là ?égà* 'Will they come?', with no sign of a H-tone on the iteration; see §13.2.1.1.

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

As noted in the preceding section, when a compound initial ends up with a H-tone on its final syllable, the compound final changes from {HL} to {LHL} overlay. Assuming that {HL} is basic, the {LHL} variant can be represented as L+{HL}. In the case of quasi-possessive compounds, where the shift is from [... HL] [HL] 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 {LHL} output is found with possessed nouns when preceded by a possessor that ends in a H-tone, e.g. 1Pl *ǰ*. For these possessors, there is no direct evidence for a final L-tone component, i.e. for an underlying falling tone, as in 1Sg /ǰ/. So the {LHL} 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 a H-tone.

(xx1) Initial Tone-Dissimilation (compounds, possessives)

{...H} {HL} → {...H} {LHL}

A version of this tone-dissimilation also occurs at the onset of verbs after 1Pl *ǰ* and 2Pl *á* subject proclitics. However, when an otherwise {HL}-toned verb is preceded by one of these proclitics, the output is either {LHL} as with the compounds, or just {L}, depending on the inflectional category (see §10.3.3 for a summary).

3.6.3.8 {LH} tonosyntactic overlay

A tonosyntactic {LH} overlay, or another morphophonological process that has the same effect, applies to nouns followed by a modifying adjective (but not by a numeral) and by a few other elements (xx1). The H-tone occurs on the final syllable; preceding syllables are L-toned. Monosyllabic nouns are H-toned.

- (xx1) noun plus ...
 modifying adjective (§6.3.1)
 3Sg possessor suffix *-nà* (§6.2.1.1)
 'it is not' clitic (§11.2.1.2)
- verb plus ...
 clause-final interrogative *yà* (§13.2.1.3)

In (xx2), 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.

- (xx2) 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 lexically /L/- and /HL/-melody stems appear with {LH} melody (reduced to {H} for monosyllabics) rather than {L} surface melody. For example, in (xx3), 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.

(xx2)	noun	gloss	'a big __'
	<i>póléngè</i>	'egg'	<i>pòlèngé bìgì</i>
	<i>kèlè</i>	'horn'	<i>kèlé bìgì</i>

The {LH} overlay could in theory be decomposed into a {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 a {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} LAdj as in Bunoge.

Synchronically, under this analysis the derivation of *pòlèngé bìgì* in (xx2) above would be (xx3).

- (xx3) *póléngé bìgì* input
pòlèngé^L bìgì tonosyntactic {L} overlay on the noun
pòlèngé^{L+H} bìgì H-tone shifts leftward

However, there is no independent evidence for a H-tone on 3Sg possessor suffix *-nà*, on *=là* 'it is not', or on the interrogative particle that could shift leftward onto the final syllable of the noun. There is also no parallel for a {L} overlay on verbs before the interrogative particle. More significantly, leftward shifting of tone components is not otherwise clearly attested in Bunoge, so positing such a process. I therefore prefer the more direct and simpler tonosyntactic analysis.

There is also one difference in the mechanics of the {LH} overlays among the different morphosyntactic environments. Monosyllabic stems and trisyllabic and longer stems have the same outputs. Even for bisyllabics, lexically /HL/- and /LH/-toned stems have the same outputs. However, bisyllabic lexically /L/-toned noun stems appear as L.H syllable sequences before adjectives, but as H.H sequences before 3Sg possessor *-nà*. For example, *tònì* 'mouth' is L.H in *tóní bìgì* 'big mouth', but H.H in *tóní-nà* 'his/her mouth'.

3.6.3.9 Rightward H-Spreading

Rightward H-Spreading, as the name suggests, spreads (rather than shifts) a H-tone onto a following L-toned syllable. Whereas Rightward H-Movement converts H.L#H.L to L.H#L.H.L, Rightward H-Spreading converts H.L#L to H.H#L (here # represents some boundary). In both processes, {L}-toned inputs are unaffected; this distinguishes both of them from the {LH} overlay.

- (xx1) Rightward H-Spreading

a. nonmonosyllabic target

[... H.L] [L ...] → [...H.H] [L ...]
 b. monosyllabic target
 [H(L)] L → [H] [L ...]

Rightward H-Spreading applies broadly to nouns when **followed by a {L}-toned** word or by a syllabic L-toned suffix or clitic, provided that Rightward H-Movement has not already shifted the H-tone. Spreading does not occur before 1Sg *ŋ* or 2Sg *à* subject proclitics, which co-syllabify with the final syllable of the preceding word and induce Assimilatory Tone-Lowering if that syllable is H-toned and noninitial in its word (§3.6.3.4).

The low-toned elements that permit Rightward H-Spreading on the preceding word are listed in (xx2).

- (xx2) 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)
 reduplicant of imperfective verb (§10.2.2.1)
 adjective after 3Sg possessor in bahuvrihi compound (§5.2.1.1)
yà 'and' in nonfinal conjunct (§7.1.1)
 existential *bò* (before statives) (§11.2.2.1)
?èmbè in progressive construction (§10.2.2.2)

postpositions

ndò (see data below but also...)
[X dólóngù] ndò 'inside X' (§8.2.4)
[X géndè] ndò 'in front of X' (§8.2.7)
[X púmbù] ndò 'behind X' (§8.2.8)
?èbégè ndò 'with what?' (§13.2.2.2)
 NP (e.g. object NP after subject noun)

Plural *-gè* on nouns, and the same nouns before a representative **3Sg subject L-initial verb form** ('he/she does not have X') and before an **imperative** verb, are illustrated in (xx3).

(xx3)	gloss	X	X-plural	'he/she does not have X'	'Bring X!'
	a. lexical falling melody				
	'horse'	<i>sé (sé:)</i>	<i>sé:-gè</i>	<i>sé: sà:-ndà</i>	<i>sé: sò:ngò</i>
	'cat'	<i>ná:lì</i>	<i>ná:lí-gè</i>	<i>ná:lí sà:-ndà</i>	<i>ná:lí sò:ngò</i>

'egg' *póléngè póléngé-gè póléngé sà:-ndà póléngé sò:ngò*

b. lexical rising melody

'pond' *fētó fētó-gè fētó sà:-ndà fētó sò:ngò*
 'yoke' *gàndù:ré gàndù:ré-gè gàndù:ré sà:-ndà gàndù:ré sò:ngò*

c. lexical low melody

'foot' *sè: sè:-gè sè: sà:-ndà-∅ sè: sò:ngò*
 'horn' *kèlè kèlè-gè kèlè sà:-ndà-∅ kèlè sò:ngò*
 'ear' *sùgùlè sùgùlè-gè sùgùlè sà:-ndà-∅ sùgùlè sò:ngò*

Another context for Rightward H-Spreading is before a **L-toned reduplicant** in the imperfective. In (xx4), *námà* 'meat' shifts its H-tone to the final syllable, but /L/-toned *sùgùlè* 'ear' does not acquire a H-tone.

(xx4) *námá / sùgùlè* *tà = à* *tègà*
 meat / ear Rdp=2SgS see.Impf
 'You-Sg will see meat / an ear.' (*námà, sùgùlè*)

For **bahuvrihis**, see *gìré-nà* 'his/her eye(s)' becoming bahuvrihi *gìré-ná-pèmbè* 'one-eye (one-eyed person)' in §5.2.2.1.

Conjunction *yà* 'and' (§7.1.1) induces Rightward H-Spreading for {HL}-toned nouns: *?álámà* 'sheep', *?álámá yà* 'sheep and ...'.

Existential proclitic *bò* allows Rightward H-Spreading in at least some combinations.

(xx5) gloss X 'X is lying down'

a. lexical falling melody /(L)HL/

'horse' *sé (sé:)* *sé: bò bì-yà*
 'cat' *jà:lì* *jà:lì bò bì-yà*
 'egg' *póléngè* *póléngé bò bì-yà*

b. lexical rising melody /LH/

'pond' *fētó* *fētó bò bì-yà*
 'yoke' *gàndù:ré* *gàndù:ré bò bì-yà*

c. lexical low melody /L/

'foot' *sè:* *sè: bò bì-yà*
 'horn' *kèlè* *kèlè bò bì-yà*
 'ear' *sùgùlè* *sùgùlè bò bì-yà*

Examples involving preverbal particle *?émbè*, specifically in its {L}-toned form before 1Pl (or 2Pl) subject proclitic, are in (xx6). *námà* 'meat' spreads to *námá*, while /L/-toned *?àllà* remains {L}-toned.

- (xx6) a. /HL/ to H.H before *?émbè*
námá ?émbè ñ tèmà 'We are eating meat'
- b. /L/ unaffected before *?émbè*
?àllà ?émbè ñ tèmà 'We are eating a pig'

Rightward H-Spreading can apply recursively. For example, when the process has applied in a plural noun with suffix *-gè*, adding a postposition or the conjunction *yà* 'and' requires (or at least has the same effect as) recursive spreading. Thus *?áلامà* 'sheep', plural *?áلامá-gè*, conjoined *?áلامá-gé yà*.

Rightward H-Spreading does not occur before 1Sg proclitic *ñ* or 2Sg proclitic *à*. These morphemes syllabify with the preceding syllable, and require that it be L-toned: *námà ñ témè* 'I ate meat'.

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 falling <HL> or rising <LH>.

First, monosyllabic nouns belonging to the falling-melody lexical type appear in the form *Cv̄* in isolation but *Cv̄*: before definite *nò*, hence *sé* 'horse', *sè: nò* 'the horse'. On the face of it, the vowel is lengthened to accommodate a falling tone but not a flat H-tone. However, since monosyllabic nouns with /L/ melody have long vowels (*sè:* 'foot'), it is more reasonable to take *sè:* 'horse' as basic and derive *sé* by shortening the vowel (and flattening the tone).

Second, *Cv̄yv* and *Cv̄vv* verbs, and one *Cv̄lv* verb, lengthen the first vowel in certain inflections, namely the imperative, perfective (positive), and imperfective (positive), but not e.g. the perfective negative. Here too one could argue that the "lengthened" form is now lexically basic, in which case the remaining forms require a shortening rule. For more details see §10.1.3.7-8.

(xx1) gloss	Imprt	Perf 3Sg	Impf 3Sg	PerfNeg 3Sg
'sleep'	<i>dò:yò</i>	<i>dó:yè-Ø</i>	<i>dò-dò:yà-Ø</i>	<i>dóyó:-li</i>
'kill'	<i>gè:wà</i>	<i>gé:wè-Ø</i>	<i>gè-gè:wà-Ø</i>	<i>gévá:-li</i>

'harvest'	<i>gi:wò</i>	<i>gi:wè-∅</i>	<i>gi-gí:wà-∅</i>	<i>gíwá:-li</i>
'get'	—	<i>bé:lè</i>	<i>bè-bě:là-∅</i>	<i>bélá:-li</i>

3.6.4.2 Stranded-Tone Re-Linking

If the vowel to which a tone was attached has disappeared due to Syncope or Apocope, the tone is reattached to the preceding syllable. Thus $C\check{v}C\check{v}C\check{v} \rightarrow C\check{v}CC\check{v}$, with bimoraic rising-toned initial syllable. An example is *kǎl-lǎ* 'he/she does not do', syncopated from *kǎnú-lǎ*.

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 $C\check{v}$ syllable.

Monosyllabic nouns belonging to the falling-melody lexical type appear in the form $C\check{v}$ in isolation, but have falling tone in definite $C\check{v}: n\grave{o}$. An example is *sé* 'horse', definite *sé: nò* 'the horse' (§3.xxx). Since bisyllabic and longer stems can have falling $/(L)HL/$ but not flat $/H/$ melody, I take nouns like 'horse' to be lexically $/HL/$. To get from $/s\grave{e}:/$ to the isolation form *sé* requires vowel-shortening, followed by flattening of $\langle HL \rangle$ to H-tone.

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. *-ŋge*) 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: falling, rising, and low, as summarized in (xx1). Slashes /.../ enclose lexical tone-melody representations. <HL> and (in theory) <LH> are contour tones on single syllables. Periods separate syllables in e.g. L.H.L.

(xx1)	monosyllabic	bisyllabic	trisyllabic and longer
a. falling /<L>HL/ <HL> ~ H		H.L	L.H.L
b. rising /LH/ (none)		L.H (rare)	L.L.H
c. low /L/ L		L.L	L.L.L

Most mono- and bisyllabic stems are lexically falling or low, though there are a few bisyllabic rising stems. Trisyllabic and longer stems are well represented in

all three tone classes, with rising 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 to *nɔ́* after mono- and bisyllabic /L/-toned nouns (xx2c).

(xx2)	noun (definite)	gloss
	a. falling	
	<i>pòléŋgè nɔ̀</i>	'the egg'
	<i>ná:lì nɔ̀</i>	'the cat'
	<i>yɔ́: nɔ̀</i>	'the woman'
	b. rising	
	<i>fētɔ́ nɔ̀</i>	'the pond'
	<i>gàndù:ré nɔ̀</i>	'the yoke'
	c. low	
	<i>sùgùlè nɔ̀</i>	'the ear'
	<i>kêlè nɔ́</i>	'the horn'
	<i>kò: nɔ́</i>	'the head'

For more detail and analysis, see §3.6.1.3.

4.1.1.2 Plural *-gè* (*-ŋgè*)

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. (xx2) shows *-gè* added directly to nouns of various tone-classes. In this context, *-gè* is always L-toned; for H-toned *-gè* before the numeral '2' see §xxx. The only tonal changes on nouns before *-gè* are in the falling tone-class (xx2a), where the H-tone spreads to the syllable before *-gè*, see Rightward H-Spreading (§3.xxx). Specifically, H.H.L becomes H.H.H-*gè*, H.L becomes H.H-*gè*, and <HL> becomes H-*gè*.

(xx2)	noun	plural	gloss
	a. falling /L)HL/ (the H-tone slides to the stem-final syllable)		
	<i>póléŋgè</i>	<i>póléŋgè-gè</i>	'egg'
	<i>ná:lì</i>	<i>ná:lì-gè</i>	'cat'
	<i>yɔ́:</i>	<i>yɔ́:-gè</i>	'woman'

b. rising /LH/			
<i>fètó</i>	<i>fètó-gè</i>		'pond'
<i>gàndù.ré</i>	<i>gàndù.ré-gè</i>		'yoke'
c. low /L/			
<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, prosodically light /L/-toned stems remain distinct from corresponding falling-toned stems: *sé:-gè* 'horses' versus *sè:-gè* 'feet'.

A nasal variant *-ngè* (see §3.4.1.3) occurs in plural *wé:-ngè* ~ *wé:-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 *-ngè* in instrument nominals (§4.2.3) 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. The exception is *tílingè* 'medicine' (xx1c), which may have originated as a variant of *tílingè* 'tree' (§3.3).

(xx1)	Sg	Pl	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>pánángè</i>	<i>pánángè-gè</i>	'meal'
	<i>tébéngè</i>	<i>tébéngè-gè</i>	'ladle'
	<i>tílingè</i>	<i>tílingè-gè</i>	'tree'
	<i>tílingè</i>	<i>tílingè-gè</i>	'neighborhood'
	<i>marginally segmentable</i>		
	<i>dó:ngè</i>	—	'(act of) pounding (in mortar)', with verb <i>dé:</i>

<i>ʔèmènggè</i>	—	'milk', cf. verb <i>ʔémè</i> 'milk (a cow)'
<i>ʔí:nggè</i>	—	'height', see §4.2.6
<i>kélénggè</i>	<i>kélénggè-gè</i>	'marriage', verb <i>kéldè</i> 'perform (marriage)'
<i>kòlènggè</i>	<i>kòlènggè-gè</i>	'boundary (of field)'
<i>pólénggè</i>	<i>pólénggè-gè</i>	'egg', cf. <i>pólè</i> 'lay (egg)'
<i>sé:nggè</i>	<i>sé:nggè-gè</i>	'millet or sorghum'
<i>pùnànggè</i>	—	'powder, flour', cf. <i>-pùnà</i> as compound final
b. <i>-gè</i>		
<i>unsegmentable</i>		
<i>ʔámngè</i>	—	'seedstock'
<i>ʔèndègè</i>	—	'rice'
<i>páligè</i>	—	'sesame'
<i>sólágè</i>	—	'roselle'
<i>sóggè</i>	<i>sóggè-gè</i>	'clothing'
<i>yèlègè</i>	<i>yèlègè-gè</i>	'trash, refuse'
<i>marginally segmentable</i>		
<i>mèrègè</i>	<i>mèrègè-gè</i>	'fun', with verb <i>méralè</i>
c. <i>-nggè</i>		
<i>unsegmentable</i>		
<i>tílinggè</i>	<i>tílinggè-gè</i>	'medicine (medication)'

tàndànggè 'twin(s)' may belong in (xx1a), but the ending could also be taken as plural.

ʔáŋkóngò 'sky' is a possible vestige of **-nggo*, if derived from 'God(s)-head', like more transparent 'sky' terms in other western Dogon languages. Cf. *ʔàmànàngà* 'God' (cognates like Jamsay *ámà* in eastern Dogon), *kò*: 'head'.

There are a few nouns that appear to preserve an ending *-gù* ~ *-ngù* (xx2).

(xx2)	noun	gloss	comment or related form
	<i>dilà-gù</i>	'barter, exchange'	<i>díla</i> 'be equal'
	<i>nùmé-gù</i>	'handful'	plural <i>nùmé-[gù:-gè]</i> ; <i>númè</i> 'hand'
	<i>yà:gù</i>	'yesterday'	cognates: Jamsay <i>yá</i> : etc.
	<i>X dòlóngù</i>	'inside X' (§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 (xx1), in singular form then with plural *-gè* or variant.

(xx1)	Sg	Pl	gloss
a.	<i>sójò</i>	<i>sòjò-gè</i>	'person'
	<i>nólò</i>	<i>nòlò-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:-ngè nò</i>	'thing'

The human nouns in (xx1a) are regular in form and are compatible with the dominant lexically /HL/ nominal type.

Forms of 'child', 'woman', and 'man' as compound initials or finals are covered in Chapter 5.

4.1.3 *ʔòbò* 'house'

ʔòbò 'house' combines with adjectives in a phonologically regular manner in its focal sense denoting a construction: *ʔòbó^{LH} Lbâyⁿ* '(a) big house'. However, the same input lexical items also have a contracted form *ʔòbó^{LH} Lbâyⁿ* meaning 'a big household' (i.e. lots of people in one house).

The high-frequency combination of *ʔòbò* with locative *mbà* is likewise contracted: *ʔó: mbà* 'at/to the house, (at) home'. As noted in §8.2.3.1, *mbà* itself likely contains a 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 (xx1) have *CvN-Cv(:)N(C)v* shapes with *N* a nasal.

(xx1)	a. L-toned reduplicant	
	<i>{HL}-toned base</i>	
	<i>dàn-dángà-bè</i>	'paper wasp' (for <i>-bè</i> see §5.xxx)
	<i>kàŋ-ká:mbè</i>	'pied crow'
	<i>pòm-pó:mbè</i>	'shrub sp. (<i>Calotropis</i>)'
	<i>sòn-sónì</i>	'saliva' or 'biting ant'
	<i>{L}-toned base</i>	

<i>tùn-tùṅgè</i>	'stool'
b. H-toned reduplicant {LHL}-toned base	
<i>kúṅ-kũmbè</i>	'agama lizard'
<i>sín-sí:njà</i>	'swift (bird)'

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

(xx2)	noun	'my __'	'our __'	gloss
a.	<i>sòn-sónì</i>	<i>ḡ sòn-sónì</i>	<i>ḡ sòn-sónì</i>	'saliva' or 'biting ant'
b.	<i>tùn-tùṅgè</i>	<i>ḡ tùn-tùṅgè</i>	<i>ḡ tùn-tùṅgè</i>	'stool'

In the case of *sín-sí:njà* 'swift (bird)', an alternative analysis is that *sín-* is an independent compound initial. This analysis is (shakily) supported by the fact that *sín-* also occurs in one other bird name, *sín-sǎ:lè* 'firefinch'.

The compound *tów-tów-wǎ* '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 *tów* which occurs in the noun-verb cognate collocation *tów tǎ:wè* 'slash earth (with pick-hoe, to plant seeds)'. In fact, *tów-tów-wǎ* 'pick-hoe' belongs to the instrumental compound type with suffix *-yǎ ~ -yǎ* (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. Aside from bisyllabic *fú-fú* 'scrubber' and the onomatopoeic *dú:-dù* 'coucal (bird)', for both of which it is difficult to distinguish (apparent) monosyllabic reduplication from (apparent) full-stem iteration, I can cite *gó-górò* 'padlock' (a regionally widespread word), *bǎ-bǎlǎ* 'tree sp. (*Anogeissus*)', and *dù-dùggè* 'gecko lizard'.

Noun *déné-nè* 'fatigue' is derived from verb *dénè* '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 *bǎnǎnǎ* '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. Bisyllabic examples are in (xx1). They show various tone melodies.

(xx1)	{LH}-{L}		
	<i>dègè-dègè</i>	'statuette'	
	<i>kàjɔ-kàjɔ</i>	'gravel'	
	<i>kèjé-kèjè</i>	'mastoid process (bone behind ear)'	
	<i>nòmú-nòmù</i>	'scorpion'	
	<i>ʔɔlɔ-ʔɔlɔ</i>	'throat'	
	<i>ʔòlò-ʔòlò</i>	'tree snake'	
	<i>yà:lá-yà:là</i>	'wind scorpion'	
	{L}-{LH}		
	<i>pùsù-pùsú</i>	'lungs'	
	{L}-{HL}		
	<i>gǐjì-gǐjì</i>	'bat (mammal)'	
	<i>pírì-pírì</i>	'winged termite'	
	{HL}-{HL}		
	<i>gúnù-gúnù</i>	'mini-granary (in a house)'	
	<i>píni-píni</i>	'stomach'	
	{L}-{L}		
	<i>kùbù-kùbù</i>	'machete blade' (Fr. <i>coupe-coupe</i>)	
	<i>ʔùlè-ʔùlè</i>	'skink lizard'	

Iterated stems that also include a nasal linker, cf. §5.1.11, are in (xx2).

(xx2)	{LH}-N-{L}		
	<i>kùlè-ŋ-kùlè</i>	'dust'	
	<i>gòlò-ŋ-gòlò</i>	'stirring stick'	
	{H}-N-{HL}		
	<i>kúná-ŋ-kúná</i>	'fog'	
	<i>kùnè-ŋ-kùnè</i>	'laughing dove'	

I know of one iterated stem with **trisyllabic** base. It has {L}-{HL} melody, with just one syllable H-toned: *kèbèlè-kèbèlè* '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. Examples are in (xx1).

(xx1)	noun	gloss	characteristic	gloss
	<i>kùlê</i>	'hair'	<i>kùlê-gà</i>	'hairy' or 'bearded'
	<i>dòlê</i>	'belly'	<i>dòlê-gà</i>	'pregnant'
	<i>kúlù</i>	'hump'	<i>kúlù-gà</i>	'hunchback(ed)'
	<i>ʔúrù</i>	'disease'	<i>ʔúrù-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} tone melody of adjectives is applied: *sòjò kùlê-gà* 'a hairy (or bearded) person', *sòjò kúlù-gà* 'hunchback', *yó: dòlê-gà* 'a pregnant woman', *tùmá kò:-gà* 'staff (stick) with knobbed end'.

nùmá-gà 'left hand', cf. *númê* '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 ɔ u*}, i.e. *o* or *ɔ* depending on ATR-harmonic class for final-nonhigh-vowel verbs and *u* for final-high-vowel verbs (§3.3.6). The stem has {LH} melody, reduced to H-tone for monosyllabic stems.

(xx1)	verb	verbal noun	gloss
a. monosyllabic			
	<i>nê:</i>	<i>nó:-nà</i>	'drink'
	<i>jê:</i>	<i>jó:-nà</i>	'eat (a meal)'
	<i>gê:</i>	<i>gó:-nà</i>	'go out' (variant)
	<i>ɲî:</i>	<i>ɲú:-nà</i>	'draw water'
b. bisyllabic			
	<i>témê</i>	<i>témɔ-nà</i>	'eat (meat)'
	<i>sójê</i>	<i>sójɔ-nà</i>	'tie'

<i>ʔij-jè</i>	<i>ʔij-jɔ̀-nà</i>	'stop'
<i>ɲěnnè</i>	<i>ɲěnnɔ̀-nà</i>	'sweep'
<i>jɔ̀ngè</i>	<i>jɔ̀ngɔ̀-nà</i>	'treat (medically)'
<i>dɔ̀ngè</i>	<i>dɔ̀ngɔ̀-nà</i>	'throw'
+ATR		
<i>ʔégè</i>	<i>ʔègɔ̀-nà</i>	'come'
<i>sígè</i>	<i>sígɔ̀-nà</i>	'go down'
<i>tábè</i>	<i>tàbɔ̀-nà</i>	'give'
<i>káni</i>	<i>kǎn-nà</i>	'do' (syncopated)

c. trisyllabic

<i>dùnjúré</i>	<i>dùnjúró-nà</i>	'push'
<i>gòngó-mì</i>	<i>gòngó-m-nà</i>	'taking out' (syncopated)

d. causative

<i>gúndúló-mì</i>	<i>gùndùlò-mú-nà</i>	'roll (sth) along'
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For *gé:ndè* 'go', the verbal noun is *gě:n-nà* with the medial syllable truncated.

The verbal noun suffix *-nà* should not be confused with 3Sg possessor suffix *-nà* on noun stems (§6.xxx).

In addition to this productive verbal noun, many verbs have a phonologically related cognate nominal or other lexicalized nominal counterpart. For example, *dóróngè* '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.xxx. This section describes various uncompounded derived nominals.

4.2.3.1 Instrument nominals with suffix *-ngè* or *-ngà*

A few nouns denoting instruments associated with a recurrent action are derived by adding *-ngè* (*-gè* after a nasal) or *-ngà* to the verb. The first suffix is heard as *-gè* after another nasal.

(xx1)	verb	gloss	nominal	gloss
	<i>ʔébè</i>	'sit'	<i>ʔébu-ngè</i>	'seat, place to sit'
	<i>ɲěnnè</i>	'sweep'	<i>ɲéni-ngà</i>	'broom'
	<i>ɲám-bè</i>	'cover (sb)'	<i>ɲám-gè</i>	'blanket'

-ŋgè is also a frozen inanimate suffix found on several nouns, see §4.xxx.

4.2.3.2 Nominals with final *u* or *y*

Cognate nominals related to verbs often end in *u* (§11.1.2.4). In a few cases, similar nouns are used primarily to denote instruments or products.

(xx1)	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 *düy* 'load (carried on the head or on a platform)', cf. verb *dú-yyè* 'carry (on head or platform)' may belong here.

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

Most instrument nominals with *-yò* ~ *-yò* 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

I know of two clear cases not involving a compound initial (xx1).

(xx1)	noun	gloss	verb	gloss
	<i>déb-bò</i>	'carrying strap'	<i>débè</i>	'hold, cling'
	<i>nár-yò</i>	'stirring stick'	<i>náryè</i>	'stir (with stirring stick)'

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*, *-ŋgà*, *-y*)

I can cite the examples in (xx1) of derived nominals denoting humans, with a more or less agentive flavor. They are not all deverbal, and some are made predicative by adding *káni* 'do' as auxiliary. Suffixes *-ŋgà* and *-ndè* are not otherwise attested, and segmentation of 'hunter' is obscure.

(xx1)	agentive	gloss	related form	gloss
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- a. *-ndè*
kámgá-ndè 'thief' *kámgà káni* 'commit theft'
díwá-ndè 'coward' *dí:wê* 'be afraid', noun *díwò* 'fear'
kó:njí-ndè 'lazy one' *kó:njà* 'laziness'
tálágá-ndè 'pauper' *tálágá-gè* plural ('paupers')
- b. *-ngà*
kónú-ngà 'sorcerer' *kònú káni* 'cast spells'
- c. *-y*
dá:nâ:-y 'hunter' *dâ:nâmâ* 'hunting(n)'

Most agentives are compounds with incorporated object noun, with *-bò* suffix, see §5.1.5.

4.2.5 Deadjectival extent nominals

Nouns denoting measurable dimensions related to adjectives are in (xx1).

(xx1) Extent nominals

noun	gloss	related adjective
a. from <i>CvCv</i> or <i>CvC</i>		
<i>gólà</i>	'length'	<i>gòlò</i> 'long'
<i>bájpà</i>	'size, dimensions'	<i>bâyⁿ</i> 'big'
b. from <i>CvCCv</i>		
<i>final vowel shifts to a</i>		
<i>gím̀bà</i>	'depth'	<i>gìmbò</i> 'deep'
<i>nínj̀à</i>	'weight'	<i>nìnjì</i> 'heavy'
<i>final vowel of adjective is already a</i>		
<i>bàmb̀à</i>	'width'	<i>bàmbà</i> 'wide'
c. suppletive		
<i>ʔi:ng̀è</i>	'height'	(cf. <i>gòlò</i> 'long, tall')

The nouns in (xx1ab) 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 *jj* in (xx1a), 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. *ʔi:ng̀è*

'height' is historically related to *ʔfj-yè* 'stand, stop', stative *ʔigà*, cf. English *stature* or (noun) *standing*.

These extent nominals are typically possessed: *bàmbá-nà* 'its width', *gìmbá-nà* 'its depth'.

4.2.6 Other nominalizations

The nominals in (xx1) are probably deverbal but none represents a recognizable morphological pattern.

(xx1)	nominal	gloss	related form
	<i>ɲàmà-là</i>	'damage, trouble'	<i>ɲámi</i> '(sth) malfunction', <i>ɲámá-gè</i> 'ruin'
	<i>dòwà-rú</i>	'condolences'	<i>dò:wà</i> 'death', <i>dó:wè</i> 'die'
	<i>déné-nè</i>	'fatigue'	<i>dénè</i> 'become tired'

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 some others series, the singular and plural differ only tonally (in their own tones and in those of the following word). First and second person subjects are expressed by proclitics (arguably prefixes) on the verb (X).

(xx1) Personal pronouns

	indep.	accusative	subject
1Sg	<i>mì</i>	<i>mì-ɲgù</i>	<i>ɲ</i> VERB
1Pl	<i>mì-yá</i>	<i>mì-yá-ɲgù</i>	<i>ɲ</i> VERB
2Sg	<i>ò</i>	<i>ò-ɲgù</i>	<i>á</i> VERB
2Pl	<i>ò-yá</i>	<i>ò-yá-ɲgù</i>	<i>á</i> VERB
3Sg	<i>ǎwⁿ</i>	<i>à-ɲgù</i>	VERB
3Pl	<i>à-yⁿá</i>	<i>à-yⁿá-ɲgù</i>	VERB- <i>ye</i> etc. (variable suffix)

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

4.3.2 Pronominal possessors

Pronominal possessors precede the possessed noun (X) except in the 3Sg category. The lexical tone of the possessed noun is erased in all cases by a tonal overlay. The low-toned preposed possessors (1Sg, 2Sg) control {HL} overlay on the possessed noun. The high-toned preposed possessors (1Pl, 2Pl, 3Pl) control {L} contour on the possessed noun. Suffixed 3Sg *-nà* controls {LH} on the possessed noun.

(xx1) Pronominal possessor

1Sg	$\hat{ɲ}^{\text{HL}} X$
1Pl	$\hat{ɲ}^{\text{L}} X$
2Sg	$\hat{a}^{\text{HL}} X$
2Pl	$\hat{a}^{\text{L}} X$
3Sg	$X^{\text{LH}} -nà$
3Pl	$\hat{a} \eta^{\text{H}} X$

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 (*nɔ̃*)

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

nɔ̃ has no effect on the tones of the preceding NP elements. In particular, it **does not trigger Rightward H-Spreading** in the preceding word. If the preceding word is entirely {L}-toned, *nɔ̃* polarizes tonally and is raised to H-toned *nɔ́*. Plural *-gè* is a suffix and does not count as a word for this purpose; we get H-toned *nɔ́* only if both the preceding word and *-gè* are {L}-toned. (xx1) illustrates with otherwise unmodified nouns. We see H-toned *nɔ́* only in (xx1d).

(xx1)	noun	definite	gloss
a. /HL/-toned nouns			
	<i>négè</i>	<i>négè nò</i>	'elephant'
	<i>ʔólò</i>	<i>ʔólò nò</i>	'village'
	<i>bé (bê:)</i>	<i>bê: nò</i>	'child'
b. /LH/-toned nouns			
	<i>fētó</i>	<i>fētó nò</i>	'pond'
	<i>kìrké</i>	<i>kìrké nò</i>	'saddle'
	<i>lámùrú</i>	<i>lámùrú nò</i>	'christening'
	<i>bàndàgà:rí</i>	<i>bàndàgà:rí nò</i>	'cart poles'
c. /LHL/-toned nouns			
	<i>ʔálámà</i>	<i>ʔálámà nò</i>	'sheep'
d. /L/-toned nouns			
	<i>kò:</i>	<i>kò: nó</i>	'head'
	<i>ʔòbò</i>	<i>ʔòbò nó</i>	'house'
	<i>sàgàllà</i>	<i>sàgàllà nó</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.

(xx2)	NP	definite	gloss
a. noun plus adjective or numeral			
	<i>H-toned nó</i>		
	<i>ʔòbò yò:lè</i>	<i>ʔòbò yò: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-gè tá:ndù</i>	<i>ʔòbò-gè tá:ndù nò</i>	'three houses'
b. possessed NP			
	<i>L-toned nò</i>		
	<i>ì ʔòbò</i>	<i>ì ʔòbò nò</i>	'my house'
	<i>ì ʔòbò yò:lè</i>	<i>ì ʔòbò yò:lè nò</i>	'my black house'
	<i>ì ʔòbò tánà</i>	<i>ì ʔòbò tánà nò</i>	'my other house'
c. plural			
	<i>L-toned nò</i>		
	<i>nègè-gè</i>	<i>nègè-gè nò</i>	'elephants'
	<i>H-toned nó</i>		

ʔòbò-gè *ʔòbò-gè nɔ* 'houses'

The raising of *nò* to *nɔ* is most regular in prepausal position. It is blocked when closely phrased with a following word that contains H-tone, or with a 1st/2nd person proclitic. It occurs at least optionally when followed by a {L}-toned word.

- (xx3) a. *sìgò* *nɔ*
 'breath(n) Def
 'breath, breathing'
- b. [*sìgò* *nò*] *sìgè-Ø*
 [breath(n) Def] breathe.Perf-3SgS
 'He/She breathed.'
- c. [*sìgò* *nò*] *ɲ* *sìgè*
 [breath(n) Def] 1SgS breathe.Perf
 'I breathed.'
- d. [*sìgò* *nò*] *sìgè-là-Ø*
 [breath(n) Def] breathe-ImpfNeg-3SgS
 'He/She doesn't breathe.'

4.4.2 Demonstratives

4.4.2.1 'This/that' *mɔ* (deictic demonstrative pronoun)

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

The slightly irregular plural of *mɔ nò* is *mò njé-gè nò*.

mɔ is deictic ('this' or 'that over there') rather than discourse-definite.

- (xx1) a. *mɔ* *yɔ:* *nò*
 Dem woman Def
 'this/that woman'
- b. *mɔ* *ʔòbò* *nɔ*
 Dem house Def
 'this/that house'

- c. *[mɔ nɔ]* *ʔɛbɛgɛ(=:)*
 [Dem Def] what?(=it.is)
 'What is this/that?'
- d. *mɔ ʔɪnjɛ-gɛ nɔ*
 Dem dog-Pl Def
 'these/those dogs'
- e. *mɔ ʔɔbɔ-gɛ nɔ*
 Dem house-Pl Def
 'these/those houses'

4.4.2.2 *ʔɛmɛ* 'that' (discourse-definite)

A discourse-definite demonstrative 'that' (as in 'that's right!') is *ʔɛmɛ*. It may combine with the definite morpheme (*ʔɛmɛ nɔ* 'that') and with emphatic *kɔ* (*ʔɛmɛ kɔ* 'precisely that').

4.4.3 Demonstrative adverbs

4.4.3.1 Locative adverbs

Some basic demonstrative locative adverbs are in (xx1). In addition to the demonstrative stems, we observe *-nâ:* as locative ending, and *-lò* as allative ending.

(xx1)	form	gloss
a. (stative) locative	<i>mâ:-nâ:</i>	'here'
	<i>bɔ-nâ:</i>	'there'
b. allative/ablative	<i>mâ-lò</i>	'(to/from) here'
	<i>bɔ-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.

-lò is also present in interrogative *ná-lò* 'where?' (§13.2.4), but in that combination it is either (static) locative or allative. *-lò* is probably related to locative/instrumental postposition *ndò* (§8.2.3.2).

4.4.4 Presentatives ('here's ...!')

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

- (xx1) a. *[ɨ]* *ʔóbò]* *mɔwⁿ*
 [1SgP house] here's
 'Here's/There's my house.'
 [also: *mɔw ɨ ʔóbò]*
- b. *mɔwⁿ* *[bé:-gè* *nɔ]*
 here's [child-Pl Def]
 'Here/There are the children.'
- c. *mì* *mɔwⁿ*
 1Sg here's
 'Here I am.'

4.5 Adjectives

4.5.1 Form of adjectives

Adjectives generally occur both within NPs in modifying function, discussed here, and in predicative function, discussed in §11.xxx below. Since there are no animacy distinctions in Bunoge there is no animacy agreement.

An adjective directly following a modified noun has {L} melody, while controlling {LH} on the noun itself (just the final syllable is H-toned). In isolation or as a second adjective following the noun, the adjective is normally {HL}-toned. This is illustrated with 'big' in (xx1).

- (xx1) a. *pòlèngé bigì* 'a big egg' (*póléngè*)
 kèlè bigì 'a big horn' (*kèlè*)
 yɔ: bigì 'a big woman' (*yɔ*)
- b. *yɔ: yɔ:lè bigì* 'a big black woman'
 yɔ: bigì yɔ:lè "

It is not clear that adjectives have a determinable lexical tone, except for those that also 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 (xx2). 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.

(xx2) Adjectives

after N	{HL}	gloss
size and age		
<i>bâyⁿ</i>	<i>bâyⁿ</i>	'big (e.g. house)'
<i>bìgì</i>	<i>bìgì</i>	'big (stone)' (also 'stout, fat')
<i>dá:mbè</i>	<i>dá:mbè</i>	'small (house)'
<i>kèmnò</i>	<i>kèmnò</i>	'old (man, woman)'
<i>?ilè</i>	<i>?ilè</i>	'old, used (object)'
<i>kándà</i>	<i>kándà</i>	'new'
dimension and measure		
<i>gìmbò</i>	<i>gìmbò</i>	'deep (well, hole)'
<i>nìnjì</i>	<i>nìnjì</i>	'heavy'
<i>gólò</i>	<i>gólò</i>	'long' (= 'tall')
<i>tùmbù</i>	<i>tùmbù</i>	'short (rope, person)'
<i>bámà</i>	<i>bámà</i>	'wide (passageway)'
<i>nòngò</i>	<i>nòngò</i>	'slender (person)'
<i>bìgì</i>	<i>bìgì</i>	'fat, stout (person)'
<i>péngè</i>	<i>péngè</i>	'narrow'
sex		
<i>nólò</i>	<i>nólò</i>	'male' (cf. noun <i>nólò</i> 'man')
<i>yò</i>	<i>yò</i>	'female' (cf. noun <i>yó</i> ~ <i>yò</i> : 'woman')
temperature		
<i>jùngà</i>	<i>jùngà</i>	'hot' = 'fast'
<i>tómbò</i>	<i>tómbò</i>	'cold, cool' (not 'slow')
evaluation		

<i>pò:lò</i>	<i>pó:lò</i>	'good'
<i>jàmì</i>	<i>jàmì</i>	'bad; damaged, malfunctioning'
<i>sèlè</i>	<i>sélè</i>	'pretty'
<i>dà (dà:)</i>	<i>dá:</i>	'nasty, evil'
texture and moisture		
<i>tèmbè</i>	<i>témbè</i>	'wet (clothing)'
<i>jà:ŋì</i>	<i>jà:ŋì</i>	'dry, hard, solid'
taste and smell		
<i>dènjì</i>	<i>dénjì</i>	'sweet, delicious'
<i>?ámì</i>	<i>?ámì</i>	'sour (like lemon)'
color		
<i>bòw</i>	<i>bòw</i>	'red (including brown)'
<i>yò:lè</i>	<i>yó:lè</i>	'black (dark)'
<i>símà</i>	<i>símà</i>	'white (light-colored)'
<i>bùlà-bùlà</i>	<i>bùlà-bùlà</i>	'blue' (as noun: <i>bùlà-bùlà</i>)
other		
<i>dènjì</i>	<i>dénjì</i>	'sharp (blade)' (also 'sweet')
<i>kà:ndà</i>	<i>ká:ndà</i>	'difficult (work)' = 'expensive'
<i>kòŋè</i>	<i>kóŋè</i>	'skinny, lean (animal)'
<i>tànà</i>	<i>tánà</i>	'other' (cf. noun <i>tànà</i> 'other one')
<i>bílè</i>	<i>bílè</i>	'ripe; cooked (meat); curdled (milk)'
<i>kájì</i>	<i>kájì</i>	'raw (meat), fresh (milk)'
<i>kúnè</i>	<i>kúnè</i>	'plump, fatty'

4.5.1.2 Adjectives with participial *-gà*

Some adjective-like senses are expressed in my data 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.

(xx1) a. simple

<i>bòràllà-gà</i>	'smooth, sleek (surface)'
<i>jà:mùlò-gà</i>	'in good health'

b. iterated

<i>kàr-kàr-gà</i>	'bitter'
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yàw-yàw-gà 'lightweight'
sèyⁿ-sèyⁿ-gà 'pointed'

The *-gà* is absent from the corresponding predicative forms, e.g. *bòràllá bò-Ø* 'it is smooth' (§11.4.1). For *pà:mùlò-gà* a suppletive predicate is used: *séjilé: bò-Ø* 'he/she is in good health'.

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 gòmè* 'rotten meat'.

4.5.1.3 Phrasal adjectives (exemplars)

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

(xx1) *póri-púnà* 'yellow' ("nére flour")
kàjí kàjí 'green' ("fresh grass")

4.5.1.4 Negative adjectives

Some adjectival senses are expressed in my data 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' (xx1).

(xx1) a. predicate
kájjà ?óri 'be easy (work); be cheap'

b. participle
[wàlè kájjà ?óri-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.

(xx1) a. *yó:* *big(i)-gè*
 woman.LH fat-Pl

'fat women'

- b. *yɔ:* *big(i)-gè* *yɔ:lè*
woman.LH fat-Pl black.HL
'fat black women'

4.5.3 Adjectival intensifier

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 a NP or (more often and more freely) a predicate.

(xx2) adjective gloss with intensifier

a. iterated intensifiers without linker

<i>jùŋgà</i>	'hot'	<i>jùŋgà táw-táw</i>
<i>bɔw</i>	'red'	<i>bɔw cóy-cóy</i>
<i>sìmà</i>	'white'	<i>sìmà pácá-pácá</i>
<i>yɔ:lè</i>	'black'	<i>yɔ:lè kírúŋ-kírúŋ</i>
<i>gòmè</i>	'rotten'	<i>gòmè dúgá-dúgá</i>

b. iterated intensifiers with nasal linker

<i>tòmbò</i>	'cold'	<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.

- (xx2) a. *jùŋgá* *bò-Ø* *táw-táw*
hot be-3SgS very.hot
'It's very hot.' (e.g. scalding hot water)
- b. *jùŋgà* *táw-táw* *bò-Ø*
hot very.hot be-3SgS
[= (a)]

It was difficult to elicit NP-internal intensifiers in combination with plural *-gè* to determine where the latter appears. However, one elicited example did have *-gè* following the primary adjective, but the example is suspect and the intensifier was prosodically separate: *?ðbò bɔw-gè cóy-cóy* 'very red (brown) houses'.

4.6 Numerals

4.6.1 Cardinal numerals

4.6.1.1 'One' (*tó:lè*), 'same (one)', and 'other'

tó:lè '1' is syntactically an adjective. As part of a NP, it drops to {L} tone as do other adjectives and so appears as *tò:lè*, with {LH} overlay on the noun: *?ðbó tò:lè* 'one house'. For the use of *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 invariably 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.

- (xx2) *[séydù yà] [mì yà] [níní tò:lè] [bǎw tò:lè]*
 [Seydou and] [1Sg and] [mother one] [father one]
 'Seydou and I (are of) the same mother (and) the same father.'

tànà 'other' is an adjective, as in *?ðbó tànà nɔ́* 'the other house'. Unlike most adjectives, it can also be used independently: *tànà nɔ́* 'the other (one)'.

4.6.1.2 '2' to '10'

The numerals from '2' to '10' are shown in (xx1). Nonsingular numerals often (but optionally) combine with the plural form of the preceding NP, with plural *-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.

(xx1)	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>nɔ́:mɔ̀</i>	<i>nɔ́:mɔ̀</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>

With /L/-toned *ʔòbò* 'house' the combinations are those in (xx2). Plural *-gè* becomes H-toned before L-toned '2', but remains L-toned before the other numerals, all of which begin with a H-tone. Omission of *gè* shifts 'house' to *ʔòbó* before '2', but 'house' remains L-toned before the other numerals. In other words, *dègà* controls {LH} overlay on

(xx2)	gloss	'X houses'
a.	'2'	<i>ʔòbò-gé dè:gà ~ ʔòbó dè:gà</i>
b.	'3'	<i>ʔòbò(-gè) tá:ndù</i>
	'4'	<i>ʔòbò(-gè) nê:wⁿ</i>
	'5'	<i>ʔòbò(-gè) nó:mò</i>
	'6'	<i>ʔòbò(-gè) kúléwⁿ</i>
	'7'	<i>ʔòbò(-gè) só:wⁿ</i>
	'8'	<i>ʔòbò(-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 (xx3). In each case, '2' controls {LH} overlay on the preceding sequence, with the H-tone on plural *-gè*, while '3' is simply added to the plural form with no tonal change. If plural *-gè* is omitted, *dè:gà* '2' requires a final H-tone on the noun.

(xx3)	noun	gloss	plural	with '2'	with '3'
a.	lexically falling				
	<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>jà:lì</i>	'cat'	<i>jà:lí-gè</i>	<i>jà:lí-gé dè:gà</i>	<i>jà:lí-gè tá:ndù</i>
	<i>pòlèngè</i>	'egg'	<i>pòlèngé-gè</i>	<i>pòlèngé-gé dè:gà</i>	<i>pòlèngé-gè tá:ndù</i>
b.	lexically rising				
	<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</i>

c. lexically low

<i>sè:</i>	'foot'	<i>sè:-gè</i>	<i>sè:-gé dè:gà</i>	<i>sè:-gè tá:ndù</i>
<i>?òbò</i>	'house'	<i>?òbò-gè</i>	<i>?òbò-gé dè:gà</i>	<i>?òbò-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 (xx1). 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 *sígù* that is not otherwise known (presumably it once meant '3'). The odd-numbered decimals '30', '50', '70', and '90' are conjunctions of the preceding even-numbered decimal plus '10', with *yà ~ yá* 'and' after both elements. *tǎ:lmà* '20' contracts with *yà ~ yá* to form *tà:lmá:* in '30'. Both *tǎ:lmà* '20' and *dé:* '40' are treated like lexically /L/-toned stems in their conjoined forms.

(xx1)	gloss	form	'X houses'
'10'		<i>kóbéwⁿ</i>	<i>?òbò(-gè) kóbéwⁿ</i>
'20'		<i>tà:lúmà (~ tǎ:lmà)</i>	<i>?òbò(-gè) tà:lúmà</i> (~ ... <i>tǎ:lmà</i>)
'30'		<i>tà:l(ù)má: [kòbé yà]</i>	<i>?òbò(-gè) tà:l(ù)má: [kòbé yà]</i>
'40'		<i>dé:</i>	<i>?òbò(-gè) dé:</i>
'50'		<i>[dè: yá] [kòbé yà]</i>	<i>?òbò(-gè) [dè: yá] [kòbé yà]</i>
'60'		<i>tà:lúmà sígù</i>	<i>?òbò(-gè) tà:lúmà sígù</i>
'70'		<i>[tǎ:lúmà sígù yá] [kòbé yà]</i>	<i>?òbò(-gè) [tǎ:lúmà sígù yá]</i> <i>[kòbé yà]</i>
'80'		<i>yólò</i>	<i>?òbò(-gè) yólò</i>
'90'		<i>[yóló yá] [kòbé yà]</i>	<i>?òbò(-gè) [yóló yá] [kòbé yà]</i>

Composite numerals consisting of a decimal term and a digit term are illustrated in (xx2). They are of the type '10 and 2' = '12', with *yà ~ yá* 'and' following both elements. The forms taken by '1' and '2' in these combinations are the forms used in counting, i.e. with initial prefix *n-*.

(xx2)	a.	<i>[kòbé yà]</i>	<i>[n-tò:ró yà]</i>	'11'
		<i>[kòbé yà]</i>	<i>[n-dè:gá yà]</i>	'12'
		<i>[kòbé yà]</i>	<i>[tǎ:ndù yà]</i>	'13'
	b.	<i>tà:l(ù)má:</i>	<i>[n-tò:ró yà]</i>	'21'

<i>tà:l(ù)má:</i>	<i>[n-dè:gá yà]</i>	'22'
<i>tà:l(ù)má:</i>	<i>[tá:ndù yà]</i>	'23'

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

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

(xx1)	gloss	form
a.	'hundred'	<i>tè:mèndéré</i> (<Fulfulde)
b.	'thousand'	<i>múnjù</i>
c.	'(one) million'	<i>milyɔ̃ⁿ tò:lì</i> (<French)

Combinations with '2' and '3' are in (xx2). Before '2' but not '3' through '10', the plural morpheme is H-toned *-gé* and the noun is tonally flattened (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.

(xx2)	gloss	form
a.	'200' '300'	<i>tè:mèndéré-gé dè:gà</i> <i>tè:mèndéré-gè tá:ndù</i>
b.	'2000' '3000'	<i>múnjù-gé dè:gà</i> <i>múnjù-gè tá:ndù</i>
c.	'2,000,000' '3,000,000'	<i>milyɔ̃ⁿ-gé dè:gà</i> <i>milyɔ̃ⁿ-gè tá:ndù</i>

Lower numerals follow and are conjoined to the higher numeral. '220' is *[tè:mèndéré-gé dè:gà yá] [tá:lùmá yà]*, literally 'two hundred and twenty'. The modified noun preceded 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'. The {HL}-toned numerals, and {LHL}-toned '20', keep the falling tone on both iterations, and '1' is treated as {HL} for this purpose. {H}-toned numerals as well as {LH}-toned 'hundred' have distributives with the melody {LH}-{L}.

(xx1) 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>nɔ:mɔ̀</i>	<i>nɔ:mɔ̀-nɔ:mɔ̀</i>	HL-HL
'6'	<i>kúléwⁿⁿ</i>	<i>kùléyⁿ-kùléyⁿ</i>	LH-L
'7'	<i>só:wⁿ</i>	<i>sɔ́:wⁿ-sɔ́:wⁿ</i>	LH-L
'8'	<i>sé:léwⁿ</i>	<i>sè:léⁿ-sè:léⁿ</i>	LH-L
'9'	<i>tó:wà</i>	<i>tó:wà-tó:wà</i>	HL-HL
'10'	<i>kòbéⁿ</i>	<i>kòbéⁿ-kòbéⁿ</i>	LH-L
'20'	<i>tà:lúmà</i>	<i>tà:lúmà-tà:lúmà</i>	HL-HL
'40'	<i>dé:</i>	<i>dé:-dé:</i>	HL-HL
'100'	<i>tè:mèndéré</i>	<i>tè:mèndéré-tè:mèndère</i>	LH-L
'100'	<i>múnjù</i>	<i>múnjù-múnjù</i>	HL-HL

The negative predicative form is with *=là* 'it is not', as in *nègà-négá=là* 'it isn't two by two'.

For *?àngà-?ángà* 'how many (each)?' see §13.2.7.

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.

(xx1)	<i>?òbó</i>	<i>kàndè</i>
	house ^{LH}	first
	'(the) first house'	

4.6.2.2 Other ordinals (*bàṅà*)

Other ordinals are formed by adding *bàṅà* to the essentially intact numeral, forming a possessive-type compound. Slight tonal changes occur on the final word of the numeral. {HL}-toned numerals spread the H-tone to the final syllable ('3', '4', '5', '9'). '2' seems to have several ordinal variants.

(xx1)	form	gloss
	a. single-digit numeral	
	<i>dègá bàṅà</i> ~ <i>dègà báṅà</i>	'second'
	<i>tá:ndú bàṅà</i>	'third'
	<i>né:wⁿ bàṅà</i>	'fourth'
	<i>nó:mó bàṅà</i>	'fifth'
	<i>kúléwⁿ bàṅà</i>	'sixth'
	<i>só:wⁿ bàṅà</i>	'seventh'
	<i>sé:léⁿ bàṅà</i>	'eighth'
	<i>tó:wá bàṅà</i>	'ninth'
	<i>kóbéⁿ bàṅà</i>	'tenth'
	b. decimal multiples	
	<i>tǎ:lmá bàṅà</i>	'twentieth'
	c. decimal plus single-digit numeral	
qq	<i>[kóbé yá] [n-tò:rò yá] bàṅà</i>	'eleventh'
	d. hundred	
	<i>tè:mèndéré bàṅà</i>	'hundredth'

4.6.3 Fractions and portions

'Half', or more generally '(a) division', is *fèccèrè* (< 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 {LHL} overlay depending on whether the initial ends in a L- or H-tone.

If the noun that serves as the initial has a lexical /HL/ melody, the **H-tone slides rightward** to the final syllable, leaving a L-tone in the penult; see Rightward Tone-Movement §3.xxx. As a result, the "possessor" ends in a H-tone, so the possessed noun has {LHL} overlay. The full {LHL} is realized on prosodically heavy stems (*Cv:Cv*, *CvCvCv*, and longer), but is reduced to {L} on prosodically light stems (*CvCv*, *Cv*). (xx1) gives examples. In some cases either the initial or final does not occur independently. If neither occurs independently, segmentation is opaque, but tone melodies like *CvCṽCṽ:Cṽ* point to compound-like phonological treatment (*CṽCṽ-Cṽ:Cṽ*).

(xx1)	compound	gloss	components
a.	initial is /HL/-toned <i>márfā</i>	'musket'	
	<i>màrfā-pùná</i>	'gunpowder'	<i>pùnàngè</i> 'flour, powder'
	<i>màrfā-tě:bè</i>	'stock'	<i>tè:bè</i> 'stick'
	<i>màrfā-lǒ:sò</i>	'barrel'	—
	<i>màrfā-sùgùlè</i>	'cock'	<i>sùgùlè</i> 'ear'
	<i>màrfā-ʔinjé-bè</i>	'trigger'	<i>ʔinjé-bè</i> 'puppy'
b.	initial is /HL/-toned <i>nùmè</i>	'hand, arm'	
	<i>nùmé-tèbò</i>	'palm of hand'	<i>-tèbò</i> also in <i>sè:-tèbò</i> 'sole'
	<i>nùmé-kòbàlì</i>	'fingernail'	<i>kòbàlì</i> 'nail, hoof, shell'
	<i>nùmé-sǐ:wò</i>	'ring (on finger)'	—
	<i>nùmé-gù</i>	'handful (of mud)'	—
	<i>nùmé-sèrè</i>	'pointing (out)'	—
	<i>nùmé-dè:</i>	'extending hand'	—
c.	initial is /HL/-toned <i>dólì</i>	'knife'	
	<i>dólí-kùjò</i>	'knife handle'	<i>-kùjò</i> 'handle' (cpd final)

<i>dòlì-pòbòlò</i>	'knife sheath'	<i>pòbòlò</i> 'sheath'
d. initial is /HL/-toned <i>tìlìngè</i> 'tree'		
<i>tìlìngé-bùgùndè</i>	'tree trunk'	—
<i>tìlìngé-kàjè</i>	'tree root'	<i>kàjè</i> 'root'
<i>tìlìngé-kòbà</i>	'tree leaf'	<i>kòbà</i> 'leaf'
<i>tìlìngé-kòbàlì</i>	'tree bark'	<i>kòbàlì</i> '(finger-)nail'
<i>tìlìngé-pùlò</i>	'tree flower'	<i>pùlò</i> 'flower'
<i>tìlìngé-sò:li</i>	'tree gum (resin)'	<i>sò:li</i> 'gum arabic'
e. others with /HL/-toned initial		
<i>dòlé-pà:m</i>	'stomach ache'	<i>dòlè</i> 'belly', verb <i>ná:mì</i> 'be sick'
<i>dò:ngé-dùlù</i>	'pounding area'	<i>dò:ngè</i> '(act of) pounding'
<i>dò:ní-kèbà</i>	'calabash shard'	<i>dò:nì</i> 'calabash'
<i>?èlé-nù</i>	'shea-butter'	<i>?èlé</i> 'karite tree', <i>nù</i> 'oil'
<i>gìré-gwì</i>	'eyelid'	<i>gìré-sè</i> 'eye', <i>gwì</i> 'skin'
<i>?íní-nàmà</i>	'gums'	<i>?ínì</i> 'tooth', <i>nàmà</i> 'meat'
<i>kìbá-dòlì</i>	'dagger'	<i>kìbà</i> 'kidney', <i>dòlì</i> 'knife'
<i>?òndò-kùlè</i>	'beard'	<i>?òndò</i> 'chin', <i>kùlè</i> 'hair'
<i>sè:ngé-gò</i>	'swill'	<i>sè:ngè</i> 'millet', <i>gò</i> 'water'
<i>tá:-sìngì</i>	'belt-cord'	<i>tá (tá:)</i> 'pants', <i>sìngì</i> 'rope'
<i>full [LHL] melody audible on final</i>		
<i>kà:y"é bòllè</i>	'mushroom'	<i>kà:y"è</i> 'hyena', <i>bòllè</i> 'tomtom'
<i>ké-pǎ:li</i>	'wild cat'	<i>ké</i> 'outback', <i>pǎ:li</i> 'cat'
<i>ná:-bùndù</i>	'herd of cattle'	<i>ná</i> 'cow', <i>bùndù</i> 'herd'
<i>sémò-pòlèngè</i>	'nit'	<i>sémò</i> 'louse', <i>pòlèngè</i> 'egg'
<i>wá: wàgàrì</i> (~ <i>wá: wǎ:ri</i>)	'cold season'	<i>wàgàr(i)</i> 'time'
f. initial and/or final not otherwise known		
<i>?èlém-pùndù</i>	'whirlwind'	
<i>dòs-kòbà</i>	'paper'	<i>kòbà</i> 'leaf' (<i>dòs</i> '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 compound-like forms, such as *pòrì púnà* 'yellow powder from pods of *néré* tree (*Parkia*)', also the exemplar for 'yellow', are in fact structured as possessives ("nére-tree's powder").

If the initial is lexically /L/-toned, it remains {L}-toned in the compound. The final can now take the simple {HL} overlay (xx2).

(xx2)	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:y"à</i>	'mantis'	<i>?àmàràngà</i> 'God', <i>ká:y"à</i> 'grasshopper'

If the initial is lexically /LH/-toned, the final H-tone disappears, arguably by absorption into the initial H-tone of the following {HL}-toned final (xx3).

(xx3)	compound	gloss	components
a.	initial is /LH/-toned <i>lámùrú</i>	'name-giving ceremony, christening'	
	<i>lámùrù-nàngà</i>	'name-giving day'	<i>-nàngà</i> 'day, time'
b.	initial is /LH/-toned <i>gàndù:ré</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 relatively 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 (xx4a), and is therefore distinct from *sé* (*sé:*) 'horse' in this position (xx4b), but *kò* (*kò:*) 'head' appears as H-toned *kó:* (xx4c).

(xx4)	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:-kòbáli</i>	'toenail'	<i>kòbáli</i> 'nail, hoof, shell'
	<i>sè:-kèlè</i>	'ankle'	<i>kèlè</i> 'horn'

- b. initial is /HL/-toned *sé* (*sê:*) 'horse'
sé:-dílò 'horse tail' *dílò* 'tail'
(plural *sè:-dílò-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' *gó* 'water', *kògà* 'hunger'

Even *sè:-* 'foot' as compound initial in (xx1a) behaves as though H-toned in that it requires {LHL} (or its reduced variant {L}) rather than {HL} overlay on the compound final. Note {LHL} in the final of 'toenail' and in the plural form of 'sole(s)' in (xx1a).

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 (xx5), the initial *bé:-gè* 'children' undergoes Rightward H-Movement, which is typical of compound initials rather than possessors. The {LHL} overlay on *ní:bè* 'bird' in this combination is compatible with either analysis. (The barn owl is thought to be dangerous to children.)

(xx5) *bè:-gè ní:bè* 'barn owl' ("children's bird")

A few compounds are tonally irregular if correctly transcribed. Those in (xx6) appear to each have two consecutive H-toned syllables. Checking with additional informants would be useful.

(xx6) *ʔíwól-gò* 'dew' *gó* 'water'
pèjì-sómbúlò 'tô with baobab sauce' *pèjì* 'baobab sauce'

5.1.2 Compounds with final verbal noun

An object can appear in its regular tone before a verbal noun, with no special "compound" features.

(xx1) *ʔàmmè nɔ:-nà* 'drinking beer (*ʔàmmè*)'
ʔínjè tèmó-nà 'eating dogs (*ʔínjè*)'
sé:ngè wàló-nà 'farming millet (*sé:ngè*)'

5.1.3 Agentive compounds of type [n̄ v̄-bò]

The initial is a noun, tone-dropped, denoting a characteristic object. It may be a cognate nominal. It is followed by the {H}-toned verb and suffix *-bò*. The verb ends in {o ə e e} depending on the ATR and back/front quality of the stem vocalism. Forms with {e e} have variants with {o ə}, which is probably basic. For 'herder', variants with final *-gò* and *-bò* are attested (xx1c). The variant with *-gò* has stem-final *a*.

(xx1)	noun + verb	agentive cpd	gloss
a. final {o ə} in verb			
	<i>nùṅḍ nùṅḍ</i>	<i>nùṅḍ-nùṅḍ-bò</i>	'singer'
	<i>yóbù yóbè</i>	<i>yóbù-yóbù-bò</i>	'dancer'
	<i>wólì wálè</i>	<i>wólì-wáló-bò</i>	'farmer'
	<i>jòṅgù jòṅḡ</i>	<i>jòṅgù-jòṅḡ-bò</i>	'healer'
	<i>tè:ṅgè bá:lè</i>	<i>tè:ṅgè-bá:ló-bò</i>	'wood-gatherer'
b. final {e e} in verb			
	<i>gèjì tíyè</i>	<i>gèjì-tíyè-bò</i>	'(cloth-)weaver'
	<i>kò: bégè</i>	<i>kò:-béḡé-bò</i>	'head-braider (braiding lady)'
	<i>dò:nì sélè</i>	<i>dò:nì-sélé-bò</i>	'calabash-sawer'
	<i>tájì tíyè</i>	<i>tájì-tíyè-bò</i>	'basket-weaver'
c. <i>-gò ~ -bò</i>			
	<i>kómbò gírè</i>	<i>kòmbò-gírá-gò</i>	'animal-tender (herder)'
	<i>kómbò gírè</i>	<i>kòmbò-gíré-bò</i>	'animal-tender (herder)'

The first variant for 'animal-tender' in (xx1c) appears to be a mixture of the usual agentive with *-bò* and an imperfective subject relative ('one who tends animals'). The tones are those of the agentive, but the morphology is close to that of subject relatives.

5.1.4 Compounds with *-bè* 'child, fruit'

From *bé* (*bè*): 'child' we get compounds of the type *X-bè* meaning 'child (e.g. fruit) of X'. The final is L-toned even after a /L/-toned initial. At least in the transparent compounds, the vowel is lengthened in definite *X-bè*: *nó* and plural *X-bé:-gè*. However, some of the combinations (e.g. 'heart', 'tongue') are frozen, and do not behave phonologically like true compounds. A nasal linker (*-m-bè*) is found in at least one case; one could argue that it is really a prenasalized form of *-bè*, cf. §3.4.1.3.

(xx1)	noun	gloss	compound	gloss
a. with nasal linker				
	<i>{LH}-toned initial</i>			
	<i>tùmà</i>	'stick, staff'	<i>tùmá-m-bè</i>	'twig'
b. segmentally regular				
	<i>ná (ná:)</i>	'cow'	<i>ná:-bè</i>	'calf'
	<i>dó</i>	'mortar'	<i>dó:-bè</i>	'pestle'
	<i>kúmù</i>	'balanzan tree'	<i>kúmú-bè</i>	'balanzan fruit'
	<i>kínì</i>	'stone, rock'	<i>kíní-bè</i>	'pebble, small stone'
	<i>ʔínjè</i>	'dog'	<i>ʔínjé-bè</i>	'trigger' or 'puppy'
	<i>kìndò</i>	'shade, shadow'	<i>kìndò-bè</i>	'shadow; ghost'
	<i>kínì</i>	'stone, rock'	<i>kíní-bè</i>	'pebble'
	<i>kǎjì</i>	'grass, herb'	<i>kǎjí-bè</i>	'chewstick'
	<i>kǎndì</i>	'circumcision'	<i>kǎndí-bè</i>	'circumcised boy'
	<i>ném̄m̄</i>	'big grindstone'	<i>ném̄m̄-bè</i>	'small grindstone'
	<i>ɲǎǎm̄</i>	'camel'	<i>ɲǎǎm̄-bè</i>	'baby camel'
	<i>sùgùlè</i>	'ear'	<i>sùgùlè-bè</i>	'eardrum'
	<i>tíw</i>	'mission'	<i>tíw-bè</i>	'messenger'
	<i>frozen plural</i>			
	<i>tǎndíǎ</i>	'money'	<i>tǎndí-bè</i>	'cowry shell'
	<i>initial becomes {LH}-toned</i>			
	<i>sèngè</i>	'flank of body'	<i>sèngé-bè</i>	'rib'
c. initial not otherwise attested				
	<i>no known cognate</i>			
	—	—	<i>kègè-bè</i>	'carp (fish)'
	—	—	<i>nàngàlá-bè</i>	'roof beam'
	—	—	<i>nínjó-bè</i>	'orphan'
	—	—	<i>sèlè-bè</i>	'cotton-ginning pin'
	<i>cognates without -bè</i>			
	—	—	<i>dòngò-bè</i>	'heart'
	—	—	<i>dèndè-bè</i>	'tongue'
	—	—	<i>mǎlím-bè</i>	'holy man, marabou'
	—	—	<i>ní:bè</i>	'bird'
	—	—	<i>yò:-bè</i>	'millet grain spike'

Examples of cognates of the nouns in (xx1c) are Penange *dòngò-sè*: 'heart', Ben Tey *nì:yⁿf*: 'bird', Mombo *mó:díbò* 'holy man' (< Fulfulde), Penange *nèmdè* 'tongue', and Ben Tey *yû*: 'millet'.

5.1.5 Diminutive *-yè* and variants

'Boy' (*bé: nòlò-yè*) and 'girl' (*bé: yò:-yè*) consist of *bé* (*bê:*) 'child' plus *nòlò* 'male' or *yò* 'female' (cf. §5.1.8 below) and an archaic diminutive ending *-yè*.

Among kin terms, *sèj-jò* 'grandchild' originated as a diminutive of *sèjì* 'grandparent' (§6.2.2.1).

sàbbè 'amulet' belongs here etymologically but not synchronically. If anything, native speakers might connect it with *-bè* compounds (§5.1.4 above).

5.1.6 Compounds with *-sè* 'grain, unit'

A number of compounds, of variably segmentability, have a final element *-sè* (after H-tone, which may have shifted from the penult to the final of the initial) or *-sé* (after L-tone). If the initial is independently attested as a simple noun (xx1a), the compound denotes a unit or a discrete division. In other cases, the initial is not otherwise attested (xx1b).

(xx1)	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</i> (<i>sè:</i>) 'foot'
	<i>mùnjàlè-sè</i>	'earthenware whole'	<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 *dùbè-sè*, an archaic word for 'bicycle', *-sè* represents *sé* (*sè:*) 'horse', the compound as a whole having the literal sense "iron-horse." Similarly, in *dìnjò-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* (*yó*:) 'woman' denoting humans. As adjectives, the regular forms are *nòlò* 'male' and *yó* 'female', with the usual {L} melody of postnominal adjectives.

Tones are irregular in *yà:-nòlò* 'leopard', literally "night-man" (*yà*: 'night'), where one would have expected #*yà:-nólò*. From *kúŋ-kũmbè* 'agama lizard' we get *kúŋ-kũmbè-nólò* 'male agama' (distinctively colored), which appears to be structured for tonal purposes as *kúŋ-[kũmbè-nólò]*, with *kũmbè* treated as compound initial for *nólò* 'man' (noun, not adjective).

For 'boy' (*bé: nòlò-yè*) and 'girl' (*bé: yó:-yè*) see §5.1.7 above.

5.1.8 Compounds with *bá:ŋgà* 'owner'

bá:ŋgà 'owner' can be compounded with an initial denoting a possession. The initial is {L}-toned.

(xx1)	noun	gloss	compound	gloss
	<i>ʔòbò</i>	'house'	<i>ʔòbò-bá:ŋgà</i>	'home-owner'
	<i>wògòtòró</i>	'cart'	<i>wògòtòró-bá:ŋgà</i>	'cart-owner'
	<i>dùmò</i>	'wealth'	<i>dùmò-bá:ŋgà</i>	'rich person'

The plural is *-bà:ŋgá-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.

(xx1)	a. with <i>pánàŋgè</i> 'meal'	
	<i>dèná-m-pánàŋgè</i>	'supper', cf. <i>dèŋ</i> 'mid-day', <i>déné</i> 'spend mid-day'
	<i>bá-m-pánàŋgè</i>	'lunch', cf. <i>bá</i> 'morning'
	b. other	
	<i>dèmè-ŋ-sùgùlè</i>	'earwax', also <i>sùgùlè-dèmè</i> , cf. <i>sùgùlè</i> 'ear'
	<i>dòlé-ŋ-kòndè</i>	'intestines', cf. <i>dólè</i> 'belly'
	<i>gírè-m-bùlù</i>	'face', cf. <i>gírè-sè</i> 'eyes'
	<i>kàlá-ŋ-kàmbù</i>	'sideburns'

<i>kiná-n-dùrù</i>	'nosebleed', cf. <i>kinà</i> 'nose'
<i>kùmà-ŋ-gáŋgàlà</i>	'tadpole'
<i>nèŋé-n-těmbù</i>	'hot season', cf. <i>néŋé</i> 'sun'
<i>ʔòbó-n-tà:lù</i>	'host (provider of lodging)', cf. <i>ʔòbò</i> 'house'
<i>ʔòndó-ŋ-kòli</i>	'tree sp. (<i>Annona senegalensis</i>)'
<i>tàlàgá-ŋ-kálmà</i>	'poverty', cf. <i>tàlàgá-ndè</i> '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*, of the sort found sparingly in several Dogon languages (including Penange) for taxa like 'woodpecker', 'herb sp. (*Zornia*)', and 'burry herb sp. (*Pupalia*)' have not been observed in Bunoge.

5.1.11 Instrumental compounds

5.1.11.1 Noun is head of NP ('oil for rubbing'), suffix *-yè* on verb

A noun may be modified by a deverbal expression denoting its normal use (xx1). A good example is *gɔ* 'water' in (xx1).

(xx1)	<i>gɔ</i>	<i>ná:-yè</i>	'drinking water'
	<i>gɔ</i>	<i>dú-yà-yè</i>	'water for bathing, bathwater'
	<i>sǰàl</i>	<i>sá:l-yè</i>	'crushed millet'

The noun has its regular form, as before adjectives. The verb is followed by suffix *-yè*. The verbs associated with the phrases in (xx1) are *né*: 'drink', (*gɔ*) *dú-yyè* 'bathe' (cf. *dú-yyè* 'carry on head'), and *sá:li* 'coarsely stone-grind'. *sǰàl* is a variant of *sǰáli* 'cream of millet'.

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 understood to be 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 is therefore not combinable with imperfective verbs, whether in main or relative clauses. In the imperfective, 3Pl subject is distinguished from 3Sg subject by tones rather than by suffixation.

Compare *gɔ ná:-yè* 'drinking water' from (xx1a) above with the relative clause in (xx2).

- (xx2) [*gɔ:* *ná:* *nɔ̀*] *néy = là*
 [water drink.Impf.3PIS Def] good=it.is.not
 'The water that they drink is not good.'

The 3Sg subject equivalent ('the water that he/she drinks ...') is *gɔ: ná: nɔ̀*.

5.1.11.2 Noun denotes object ('fly-swatter'), suffix *-yò ~ -yɔ̀* 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 ~ -yɔ̀*. {HL}-toned nouns shift the H-tone to the final syllable by Rightward H-Movement. The verb has {LH} melody after this final H-tone; otherwise it has {H} melody. The suffixal *y* is subject to *y*-Assimilation (§3.4.4).

- (xx1) a. *ní:bè-gé* *tǎy-yò*
 bird-Pl shoot-InstNom
 'slingshot', cf. *tá:yè* 'shoot', *ní:bè* 'bird'
- b. *bòyè-gè* *píy-yɔ̀*
 mosquito-Pl chase.away-InstNom
 'mosquito shoo-er (square hand-fan)', cf. *píyá-gè* 'chase away'
- c. *gɔ̀lè-gé* *gɔ̀l-yò*
 hole-Pl drill.hole-InstNom
 'awl', cf. *gɔ̀lè* 'drill (a hole)', *gɔ̀lè* '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. *gírè-gé* *tě:j-jò*
 eye-Pl look.at-InstNum
 'eyeglasses; mirror', cf. *tě:jè* 'look at'
- g. *tów* *tǎw-wò*

slashing.earth slash.earth-InstNom
 'pick-hoe' (used to slash the earth when planting seeds), cf. *tôw*
tɔ:wè 'slash earth (to plant)'

- h. *màná* *tùmbí-yò*
 plastic measure-InstNom
 'plastic container for measuring millet grain', cf. *mána* 'plastic', verb
túmbè 'measure'
- i. *sòm̀bùlɔ́* *bàlí-yò*
 millet.cakes cook(v.)-InstNom
 'kitchen, cooking area', cf. *sòm̀bùlɔ́* 'millet cakes', *bálè* 'cook (boil)'.

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

5.2 Adjectival compounds

5.2.1 Bahuvrihi (“Blackbeard”) compounds

5.2.1.1 With adjectival compound final [n-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 preceded by a H-tone (§3.6.3.7, §6.2.1.2), as in *gírè-nà* 'his/her 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* (§6.2.1.2); see Rightward H-Movement (§3.6.3.5). The modified noun denoting the entire entity (e.g. 'person') keeps its lexical tone.

- (xx1) a. *sójò* *gírè-ná-pèmbè*
 person eye-X-bad(eye)
 'one-eye, person with a blind eye' (*pèmbè* '[eye] become blind')
- b. *sójò* *dòlè-ná-bìgì*
 person belly-X-big
 'big-bellied person'
- c. *nàmúgà* *kò:-ná-yò:lè*
 snake head-X-black
 'black-headed snake'

5.2.1.2 With numeral compound final

I was unable to elicit a bahuvrihi containing a numeral ('two-headed'). Cues were rephases as predicates as in (xx1) or as relative clauses ('which has two heads').

(xx1) *nǎmgà* *[kò:-gé dè:gà]* *sà-Ø*
snake [head-PI two] have-3SgS
'(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 a NP is given in (xx1). Pronominal possessors are omitted (they are expressed by affixes). An informant rejected proposed combinations of a demonstrative (*mó*) with a possessor.

- (xx1) demonstrative: *mó* or: nonpronominal possessor
noun
modifying adjective
plural: *-gè*
cardinal numeral
definite: *nò*
universal quantifier ('all'): *kúndú, sàkáy*

Examples showing the ordering relationships are in (xx2). In each case the "formula" on the right is a schematic summary.

- | (xx2) | | formula |
|-------|--|---------------------|
| a. | <i>ʔòbó</i> <i>yò:lè-gé</i> <i>dè:gà</i>
house black-Pl two
'two black houses' | [n-a-pl-num] |
| b. | <i>mó</i> <i>ʔòbò-gé</i> <i>dè:gà</i> <i>nó</i>
Dem house-Pl two Def
'these/those two houses' | [dem-n-pl-num-def] |
| c. | <i>ʔòbò-gè</i> <i>nò</i> <i>kúndú</i>
house-Pl Def all
'all (of) the houses' | [n-pl-def-'all'] |
| d. | <i>séydù</i> <i>ʔòbò-gè</i> <i>nò</i> <i>kúndú</i>
Seydou house-Pl Def all
'All (of) Seydou's houses' | [poss-n-Pl-Def-all] |

Adjective-Numeral Inversion is absent.

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

Some elements other than nouns may appear to head the NP, in the absence of a contextually understood or unspecified noun category. The NPs in (xx1) can be used in contexts like 'give me ___'. A demonstrative is normally accompanied by a definite morpheme (xx1a). A numeral may appear in bare form (xx1b). As for 'all' quantifiers, the adverb-like *sàkáy* but not *kúndú* can be used independently to denote the entirety of a mass ('everything').

- (xx1) a. *mó* *nò*
Dem Def
'this/that (one)'
- b. *tá:ndù*
three
'three'
- c. *sàkáy*
all
'everything'

For adjectives, a semantically light noun, normally *yè:* 'thing', is required.

- (xx2) *yé:* *bòw / yò:lè / bigì* *nó*
thing red / black / big Def
'the red / black / big one'

Likewise, a possessor requires at least a light noun like 'thing'.

- (xx3) *ŋ* *wé:*
1SgP **thing**
'mine'

Definite *nò* and plural *-gè* are not used without nouns.

6.1.3 Bifurcation of relative-clause head NP

Relative clauses have internal head NPs. The internal head NP may include a possessor or demonstrative, the noun, one or more modifying adjectives, and/or

a numeral. However, definite *nɔ̃* and 'all' quantifiers *kúndú* and *sàkáy* follow the verb-participle and may therefore be separated from the internal head. (The entire construction functions as an expanded NP.) 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 a {LH} overlay on the preceding noun. For some nominal tone-classes, the overlay controlled by the plural marker is {H}.

(xx1)	formula	realized as...
	N-Adj	N ^{LH} LAdj
	N-Adj-Adj	N ^{LH} LAdj ^H Adj

tó:lè '1' is treated as an adjective and appears as *tò: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 on the plural marker (*-gé*), and since *dè:gà* itself appears here in {L}-toned form, contrast independent form *n-dé:gà*.

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

Definite *nɔ̃* has no tonal effect on the preceding sequence, with one exception, but itself shifts to H-tone after a {L}-toned word. The exception is that *nɔ̃* blocks the tone-raising of a {L}-toned noun before plural *-gé* (§4.xxx).

The addition of a possessor complicates all of these tonosyntactic patters; see §6.2 below.

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. All pronominal possessors except 3Sg are procliticized to the possessed noun, the forms being the same as for

pronominal subjects of verbs. Preposed possessors control either a {HL} or L+{HL} overlay on the following possessed noun, depending on the final tone of the possessor. 3Sg possessor is exceptionally expressed by a suffix *-nà*. For the pronominal forms, see §4.3.2.

6.2.1 Alienable possession

6.2.1.1 Preposed L-final possessor with {HL} overlay

Possessors that **end in a L-tone**, including 1Sg *ɨ̃*, 2Sg *à*, and 3Pl *âɨ̃* proclitic possessors as well as most nonpronominal NPs, control a {**HL**} **overlay** on the possessed noun, erasing its lexical tones. Only the first syllable (the first mora for monosyllabics) is H-toned, so for trisyllabic and longer nouns, like 'meal' and 'knee' in (xx1), the {HL} overlay is distinct from a lexical falling melody for nouns, which is realized as H.H.L.

(xx1)	noun	gloss	'Seydou's _'	'my / your-Sg / their _'
	<i>yó</i> (<i>yô:</i>)	'woman'	<i>séydù</i> ^{HL} <i>yô:</i>	<i>ɨ̃ / à / âɨ̃</i> ^{HL} <i>yô:</i>
	<i>kò:</i>	'head'	<i>séydù</i> ^{HL} <i>kò:</i>	<i>ɨ̃ / à / âɨ̃</i> ^{HL} <i>kò:</i>
	<i>ʔólò</i>	'village'	<i>séydù</i> ^{HL} <i>ʔólò</i>	<i>ɨ̃ / à / âɨ̃</i> ^{HL} <i>ʔólò</i>
	<i>kèlè</i>	'horn'	<i>séydù</i> ^{HL} <i>kèlè</i>	<i>ɨ̃ / à / âɨ̃</i> ^{HL} <i>kèlè</i>
	<i>fètó</i>	'pond'	<i>séydù</i> ^{HL} <i>fètó</i>	<i>ɨ̃ / à / âɨ̃</i> ^{HL} <i>fètó</i>
	<i>pánàngè</i>	'meal'	<i>séydù</i> ^{HL} <i>pánàngè</i>	<i>ɨ̃ / à / âɨ̃</i> ^{HL} <i>pánàngè</i>
	<i>kúnjúgà</i>	'knee'	<i>séydù</i> ^{HL} <i>kúnjúgà</i>	<i>ɨ̃ / à / âɨ̃</i> ^{HL} <i>kúnjúgà</i>
	<i>dógòtòrò</i>	'doctor'	<i>séydù</i> ^{HL} <i>dógòtòrò</i>	<i>ɨ̃ / à / âɨ̃</i> ^{HL} <i>dógòtòrò</i>

Examples with internally complex possessors are in (xx2).

- (xx2) a. [*yô:* *nò*] ^{HL}*ʔóbò* / ^{HL}*déndè-bè*
 [woman Def] ^{HL}house / ^{HL}tongue
 'the woman's house/tongue'
- b. [*ɨ̃* ^{HL}*bâw*] ^{HL}*déndè-bè*
 [1SgP ^{HL}father] ^{HL}tongue
 'my father's tongue'
- c. [*yô:* *nò*] ^{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:*] *?ólò*.

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

Possessors ending in a H-tone control **L+{HL} overlay** on the possessed noun. The only high-frequency possessors of this type are 1PI *ń* and 2PI *á* possessor proclitics. This is because the few nouns ending in a H-tone are generally inanimate and do not easily function as possessors (as opposed to compound initials). However, some numerals ends in a 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 (§3.6.3.7). This is suggested by the notation L+{HL}, though it is phonologically equivalent to {LHL}. The L+{HL} melody as such appears only on the first word or stem of an internally complex possessed noun or NP, the remaining words or stems presenting their own {HL} overlay.

The full L+{HL} overlay is fully realized with trisyllabic and longer nouns, but is **reduced to {L}** for mono- and bisyllabic (i.e. prosodically light) nouns. Adding plural *-gè* to a prosodically light noun makes it prosodically heavy, so it can express the full overlay. Quadrisyllabic nouns realize L+{HL} as a L.L.H.L syllable sequence, i.e. with tone breaks as close as possible to the right edge.

(xx1) Realization of L+{HL} overlay on possessed nouns

noun	gloss	'our _'	'your-PI _'
a. prosodically light, realized as {L}			
<i>yɔ́</i> (<i>yɔ́:</i>)	'woman'	<i>ń</i> ^{L+HL} <i>yɔ́:</i>	<i>á</i> ^{L+HL} <i>yɔ́:</i>
<i>kò:</i>	'head'	<i>ń</i> ^{L+HL} <i>kò:</i>	<i>á</i> ^{L+HL} <i>kò:</i>
<i>?ólò</i>	'village'	<i>ń</i> ^{L+HL} <i>?ólò</i>	<i>á</i> ^{L+HL} <i>?ólò</i>
<i>kèlè</i>	'horn'	<i>ń</i> ^{L+HL} <i>kèlè</i>	<i>á</i> ^{L+HL} <i>kèlè</i>
<i>fètò</i>	'pond'	<i>ń</i> ^{L+HL} <i>fètò</i>	<i>á</i> ^{L+HL} <i>fètò</i>
b. prosodically heavy, realized as {LHL}			
<i>pánángè</i>	'meal'	<i>ń</i> ^{L+HL} <i>pánángè</i>	<i>á</i> ^{L+HL} <i>pánángè</i>
<i>kúnjúgà</i>	'knee'	<i>ń</i> ^{L+HL} <i>kúnjúgà</i>	<i>á</i> ^{L+HL} <i>kúnjúgà</i>
<i>dògòtòrò</i>	'doctor'	<i>ń</i> ^{L+HL} <i>dògòtòrò</i>	<i>á</i> ^{L+HL} <i>dògòtòrò</i>
<i>bàndàgà:rì</i>	'yoke'	<i>ń</i> ^{L+HL} <i>bàndàgà:rì</i>	<i>á</i> ^{L+HL} <i>bàndàgà:rì</i>

Examples with numerals at the end of the possessor are (xx2). '2' ends in a L-tone, while '10' ends in a H-tone. Pluralizing 'house' in (xx2b) allows the full {LHL} overlay to be overt.

- (xx2) a. *[sòjò-gé dè:gà]* ^{HL}ʔóbò
 [person-Pl two] ^{HL}house
 'a house of two people'
- b. *[yò: kóbéyⁿ]* ^{L+HL}ʔàbò / ^{L+HL}ʔàbò-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, *wòli-[wálò-bò]* 'farmer' (agentive compound, §5.1.5) occurs as possessed noun in (xx3). In (xx3a), the {HL} overlay is repeated on both parts of the compound, which surfaces with H.L-H.L-L melody. In (xx3b), the output melody is L.L-H.L-L. This is compatible with the separate application of {LHL} (following a final H-tone) to the compound initial, with the reduction to {L} on a light stem, followed by separate application of the basic {HL} overlay to the final.

- (xx3) a. *ìj* ^{HL}wòli- ^{HL}[wálò-bò]
 1SgP farm.work-[do.farming-Agent]
 'my farmer'
- b. *íj* ^{L+HL}wòli- ^{HL}[wálò-bò]
 1PIP ^{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*. Its tonal behavior is brought out in (xx1). The phonologically most unusual forms are highlighted by "(!)"

- (xx1) noun gloss 'his/her/its _'
- a. {L}-toned light stems
- | | | |
|-------------|--------|--------------------|
| <i>sè:</i> | 'foot' | <i>sé:-nà</i> (!) |
| <i>kò:</i> | 'head' | <i>kó:-nà</i> (!) |
| <i>kélè</i> | 'horn' | <i>kélé-nà</i> (!) |

- b. {HL}-toned light stems
- | | | |
|--------------------------|-----------|----------------|
| <i>sé</i> (<i>sé:</i>) | 'horse' | <i>sé:-nà</i> |
| <i>yó</i> (<i>yó:</i>) | 'woman' | <i>yó:-nà</i> |
| <i>ʔólò</i> | 'village' | <i>ʔóló-nà</i> |
- c. {LH}-toned light stems
- | | | |
|-------------|--------|----------------|
| <i>fētó</i> | 'pond' | <i>fētó-nà</i> |
|-------------|--------|----------------|
- d. heavy stems (including bisyllabics with heavy first syllable)
- | | | |
|----------------|-----------|-------------------|
| <i>yì:lì</i> | 'stream' | <i>yì:lí-nà</i> |
| <i>ná:lì</i> | 'cat' | <i>ná:lí-nà</i> |
| <i>pánàngè</i> | 'meal' | <i>pánàngé-nà</i> |
| <i>ʔálámà</i> | 'sheep' | <i>ʔàlàamá-nà</i> |
| <i>kúnjúgà</i> | 'knee' | <i>kúnjúgá-nà</i> |
| <i>jàppèré</i> | 'padding' | <i>jàppèré-nà</i> |
| <i>sùgùlè</i> | 'ear' | <i>sùgùlé-nà</i> |

elsewhere *sùgùlé-nà*

When definite *nò* follows, the tones shown above are retained, except that the tone-raising of lexical /L/ to {H} is blocked (xx2a). One consequence of this is that adding definite *nò* restores the lexical tone difference between 'foot' and 'horse' (xx2b).

(xx2)	noun	3Sg possessor		gloss
		without <i>nò</i>	with <i>nò</i>	
a.	<i>tòni</i>	<i>tóní-nà</i>	<i>tòni-nà nó</i>	'mouth'
	<i>gèmbù</i>	<i>gèmbú-nà</i>	<i>gèmbù-nà nó</i>	'(leather) bag'
b.	<i>sè:</i>	<i>sé:-nà</i>	<i>sè:-nà nó</i>	'foot'
	<i>sé</i> (<i>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 a N-Adj1-Adj2 sequence.

(xx3) 3Sg *-nà* before adjective

- a. lexical /HL/
- | | | |
|----------------------|-------------------------|---------------|
| <i>sé: yò:lè</i> | <i>sé:-nà yó:lè</i> | 'black horse' |
| <i>ʔinjè yò:lè</i> | <i>ʔinjé-nà yó:lè</i> | 'black dog' |
| <i>ʔàlàamá yò:lè</i> | <i>ʔàlàamá-nà yó:lè</i> | 'black sheep' |

b. lexical /LH/

jàppèré yò:lè *jàppèré-nà yò:lè* 'black padding'

c. lexical /L/ to {H} or {LH}

prosodically light (two vocalic moras) to {H}

sé: bígì *sé:-nà bígì* 'big foot'

gèmbú yò:lè *gèmbú-nà yò:lè* 'black (leather) bag'

prosodically heavy (three or more vocalic moras) to {LH}

dèndèbé bígì *dèndèbé-nà bígì* 'big tongue'

Before plural *-gè*, the noun is {L}-toned and 3Sg possessor *-nà* is tone-raised to *ná*. A following numeral, including *dè:gà* '2', has {HL} melody.

(xx5) *?òbò / ?àlámà / ?ínjè* *-ná-gè* (*tá:ndù*)
 house / sheep / dog -3SgP-Pl (three)
 'his/her (three) houses / sheep / dogs' (*?òbò, ?àlámà, ?ínjè*)

(xx5) *?òbò / ?àlámà / ?ínjè* *-ná-gè* (*dé:gà*)
 house / sheep / dog -3SgP-Pl (three)
 'his/her (two) houses / sheep / dogs' (*?òbò, ?àlámà, ?ínjè*)

6.2.1.4 Possessives versus compounds

The productive pattern for **noun-noun compounds** resembles 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 clearcut 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 (xx1). 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, realized as {L} on light stems and as {LHL} on heavy stems, including suffixed plurals of light stems. If the initial has no H-tone, the final gets {HL} tone.

(xx1) a. *yò:-gé / nòlò-gé* ^{L+HL}*?òbò* / ^{L+HL}*?òbò-gè*
 woman-Pl / man-Pl ^{L+HL}house / ^{L+HL}house-Pl
 'women's/men's house(s)' (*yò:-gè, nólò-gè*)

b. *?ínjé* ^{L+HL}*dèndé-bè*
 dog ^{L+HL}tongue
 'a dog's tongue' (*?ínjè*)

{HL}?

- c. *ʔàllà* ^{L+HL}*dëndé-bè* / ^{L+HL}*dëndé-bé-gè*
 pig tongue / L+HL tongue-Pl
 '(a) pig's tongue(s)' (*dëndé-bè*)

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

When a possessed noun like 'house' in (xx1a) is modified adjectivally, as in (xx1b), a possessor **ending in a L-tone** controls {HL} separately on the noun and the adjective (xx1b). The {HL} on the noun is presumably the possessor-controlled overlay described above. The {HL} on the adjective could be interpreted as a reapplication of this possessor-controlled {HL}. However, {HL} is also the melody for the second of two adjectives, i.e. Adj2 in [N^LAdj1^{HL}Adj2] sequences (§4.5.1). Therefore its occurrence in the final word in [Poss^{HL}N^{HL}Adj1^{HL}Adj2] (xx1c), might have other explanations having to do with the number of preceding words within the NP.

- (xx1) a. [*yó:* *nò*] ^{HL}*ʔóbò(-gé)* *nò*
 [woman Def] ^{HL}house(-Pl) Def
 'the woman's house(s)'
- b. [*yó:* *nò*] ^{HL}*ʔóbò* ^{HL}*kándà(-gé)* *nò*
 [woman Def] ^{HL}house ^{HL}new(-Pl) Def
 'the woman's new house(s)'
- c. [*yó:* *nò*] ^{HL}*ʔóbò* ^{HL}*kándà* ^{HL}*yó:lè(-gé)* *nò*
 [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, except that *dè:gà* '2' becomes {HL}-toned. The numeral otherwise keeps its regular tones. The possessed noun has its tones controlled by the possessor in the usual way.

- (xx2) [*yó:* *nò*] *ʔóbò-gè* ^{HL}*dé:gà* / *tá:.ndù* / *kúléwⁿ*
 [woman Def] ^{HL}house-Pl ^{HL}two / three / six
 'the woman's two/three/six houses'

1Sg *ɲ* and 2Sg *à* are also L-toned possessors, and they have the same tonal interactions with following nouns and modifiers as do nonpronominal possessors like *yó: nò* 'the woman' that end in a L-tone.

When the possessor **ends in a H-tone**, e.g. by Rightward H-Spreading, it controls L+{HL} on the possessed noun, reduced to {L} on mono- and bisyllabic nouns. For example, we get {L}-tone on 'house' in (xx3a), but if plural *-gè* is added 'house' becomes trisyllabic and the full L+{HL} is audible. If a modifying adjective is added, it has the same {HL} overlay in (xx3b) as seen in (xx1b-c) above.

- (xx3) a. *ɲ* ^{L+HL}*ʔòbò* / ^{L+HL}*ʔòbò-gè*
 1PIP house / house-PI
 'our houses'
- b. *ɲ* ^{L+HL}*ʔòbò* ^{HL}*kándà(-gè)*
 1PIP ^{L+HL}house ^{HL}new(-PI)
 'our new house(s)'

Numerals in Poss-N-Num sequences likewise are indifferent to the final tone of the possessor. '2' again becomes {HL} while other numerals have their usual tones, in (xx4) just as in (xx2) above.

- (xx4) *yò:-gé* ^{L+HL}*ʔòbò-gè* ^{HL}*dé:gà* / *tá:ndù* / *kúléwⁿ*
 woman-PI ^{L+HL}house-PI ^{HL}two / three / six
 'the women's two/three/six houses'

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

6.2.2 Inalienable possession

6.2.2.1 Kin terms and similar relationship terms

Morphologically simple kin and relationship terms are in (xx1a). The two in (xx1b) are *Cv-Cv* with a reduplicative appearance. *sèj-jò* 'grandchild' (xx1c) is an isolated compound consisting of *sèjì* 'grandparent' and an archaic diminutive ending, cf. e.g. Yanda Dom *sèzì-yè*. The combinations in (xx1d) are combinations of parental and sibling terms, the latter treated as modifying adjectives (hence the rising tone on the parental term).

(xx1)	unpossessed	'my X'	gloss
a.	<i>bàw</i>	ɨ ^{HL} <i>bàw</i>	'father' (vocative: <i>bá:</i>)
	<i>tólò</i>	ɨ ^{HL} <i>tólò</i>	'father's sister'
	<i>tòrì</i>	ɨ ^{HL} <i>tòrì</i>	'grandfather'
	<i>nólò</i>	ɨ ^{HL} <i>nólò</i>	'friend'
	<i>dèlì</i>	ɨ ^{HL} <i>dèlì</i>	'elder sibling'
	<i>dèbò</i>	ɨ ^{HL} <i>dèbò</i>	'younger sibling'
	<i>sèjì</i>	ɨ ^{HL} <i>sèjì</i>	'grandmother'
	<i>inògù</i>	ɨ ^{HL} <i>inògù</i>	'parent-in-law'
	<i>sáḡánà</i>	ɨ ^{HL} <i>sáḡánà</i>	'cross-cousin'
	<i>kàbùḡgè</i>	ɨ ^{HL} <i>kàbùḡgè</i>	'agemate'
	<i>nùmbùlù</i>	ɨ ^{HL} <i>nùmbùlù</i>	'person with the same name'
b.	<i>bò-bò</i>	ɨ ^{HL} <i>bò-bò</i>	'mother's brother'
	<i>nì-nì</i>	ɨ ^{HL} <i>nì-nì</i>	'mother' (vocative: <i>íné</i>)
c.	<i>sèj-jò</i>	ɨ ^{HL} <i>sèj-jò</i>	'grandchild' (< <i>sèjì</i>)
d.	<i>bàw dèlì</i>	ɨ ^{HL} <i>bàw dèlì</i>	'father's elder brother'
	<i>bàw dèbò</i>	ɨ ^{HL} <i>bàw dèbò</i>	'father's younger brother'
	<i>nì-ní dèlì</i>	ɨ ^{HL} <i>nì-ní dèlì</i>	'father's elder brother'
	<i>nì-ní dèbò</i>	ɨ ^{HL} <i>nì-ní dèbò</i>	'father's younger brother'

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. However, my informant was lukewarm about adding modifying adjectives to kin terms as in (xx1b). Adding a numeral as in (xx1c) is fine. These examples involve possessors ending in a L-tone.

(xx1)	a.	[<i>yó:</i>	<i>nò</i>]	^{HL} <i>bò-bò(-gè)</i>	<i>nò</i>	
		[woman	Def]	^{HL} uncle(-Pl)	Def	
		'the woman's maternal uncle(s)'				
	b.	[<i>yó:</i>	<i>nò</i>]	^{HL} <i>bò-bò</i>	^{HL} <i>kémnò(-gè)</i>	<i>nò</i>
		[woman	Def]	^{HL} uncle	^{HL} old(-Pl)	Def
		'the woman's old (aging) maternal uncle(s)'				

- c. [yɔ: nɔ̃] ^{HL}bɔ-bɔ-gɛ̃ ^{HL}dɛ:gà / tá:ndù / kúléwⁿ
 [woman Def] ^{HL}uncle-Pl ^{HL}two / three / six
 'the woman's old (aging) maternal uncle(s)'

Similarly, when the possessor ends in a H-tone, either a plural pronoun like 1Pl *ɲ* 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 (xx2) as in alienable examples given above.

- (xx2) yɔ:-gɛ̃ ^{L+HL}bɔ-bɔ-gɛ̃ ^{L+HL}dɛ:gà / tá:ndù / kúléwⁿ
 woman-Pl ^{L+HL}uncle-Pl two / three / six
 'women's two/three/six uncles'

6.2.3 Recursive possession

A possessed NP may itself function as possessor of another NP. In (xx1a), 'father' has {HL} overlay controlled by the 1Sg possessor, and 'house' has {HL} contour controlled by 'my father'. In (xx1b), Rightward H-Movement puts the H-tone on the plural suffix in 'our wives', so 'house(s)' has the tones appropriate for a possessed noun after a possessor ending in a H-tone.

- (xx1) a. [ɲ ^{HL}bâw] ^{HL}ʔɔbò
 [1SgP ^{HL}father] ^{HL}house
 'my father's house'
- xx b. [ɲ ^{L+HL}yɔ:-gɛ̃] ^{L+HL}ʔɔbò / ^{L+HL}ʔɔbó-gɛ̃
 [1SgP ^{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 combination, the adjective controls a {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. Examples with *bigi* 'big' are in (xx1).

- (xx1) combination gloss noun

<i>pòlèngé^{HL} bìgì</i>	'a big egg'	<i>póléngè</i>
<i>kùnjùgá^{HL} bìgì</i>	'a big knee'	<i>kúnjúgà</i>
<i>sùgùlè^{HL} bìgì</i>	'a big ear'	<i>sùgùlè</i>
<i>nà:lí^{HL} bìgì</i>	'a big cat'	<i>ná:lì</i>
<i>kèlè^{HL} bìgì</i>	'a big horn'	<i>kèlè</i>
<i>yó:^{HL} bìgì</i>	'a big woman'	<i>yó (yô:)</i>
<i>kó:^{HL} bìgì</i>	'a big head'	<i>kò (kò:)</i>

When there is just one modifying adjective after the noun, the adjective is {L}-toned. As shown in §6.3.3.1 below, when two adjectives follow the noun, the first adjective is {L}-toned and the second is {HL}, i.e. is treated like a H-initial noun.

For those adjectives that are not used as nouns, the {L}-toned form may be the lexical representation. For those that can be used either as nouns or as adjectives, one can argue for a tonosyntactic {L} overlay in modifying adjective function. The best examples are those like *nólò* 'man' becoming *nòlò* 'male' as modifying adjective, and characteristic derivatives (§4.2.1) like *dólé-gà* 'pregnant woman' becoming *dòlè-gà* 'pregnant' as modifying adjective.

In a N-Adj sequence, plural *-gè* is added to the adjective: *?òbó bàyⁿ-gè* 'big hours'.

tóndígè 'money' (cf. *tòndí-bè* 'cowry shell', formerly used as currency) is a frozen plural that now functions as a singular mass noun. *tóndígè* has 3Sg agreement, and keeps its *gè* syllable before an adjective: *tòndígè^{HL} .nàngò* 'thin money', i.e. 'change, coins'.

6.3.2 Adjective *tàngà* 'certain (ones)'

The adjective *tàngà* after a noun means 'certain (ones)', i.e. a specific but not overtly named subset of a collectivity.

6.3.3 Expansions of adjective

6.3.3.1 Adjective sequences

Two or, in theory, even 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.

It was noted in §6.3.1 that a single adjective following a noun has {L} melody, which for many adjectives can be taken as lexical. When two or more adjectives follow a noun, the first has the same {L} melody, but subsequent

ones have {HL}. The examples in (xx1) involve *ɲá:lì* 'cat', which appears with {LH} overlay before an adjectives.

- (xx1) a. N-Adj
ɲá:lì^{HL} yɔ:lè 'a black cat'
ɲá:lì^{HL} bìgì 'a big cat'
ɲá:lì^{HL} kèmnò 'an old cat'
- b. N-Adj1-Adj2
ɲá:lì^{HL} bìgì^{HL} yɔ:lè 'a big black cat'
ɲá:lì^{HL} yɔ:lè^{HL} bìgì "
- c. N-Adj1-Adj2-Adj3
ɲá:lì^{HL} kèmnò^{HL} bìgì^{HL} yɔ:lè 'a big black old cat'
 (other linear orders also possible)

Adjectives, including the first adjective, also have {HL} melody when they follow a possessed noun; see §6.xxx above.

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

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 *tò:lè*, treated like an adjective. Basic numerals from '2' up usually follow an overtly pluralized noun or NP ending with plural suffix *-gè*. In the case of '2' only, a {LH} contour is imposed, with the H-tone element on the plural marker, and both the noun and the numeral are {L}-toned. The examples in (xx1) involve the noun *?àlàamá* 'sheep', plural *?àlàamá-gè*. In (xx1c), *tá:ndù* '3' and *tà:lúmà* '20' have no effect on the tones of the preceding words, here indicated by the island notation (this is regular for numerals above '2').

- (xx1) a. *?àlàamá* *tò:lè*
 sheep one

- 'one sheep'
- b. *ʔàlàrà-gé* *dè:gà*
 sheep-Pl two
 'two sheep'
- c. *ʔàlàrà-gè* *tá:ndù / tà:lúmà*
 sheep-Pl three / twenty
 'three/twenty sheep'

6.4.2 Adj-Num Inversion absent

In several Dogon languages, the addition of a possessor as in (xx1b) or of a demonstrative or a relative clause licenses optional inversion of the numeral and adjective. However, an informant denied that inversion is possible in Bunoge in examples like (xx1b).

- (xx1) *séydù* *ʔàlàrà* *yó:lè-gè* *tá:ndù*
 Seydou sheep 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 precedes the remainder of the NP, occupying the same slot as a preposed possessor. An informant rejected combinations of *mó* with such a possessor. *mó* was elicitable apparently in the same NP as an affixed pronominal possessor. However, the semantics and bracketing are not entirely clear, since *mó* 'this, that' can be used independently as a NP.

- (xx1) [*mó* *ɲ* *ʔóbò* *nɔ́*] *à* *tégé'*
 [Dem 1SgP house Def] 2SgS see.Perf.Q
 'Did you-Sg see this house of mine?'

6.5.2 Postnominal definite *nɔ̀*

The invariant definite morpheme *nɔ̀* follows nouns, adjectives, the plural marker, and numerals. It precedes 'all' quantifiers.

nɔ̀ polarizes tonally to a preceding {L}-toned word. It also blocks raising of a {L}-toned noun stem to {H} before plural *-gè*. See §6.1.1 for discussion and examples.

nɔ̀ is a high-frequency, nonemphatic definiteness marker. Syntactically, *nɔ̀* readily co-occurs with possessors and with demonstrative *mɔ̀*, which are commonly definite at least in a weak sense.

In relative constructions, definite *nɔ̀* follows the verb-participle (§14.xxx).

6.6 Universal and distributive quantifiers

6.6.1 'All' (*kúndú*, *sàkáy*)

'All' quantifiers occur at the very end of the NP. The most stylistically neutral is *kúndú*. It can combine with a nonsingular pronominal proclitic (xx1).

- (xx1) a. *ɔ̀ / á kúndú*
1PI / 2PI all
'all of us/you'
- b. *áɔ̀ kúndú*
3PI all
'all of them'

Further examples of *kúndú* are (xx2c-d) in §6.1.1. There is also a reduced variant *kún*, attested in *wá:yà kún* 'every year'.

sàkáy is more emphatic and adverb-like. It can occur in this function at the end of a NP in competition with *kúndú*, but unlike *kúndú* it can also be used as a one-word NP meaning 'everything' (§6.1.2).

Both *kúndú* and *sàkáy* follow an accusative marker; for *kúndú* see (xx2b) in §6.7. 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 tenuous relationship to the main part of the NP.

An informant resisted efforts to elicit a NP ending in *kúndú* or *sàkáy* with a following postposition. In (xx2), the expected postposition is simply omitted.

- (xx2) [*ʔóló-gè nɔ̀ kúndú*] *tàgá-gè ɔ̀g-gè*
[village-PI Def all] well-PI excavate.Perf-3PIS

'In every village they have dug wells.'

6.7 Accusative (*ngù*)

The accusative marker *ngù* is most common with definite human referents, including personal names (xx1a) and pronouns (examples below). It is usually omitted with indefinite discourse referents (xx1b) and with nonhuman referents even if definite (xx1c-d).

- (xx1) a. *[séydù ngù]* *ɨ* *nũmbè*
 [Seydou Acc] 1SgP hit.Perf
 'I hit-Past Seydou.'
- b. *ná* *ɨ* *só:wè*
 cow 1SgS buy.Perf
 'I bought a cow.'
- c. *yô:* *ɨ* *tégè*
 woman 1SgS see.Perf
 'I saw a woman.'
- d. *[núngù nò]* *ɨ* *tèbágè*
 [waterjar Def] 1SgS break.Perf
 'I shattered the waterjar.'

ngù is postposition-like, following a complete NP (xx2a), except that an 'all' quantifier follows it (xx2b).

- (xx2) a. *[bè:-gè dè:gà nò ngù]* *ɨ* *nũmbè*
 [child-Pl two Def Acc] 1SgS hit.Perf
 'I hit the two children.'
- b. *[bè:-gè nò ngù kúndù]* *ɨ* *nũmbè*
 [child-Pl Def Acc all] 1SgS hit.Perf
 'I hit-Past all the children.'

When NP-final, *ngù* can undergo tone-raising to *ngú* under the same conditions as other NP-final elements (§6.8). (xx3) illustrates with an imperative verb. This example also shows that verbs do not lose their transitivity when they are in imperative form.

- (xx3) *[séydù ngú] nũmbò*

[Seydou Acc] hit.Imprt
 'Hit-2Sg Seydou!'

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)'.

- (xx1) a. [séydù ngù] tóndígé tàbù
 [Seydou Acc] money give.Imprt
 'Give-2Sg the money to Seydou!'
- b. [séydù mì-ngù yé: ?ùnè-Ø] ?óri-Ø
 [Seydou 1Sg-Acc thing say.Perf-3SgS] not.be-3SgS
 'There is nothing that Seydou said to me.'
- c. ?èbégè ò-ngú ?ùnè-Ø / tá:yè-Ø
 what? 2Sg-Acc say.Perf-3SgS / speak.Perf-3SgS
 'What did he/she say to you?'
- d. pèjì-sòngúlò mì-ngù dènjá bò
 millet.cakes 1Sg-Acc sweet be
 'Millet cakes please me.'

(xx4b-d) have pronominal objects, which are regular in form. For the full set of pronominal accusatives, see §4.3.1

7 Coordination

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). The left (but not right) conjunct is subject to Rightward H-Movement, i.e. a H-tone on the NP ends up on *yà* (which becomes *yá*). Aside from this phonological process, there is a tendency to raise the pitch of the nonfinal *yà* and to lower that of the final *yà* (nonterminal versus terminal intonation).

- (xx1) a. *[ò yá]* *[mì yá]*
 [2Sg and] [1Sg and]
 'you-Sg and me.'
- b. *[mì yá]* *[ŋ bǎw yà]*
 [1Sg and] [1SgP father and]
 'me and my father' (*ŋ bǎw*)
- c. *[séydù yá]* *[bǎw-nà yà]*
 [Seydou and] [father-3SgP and]
 'Seydou_x and his_x/ his_y father'
- d. *[jòwⁿ yá]* *[ʔògá yà]*
 [today and] [tomorrow and]
 'today and tomorrow' (*ʔògà*)

Some nouns undergo tonal changes before *yà*. {LHL}-toned trisyllabics, and {HL}-toned bisyllabics, become {LH}. {HL} (in isolation H-toned) monosyllabics become {H}, perhaps from {HL} by Rightward H-Spreading. Lexically /L/-toned nouns like 'pig' in (xx2c) are unaffected, but allow tone-raising of *yà* to *yá*.

- (xx2) a. *[ʔàlámá yà]* *[kíló yà]*
 [sheep and] [goat and]
 'a sheep and a goat' (*ʔàlámà, kílò*)

- b. *[nòlò yà]* *[yɔː yà]*
 [man and] [woman and]
 'a man and a woman' (*nólò, yɔ* [~ *yɔː*])
- c. *[ʔàllà yá]* *[ʔinjé yà]*
 [pig and] [dog and]
 'a pig and a dog' (*ʔàllà, ʔinjé*)

If one or both conjunct is a plural pronoun, it already ends in *-yá* ~ *-y^{ná}* (see §4.3.1). Instead of adding *yà* 'and', the conjunction switches to instrumental *ndò*.

- (xx3) *[ò-yá ndò]* *[mì-yá ndò]*
 [2Pl Inst] [1Sg Inst]
 'you-Pl and us'

Accusative *ngù* (xx4a) and postpositions can be added at the end of the entire conjoined NP. In other words, the conjoined NP can function syntactically as a NP.

- (xx4) *[[nòlò-gé yà] [yɔː-gé yà] ngù] ń tégè*
 [[man-Pl and] [woman-Pl and] Acc] 1PlS see.Perf
 'We saw the men and the women.'

7.1.2 “Conjunction” of verbs or VP's

See verb chaining (chapter 15).

7.2 Disjunction

'Or' (*nà→* or *mà→*) is distinct from the polar interrogatives (*là* or *yà*). However, 'or' particles normally occur in interrogative contexts.

7.2.1 'Or' with NP disjuncts (*nà→*)

In (xx1), the subject and verb are the same in the two propositions, so the clausal disjunction reduces to a NP disjunction ('sheep' versus 'goat'). It appears that the *nà→* variant for 'or' is preferred before nonpronominal NPs, though my informant accepted *mà→* in (xx1a). He uses only *mà→* before independent pronouns (xx1b).

- (xx1) a. *?àláamá lá=á sèlà→, mà→ kíló*
 sheep Q=2Pl slaughter.Impf, 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.Impf or 1Sg
 'Are you-Sg 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 (xx1a), *mà→* is grouped prosodically with the following disjunct. In (xx1b), 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.

- (xx1) a. *gè:ndù lá gè:ndà-Ø, mà→ lá dèngà-Ø*
 Iter Q go.Impf-3SgS, or Q stay.Impf-3SgS
 'Will he/she go, or (will he/she) stay?'
- b. *[gè:ndù lá=à gè:ndà] mà→ à dèngà'*
 [Iter Q=2SgS go.Impf] or 2SgS stay
 'Will you-Sg go or (will you) stay?'

8 Postpositions and adverbials

8.1 Dative and instrumental

8.1.1 Dative absent

I could not elicit a specifically dative postposition. Accusative marking is typical for indirect objects, see §6.7.

8.1.2 Instrumental (*ndò*)

The instrumental ('by means of') postposition is *ndò*. It is H-toned *ndó* after a {L}-toned word **if not followed by a H-tone**. The complement is typically a NP denoting an instrument or tool, but may also be abstract ('by force').

- (xx1) a. *[gúlò ndò] tè:ngè ñ párá-gè*
[ax Inst] wood 1SgS cut-Caus.Perf
'I chopped wood with an axe.'
- b. *[ñ gúlò (nó) ndò]*
[1SgP ax (Def) Inst
'with my axe'
- c. *sèmbè ndó*
power Instr
'by force, forcibly'
- d. *sè: ndó*
foot Instr
'on foot'

An informant rejected combinations with personal pronouns. Additional forms with nouns of different tonal melodies are in (xx2). The tones are consistent with Rightward H-Movement.

- (xx2) gloss X 'with/in X'

a. lexical falling melody		
'horse'	<i>sé (sé:)</i>	<i>sé: ndò</i>
'cat'	<i>ná:li</i>	<i>nà:lí ndò</i>
'egg'	<i>póléngè</i>	<i>pòlèngé ndò</i>
b. lexical rising melody		
'pond'	<i>fētó</i>	<i>fētó ndò</i>
'yoke'	<i>gàndù:ré</i>	<i>gàndù:ré ndò</i>
c. lexical low melody		
'foot'	<i>sè:</i>	<i>sè: ndò</i>
'horn'	<i>kêlê</i>	<i>kêlê ndò</i>
'ear'	<i>sùgùlè</i>	<i>sùgùlè ndò</i>

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.xxx).

8.2.2 Simple and complex PPs

Several postpositions are composite, cf. English *in front of X*. The landmark X is a NP, arguably a kind of possessor. The orientational noun (e.g. 'front', 'back', 'head', 'side') is the (arguably) possessed noun. It sometimes, but not always, has a tone melody compatible with the {HL} overlay controlled by possessors. 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 two primary locative postpositions, *mbà ~ à* and *ndò ~ lò*. Each has a prenasalized *NCv* variant and an unnasalized (C)v variant. The prenasalized variants probably originated as contracted combinations of definite *nɔ̃* plus the unnasalized variants, and the prenasalized variants still behave as though they contained a definite marker. However, the phonology is not transparent, and

prenasalized and nasalized variants are probably in the process of splitting into distinct morphologized allomorphs.

ndò is also the basic instrumental postposition. Some other Dogon languages have all-purpose postpositions that can be instrumental, locative, and even dative (e.g. Jamsay *lè*).

Although the choice between *mbà* ~ *à* and *ndò* ~ *lò* is sometimes determined by grammatical categories (e.g. only *-lò* occurs with demonstratives and interrogatives), with an ordinary NP complement like 'village' an informant suggested that *mbà* is used when the location in question is out of sight, while *ndò* is used when it is in sight. This suggests a connection with Yanda Dom locative postpositions *bà* (displaced) and *nà* (nearby).

Further study is needed to clarify the semantic distinction and the etymologies.

A possible third basic locative is *-nâ*: ~ *-nâ*. I generally interpret this phonetic sequence as the contracted combination of definite *nô* (or its H-toned variant *nô*) with locative allomorph *â*. However, in demonstrative adverbs *mâ:-nâ*: 'here' and *bò-nâ*: 'there' (§4.4.3.1) this morphemic decomposition may not be viable. See also the discussion of 'in front of X' postpositions in §8.2.7.

8.2.3.1 Locative *mbà* ~ *à* 'in, on'

The primary locative postposition is *mbà*. It does not seem to allow a preceding definite *nô*, suggesting that the initial nasal in *mbà* may be a contracted vestige of *nô*. However, *mbà* can also be used after semantically indefinite nouns.

Representative forms of *mbà* are in (xx1) along with definite forms. The tones are generally consistent with Rightward H-Movement, but there are some discrepancies in the data involving lexically /L/-toned nouns. 'House', which of course is very commonly locative ('go home', 'be at home') has an irregular contraction.

(xx1) Noun plus locative postposition

definite	locative	gloss
a. lexically falling		
<i>gô: nô</i>	<i>gô: mbà</i>	'in/to (the) water'
<i>kê: nô</i>	<i>kê: mbà</i>	'in/to the outback, (the) bush'
<i>ʔólò nô</i>	<i>ʔóló mbà</i>	'in/to a/the village'
<i>tágà nô</i>	<i>tágá mbà</i>	'at/to a/the well'
<i>pòngélè nó</i>	<i>pòngèlé mbà</i>	'in/to a/the cemetery'
b. lexically rising		

<i>fētó nò</i>	<i>fētó mbà</i>	'in/to a/the pond'
c. lexically /L/ <i>remain</i> {L}-toned		
<i>yà:</i>	<i>yà: mbà</i>	'at night'
<i>bìlâ nò</i>	<i>bìlâ mbà</i>	'in/to a/the field(s)'
<i>dògù nò</i>	<i>dògù mbà</i>	'in/to a/the forest'
become {H}-toned		
<i>yí:li nò</i>	<i>yí:li mbà</i>	'in/to a/the stream, river'
<i>kèsè</i>	<i>kèsè mbà</i>	'on the cheek'
d. irregular contraction		
<i>?òbò nò</i>	<i>?ó: mbà</i>	'at/in/to a/the house'

The neutralization of definiteness is exemplified by (xx2).

(xx2)	<i>[?óló</i>	<i>mbà]</i>	<i>ŋ</i>	<i>bò</i>
	[village	Loc]	1PIS	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-Movement, for example before a 3Sg-subject verb. In (xx3a), the H-tone in *tàgá mbà* (already shifted from *tágà*) shifts farther to the right. In (xx3b), *dògù mbà* has no H-tone and remains unaffected.

(xx3)	a.	<i>[tágá</i>	<i>mbá]</i>	<i>bò-Ø</i>
		[well(n)	Loc]	be-3SgS
		'He/she is at the well.'		
	b.	<i>[dògù</i>	<i>mbà]</i>	<i>bò-Ø</i>
		[forest	Loc]	be-3SgS
		'He/she is in the forest.'		

NPs including plural *-gè* are illustrated in (xx4). Rightward H-Spreading can apply repeatedly: a) to the noun before the plural suffix, b) to the pluralized noun before the postposition, and c) to the PP before e.g. a 3Sg-subject verb. 'House' is regular in the plural, being treated like other /L/-toned nouns (xx4d).

(xx4) Plural noun plus locative postposition

	definite	locative	gloss
a. lexically /HL/			

- | | | | |
|--------------------|-------------------|-------------------------|--------------------------|
| | <i>ʔólé-gè</i> | <i>ʔólé-gé mbà</i> | 'in/to (the) villages' |
| | <i>tágá-gè</i> | <i>tágá-gé mbà</i> | 'at/to (the) wells' |
| b. lexically /LHL/ | <i>pónḡélé-gè</i> | <i>[pónḡélé-gé] mbà</i> | 'in/to (the) cemeteries' |
| c. lexically /LH/ | <i>fētṣ-gè</i> | <i>fētṣ-gé mbà</i> | 'in/to (the) ponds' |
| d. lexically /L/ | <i>bilà-gè</i> | <i>bilà-gé mbà</i> | 'in/to (the) fields' |
| | <i>dòḡù-gè</i> | <i>dòḡù-gé mbà</i> | 'in/to (the) forests' |
| | <i>ʔòbò-gè</i> | <i>ʔòbò-gé mbà</i> | 'at/in/to (the) houses' |

An example with 3Sg-subject verb is *[ʔólé-gé mbá] bò-Ø* 'he/she is in the villages'. In a cyclical model, the progression would be *ʔólò*, then *ʔólé-gè*, then *ʔólé-gé mbà*, then *ʔólé-gé mbá bò-Ø*. Alternatively, Rightward H-Spreading can apply once, to the full sequence, spreading several syllables to the right.

mbà does not affect the tones of NPs ending in an adjective or in a numeral. In (xx4), each NP would have the same form if *mbà* were omitted.

- (xx4) a. *[ʔòbó yò:lè] mbà*
 [house black] Loc
 'to a/the black house'
- b. *[ʔòlè-gé dè:gà] mbà*
 [village-Pl two] Loc
 'in/to (the) two villages'
- c. *[ʔòlè-gé 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), *[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 also used after place names, in competition with *mbà*.

- (xx5) a. *[ʔòbò ná = à] ḡó:ḡgè-Ø*
 [house Def=Loc] go.out.Perf-3SgS
 'He/She came out of the house.'

- b. [sɛ̀wà:rá = à] dɛ́:-Ø
 [Sevare=Loc] go.in.Perf-3SgS
 'He/She entered Sevare (town).' (sɛ̀wà:rɛ́)

Forms with *à* ~ *wà* after place names are in (xx6). There appears to be some lexicalization of the combinations, with respect both to the choice of allomorphs and to the presence/absence of a tone-shift of the stem-final syllable to H-tone. However, a majority of place names in common use have *à* and tone shift. The allomorph *à* contracts with a preceding vowel to form a long [a:] phonetically, in which case I transcribe as *a = à* with clitic notation.

(xx6) map name Bunoge name with locative

- a. with *à*
stem already ends in H-tone
 Fatoma fátómá fátómá = à
stem-final shifts to H-tone
 Sevare sɛ̀wà:rɛ́ sɛ̀wà:rá = à
 Konna kònnà kònná = à
 Goundaka gùndàkà gùndàká = à
 Sambere sàmbèrè sàmbèrá = à
 Bamako bàràkò bàràká = à
no tone shift
 Sangou sáŋgù sáŋga = à
 Dakouma dàkùmà dàkùmá = à

- b. with *wà*
stem-final shifts to H-tone
 Mopti mòtì mòtí wà
no tone shift
 Boudou bùrù bùrù wà

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)

ndò is also the regular instrumental postposition (§8.1.2), but in that function it allows preceding definite *nò*.

Examples of locative *ndò* are in (xx1).

- (xx1) a. [ʔòbò ndò] dɛ́:-Ø

[house Loc] go.in.Perf-3SgS
 'He/She went into the house.'

- b. *[gá:ngù ndò] ɲ bò*
 [roof Loc] 1PIS be
 'We are under the roof.' (*gá:ngù*)
- c. *[gá:ngù ndó] bò-∅*
 [roof Loc] be-3SgS
 'He/She/It is under the roof.' (*gá:ngù*)
- d. *[yà: ndò] wàlè ɲ kǎl-lò*
 [night Loc] work(n) 1PIS do-1mpfNeg
 'We don't work at night.'

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 pùmbè] ndò* 'behind X' (§8.2.8).

8.2.4 'Inside X' (*[X dólóngù] ndò*)

[X dólóngù] ~ [X dólóngù] by itself is a 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 a L-tone, and L-toned after a H-tone, in the fashion of possessed nouns. The PP *[X dólóngù] ndò* means 'inside X', or in these particular contexts 'under X'. *dólóngù* is etymologically related to *dólè* 'belly', so the original construction was 'in the belly of X'.

- (xx1) a. *ʔòbò / bilà dólóngù*
 house / field interior
 'interior of the house / area under the field'
- b. *gó dólóngù*
 water interior
 'area under water'
- c. *[kì:ⁿ nò] [[gó dólóngù] ndó] bòmbo-∅*
 [skiff Def] [[water area.under] Loc] be-3SgS
 'The skiff is under the water.'

8.2.5 'On X', 'over X' (*[X kò:] mbà*)

'On X' is expressed as 'in/on X's head'. After a possessor (i.e. a NP denoting a specific entity), *kò:* 'head' is L-toned after a H-tone, and H-toned after a L-tone, as usual for monosyllabic possessed nouns. Bare common nouns are treated tonally as compound initials, meaning that the initial is subject to Rightward H-Movement. Contrast (xx1) with possessed forms such as *ɲ kò:* 'my head'.

- (xx1) a. *[tìlɪŋɛ kò:] mbà*
 [tree head] Loc
 'on a/the tree' (e.g. bird is perched) (*tìlɪŋɛ*)
- b. *[bì:ŋɛ kò:] mbà*
 [mat head] Loc
 'on a/the mat' (*bì:ŋɛ*)
- c. *[séydù kó:] mbà*
 [Seydou head] Loc
 'above Seydou'

'above me/us'

Adverb 'above, overhead, on top', with no overtly specified landmark, is *kó: mbà*, i.e. locative of *kò:* 'head'. Before a L-toned 3Sg subject verb it appears as *kò: mbá* (xx2a).

- (xx2) a. *[kò:] mbá* *bò-∅*
 [head Loc] be-3SgS
 'He/she/it is overhead'
- b. *[kó:] mbá* *bó*
 [head Loc] be.3PIS
 'They are overhead.'

8.2.6 'Next to, beside X' (*[X kúmà]*)

[X kúmà] means 'beside, at the side of X'.

- (xx1) a. *[ɲ kúmà] má: bò-∅*
 [1Sg beside] here be-3SgS
 'He/She is here next to me.'
- b. *[séydù kùmá] bò*
 [Seydou beside] be-3SgS

'He/She is next to Seydou

- c. *[séydù kúmà] ñ* *bò*
 [Seydou beside] 1SgS be
 'I am next to Seydou.'

8.2.7 'In front of X' (*[X géndè] nà à*, *[X géndè] ndò*)

From noun *géndè* 'forehead' we get complex postpositions *[X géndè] nà à* and *[X géndè] ndò*. I take *nà à* to be the combination of definite *nà* and locative *à* and write it as two words accordingly. However, it is rather fused phonetically as [*nà:*], and it undergoes tone-raising to *ná á* as a unit.

- (xx1) a. *[[ñ géndè ná]=á]* *bò-Ø*
 [[1Sg forehead Def]=Loc] be-3SgS
 'He/She is in front of me.'
- b. *[séydù géndè ndò]* *bó*
 [Seydou forehead Loc] be.3PIS
 'They are in front of Seydou.'
- c. *[[séydù géndè ná]=á]* *ñ* *bò*
 [[Seydou forehead Def]=Loc] 1SgS be
 'I am in front of Seydou.'

géndé mbà is the adverbial phrase 'forward, ahead'.

'In front of the house' is phrased as 'at the house-mouth (= door)'.

- (xx2) *[?òbò-tòni ndó]* *bò* *?ébà*
 [house-mouth Loc] Exist sit.Stat.3PIS
 '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* to avoid consecutive *mb* clusters.

- (xx1) a. *[[ñ pù:] mbá]* *bòmbò-Ø*
 [[1Sg back] Loc] be-3SgS
 'He/She is behind me.'

- b. [pùmbù-ná mbà] ò bò
 [back-3SgP Loc] 1SgS be
 'I am behind him/her.'
- c. [séydù pùmbù ndò] bòmbó-yà
 [Seydou forehead Loc] be-3PlS
 'They are behind Seydou.'
- d. [séydù pú: mbà] ò bò
 [Seydou forehead Loc] 1SgS 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.

- (xx1) [[sèni nò] dábè mè] [ójí ò ?ùnà]
 [[holy.day Def] pass.Perf if] [road 1SgS go.Impf]
 'I will travel after the holy day'

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:]. Arguably the final *-nà:* could be analysed as either 3Sg possessor *-nà* or definite *nò* followed by locative allomorph *à*, but the morphology is not transparent. Given that the adverbial phrase '(down) below, underneath' is *bú: mbà, sé: ~ sè:* must be segmented; it is likely a possessed form of the noun *sè* (*sè:*) 'foot', so the construction is literally 'under the foot of X'. See comments at the beginning of §8.2. above about *-nà:* (and *-nâ:*).

- (xx1) a. [[bú:ngè nò] sé:] bù:-nà à
 [[mat Def] foot] under-Loc Loc
 'under the mat'
- b. [kíní sè:] bú:-nà à
 [stone foot] under-Loc Loc
 'under a/the stone'

8.2.10 'Between X and Y' (*[X yà Y yà] bèlàngá-nà*)

Noun *bèlàngá* 'middle' is the basis for this complex postposition. The complement denotes a plurality and is often a conjoined NP. *-nà* appears to be the 3Sg possessor suffix.

- (xx1) a. *[mòtí yà] [sèwà.ré yà] bèlàngá-nà*
 [Mopti and] [Sevare and] between-3SgP
 'between Mopti and Sevare (cities)'
- b. *ń bèlàngá-nà*
 1Pl between-3SgP
 'between us'

8.3 Purposive-causal 'for' (*dà*)

Purposive *dà* is illustrated in prospective purposive function in (xx1).

- (xx1) *[[ígè nò] dà] ?égè*
 [[honey Def] Purp] come.Perf-3PIS
 'They have come for the honey.' (*ígè*)

The postposition is exemplified in retrospective causal function in (xx2).

- (xx2) a. *[[?àyà nò] dà] ń dè:*
 [[rain(n) Def] Purp] 1PIS go.in.Perf
 'We went into the house because of the rain (outside).'
- b. *[ń dà] ?égè sà*
 [1Sg Purp] come.3Pls Ppl.Perf.3PIS
 'It's for me [focus] that they have come.'
- c. *[?àmànàngà dá] ò-ńgú ń bànnà*
 [God Purp] 2Sg-Acc 1SgS help.Impf
 'I will help you-Sg on account of God (i.e. as a charitable act).'

For interrogative *?èbégè dà* 'what for?, why?' see §13.2.2.2.

8.4 Other adverbs (or equivalents)

8.4.1 'Together' (*bó*)

bó 'together' is an adverb.

- (xx1) a. *wàlè* *bó* *ɲ* *kàná*
work(n) together 1PIS do.Impf
'We will work together.'
- b. *wàlè* *bó* *kánà*
work(n) together do.Impf.3PIS
'They will work together.'

8.4.2 Spatiotemporal adverbials

8.4.2.1 Temporal adverbs

Some of the major temporal adverbs are in (xx1).

- (xx1) a. *jòwⁿ* 'today; nowadays'
yá:gù 'yesterday'
yá:gù n-tùná 'day before yesterday'
másà 'now'
- b. *ʔógà* 'tomorrow'
ʔógà n-tùná 'day after tomorrow'
- c. *gó:li* 'last year'
bùlí-gèná 'next year'
jàwⁿ 'this year'

8.4.2.2 Spatial adverbs

The following are the main spatial adverbs.

- (xx1) a. *kǒ: mbà* 'above, top, summit'
bú: mbà 'below, bottom, down'
- b. *ʔiró pùjà* 'east'
ʔiró 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 causative-like transitive verbs. There are only vestiges of an original mediopassive suffix.

The form of the reciprocal derivative is covered in §9.5 below, see §18.4.1 for its syntax.

Adjectives have cognate inchoative 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 (xx1). *CvCCv* with nongeminate medial cluster is also straightforward (xx1b). Syncope and vowel-shortening are observed in (xx1c). A medial geminate is simplified in (xx1d), but historically such cases may involve original mediopassives.

(xx1)	input	gloss	reversive	gloss
a. <i>CvCv</i> input				
	<i>déŋè</i>	'shut (door)'	<i>déŋú-lè</i>	'open (door)'
	<i>sóǰè</i>	'tie'	<i>sóǰú-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>CvCCv</i> input with medial nongeminate CC				
	<i>námè</i>	'cover (person)'	<i>námú-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>jángè</i>	'hook, hang'	<i>jángú-lè</i>	'unhook'
	<i>púndè</i>	'roll up (pants)'	<i>púndú-lè</i>	'unroll (pants)'

- c. *Cv:Cv* input syncopated to *CvC-lè*
bé:lè 'get, obtain' *bél-lè* 'dispossess, take away'
- d. *CvCCv* with medial geminate
kámmè 'crumple (cloth)' *kámú-lè* 'uncrumple'
kúmmè 'shut (eyes)' *kúmú-lè* '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 (xx1a). It is quite productive and can be elicited from more or less 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* (xx1b).

(xx1)	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>kánì</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.xxx)
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>ségá-lá-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
góndó-mì 'take/bring out, remove' *gê:* 'go out' (§10.xxx)

d. vowel shortened
ńáńá-mì 'dry (sth)' *ńá:ńì* '(sth) dry out'
síwó-mì 'melt (sth)' *sí:wè* 'melt' (§10.1.2.7)

The inflectional paradigm is regular for final-high-vowel stems. A sample paradigm is in (xx2).

(xx2) 'take/bring down'

Perf	<i>sígó-mì</i>
PerfNeg	<i>sìgò-mò:-lì</i>
Impf	<i>sì sígó-mà</i>
ImpfNeg	<i>sìgò-mú-là</i>
Imprt	<i>sìgò-m(ù)</i>

9.2.2 Other causative suffixes (-gè, rarely -ngè)

A number of action verbs involving a change in state of the object are expressed by a suffix *-gè* (perfective form), rarely *-ngè*. The input is semantically mediopassive (middle). The input verb is in the A/O-stem, which requires +ATR-compatible vocalism (xx1ab). *Cv:Cv* stems shorten to *CvCv-* (xx1b).

(xx1)	transitive	gloss	input	gloss
a.	stem already +ATR			
	<i>kúró-gè</i>	'muddy, roil (water)'	<i>kúré</i>	'be roiled'
	<i>ńámá-gè</i>	'cause to malfunction'	<i>ńámì</i>	'malfunction'
	<i>pánjá-gè</i>	'tear, rip (sth)'	<i>pánjè</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			
	<i>díbo-gè</i>	'cause to be lost'	<i>dí:bè</i>	'be lost'

d. input is noun
gúmbú-gè 'split (a nut)' *gúmbù* 'half of a nut'

e. suffix allomorph *-ngè*
dímó-ngè 'extinguish (fire)' *dími* '(fire) go out'

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.

For other causative-like derivatives see "transitive" *-rv* (§9.xxx).

Causative *-gè* is distinct from reciprocal derivational suffix *-gè* (§9.5), which is added to already transitive inputs.

9.3 Passives

9.3.1 Passive *-mì*

The usually causative suffix *-mì* is attested in passive sense ('be VERB-able') in *bèlà-mà* 'it is obtainable (available)' from *bé:lè* 'obtain, get'.

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 targeted object, without specifying the agent.

(xx1) *déng-é:* *bò-Ø*
 shut-ResPass be-3SgS
 'It (door, house) is shut.'

This form is used mainly for third person, generally inanimate subjects, as with 'be shut' and 'be cut' in (xx2). Some intransitive verbs can generate resultative passives that are compatible with human subjects, such as 'be tired' in (xx2). It is directly derived from intransitive *dénè* 'become tired' rather than from transitive *déná-gè* 'tire (sb)'.

(xx2)	category	'be shut'	'be cut'	'be tired'
	1Sg	—	—	<i>dén-è: ò bò</i>
	1Pl	—	—	<i>dén-è: ò bò</i>

2Sg	—	—	<i>dén-à = à bò</i>
2Pl	—	—	<i>dén-à = á bò</i>
3Sg	<i>déŋŋ-é: bò-Ø</i>	<i>sélag-é: bò-Ø</i>	<i>dén-é: bò-Ø</i>
3Pl	<i>déŋŋ-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-Ø* are in (xx3). The morphological input is the perfective, i.e. the E/I-stem, more specifically the E-stem of final-nonhigh-vowel verbs and the I-stem of final-high-vowel verbs. This vowel is lengthened before *bò*. In (xx1b) the medial consonant of the stem is geminated. This is reminiscent of adjectival predicates of the type *bìggá bò* 'be fat' from adjective *bìgì* 'fat' (§11.4.1), where the geminate originated from *y*-final clusters like **gy*.

(xx3)	Perf 3Sg	gloss	ResPass	gloss
a.	<i>pára-gè</i>	'cut'	<i>pára-gé: bò-Ø</i>	'be cut'
	<i>sélagè</i>	'cut'	<i>sélagé: bò-Ø</i>	'be cut'
	<i>dénè</i>	'become tired'	<i>déné: bò-Ø</i>	'be tired'
	<i>mélè</i>	'snap (intr)'	<i>mélé: bò-Ø</i>	'be snapped'
	<i>jàmì</i>	'malfunction'	<i>jàmí: bò-Ø</i>	'be not working'
b.	<i>déŋè</i>	'shut (e.g. door)'	<i>déŋgé: bò-Ø</i>	'be shut'

The lengthened final long vowel of the verb is L-toned for other pronominal subjects.

A negative counterpart can be formed by replacing *bò* 'be (somewhere)' by its suppletive negation *ʔóri* 'not be'.

(xx1)	<i>déŋŋè:</i>	<i>ʔóri-Ø</i>
	shut	not.be-3SgS
	'it is not shut'	

9.4 Mediopassive and transitive

Several Dogon languages have a productive alternation between a mediopassive suffix *-yv* (e.g. *-yè ~ -yé*) and a corresponding transitive such as *-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 of this type 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 problematical homophony with 3Pl perfective *-yè* ~ *-yè*.

However, the mediopassive suffix did survive under some conditions.

9.4.1 Mediopassive *-Cv* (with geminate)

Consider the data in (xx1). Here the original mediopassive (MP) survives in the form of a medial geminate. There is a hint of 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'.

(xx1)	MP	gloss	related	gloss
a.	<i>yóg-gè</i>	'hide (self)'	<i>yógè</i>	'hide (sth)'
b.	<i>sój-jè</i> <i>tíj-jè</i>	'attach (one's belt)' 'follow'	<i>sójè</i> <i>tígú-rè</i>	'tie (sth) up' 'cause to follow'
c.	<i>túl-lè</i>	'put on (garment)'	<i>túlú-dè</i>	'put (garment) on (sb)'

The historical derivations are of the type **yógí-yè* syncompating to **yóg-yè* and then assimilating to *yóg-gè*.

Many deadjectival inchoative verbs are also of this type, see §9.6.

For *y*-assimilation see §3.4.4.1.

9.4.2 Transitive *-rè* ~ *-rè* (*-dè* ~ *-dè*, *-lè* ~ *-lè*)

There are alternations of derivationally unmarked verbs of a basically 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 (xx1).

(xx1)	MP	gloss	Tr	gloss
a.	stance			
	<i>bí-yè</i>	'lie down'	<i>bí-y-rè</i>	'lay (sb) down'
	<i>ʔébé</i>	'sit down'	<i>ʔébu-rè</i>	'have sit, seat'
			[alternative analysis: <i>bí-rè</i>]	

<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>	'smell, emit an odor'	<i>nígú-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*-syncopated from *bí:-yè*.

There are also some examples with *-dv* instead of *-rv*. Some involve putting garments on another person (xx2a). In another case *-dv* follows a nasal after syncope (xx2b), though here the semantic (and therefore derivational) relationships are nontransparent.

(xx2) 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 on (sb's) turban or wrap'
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 (xx3a), followed by assimilation of /lr/ to *ll* (§3.4.5.2). It may also occur in one archaic derivative (xx3b), compare *ʔígí-rè* 'stop, erect (sth)'.

(xx3) a.	<i>yúlè</i>	'wake up'	<i>yúllè</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:ndê*. 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 example is *tú:ndè* 'pour', cf. intransitive *túyyè* 'be spilled'. Bunoge transitive verbs of these shapes 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'.

9.5 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. The subject is normally plural. 3Pl perfective */-gí-yè/* is realized as *-g-gè* with rising tone on the preceding vowel.

- (xx1) a. *ʔógà* *tè* *íj* *tègò-gà*
 tomorrow Rdp 1PIS see-Recip.Impf
 'We will see each other tomorrow.'
- b. *yá:gù* *íj* *tègò-gè*
 yesterday 1PIS see-Recip.Perf
 'We saw each other yesterday.'
- c. *[bé:-gè nò]* *nùmbò-g-gè*
 [child-Pl Def] hit-Recip.Perf-3PIS
 'The children hit-Past each other.'
- d. *gèwá-gà:-ndí*
 kill-Recip-PerfNeg.3PIS
 'They didn't kill each other.' (*gè:wè* 'killed')

Further examples are in (xx2). As elsewhere I use the 3Sg perfective as the citation form, but reciprocals require plural subjects, as in 3Pl *gèwá-g-gè* 'they killed each other'.

(xx2)	input	gloss	reciprocal ('each other')
	monosyllabic		
	<i>dé:</i>	'insult'	<i>dá:-gè</i>
	bisyllabic		
	<i>gè:wè</i>	'kill'	<i>gèwá-g-gè</i>
	<i>nùmbè</i>	'hit, beat'	<i>nùmbò-g-gè</i>
	<i>bánnè</i>	'help'	<i>bánná-g-gè</i>
	trisyllabic		
	<i>yígúrè</i>	'shake'	<i>yígúró-g-gè</i>

Reciprocal *-gè*, which is added to transitive input verbs, should be distinguished from causative *-gè*, which is added to 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, allowing for the usual vocalism stems of verbs in different inflectional categories (the citation form is, as usual, the perfective). The adjective/verb pairs in (xx1) are of this type, and belong to the majority final-nonhigh-vowel verb class. The adjectives are in most cases of *CvCv* or *CvNCv* shape, though I have one trisyllabic case.

(xx1)	modifying	inchoative	gloss
a.	<i>CvCv</i>		
	<i>kèlè</i>	<i>kélè</i>	'diluted, watered down'
	<i>kùrè</i>	<i>kúrè</i>	'undiluted'
	<i>?ilè</i>	<i>?ilè</i>	'old, used (object)'
	<i>kòṅè</i>	<i>kóṅè</i>	'skinny, lean (animal)'
	<i>bìlè</i>	<i>bílè</i>	'ripe; cooked; curdled (milk)'
b.	<i>CvNCv</i>		
	<i>gìmbò</i>	<i>gímbè</i>	'deep (well, hole)'
	<i>bàmbà</i>	<i>bámbè</i>	'wide (passageway)'
	<i>nòṅgò</i>	<i>nóṅgè</i>	'slender (person)'
	<i>jùṅgà</i>	<i>júṅgè</i>	'become hot'
	<i>tèmbè</i>	<i>témbè</i>	'get wet'
	<i>nìṅjì</i>	<i>nínjè</i>	'heavy'
	<i>dènjì</i>	<i>dénjè</i>	'sweet; sharp (blade)'
	<i>tùmbù</i>	<i>túmbè</i>	'short'
c.	trisyllabic		
	<i>bòràllà-gà</i>	<i>bórállè</i>	'smooth'

In a few cases, an adjective ending in *i* has a final-high-vowel inchoative verb.

(xx2)	modifying	inchoative	gloss
a.	<i>CvCi</i>		
	<i>?àmi</i>	<i>?ámi</i>	'sour (like lemon)'

- b. *Cv:Ci*
nà:ŋì *ná:ŋì* 'dry out, become dry'

In other cases, the verb reflects a phonological modification of the adjective, pointing to a *CvCCv* template for the verb. Historically, it is likely that the gemination in (xx3ab) goes back to a mediopassive **-yv* derivational suffix (§9.4.1), cf. *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).

(xx3)	modifying	inchoative	gloss
a.	<i>CvC₂v</i> → <i>CvC₂C₂v</i>		
	<i>sìmà</i>	<i>símmè</i>	'white'
	<i>gòlò</i>	<i>góllè</i>	'long, tall'
	<i>sèlè</i>	<i>séllè</i>	'pretty'
	<i>bìgì</i>	<i>bíggè</i>	'fat'
b.	<i>Cv:C₂v</i> → <i>CvC₂C₂v</i>		
	<i>yò:lè</i>	<i>yóllè</i>	'black'
	<i>kà:jà</i>	<i>kájjè</i>	'difficult, expensive'
c.	<i>Cvy/w</i> → <i>CvCCv</i>		
	<i>báyⁿ</i>	<i>báŋŋè</i>	'big (e.g. house)'
	<i>bòw</i>	<i>bómbè</i>	'red'
d.	irregular		
	<i>dà:mbè</i>	<i>dággè</i>	'small'
	<i>báyⁿ</i>	<i>bá:yè</i>	'big' (verb used in sense 'be excessive')

Miscellaneous inchoatives of other types are grouped in (xx4).

(xx4)	modifying	inchoative	gloss
a.	irregular		
	<i>tòmbò</i>	<i>tóŋólè</i>	'become cold'
b.	suppletive		
	<i>pò:lò</i>	<i>dágè</i>	'good'
c.	predicate is adjective plus auxiliary		
	<i>kèmnò</i>	<i>kèmnò kání</i>	'become old, age'

kàndà *kàndá: wò bilè* 'become new'

Factitives (e.g. 'make sth big') are produced by adding causative *-mì* to the inchoative; see §9.2.1.

9.7 Obscure verb-verb relationships

The set of verbs in (xx1) appear to be related but they do not fit into regular derivational relationships.

(xx1) *tégè* 'see'
té:jè 'look'
tégólè 'look for'

In form, *tégólè* could be segmented as *tégó-lè*. If *tégè* 'see' had a reversive 'un-see' it would be #*tégú-lè*, but this does not match *tégólè* 'look for' in either form or sense. *té:jè* 'look' could possibly be parsed as a directional ('go and VP') derivative of *tégè* 'see' (§10.6), 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 *tí:wè* 'sow, plant (seeds)'. The latter occurs in the collocation *tów tí:wè* 'plant seeds (by slashing earth with a pick-hoe)'.
káni 'do' is obscurely related to *kándè* (or *kán-dè*) 'do well; make (sth), manufacture' and to causative *kándá-mì* 'fix, repair'.

See also the variants of the verbs *gè:* 'go out' and *dè:* '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) 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 (that of the proclitic and, in many categories, that of the stem). For a summary of the pronominal markers, see §10.xxx below. Pronominal-subject paradigms are given for each aspect-negation (AN) category. A summary of the AN categories is in §10.xxx below.

AN forms presented in this chapter are for unfocalized main clauses. Some modifications in the morphology and tone melodies 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 subject or a nonsubject constituent is focalized or relativized on.

10.1.1 Overview of tense-aspect-mood-negation (TAMN) categories

The core morphologically expressed categories of active verbs are those in (xx1). The primary categories are aspect (perfective/imperfective) and polarity (positive/negative).

- (xx1) perfective positive system
 perfective (E/I-stem, no suffix)
imperfective positive system
 imperfective (A-stem, no suffix)
 simple
 reduplicated
perfective negative system
 perfective negative (suffix *-lì*, 3Pl *-ndì*)
imperfective negative system
 imperfective negative (suffix *-lò*, 3Pl *-ndà*)

In addition, there are some important periphrastically expressed aspectual categories (xx2).

- (xx2) 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 lexical (§11.2.2, §11.5) and some 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

Undersyllabic verbs range from monosyllabic *Cv*: to trisyllabic like *CvCvCv*. Every verb stem ends in a vowel.

A distinction is made between lexically **final-nonhigh-vowel** stems, which end in {*e e 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) and the two O/U-stems (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 (jussive).

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 a 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. The *Cv* shape is reminiscent of *Cv* with falling-melody monosyllabic noun stems

when not followed by other elements (*sé* 'horse', compare definite *sê: nɔ̃*). Nasalized vowels have not been observed.

(xx1) Monosyllabic with final vowel

3Sg perf O/U-stem A/O-stem imperative gloss

a. final nonhigh vowel

-ATR

<i>dê:</i>	<i>dɔ:-</i>	<i>da:-</i>	<i>dâ</i>	'go in'
<i>dê:</i>	<i>dɔ:-</i>	<i>da:-</i>	<i>dâ</i>	'insult'
<i>dê:</i>	<i>dɔ:-</i>	<i>da:-</i>	<i>dâ</i>	'pound in mortar'
<i>jê:</i>	<i>jɔ:-</i>	<i>ja:-</i>	<i>jâ</i>	'eat (meal)'
<i>nê:</i>	<i>nɔ:-</i>	<i>na:-</i>	<i>nâ</i>	'drink'
<i>ɲê:</i>	<i>ɲɔ:-</i>	<i>ɲa:-</i>	<i>ɲâ</i>	'yank out'
<i>nê:</i>	<i>nɔ:-</i>	<i>na:-</i>	<i>nâ</i>	'uproot'
<i>sê:</i>	<i>sɔ:-</i>	<i>sa:-</i>	<i>sâ</i>	'let out (fart)'
<i>tê:</i>	<i>tɔ:-</i>	<i>ta:-</i>	<i>tâ</i>	'leak' (* <i>tégè</i>)
<i>tê:</i>	<i>tɔ:-</i>	<i>ta:-</i>	<i>tâ</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

<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'

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 variants (§10.1.3.2-3). *dê:* 'insult' normally has a human object, *dê:* 'pound (in mortar)' combines with e.g. *sé:ɲgè* 'millet' or with its cognate nominal *dɔ:ɲgè*, while *dê:* 'go in' is intransitive or has a locational complement.

Antonyms *gê:* 'go out' and *dê:* 'go in' also have variant bisyllabic stems (§10.1.3.2-3).

The fact that 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 (3Sg *dù-dâ:* 'went in', *ɲù-ɲâ:* 'drew water') has a long vowel with a flat L-tone.

10.1.2.2 *gê*: 'go out' and variants (*gà*, *gú:ndè*, *gó:ngè*)

This verb is attested in four variant stem-shapes, all used by my informant. 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.

(xx1)	'be from'	'go out'	'go out'	'go out'
Perf		<i>gê:</i>	<i>gú:ndè</i>	<i>gó:ngè</i>
PerfNeg		<i>gó:-lì</i>	<i>gú:ndó:-lì</i>	<i>gó:ngó:-lì</i>
stative	<i>gá</i>			
Impf		--	<i>gù gǔ:ndà</i>	<i>gò gǒ:ngà</i>
ImpfNeg	<i>gǒ:-lò</i>	<i>gǒ:-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.

- (xx2) a. *nà-ló* *gá-Ø*
 where?-Loc be.from-3SgS
 'Where is he/she from?'
 b. *ná-lò* *gá*
 where?-Loc be.from.3PIS
 'Where are they from?'
 c. *ná-lò* *à* *gá*
 where?-Loc 2SgS be.from
 'Where are you-Sg from?'

The corresponding negative is not morphologically stative and is borrowed from the active paradigm of *gê*:

The remaining variants are used in the active senses 'go/come out (from X)' where X is a container or other enclosed space (a house, a burrow), 'get away (from Y)' where Y is any object or small space, or 'leave, depart from (Z)' where Z is a location such as a village. There may be nuances of difference between the three 'go from' variants but they did not emerge from elicitation.

The corresponding causatives is *gò:ngó-mì* 'cause to go out' and *gó:-mì* 'take out'. The former is historically related to irregular causative **gò-ngó* (without a

further causative suffix) reflected in several eastern Dogon languages (e.g. Bankan Tey *gò-ndó*, Jamsay *gǎː*¹⁹).

10.1.2.3 *dêː* 'go in' and variant (*dóːngè*)

Like its antonym 'go out' (preceding section), 'go in' occurs in both monosyllabic and extended bisyllabic forms. This time, however, only one bisyllabic form is known, and there is no special stative.

(xx1)		'go in'	'go in'
	Perf	<i>dêː</i>	<i>dóːngè</i>
	PerfNeg	<i>dáː-li</i>	<i>dóːngóː-li</i>
	Impf	<i>dù-dàː</i>	<i>dò dǎːngà</i>
	ImpfNeg	<i>dǎː-lǎ</i>	<i>dòːngóː-lǎ</i>
	Imprt	<i>dà</i>	<i>dòːngò</i>

dêː is likely cognate to verbs in other Dogon languages meaning 'arrive at (the edge of), approach', e.g. Jamsay *dǎː-*.

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 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.

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, most *CvCv* stems are treated like monosyllabics, the two constituting a class of prosodically light verbs. However, most *Cvyv* and *Cvww* verbs lengthen the first vowel in perfective forms, see 'sleep' in (xx1a), and these specific forms are treated as heavy for tonal purposes, e.g. with {LHL} contour in the 3Sg perfective.

(xx1) *CvCv* verbs

3Sg perf	O/U-stem	A/O-stem	imperative	gloss
a. final nonhigh vowel				
<i>-ATR (penult vowel high or -ATR)</i>				
<i>sɔ̄jɛ</i>	<i>sɔ̄jɔ-</i>	<i>soja-</i>	<i>sòjà</i>	'tie' or 'pay'
<i>débɛ</i>	<i>dɛbɔ-</i>	<i>dɛba-</i>	<i>dèbà</i>	'catch'
<i>kíjɛ</i>	<i>kijɔ-</i>	<i>kija-</i>	<i>kijà</i>	'reply'
<i>núŋɛ</i>	<i>nuŋɔ-</i>	<i>nuŋa-</i>	<i>nùŋà</i>	'sing'
<i>-ATR (penult vowel high or +ATR)</i>				
<i>ʔégɛ</i>	<i>ʔego-</i>	<i>ʔego-</i>	<i>ʔègò</i>	'come'
<i>sígɛ</i>	<i>sigo-</i>	<i>sigo-</i>	<i>sìgò</i>	'go down'
<i>túlɛ</i>	<i>tulo-</i>	<i>tulo-</i>	<i>tùlò</i>	'put in'
<i>-ATR with a as penult</i>				
<i>bárɛ</i>	<i>baro-</i>	<i>bara-</i>	<i>bàrà</i>	'add'
b. final high vowel				
<i>with high vowel as penult</i>				
<i>símì</i>	<i>simu-</i>	<i>simo-</i>	<i>sìmù</i>	'build'
<i>dúŋì</i>	<i>duŋu-</i>	<i>duŋo-</i>	<i>dùŋù</i>	'set, put'
<i>with a as penult</i>				
<i>káni</i>	<i>kanu-</i>	<i>kana-</i>	<i>kànà</i>	'do'

Cv:Cv and *Cv:CCv* stems have the same vowel-quality combinations as *CvCv* stems, though not all vowel combinations happen to be attested.

(xx2) *Cv:Cv* and *Cv:CCv* verbs

3Sg Perf	O/U-stem	A/O-stem	imperative	gloss
a. final nonhigh vowel				
<i>-ATR (penult vowel high or -ATR)</i>				
<i>tù:ndɛ</i>	<i>tu:ndɔ-</i>	<i>tu:nda-</i>	<i>tù:ndà</i>	'pour'
<i>-ATR (penult vowel high or +ATR)</i>				

<i>sí:ndè</i>	<i>si:ndo-</i>	<i>dillo-</i>	<i>si:ndò</i>	'convey'
<i>té:jè</i>	<i>te:jo-</i>	<i>te:jo-</i>	<i>tè:jò</i>	'look'
<i>gé:ndè</i>	<i>ge:ndo-</i>	<i>ge:ndo-</i>	<i>gè:ndò</i>	'go'
<i>pó:lè</i>	<i>po:lo-</i>	<i>po:lo-</i>	<i>pò:lò</i>	'winnow in wind'
<i>-ATR with a as penult</i>				
<i>ká:yè</i>	<i>ka:yo-</i>	<i>ka:ya-</i>	<i>kà:yà</i>	'shave'
<i>dá:ndè</i>	<i>da:ndo-</i>	<i>da:nda-</i>	<i>dà:ndà</i>	'taste'
<i>má:njè</i>	<i>ma:njo-</i>	<i>ma:nja-</i>	<i>mà:njà</i>	'urinate'
b. final high vowel				
<i>with high vowel as penult</i>				
<i>dú:nì</i>	<i>du:nu-</i>	<i>du:no-</i>	<i>dù:nù</i>	'run'
<i>with a as penult</i>				
<i>ná:nì</i>	<i>na:njo</i>	<i>na:nja</i>	<i>nà:njà</i>	'call' or 'dry'

CvCCv verbs also have the same vowel-quality possibilities as the previously mentioned bisyllabics.

(xx2) Vocalism of *CvCCv* verbs

3Sg perf	O/U-stem	A/O-stem	imperative	gloss
a. final nonhigh vowel				
<i>-ATR (penult vowel high or -ATR)</i>				
<i>dɔŋgè</i>	<i>dɔŋɔ</i>	<i>dɔŋga</i>	<i>dòŋgà</i>	'throw'
<i>ʔóllè</i>	<i>ʔollɔ-</i>	<i>ʔolla-</i>	<i>ʔòllà</i>	'go up'
<i>bél-lè</i>	<i>bél-lɔ</i>	<i>bél-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'
<i>+ATR (penult vowel high or +ATR)</i>				
<i>núndè</i>	<i>nundo-</i>	<i>nundo-</i>	<i>nùndò</i>	'hear'
<i>díllè</i>	<i>dillo-</i>	<i>dillo-</i>	<i>dìllò</i>	'keep'
<i>ʔóllè</i>	<i>ʔollo-</i>	<i>ʔollo-</i>	<i>ʔòllò</i>	'get up'
<i>+ATR with a as penult</i>				
<i>bám̀bè</i>	<i>bambo-</i>	<i>bamba-</i>	<i>bàmbà</i>	'carry on back'
b. final high vowel				
<i>with high vowel as penult</i>				
<i>with a as penult</i>				

However, *CvCCv* verbs divide into a subclass that is treated as prosodically light (tonally similar to *Cv*: and *CvCv*), and a 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.

(xx6) Light and heavy *CvCCv* stems

	3Sg Impf	3Sg Perf
a. <i>Cv C̣CCà</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 dǒngà</i>	<i>dǒngè</i>
'carry on back'	<i>bà bǎmbà</i>	<i>bámbè</i>
'hang up'	<i>jà jǎngà</i>	<i>jángè</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 dǐnnà</i>	<i>dínnè</i>
'go up'	<i>?ò ?ǒllà</i>	<i>?óllè</i>
'dispossess'	<i>bè bǐl-là</i>	<i>bél-lè</i>
'carry (on head)'	<i>dù dǔyyà</i>	<i>dú-yyè</i>
'keep'	<i>dì dǐllà</i>	<i>díllè</i>
'fall'	<i>tù tǔbbà</i>	<i>túbbè</i>
'fly'	<i>pì pǐllà</i>	<i>píllè</i>
b. <i>Cv C̣vNCà</i> (treated as prosodically light)		
<i>CvNCv</i> stem with nasal/voiced-stop cluster		
'hear'	<i>nù nǔndà</i>	<i>núndè</i>
'hit'	<i>nù nǔmbà</i>	<i>númbè</i>
'treat (medically)'	<i>jò jǒngà</i>	<i>jǒngè</i>

10.1.2.7 *Cvww* and *Cvyv* stems with first-syllable vowel-lengthening

Original *CvCv* stems with medial semivowel {*w y*} have been subject to a process that lengthens the first vowel in some inflected forms. In the case of *Cuyv*, and arguably (but ambiguously) *Ciyv*, 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:ww*) stems, which have long vowels in all positions. In (xx1), 'sleep' and 'kill' show the lengthening, while 'shave' has a long *a*: in all forms and is a true *Cv:Cv* verb.

(xx1)	<i>Cvyv</i>	<i>Cvww</i>	<i>Cv:yv</i>	<i>Cv:ww</i>
	'sleep'	'kill'	'shave'	[none?]

a. lengthened (nonfinal short vowel becomes long)				
Perf 3Sg	<i>dó:yè</i>	<i>gé:wè</i>	<i>ká:yè</i>	—
Impf 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)				
PerfNeg	<i>dòyò:-lì</i>	<i>gèwà:-lì</i>	<i>kà:yà:-lì</i>	—
ImpfNeg	<i>dòyó-lǒ</i>	<i>gèwǒ-lǒ</i>	<i>kà:yó-lǒ</i>	—

The verbs known to me that are subject to lengthening are in (xx2ab). In the case of 'lie down' (xx2a), 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.

(xx2)	Perf 3Sg	PerfNeg	gloss
a. <i>Cvyy</i>			
	after <i>o</i>		
	<i>dó:yè</i>	<i>dòyò:-lì</i>	'sleep'
	after <i>i</i>		
	<i>bí:-yè</i> (<i>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, and given that a few verbs do not lengthen, we must consider an alternative 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:yy* 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 *bèle* or *bere* with short vowels, has developed lengthened forms parallel with those of *Cvvy* and *Cvwy* verbs that lengthen (preceding section).

- (xx1) a. lengthened
bé:lè perfective 3Sg
bè bē:là imperfective 3Sg
- b. unlengthened
bél-lò imperfective negative
bèlà:-li perfective negative

In the collocation meaning 'X be sleepy', literally 'sleep(n) got X', the first vowel is short.

- (xx2) *dóróngè* *mì-ŋgù* *bélè-Ø*
 sleep(n) 1Sg-Acc get.Perf-3SgS
 'I am sleepy.'

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 *gé:n-nà* 'going', and in the subordinated form *gé:n nè*.

10.1.2.10 Trisyllabic stems

Trisyllabic stems may be underived or derived, though some "underived" stems probably originated as suffixal derivatives.

	3Sg perf	U/O-stem	A/O-stem	imperative	gloss
	a. final nonhigh vowel				
	-ATR (penult high or -ATR)				
verify	<i>déjú-lè</i>	<i>déŋu-lò-</i>	<i>déŋu-la-</i>	<i>déŋù-là</i>	'open (door)'
	<i>sójú-lè</i>	<i>sóju-lò-</i>	<i>soju-la-</i>	<i>sòjù-là</i>	'untie'

+ATR (penult high or +ATR)				
<i>dúnjùrè</i>	<i>dunjuro-</i>	<i>dunjuro-</i>	<i>dùnjùrò</i>	'push'
<i>píríyè</i>	<i>píriyo-</i>	<i>píriyo-</i>	<i>pìriyò</i>	'shake off'
<i>bélòngè</i>	<i>belongo-</i>	<i>belongo-</i>	<i>bèlòngò</i>	'find'
<i>?ógújè</i>	<i>?ogujo-</i>	<i>?ogujo-</i>	<i>?ògùjò</i>	'rinse (mouth)'
+ATR (penult a)				
<i>pàrà-gè</i>	<i>para-go-</i>	<i>para-ga-</i>	<i>pàrà-gà</i>	'cut'
<i>méràlè</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 (xx1). All have a stem-final syllable beginning with a sonorant, usually nasal or nasalized.

(xx1) a. monosyllabic *Nv*:

'draw water; (rain) fall' *nî:*

b. *CvNv* with medial nasal

<i>CiNi</i>	
'build'	<i>símì</i>
'(fire) go out, (sun) set'	<i>dímì</i>
'wring'	<i>pínì</i>
'scoop'	<i>kínì</i>
'be full (sated)'	<i>símì</i>
'transplant'	<i>díjì</i>
'hold self up'	<i>tíjì</i>
'emit smell'	<i>níjì</i>
<i>CuNi</i>	
'endure'	<i>múmì</i>
'set, put'	<i>dújì</i>
'travel'	<i>(?òjì) ?únì</i> (with <i>?òjì</i> 'road')
<i>CaNi</i>	
'become sour'	<i>?ámì</i>
'sprinkle (grain)'	<i>?ámì</i>
'go out of sight'	<i>dímì</i>

'do'	<i>káni</i>
'malfunction'	<i>ɲámi</i>
'stone-grind'	<i>námi</i>

c. *Cv:Nv* with medial nasal or *Cv:Lv* with medial liquid

<i>Cu:Ni</i>	
'be patient'	<i>mú:mi</i>
'run'	<i>dú:ni</i>
<i>Ca:Ni</i>	
'call'	<i>ɲá:ɲì</i>
'dry [intr]'	<i>ɲá:ɲì</i>
'be boiling'	<i>wá:ɲì</i>
'get sick; hurt'	<i>ɲá:mi</i>
<i>Ca:Ni</i>	
'coarsely stone-grind'	<i>sá:li</i>

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* ~ *-yê* (depending on ATR-harmonic value of stem), whose *y* may assimilate to a preceding consonant (§3.4.4.1).

The vocalism can be illustrated with *CvCv* stems showing the three possible final vowels (xx1). 'Build' is the example here for the final-high-vowel verb class.

(xx1)	category	'see'	'butcher'	'build'
	1Sg	<i>ɲ tégè</i>	<i>ɲ ʔórè</i>	<i>ɲ sími</i>

1Pl	<i>ɲ tɛ̀gɛ̀</i>	<i>ɲ ʔɔ̀rɛ̀</i>	<i>ɲ sɪ̀mì</i>
2Sg	<i>à tɛ̀gɛ̀</i>	<i>à ʔɔ̀rɛ̀</i>	<i>à sɪ̀mì</i>
2Pl	<i>á tɛ̀gɛ̀</i>	<i>á ʔɔ̀rɛ̀</i>	<i>á sɪ̀mì</i>
3Sg	<i>tɛ̀gɛ̀</i>	<i>ʔɔ̀rɛ̀</i>	<i>sɪ̀mì</i>
3Pl	<i>tɛ̀g-gɛ̀</i> (< /tɛ̀gí-yè/)	<i>ʔɔ̀rí-yè</i>	<i>sɪ̀m-mè</i>

The tone melodies for the stems are most clearly observed in quadrisyllabic stems like 'cause to roll' (xx2), where we get {L} after H-toned 1Pl/2Pl proclitic, {HL} after L-toned 1Sg/2Sg proclitic and in the unmarked 3Sg, and {H-L} including the final L-toned suffix for 3Pl. Tone breaks within the stem are as close as possible to the right edge.

(xx2)	'get'	'cut'	'cause to roll'
1Sg	<i>ɲ bɛ̀:lɛ̀</i>	<i>ɲ párá-gɛ̀</i>	<i>ɲ gúndúló-mì</i>
1Pl	<i>ɲ bɛ̀:lɛ̀</i>	<i>ɲ pàrà-gɛ̀</i>	<i>ɲ gùndùlò-mì</i>
2Sg	<i>à bɛ̀:lɛ̀</i>	<i>à párá-gɛ̀</i>	<i>à gúndúló-mì</i>
2Pl	<i>á bɛ̀:lɛ̀</i>	<i>á pàrà-gɛ̀</i>	<i>á gùndùlò-mì</i>
3Sg	<i>bɛ̀:lɛ̀-∅</i>	<i>párá-gɛ̀-∅</i>	<i>gúndúló-mì-∅</i>
3Pl	<i>bɛ̀:l-lɛ̀</i>	<i>párá-g-gɛ̀</i>	<i>gúndúló-m-mè</i>

Monosyllabics are illustrated in (xx3).

(xx3)	'go out'	'eat meal'
1Sg	<i>ɲ gɛ̀:</i>	<i>ɲ jɛ̀:</i>
1Pl	<i>ɲ gɛ̀:</i>	<i>ɲ jɛ̀:</i>
2Sg	<i>à gɛ̀:</i>	<i>à jɛ̀:</i>
2Pl	<i>á gɛ̀:</i>	<i>á jɛ̀:</i>
3Sg	<i>gɛ̀:</i>	<i>jɛ̀:</i>
3Pl	<i>gú-yyè</i>	<i>jú-yyè</i>

A fuller list of perfective stems, with the tones found before 3Sg -∅, is in (xx4).

(xx4) 3Sg perfective

a. quadrisyllabic 'cause to roll'	<i>gúndúló-mì</i>
--------------------------------------	-------------------

- b. trisyllabic
- | | |
|---------------------|----------------|
| 'snap (tr.)' | <i>mélá-gè</i> |
| 'winnow by shaking' | <i>págárè</i> |
| 'cut' | <i>párá-gè</i> |
| 'go back' | <i>bíjílè</i> |
| 'roll (intr.)' | <i>gúndúlè</i> |
| 'crawl' | <i>ʔábálè</i> |
- c. bisyllabic with heavy initial syllable
- Cv:Cv*
- | | |
|------------------|--------------|
| 'winnow in wind' | <i>pó:lè</i> |
| 'get' | <i>bé:lè</i> |
- CvCCv*
- | | |
|-----------|---------------|
| 'go up' | <i>ʔóllè</i> |
| 'do well' | <i>kán-dè</i> |
- Cv:CCv*
- | | |
|--------|---------------|
| 'go' | <i>gè:ndè</i> |
| 'pour' | <i>tú:ndè</i> |
- d. bisyllabic with light initial syllable
- | | |
|--------------|-------------|
| 'step on' | <i>tóŋè</i> |
| 'give birth' | <i>nálè</i> |
| 'build' | <i>sími</i> |
- e. monosyllabic
- | | |
|--------------|------------|
| 'eat (meal)' | <i>jê:</i> |
| 'go out' | <i>gê:</i> |
| 'draw water' | <i>nî:</i> |

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 (§14.4.1) and (optionally) *sà* in subject focalizations (§13.1.1.3).

10.2.1.2 Perfective-1a and -1b absent

I know of no counterparts to the perfective-1a (-yà-, -â:, -èrè) or Perfective-1b (-tì-) in eastern languages such as Jamsay and Nanga.

10.2.1.3 Perfective-2 absent

There is no known counterpart to the perfect-2 (or resultative) category, expressed by a suffix related to the 'have' quasi-verb (-so-, -sa-) in languages like Jamsay and Nanga. However, perfective participial auxiliary *sà:* in subject relatives (§14.4.1) and *sà* in focalized clauses (§13.1.1.3) may be historically related to the perfect-2 and to the 'have' quasi-verb.

10.2.1.4 Experiential Perfect 'have (ever)' (*wélè: bò*)

The experiential perfect is expressed by adding *wélè:* plus a conjugated form of *bò* 'be' to a form of the substantive verb with same-subject subordinating suffix *-nà*. The experiential perfect denotes a non-ordinary event or milestone that has permanently changed the state (usually the memory) of the agent.

- (xx1) a. *nígè* *tègò-nà* *wélè:* *ɲ* *bò*
 elephant see-SS ExpPf 1SgS be
 'I have seen an elephant'
- b. *nígè* *tègò-nà* *wélè:* *bò-Ø*
 elephant see-SS ExpPf be-3SgS
 'He/She has seen an elephant'
- c. *bómɔkò* *gě:n-nà* *wélè:* *ɲ* *bò*
 B go-SS ExpPf 1SgS be
 'I have gone (= been) to Bamako [capital city].'

The participial form in relative clauses is *wèlé sà:* §14.4.1).

The negative counterpart means 'have never VPed'; see §10.2.3.2.

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 (-jě-).

10.2.1.6 Reduplicated perfective absent

My informant 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. It consists of the A-stem, i.e. it always ends in *a*, and there is no other suffix. -ATR vowels in nonfinal syllables are converted to +ATR (*e* 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 more or less focalized preceding constituent, the imperfective has an **initial reduplication** (*Cÿ*) or, in some morphological contexts described below, **full-stem iteration**. In (xx1a), the focalization of 'tomorrow' induces dropping of the reduplication seen in (xx1b).

- (xx1) a. *ʔógà* *íj* *jà*
 tomorrow 1PIS eat.Impf
 'Tomorrow [focus] we will eat.'
- b. *jù* *íj* *jà*
 Rdp 1PIS eat.Impf
 'We will eat (a meal).'

In ordinary indicative sentences, the reduplication is limited to *Cÿ*, copying the onset and nuclear vowel (shortened if not already short) of the first syllable of the stem. A 1st/2nd person proclitic (*íj*, *íj*, *à*, *á*) intervenes between reduplicant and base. So does polar interrogative *là* (interlineal "Q"), but in this case the reduplicant is expanded to a **full iteration** of the stem, with final *u*-vowel (xx2cd). *là* precedes a 1st/2nd person subject proclitic (xx2e). That the reduplicant is L-toned even for 3Sg subject is shown by the raising of the final tone of *mì-ŋgù* '1Sg-Accusative' in (xx2f), which can only happen before a L-tone.

- (xx2) a. *ʔè* *íj* *ʔégà*
 Rdp 1SgS come.Impf
 'I will come.'
- b. *ʔè* *ʔégà-Ø*
 Rdp come.Impf-3SgS
 'He/She will come.'

- c. *ʔègù* *lá* *ʔègà-Ø*
 Rdp Q come.Impf-3SgS
 'Will he/she come?'
- d. *bìjìlù* *lá* *bìjìlà-Ø*
 Rdp Q come.Impf-3SgS
 'Will he/she go back?'
- e. *ʔègù* *lá* *ɲ* *ʔègà*
 Rdp Q 1SgS come.Impf
 'Will I come?'
- f. *mì-ɲgú* *tè* *tègà-Ø*
 1Sg-Acc Rdp see.Impf-3SgS
 'He/She will see me.'

iteration with *gójé* 'dig' (check *ɔ/o*) in polar interrog

For the polar interrogatives, including pronominal-subject paradigms, see §13.2.1.1. 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 (xx3). The 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 forms. Arguably there is an underlying difference between {L} for 1Sg/2Sg and {LHL} for 1Pl/2Pl (see below). 3Pl has a {HL}-toned stem.

(xx3) category	'see'	'butcher'	'build'
1Sg	<i>tè ɲ tègà</i>	<i>ʔò ɲ ʔòrà</i>	<i>sì ɲ sìmà</i>
1Pl	<i>tè ɲ tègà</i>	<i>ʔò ɲ ʔòrà</i>	<i>sì ɲ sìmà</i>
2Sg	<i>tà = à tègà</i>	<i>ʔà = à ʔòrà</i>	<i>sà = à sìmà</i>
2Pl	<i>tà = á tègà</i>	<i>ʔà = á ʔòrà</i>	<i>sà = á sìmà</i>
3Sg	<i>tè tègà</i>	<i>ʔò ʔòrà</i>	<i>sì sìmà</i>
3Pl	<i>tè tégà</i>	<i>ʔò ʔóra</i>	<i>sì símà</i>

The full tone melody of the base is revealed as {LHL} on the 3Sg and 1Pl/2Pl forms of prosodically heavy stems, defined here as those with three or more syllables plus bisyllabics with long vowel in the initial syllable.

(xx4) 3Sg imperfective, heavy stems

	3Sg	1Pl
a. quadrisyllabic 'cause to roll'	<i>gù gùndùlò-mà</i>	<i>gù ñ gùndùlò-mà</i>
b. trisyllabic		
'snap (tr.)'	<i>mè mèlá-gà</i>	<i>mè ñ mèlá-gà</i>
'winnow by shaking'	<i>pà pàgàrà</i>	<i>pà ñ pàgàrà</i>
'cut'	<i>pà pàrá-gà</i>	<i>pà ñ pàrá-gà</i>
'go back'	<i>bì bijílà</i>	<i>bì ñ bijílà</i>
'roll (intr.)'	<i>gù gùndúlà</i>	<i>gù ñ gùndúlà</i>
'crawl'	<i>?à ?àbàlà</i>	<i>?à ñ ?àbàlà</i>
c. bisyllabic with heavy initial syllable		
<i>Cv:Cv</i>		
'winnow in wind'	<i>pò pǒ:là</i>	<i>pò ñ pǒ:là</i>
'get'	<i>bè bǐ:là</i>	<i>bè ñ bǐ:là</i>
<i>Cv:CCv</i>		
'go'	<i>gè gǎ:ndà</i>	<i>gè ñ gǎ:ndà</i>
'pour'	<i>tù tǔ:ndà</i>	<i>tù ñ tǔ:ndà</i>

Sample paradigms of the tri- and quadrisyllabic stems are in (xx5). The 1Pl and 2Pl have the same stem tones as the 3Sg form. The 1Sg and 2Sg forms have {L}-toned stems (as well as proclitics). The difference between 3Sg and 3Pl is expressed only by the tone of the first syllable of the base.

(xx5)	'cut'	'snap (tr.)'
1Sg	<i>pà ñ pàrà-gà</i>	<i>mè ñ mèlà-gà</i>
1Pl	<i>pà ñ pàrá-gà</i>	<i>mè ñ mèlá-gà</i>
2Sg	<i>pà = à pàrà-gà</i>	<i>mà = à mèlà-gà</i>
2Pl	<i>pà = á pàrá-gà</i>	<i>mà = á mèlá-gà</i>
3Sg	<i>pà pàrá-gà</i>	<i>mè mèlá-gà</i>
3Pl	<i>pà pàrá-gà</i>	<i>mè mèlá-gà</i>

Sample paradigms for *Cv:Cv* and *Cv:CCv* stems are in (xx6). The tones follow the same patterns as just seen for multisyllabic stems.

(xx6)	'get'	'winnow in wind'	'pour'	'go'
1Sg	<i>bè ñ bè:là</i>	<i>pò ñ pò:là</i>	<i>tù ñ tù:ndà</i>	<i>gè ñ gè:ndà</i>

1Pl	<i>bè ɨ̀ bɛ̀:là</i>	<i>pò ɨ̀ pɔ̀:là</i>	<i>tù ɨ̀ tú:ndà</i>	<i>gè ɨ̀ gɛ̀:ndà</i>
2Sg	<i>bà = à bɛ̀:là</i>	<i>pà = à pɔ̀:là</i>	<i>tà = à tú:ndà</i>	<i>gà = à gɛ̀:ndà</i>
2Pl	<i>bà-á-bɛ̀:là</i>	<i>pà = á pɔ̀:là</i>	<i>tà = á tú:ndà</i>	<i>gà = á gɛ̀:ndà</i>
3Sg	<i>bè bɛ̀:là</i>	<i>pò pɔ̀:là</i>	<i>tù tú:ndà</i>	<i>gè gɛ̀:ndà</i>
3Pl	<i>bè bɛ̀:là</i>	<i>pò pɔ̀:là</i>	<i>tù tú:ndà</i>	<i>gè gɛ̀:ndà</i>

CvCCv stems divide into a subclass with 3Sg *Cv̇ Ċv̇CCà* (xx7a), consistent with the {LHL} melody just illustrated for prosodically heavy stems, and another with {L}-toned 3Sg *Cv̇ Ċv̇CCà* (xx7b), 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.

(xx7) 3Sg imperfective, *CvCCv* stems

a. *Cv̇ Ċv̇CCà* (treated as prosodically heavy)

Cv̇NCv̇ stem with nasal/voiced-stop cluster

'do well'	<i>kà kándà</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 Ċv̇NCà* (treated as prosodically light)

Cv̇NCv̇ stem with nasal/voiced-stop cluster

'hear'	<i>nù nùndà</i>
'hit'	<i>nù nùmbà</i>
'treat (medically)'	<i>jò jǒngà</i>

Sample paradigms are in (xx8). 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)v* 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.

(xx8)	'go up' (heavy)	'do well' (heavy)	'hit' (light)	'treat' (light)
1Sg	<i>ʔò ɲ ʔòllà</i>	<i>kà ɲ kàndà</i>	<i>nù ɲ nùmbà</i>	<i>jò ɲ jòngà</i>
1Pl	<i>ʔò ɲ ʔòllà</i>	<i>kà ɲ kàndà</i>	<i>nù ɲ nùmbà</i>	<i>jò ɲ jòngà</i>
2Sg	<i>ʔà = à ʔòllà</i>	<i>kà = à kàndà</i>	<i>nà = à nùmbà</i>	<i>jà = à jòngà</i>
2Pl	<i>ʔà = á ʔòllà</i>	<i>kà = á kàndà</i>	<i>nà = á nùmbà</i>	<i>jà = á jòngà</i>
3Sg	<i>ʔò ʔòllà</i>	<i>kà kàndà</i>	<i>nù nùmbà</i>	<i>jò jòngà</i>
3Pl	<i>ʔò ʔòllà</i>	<i>kà kàndà</i>	<i>nù nùmbà</i>	<i>jò jòngà</i>

CvCv bisyllabics have 3Sg *C̀V̀ C̀V̀C̀à* (xx9).

(xx9) 3Sg imperfective, *CvCv* stems

<i>C̀V̀ C̀V̀C̀à</i>	
'step on'	<i>tò tòngà</i>
'forget'	<i>ʔà ʔàlà</i>
'give birth'	<i>nà nàlà</i>
'build'	<i>sì simà</i>
'do'	<i>kà kàndà</i>
'add'	<i>bà bàrà</i>
'butcher'	<i>ʔò ʔòrà</i>

Monosyllabic verbs have reduplicant vowel *u*. There are no traces of the lexical vocalism.

(xx10) 3Sg imperfective, monosyllabic stems

a. -ATR	
'eat (meal)'	<i>jù jà</i>
'go in'	<i>dù dà</i>
'draw water'	<i>ɲù ɲà</i>
b. +ATR	
'sew'	<i>kù kà</i>

Sample paradigms are in (xx11).

(xx11)	'eat (meal)'	'draw water'
1Sg	<i>jù ò jà</i>	<i>jù ò nà</i>
1Pl	<i>jù í jà</i>	<i>jù í nà</i>
2Sg	<i>jà = à jà</i>	<i>nà = à nà</i>
2Pl	<i>jà = á jà</i>	<i>nà = á nà</i>
3Sg	<i>jù jà</i>	<i>jù nà</i>
3Pl	<i>jù jâ:</i>	<i>jù nâ:</i>

The imperfective as described here gets some competition from the derived stative ('be sitting'). For 'see' and 'hear' see §10.xxx.

10.2.2.2 Progressive (*?émbè, bò*)

There are two progressive constructions, both periphrastic. The main one contains a morpheme *?émbè* (or a tonal variant) preceding the substantive verb. The latter appears in the A-stem, and has {L} tone melody except for {HL} in the 3Pl form. Sample paradigms are in (xx1).

(xx1)	'be cutting'	'be coming'	'be eating (meal)'
1Sg	<i>?émbè ò pàrà-gà</i>	<i>?émbè ò ?ègà</i>	<i>?émbè ò jà</i>
1Pl	<i>?èmbè í pàrà-gà</i>	<i>?èmbè í ?ègà</i>	<i>?èmbè í jà</i>
2Sg	<i>?émbà = à pàrà-gà</i>	<i>?émbà = à ?ègà</i>	<i>?émbà = à jà</i>
2Pl	<i>?èmbà = á pàrà-gà</i>	<i>?èmbà = á ?ègà</i>	<i>?èmbà = á jà</i>
3Sg	<i>?èmbé pàrà-gà-Ø</i>	<i>?èmbé ?ègà-Ø</i>	<i>?èmbé jà-Ø</i>
3Pl	<i>?émbè párà-gà</i>	<i>?émbè ?éga</i>	<i>?émbè já</i>

The combinations with 2Sg/2Pl subject proclitics, e.g. 2Sg *?émbà = à*, are homophonous with the corresponding combinations involving *?èmbà* 'then', another preverbal particle (§15.2.2.1). Progressive *?émbè*, however, is followed by an imperfective verb (A-stem), while *?èmbà* 'then' is followed by a perfective verb (E/I-stem).

An alternative construction with conjugated final *bò* 'be' was elicitable for some verbs, with the A/O-stem, but seems to be uncommon in main clauses (my informant suggested that it was typical of Mombo, a neighboring Dogon language).

(xx2)	'be eating (meal)'
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1Sg	<i>jâ: ɲ bò</i>
1Pl	<i>jâ: ɲ bò</i>
2Sg	<i>jâ: à bò</i>
2Pl	<i>jâ: á bò</i>
3Sg	<i>jâ: bò-∅</i>
3Pl	<i>jâ: 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.xxx 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 *-li* (3Pl *-ndi*) and imperfective negative *-lò* (3Pl *-ndà*).

10.2.3.1 Perfective negative (*-li* after A/O-stem)

Except for 3Pl subject, the perfective negative is formed by adding suffix *-li* 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). In the unmarked 3Sg form, the stem-wide tone is {L} before L-toned suffix. The 3Pl replaces *-li* by *-ndi*, and has a {HL} melody. 1Sg and 2Sg have {H} stem tone. 1Pl and 2Pl have {L}-toned stems after the H-toned proclitic.

(xx1)	'cut'	'winnow in wind'	'dig'	'drink'
1Sg	<i>ɲ párá-gá:-li</i>	<i>ɲ pó:ló:-li</i>	<i>ɲ gójá:-li</i>	<i>ɲ ná:-li</i>
1Pl	<i>ɲ pàrà-gà:-li</i>	<i>ɲ pò:lò:-li</i>	<i>ɲ gòjà:-li</i>	<i>ɲ nà:-li</i>
2Sg	<i>à párá-gá:-li</i>	<i>à pó:ló:-li</i>	<i>à gójá:-li</i>	<i>à ná:-li</i>
2Pl	<i>á pàrà-gà:-li</i>	<i>á pò:lò:-li</i>	<i>á gòjà:-li</i>	<i>á nà:-li</i>
3Sg	<i>pàrà-gà:-li</i>	<i>pò:lò:-li</i>	<i>gòjà:-li</i>	<i>nà:-li</i>
3Pl	<i>párá-gà:-ndi</i>	<i>pó:lò:-ndi</i>	<i>gójá:-ndi</i>	<i>nà:-ndi</i>

Examples with final-high-vowel verb stems (those that have perfectives with final i) are in (xx2). They do not differ from the other verbs in the perfective negative, since the stem-final vowel is that of the A/O-stem.

(xx2)	'show'	'run'	'do'	'draw water'
1Sg	ɛ̀ tégó-mó:-lì	ɛ̀ dú:nó:-lì	ɛ̀ káná:-lì	ɛ̀ ɲó:-lì
1Pl	ɛ̀ tégò-mò:-lì	ɛ̀ dù:nò:-lì	ɛ̀ kànà:-lì	ɛ̀ ɲò:-lì
2Sg	á tégó-mó:-lì	á dú:nó:-lì	á káná:-lì	á ɲó:-lì
2Pl	á tégò-mò:-lì	á dù:nò:-lì	á kànà:-lì	á ɲò:-lì
3Sg	tégò-mò:-lì	dù:nò:-lì	kànà:-lì	ɲò:-lì
3Pl	tégó-mò:-ndì	dù:nò:-ndì	kánà:-ndì	ɲò:-ndì

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 construction is unchanged.

(xx1)	a.	<i>nígè</i> elephant	<i>tégó-nà</i> see-SS	<i>wélè:</i> ExpPf	<i>ɛ̀</i> 1SgS	<i>ʔóri</i> not.be
		'I have never seen an elephant'				
	b.	<i>nígè</i> elephant	<i>tégó-nà</i> see-SS	<i>wélè:</i> ExpPf	<i>ʔóri</i> not.be	
		'He/She has never seen an elephant'				

10.2.3.3 Imperfective negative (*-lò* after O/U-stem)

Except for 3Pl subject, the imperfective negative suffix is *-lò* 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 tone melody is {H} for 3Sg, 1Sg, and 2Sg. For 1Pl and 2Pl, the stem is {L}-toned 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 *-lò*, and the /nl/ cluster assimilates to *ll*.

(xx1)	'show'	'build'	'do'	'draw water'
1Sg	ɛ̀ tégó-mú-lò	ɛ̀ símú-lò	ɛ̀ kál-lò	ɛ̀ ɲú:-lò

1Pl	<i>ɲ tɛ̀gò-mù-lɔ̀</i>	<i>ɲ sìmù-lɔ̀</i>	<i>ɲ kàl-lɔ̀</i>	<i>ɲ nù:-lɔ̀</i>
2Sg	<i>à tɛ̀gò-mù-lɔ̀</i>	<i>à sìmù-lɔ̀</i>	<i>à kàl-lɔ̀</i>	<i>à nù:-lɔ̀</i>
2Pl	<i>á tɛ̀gò-mù-lɔ̀</i>	<i>á sìmù-lɔ̀</i>	<i>á kàl-lɔ̀</i>	<i>á nù:-lɔ̀</i>
3Sg	<i>tɛ̀gò-mù-lɔ̀-∅</i>	<i>sìmù-lɔ̀-∅</i>	<i>kàl-lɔ̀-∅</i>	<i>nù:-lɔ̀-∅</i>
3Pl	<i>tɛ̀gò-mi-ndà</i>	<i>sìmì-ndà</i>	<i>káni-ndà</i>	<i>nì:-ndà</i>

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.

(xx1)	'cut'	'pay/tie'	'eat (meal)'
1Sg	<i>ɲ párá-gò-lɔ̀</i>	<i>ɲ sɔ́jɔ́-lɔ̀</i>	<i>ɲ jɔ́:-lɔ̀</i>
1Pl	<i>ɲ párà-gò-lɔ̀</i>	<i>ɲ sɔ̀jɔ̀-lɔ̀</i>	<i>ɲ jɔ̀:-lɔ̀</i>
2Sg	<i>à párá-gò-lɔ̀</i>	<i>à sɔ́jɔ́-lɔ̀</i>	<i>à jɔ́:-lɔ̀</i>
2Pl	<i>á párà-gò-lɔ̀</i>	<i>á sɔ̀jɔ̀-lɔ̀</i>	<i>á jɔ̀:-lɔ̀</i>
3Sg	<i>párá-gò-lɔ̀</i>	<i>sɔ́jɔ́-lɔ̀</i>	<i>jɔ́:-lɔ̀</i>
3Pl	<i>párá-gè-ndà</i>	<i>sɔ̀jè-ndà</i>	<i>jè:-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 (xx2c) 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 a {L}-toned form of the verb, in its A-stem.

(xx1)	'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-∅</i>	<i>jà: ʔòrì-∅</i>
3Pl	<i>pàrà-gà ʔòrì-yà</i>	<i>jà: ʔòrì-yà</i>

10.3 Pronominal paradigms for non-imperative verbs

10.3.1 Subject pronominal affixes

As illustrated in the paradigms for specific AN categories (preceding sections), the pronominal paradigm is as in (xx1). X here represents the inflected verb stem.

(xx1) category	suffix
1Sg	<i>ɨ̃</i> X
1Pl	<i>ɨ̃</i> X
2Sg	<i>à</i> X
2Pl	<i>á</i> X
3Sg	X-∅
3Pl	(various, see below).

The 3Sg form has no overt pronominal morpheme, even in the imperfective. In addition to the segmentally characterized affixes in (xx1), the stem undergoes tonal changes. In particular, 1Sg and 2Sg often have one stem tone, distinct from that of 1Pl and 2Pl. 3Sg and 3Pl may also differ tonally. The details depend on the particular AN category.

The 1st/2nd person proclitics follow the reduplicant in the imperfective (positive) category.

The 3Pl variants are summarized in (xx2).

- (xx2) a. initial H-tone on verb, no segmental pronominal morpheme
 verb of focalized clauses
 imperfective and progressive (positive)
 derived statives, , §10.4.1.1-2
 jussive, §10.8.3.1
bò 'be' (*bó*), §11.2.2.2
sà 'have' (*sá*), §11.5.1
- b. suffix on verb
3Pl subject suffix
-yè ~ *-yê* perfective (*/y/* may fuse with 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' (*?èyⁿ-yà*), 'want' (*kàyⁿ-yà*), §11.2.5.1-2

'not know' (*?indò-yà*), 'not want' (*kâ:-lâ-yà*), §11.2.5.1-2
portmanteau for 3Pl subject and an aspect-negation category
-ndì perfective negative (portmanteau replacing *-lì*)
-ndà imperfective negative (portmanteau replacing *-lì*)

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 *ñ* and 2Sg *à* proclitics, for subjects of verbs but also for possessors, are distinguished by tone from the corresponding plurals, 1Pl *ñ̃* 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 imperfective positive and in 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 fuses with a pronominal proclitic if there is one (1Pl, 2Pl), but is realized on the stem onset if there is no pronominal 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.

(xx1)	category	1Pl/2Pl	1Sg/2Sg	3Sg	3Pl
a.	{HL...} after 1Sg/2Sg				
	<i>3Sg is H-initial</i>				
	Perf	<i>ỵ</i> {L}	<i>ỵ</i> {HL}	{HL}	{HL}- <i>ẓ</i>

ImpfNeg (-lâ, 3Pl -ndâ)	ý {L} -x̂	ÿ {H} -x̂	{H} -x̂	{HL} -x̂ẑ
capacitative	ý {H}	ÿ {HL}	{HL}	{HL} -ẑ
'not be' (?órí)	ý {L}	ÿ {HL}	{HL}	{HL} -ẑ
3Sg is L-initial, 3Pl is {L} before H-toned suffix				
bare stative (-w ⁿ)	ý {L} -x̂	ÿ {HL} -x̂	{L} -x̂	{L} -x̂ -ẑ
'know' (?Ëy ⁿ)	ý {L}	ÿ {HL}	{L}	{L} -ẑ
'not know' (?indò)	ý {L}	ÿ {HL}	{L}	{L} -ẑ
'want' (kày ⁿ)	ý {L}	ÿ {HL}	{L}	{L} -ẑ
'not want' (kâ:-lâ)	ý {L-L}	ÿ {HL-L}	{L-L}	{L-L} -ẑ
derived stative negative	ý {L-L}	ÿ {HL-L}	{L-H}	{L-L} -ẑ
'not resemble' (pìmâ-ndá)	ý {L-L}	ÿ {HL-L}	{L-H}	{L-L} -ẑ
3Sg is L-initial, 3Pl is H-initial and unsuffixed or portmanteau				
Impf (light)	ÿ́ {L}	ÿ́ {HL}	ÿ́ {L}	ÿ́ {HL}
derived stative (iterated)	ÿ́ {L}	ÿ́ {HL}	ÿ́ {L}	ÿ́ {HL}
'resemble' (pímâ)	ý {L}	ÿ {HL}	{L}	{HL}
Impf (heavy)	ÿ́ {LHL}	ÿ́ {HL}	ÿ́ {LHL}	ÿ́ {HL}
PerfNeg (-li, 3Pl -ndi)	ý {L} -x̂	ÿ {H} -x̂	{L} -x̂	{HL} -x̂ẑ

b. L-initial after 1Sg/2Sg

3Sg is L-initial, 3Pl is H-initial and unsuffixed				
'be (somewhere)' (bò)	ý {L}	ÿ {L}	{L}	{H}
'have' (bò ... sâ)	x̂ ý {L}	x̂ ÿ {L}	x̂ {L}	x̂ {H}
derived stative (bò)	x̂ ý {L}	x̂ ÿ {L}	x̂ {L}	x̂ {HL}
Prog (after ?èmbè)	x̂ ý {LH}	x̂ ÿ {L}	x̂ {L}	x̂ {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

There are two stative constructions involving regular verbs. Both are based on the A-stem of the verb, and may therefore be compared to the imperfective positive. One contains existential *bò* (xx2a) the other involves full-stem iteration (xx2b).

- (xx2) a. *bò* *sòmbà*
Exist squat.Impf
 'He/She is squatting.'

- b. *sòmbá* *sòmbà*
Iter squat.Impf
 [= (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 are retained. The predicate denotes a fixed position, not movement into the position ('be sitting' as opposed to 'sit down'). Glosses like 'be sitting' are to be interpreted as statives, not progressives. ('be sitting down').

(xx1)	perfective	stative	gloss (stative)
a.	<i>CvCv</i> → <i>CvCa</i>		
	<i>ʔébé</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 yógà</i>	'be hidden'
b.	<i>CvCCv</i> with geminate cluster → <i>CvCa</i>		
	<i>ʔíj-jè</i>	<i>bò ʔigà</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>báṅgè</i>	<i>bò bāṅgà</i>	'be leaning (one's hand) on'
	<i>sómbè</i>	<i>bò sòmbà</i>	'be squatting'

A sample paradigm is (xx2). 1st/2nd person subject proclitics occur on the verb stem, following *bò*. The stem is {L}-toned except {HL}-toned in the 3Pl form. *bò* does not contract with 2Sg *à* or 2Pl *á*.

(xx2) 'Be lying down'

1Sg *bò ñ bì-yà*

1Pl	<i>bò ɲ 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. See §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.

(xx1)	perfective	stative (3Sg)	gloss (stative)
a.	<i>CvCv</i> → <i>CvCa</i>		
	<i>ʔɲè</i>	<i>ʔigá ʔigà</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>CvCCv</i> with nongeminate cluster → <i>CvCCa</i>		
	<i>bàngè</i>	<i>bàngá bàngà</i>	'be leaning (one's hand) on'
	<i>sòmbè</i>	<i>sòmbá sòmbà</i>	'be squatting'

The paradigm is illustrated in (xx2). 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} for 1Sg/2Sg and for 3Sg, and {L} for other subjects, becoming {LH} in the 3Sg by Final Tone-Raising.

(xx2) 'Be lying down'

1Sg	<i>bí-yà ñ bì-yà</i>
-----	----------------------

1Pl	<i>bì-yà ò b̀i-yà</i>
2Sg	<i>bí-yà = à b̀i-yà</i>
2Pl	<i>bì-yà = á b̀i-yà</i>
3Sg	<i>bì-yá b̀i-yà-Ø</i>
3Pl	<i>bí-yà bí-yà</i>

10.4.1.3 Bare stative with *-wⁿ* (A-stem, perception verbs)

'See' and 'hear' have forms based on the A-stem that morphologically resembles 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 *b̀ò* 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 (§17.2.2.1).

(xx1) Bare stative of perception verbs

	'see'	'hear'
1Sg	<i>ò tégà-wⁿ</i>	<i>ò nùndà-wⁿ</i>
1Pl	<i>ò t̀égà-wⁿ</i>	<i>ò ǹundà-wⁿ</i>
2Sg	<i>á tégà-wⁿ</i>	<i>á nùndà-wⁿ</i>
2Pl	<i>á t̀égà-wⁿ</i>	<i>á ǹundà-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 *t̀è ò t̀égà* 'I will see'.

The past morpheme *mb̀è* may be added (§10.5.1.5).

10.4.2 Stative negative (= *ndá*)

Stative negative = *ndá* (3Sg form) is added to the same {L}-toned A-stem verb as in the positive, but without stem-iteration or *bò*. An example is *?èbà = ndá* 'he/she is not sitting'. In the 1Sg and 2Sg forms, the stem has {HL} melody. In remaining forms, the stem is {L}-toned. Negative forms of stative 'see' and 'hear' have similar paradigms.

(xx1) Negative of derived statives

	'not be sitting'	'not see'
1Sg	<i>ŋ ?éba = ndá</i>	<i>ŋ tégà = ndá</i>
1Pl	<i>ŋ ?èbà = ndá</i>	<i>ŋ tègà = ndá</i>
2Sg	<i>à ?éba = ndá</i>	<i>à tégà = ndá</i>
2Pl	<i>á ?èbà = ndá</i>	<i>á tègà = ndá</i>
3Sg	<i>?èbà = ndá-Ø</i>	<i>tégà = ndá-Ø</i>
3Pl	<i>?èbà = ndá-yà</i>	<i>tégà = ndá-yà</i>

The past morpheme *mbè* may be added (§10.5.1.5).

10.5 Temporal clitics and particles

10.5.1 Past marker (*mbè* ~ *wè*)

The past particle is uninflected, and follows an inflected verb. Based on current data, *mbè* is the form used after positive verb forms, frequently with a final long *a*: on the preceding verb. *wè* (or H-toned *wé*) is used after negative verb forms. *mbè* looks rather like a prenasalized version of *wè*, compare locative postposition variants *mbà* and *à* (§3.4.1.3).

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').

bò 'be' assimilates to -ATR vowel in past *bǎ*: *mbè* 'he/she/it was'.

10.5.1.1 Past imperfective (positive and negative)

For the regular imperfective see §10.2.2.1 above. In the past imperfective, the initial *Cv̄*-reduplication in the nonpast counterpart is replaced by full-stem iteration, with final *u* on the first iteration, as in imperfective polar interrogatives with *lâ* (§13.2.1.1). In elicitation there was spillage between past imperfective and past progressive senses, but I assume that the past imperfective can also be used in the sense 'used to VP' or 'was going to VP'.

- (xx1) a. *ɲènnú* *ɲènná:-Ø* *mbè*
 Iter sweep.Impf-3SgS Past
 'He/She was sweeping (used to sweep).' (*ɲénnè*)
- b. *ʔálámá-gè* *sèlù* *sélá:* *mbè*
 sheep-Pl Iter slaughter.Impf.3PlS Past
 'They were slaughtering (used to slaughter) sheep.' (*sélè*)
- c. [*ɲámúgá-gè*] *gèwú* *íj* *gèwá:* *mbè*
 [snake-Pl] Iter 1PlS kill.Impf Past
 'We were killing (used to kill) snakes.' (*gè:wè*)

A past imperfective **negative** example is (xx2). As in the regular imperfective negative, there is no reduplication or iteration, just the verb (O/U-stem) plus suffix *-lò*.

- (xx2) *ɲ* *ɲènnó-lò* *wè*
 1SgS sweep-IterNeg Past
 'I was not sweeping (did not use to sweep).'

A sample positive and negative paradigm is in (xx3). In the positive, the tone of the second stem syllable (*la:*) distinguishes singular from plural for the 1st/2nd person forms, and the tones of the first stem syllable (*se*) and of the final syllable of the reduplicant (*lu*) distinguish 3Sg from 3Pl. In the negative, singular and plural are multiply distinguished tonally in the 1st/2nd person forms. The 3Pl has the usual portmanteau *-ndâ*.

- | | | |
|-------|--------------------------|----------------------------|
| (xx3) | 'used to slaughter' | 'did not use to slaughter' |
| 1Sg | <i>sèlú íj sèlà: mbè</i> | <i>ɲ séló-lò wè</i> |
| 1Pl | <i>sèlú íj sèlá: mbè</i> | <i>íj sèlò-lò wè</i> |
| 2Sg | <i>sèlá-á sèlà: mbè</i> | <i>à séló-lò wè</i> |
| 2Pl | <i>sèlá-á sèlá: mbè</i> | <i>á sèlò-lò wè</i> |

3Sg	<i>sèlú sèlá:-Ø mbè</i>	<i>sèlò-lò-Ø wè</i>
3Pl	<i>sèlù sèlá: mbè</i>	<i>sèlè-ndà wè</i>

In the (positive) past imperfective, the unfocalized main-clause forms given above involve 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 *?èmbè* are in (xx1). As usual, *mbè* lengthens a preceding vowel.

- (xx1) a. *séydù ?èmbé jènná:-Ø mbè*
 Seydou Prog sweep-3SgS Past
 'Seydou was sweeping.'
- b. *núŋò ?émbè núŋá: mbè*
 song Prog sing.3PIS Past
 'They were singing.'
- c. *?émbè ì jènná: mbè*
 Prog 1SgS sweep Past
 'I was sweeping.'
- d. *[wá:yà kún] bòmòká = à*
 [year all] Bamako=Loc
?émbè ì gè:ndá: mbè
 Prog 1SgS go Past
 'I was going (= used to go) to Bamako every year'

For the regular progressive negative with *?óri* 'not be', see §10.2.3.4. Positive and negative past progressive paradigms are in (xx2).

- (xx2) 'was slaughtering' 'was not slaughtering'
- | | | |
|-----|----------------------------|-------------------------|
| 1Sg | <i>?émbè ì sèlá: mbè</i> | <i>sèlà ì ?óri wè</i> |
| 1Pl | <i>?èmbè í sèlá: mbè</i> | <i>sèlà í ?òrì wè</i> |
| 2Sg | <i>?émbà = à sèlá: mbè</i> | <i>sèlà = à ?òrì wè</i> |

2Pl	<i>?èmbà=á sèlá: mbè</i>	<i>sèlà=á ?òrì wè</i>
3Sg	<i>?èmbé sèlá:-Ø mbè</i>	<i>sèlà ?òrì-Ø wè</i>
3Pl	<i>?émbé sèlá: mbè</i>	<i>sèlà ?òrì-yà wè</i>

10.5.1.3 Past perfect (positive and negative)

The construction functioning as past perfect ('had VPed'), with reference to 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 *-ndì* in the negative) with the past morpheme, which in this case appears in the allomorph *wè*. Paradigms are in (xx1). After a {L}-toned verb, *wè* itself is tone-raised to *wé* (1Pl/2Pl forms, plus the 3Sg negative).

(xx1)	'had tied'	'had not tied'
1Sg	<i>ñ sòjè wè</i>	<i>ñ sòjá:-li wè</i>
1Pl	<i>ñ sòjè wé</i>	<i>ñ sòjà:-li wé</i>
2Sg	<i>à sòjè wè</i>	<i>à sòjá:-li wè</i>
2Pl	<i>á sòjè wé</i>	<i>á sòjà:-li wé</i>
3Sg	<i>sòjè-Ø wè</i>	<i>sòjà:-li-Ø wé</i>
3Pl	<i>sòjí-yè wè</i>	<i>sòjà:-ndì 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 *bó: mbè* 'was' for *bò* 'be', and of *?òrì wè* 'was not' for *?òrì* 'is not'.

(xx1)	<i>nígè</i>	<i>tègó-nà</i>	<i>wélè:</i>	<i>bó:-Ø</i>	<i>mbè</i>
	elephant	see-SS	ExpPf	be-3SgS	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 (xx1), compare *ʔèbá-ʔèbà* 'he/she is sitting' (§10.xxx). The final vowel is lengthened before *mbè*.

- (xx1) a. *séydù* *ʔèbá* *ʔèbá:-Ø* *mbè*
 Seydou Iter sit.Stat-3SgS Past
 'Seydou was sitting.'
- b. *ʔèbà-ndà-Ø* *wé*
 sit-StatNeg-3SgS Past
 'He was not sitting.'

A sample paradigm is (xx2)

(xx2)	positive	negative
1Sg	<i>ʔébà ì ʔébà: mbè</i>	<i>ì ʔébà-ndà wé</i>
1Pl	<i>ʔébà í ʔébá: mbè</i>	<i>í ʔébà-ndà wé</i>
2Sg	<i>ʔébà = à ʔébà: mbè</i>	<i>à ʔébà-ndà wé</i>
2Pl	<i>ʔébà = á ʔébá: mbè</i>	<i>á ʔébà-ndà wé</i>
3Sg	<i>ʔébá ʔébá:-Ø mbè</i>	<i>ʔébà-ndà-Ø wé</i>
3Pl	<i>ʔébà ʔébà: mbè</i>	<i>ʔébà-ndà wé</i>

Stative quasi-verbs not derived from active verbs are exemplified in (xx3).

(xx3)	gloss	regular	Past
	positive		
	'be (somewhere)'	<i>bò</i>	<i>bǎ: mbè</i>
	'have'	<i>bò sà</i>	<i>bò sá: mbè</i>
	'want'	<i>kàyⁿ</i>	<i>káyⁿ 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>ʔindò</i>	<i>ʔindò wé</i>

Statives with *-wⁿ ~ -yⁿ* have similar past forms with *mbè* (xx3). The *-wⁿ ~ -yⁿ* is usually not separately audible before the nasal of *mbè*.

(xx3) nonpast past gloss of past

a. comparative adjectival predicate (§12.1.1)

ìj gólè-yⁿ *ìj gólè(-yⁿ) mbè* 'I was taller'
ìj gólè-ndà *ìj gólè=ndà mbè* 'I was not taller'

b. bare stative of perception verb (§10.4.1.3)

ìj tégà-wⁿ *ìj tégà(-wⁿ) mbè* 'I saw (could see)'
ìj tégà=ndà *ìj tégà=ndà mbè* '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 meaning 'until today' or the like is used (xx1a). For '(not) yet' the adverb *táfɔ̃ⁿ* is used after a negative predicate.

(xx1) a. *[kèmnò nɔ]* *[fá: jòwⁿ]* *wólì* *wàlú-mò*
 [old Def] [even today] farming(n) do.farming-can
 'The old person can still do farm work.'

b. *jí* *ìj* *já:-lì* *táfɔ̃ⁿ*
 food 1SgS eat-PerfNeg yet
 'I haven't eaten yet.'

10.6 Directionals

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 *yã:-*, though the Bunoge verb 'go' is *gè:ndè*. Only a few verbs could be elicited with the directional ending, and its productivity is questionable.

(xx1) a. *bó-lò* *ìj* *bí:-yà-yà*
 there-Loc 1SgS lie.down-MP-go

'I will go there and lie down (to sleep).'

b. *pànángè* *à* *jà:-yà'*
 meal 2SgS eat-go
 'Will you-Sg go eat a meal?'

c. *mèrègè* *mèràlá:-yè-Ø*
 fun have.fun-go.Perf-3SgS
 'He/She went and had fun.'

Sample imperfective paradigms are in (xx2). The informant had some difficulties especially with the 3PI, which was given as identical to the 3Sg.

(xx2) Imperfective

	'go lie down'	'go have fun'
1Sg	<i>bì ñ bí:-yà:-yà</i>	<i>mè ñ mèràlà:-yà</i>
1PI	<i>bì ñ bì:-yá:-yà</i>	<i>mè ñ mèràlá:-yà</i>
2Sg	<i>bà = à bí:-yà:-yà</i>	<i>mà = à mèràlà:-yà</i>
2PI	<i>bà = á bì:-yá:-yà</i>	<i>mà = á mèràlá:-yà</i>
3Sg	<i>bì-bì:-yá:-yà-Ø</i>	<i>mè-mèràlá:-yà-Ø</i>
3PI	<i>(bì-bì:-yá:-yà)</i>	<i>(mèràlá:-yà)</i>

Sample perfective paradigms are in (xx3). Again the informant had difficulties especially with 3PI.

(xx3) Perfective

	'go lie down'	'go have fun'
1Sg	<i>ñ bí:-yá:-yè</i>	<i>ñ mèràlá:-yè</i>
1PI	<i>ñ bì:-yá:-yè</i>	<i>ñ mèràlá:-yè</i>
2Sg	<i>à bí:-yá:-yè</i>	<i>à mèràlá:-yè</i>
2PI	<i>á bì:-yá:-yè</i>	<i>á mèràlá:-yè</i>
3Sg	<i>bì:-yá:-yè</i>	<i>mèràlá:-yè</i>
3PI	<i>(bì:-yá:-yè)</i>	<i>(mèràlá:-yè)</i>

For similar events expressed in perfective aspect, ordinary verb sequences including a form of *gě:ndè* 'go' were used.

(xx4) *bó-lò* *ɲ* *gě:ndè* *ɲ* *bi:-yè*
 there 1SgS go.Perf 1SgS lie.down-MP.Perf
 'I went there and lay down (to sleep).'

See also the remarks on *té:jè* 'look' in §9.8.

10.7 Capacitative (-mò 'can')

The suffix *-mò* is added to the **O/U-stem** of the verb. The sense is 'can VP, is able to VP'. The vowel of *-mò* is not subject to harmony.

(xx1)	gloss	perfective (3Sg)	capacitative (3Sg)
a. monosyllabic			
	'go in'	<i>dé:</i>	<i>dé:-mò</i>
	'draw water'	<i>ɲí:</i>	<i>ɲí:-mò</i>
b. bisyllabic			
	'touch'	<i>nárè</i>	<i>náró-mò</i>
	'dance'	<i>yóbè</i>	<i>yóbó-mò</i>
	'catch'	<i>débè</i>	<i>débó-mò</i>
	'do'	<i>káni</i>	<i>kánú-mò</i>
	'build'	<i>sími</i>	<i>sím-mò</i> (syncopated)
	'go up'	<i>ʔólè</i>	<i>ʔóló-mò</i>
	'shave'	<i>ká:yè</i>	<i>ká:yó-mò</i>
	'run'	<i>dú:nì</i>	<i>dú:nú-mò</i>
	'taste'	<i>dá:ndè</i>	<i>dá:ndó-mò</i>
c. trisyllabic and longer			
	'push'	<i>dúnjùrè</i>	<i>dúnjùró-mò</i>
	'roll (tr)'	<i>gúndúló-mì</i>	<i>gúndúló-m-mò</i> (syncopated)

The paradigm is (xx2).

(xx2)	'can push'	'cannot push'
1Sg	<i>ɲ dúnjùró-mò</i>	<i>ɲ dúnjùró-mà-ndà</i>
1Pl	<i>ɲ dúnjùrò-mò</i>	<i>ɲ dúnjùrò-mà-ndà</i>
2Sg	<i>à dúnjùró-mò</i>	<i>à dúnjùró-mà-ndà</i>
2Pl	<i>á dúnjùrò-mò</i>	<i>á dúnjùrò-mà-ndà</i>

3Sg	<i>dúnjùró-mò-Ø</i>	<i>dúnjùró-mà-ndà-Ø</i>
3Pl	<i>dúnjùró-mò-yà</i>	<i>dúnjùró-mà-ndà-yà</i>

Probably related etymologically to the capacitative suffix is an apparent stative verb *ʔimà* attested in *yé ʔimà* 'the thing that one can', i.e. 'what one can' (in contexts like '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} melody. The corresponding plural-addressee positive imperative is the **A-stem** with {LHL} melody, reduced to {HL} for mono- and bisyllabic stems, with the final L-tone realized on the suffix *-yⁿ*. Both the A/O-stem and the A-stem require that nonfinal -ATR vowels shift to +ATR.

(xx1) 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>sigò</i>	<i>sigâ-yⁿ</i>
<i>heavy bisyllabic</i>		
'fly away'	<i>píllò</i>	<i>píllâ-yⁿ</i>
'winnow'	<i>pò:lò</i>	<i>pó:lâ-yⁿ</i>
'bring'	<i>sò:ngò</i>	<i>só:ngâ-yⁿ</i>
<i>trisyllabic</i>		
'push'	<i>dúnjùró</i>	<i>dúnjùrà-yⁿ</i>
verify initial H-tone		
b. A/O-stem ends in <i>a</i>		
<i>prosodically light, -ATR</i>		
'pound'	<i>dâ</i>	<i>dâ-yⁿ</i>
verify 'slaughter'	<i>sèlà</i>	<i>sélâ-yⁿ</i>
<i>prosodically light, +ATR with penult a</i>		

	'beat'	<i>bàla</i>	<i>bálà-yⁿ</i>
	<i>heavy bisyllabic, -ATR</i>		
verify	'dispossess'	<i>bèl-là</i>	<i>bél-là-yⁿ</i>
	<i>heavy bisyllabic, +ATR with penult a</i>		
	'shave'	<i>kà:yà</i>	<i>ká:yà-yⁿ</i>
	'carry on back'	<i>bàmbà</i>	<i>bám-bà-yⁿ</i>
	'taste'	<i>dà:ndà</i>	<i>dá:ndà-yⁿ</i>
	<i>trisyllabic, -ATR</i>		
verify	'open (door)'	<i>dèŋù-là</i>	<i>dèŋù-là-yⁿ</i>
	<i>trisyllabic, +ATR with nonfinal a</i>		
	'cut, chop'	<i>pàrà-gà</i>	<i>pàrá-gà-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} melody, reduced to {HL} for prosodically light stems.

(xx2) 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>kànà</i>	<i>kánà-yⁿ</i>
b. imperative ends in <i>u</i> (Sg)		
<i>monosyllabic</i>		
'draw water'	<i>ɲù</i>	<i>ɲà-yⁿ</i>
<i>bisyllabic with penultimate high vowel</i>		
'build'	<i>símù</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.

(xx3) a.	<i>[ɲjé]</i>	<i>nò-ŋgù]</i>	<i>númbè-Ø</i>
	[dog	Def-Acc]	hit.Perf-3SgS

'He/She hit the dog.'

- b. *línjé* *nò-ŋgú]* *nùmbò*
 [dog Def-Acc] hit.Imprt
 'Hit-2Sg the dog!'

Short spatial adverbs that normally precede verbs (xx4a) can appear after the imperative verb (xx4b). It is possible that examples like (xx4b) are artefacts of elicitation from French cues. Fuller adverbial phrases still precede (xx4c).

- (xx4) a. *bó-lò* *gè:-∅*
 there-Loc go.out.Perf-3SgS
 'He/She got away from there.'
- b. *gò* *bó-lò*
 go.out.Imprt there-Loc
 'Get-2Sg away from there!'
- c. *[[?òbò* *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!') is formed by adding suffix *-ndà* to the A-stem with {LH} melody. If the L-toned suffix is included in the melody, we can reanalyse it as {LHL}, which brings out the similarity between the prohibitive (singular or plural) and the plural-subject imperative, i.e. with the other overtly suffixed form in the imperative system. Monosyllabic verbs lengthen their vowel before *-ndà*, so the full {LHL} melody is easily heard.

Plural-subject prohibitives add *-yⁿ* to the singular form, with no other change.

(xx1) Prohibitives

gloss	Sg subject	Pl subject
a. final-nonhigh-vowel verbs		
'pound'	<i>dǎ:-ndà</i>	<i>dǎ:-ndà-yⁿ</i>
'come'	<i>?ègá-ndà</i>	<i>?ègá-ndà-yⁿ</i>
'go down'	<i>sigá-ndà</i>	<i>sigá-ndà-yⁿ</i>
'shave'	<i>kà:yá-ndà</i>	<i>kà:yá-ndà-yⁿ</i>
'winnow'	<i>pò:lá-ndà-yⁿ</i>	<i>pò:lá-ndà-yⁿ</i>

'bring'	<i>sò:ngá-ndà</i>	<i>sò:ngá-ndà-yⁿ</i>
'push'	<i>dùnjùró-ndà</i>	<i>dùnjùró-ndà-yⁿ</i>
b. final-high-vowel verbs		
'draw water'	<i>ɲǎ:-ndà</i>	<i>ɲǎ:-ndà-yⁿ</i>
'do'	<i>kàná-ndà</i>	<i>kàná-ndà-yⁿ</i>
'build'	<i>simá-ndà</i>	<i>simá-ndà-yⁿ</i>
'run'	<i>dù:ná-ndà</i>	<i>dù:ná-ndà-yⁿ</i>
'roll (tr.)'	<i>gùndùlò-má-ndà</i>	<i>gùndùlò-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 single form elicited 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 melody, including the suffix -yⁿ, is {LHL}.

(xx1) Hortatives

gloss

a. final-nonhigh-vowel class

monosyllabic

'pound' *ɲ dá:-yⁿ*

'eat' *ɲ já:-yⁿ*

nonmonosyllabic

'come' *ɲ ègé-yⁿ*

'go down' *ɲ sigé-yⁿ*

'dance' *ɲ yɔ̀bé-yⁿ*

'leave (sth)' *ɲ mènégé-yⁿ*

'bring' *ɲ sò:ngé-yⁿ*

'push' *ɲ dùnjùré-yⁿ*

'cut' *ɲ pàrà-gé-yⁿ*

b. final-high-vowel class

monosyllabic

'draw water' *ɲ ɲǎ:-yⁿ*

bisyllabic with penultimate a

'do' *ɲ kàné-yⁿ*

bisyllabic with penultimate high vowel
 'run' *ɔ̀ d̀ù:ní-ỳⁿ*
causative
 'roll (tr.)' *ɔ̀ g̀ùndùlò-mí-ỳⁿ*

10.8.2.2 Hortative negative

Attempts to elicit forms of this category were not successful.

10.8.3 Non-1st person hortatives

10.8.3.1 Jussive (U-stem) in quoted imperatives

A jussive 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 (xx1a), the original addressee is expressed as the object of 'say', and the jussive clause contains the jussive verb plus *-yè* ~ *-yè* (xx1a), compare English *X told me [to go]*. In the other (xx1b-d), 1st/2nd person proclitic subject pronouns are directly combined with the jussive verb, compare English *X said [for me to go]* or *X said [that I should go]*.

- (xx1) a. *mì-ɔ̀gú* *ɔ̀ǹǹǹ-ỳè* *?ùnè-Ø*
 1Sg-Acc sweep.Juss-Juss say.Perf-3SgS
 'He/She told me to sweep.'
- b. *[ɔ̀]* *ɔ̀ǹǹǹ* *?ùnè-Ø*
 [1SgS sweep.Juss[say.Perf-3SgS
 [= (a)]
- c. *[ɔ̀]* *ɔ̀ǹǹǹ* *?únè*
 [1SgS sweep.Juss] say.Perf3PlS
 [= (a)]
- d. *[[námà ǹ] ɔ̀ s̀l̀l̀-gú]* *?ùnè-Ø*
 [[meat Def] 1SgS cut-Caus.Juss] say.Perf-3SgS
 'He/She told me to cut the meat.'

For more on the syntax and for further examples see §17.1.4.1. In the type (xx1a), there is no pronominal-subject paradigm for the jussive verb. In the type (xx1b), the paradigm is (xx2).

(xx2) subject form

1Sg	<i>ɨ̃</i>	<i>sélà-gù</i>
1Pl	<i>ɨ̃</i>	<i>sèlà-gù</i>
2Sg	<i>à</i>	<i>sélà-gù</i>
2Pl	<i>á</i>	<i>sèlà-gù</i>
3Sg		<i>sèlà-gù-Ø</i>
3Pl		<i>sélà-gù</i>

Rightward H-Movement or Tone-Raising in (xx1b)

'she/they told him to sweep' (tones of *ɲennu ʔùnè-Ø, ɲennu ʔúnè-Ø*)

Additional 3Sg subject examples of the simple jussive form without *-yè ~ -yè* are in (xx3), alongside the 3Sg perfective citation form.

(xx3)		perfective 3Sg	jussive
	'come'	<i>ʔégè</i>	<i>ʔègù</i>
	'dig'	<i>gójè</i>	<i>gòjù</i>
	'go down'	<i>sigè</i>	<i>sigù</i>
	'do farming'	<i>wálè</i>	<i>wàlù</i>
xx	'sleep'	<i>dó:yè</i>	xxx
xx	'kill'	<i>gé:wè</i>	xxx
xx	'carry'	<i>dú:yyè</i>	xxx

Further examples of the unconjugated form with *-yè ~ -yè* are in (xx4), 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).

(xx4)		perfective 3Sg	jussive
a. final-nonhigh-vowel			
-ATR			
	'sing'	<i>núŋè</i>	<i>nùŋù-yè</i>
	'dig'	<i>gójè</i>	<i>gòj-jè</i> (syncopated)
	'sweep'	<i>ɲénnè</i>	<i>ɲènnù-yè</i>
+ATR			
	'come'	<i>ʔégè</i>	<i>ʔèg-gè</i> (syncopated)
	'go down'	<i>sigè</i>	<i>sig-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>jê:</i>	<i>jî:-yè</i> (or <i>jìy-yè</i>)
<i>monosyllabic, +ATR</i>		
'go out'	<i>gê:</i>	<i>gùy-yè</i> [!]

b. final-high-vowel

<i>high-vowel type</i>		
'build'	<i>sími</i>	<i>sìmù-yè</i>
<i>a-vowel type</i>		
'do'	<i>káni</i>	<i>kànù-yè</i>
<i>monosyllabic</i>		
'draw water'	<i>ɲí:</i>	<i>ɲù:-yè</i>

10.8.3.2 Third person hortative negative (*-ndá*)

Negative jussives, i.e. 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 (xx1). See §17.1.4.1 for examples.

(xx1)	1Sg	<i>ɲ ʔégà-ndá</i>
	1Pl	<i>ɲ ʔègà-ndà</i>
	2Sg	<i>à ʔégà-ndá</i>
	2Pl	<i>á ʔègà-ndà</i>
	3Sg	<i>ʔègà-ndá</i>
	3Pl	<i>ʔégà-ndá</i>

11 Clause, VP, and predicate structure

11.1 Clausal constituents

Linear order is SOV. 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 are characterized as in (xx1).

- (xx1)
- a. zero case-marking on NP (contrast accusative, postpositions);
 - b. pronominal-subject agreement on verb in main clause;
 - c. special participles for subject relatives and subject focus;
 - d. relevant to choice of same-subject or different-subject subordinators;
 - e. clausemate subject is normal antecedent for reflexives.

11.1.1.2 Subjects in relative and complement clauses

*summarize here, with cross-refs to relevant sections (Chaps 14-17)
consider:*

- relative clauses (with nonsubject head NP)*
- (perhaps) factive complements, e.g. 'see/find that [...]'*
- quotative complements, 'say that [...]', including jussives*
- something unusual about pronominal subjects?*
- pronominal-subject suffixes in main clauses are blocked here?*
- so a separate subject pronoun must be used?*
- proclitic to verb, or in clause-initial subject position?*
- may not be relevant in some languages*
- nonpronominal NP requires a coindexed 3Sg or 3Pl pronoun?*
- full syntactic subject properties? (for each complement type)*
- subject can be antecedent of reflexive object or possessor?*
- "same-subject" subordinators can connect this clause to another?*

11.1.1.3 Subjects of imperative and hortative verbs

subjects of imperatives and hortatives

summarize data on subject properties from Chapter 10

can subject bind anaphors (reflexives)?

covert 2nd person imperative "subjects" cannot?

overt 1st/3rd person hortative subjects can?

can such verbs be linked by "same-subject" subordinators to a preceding VP?

11.1.1.4 Subjects of lexicalized subject-verb combinations

The "subject" of such combinations has low referentiality (so it is unlikely to bind an anaphor), and in some languages it shows less than full syntactic subject properties:

a) may typically follow adverbs like 'yesterday' while true subjects precede (Togo Kan);

b) may co-occur with a "real" subject.

meteorological and seasonal expressions.

'day break', 'night fall', 'hot season be happening', 'sky (=cloudy weather, i.e. rainy season) arrive/go out', 'rain fall', etc.

test for unmarked position vis-a-vis 'yesterday' type adverbs

"same-subject" subordinator in e.g. 'sky (=rainy season) arrived and went out' (but note that "same-subject" requirement may not be strict)

emotional terms based on 'heart' (really 'liver/heart complex')

'X's heart is ruined' etc.

the verb usually makes sense with 'heart' as subject (cf. 'my heart is broken'), but the syntax may take X as the real subject.

test position of X and of 'heart' with 'yesterday' type adverbs

is 'heart' a possessed noun with X as possessor, or a separate adjunct?

[[X heart.(H)L] be.ruined] or [X ... heart be.ruined]

possessed nouns should have the relevant possessor-controlled contour, {HL}, {L}, {H}, or whatever

11.1.2 Simple transitives

11.1.2.1 Direct objects of simple transitives

There is a fairly well-defined transitive clause type with a subject and a direct object. Order normally SOV (except perhaps for pronominal subjects).

does the language have an Accusative morpheme (§6.7)?

impact verbs ('hit', 'cut') should be simple [Subj Obj V]

perception verbs ('see', 'hear') likewise

verbs of holding/carrying likewise, but they also have a "middle" voice element expressed in some languages by the Mediopassive suffix, i.e. 'I carry [the baby] (on myself)'. The "middle" element is disregarded by the clause-level syntax.

The distinction between transitive and intransitive is complicated by the existence of many verbs that have a cognate nominal as (apparent) object (§11.1.5.1) or other low-referentiality objects. These normally do not get Accusative marking (in lgs where such a morpheme exists).

11.1.2.2 *káni* 'do' in collocations

There are many collocations of 'do' with a stem (syntactically a noun or at least noun-like) that denotes an action or the product of an action. Those that denote actions rather than things are generally loanwords from Fulfulde, Bambara, French, or other languages.

In (xx1), the primary stem also occurs independently, generally as a noun, and undergoes no phonological changes in the collocation.

(xx1)	<i>ʔáníyà káni</i>	'have the intention' (<i>ʔáníyà</i> 'intention, plan')
	<i>bárù káni</i>	'have a meeting or discussion' (<i>bárù</i> 'meeting')
	<i>jámbà káni</i>	'betray' (<i>jámbà</i> 'betrayal')
	<i>kálbà káni</i>	'entrust' (<i>kálbà</i> 'entrusting')
	<i>kámgà káni</i>	'steal'
	<i>kèmnò káni</i>	'grow old'
	<i>kóló káni</i>	'do fast' (also iterated <i>kòlò-kóló káni</i>)
	<i>kònù káni</i>	'perform black magic'
	<i>kòr-kà káni</i>	'fast, be fasting'
	<i>kúnà káni</i>	'swear an oath'
	<i>mèlè káni</i>	'be ashamed' (noun <i>mèlè</i> 'shame')
	<i>mùmù káni</i>	'grow reddish fuzz' (also <i>mùmù dú-yyè</i>)

<i>nímsì kání</i>	'regret, rue' (noun <i>nímsì</i> 'regret')
<i>pùlà kání</i>	'foam, be frothy' (<i>pùlà</i> 'froth, foam, suds')
<i>sèni kání</i>	'pray, perform the Muslim prayer' (<i>sèni</i> 'prayer')
<i>tè:bù kání</i>	'become abundant' (<i>tè:bù</i> → 'a lot')
<i>tó:lè kání</i>	'make bunches or heaps' (<i>tó:lè</i> 'bunch, heap')
<i>wàlè kání</i>	'work' (noun <i>wàlè</i> 'work')
<i>yámírì kání</i>	'authorize, order' (<i>yámírì</i> 'authorizing')

In (xx2), the main stem is a noun (or noun-like stem) with lexical /LH/ melody, i.e. that ends in a H-toned-syllable. When it is followed by *kání*, the final lexical H-tone is obscured. In forms of *kání* that begin with a H-tone, the main stem loses its H-tone by Final Tone-Lowering. The H-tone is heard before a form of *kání* beginning in a L-tone, and not preceded by a 1st/2nd person subject proclitic, but these verbs forms induce Tone-Raising on the final syllable of even 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 actual collocation with *kání*. For example, *fà:mí kání* occurs in actual collocations as e.g. *fà:mí kání-Ø* 'he/she understood'.

(xx2) <i>fà:mí kání</i>	'understand' (<i>fà:mí</i> 'understanding')
<i>gà:jèré kání</i>	'converse, chat' (<i>gà:jèré</i> 'conversation')
<i>gòjé kání</i>	'play the board game' (<i>gòjé</i> 'board game')
<i>hà:sí kání</i>	'card (cotton)' (<i>hà:sí</i> 'carding')
<i>hòwliní kání</i>	'pressure (sb) impatiently'
(also <i>hòwli kání</i>)	
<i>jàngí kání</i>	'study, go to school' (<i>jàngí</i> '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>pècí kání</i>	'spur (a horse)' (<i>pècí</i> 'spurring')
<i>sàlligí kání</i>	'perform ablutions' (<i>sàlligí</i> 'ablutions', also <i>sàlligí débè</i>)
<i>sè:rè kání</i>	'bear witness, testify' (<i>sè:rè</i> 'witness')
<i>sifá kání</i>	'give a description' (<i>sifá</i>)
<i>tòngì 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>wírdí kání</i>	'say one's beads' (<i>wírdí</i> 'saying one's beads')
<i>yà:fi kání</i>	'forgive' (<i>yà:fi</i>)

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 with L-toned in the lexicon, although I suspect that native speakers do not distinguish them sharply from the cases in (xx2) above. The examples I have in mind are those in (xx3). 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 *káni*, which is a bisyllabic noun-like form ending in a short high vowel.

(xx3)	<i>bàntì káni</i>	'postpone (an event)'
	<i>bàrmì káni</i>	'be wounded' or 'wound (sb)', (<i>bàrmèndé</i> 'injury')
	<i>dùwì káni</i>	'bestow a blessing on' (<i>dùwà:wú</i> 'blessing')
	<i>fòdì káni</i>	'(God) mete out fate (to sb)' (<i>fòdò:ré</i> 'divine fate')
	<i>hár káni</i>	'prevent, obstruct'
	<i>hàwnì káni</i>	'amaze (sb)' (<i>hàwndé</i> 'amazement')
	<i>hò:lì káni</i>	'trust (sb)' (<i>hò:là:ré</i> 'confidence')
	<i>jì:bì káni</i>	'(animal) die' (<i>jì:bé</i>)
	<i>màntì káni</i>	'be a dandy' (<i>màntò:ré</i> 'being a dandy')
	<i>mùpù káni</i>	'be patient' (<i>mú:mù</i> 'patience', verb also <i>mú:mì</i>)
	<i>nìwì káni</i>	'become invisible'
	<i>nìṅì káni</i>	'accuse' (<i>nìṅé</i> 'accusing')
	<i>pìkì káni</i>	'give an injection to, vaccinate' (<i>pìkírí</i> 'injection')
	<i>sàrsì káni</i>	'load (sth)' (Fr. <i>charger</i>)
	<i>sòrnì káni</i>	'sheathe (e.g. knife)'
	<i>wàjì káni</i>	'be a dandy'
	<i>yùrmì káni</i>	'have pity' (noun <i>yùrmèndé</i> 'pity')

An interesting case that shows how easily Fulfulde forms are borrowed is intransitive *jì:bì káni* '(e.g. rope) become tangled' and its transitive counterpart *jítì káni* '(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.

(xx1)	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>élélé dágè</i>	'(woman) emit cry of joy'

- | | |
|---------------------|--------------------------------|
| f. <i>síyà wálè</i> | 'tell a lie, speak an untruth' |
| g. <i>gò dú-yyè</i> | 'bathe' |

Some comments on these. In (xx1a), *kòlángè* 'neck' is possessed; the verb is not recorded elsewhere. In (xx1b), *sòn-sónì* 'saliva' is the object; the verb *sé:* also occurs in two other collocations involving gaseous or liquid bodily emissions: *súgò sé:* 'fart' (compare *súgò súgè* 'defecate' with cognate noun and verb), *sû: sé:* 'vomit' (also with cognate noun and verb). In (xx1c), *númbè* 'hit' is added rather graphically to a semi-onomatopoeic noun. In (xx1d), *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 (xx1e), 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 (xx1f), 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)'. *gò dú-yyè* 'bathe' (xx1g) is parsable synchronically as 'carry water' (*gò* 'water', *dú-yyè* 'carry on head'), though comparative evidence suggests that the syncretism 'bathe'/'carry' is an innovation (cf. Ben Tey *nî: ò-yé* 'bathe' versus *dù* '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 (xx1). These are distinct from the productive verbal nouns of the same verbs (which can also combine with the cognate nominals shown). Except in (xx1d) the nominals are not easily segmentable, but the type with L-toned final *ù* (xx1b) is sufficiently common to suggest a once-productive nominalization.

- | | |
|---|--------------------------|
| (xx1) a. monosyllabic | |
| <i>jí jê:</i> | 'eat a meal' |
| <i>sû: sé:</i> | 'vomit' |
| <i>dò: dè:</i> | 'make an insult' |
| <i>pò: pé:</i> | 'weep' |
| b. nominal ends in a high vowel or {y w} | |
| <i>final u or w, other vowels already +ATR-compatible</i> | |
| <i>dígórù dígòrè</i> | 'count (recite numbers)' |
| <i>dírù dírè</i> | 'wrestle' |

<i>ʔéjárù ʔéjárè</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>tíjù tíjè</i>	'stutter'
<i>final u or w plus ATR alternation</i>	
<i>dòjù dójè</i>	'forge (tools)'
<i>hégù hégè</i>	'hiccup'
<i>jóngù jóngè</i>	'treat (medically), provide care to'
<i>nèllù néllè</i>	'have a rest'
<i>nónù nónè</i>	'write, do some writing'
<i>ségù ségè</i>	'pay dues, make a contribution'
<i>tòw tó:wè</i>	'slash (to plant seeds)'
<i>yébù yébè</i>	'curse, utter a curse'
<i>yóbù yóbè</i>	'dance a dance'
<i>final i or y (with vowel change {o ɔ} to a in penult)</i>	
<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

<i>noun ends in {o ɔ}</i>	
<i>nújò nújè</i>	'sing, perform a song'
<i>nòjò nójè</i>	'fight, engage in a fight'
<i>sígò sígè</i>	'breathe'
<i>súgò súgè</i>	'defecate, take a shit'
<i>tìgò tígè</i>	'cough'
<i>noun ends in {e ε}</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'
<i>ηηη</i>	'sneeze'
<i>ηηη</i>	'belch, emit a belch'
<i>ηηη</i>	'yawn'
<i>ηηη</i>	'take a walk'

11.1.2.5 Grammatical status of cognate nominal

The cognate nominal is often generic (unquantified, indefinite), 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 is commonly segmented into units (songs). My informant did not accept similar quantification for e.g. *mèrègè mèrálè* 'have fun'. This informant typically rejected phrasings that are probably grammatical but that are atypical or improbable semantically.

- (xx1) *[nùŋɔ-gè tá:ndì] núŋè-Ø*
[song-Pl three] sing.Perf-3SgS
'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 are presented in §8.4.7. They do not normally occur in NPs or other syntactic phrases, but they can be made predicative by adding a conjugatable auxiliary. For static quality the auxiliaries are the quasi-verb *bò* 'be' and its negation *?óri* 'not be' (§11.2.2.2). The EA does not undergo phonological modifications of the sort that are typical of superficially similar adjectival predicates (§11.4.1). The inchoative predicate is the regular verb *bílè* 'become'.

- (xx1) a. *téyⁿ-téyⁿ bò-Ø*
straight be-3SgS
'It (e.g. road) is straight.'
- b. *téyⁿ-téyⁿ ?óri-Ø*
straight not.be-3SgS
'It (e.g. road) is not straight.'
- c. *téyⁿ-téyⁿ bílè-Ø*
straight become.Perf-3SgS
'It (e.g. road) became straight.'

11.1.3.2 Adverbial phrases with verbs of motion, being in, and putting

Motion verbs are intransitive, with an optional locational AdvP as an adjunct. The AdvP may be overtly adverbial (e.g. with a locative postposition), but it may also take the (surface) form of a NP, such as a place name.

examples:

'They went to my village.'

'They went home.'

'They went to Bamako.'

'They came back from the well.'

There may be one or more verbs (perhaps defective stative quasi-verbs) with senses like 'be (put) in(side)' or 'be (put) on' (cross-ref to relevant section of Chapter 10 or 11). Although the specific locative relationship is baked into the verb's sense, the complement may again be an AdvP, with the same qualifications as noted above for motion verbs. The default is the basic locational-existential quasi-verb 'be (somewhere)'.

examples

'The people are.in(side) the house.' [with a specialized stative]

'The tea kettle is.on the burner.' [with another specialized stative]

'I am in Douentza.' [with locational-existential]

Verbs of putting take a direct object and a locational AdvP. They can be modeled semantically, roughly, as [X CAUSE [Y BE [IN/ON Z]]].

examples

'I put the mangoes under the waterjar.'

'I put the 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 (xx1ab). The indirect object of 'say' is likewise treated as a direct object (xx1c).

- (xx1) a. *[ʔá:mádù ngù] tɔ́ndígè ñ tábè*
[Amadou Acc] money 1SgS give.Perf
'I gave the money to Amadou.'

- b. *[ʔòbò nɔ] [ʔá:mádù ɲgù] ɲ tégó-mì*
 [house Def] [Amadou Acc] 1SgS see-Caus.Perf
 'I showed the house to Amadou.'
- c. *ʔèbégè á ʔùnè [ʔá:mádù ɲgù]*
 what? 2SgS say.Perf [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 (xx1).

- (xx1) *[tè:ɲgè nɔ] [bé:-gè nɔ ɲgù] ɲ párá-gá-mì*
 [wood Def] [child-Pl Def Acc] 1SgS cut-Caus-Caus.Perf
 'I 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 chaining (chapter 15).

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.

- (xx1) a. *mì pú:ndè = :*
 1Sg Fulbe=it.is
 'I am (a) Fulbe.' (*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*] ? *òbó=:* / *yì:lí=:* / *fètó=:*
 [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 (xx2). The tone melody of the predicate NP is often the same as in isolation. However, simple nouns that are {L}-toned in isolation or before definite *nò* (which is raised to *nó*), such as 'horn' and 'head' in (xx2c), have a {LH} melody before the 'it is' clitic.

(xx2)	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>ò-yá=:</i>	'it's you-Pl'
	<i>ǎwⁿ</i>	<i>ǎwⁿ=:</i>	'it's him/her/it'
	<i>à-yⁿá</i>	<i>à-yⁿá=:</i>	'it's them'
b. demonstrative			
	<i>mó nò</i>	<i>mó nó=:</i>	'it's that one/him/her/it'
c. simple noun			
	'it is' form {LHL}-toned		
	<i>kúnjúgà</i>	<i>kúnjúgà=:</i>	'it's a knee'
	<i>póléngè</i>	<i>póléngè=:</i>	'it's an egg'
	'it is' form {HL}-toned		
	<i>ná:li</i>	<i>ná:li=:</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'
	'it is' form {LH}-toned		
	<i>fètó</i>	<i>fètó=:</i>	'it's a pond'

<i>kèlê</i>	<i>kèlê=:</i>	'it's a horn'
<i>kò:</i>	<i>kǒ=:</i>	'it's a head'
d. multi-word NP		
<i>yì:lì nɔ́</i>	<i>yì:lì nɔ́=:</i>	'it's the river'
<i>ʔòbó dâ:mbè</i>	<i>ʔòbó 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 ʔóbò</i>	<i>ɲ ʔóbò=:</i>	'it's my house'

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 (xx1).

- (xx1) a. *mì* *pù:ndé= là*
 1Sg Fulbe=it.is.not
 'I am not (a) Fulbe.' (*pù:ndé*)
- b. *mì-yá* *yò:lê-gé= là*
 1Pl Dogon-Pl=it.is.not
 'We are not Dogon.' (*yò:lê, yò:lê-gè*)
- c. *yò:lê= là*
 Dogon=it.is.not
 'He/She is not (a) Dogon.' (*yò:lê*)
- d. [*mò* *nɔ́*] *ʔòbò= là / fètɔ́= là*
 [Dem Def] house=it.is / pond=it.is
 'That is not a house / a pond.'

=*là* controls a {LH} overlay on the immediately preceding word in most cases. Nonfinal words within a multi-word NP keep their regular tones before =*là*. Representative forms of simple nouns along with independent pronouns and demonstratives, and of multi-word NPs, are in (xx2).

(xx2)	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'

ò	ó = là	'it isn't you-Sg'
ò-yá	ò-yá = là	'it isn't you-Pl'
ǎw ⁿ	ǎw ⁿ = là	'it isn't him/her/it'
à-y ⁿ á	à-y ⁿ á = là	'it isn't them'
b. demonstrative		
mó nò	mó nò = là	'it isn't that one/him/her/'
c. simple noun (nonmonosyllables)		
kúnjúgà	kúnjúgà = là	'it isn't a knee'
pòlèngè	pòlèngè = là	'it isn't an egg'
jà:lì	jà:lì = là	'it isn't a cat'
sójò	sójò = là	'it isn't a person'
fètó	fètó = là	'it isn't a pond'
kèlè	kèlè = là	'it isn't a horn'
yì:lì	yì:lì = là	'it isn't a stream'

check /L/-toned nouns; recorded elsewhere as

'foot'	sè:	sè: = là
'horn'	kèlè	kèlè = là
'ear'	sùgùlè	sùgùlè = là

monosyllabic

yó (yô:)	yó: = là	'it isn't a woman'
kò:	kò: = là	'it isn't a head'

d. multi-word NP

yì:lì nò	yì:lì nò = là	'it isn't the river'
sójò nò	sójò nò = là	'it isn't the man'
?òbó dà:mbè	?òbó dà:mbé = là	'it isn't a small house'
bé:-gè nò	bé:-gè nò = là	'it isn't the children'

e. possessed noun

ỳ ?òbò	ỳ ?òbò = là	'it isn't my house'
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In some cases, possessor-possessed combinations keep their tones unchanged before =là (tonosyntactic islandhood). *tó:lè* 'only' is treated as a possessed noun (§19.4.1) In my data, combinations with L-final pronouns preceding *tó:lè = là* keep the H-tone in its original stem-initial syllable. Other combinations appeared with {LH} melody before =là.

- (xx3) a. [ỳ / àỳ] *tó:lè* = là
 [1SgP / 3PIP only]=it.is.not
 'It's not just me/them.'

- b. *[ɲ tò:lé]=là*
 [1PIP only]=it.is.not
 'It's not just us.' (*ɲ tò:lè*)
- c. *tò:lè-ná=lâ*
 only-3SgP
 'It's not just him/her/it.' (*tò:lé-nâ*)

tonosyntactic island (possessor-possessed plus = là ??)
 'It isn't Seydou's dog'

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 similar form. Bunoge has a proclitic *yé* that has other functions in focalized (§13.1.1.7) and relative clauses (§14.4). It may reflect a classifier-like 'thing(s)' noun, perhaps fused with the old existential particle.

bò is now the Bunoge existential proclitic, in 'have' predications and in one stative construction. It is probably a spinoff from demonstrative *bo-* as in *bò-lò* 'there', following the pattern of the more widespread Dogon existential particle just mentioned. Existential *bò* is, however, uncomfortably similar to existential-locational quasi-verb *bò* 'be (somewhere)'. Whereas other Dogon languages require the existential particle before cognates of *bò* 'be (somewhere)' in unfocalized positive main clauses, in Bunoge existential *bò* and quasi-verb *bò* do not normally co-occur (but see *bómbò* in §11.2.3.3 below).

Existential *bò* in 'have' clauses has the characteristic syntactic distribution of Dogon existential particles, suggesting that it may have simply been substituted for an earlier existential particle without much change in the syntax. It is required in positive, unfocalized main clauses with 'have' (xx1a). It is not allowed in the presence of a focalized constituent (xx1b) or of negation (xx1c), and it is absent in relative clauses (xx1d).

- (xx1) a. *[ná:-ɲgé dè:gà] bò ɲ sà*
 [cow-PI two] Exist 1SgS have
 'I have two cows.'

- b. *ʔèbéǵè* *à* *sà*
 what? 2SgS have
 'What do you-Sg have?'
- c. *ná:* *ǵ* *sá:-ndà*
 cow 1SgS have-Neg
 'I don't have a cow.'
- d. *ná:* *sá* *ǵ* *tèǵòlà*
 cow have.Ppl 1SgS look.for.Impf
 'I'm looking for someone who has a cow.'

Existential *bò* is also observed under the same syntactic conditions in one of two productive stative predicate constructions derived from regular (active) verbs (xx2a). The alternative is to iterate the verb, without *bò* (xx2b). Both constructions use a form identical to the imperfective positive (based on the A-stem). See §10.4.1.1 for details.

- (xx2) a. *bò* *sòmbà-Ø*
Exist squat.Impf-3SgS
 'He/She is squatting.'
- b. *sòmbá* *sòmbà-Ø*
 Iter squat.Impf-3SgS
 [=a)]

In the available data, *bò* always immediately precedes the conjugated verb form. It could be described as a verb proclitic, though there is no phonological interaction. In (xx3), for example, *bò* follows the subject 'bird' and the locative adverbial PP 'on the tree'.

- (xx3) *ní:bè* *[[tìlǵé* *kò:]* *mbà]* *bò* *tòlà-Ø*
 bird [[tree head] Loc] Exist perch.Stat-3SgS
 '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 (xx4a), contrast 3Pl (xx4b).

- (xx4) a. *bò-ló* *bò* *ʔèbà-Ø*
 there Exist sit.Stat-3Sgs
 'He/She is sitting over there.'
- b. *bò-ló* *bò* *ʔèbà-Ø*

there Exist sit.Stat-3Sgs
 'They are sitting over there.'

11.2.2.2 Locational-existential 'be (somewhere)' (*bò*, negative *ʔóri*)

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 (xx1).

(xx1)	positive	negative
1Sg	<i>ɲ bò</i>	<i>ɲ ʔóri</i>
1Pl	<i>ɲ bò</i>	<i>ɲ ʔòri</i>
2Sg	<i>à bò</i>	<i>à ʔóri</i>
2Pl	<i>á bò</i>	<i>á ʔòri</i>
3Sg	<i>bò-∅</i>	<i>ʔóri-∅</i>
3Pl	<i>bó</i>	<i>ʔòri-yà</i>

Combinations with *ʔòlò mbà* 'in the village' (from *ʔólò* 'village') are in (xx2). The 3Sg form triggers Rightward H-Movement in the preceding locational (xx2b).

(xx2) a.	<i>[ʔòlò mbà]</i>	<i>ɲ bò</i>	'I am in the village.'
		<i>ɲ 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</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 (xx3).

(xx3) a.	3Sg		
		<i>Final Tone-Raising on locational</i>	
	<i>má:</i>	<i>bò-∅</i>	"
	<i>mà-ló</i>	<i>bò-∅</i>	'He/She/It is here.'
	<i>mòtì wá:</i>	<i>bò-∅</i>	'He/She/It is in Mopti [city].'
b.	3Pl		
		<i>no tone change on locational</i>	

<i>mà:</i>	<i>bó</i>	'They are here.'
<i>no overlay on locational</i>		
<i>má-lò</i>	<i>bó</i>	"
<i>mòtí wà:</i>	<i>bó</i>	'They are in Mopti [city].'

There is no special tonal treatment of locationals before 3Sg *ʔóri*.

- (xx4) [*ʔòlò mbà*] *ʔóri-Ø*
 [village Loc] not.be-3SgS
 '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'.

- (xx5) a. *sikàrɔ̀ bò-Ø*
 sugar be-3SgS
 'There is some sugar.'
- b. *sikàrə ʔóri-Ø*
 sigar not.be-3SgS
 'There is no sugar.'

11.2.2.3 *bómbò* 'be (somewhere)'

An extended variant of *bò* 'be (somewhere)', namely *bòmbò*, is attested with third person subjects (xx1)

- (xx1) 3Sg *bòmbò-Ø*
 3Pl *bòmbó-yà*

For an example, see (xx1c) in §8.2.8 ('they are behind Seydou').

bòmbò does not appear to be synchronically segmentable. Etymologically it looks something like the combination of existential *bò* with *bò* 'be (somewhere)', which would point to a variant *mbò* of the latter.

My informant rejected 1st/2nd person forms, with the subject pronominal either preceding *bòmbò* or infixing in the middle. He pointed out that the phonetically similar *bò: ɲ bò* means 'we are together', cf. *bò: á bò* 'you-Pl are together', *bò: bó* 'they are together.'

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 PPs, rather than by specialized stative verb forms.

- (xx1) a. *[bónà]* *nò* *[[bì:ngé kò:] mbà]* *bò-Ø*
[shoulderbag Def] [[mat head] Loc] be-3SgS
'The shoulderbag is on the mat.'
- b. *[dùdùdè nɔ]* *[píngì ndó]* *bò-Ø*
[gecko Def] [wall Loc] be-3SgS
'The gecko is on the wall.'
- c. *gɔ:* *[nùngù ndó]* *bò-Ø*
water [pottery Loc] be-3sgS
'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

For deadjectival inchoatives ('become red/long'), which are expressed by derivational suffixes, see §9.6. Here the focus is on 'become X' and 'remain X' predicates with distinct verbs or quasi-verbs.

11.2.4.1 'Remain' (*déngè*)

déngè means 'remain (in a place)'. Morphologically it is a regular verb.

- (xx1) *mà:-nâ:* *ɲ* *déngà*
here 1SgS remain.Impf
'I'm staying here.'

This verb may also be used to make inchoative predicates out of expressive adverbials (EAs). This is closer to the sense 'X happen' than to the sense 'X remain/stay'. If this construction is in use, give several examples.

11.2.4.2 'Become, be transformed into' (*bílè*)

'Become (an) X, turn/develop into (an) X' with a NP X is expressed by the regular active verb *bílè*. The corresponding transitive 'turn Y into (an) X' is the regular causative *bíló-mì*.

- (xx1) a. *ní:bè* *bílè-Ø*
 bird become.Perf-3SgS
 'He/She/It became (turned into) a bird.'
- b. *à-ngù* *ní:bè* *ì* *bíló-mì*
 3Sg-Acc bird 1SgS become-Caus.Perf
 'I turned him/her into a bird.'

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 preposed *bò*. The 3Pl form has suffix *-yà* in the positive as well as negative. Its suppletive negative counterpart has similar properties.

(xx1)		'know'		'not know'
	1Sg	<i>ì ?èy^m</i>		<i>ì ?índò</i>
	1Pl	<i>í ?èyⁿ</i>		<i>í ?índò</i>
	2Sg	<i>à ?èyⁿ</i>		<i>à ?índò</i>
	2Pl	<i>á ?èyⁿ</i>		<i>á ?índò</i>

3Sg	<i>ʔèyⁿ-Ø</i>	<i>ʔindò-Ø</i>
3Pl	<i>ʔèyⁿ-yà</i>	<i>ʔindò-yà</i>

For factive complements of 'know', see §17.2.1.

11.2.5.2 'Want, like' (*kâyⁿ*), 'not want' (*kâ:-là*)

kâyⁿ is an irregular stative quasi-verb meaning 'know'. It does not co-occur with preposed *bò*. The negative counterpart is *kâ:-là* (xx1cd).

- (xx1) a. *ʔèbégè* *à* *kâyⁿ*
 what? 2SgS want
 'What do you-Sg want?'
- b. *gó:* *kâyⁿ-Ø*
 water want-3SgS
 'He/She wants water.'
- c. *gó* *ɲ* *kâ:-là*
 water 1SgS want-Neg
 'I don't want water.'
- d. *gó* *kâ:-là-Ø*
 water want-Neg-3SgS
 'He/She doesn't want water.'

The paradigms are parallel to those of 'know' (preceding section).

(xx1)	'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' (*pímà*), 'not resemble' (*pìmà-ndá*)

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 preposed existential *bò* (§11.2.2.1). An informant rejected active forms like perfective #*pímè* or #*pími*.

(xx1)		'resemble'		'not resemble'
	1Sg	<i>ɲ pímà</i>		<i>ɲ pìmà-ndà</i>
	1Pl	<i>ɲ pímà</i>		<i>ɲ pìmà-ndà</i>
	2Sg	<i>à pímà</i>		<i>à pìmà-ndà</i>
	2Pl	<i>á pímà</i>		<i>á pìmà-ndà</i>
	3Sg	<i>pímà</i>		<i>pìmà-ndá</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 with a quoted clause is *ʔúnè*. For the syntax of quoted clauses see §17.1.2. *ʔúnè* may also take a NP complement (xx1).

- (xx1) a. *[yé ʔúnè] ʔóri-Ø*
 [thing say.Perf.3PIS] not.be-3SgS
 'They said nothing.' (lit. "what they said is absent")
- b. *ʔèbégè à ʔúnè*
 what? 2SgS say.Perf
 '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 predicate with *bò* 'be' (3Sg *bò-Ø*)

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 *CvCCà*, 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.xxx). 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 (xx1), using the 3Sg -ATR form. The stems are {H}-toned before the 3Sg subject *bò-Ø* in (xx1), but they are basically {HL}-toned, as seen in 3Pl subject counterparts like *yóllà bó* 'they are black'.

(xx1) Templatic *CvCCá bò* (3Sg)

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>yóllá</i> <i>bò</i>	'is black'	<i>yò:lè</i>
<i>input vocalism already +ATR-compatible</i>		
<i>wággá</i> <i>bò</i>	'is distant'	<i>wàgì</i>
<i>góllá</i> <i>bò</i>	'is long'	<i>gòlò</i>
<i>símmá</i> <i>bò</i>	'is white'	<i>sìrà</i>
<i>bíggá</i> <i>bò</i>	'is fat'	<i>bìgì</i>
<i>séllá</i> <i>bò</i>	'is pretty'	<i>sèlè</i>
<i>dággá</i> <i>bò</i>	'is small'	<i>dà:mbè</i>
b. input is already <i>CvCCv</i>		
<i>-ATR</i> → <i>+ATR</i>		
<i>dénjá</i> <i>bò</i>	'is sweet'	<i>dènjì</i>
<i>nónjá</i> <i>bò</i>	'is slender'	<i>nònjò</i>
<i>input vocalism already +ATR-compatible</i>		
<i>túmbá</i> <i>bò</i>	'is short'	<i>tùmbù</i>
<i>júngá</i> <i>bò</i>	'is hot'	<i>jùngà</i>
<i>gímbá</i> <i>bò</i>	'is deep'	<i>gìmbò</i>
<i>nínjá</i> <i>bò</i>	'is heavy'	<i>nìnjì</i>

c. irregular

monosyllabic input

<i>bájǵná</i>	<i>bò</i>	'(house) is big'	<i>bàyⁿ</i>
<i>bámǵá</i>	<i>bò</i>	'is wide'	<i>bámǵà</i>
<i>bómǵá</i>	<i>bò</i>	'is red'	<i>bòw</i>

input medial cluster replaced

<i>kájǵá</i>	<i>bò</i>	'is difficult'	<i>kà:ndà</i>
<i>dágǵá</i>	<i>bò</i>	'is small'	<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 b̀. However, there is no reason to think that Bunoge speakers analyse the forms in this manner. A templatic analysis makes more sense synchronically.

There are also several adjectives that form predicates with *b̀* but without the *CVCc̀* templatic form. Most examples have {H} tone melody in the 3Sg form, and -ATR vowels are not converted to +ATR. Some of these adjectives are not attested in modifying form. The same construction is used in the resultative passage, from transitive or intransitive verb inputs (§9.3). For stems lacking a modifying form in (xx2a), see §11.4.3 below.

(xx2) Nontemplatic with *b̀*

	predicative form	gloss	modifying form
a. monosyllabic, H-toned			
	<i>ném</i>	<i>b̀</i> 'is good'	(suppletive)
		[rather fused, cf. 2Sg à <i>ném b̀</i> , 3Pl <i>ném b̀-yà</i>]	
		[negated as <i>né: = là</i> 'is not good, is bad']	
		[see also <i>ná-wⁿ nêŋ</i> 'be better', §12.1.4]	
	<i>yé:</i>	<i>b̀</i> 'is full'	—
b. bisyllabic, final vowel lengthened			
	<i>p̀:lá:</i>	<i>b̀</i> 'is good' (uncommon)	<i>p̀:là</i>
	<i>{H} melody, medial consonant lengthened</i>		
	<i>k̀ŋ̀é:</i>	<i>b̀</i> 'is lean, malnourished'	<i>k̀ŋ̀è</i>
	<i>{H} melody, medial consonant unchanged or already clustered</i>		
	<i>ǹ:ŋ̀í:</i>	<i>b̀</i> 'is dry'	<i>ǹ:ŋ̀ì</i>
	<i>ʔám̀í:</i>	<i>b̀</i> 'is sour'	<i>ʔám̀ì</i>
	<i>k̀áǵ̀í:</i>	<i>b̀</i> 'is fresh'	<i>k̀áǵ̀ì</i>
	<i>k̀úǹé:</i>	<i>b̀</i> 'is plump'	<i>k̀úǹè</i>
	<i>t̀émb̀é:</i>	<i>b̀</i> 'is wet'	<i>t̀émb̀è</i>
	<i>p̀éŋ̀é:</i>	<i>b̀</i> 'is narrow'	<i>p̀éŋ̀è</i>

c. other

simple stem

<i>kílóló</i>	<i>bò</i>	'(e.g. water) is cold'	(suppletive)
<i>bòràllá</i>	<i>bò</i>	'is smooth'	<i>bòràllà-gà</i> (§4.5.1.2)
<i>tè:bú</i>	<i>bò</i>	'be many'	<i>tè:bú</i> → 'a lot'

iterated stem (§4.5.1.2)

<i>ká-rí-ká-rí</i>	<i>bò</i>	'is bitter'	<i>kà-r-kà-r-gà</i>
<i>yá-w-yá-w</i>	<i>bò</i>	'is lightweight'	<i>yà-w-yà-w-gà</i>
<i>sè-yⁿ-sè-yⁿ</i>	<i>bò</i>	'it is pointed'	<i>sè-yⁿ-sè-yⁿ-gà</i>

Sample paradigms are in (xx3). 'Be fat' illustrates the templatic *CvCCa* type, 'be wet' the nontemplatic type. In the templatic type, {HL}-toned *CvCCà* occurs in all forms other than 3Sg. In 'be wet', the melody is {H} except that a final syllable drops to L-tone before the H-toned 1Pl and 2Pl proclitics.

(xx3)	'be fat'	'be wet'
1Sg	<i>bíggà ñ bò</i>	<i>témbè: ñ bò</i>
1Pl	<i>bíggà ñ bò</i>	<i>témbè: ñ bò</i>
2Sg	<i>bíggà = à bò</i>	<i>témbà: = à bò</i>
2Pl	<i>bíggà = á bò</i>	<i>témbà: = á-bò</i>
3Sg	<i>bíggá bò-∅</i>	<i>témbé: bò-∅</i>
3Pl	<i>bíggá bó</i>	<i>témbè: bó</i>

No predicative form could be elicited for *dà*: 'nasty, evil'.

11.4.2 "Adjectives" with noun-like predicate

kèmnò 'old, aged' behaves in NPs as an ordinary modifying adjective: *nòlò kèmnò* 'old man', *yó: kèmnò* 'old woman'. However, a more noun-like character is evident in predicates, which use either *bìlè* 'become' or *káni* 'do' (*kèmnò káni-∅* 'he/she has gotten old').

11.4.3 Adjectives resistant to predicative form

An informant rejected predicate forms for *kàndà* 'new'. Cues like 'the house is new' were rephrased with modifying adjective form ('the house is a new house').

Likewise for *tòmbò* 'cold', although it could have easily been fit into the output template (#*tòmbá bò*, cf. *bòmbá bò* 'is red').

Conversely, the informant denied that certain adjectival predicates correspond to modifying adjectives. These are indicated by dashes in the rightmost columns of (xx2) in §11.4.1 above corresponding to *ném bò* 'is good', *yé: bò* 'is full', *kílóló bò* 'is cold', *kárf-kárfi bò* 'is bitter'. The modifying senses are either expressed by synonyms (*pò:lò* 'good'), or by relative clauses based on predicative forms (*kílóló gá* 'that is cold', *kàr-kàr gá* 'that is bitter').

(xx1) *gó* *kílóló* *gá*
 water cold Rel
 'water that is cold' (= 'cold water')

11.4.4 Negative adjectival and stative predicates (*?óri*)

The negative counterpart of the positive stative adjectival predicate type with *bò* 'be' replaces *bò* by *?óri* 'not be'. Templatic *CvCCa*, which has {HL} tones before *?óri*, is illustrated in in (xx1).

(xx1) Templatic *CvCCa ?óri*

predicative form	gloss	modifying form
a. medial C geminated to CC		
<i>-ATR</i> → <i>+ATR</i> , long vowel shortened		
<i>yóllà</i> <i>?óri</i>	'is not black'	<i>yò:lè</i>
<i>input vocalism already +ATR-compatible</i>		
<i>wággà</i> <i>?óri</i>	'is not distant'	<i>wàgì</i>
b. input already has medial cluster		
<i>-ATR</i> → <i>+ATR</i>		
<i>dénjà</i> <i>?óri</i>	'is not sweet'	<i>dènjì</i>
<i>input vocalism already +ATR-compatible</i>		
<i>jùngà</i> <i>?óri</i>	'is not hot'	<i>jùngà</i>
c. irregular		
<i>monosyllabic input</i>		
<i>bómbà</i> <i>?óri</i>	'is not red'	<i>bòw</i>
<i>input medial cluster replaced</i>		
<i>kájjà</i> <i>?óri</i>	'is not difficult'	<i>kà:ndà</i>

Nontemplatic adjectives are in (xx2). The tones are somewhat different in the 3Sg form shown from that in positive predicates, with {HL} favored.

(xx2) Nontemplatic plus *ʔóri*

predicative form	gloss	modifying form
a. monosyllabic, H-toned		
<i>yé:</i> <i>ʔóri</i>	'is not full'	--
b. bisyllabic		
<i>{L} melody, final vowel not lengthened</i>		
<i>pò:lò</i> <i>ʔóri</i>	'is not good'	<i>pò:lò</i>
<i>{HL} melody, final vowel not lengthened</i>		
<i>ḡá:ḡì</i> <i>ʔóri</i>	'is not dry'	<i>ḡá:ḡì</i>
<i>{HL} melody, final vowel lengthened</i>		
<i>témbè:</i> <i>ʔóri</i>	'is not wet'	<i>témbè</i>
<i>kóḡḡè:</i> <i>ʔóri</i>	'is not lean'	<i>kòḡḡè</i>
<i>ʔámì:</i> <i>ʔóri</i>	'is not sour'	<i>ʔámì</i>
c. other		
<i>{L} melody</i>		
<i>kìlòlò</i> <i>ʔóri</i>	'(water) is not cold'	--
<i>kàrì-kàrì</i> <i>ʔóri</i>	'is not bitter'	<i>kàr-kàr-gà</i>
d. irregular		
<i>né:-là</i>	'is not good' (cf. <i>ném bò</i> 'is good')	

11.5 Possessive predicates

11.5.1 'X have Y' (*bò sà*)

In the positive, *sà* 'have' is combined with existential *bó* in positive, unfocalized main clauses. *bó* is absent in the presence of negation or a focalized constituent; see §11.2.2.1 for the syntax.

The paradigm of *sà* 'have' and of its negation *sà:-ndà* are given in (xx1).

(xx1) category	'have X'	'not have X'
1Sg	<i>X bò ḡ sà</i>	<i>X ḡ sá:-ndà</i>
1Pl	<i>X bò ḡ sà</i>	<i>X ḡ 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-∅</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 used is of the type 'X (is/are) [Y's thing(s)]' with noun *wê:* 'thing' in possessed form. The paradigm is (xx1). The marked plural form 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 is usually redundant.

(xx1)	singular	plural
1Sg	<i>[î] wê:] = ∅</i>	<i>[î] wê:-ngè] = ∅</i>
1Pl	<i>[í] wê:] = ∅</i>	<i>[í] wê:-ngè] = ∅</i>
2Sg	<i>[à] wê:] = ∅</i>	<i>[à] wê:-ngè] = ∅</i>
2Pl	<i>[á] wê:] = ∅</i>	<i>[á] wê:-ngè] = ∅</i>
3Sg	<i>[wê:-ná] = :</i>	<i>[wê:-ná-gè] = ∅</i>
3Pl	<i>[â] wê:] = ∅</i>	<i>[â] wê:-ngè] = ∅</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 (xx2). In *?òbò nò* 'the house', the tone-raising of *nò* to *nó* occurs before the 3Sg form *wê:-ná:* (xx2), and in isolation, but not before the other possessive predicates.

- (xx2) a. *[?òbò nò] [î] wê:] = ∅*
 [house Def] [1SgP thing]=it.is
 'The house is mine.'
- b. *[?òbò nó] [wê:-ná] = :*
 [house Def] [thing-3SgP]=it.is
 'The house is his.'
- c. *[ná:li nò] [î] wê:] = ∅*
 [cat Def] [1SgP thing]=it.is

'The cat is mine.'

- d. *[ɲà:lí-gè* *nɔ́]* *[séydù* *wé:] = ∅*
[cat-Pl Def] [S 1SgP-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 $[w^n]$ after back or low vowel and $[j^n]$ 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, notably with 3Pl $-yà$, before which $-w^n$ assimilates to $-y^n$, and with stative negative $-ndà$.

The comparandum is treated as direct object. Human objects take accusative form.

- (xx1) a. *[séydù ngù] ò gólè-wⁿ*
 [Seydou Acc] 1SgS 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-3PlS
 'The children are not longer (=taller) than I (am).'

The paradigm for 'long' is (xx2). *gòlè-ndà* might be analysed as from */gòlè-yⁿ-ndà/*, but if so the $-y^n$ is absorbed by the following nasal. Likewise *simà-ndà* 'not be whiter' if analysed as */simà-wⁿ-ndà/*. The forms shown in (xx2) shift the second *o* of *gòlò* 'long, tall' to *e*. Unshifted *gólò-wⁿ* is also possible.

(xx2)	'be longer'	'not be longer'
1Sg	<i>ò gólè-yⁿ</i>	<i>ò gólè-ndà</i>
1Pl	<i>ò gólè-yⁿ</i>	<i>ò gólè-ndà</i>
2Sg	<i>á gólè-yⁿ</i>	<i>á gólè-ndà</i>
2Pl	<i>á gólè-yⁿ</i>	<i>á gólè-ndà</i>
3Sg	<i>gòlè-yⁿ-Ø</i>	<i>gòlè-ndà-Ø</i>
3Pl	<i>gòlè-yⁿ-yà</i>	<i>gòlè-ndà-yà</i>

Forms of adjectives in this comparative construction (3Sg subject form) are given along with the regular postnominal modifying form in (xx2).

(xx2) Adjectives

	after N	comparative	gloss
a.	-y ⁿ after {i e ε}		
	<i>bigì</i>	<i>bigì-yⁿ</i>	'big (stone)' (also 'stout, fat')
	<i>nìnjì</i>	<i>nìnjì-yⁿ</i>	'heavy'
	<i>dà:mbè</i>	<i>dà:mbè-yⁿ</i>	'small (house)'
	<i>yò:lè</i>	<i>yò:lè-yⁿ</i>	'black (dark)'
b.	-y ⁿ after o shifted to e		
	<i>gòlò</i>	<i>gòlè-yⁿ</i>	'long' (= 'tall')
c.	-w ⁿ after back or low vowel		
	<i>tùmbù</i>	<i>tùmbù-wⁿ</i>	'short (rope, person)'
	<i>kèmnò</i>	<i>kèmnò-wⁿ</i>	'old (man, woman)'
	<i>gìmbò</i>	<i>gìmbò-wⁿ</i>	'deep (well, hole)'
	<i>jùngà</i>	<i>jùngà-wⁿ</i>	'hot' = 'fast'
	<i>simà</i>	<i>simà-wⁿ</i>	'white'
d.	C-final		
	<i>bâyⁿ</i>	<i>bâyⁿ-yⁿ</i>	'big (e.g. house)' (also 'wide')
	<i>bòw</i>	<i>bòw-wⁿ</i>	'red'

The past morpheme *mbè* may be added (§10.5.1.5).

12.1.2 *nà-wⁿ* 'be more' with separate 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. In negative *nà-wⁿ-ndà* I do sometimes hear the *wⁿ*.

a.	<i>[séyù</i>	<i>ngú]</i>	<i>ʔi:ngè</i>	<i>ɲ</i>	<i>nâ-wⁿ / ɲ</i>	<i>nâ-wⁿ</i>
	[Seydou	Acc]	height	1SgS	more / 1PIS	more
	'I am/We are taller than Seydou.'					

- b. *séydù* *mì-ŋgú* *ʔi:ŋgè* *nà-wⁿ-ndà-∅*
 Seydou 1Sg-Acc height more-Stat-StatNeg-3SgS
 '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*.

- (xx1) a. *séydù* *mì-ŋgú* *nà-wⁿ-∅* [*jí: jɔ:-nà*]
 Seydou 1Sg-Acc more-Stat-3SgS [meal eat.meal-VbIN]
 'Seydou eats more than I (do).'
- b. *séydù-ŋgù* *ŋ* *nâ-wⁿ* [*jí: jɔ:-nà*]
 Seydou-Acc 1SgS more-Stat [meal eat.meal-VbIN]
 'I eat more than Seydou (does).'

12.1.4 'Be better, be more' (*ná-wⁿ nêŋ*)

The suppletive predicative form of 'good' is *ném bò* 'be good' (§11.4), negated as *né: =là* 'not be good, be bad'. Comparative 'be better' is attested as *ná-wⁿ nêŋ* (xx1).

- (xx1) *má:ŋgórò* *ná-wⁿ nêŋ* [*lèmbùrù ká*]
 mango more be.good [citrus than]
 'Mangoes are better than lemons'

check tones, more exx. with 3Sg, 3Pl, and 2Sg subjects

12.2 Symmetrical comparatives

12.2.1 'Equal; be as good as' (*dínà*)

The stative verb *dínà* means 'equal, be the equal (or equivalent) of'.

example

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 (notably including the verb or other predicate) is backgrounded (**defocalized**). Content interrogatives are intrinsically focal, but they do not always trigger morphosyntactic focalization. The 'it is' clitic can mark the focalized constituent, but it is not clearly audible so it is of little use as a phonetic cue. The tones and morphology of the verb, in some cases 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.

- (xx1) a. *yá:gù* *égè* *sà*
yesterday come.3PIS Ppl.Perf
'It was yesterday [focus] that they came.'
- b. *séydù* *gè:ndó-Ø* *gò*
Seydou go-3SgS Ppl.Impf
'It's Seydou [focus] who will go.'
- c. [*ó* *já:tì*] *gè:ndó* *gò*
[2Sg indeed] go Impf
'It's you [focus] who will go.'
- d. *?álámà=:* *î* *só:wà*
sheep=Foc 1SgS buy.Impf
'It's a sheep [focus] that I will buy.'

- e. *[[ʔòbò dólóngù] ndò] dó:yè*
 [[house interior] Loc] sleep.Perf.3PIS
 'It's in the house [focus] that they slept.'

To my knowledge verbs, VPs, and propositions 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 (§xxx).

13.1.1.2 Subject marking in nonsubject focalizations

1st/2nd person pronominal subjects are expressed as proclitics, in nonsubject focalized clauses as in regular main clauses. In focalized clauses, the usual 3PI perfective suffix is omitted, and 3Sg and 3PI are distinguished by initial tone on the stem). In each aspect-negation inflection, there is a binary tone-melody distinction as in (xx1). Syllabic suffixes, where present, are included in the domain of the tone melody.

- (xx1) a. {HL}
 3PI (no affix)
 after 1Sg *ɲ* and 2Sg *à*
- b. {LHL}
 3Sg (no affix)
 after 1PI *ɲ* and 2PI *á*

Perfective positive examples are in (xx2), to be followed by examples of other aspect-negation categories. In each of (xx2-5), the {HL} melody is found in the (a,d) examples, the {LHL} melody in the (b,c) examples.

- (xx2) a. *ʔèbéǵè ɲ / à sɔ:wè / párá-gè*
 what? 1SgS / 2SgS buy.Perf / cut-Caus.Perf
 'What did I/you-Sg buy/cut?'
- b. *èbéǵè ɲ / á sɔ:wè / párá-gè*
 what? 1PIS / 2PIS buy.Perf / cut-Caus.Perf
 'What did we/you-Pl/they buy/cut?'
- c. *èbéǵè sɔ:wè-Ø / párá-ge-Ø*
 what? buy.Perf-3SgS / cut-Caus.Perf-3SgS
 'What did he/she buy/cut?'
- d. *èbéǵè sɔ:wè / párá-gè*

what? buy.Perf.3PIS/ cut-Caus.Perf.3PIS
 'What did they buy/cut?'

Imperfective positive examples are in (xx3).

- (xx3) a. *ʔèbéǵè* *ɲ / à* *sɔ:wà*
 what? 1SgS / 2SgS buy.Impf
 'What will I/you-Sg buy?'
- b. *ʔèbéǵè* *ɲ / á* *sɔ:wà*
 what? 1SgS / 2SgS buy.Impf
 'What will we/you-Pl buy?'
- c. *séydù* *ʔèbéǵè* *sɔ:wà*
 Seydou what? buy.Impf
 'What will Seydou buy?'
- d. *bé:-ǵè* *èbéǵè* *sɔ:wà*
 child-Pl what? buy.Impf
 'What will the children buy?'

Perfective negative examples are in (xx4). The unsynocopated verb forms are *sówá:-l-gà* and *sòwǎ:-l-gà* but the penult is usually syncopated.

- (xx4) a. *ʔèbéǵè* *yé* *ɲ / à* *sówá:-l-gà*
 what? **xxx** 1SgS / 2SgS buy.PerfNeg
 'What did I/you-Sg not buy?'
- b. *ʔèbéǵè* *yé* *ɲ / á* *sòwǎ:-l-gà*
 what? **xxx** 1SgS / 2SgS buy.PerfNeg
 'What did we/you-Pl not buy?'
- c. *séydù* *ʔèbéǵè* *yé* *sòwǎ:-l-gà*
 Seydou what? **xxx** buy.PerfNeg
 'What did Seydou not buy?'
- d. *bé:-ǵè* *ʔèbéǵè* *yé* *sówá:-l-gà*
 child-Pl what? **xxx** buy.PerfNeg
 'What did the children not buy?'

Imperfective negative examples are in (xx5).

- (xx5) a. *ʔèbéǵè* *yé* *ɲ / à* *sówá-l-gà*
 what? **xxx** 1SgS / 2SgS buy.ImpfNeg

'What will I/you-Sg not buy?'

- b. *ʔèbégè* *yé* *ń / á* *sòwò-ló-gà*
 what? xxx 1SgS / 2SgS buy.ImpfNeg
 'What will we/you-Pl not buy?'
- c. *séydù* *ʔèbégè* *yé* *sòwò-ló-gà*
 Seydou what? xxx buy.ImpfNeg
 'What will Seydou not buy?'
- d. *bé:-gè* *ʔèbégè* *yé* *sówó-lò-gà*
 child-Pl what? xxx buy.ImpfNeg
 'What will the children not buy?'

(xx6) gives comparable forms for two additional verbs, including one monosyllabic ('drink').

- (xx6)
- | | | |
|-------------|------------------|-------------------|
| | 'drink' | 'tie' |
| a. Perf | | |
| 1Sg/2Sg/3Pl | <i>né</i> | <i>sójè</i> |
| 1Pl/2Pl/3Sg | <i>nè</i> | <i>sòjè</i> |
| b. Perf Neg | | |
| 1Sg/2Sg/3Pl | <i>ná:-l-gà</i> | <i>sójá:-l-gà</i> |
| 1Pl/2Pl/3Sg | <i>nà:-l-gà</i> | <i>sòjá:-l-gà</i> |
| c. Impf | | |
| 1Sg/2Sg/3Pl | <i>ná</i> | <i>sójà</i> |
| 1Pl/2Pl/3Sg | <i>nà</i> | <i>sòjà</i> |
| d. ImpfNeg | | |
| 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 forms is evident when the unaffixed 3Sg and 3Pl are compared. In (xx7a), the L-toned 3Sg-subject verb is accentuated by its triggering Rightward H-Movement on 'what?'.
 'What did he/she drink?' (*ʔèbégè*)

- (xx7) a. *ʔèbégé* *nè-Ø*
 what? drink.Perf-3SgS
 'What did he/she drink?' (*ʔèbégè*)

- b. *ʔèbéǵè né*
 what? drink.Perf.3PIS
 '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. In (xx1ab), the order is subject-object-verb regardless of whether the object (xx1a) or the subject (xx1b) is focalized. Only the tones of the verb (and, as a consequence, those of the preceding accusative pronoun), indicate which constituent is focalized.

- (xx1) a. *[bé:-ǵè nǵ] mǵ-ǵǵù tǵǵè [èbà ndò]*
 [child-Pl Def] 1Sg-Acc see.Perf.3PIS [market Loc]
 'It was me [focus] that the children saw in the market.'
- b. *[bé:-ǵè nǵ] mǵ-ǵǵú tǵǵè [èbà ndò]*
 [child-Pl Def] 1Sg-Acc see.Perf.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 elsewhere the clitic is not reliably audible.

13.1.1.4 Form of defocalized verb (subject focus)

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 (§14.4).

The participial forms for **subject focus** are summarized in (xx1), with subject relative participle forms shown for comparison. For the perfective positive, either a bare {L}-toned E/I-stem or a participial form with auxiliary *sà* is used for subject focus. The imperfective has a participial suffix *-ǵò*. Negatives add participial *-ǵá* plus *bò* 'be' to the aspect-negation suffix.

(xx1) subject focus	subject relative	inflectional category
<i>sà, {L}-∅</i>	<i>sà:</i>	perfective (positive)
<i>-l-ǵá bò ~ -lǵà</i>	<i>-lǵà</i>	perfective negative
<i>-ǵò</i>	<i>-ǵò</i>	imperfective (positive)
<i>-lǵ-ǵá bò ~ -lǵ-ǵà</i>	<i>-lǵ-ǵà</i>	imperfective negative

Sample paradigms are (xx2).

(xx2)	main clause 3Sg	subject focus	gloss
a. perfective			
	<i>jê:-∅</i>	<i>jè</i>	'ate (meal)'
	<i>tégè-∅</i>	<i>jê: sà</i> <i>tégè</i>	'saw'
	<i>pàrá-gè-∅</i>	<i>tégé sà-∅</i> <i>pàrá-gè</i>	'cut'
	<i>símì-∅</i>	<i>pàrà-gé sà</i> <i>sim(i)</i> <i>simí sà</i>	'built'
b. perfective negative			
	<i>jâ:-lì-∅</i>	<i>jâ:-l-gá bò</i>	'didn't eat'
	<i>tégó:-lì-∅</i>	<i>tégò-l-gá bò</i>	'didn't see'
	<i>pàrá-gá:-lì-∅</i>	<i>pàrà-gà-l-gá bò</i>	'didn't cut'
	<i>símó:-lì-∅</i>	<i>símò-l-gá bò</i>	'didn't build'
		[also <i>jâ:-l-gà</i> , etc.]	
c. imperfective			
	<i>jù jà-∅</i>	<i>jó:-gò</i>	'will eat'
	<i>tè tégà-∅</i>	<i>tégó-gò</i>	'will see'
	<i>gè gè.ndà-∅</i>	<i>gè.ndó-gò</i>	'will see'
	<i>pà pàrá-gà-∅</i>	<i>pàrà-gó-gò</i>	'will cut'
	<i>sì simà-∅</i>	<i>sím-gò</i>	'will build'
d. imperfective negative			
	<i>jó:-lò-∅</i>	<i>jó:-lò-gá bò</i>	'won't eat'
	<i>tégó-lò-∅</i>	<i>tégò-lò-gá bò</i>	'won't see'
	<i>pàrà-gó-lò-∅</i>	<i>pàrà-gò-lò-gá bò</i>	'won't cut'
	<i>símú-lò-∅</i>	<i>sím(ù)-lò-gá bò</i>	'won't build'

I was unable to elicit a specifically progressive focus form distinct from the imperfective.

Statives have {HL} contour in the subject-focus form, reducing to H-tone for monosyllabics (xx3).

(xx3) Subject-focus forms of statives

main clause 3Sg	subject focus	gloss
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a. positive		
<i>bò ìgà-∅</i>	<i>ìgà</i>	'be standing' (§10.4.1.1)
<i>sà-∅</i>	<i>sá</i>	'have'
<i>bò-∅</i>	<i>bó</i>	'be'
<i>?éyⁿ-∅</i>	<i>?éyⁿ</i>	'know'
<i>káyⁿ-∅</i>	<i>káyⁿ</i>	'want'
b. negative		
<i>ìgà-ndà-∅</i>	<i>ìgá-ndà-gà</i>	'not be standing'
<i>sà:-ndà-∅</i>	<i>sá:-ndà-gà</i>	'have'
<i>órì-∅</i>	<i>ór-gà</i>	'not be'
<i>?índò-∅</i>	<i>?índò-gà</i>	'not know'
<i>ká:-là-∅</i>	<i>ká:-là-gà</i>	'not want'

Past marker *mbè* can occur in focalized clauses. In (xx4ab), it follows quasi-verbs 'be (somewhere) and 'have', whose vowels are lengthened as in unfocalized clauses (§10.5.1.5). (xx4c) is a past imperfective (or progressive).

- (xx4) a. *mà:-ná* *?à:yè* *bó:* *mbè*
 here who? be Past
 'Who was here?'
- b. *?à:yè* *?òbò* *sá:* *mbè*
 who? house have Past
 'Who had a house?'
- c. *?à:yè* *?àlà-má-gè* *sèlò:* *mbè*
 who? sheep-PI slaughter.Impf Past
 'Who used to slaughter/was slaughtering sheep?'

Examples of subject-focus clauses are in §13.1.2 below.

13.1.1.5 Form of defocalized verb (nonsubject focus)

For nonsubject focus, full paradigms must be given.

As indicated in §13.1.1.2, with examples, a **nonsubject-focus perfective** verb has {HL} melody after after L-toned 1Sg *ḡ* and 2Sg *à* and in the unsuffixed 3Sg form, but {LHL} melody after H-toned 1Pl *ḡ* and 2Pl *á* and in the unsuffixed 3Pl form. The full {LHL} melody is audible with trisyllabic stems like 'cut'.

- (xx1) Nonsubject-focus perfective forms of 'cut'

main-clause	nonsubject focus	category
a. perfective		
<i>{HL}</i> for nonsubject focus		
<i>ɲ párá-gè</i>	<i>ɲ párá-gè</i>	1Sg
<i>à párá-gè</i>	<i>à párá-gè</i>	2Sg
<i>pàrà-gí-yè</i>	<i>párá-gè</i>	3Pl
<i>{LHL}</i> for nonsubject focus		
<i>ɲ pàrà-gè</i>	<i>ɲ pàrá-gè</i>	1Pl
<i>á pàrà-gè</i>	<i>á pàrá-gè</i>	2Pl
<i>párá-gè-∅</i>	<i>pàrá-gè-∅</i>	3Sg
b. perfective negative		
<i>{HL}</i> for nonsubject focus		
<i>ɲ pàrà-gá:-lì</i>	<i>ɲ párá-gá-l-gà</i>	1Sg
<i>à pàrà-gá:-lì</i>	<i>à párá-gá-l-gà</i>	2Sg
<i>párá-gá:-ndì</i>	<i>párá-gá-l-gà</i>	3Pl
<i>{LHL}</i> for nonsubject focus		
<i>ɲ pàrà-gá:-lì</i>	<i>ɲ pàrà-gál-gà</i>	1Pl
<i>á pàrà-gá:-lì</i>	<i>á pàrà-gál-gà</i>	2Pl
<i>párá-gá:-lì-∅</i>	<i>pàrà-gál-gà-∅</i>	3Sg

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 a participial auxiliary. Both the main verb and the auxiliary are conjugated, but there is no 3Pl suffix. *sà* in this construction seems to have L-tone even where its regular conjugation would require H-tone (xx2).

(xx2) *mà:* [ɲ ʔégè] [ɲ sà]
 here [1SgS come.Perf] [1SgS have]
 'It was here [focus] that I came.'

The paradigm for 'come' in this alternative marked form is (xx3).

(xx3) category	'came' (perfective, nonsubject focus)
1Sg	[ɲ ʔégè] [ɲ sà]
1Pl	[ɲ ʔègè] [ɲ sà]
2Sg	[à ʔégà] = [à sà]
2Pl	[á ʔègà] = [á sà]
3Sg	ʔégé-∅ sà-∅
3Pl	ʔégè sà

Imperfective nonsubject-focus forms are illustrated in (xx4). Trisyllabic 'cut' has {L}, {HL}, and {LHL} forms in the imperfective positive.

(xx4) Nonsubject-focus forms of 'cut' (imperfective)

main-clause	nonsubject focus	category
a. imperfective (positive)		
<i>{L} for nonsubject focus</i>		
<i>pà ñ pàrà-gà</i>	<i>ñ pàrà-gà</i>	1Sg
<i>pà = à pàrà-gà</i>	<i>à pàrà-gà</i>	2Sg
<i>{LHL} for nonsubject focus</i>		
<i>pà ñ párá-gà</i>	<i>ñ párá-gà</i>	1Pl
<i>pà = á párá-gà</i>	<i>á párá-gà</i>	2Pl
<i>pà párá-gà-∅</i>	<i>párá-gà</i>	3Sg
<i>{HL} for nonsubject focus</i>		
<i>pà párá-gà</i>	<i>párá-gà</i>	3Pl
b. imperfective negative		
<i>{HL} for nonsubject focus</i>		
<i>ñ pàrà-gó-lò</i>	<i>ñ párá-gó-lò-gà</i>	1Sg
<i>à pàrà-gó-lò</i>	<i>à párá-gó-lò-gà</i>	2Sg
<i>párá-gè-ndà</i>	<i>párá-gó-lò-gà</i>	3Pl
<i>{LHL} for nonsubject focus</i>		
<i>ñ pàrà-gò-lò</i>	<i>ñ pàrà-gò-ló-gà</i>	1Pl
<i>á pàrà-gò-lò</i>	<i>á pàrà-gò-ló-gà</i>	2Pl
<i>pàrà-gó-lò-∅</i>	<i>pàrà-gò-ló-gà</i>	3Sg

Mono- and bisyllabic 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} and for 3Pl either {HL} (bisyllabic) or {H} (monosyllabic). The data in (xx5) can be compared to the central columns in (xx1) and (xx4) above.

(xx5) Nonsubject-focus forms of 'dance' and 'eat'

'dance'	'eat'	category
a. perfective (positive)		
<i>{L}</i>		
<i>ñ yǎbè</i>	<i>ñ jè</i>	1Sg
<i>à yǎbè</i>	<i>à jè</i>	2Sg
<i>{L} reduced from {LHL}</i>		

<i>íj yòbè</i>	<i>íj jè</i>	1Pl
<i>á yòbè</i>	<i>á jè</i>	2Pl
<i>yòbè-Ø</i>	<i>jè-Ø</i>	3Sg
<i>{HL}</i> (bisyllabic) or <i>{H}</i> (monosyllabic)		
<i>yóbè</i>	<i>jé</i>	3Pl

b. imperfective (positive)

<i>{L}</i>		
<i>íj yòbà</i>	<i>íj jà</i>	1Sg
<i>à yòbà</i>	<i>à jà</i>	2Sg
<i>{L}</i> reduced from <i>{LHL}</i>		
<i>íj yòbà</i>	<i>íj jà</i>	1Pl
<i>á yòbà</i>	<i>á jà</i>	2Pl
<i>yòbà-Ø</i>	<i>jà-Ø</i>	3Sg
<i>{HL}</i> (bisyllabic) or <i>{H}</i> (monosyllabic)		
<i>yóbà</i>	<i>já</i>	3Pl

As with subject focus, I was unable to elicit a specifically progressive focus form distinct from the imperfective.

It was difficult to elicit nonsubject-focus forms for the intransitive statives, since spatiotemporals are not usually overtly focalized. However, **transitive statives** like 'have' readily take focalized objects, so nonsubject-focus forms are elicitable (xx6).

(xx6) Nonsubject focus (positive statives)

1Sg/2Sg	1Pl/2Pl/3Pl	3Sg	gloss
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check tones

a. positive

<i>X sà</i>	<i>X sà</i>	<i>sà</i>	'have'
<i>X ?èyⁿ</i>	<i>X ?èyⁿ</i>	<i>?èyⁿ</i>	'know'
<i>X kàyⁿ</i>	<i>X kàyⁿ</i>	<i>kàyⁿ</i>	'want'

b. negative

<i>X sà:-ndà-gà</i>	<i>X sà:-ndà-gà</i>	<i>sà:-ndà-gà</i>	'not have'
<i>X indò-gà</i>	<i>X indò-gà</i>	<i>indò-gà</i>	'not know'
<i>X kà:-là-gà</i>	<i>X kà:-là-gà</i>	<i>kà:-là-gà</i>	'not want'

The negative forms in (xx6b) have preverbal *yé* (xx7).

- (xx7) *?èbégè yé sà:-ndà-gà / indò-gà / kà:-là-gà*
 what? **xxx** 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 (xx8).

- (xx8) a. *èbéǵè* *sá:* *mbè*
 what? have.3PIS Past
 'What did they (use to) have?'
- b. *èbèǵé* *jǎ:-Ø* *mbè*
 what? eat.Impf 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. Likewise, proposed *bò* is absent from positive statives in a focalized clause.

- (xx1) a. *à:yè* *ǵè:ndó* *ǵò*
 who? go Ppl.Impf
 'Who will go?'
- b. *ná-lò* *à* *ǵé:ndà*
 where?-Loc 2SgS go.Impf
 'Where will you-Sg go?'
- c. *à:yè* *èbà* *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. 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. *sɛla-* for expected *sɛlɔ-* for 'slaughter' (compare true A-stem *sela-*). The relationship between regular and subject-focus forms of imperfective verbs is illustrated in (xx1).

- (xx1) unfocalized subject focus category (3Sg subject)

- a. *sélè* 'slaughter'
sè sèlà-Ø *séló-gò ~ sélá-gò* imperfective
sèlá:-Ø mbè *sèló: mbè ~ sèlá: mbè* past imperfective
- c. *nê:* 'drink'
nù nà-Ø *nó:-gò* imperfective
nà: mbè *nó: mbè ~ nǎ: mbè* past imperfective
- b. *dú:nì* 'run'
dù dù:nà-Ø *dú:nú-gò* imperfective
dù:ná:-Ø mbè *dù:nú:-Ø mbè* past imperfective

Examples are in (xx2).

- (xx2) a. *?à:yè* *?àlà-má-gè* *sèló:-Ø* *mbè*
 who? sheep-Pl slaughter.Impf-3SgsPast
 'Who used to slaughter/was slaughtering sheep?'
- b. *?à:yè* *dù:nú:* *mbè*
 who? run.Impf Past
 'Who used to run/was running?'
- c. *?à:yè* *?àlà-má-gè* *sélá-gò*
 who? sheep-Pl slaughter.Impf-Ppl.Impf
 'Who will slaughter sheep?'

There is no ATR alternation in nonsubject focus constructions. The regular shift to the A-stem and its +ATR vocalism is found in (xx3ab).

- (xx3) a. *?èbègé* *sèlá:-Ø* *mbè*
 what? slaughter.Impf-3SgS Past
 'What did he/she use to slaughter?'
- b. *?èbègé* *sèlà-Ø*
 what? slaughter.Impf-3SgS
 'What will he/she slaughter?'

The shift from A-stem to O/U-stem occurs under the same conditions in imperfective subject relatives (§14.5.2).

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 *-li* in unfocalized main clauses. Monosyllabic *Cv*: verbs retain their lexical length. These comments apply to subject and nonsubject focalization.

(xx1)	unfocalized	focus	category (3Sg subject)
a.	<i>sélè</i> 'slaughter' <i>séla:-li-Ø</i>	<i>sèlà-l-gà</i>	perfective negative
b.	<i>nê</i> : 'drink' <i>ná:-li-Ø</i>	<i>ná:-l-gà</i>	perfective negative
c.	<i>dú:nì</i> 'run' <i>dú:nó:-li-Ø</i>	<i>dú:nò-l-gà</i>	perfective negative

Examples are in (xx2).

(xx2) a.	<i>ʔà:yè</i> who?	<i>ʔàlámà</i> sheep	<i>sèlà-l-gà</i> slaughter-PerfNeg-Ppl.Neg 'Who did not slaughter a sheep?'
b.	<i>ʔèbégè</i> what?	<i>yé</i> xxx	<i>sèlã-l-gà</i> slaughter-PerfNeg-Ppl.Neg 'What did he/she not slaughter?'

13.1.1.9 Morpheme *yé* before verb

A morpheme *yé* may precede the 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).

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 (xx1), 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.

- (xx1) ò: / séydù / [bé:-gè nà] *mì-ŋgú* *tègè*
 2Sg / Seydou / [child-Pl Def] 1Sg-Acc see.Perf
 'It was you-Sg / Seydou / the children [focus] who saw me.'

Participial morphemes *sà* (perfective positive), *gò* (imperfective positive), and *-gà* (negate, added to an aspect-negation suffix) are illustrated in (xx2).

- (xx2) a. *?à:yè* *?ègé* *sà*
 who? come Ppl.Perf
 'Who came?'
- b. *?à:yè* *?égó* *gò*
 who? come Ppl.Impf
 'Who will come?'
- c. *?à:yè* *?égó:-l-gà*
 who? come-PerfNeg-Ppl.Neg
 'Who didn't come?'
- d. *?à:yè* *gé:l-là-gà*
 who? go-ImpfNeg-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. The tonal difference on the verb in (xx1a) and (xx1c) is accentuated by its effect on the tones of *mì-ŋgù*, which becomes *mì-ŋgú* before a L-toned syllable (xx1a). 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*. Perfective examples are in (xx1).

- (xx1) a. *mì-ŋgú* *tègé-Ø* *sà-Ø*
 1Sg-Acc see.Perf-3SgS Ppl.Perf-3SgS
 'It was me [focus] who(m) he/she saw.'

- b. *séydù* *mì-ηgù* *tégè-Ø* *sà-Ø*
 Seydou 1Sg-Acc see.Perf-3SgS Ppl.Perf-3SgS
 'It was me [focus] who(m) Seydou saw.'
- c. *mì-ηgù* *tégè* *sà*
 1Sg-Acc see.Perf.3PIS Ppl.Perf.3PIS
 'It was me [focus] who(m) they saw.'
- d. [*séydù* *ηgù*] [*η* *tégè*] [*yⁿ* *sà*]
 [Seydou Acc] [1SgS see.Perf] [1SgS Ppl.Perf]
 'It was Seydou [focus] that I saw.'
- e. [*séydù* *ηgù*] [*η* *tégè*] [*yⁿ* *sà*]
 [Seydou Acc] [1SgS see.Perf] [1SgS Ppl.Perf]
 'It was Seydou [focus] that we saw.'
- f. [*séydù* *ηgù*] [*à* *tégà*]= [*à* *sà*]
 [Seydou Acc] [2SgS see.Perf] [2SgS Ppl.Perf]
 'It was Seydou [focus] that you-Sg saw.'

sà can occur on perfective motion verbs after purposive clause, see (xx1f) ('He/She came in order to buy') in (§17.5.1).

An imperfective example, without participial auxiliary, is (xx2).

- (xx2) [*séydù* *ηgù*] *η* *tégólà*
 [Seydou Acc] 1SgS look.for.Impf
 'It's Seydou [focus] that I (will) look for'

The object NP is queried in (xx3). In this case, polar interrogative *là* follows the queried constituent, replacing clause-final interrogative *yà*.

- (xx3) [*séydù* *ηgù*] *lá* *à* *tégè*
 [Seydou Acc] Q 2SgS see.Perf
 '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.

- (xx1) a. [bìlâ mbâ] ò gè:ndâ
 [field Loc] 1SgS go.Impf
 'I'm going to the field(s) [focus].' (bìlâ)
- b. [gúlò ndò] ò kèrà
 [axe Inst] 1SgS chop.Impf
 '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 statives and imperfectives, which have extras (reduplication, iteration, preverbal particles like 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 appears to put more focal emphasis on the action, as in answers to 'what are you doing?' like (xx1).

- (xx1) *ḡennú* ò *ḡennà*
 Iter 1SgS sweep
 'I am sweeping [focus].'

iteration with *gójé* 'dig' (check 3/o)

13.2 Interrogatives

13.2.1 Polar (yes/no) interrogatives

A sharp distinction is made between positive imperfectives/stative clauses, which have *là* preceding the conjugated predicate, and other clauses, which have clause-final *yà*. *là* is also used clause-finally after the 'it is' clitic.

13.2.1.1 With *là* before predicate (imperfective positive)

là is the polar interrogative marker in positive imperfectives and statives (other inflectional categories have clause-final *yà*, §13.2.1.3). *là* precedes the inflected verb, and is itself always preceded by another element (reduplication or stem-iteration, preverbal clitic). This suggests that *là* 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. *là* becomes H-toned *lá* before a L-tone.

Positive imperfective verbs are queried by inserting *là* between the reduplicant 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 (xx1).

(xx1)	1Sg	<i>?ègù lá ò ?ègà</i>	'Will I come?'
	1Pl	<i>?ègù là ò ?ègà</i>	'Will we come?'
	2Sg	<i>?ègù lá = à ?ègà</i>	'Will you-Sg come?'
	2Pl	<i>?ègù là = á ?ègà</i>	'Will you-Pl come?'
	3Sg	<i>?ègù lá ?ègà-Ø</i>	'Will he/she/it come?'
	3Pl	<i>?ègù là ?égà</i>	'Will they come?'

là is also used in **derived statives**. This inflection already has a full-stem iteration (in the form of the A/O-stem). *là* is inserted between the iteration and the base.

(xx2)	1Sg	<i>?ébà lá ò ?èbà</i>	'Am I sitting?'
	1Pl	<i>?ébà là ò ?èbà</i>	'Are we sitting?'
	2Sg	<i>?ébà lá = à ?èbà</i>	'Are you-Sg sitting?'
	2Pl	<i>?ébà là = á ?èbà</i>	'Are you-Pl sitting?'
	3Sg	<i>?èbà lá ?èbà-Ø</i>	'Is he/she/it sitting?'
	3Pl	<i>?ébà là ?ébà</i>	'Are they sitting?'

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-Ø* 'Is he/she/it sitting?'

là is also used with positive statives '**have**' and '**be** (somewhere)'. In the case of 'have', *là* follows existential *bò*.

(xx3)	1Sg	<i>X</i>	<i>bò</i>	<i>lá</i>	<i>ɨ̄ sà</i>	'Do I have (an) X?'
	1Pl	<i>X</i>	<i>bò</i>	<i>là</i>	<i>ɨ̄ 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-∅</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'.

(xx4)	1Sg	<i>mà:</i>	<i>lá</i>	<i>ɨ̄ bò</i>	'Am I here?'
	1Pl	<i>mà:</i>	<i>là</i>	<i>ɨ̄ 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>là</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 there here?'

13.2.1.2 With clause-final *là* after 'it is' predicate

Clause-final *là* is the polar interrogative for the 'it is' clitic (xx1a). The two possible responses to (xx1a) are negative (xx1b) and positive (xx1c). Note that (xx1b) differs from (xx1a) only by tone. Interrogative *là* has no tonal effect on *?àlámà*, while 'it is not' clitic =*là* triggers Rightward H-Spreading on the noun (§11.2.1.2).

- (xx1) a. *?àlámà* *là*
sheep Q
'Is it a sheep?'
- b. *?àlámá = là*
sheep=it.is.not
'It is not a sheep.'
- c. *?àlámà = :*
sheep=it.is
'It is a sheep.'

One could speculate that *là* as 'it is' interrogative originated as a negative ('is it not?').

13.2.1.3 With clause-final *yà*

Clause-final *yà* or variant is used with (positive) perfective and stative verbs, and with (perfective and imperfective) negative verbs. It is not used with (positive) imperfectives and statives.

A {LH} overlay occurs on the verb preceding *yà*. This includes {L}-toned inputs as in (xx1), showing that we have an overlay rather than just Rightward H-Movement. The noninterrogative form is in parentheses after the free translation in this and some later examples.

- (xx1) *ěyⁿ-∅ yà*
 know-3SgS^{LH} Q
 'Does he/she know?' (*ěyⁿ-∅*)

Positive perfective examples are in (xx2).

- (xx2) a. *?ègè-∅ yà*
 come.Perf-3SgS^{LH} Q
 'Did/Has he/she come?' (*?ègè-∅*)
- b. *?èg-gé yà*
 come.Perf-3PIS^{LH} Q
 'Did/Have they come?' (*èg-gè* from /*ègí-yè*/)
- c. *à ?ègé yà*
 2SgS come.Perf^{LH} Q
 'Did/Have you-Sg come?' (*à ègè*)
- d. *[séydù ngù] à tégé yà*
 [Seydou Acc] 2SgS see.Perf 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 (xx3) in §13.1.3 ('Was it Seydou...').

The existential-locational 'be' quasi-verb is normally *bò*, e.g. 3Sg *bò-∅*. The combination with *yà* comes out irregularly as *bǒ-∅ yⁿyⁿà*, as in (xx3). This could also be written as *bǒ-yⁿ-yⁿà* as segmentation is nontransparent.

- (xx3) *sikàrɔ* *bõ-∅* *yⁿyⁿà*
 sugar be-3SgS Q
 'Is there any sugar?' (*sikàrɔ*)

The gemination of y here is parallel to that in some forms of *Cvyv* and *Cvww* verbs, see §10.1.2.7, suggesting that *bõ-∅ 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 (xx4).

- (xx4) a. *ʔègò:-lí* *yà*
 come-PerfNeg.3SgS^{LH} Q
 'Did/Has he/she not come?'
- b. *ʔègò:-ndí* *yà*
 come-PerfNeg.3PlS^{LH} Q
 'Did/Have they not come?'
- c. *à* *ʔègò:-lí* *yà*
 2SgS come-PerfNeg^{LH} Q
 'Did/Have you-Sg not come?'

Similar examples of *yà* after **imperfective negative** verbs are in (xx5). Again we see the {LH} overlay on the verb.

- (xx5) a. *à* *gè:l-lí* *yà*
 2SgS go-ImpfNeg^{LH} Q
 'Are you-Sg not going?'
- b. *gè:ndè-ndá* *yà*
 go-ImpfNeg.3PlS^{LH} Q
 'Are they not going?'

yà is also used with **negative statives**, derived and underived (xx6).

- (xx6) a. *mà:* *ʔòrí* *yà*
 here not.be.3SgS^{LH} Q
 'Is he/she not here?'
- b. *tóndígè* *à* *sà:-ndá* *yà*
 money 2SgS have-StatNeg^{LH} Q
 'Do you-Sg not have any money?'
- c. *ʔèbà = ndá* *yà*
 sit=StatNeg.3SgS^{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 (xx1). The verb in (xx1a) has a focus participle, as usual under subject focalization.

- (xx1) a. *?à:yè* *gè:ndó* *gò*
who? go Ppl.Impf
'Who [focus] will go?'
- b. *?à:yè* *[kó:nò* *nò]=:*
who? [blacksmith Def]=it.is
'Who is the blacksmith?'

Predicative examples are in (xx2). As usual the 'it is' clitic, expressed only by vowel lengthening, is not always audible.

- (xx2) a. *?à:yè=:*
who?=it.is
'Who is it?'
- b. *[mò* *nó]* *?à:yè(=:*
[Dem Def] who(=it.is)
'That is who?'

In (xx3), the possessor is queried. The possessed noun has the possessor-controlled {HL} overlay.

- (xx3) *mó* *[?à:yè* *óbò]=:*
Dem [who? ^{HL}house]=it.is
'That is whose house?'

The optional plural form is *?àyyà*.

- (xx4) [ʔàyyà óbò-gè]=:
 [who?.Pl ^Hhouse.Pl]=it.is
 '(They are) whose houses?'

13.2.2.2 'What?' (ʔèbéǵè), 'with what?', 'why?'

Nonhuman 'what?' is ʔèbéǵè. Nonpredicative examples are in (xx1). In object function, ʔèbéǵè (like other basically inanimate NPs) lacks overt accusative marking.

- (xx1) a. ʔèbéǵè à kàyⁿ
 what? 2SgS want
 'What do you want?'
- b. ʔèbéǵè à kànà
 what? 2SgS do.Impf
 'What are you doing?'
- c. ʔèbéǵè ò-ŋǵú ǵà:mú-gò
 what? 2Sg-Acc hurt-Ppl.Impf
 'What (e.g. which body part) hurts you-Sg?'

A predicative example is (xx2). As usual the 'it is' clitic is difficult to hear.

- (xx2) [mɔ nɔ] ʔèbéǵè(=:)
 [Dem Def] what?(=it.is)
 'What is that?'

The optional plural form is ʔèbéǵè-gè. This particular form is not subject to Rightward H-Movement. However, Rightward H-Movement does affect ʔèbéǵè before a 3Sg-subject verb form beginning with a L-tone. See (xx7ab) in §13.1.1.2 ('what did ... drink?').

- 'With (by means of) what?' is ʔèbéǵè ndò.
 'For what?, why?' is ʔèbéǵè dâ.

13.2.2.3 'Where?' (ná-lò)

'Where?' is ná-lò. It shifts tones to nà-ló before some {L}-toned elements. -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 (xx1).

- (xx1) a. *ná-lò* *à* *gé:ndà*
 where?-Loc 2SgS go.Impf
 'Where are you-Sg going?'
- b. *séydù* *nà-ló* *bò*
 Seydou where?-Loc be.3SgS
 'Where is Seydou'
- c. *ná-là = à* *bò*
 where?-Loc=2SgS be
 'Where are you-Sg?'
- d. *nà-ló* *gà-Ø*
 where?-Loc be.from-3SgS
 'Where is he/she from?'
- e. *ná-lò = :*
 where?-Loc=it.is
 'Where is it?'

13.2.2.4 'When?' (*nà wá:rì*, *?èbègé wàgâr*), 'which day?' (*nà náŋgà*)

One general 'when?' interrogative is *nà wá:rì* ~ *nà wàgá:rì*. The final element is likely a borrowed form of the noun 'time, moment' that occurs in many variants in languages of the zone, including *waati* and *wakkati*, and that derives from Arabic *waqt*- 'time'. *nà* is probably a variant form for 'which?' (§13.2.2.6).

The other 'when?' interrogative is *?èbègé wàgâr*, consisting of *?èbégè* 'what?' in the sense 'which?' and *wàgâr*, which is the usual form in Bunoge of the borrowed 'time, moment' noun just mentioned.

- (xx1) a. [*nà* *wá:rì*] *à* *?ègà*
 [which? time] 2SgS come.Impf
 'When will you-Sg come (back)?'
- b. [*?èbègé* *wàgâr*] *à* *?ègà*
 [which? time] 2SgS come.Impf
 [= (a)]

nà náŋgà 'what time?' or 'what day?' is probably similar in structure, cf. *nàŋgà* in temporal adverbial relatives (§14.2.6).

- (xx2) [nà nángà] à ?égè
 [which? time] 2SgS come.Perf
 '(On) which day did you come?'

13.2.2.5 'How?' (*nánjì*)

The manner interrogative 'how?' is *nánjì*. It is often combined with the verb *káni* 'do', with 'do how?' corresponding to idiomatic English 'do what?'. The 'do how?' combination often occurs in a subordinated clause. For example, 'how do you VP?' is phrased as '(after) doing how, you will VP?'.
 'How will you-Sg go up?'

- (xx1) [nánjì à kǎn-nè] à ?óllà
 [how? 2SgS do-and.SS] 2SgS go.up.Impf
 'How will you-Sg go up?'

13.2.2.6 'How much/many?' (*?ángáwⁿ*)

'How many?' (less often 'how much?' of a mass) is *?ángáwⁿ*. A nonpredicative example is (xx1), with *?ángáwⁿ* following a plural NP.

- (xx1) a. sòjò-gè ?ángáwⁿ ?ègè
 person-Pl how.many? come.Perf
 'How many people came?'
- b. sòjò-gè ?ángáwⁿ gé:wè-Ø
 person-Pl how.many? kill.Perf-3SgS
 'How many people did he kill?'
- c. [[òlò-gè ángàwⁿ] bá] nì-Ø
 [[village-Pl^L ^{HL}how.many] Loc] rain.fall.Perf-3SgS
 'In how many villages did it rain?'

The predicative form is (xx2a). However, in asking unit prices a distributive iteration is usual (xx2b).

- (xx2) a. ?ángáwⁿ=:
 how.many-it.is
 'It's how much?'
- b. ?ángàwⁿ-?ángàwⁿ
 Iteration-how.many?

'It's how many (currency units) each?' (unit price)

13.2.2.7 'Which?' (*ʔèbégè, nà*)

ʔèbégè 'what?' can also function as a preposed 'which?' interrogative. In this case the H-tone shifts to the right (xx1a), and the following noun is tone-dropped. However, cues with 'which?' are rephrased where contextually possible as 'where?' interrogatives. In (xx1b), 'where?' is treated as possessor of 'house'.

- (xx1) a. [*ʔèbégé ʔàlàrà / kilò*] *à só:wà*
 [what? ^Lsheep / ^Lgoat] 2SgS buy.Impf
 'Which sheep-Sg/goat will you-Sg buy?' (*ʔàlàrà, kilò*)
- b. [*ná-lò ʔóbò*] *à dó:yà*
 [where? house] 2SgS sleep.Impf
 '(In) which house will you-PI sleep?'

nà in the combinations *nà náŋgà* 'and *nà wá:rì*, 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 is in (xx1).

- (xx1) [*ŋ báw*] [*ŋ ʔégè lá*] *ʔindò-Ø*
 [1SgP ^{III}father] [1SgS come.Perf Q] not.know-3SgS
 'My father doesn't know that/whether I have come.'

Embedded WH-interrogatives contain the regular content interrogative (WH) word (xx2).

- (xx2) a. [*ʔà:yè ʔégò bò là*] [*ŋ ʔindò*]
 [who? come Progr Q] [1SgS not.know]
 'I don't know who is coming.'
- b. [*ʔèbégè ŋ já: là*] [*ŋ ʔindò*]
 [what? 1PIS eat.meal Q] [1SgS not.know]
 'I don't know what we will eat.'

14 Relativization

14.1 Basics of relative clauses

A schematic summary of Bunoge relatives follows.

- The core of the head NP is internal to the relative clause. The **internal head** consists maximally of N-Adj-Num plus a possessor. NP-final plural *-gè* is usually omitted at the end of the internal head. The internal head has the same morphological and tonal form that it would have as a main-clause NP, except that the definite marker and the 'all' quantifier are not allowed. If the head directly precedes the participle, it may undergo locally conditioned tone changes of a basically phonological nature;
- The verb (**participle**) of the relative clause is followed by **plural** and **definite** markers and by 'all' quantifiers that have scope over the head NP;
- In subject relatives the verb is usually followed by a **participial suffix** (or auxiliary for imperfective positive), but with no pronominal-subject agreement on the verb;
- 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* that arguably resumes the head NP may directly precede the verb;
- Under some conditions, an echo (copy or synonym) of just the noun in the head NP may also appear after the participle.

14.2 Overt head NP and NP coda

The head NP is apparently "bifurcated" into a maximal (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 *nò*, and 'all' quantifiers.

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 (xx1a), or it may be medial, following at least one internal constituent and preceding at least the verb (xx1b). The head is unquestionably internal to the relative clause in (xx1b), and I take it to also be internal though clause-initial in (xx1), though one could argue the point.

- (xx1) a. *ʔàláamá yà:gú ʔègé (sà:) nò*
sheep yesterday come (Ppl.Perf) Def
 'the sheep-Sg who came yesterday'
- b. *yá:gù ʔàláamá ʔègé sà: nò*
 yesterday **sheep** come Ppl.Perf Def
 [= (a)]

14.2.2 Form of internal head NP in relative clause

In (xx1ab) in the preceding section, the noun directly preceding the verb, namely 'yesterday' in (xx1a) and 'sheep' in (xx1b), shifts to {LH} tone under the local influence of the verb. When the head NP is initial in the relative clause, at least in elicitation it may be set off prosodically, in which case this locally motivated tone change is suspended (xx1a). If the head is plural, the plural marker is obligatory after the verb. In elicitation, an informant sometimes produced versions with an extra *-gè* at the end of the internal head NP (xx1b), 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 grammar. (I show below, however, that *-gè* is required in the internal head when followed by a numeral.)

- (xx1) a. *yó / nòlò / ʔàláamá, ʔègé sà: nó*
 woman / man / sheep come Ppl.Perf Def
 'the woman / man / sheep-Sg who came'
- b. *[yó(:) / nòlò / ʔàláamá(-gè)] ʔègé sà:-gè nó*
 [woman / man / sheep(-Pl)] come Ppl.Perf-Pl Def
 'the women / men / sheep-Pl who came'

The internal head NP consists maximally of N-Adj-Num plus a possessor. A N-Adj combination has its usual tonal form, with {LH} overlay on the noun and {L}-toned adjective (xx2a). Similarly, the N-Adj-Num combination in (xx2b) 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 can occur in the head NP; it controls the usual {HL} contour on the possessed noun (xx2c).

- (xx2) a. [yɔ́: bígì] ʔègé sà: nɔ́
 [woman big] come.Perf Ppl.Perf Def
 'the big woman who came'
- b. [yɔ́: bíg(i)-gé dè:gà] ʔègé sà:-gè nɔ́
 [woman big-Pl two] come.Perf Ppl.Perf-Pl Def
 'the two big women who came'
- c. [séydù yɔ́:] ʔègé sà: nɔ́
 [Seydou woman] come.Perf Ppl.Perf Def
 'Seydou's wife who came'
- d. [bé:-gè tá:ndù] túbbé sà:-gè nɔ́
 [child-Pl three] fall Perf-Ppl.Perf-Pl Def
 'the three children who fell'

14.2.3 Restrictions on the head of a relative clause

The head is a NP, minimally a noun, though it can be covert. The head cannot be a pronoun or a demonstrative. Expressions meaning e.g. 'you who have come' are rephrased appositionally as 'you, (the) people 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.

- (xx1) a. [nòlò-gé yà] [yɔ́:-gé yà] nɔ́ŋɔ́ nɔ́ŋ-yè
 [man-Pl and] [woman-Pl and] fight(n) fight-3Pl.Perf
 '(The) men and (the) women fought.'
- b. [nòlò-gé yà] [yɔ́:-gé yà] nɔ́ŋɔ́ nɔ́ŋè-gè nɔ́
 [man-Pl and] [woman-Pl and] fight(n) fight.Perf-Pl Def
 'the men and women who fought.'

14.2.5 Headless relative clause

for headless relatives as adverbial clauses, see §15.5.3.

14.2.6 Echo of head noun after relative clause

A postparticipial word *nàngà* appears to function as an echo for 'day' or 'year' as internal heads in (xx1). An informant rejected *nàngà* with spatial relatives ('the place where...').

- (xx1) *[[dèni / wáyà ñ ʔégè] nàngà] dɔ:wè-Ø*
[[day / year 1SgS come.Perf] time] die.Perf-3SgS
'He/She died (on) the day/(in) the year I came.'

14.3 Subject pronominals in nonsubject relatives

In nonsubject relatives, the verb has the same conjugation as in main clauses. In particular, 1st/2nd person pronominal-subject suffixes occur with participles. However, 3Sg and 3Pl subject are distinguished by tones, rather than by presence or absence of a 3Pl suffix.

Examples are in §14.8.2 and elsewhere in this chapter.

14.4 Proclitic *yé* before verb

An optional noun *yé* occurs directly before the verb-participle in several examples. In (xx1a) it is separated from the head NP by another constituent. 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 (§13.1.1.7).

In (xx1e) *yé* appears to be a default relative head, like English *what* (or *that which*) in *what you don't know won't hurt you*. In this type of example it betrays its origin as a noun 'thing' (cf. Penange *yè:*, Ampari *yé*), though in Bunoge we now get *wè:* as the noun for 'thing' (§4.xxx). In the other examples, where *yé* coexists with an overt head, it may be appositional to the head. I will gloss it as 'which'.

- (xx1) a. *ʔínjè / bé mì-ŋù yé nùnjè nò*
dog / child 1Sg-Acc which bite-Perf Def
'the dog / child that bit me'

- b. *námà* *yé* *à* *témè* *nò*
 meat which 2SgS eat.meat.Perf Def
 'the meat that you-Sg ate'
- c. *námà* *yè* *ń* *témé* *nò*
 meat which 1PlS eat.meat.Perf Def
 'the meat that we ate'
- d. *ná* *yé* *tùbbò* *gò* *nó*
 cow which fall.Impf Ppl.Impf Def
 'the cow that will fall'
- e. [*yé* *ń* *káyⁿ*] *ńórì-Ø*
 [which 1SgS want] not.be-3Sgs
 'I don't want anything.' (lit. "[what I want] does not exist")

14.5 Verb (or: verbal participle) in relative clause

Since the verb in a relative clause is followed by NP-final elements (plural, definite, 'all'), it is here described as a participle. However, special forms of the verb occur only in subject relatives, many of which have overt participial markers following the verb, which are summarized in (xx1).

(xx1) Participles (all categories of active verbs, subject relatives)

category	participle	unfocalized main clause
perfective	<i>sà:</i>	(E/I-stem)
experiential perfect	<i>wélé sà:</i>	<i>wélé:</i>
perfective negative	<i>-lí-gà</i>	<i>-lí</i>
experiential perfect neg	<i>wélé: ńórì-gà</i>	<i>wélé: ńórì</i>
imperfective (or: present)	<i>-gò</i>	(A/O-stem, reduplication)
progressive	<i>bò</i>	<i>bò</i>
imperfective negative	<i>-lò-gà</i>	<i>-lò</i>

Nonsubject relatives have participles that are identical in form to regular main-clause-like verbs, including regular pronominal-subject marking, but with participial suffix *-gà* added to negative inflections. Perfective participial

auxiliary *sà:* is sometimes found in nonsubject relatives, but it is mainly associated with subject relatives.

The following sections describe subject and nonsubject participles for each aspect-negation category.

14.5.1 Participles of positive perfective-system verbs

Nonsubject relatives often have participles identical in form to regular inflected perfective verbs, except that 3Pl subject is expressed by initial H-tone with no suffix. (See below for a variant with participial auxiliary *sà:*.) Like all relative participles, they may be followed by plural, definite, and other NP-final elements.

- (xx1) a. *ʔàláámà ké à sɔ́:wè nò*
 sheep place 2SgS buy.Perf Def
 'the place where you-Sg bought (a/the) sheep.'
- b. *ʔàláámà (yé) à sɔ́:wè-gé nò*
 sheep (xxx) 2SgS buy.Perf-Pl Def
 'the sheep-Pl that you bought'
- c. *ʔòbò à sɔ́:wè nò*
 house 2SgS buy.Perf Def
 'the house that you-Sg bought'
- d. *ʔòbó sɔ́:wè-Ø-gé nò*
 house buy.Perf-3SgS-Pl Def
 'the houses that he/she bought' (*ʔòbò*)
- e. *ʔòbò sɔ́:wè-gé nò*
 house buy.Perf.3PlS-Pl Def
 'the houses that they bought' (*ʔòbò*)

An alternative for nonsubject relatives is with participial auxiliary *sà:*, as in (xx2).

- (xx2) [*námà tèmé-Ø sǎ:-Ø nò*]
 [meat eat.meat.Perf-3SgS Ppl.Perf-3SgS Def]
né: = là-Ø
 be.good=StatNeg-3SgS
 'the meat that he/she ate is bad'

In nonsubject relatives, both the main verb and *sà:* are conjugated for pronominal-subject category, in the fashion of verb chains. The paradigm for 'ate meat' is (xx3).

(xx3)	category	'(meat) that __ ate'
	1Sg	[ɲ tɛ̀mɛ̀] [ɲ sá:] nò
	1Pl	[ɲ tɛ̀mɛ̀] [ɲ sǎ:] nò
	2Sg	[à tɛ̀mɛ̀] [à sá:] nò
	2Pl	[á tɛ̀mɛ̀] [á sǎ:] nò
	3Sg	tɛ̀mɛ̀-∅ sǎ:-∅ nò
	3Pl	tɛ̀mɛ̀ sá: nò

In **subject relatives** *sà:* is common (but not obligatory) after the verb. There is no pronominal-subject conjugation. The main verb is in perfective form and has {LH} melody before *sà:*. The latter may be followed by plural *-gè*, agreeing with the head NP. The *sà:* is optionally omitted (xx4c).

(xx4)	a.	<i>bé</i>	<i>tùbbé</i>	<i>sà:</i>	<i>nò</i>	
		child	fall.Perf	Ppl.Perf	Def	
		'the child who fell'				
	b.	<i>sòjò</i>	<i>tùbbé</i>	<i>sà:-gè</i>	<i>nò</i>	
		person	fall.Perf	Ppl.Perf-Pl	Def	
		'the people who fell'				
	c.	[<i>ná:</i>	<i>tùbbè</i>	<i>nɔ]</i>	<i>nà-ló</i>	<i>bò-∅</i>
		["	<i>tùbbé</i>	<i>sà:</i>	"]	"
		[cow	fall.Perf	(Ppl.Perf)	Def]	where?-Loc be-3SgS
		'Where is the cow that fell?'				

The experiential perfect (§10.2.1.4) has a participial form *wèlé sà:* in subject relatives.

(xx3)	<i>sòjò</i>	<i>nígè</i>	<i>tègò-nà</i>	<i>wèlé sà:</i>	<i>mbè</i>	<i>nò</i>
	person	elephant	see-SS	ExpPf Ppl.Perf	Past	Def
	'the person who had (once) seen an elephant'					

14.5.2 Participles of positive imperfective-system and stative verbs

Nonsubject relatives have regular conjugated imperfective verbs, except that 3Sg and 3Pl are distinguished tonally rather than by 3Pl suffixation (xx1).

- (xx1) a. *bé:* *à* *nũmbà* *nò*
 child 2SgS hit.Impf Def
 'the child that you-Sg will hit'
- b. *yó* *ʔèmè-ηgé* *sǒ:-là-∅* *nò*
 woman milk buy-Rev.Impf-3SgS Def
 'the milk that the woman sells'
- c. *ʔèmèηgè* *só:-là* *nò*
 milk buy-Rev.Impf.3PlS Def
 'the milk that they sell'

Imperfective **subject relatives** have participial *-gò* suffixed to the **O/U-stem** of the verb, with {LH} melody on the stem, i.e. {LH-L} 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).

- (xx2) a. *ʔínjè* *bé:-gè* *nùnjó-gò* *nò*
 dog child-Pl bite.Impf-Ppl.Impf Def
 'the dog that bites children'
- b. *yó* *ʔèmè-ηgè* *sò:-lò-gò* *(nò)*
 woman milk buy-Rev.Impf-Ppl.Impf (Def)
 'a (the) woman who sells milk'
- c. *ʔínjè* *mánjì* *kànó-gò* *nò*
 dog like.this do.Impf-Ppl.Impf Def
 'the dog who does thus (= that)'

Progressive subject participles have postverbal auxiliary *bò* 'be' as in (xx3), rather than preposed *ʔèmbè* as usual in main clauses (§10.2.2.2).

- (xx3) a. *sójò* *mà:* *ʔégò* *bò* *nó*
 person here come.Impf be Def
 'the person who is coming (will come) here'
- b. *yó* *ɲènnó* *bò* *nò*

woman sweep.Impf be Def
'the woman who is sweeping'

An informant rephrased **nonsubject progressive** participles as regular imperfectives (xx4), with 'now' optionally added to clarify the ongoing nature of the action.

- (xx4) a. *másà* *námà* *ɲ* *témà* *nò*
now meat 1SgS eat.meat.Impf Def
'the meat that I am eating now'
- b. *yó* *gòmbólò* *jěnnà* *nò*
woman courtyard sweep Def
'the courtyard that the woman is sweeping'

Subject stative participles have {L}-toned stative verbs (xx5ab). **Nonsubject** counterparts have {LH} melody (xx5c).

- (xx5) a. *bé* *bò-ló* *ʔigà* *nó*
child there-Loc stand.Stat Def
'the child who is standing there'
- b. *gàbà* *bò-ló* *jàngá-gè* *nó*
boubou there-Loc be.hung.Stat-Pl Def
'the boubous (garments) that are hanging over there'
- c. *gàbà-gè* *ké* *jàngá-gè* *nò*
boubou-Pl place be.hung-Pl Def
'the place 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

Participial suffix *-gà* is added to both nonsubject and subject participles. Examples of **nonsubject relatives** are in (xx1). Here the verb has main-clause-like pronominal-subject inflection and stem tones, but adds participial *-gà*. The latter is tone-raised before definite *nò*.

- (xx1) a. [*námà* *témà:-ndi-gá* *nò*]
[meat eat.meat-PerfNeg.3Pl-Ppl.Neg Def]
[*nà-ló* *bò*]

[where?-Loc be.3SgS]
 'Where is the meat that they didn't eat?'

- b. *námà* *yé* *à* *témá:-lì-gá* *nò*
 meat xxx 2SgS eat.meat-Perf.Neg-Ppl.Neg Def
 'the meat that you-Sg didn't eat'
- c. *dèni* *jí* *ḡ* *já:-lì-gá* *nò*
 day food 1SgS eat.meal-PerfNeg-Ppl.Neg Def
 'the day when I didn't eat.'

Subject relatives are in (xx2). The verb is now uninflected for pronominal subject, and the participle form has word-level {HLH} melody with H-tone on the first and last syllables. Subject (i.e. head NP) plurality and definiteness are expressed as usual by plural *-gè* and/or definite *nò* following the verb (xx2b). The vowel of *-gà* is lengthened before plural *-gè*.

- (xx2) a. *bé* *túbbà:-lì-gá* *nò*
 child fall-PerfNeg-Ppl.Neg Def
 'the child who didn't fall'
- b. *sòjò* *túbbà:-lì-gá:-gè* *nò*
 person fall-PerfNeg-Ppl.Neg-Pl Def
 'the people who fell'

Since *-gà* occurs in both subject and nonsubject relatives, and since 3Sg subject is the zero category, subject relative (xx3a) is homophonous to object relative (xx3b). Actually, in one session my informant attempted to distinguish them by different tones on the verb, but the difference was not confirmed in a subsequent session.

- (xx3) a. [*bé* *námà* *témà:-lì-gá* *nò*]
 [child meat eat.meat-PerfNeg-Ppl.Neg Def]
nà-ló *bò-Ø*
 where?-Loc be-3SgS
 'Where is the child who didn't eat (the) meat?'
- b. [*bé* *námà* *témà:-lì-Ø-gá* *nò*]
 [child meat eat.meat-PerfNeg-3SgS-Ppl.Neg Def]
nà-ló *bò-Ø*
 where?-Loc be-3SgS
 '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: ?óri-gà*.

- (xx4) *sójò nígè tègò-nà wélè: ?óri(i)-gà nò*
 person elephant see-SS ExpPf not.be-Ppl.Neg Def
 'the person who has never seen an elephant'

14.5.4 Participles of negative imperfective-system and stative verbs

Participial *-gà* is suffixed to imperfective negative *-lò* in both nonsubject and subject relatives. In **nonsubject** relatives, the verb has pronominal-subject marking (xx1).

- (xx1) a. *dèní wàlà = à kál-lò-gà*
 day work(n)=2SgS do-ImpfNeg-Ppl.Neg
 '(the) day when you-Sg do not work' (*wàlè*)
- b. *sòjó-gè dèní wàlè káni-ndá-gà*
 person-Pl day work(n) do-ImpfNeg.3PlS-Ppl.Neg
 '(the) day when the people don't work'
- c. *séydù dèni wàlè kál-lò-Ø-gà*
 Seydou day work(n) do-ImpfNeg-3SgS-Ppl.Neg
 'the day when Seydou doesn't work'
- d. *gàndà ?áyà nǔ:-lò-Ø-gà*
 country rain(n) rain.fall-ImpfNeg-3SgS-PplNeg
 'a land where it doesn't rain (rain doesn't fall)'

In **subject** relatives, we find participial *-gà* but no pronominal-subject marking (xx2).

- (xx2) a. *bé wàlè kál-lò-gá nò*
 child work(n) do-ImpfNeg-Ppl.Neg Def
 'the child who does not work'
- b. *sójò tágù ?àbò-lò-gá gè*
 person talk(n) accept-ImpfNeg-Ppl.Neg Pl
 'people who do not agree (to proposals)'

- c. *sóǝ* *ǝnènnù* *ǝnènnò-lò-gá* *nò*
 person Iter sweep-ImpfNeg-Ppl.Neg Def
 'the person who does not sweep'

In the imperfective negative a form like *kál-lò-gà* in (xx1a,c) and (xx2a) can be ambiguous between subject relative and 3Sg subject nonsubject relative, if there are two potential head NPs, unless one of them has definite marking or some other non-head attribute.

14.5.5 Participle of past marker *mbè* ~ *wè*

Past *mbè* is attested in perfective participles, following *sà:*. This construction is past perfect in sense.

- (xx1) a. *[[ná: bigì] túbbe sà: mbè nò]*
 [[cow big] fall.Perf Ppl.Perf Past Def]
ná-lò bò
 where?-Loc be.3SgS
 'The big cow that had fallen, where is it?'
- b. *[[ná:-ǝǝé bigì] túbbe sà: mbè-gè nò]*
 [[cow-Pl big] fall.Perf Ppl.Perf Past-Pl Def]
ná-lò bó
 where?-Loc be.3PlS
 'The big cows that had fallen, where are they?'
- c. *[bé túbbe sà: mbè nò]*
 [child fall.Perf Ppl.Perf Past Def]
 'the child who had fallen'

Past imperfective relatives are in (xx2). An unusual feature of this construction is that the imperfective verb is in the A/O-stem rather than the A-stem in the relative-clause version (xx2a), contrast the main-clause version (xx2b).

- (xx2) a. *yó ǝnènnù ǝnènnó: mbè nò*
 woman Iter sweep.Impf Past Def
 'the woman who was sweeping'
- b. *[yó: nò] ǝnènnú ǝnènná: mbè*
 [woman Def] Iter sweep.Impf 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 (xx1), 'fall' and 'go down' are components of a single event. Main clauses are illustrated in (xx1ab) for perfective aspect and in (xx1d) for imperfective. Corresponding relative clauses are (xx1c) and (xx1e), respectively. Only the final verb is participialized, the nonfinal verb taking the same chained or subordinated form it has in main clauses.

- (xx1) a. *[ɲ tũbbɛ]* *[ɲ sigɛ]*
 [1PIS fall.Perf] [1PIS go.down.Perf]
 'We fell down.'
- b. *tũbbɛ* *sigí-yɛ*
 fall.Perf go.down.Perf-3PIS
 'They fell down'
- c. *sòjò tũbbɛ sigɛ-gé nɔ̀*
 person fall.Perf go.down.Perf-Pl Def
 'the people who fell down'
- d. *tũbbɛ-nɛ si sigà*
 fall-and.SS Rdp go.down.Impf.3PIS
 'they will fall down'
- e. *sòjò tũbbɛ-nɛ sigò-gé nɔ̀*
 person fall-and.SS go.down.Impf-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 *nɔ̀* is very common in relative constructions, following the verb-participle and plural *-gɛ*. Examples of *nɔ̀* occur throughout this chapter.

An informant did not accept demonstrative *mɔ̀* with the internal head, presumably because of the awkwardness of e.g. 'this sheep that I bought'. If such a construction does exist, demonstrative *mɔ̀* '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. It also optionally present at the end of the internal head, but this may reflect informant confusion in elicitation and it was often dropped in more fluent repetitions. It does occur regularly before numerals within the internal head.

14.7.3 Non-numeral quantifiers ('each', 'all')

'All' quantifiers come at the end of the relative construction, after the definite marker.

- (xx1) a. [*ʔàlámà ɲ sɔːwè-gé nò sàkáy*] *gě:n-dè*
 [sheep 1SgS buy.Perf-P1 Def all] go.Perf-3PIS
 'All of the sheep that I bought have gone away.'
- b. [*ʔàlámà gè:ndé sà:-gè nò sàkáy ɲ tégè*]
 [sheep go Ppl.Perf-P1 Def all] 1PIS see.Perf
 'We have seen (= found) 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 except in the imperfective positive (§14.4).

- (xx1) a. [*sòjò ʔégé sà: nò*] *nà-lò gá*
 [person come.Perf Ppl.Perf Def] where?-Loc go.out.Stat.3SgS
 'The person who came, where is he/she from?'
- b. [*sòjò ʔégé sà:-gè nò*]
 [person come.Perf Ppl.Perf-P1 Def]
ná-lò gá
 where?-Loc go.out.Stat.3PIS
 '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.

- (xx2) *yá:gù* *sòjò* *ʔègè* *sà:* *nò*
 yesterday person come.Perf Ppl.Perf Def
 'the person who came yesterday'

14.8.2 Object relative clause

This is a subtype of nonsubject relative. The object has the usual reduced form of the head NP. It does not have accusative marking. The verb has the same form as in main clauses, including pronominal-subject affixation. Plural and definite marking associated with the head NP follow the verb.

- (xx1) a. *[ná: à sǔ:wè nò]* *[nà-ló bò]*
 [cow 2SgS buy.Perf Def] [where?-Loc be.3SgS]
 'Where is the cow that you-Sg bought?'
- b. *[ʔàlámá (gè)]* *à* *sǔ:wè-gè* *nò*
 [sheep (Pl)] 2SgS buy.Perf-Pl Def
 'the sheep-Pl that you-Sg bought'
- c. *sójò* *à* *tégè* *nò*
 person 2SgS see.Perf 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 (xx2).

- (xx2) *[ɲ bāw]* *ʔàlámá* *sǔ:ŋgè-Ø* *nò*
 [1SgP father] sheep bring.Perf-3SgS Def
 'the sheep-Sg that my father brought' (*ʔàlámà*)

For adverbial relatives, the other common nonsubject relative type, 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 *-nà* resuming the possessor, apparently 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.

- (xx1) a. *[yó bè:-ná túbbe nò] ná-ló bò*
 [woman child-3SgP fall.Perf Def] where-Loc be.3SgS
 'Where is the woman whose child fell?'
 b. *[yó ?òbò-ná túbbe-gè nò]] ná-ló bó*
 [woman house-3SgP fall.Perf-Pl Def] where-Loc be.3PlS
 'Where are the women whose house fell?'

14.8.4 Relativization on the complement of a postposition

In (xx1), the head noun 'axe' is separated from a preverbal segment *?émé ndò* containing instrumental postposition *ndò* preceded by discourse-definite *?émé* that resumes 'axe'.

- (xx1) *gúlò tè:ngè [?émé ndò] à párá-gà nò*
 ax firewood [that.Def Inst] 2SgS cut-CausPerf Def
 'the axe that you-Sg chop wood with'

In (xx2), *ké* 'place' likewise seems to resume 'house'.

- (xx2) *?òbò ké ñ túlâ nò*
 house place 1SgS xxx 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 with 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.

15.1.1 Perfective chains for completed event sequences

Completed event sequences are expressed by two parallel pronominally-inflected perfective verbs (xx1a). For 3Pl subject, only the final verb has the 3Pl perfective suffix *-yè* ~ *-yè*. In nonfinal clauses, 3Sg and 3Pl are distinguished tonally, with {L} melody for 3Sg and {HL} for 3Pl. Particle *?èmbà* 'then' is common at the beginning of the second clause. The examples in (xx1) involve same-subject sequences.

- (xx1) a. *[ɨ]* *gě:ndè]* *[?émbà* *ɨ* *?égè]*
[1SgS go.Perf] [then 1SgS come.Perf]
'I went and came (back).'
- b. *túbbè* *sìgí-yè*
fall.Perf.3PIS go.down.Perf-3PIS
'They fell down.'

- c. *tùbbè* *sígè-Ø*
 fall.Perf-3SgS go.down.Perf-3SgS
 'He/She fell down.'
- d. [*séydù* *ʔégè-Ø*] [*ʔèmbá* *gě:ndè-Ø*]
 [Seydou come.Perf-3SgS] [then go.Perf-3SgS]
 'Seydou came and went (back).'

Since both verbs are pronominally conjugated, the same nonfinal chained perfective can be used in different-subject sequences, as long as the two events are closely sequenced.

- (xx1) a. [*séydù* *tá:-bè* *mì-ŋgú* *tàbè-Ø*]
 [Seydou door-child 1Sg-Acc give.Perf.3SgS],
 [*ʔémbà* *ɲ* *gě:ndè*]
 then 1SgS Epen-go.Perf
 'Seydou gave me the key and I left.'
- b. [*bé:-gè* *nò*] *tá:-bè* *mì-ŋgù* *tábè-Ø*]
 [child-Pl Def] door-child 1Sg-Acc give.Perf.3PlS,
 [*ʔémbà* *ɲ* *gě:ndè*]
 then 1SgS Epen-go.Perf
 'Seydou gave me the key and I left.'

The sense 'finish VPing' is expressed by a perfective chain with the main verb preceding the (perfective) 'finish' verb, see §17.4.1.

15.1.2 Future-time event chains with *nè* after nonfinal verb(s)

Future-time event sequences are expressed by the same-subject future-time sequential subordinator *nè* added directly to the E/I-stem (i.e. perfective) of the nonfinal verb(s). The nonfinal verb is inflected for pronominal subject, with 3Sg and 3Pl distinguished underlyingly by tone, and on the surface generally by the fact that Rightward H-Movement leaves the H-tone on *nè* for 3Sg (before a {L}-toned 3Sg subject final verb) and on the stem-final vowel for 3Pl.

The final verb (A/O-stem) has the form of a stripped-down imperfective, as in nonsubject focalized clauses: no reduplication or iteration, 3Sg subject verb {L}-toned, 3Pl subject verb {HL}-toned. Tight phrasing allows the final verb to trigger Rightward H-Movement on an immediately preceding nonfinal verb (xx1b). For 1st/2nd person subject, the usual proclitics are added to both verbs.

gě:ndè 'go' appears as truncated *gě:n nè* or tonal variant.

The examples in (xx1) involve same-subject clause sequences. See below for disjoint subjects.

- (xx1) a. *[ɨ̃ gě:n nɛ]* *[ɨ̃ ʔégà]*
 [1SgS go.Perf and.then] [1SgS come.Impf]
 'I will go and come (back).'
- b. *[gě:n nɛ]* *ʔégà*
 [go.Perf.3PIS and.then] come.Impf.3PIS
 'They will go and come (back).'
- c. *[gɛ:n-∅ nɛ]* *ʔégà-∅*
 [go.Perf-3sgS and.then] come.Impf.3SgS
 'He/She will go and come (back).'
- d. *[sɛyɔ̀ ʔɛgɛ-∅ nɛ]* *bijilà-∅*
 [Seydou come.Perf-3SgS and.then] go.back.Impf.3SgS
 'Seydou will come and go back.'
- e. *[bɛ:-gɛ gě:n nɛ]* *ʔégà*
 [child-Pl go.Perf.3PIS and.then] go.back.Impf.3PIS
 'The children will go and come (back)'
- f. *[ɨ̃ ʔɛgɛ nɛ]* *[ɨ̃ bijilà]*
 [1SgS come.Perf and.then] [1SgS go.back.Impf]
 'I will come and go back.'

Additional partial paradigms are in (xx2). The 3Sg subject form on the right reflects Rightward H-Movement before a {L}-toned 3Sg-subject final verb.

(xx2)	Perf 3Sg	gloss	with -nɛ ~ -nɛ	when subject is...			
			1Sg	1Pl	3Pl	3Sg	
	<i>ʔégɛ</i>	'come'	<i>ɨ̃ ʔɛgɛ-nɛ</i>	<i>ɨ̃ ʔɛgɛ-nɛ</i>	<i>ʔɛgɛ-nɛ</i>	<i>ʔɛgɛ-nɛ</i>	
	<i>gɛ:nɛ</i>	'go'	<i>ɨ̃ gɛ:-nɛ</i>	<i>ɨ̃ gɛ:n-nɛ</i>	<i>gɛ:n-nɛ</i>	<i>gɛ:n-nɛ</i>	
	<i>dúnjùrɛ</i>	'push'	<i>ɨ̃ dúnjùrɛ-nɛ</i>	<i>ɨ̃ dúnjùrɛ-nɛ</i>	<i>dúnjùrɛ-nɛ</i>	<i>dúnjùrɛ-nɛ</i>	
	<i>pàrà-gɛ</i>	'cut'	<i>ɨ̃ pàrà-gɛ-nɛ</i>	<i>ɨ̃ pàrà-gɛ-nɛ</i>	<i>pàrà-gɛ-nɛ</i>	<i>pàrà-gɛ-nɛ</i>	
	<i>tùbbɛ</i>	'fall'	<i>ɨ̃ tùbbɛ-nɛ</i>	<i>ɨ̃ tùbbɛ-nɛ</i>	<i>tùbbɛ-nɛ</i>	<i>tùbbɛ-nɛ</i>	
	<i>ʔɔ̀llɛ</i>	'go up'	<i>ɨ̃ ʔɔ̀llɛ-nɛ</i>	<i>ɨ̃ ʔɔ̀llɛ-nɛ</i>	<i>ʔɔ̀llɛ-nɛ</i>	<i>ʔɔ̀llɛ-nɛ</i>	

The same nonfinal perfective clause plus *nɛ* can be used when the subjects of the two clauses are disjoint (xx2).

(xxx) *[[bɛː-gɛ̀ nɔ̀] pànángɛ̀ sòng-yé nɛ̀]*
 [[child-Pl Def] meal bring.Perf-3PlS and.then]
?ɛ̀mbà ɲ jà
 then 1PlS eat.Impf
 'The children will bring the meal and we will eat.'

e. *[nàː sɔ̀ngɛ̀-∅ nɛ̀]*
 [meal bring.Perf-3SgS and.then]
[ɲ nɔː] [ɲ bɔ̀]
 [1PlS eat.Impf] [1PlS Impf]
 'He/She will bring the meal and we will eat.'

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.

(xx1) *?àlámbà [ɲ sɛ̀lɛ̀] [ɲ ?óré]*
 sheep [1SgS slaughter.Perf] [1SgS skin.butcher]
 'I slaughtered and (skinned and) butchered a sheep.'

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 (xx1), *dɛ̀ni* 'day' is the head, so the relative clause functions as a temporal adverbial clause. *nàngà* is a synonym for *dɛ̀ni*, cf. interrogative *nà nángà* '(on) which day?' (§13.2.2.4). In other words, 'day' (in the form of two synonyms) occurs both clause-internally and as a postparticipial echo.

(xx1) *[dɛ̀ni ɲ ?éɛ̀ nàngà] dɔː.wɛ̀-∅*
 [day 1SgS come.Perf day] die.Perf-3SgS
 'He/She died (on) the day I came.'

Logically, there should be a spatiotemporal postposition. However, like English *on* in the free translation of (xx1) the postposition is understood and usually omitted.

15.2.1.2 Adverbial imperfective ('while') clause with lengthened A/O-stem

In (xx1a), the time-of-day verb ('spend night') is clause-final in normal main-clause form. The subordinated VP has a {L}-toned imperfective-like verb with final long *a:* or *o:*, i.e. the A/O-stem with the final vowel lengthened. In the second person forms, contraction with 2Sg *à* or 2Pl *á* disguises stem-final vowel length. This construction with lengthened A/O-stem is used when the subjects are coindexed.

- (xx1) a. *[bé: nɔ̃]* *[nùŋɔ̃ nùŋà:]* *dá:yè-∅*
 [child Def] [song sing.Impf] spend.night.Perf-3SgS
 'The child spent the night singing (=sang all night).'
- b. *[yà: nɔ̃]* *[wàlè kàná:]* *í* *dǎ:yè*
 [night Def] [work(n) do] 1PlS spend.night.Perf
 '(Last) night we spent the night working.'
- c. *dóróngè dò:yó:* *dènè-∅*
 sleep(n) sleep.Impf spend.day.Perf-3SgS
 'He/She spent the (mid-)day sleeping [focus].'
- d. *dóróngè dò:yò:* *dénè-∅*
 sleep(n) sleep.Impf spend.day.Perf-3SgS
 'They spent the (mid-)day sleeping [focus].'

15.2.1.3 Adverbial 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*.

- (xx2) *[wàlè í kàná-wⁿ]* *[dóróngè dó:yá:-∅ mbè]*
 [work(n) 1Pl do-Inf] [sleep(n) sleep.Impf-3SgS Past]
 'Yesterday he was sleeping while we worked'

15.2.1.4 'Since ...' clauses (*mbà dígì*)

With an adverb X, 'since' is *[X dígì]*, as in *yà:gú dígì* 'since yesterday'. A 'since' clause has *mbà dígì* after a perfective verb. *mbà* is somewhat obscure but is more likely a variant of past *mbè* (§10.5.1) than locative postposition *mbà* (§8.2.3.1).

(xx1) *mà: ɲ ʔégè mbà dígì, námà ɲ témá:-lì*
 here come 1SgS Past since, meat 1SgS eat.meat-PerfNeg
 'Since I came here I haven't eaten any meat.'

15.2.2 Adverbial clauses expressing a chronological sequence

15.2.2.1 Sequential *ʔémbà* 'then' plus perfective

The preverbal particle *ʔémbà* combines with inflected perfective verbs in noninitial clauses in event sequences. It can be glossed as 'then'. In this construction, 1st/2nd person subjects have their usual forms, while 3Sg and 3Pl subjects are distinguished tonally. *ʔémbà* itself remains {HL}-toned before a L-toned proclitic (1Sg, 2Sg) or a verb with initial H-tone (3Pl). It undergoes Final Tone-Raising (or, arguably, Rightward H-Movement) to *ʔémbá* before 3Sg-subject verbs, which are L+{HL}-toned. It drops to *ʔèmbà* before H-toned 1Pl *ɲ* and 2Pl *á* proclitics by Dissimilatory Tone-Lowering.

(xx1) 'then __ ran'

1Sg	<i>ʔémbà</i>	<i>ɲ</i>	<i>dú:nì</i>
1Pl	<i>ʔèmbà</i>	<i>ɲ</i>	<i>dǔ:nì</i>
2Sg	<i>ʔémbà = à</i>		<i>dú:nì</i>
2Pl	<i>ʔèmbà = á</i>		<i>dǔ:nì</i>
3Sg	<i>ʔémbá</i>		<i>dǔ:nì-∅</i>
3Pl	<i>ʔémbà</i>		<i>dú:-nì</i>

ʔèmbà should be distinguished from *ʔèmbè*, a preverbal particle in the progressive construction (§10.2.2.2). Because of contractions, the two constructions are easily 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.

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

In (xx1), the first clause denotes a prolonged activity. It is followed by a clause meaning 'until I got tired', emphasizing the prolongation of the first activity. The emphasis is not always on literal fatigue.

- (xx1) [dù:nù ò ò dú:nì] [fǎ→ ò déné]
 [running 1SgS run.Perf] [until 1SgS be.tired.Perf]
 'I ran and ran until I got tired.'

15.2.3 Chronological reversal ('before ...' clauses with ?únà)

?únà is the 3Sg-subject imperfective of ?únè '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 imperfective in a nonsubject focalized clause, with {L}-toned 3Sg and {HL}-toned 3Pl subject forms. The clause denoting the prior event 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 (xx1).

- (xx1) a. [[?áyà nò] ?ègà ?únà] ò dé:
 [[rain(n) Def] come.Impf.3SgS say.Impf.3SgS] 1SgS go.in.Perf
 'I went inside before the rain came down.'
- b. [?égà ?únà] ò yǒg-gè
 [come.Impf.3PlS say.Impf.3SgS] 1SgS hide-MP.Perf
 'I hid (myself) before they came'
- c. ò gù.ndê-yⁿ [[?òbò nò] tùbbà] ?únà
 1PlS go-Hort [[house Def] fall.Impf.3SgS say.Impf.3SgS
 'Let's go outside, before the house falls.'

15.3 Spatial and manner adverbials

15.3.1 Spatial adverbial clause ('where ...')

The noun 'place' is *ké* (definite *ké: nò*). Relative clauses with *ké* as head can function as spatial adverbials. In (xx1), the relative construction (ending with *tùbbè*) is followed by locative postposition *ndò*.

- (xx1) [[à-bâw ògù] ò tégè]
 [[2SgP-father Acc] 1SgS see.Perf]
 [[[ná:-ògè] nò] ké] tùbbè] ndò]
 [[[cow-Pl Def] place] fall.Perf.3PlS] Loc]

'I saw your-Sg father in the place where the cows fell.'

15.3.2 Manner adverbial clause ('how ...') with *bàná* 'way, manner'

15.3.2.1 Agentless manner adverbial with (*à:*)-*y* subordinator

This construction is used when the manner adverbial has an unexpressed generalized agent. *bàná* 'way, manner' is combined with a verb ending in *-y* after a stem-final long *a:*.

- (xx1) a. *[bó-lò bàná ?òllà:-y] [ŋ ?índò]*
 [manner manner go.up-xxx] [1SgS not.know]
 'I don't know how to go up there.'

Representative *-y* forms of verbs are in (xx2).

(xx2)	verb	with <i>-y</i>	gloss
a. monosyllabic			
	<i>dê:</i>	<i>dâ:-y</i>	'pound'
	<i>kê:</i>	<i>kâ:-y</i>	'sew'
	<i>nî:</i>	<i>nâ:-y</i>	'draw water'
b. bisyllabic			
	<i>yébé</i>	<i>yòbâ:-y</i>	'dance'
	<i>sójè</i>	<i>sòjà:-y</i>	'tie'
	<i>?óllè</i>	<i>?òllâ:-y</i>	'go up'
	<i>?óllè</i>	<i>?òllâ:-y</i>	'go up'
	<i>sígè</i>	<i>sigâ:-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'
c. trisyllabic			
	<i>dúnjúè</i>	<i>dùnjùrà:-y</i>	'push'

15.3.2.2 Manner adverbial with agent

In (xx1a), *bàná* 'manner' is followed by a conjugated verb, and appears to be a nonsubject relative. In (xx1b), *ndi* is obscure but may be a variant of instrumental postposition *ndò*.

- (xx1) a. [*?àlámà* *bàná* *à* *sélà* *nò*] *nc: = là*
 [sheep manner 2SgS slaughter.Impf Def] be.good=it.is.not
 'The way you-Sg slaughter a sheep is not good.'
- b. [*wàlè* *séydù* *wàlè* *bàná* *kàná-Ø*] *ndi*
 [[work(n) Seydou work(n) manner do.Impf-3SgS] Inst]
ñ *kánà*
 1SgS do.Impf
 'I do (work) the (same) way that Seydou does work.'

15.3.3 'From (when) X, until Y'

Example (xx1) is not yet fully analysed. The 'from (the time when)' clause has a perfective verb (*nálé* 'they bore, they gave birth to') and what appears to be a form of the locative postposition *mbà*. The 'until' clause has a simple imperfective verb plus *fǎ→* 'until, all the way to'.

- (xx1) [*à-yⁿá-ngù* *nálé* *mbá*], [*fǎ→* *dó:wà*],
 [3Pl-Acc give.birth.Perf.3PlS Loc] [until die.Impf.3PlS]
 [*sòjò* *dà:-gê*]=: *ò* *bò*
 [person evil-Pl=it.is xxx xxx]
 'From when they're born (lit. "they [their mothers] bear them"), until they die, they are wicked.'

more variations (e.g. 3Sg, 1Pl)

16 Conditional constructions

Conditional constructions consist of an antecedent clause (occasionally more than one) and a consequent clause. The realization or truth of the antecedent event entails the realization or truth of the consequent event. In a typical hypothetical conditional, the antecedent event is in the future or is otherwise uncertain, and the consequent event would follow the antecedent event in time. The other major type is the counterfactual conditional, where the antecedent event was not realized, but the speaker asserts that had it been realized it would have entailed the realization of the consequent event.

16.1 Hypothetical conditional with *mè* 'if'

mè 'if' is clause-final after an inflected verb. L-toned *mè* can trigger Rightward H-Movement in the verb. The antecedent denotes a possible future eventuality, but is aspectually perfective from the temporal perspective of the consequent event. The consequent clause has the form of an ordinary main clause, often imperfective or deontic (imperative, hortative). The two clauses need not have the same subject, and the verbs of both clauses have regular pronominal-subject marking.

16.1.1 Regular antecedent clause

Hypothetical conditional antecedents are in (xx1).

- (xx1) a. [sèn nò] dàbé-Ø mè, ?óji ñ ?ùnà
[holy.day Def] pass.Perf-3SgS if, road 1SgS go.Impf
'When the holy day has passed (= after the holy day), I will travel.'
- b. à-ñgù ñ tégé mè,
3Sg-Acc 1SgS see.Perf if,
tòndígè à-ñgú tà ñ tàbà
money 3Sg-Acc Rdp 1SgS give.Impf
'If I see him, I'll give him the money.'
- c. [ʔá:mádù ñgù] à tégé mè, dù:nù
[Amadou Acc] 2SgS see if, run.Imprt

'If you see Amadou, run!'

- d. *jí* *jâ:-ndì* *mè*, *wàlè* *kàni-ndà*
 food eat.meal-PerfNeg.3PIS if, work(n) do-ImpfNeg.3PIS
 'If they don't eat, they won't work.'

A positive perfective verb in the antecedent is somewhat similar in form to perfectives in nonsubject focus constructions (§13.1.1.5). In particular, 3Sg and 3Pl are usually distinguished by tone. However, monosyllabic verbs like 'eat (meal)' allow the full suffixed 3Pl form. If the verb is {L}-toned (1Pl, 2Pl, 3Sg for all verbs), or if its last two syllables are L-toned (as in the remaining forms of trisyllabic stems), the final syllable (or mora) is raised to H-tone. Paradigms of perfective positive verbs plus *mè* are in (xx2).

(xx2) category	'eat'	'slaughter'	'go back'
1Sg	<i>ɲ jé: mè</i>	<i>ɲ sélè mè</i>	<i>ɲ bíjilé mè</i>
1Pl	<i>ɲ jě: mè</i>	<i>ɲ sélé mè</i>	<i>ɲ bijilé mè</i>
2Sg	<i>à jé: mè</i>	<i>à sélè mè</i>	<i>à bíjilé mè</i>
2Pl	<i>á jě: mè</i>	<i>á sélé mè</i>	<i>á bijilé mè</i>
3Sg	<i>jě:-Ø mè</i>	<i>sélé-Ø mè</i>	<i>bijilé-Ø mè</i>
3Pl	<i>jù-yé mè</i>	<i>sélé-Ø mè</i>	<i>bijilé mè</i>

Perfective negative verbs plus *mè* are in (xx3). Perfective negative suffix *-li* becomes H-toned *-lí* in all 1Sg/2Sg forms, but the preceding syllable must be L-toned. The 1Pl, and 2Pl verbs (including suffix) are entirely {L}-toned. The 3Sg and 3Pl forms are the same as in main clauses, except that the suffixal syllable of the 3Pl is raised to H-tone before *mè*.

(xx3) category	'not eat'	'not slaughter'	'not go back'
1Sg	<i>ɲ jà:-lí mè</i>	<i>ɲ sèlà:-lí mè</i>	<i>ɲ bíjìlò:-lí mè</i>
1Pl	<i>ɲ jà:-li mè</i>	<i>ɲ sèlà:-li mè</i>	<i>ɲ bíjìlò:-li mè</i>
2Sg	<i>à jà:-lí mè</i>	<i>à sèlà:-lí mè</i>	<i>à bíjìlò:-lí mè</i>
2Pl	<i>á jà:-li mè</i>	<i>á sèlà:-li mè</i>	<i>á bíjìlò:-li mè</i>
3Sg	<i>jà:-li-Ø mè</i>	<i>sèlà:-li-Ø mè</i>	<i>bíjìlò:-li-Ø mè</i>
3Pl	<i>jâ:-ndì mè</i>	<i>sèlà:-ndí mè</i>	<i>bíjìlò:-ndí mè</i>

16.2 Alternative 'if' particles

16.2.1 'Even if ...' (*mè mpé*)

To indicate that the realization of the antecedent will not affect the consequent, the regular 'if' morpheme *mè* is expanded as *mè mpé* 'even if'.

- (xx1) [séydù ?égé-Ø mè mpé] jǎ:-lǎ-Ø
[Seydou come.Perf-3sgS if even] eat-ImpfNeg-3SgS
'Even if Seydou comes, he won't eat.'

16.3 Counterfactual conditional

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 informant 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' (xx1). The consequent clause does have the usual Dogon form for a counterfactual consequent clause, i.e. with a past imperfective verb.

- (xx1) [ʔáyà nǎ] ?égé-Ø,
[rain(n) Def] come.Perf-3SgS,
[ʔémè = lá mè] mà:-ná: ǐ biyá: mbè
[that.Def=it.is.not if] here-Loc 1PIS lie.down.Impf 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 *mbö: ndò* instead of the usual past morpheme *mbè. ndò* may be the instrumental or locative postposition but segmentation is not transparent. The consequent is in past imperfective form.

- (xx1) [sěwà.rě wá] ǐ dèngé mbö:ndò],
[Sevare 1PIS] 1PIS remain.Perf=Past if]
[mì-yá-ŋgù gè géwá: mbè]
[1PI-Acc Rdp kill.Impf.3PIS Pastkill.Perf-3PIS=Past]
'If we had stayed in Sevare, they would have killed us.'

An example with two negative clauses is (xx3).

- (xx3) *nà:-li-Ø* *wé* *mbö:ndò,*
 drink-PerfNeg-3SgS Past if,
 [*nâ:* *nò* *ngù*] *dònjò-lò* *wè*
 [Def woman Acc] bump-ImpfNeg-3SgS Past
 'If he hadn't drunk (=been drinking), he would not have collided with
 the cw.'

17 Complement and purposive clauses

17.1 Quotative complements

Logophoric pronouns and unconjugated quotative particles appear to be absent. Quotations are overtly marked by a 'say' verb, often *ʔúnè* (§11.3). The quoted clauses have some special features, such as a special jussive verb form replacing an original imperative (§17.1.4.1). There is no 'that' complementizer.

17.1.1 Direct versus indirect in quotative complements

Because Bunoge verbs mainly mark aspect rather than English-style tense, quoted clauses do not need to reset tense categories. There are also no logophoric pronouns. However, pronominal-person categories are reset to conform to the current speech event in the same manner as in English.

17.1.2 'Say that ...' with inflectable 'say' verb (*ʔúnè*)

The verb *ʔúnè* 'say' (§11.3) is illustrated in (xx1). It is phrased prosodically with the preceding quotation, which is usually (but not obligatorily) treated as focus. When it is focalized, the verb is in nonsubject focus form, e.g. {L}-toned 3Sg *ʔùnè-Ø* rather than the full form *ʔúnè-Ø*, and 3Pl *ʔúnè* rather than suffixed *ʔúní-yè*.

- (xx1) a. [*ʔémbè* *ɲ* *ʔégà*] *ɲ* *ʔúnè*
[Prog 1SgS come.Impf] 1SgS say
'I said I am coming.'
- b. [*ʔéydù* *ʔèmbé* *ʔégà-Ø*] *ɲ* *ʔúnè*
[Seydou Prog come-3SgS] 1SgS say.Perf
'I said that Seydou is coming.'
- c. [*ʔéydù* *ʔèmbé* *ʔégá-Ø*] *ʔùnè-Ø*
[Seydou Prog come-3SgS] say.Perf-3SgS
'He/She said that Seydou is coming.'
- d. [*bé:-gè* *nà*] [*ʔémbè* *ʔégà*] *ʔúnè*

[child-Pl Def] [Prog come] say.Perf.3PlS
 'The children said that they are coming.'

17.1.3 Quotative clitic absent

No unconjugated quotative clitic has been observed to date.

17.1.4 Jussive complement (reported imperative or hortative)

17.1.4.1 Quoted imperative (U-stem) and prohibitive (-ndà)

The jussive (abbreviation Juss) verb form, consisting of the U-stem (§10.8.3.1), is used to convert an original imperative to a quoted imperative (jussive). A further suffix *-yè* ~ *-yè* is often added when the subject (agent) of the imperative verb is treated as the (accusative) object of 'say', but the suffix is omitted when the jussive verb is conjugated within the quoted clause. The 'say' verb is in defocalized form, as in nonsubject focalized clauses, so the 3Sg subject form is {L}-toned *ʔùnè-Ø*, while the 3Pl form is unsuffixed {HL}-toned *ʔúnè*.

- (xx1) a. *mì-ŋgú* *ʔèbù-yè* *ʔùnè-Ø*
 1Sg-Acc sit.Juss-Juss say.Perf-3SgS
 'He/She told me to sit.'
- b. *mì-ŋgú* *ʔènnù-yè* *ʔúnè*
 1Sg-Acc sweep.Juss-Juss say.Perf.3PlS
 'They told me to sweep.'
- c. [*a-bâw*] *ò-ŋgú* *ʔèg-gé* *ʔùnè-Ø*
 [2SgP-father] 2Sg-Acc come-Juss say.Perf-3SgS
 'Your father told you-Sg to come.'
- d. *mì-ŋgú* [*bòmòkà á*] *gè:n-dé* *ʔùnè-Ø*
 1Sg-Acc [Bamako Loc] go-Juss say.Perf-3SgS
 'He/She told me to go to Bamako.'
- e. *mì-yá-ŋgù* *gó* *ʔù:-yé* *ʔùnè-Ø*
 1Sg-Pl-Acc water draw.water-Juss say.Perf-3SgS
 'He/She told us to draw water (at the well).'
- f. *mì-ŋgú* [*ʔàlámà nò*] *ŋgù* *sì:ndì-yé* *ʔùnè-Ø*
 1Sg-Acc [sheep Def Acc] convey-Juss say.Perf-3Sg

'He/She told me to take the sheep away.'

Quoted prohibitives (negative imperatives) contain the prohibitive verb form with *-ndá* (§10.7.1.2), plus pronominal-subject conjugation.

- (xx2) a. *[ɨ]* *ʔégà-ndá* *ʔùnè-Ø*
[1SgS come-Prohib] say.Perf-3SgS
'He/She told me not to come.'
- b. *[[à-bâw]* *à* *gè:ndà-ndá* *ʔùnè-Ø*
[[2SgP-father] 2SgS go-Prohib] say.Perf-3SgS
'Your-Sg father said for you-Sg not to go.'

17.1.4.2 Quoted hortative

Quoted hortatives were difficult to elicit. The example in (xx1a) has an imperfective-like but unreduplicated verb (A-stem) with 1Pl subject marking.

- (xx1) a. *[à-bâw]* *bɔ̃:* *ɨ* *gè:ndá* *ʔùnè-Ø*
[2SgP-father] together 1PlS go say.Perf-3SgS
'Your-Sg father said (to us), let's go together.'

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 3Pl can be distinguished from 3Sg subject by tones. The fuller forms may also be used. There is no complementizer, and I have observed no definite marking of the clause as a whole.

17.2.1 'Know that ...' complement clause

ʔèyⁿ 'know' takes a factive complement in the form of a regular indicative main clause. The 'know' predicate may precede or follow the factive complement.

- (xx1) a. *[séydù ?èyⁿ-Ø] [ì] ?égè]*
 [Seydou know-3SgS] [1SgS come.Perf]
 'Seydou knows that I have come.'
- b. *séydù [ì] ?égè] ?èyⁿ-Ø*
 Seydou [1SgS come.Perf] know-3SgS
 [= (a)]
- c. *[séydù ?èyⁿ-Ø] [à] ?égè-là]*
 [Seydou know-3SgS] [2SgS come-ImpfNeg]
 'Seydou knows that you-Sg are not coming.'
- d. *[ì] ?èyⁿ] [séydù ?égè-Ø]*
 [1Sg know] [Seydou come.Perf-3SgS]
 'I know that Seydou has come.'
- e. *[ì] ?èyⁿ] [bé:-gè nà] ?ég-gè]*
 [1Sg know] [child-Pl Def] come.Perf-3PIS]
 '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 (xx1).

- (xx1) a. *[ná: tùbbè] ì] tégè]*
 [cow fall.Perf] 1SgS see.Perf
 'I saw (the) cow fall.'
 (lit. "I saw (the) cow that fell.")
- b. *[ná: tùbbè-gè] ì] tégè]*
 [cow fall.Perf-Pl] 1SgS see.Perf
 'I saw (the) cows fall.'

17.2.2.2 Direct-perception imperfective complement (-wⁿ)

Imperfective examples denoting unbounded activities are in (xx2). Here the complement takes a conjugated verb with final -wⁿ. 3Sg and 3Pl subjects are distinguished by tone (xx2ab). A similar -wⁿ occurs in bare statives of perception verbs (§10.4.1.3) and in adjectival predicates in comparatives (§12.1.1). However, in the bare statives and adjectival predicates the 3Pl form is suffixal.

- (xx2) a. [bé:-gè yóbà-wⁿ] òj tégè
 [child-Pl dance.Impf.3PlS] 1SgS see.Perf
 'I saw (the) children dancing.'
- b. [bé: yóbà-wⁿ] òj tégè
 [child dance.Impf] 1SgS see.Perf
 'I saw (a/the) child dancing.'
- c. [â túbbà-wⁿ] tégè-Ø
 [2SgS fall.Impf] see.Perf-3Sgs
 'He/She saw you-Sg falling.'

17.2.2.3 Recognition (inference, hearsay) construction

In this construction, the perceiver recognizes or infers an event from indirect evidence. The verb in the complement has main-clause form.

- (xx1) a. òj tégà [dùmò-bá:ngà] à bílè]
 1SgS see.Stat [wealth-owner 2SgS become.Perf]
 'I see that you-Sg have become a rich person.'
- b. òj tégà [dùmò-bà:ngá-gè] bíl-yè]
 1SgS see.Stat [wealth-owner-Pl become.Perf-3PlS]
 'I see that they have become rich people.'

17.2.3 Main clause with tá'jára 'certainty'

Fulfulde loanword tá'jára 'certainty', with "j" representing preglottalized [d₃] 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 xx1a.. The proposition in question may denote a future eventuality, or a past-time eventuality whose factuality is at issue.

- (xx1) a. *tá'járà* [é *?ègà-Ø*]
 certainty [Rdp come.Impf-3SgS]
 'He/She will certainly (definitely) come.'
- b. [*tá'járà* *ɲ* *káni*] [é *?ègà-Ø*]
 [certainty 1SgS do.Perf] [Rdp come.Impf-3SgS]
 'I'm sure that he/she will come.'
- c. *tá'járà* [*kámgà* *káni-Ø*]
 certainty [stealing do.Perf-3SgS]
 '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. (xx1a) has an accusative object ('me'), while (xx1b) has a locational expression ('to Mopti').

- (xx1) a. [*sòjò-gè* *nà*] [*mì-ɲgú* *gèwó-nà*] *kâyⁿ-yà*
 [person-Pl Def] [1Sg-Acc kill-VbIN] want-3PIS
 'The people want to kill me.'
- b. [[*mòtí* *wà*] *gě:n-nà*] *ɲ* *kâyⁿ* *mbè*
 [[Mopti Loc] go-VbIN] 1SgS want Past
 'I wanted to go to Mopti.'

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-mì*) plus verbal-noun complement

The native Dogon verb *gáyá-mì* '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.

- (xx1) a. [*ʔáyà nò*] *mì-ŋgù gáyá-mì-Ø* *ʔègó-nà*
 [rain(n) Def] 1Sg-Acc prevent-Caus.Perf-3SgS come-VbIN
 'The rain prevented me from coming here.'
- b. [*púlù nò*] *mì-ŋgú gàyà-mà:-lì-Ø* *dòyó-nà*
 [noise Def] 1Sg-Acc prevent-Caus-PerfNeg-3SgS sleep-VbIN
 '(The) noise did not prevent me from sleeping.'
- c. [*ɨ bāw*] *mì-ŋgú hár kání-Ø*
 [1SgP father] 1Sg-Acc prevent do.Perf-3SgS
 [*bòmàká = à gě:n-nà*]
 [Bamako=Loc go-VbIN]
 'My father prevented me from going to Bamako.'

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 takes a verbal noun complement.

- (xx1) [*mà: ègó-nà*] *à ná:lè*
 [here come-VbIN] 2SgS think.Perf
 'You-Sg have dared to come here?'

17.3.4 'Consent' (*ʔábè*) plus verbal-noun or imperfective complement

ʔábè '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.

- (xx1) [*àmì:rù nò*] *ègó-nà ʔábè-Ø*
 [1PIS head-PI] come-VbIN accept.Perf-3SgS
 'Our chiefs agreed to come.'

If the subjects are different, the complement is a finite imperfective clause (without reduplication or iteration of the verb stem).

- (xx2) *àmì:rù* [*ɲ* *ʔégò*] *ábè-Ø*
 chief [1Sg come] accept.Perf-3SgS
 '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.

- (xx1) a. *gè:ndó-nà* *ɲ* *kâyⁿ*
 go-VblN 1SgS want
 'I want to go.'
- b. [*ná:* *sòwó-nà*] *ɲ* *kâyⁿ*
 [cow buy-VblN] 1SgS want
 'I want to buy a cow.'

When the subjects of the two clauses are disjoint, the complement has *nè* subordinator (§15.xxx).

- (xx2) a. [*ɲ* *bâw*] [*bòmðká=à* *ɲ* *gè:n* *né*]
 [1SgP^{HL} father] [Bamako=Loc 1SgS go.Perf and.then]
kâyⁿ-Ø
 want-3SgS
 'My father wants me to go to Bamako.'
- d. [*yóbù* *ɲ* *yòbè* *né*] *kâyⁿ-Ø*
 [dance(n) 1SgS dance.Perf and.then] want-3SgS
 'He/She wants me to dance'
 [1Pl *ɲ* *yòbè-nè*, 3Sg *yòbè-nè*]

17.3.6 'Forget' (*ʔálè*) plus verbal-noun complement

The verb 'forget (something)' is *ʔálè*. It is unrelated to *ʔéɲɲè* '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.

- (xx1) *ʔégó-nà* *ʔálè-Ø*
 come-VblN forget.Perf-3SgS
 'He/She forgot to come.'

When the complement is factive ('forget that ...'), it appears as a regular main-like clause.

- (xx2) a. *[ɨ ʔálè]* *[jáká à ʔégè]*
 [1SgS forget.Perf] [lo! 2SgS come.Perf]
 'I forgot (the fact) that you-Sg have come.'
- b. *[ɨ ʔálè]* *[tʰndígè ɨ sá:-ndà]*
 [1SgS forget.Perf] [money 1SgS 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.

- (xx1) *wá:jíbi bòmɔ́ká=à gè ɨ gè:ndà*
 obligation Bamako=Loc Rdp 1SgS go.Impf
 'I have to go to Bamako.'

17.3.8 'Be afraid to' (*dí:wè*) with verbal-noun or imperfective complement

The verb 'be afraid of, fear (sth)' is perfective *dí:wè*, perfective negative *díwá:-li*. Unlike many *Cvww* stems, it does not lengthen its first vowel in the perfective or imperfective positive (§3.xxx, §10.xxx).

This verb may have a NP object (xx1).

- (xx1) *[námgà nɔ́ ngù] ɨ dí:wè*
 [snake Def Acc] 1SgS fear.Perf
 'I was afraid of the snake.'

If the complement is a clause with the same subject, in the sense 'X be afraid to VP', we get a verbal-noun complement (xx2).

- (xx2) *[bòmɔ́ká=à gè:n-nà] ɨ dí:wè*
 [Bamako=Loc go-VblN 1SgS fear.Perf]
 'I am afraid to go to Bamako.'

If the feared eventuality has a different subject, the complement is a regular imperfective clause. In (xx3), the initial 'I am afraid' has no effect on the main proposition.

- (xx3) *[ɨ́ dí:wè]* *[[ɨ́ bāw]* *mì-ŋgú* *nù* *nùmbà-∅*
 [1SgS fear.Perf] [1SgP father] 1Sg-Acc Rdp hit.Impf-3SgS
 'I'm afraid that my father might hit me.'

17.3.9 'Begin' (*dógúlè*) with verbal-noun complement

dógúlè 'begin' can take a NP complement.

- (xx1) *[wàlè nò]* *ɨ́* *dógúlè*
 [work(n) Def] 1SgS begin.Perf
 '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.

- (xx2) a. *[wàlè kǎn-nà]* *dógúlè-∅*
 [work(n) do-VbIN] begin.Perf-3SgS
 'He/She began to (perform) work.'
- b. *dú:n-nà* *dógúlè-∅*
 run-VbIN begin.Perf-3SgS
 'He/She began to run.'
- c. *pò pǒ:-nà* *dógúlè-∅*
 weeping weep-VbIN begin.Perf-3SgS
 'He/She began to run / to weep.'
- d. *[[ʔàlámà nò]* *sèlɔ-nà]* *dógúlè-∅*
 [[sheep Def] slaughter-VbIN] begin.Perf-3SgS
 'He/She began to slaughter the sheep-Sg.'

17.3.10 'Sop' (*ɨ́j-jè*) with verbal-noun complement

In the context of motion, 'stop' can be expressed by *ɨ́j-jè* 'stop, stand'. In (xx3) it combines with a verbal noun complement.

- (xx3) *dù:nú-nà* *ɨ́j-jè-∅*

run-VbIN stop-MP.Perf-3SgS
 'He/She stopped running.'

17.3.11 'Help' (*bánnè*) with verbal-noun complement

As a simple transitive with NP object, 'help' is *bánnè*.

(xx1) *mì-ηγù* *bánnè-∅*
 1Sg-Acc help.Perf-3SgS
 '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 (xx2).

(xx2) *bì-yé-nà* *mì-ηγù* *bánnè-∅*
 lie.down-MP-VbIN 1Sg-Acc help.Perf-3SgS
 'He/She helped me to lie down.'

17.3.12 'Cease' (*méηè*) with verbal-noun complement

The verb *méηè* has a primary sense 'leave (sth), leave alone, abandon', with a NP object.

(xx1) [*η*] *bóndà* *nò*] [*bilà* *mbà*] *η* *méηè*
 [1SgP shoulderbag Def] [field Loc] 1SgS leave.Perf
 'I left the shoulderbag in the field.'

méηè can also take a verbal noun complement. The cessation may be definitive ('I have stopped/given up smoking') or situational ('the band stopped playing').

(xx1) a. [*námà* *témó-nà*] *méηè-∅*
 [meat eat.meat-VbIN] leave.Perf-3SgS
 'He/She stopped (ceased) eating meat'

b. [*núηò* *nùηó-nà*] *méηè-∅*
 [song sing-VbIN] leave.Perf-3SgS
 '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' (*pùllè*) with chained perfective

The verb 'finish, complete (an activity)' is *pùllè*. A simple NP complement is possible (xx1).

- (xx1) *pànáŋgè* *pùllè-Ø*
 meal finish.Perf-3SgS
 'He finished the meal.'

A clausal complement used with *pùllè* is not a verbal noun complement like that for *dóguùlè* 'begin' (preceding section). Rather, the complement verb appears in the E/I-stem (cf. the 3Sg subject perfective positive). Both verbs are conjugated for pronominal person, and 3Sg is distinguished from 3Pl by initial tone rather than by suffixation in the first verb. The construction is therefore that of chained perfectives (§15.1). For example, 'finished eating' is expressed as 'ate (and) finished'.

- (xx2) a. *jè:-Ø* *pùllè-Ø*
 eat.meal.Perf-3SgS finish.Perf-3SgS
 'He/She finished eating.'
- b. *bé:-gè* *jè:* *pùllí-yè*
 child-Pl eat.meal.Perf-3PlS finish.Perf-3PlS
 'The children finished eating.'
- c. *[j̃]* *jé:]* *[j̃]* *pùllé* *nè]*
 [1SgS eat.meal] [1SgS finish.Perf and.then]
 'I will finish eating.'
- d. *[wàlè* *kàni-Ø]* *pùllè-Ø*
 [work(n) do.Perf-3SgS] finish.Perf-3SgS
 'He/She finished working'
- e. *jènnè-Ø* *pùllè-Ø*
 sweep.Perf-3SgS finish.Perf-3SgS
 '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 purposive eventuality.

Causal clauses ('because') are generally retrospective: 'we went into the house because the rain had started'.

17.5.1 Purposive clause with final *â:* and {L}-toned noun 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 (xx1a-b). Rightward H-Movement is frequent in indefinite object NPs before the purposive verb.

- (xx1) a. *[[núŋgù nɔ̃ tɛ̀bà-gâ:]*
 [[waterjar Def] smash-Caus.**Purp**]
ʔégé-Ø sà-Ø
 come.Perf-3SgS Ppl.Perf
 'He/She came to smash the waterjar [focus].' (*núŋgù*)
- b. *[[ŋ núnŋgù nɔ̃ dùgâ:]*
 [[1SgP waterjar Def] take.**Purp**]
ʔégé-Ø sà-Ø
 come.Perf-3SgS Ppl.Perf
 'He/She came to take my waterjar [focus]'.
- c. *[yòbú yòbâ:] ʔég-gè*
 [dance(n) dance.Purp] come.Perf-3PlS
 'They came to dance.' (*yòbù, yóbè*)
- d. *[dòròŋgé dòyâ:] ʔégé-Ø*
 [sleep(n) sleep.Purp] come.Perf-3SgS
 'He/She came to sleep.' (*dóróŋgè, dó:yè*)
- e. *[gèní òmò-ŋgâ:] gó:ŋgè-Ø*
 [fire fire.go.out-Caus.Purp] go.out.Perf-3SgS
 'He/She went out in order to put out the fire.'
- f. *[ʔòbò / ʔàllà / nà:lí / ʔàlámá / kíló / ná: sòwâ:]*

[house / pig / cat / sheep / goat / cowbuy.Purp]
ʔègè-Ø *sà-Ø*
 come.Perf-3SgS Ppl.Perf
 'He/She came in order to buy a house/pig/cat/sheep/goat/cow.'
 (*ʔòbò, ʔàllà, ʔá:lì, ʔàláamá, kíló, ná*)

Examples with monosyllabic verb are in (xx2).

- (xx1) a. [*sómbúlò* *jâ:]* *ɲ* *gé:ndà*
 [millet.cake eat.meal.Purp] 1SgS go.Impf
 'I'm going (there) to eat millet cakes [focus].'
 (*sómbúlò*)
- b. [*gô:* *ɲâ:]* *gé:ndè-Ø*
 [water draw.water.Purp] go.Perf-3SgS
 'He went to draw water [focus].'
 (*gô*)
- c. [*pànàngé* *jâ:]* *ʔégè-Ø / ʔég-gè*
 [meal eat.Purp] come.Perf-3SgS / -3PIS
 'He-or-she/They came to eat.'

17.5.2 Different-subject purposive clauses with *bànà*

bànà appears in different-subject purposive clauses. The main verb is imperfective, and *bànà* 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.

- (xx1) a. [*mòtó-nà* *nò]* *mì-ɲgù* *tábè-Ø]*
 [motorcycle-3SgP Def] 1Sg-Acc give.Perf-3SgS
 [*sángà=à* *bànà* *ɲ* *gé:ndà]*
 [Sangou=Loc Purp 1SgS go.Impf]
 'He gave me his motorcycle so that I (might) go to Sangou.'
- b. [*bármà* *àyá-ɲgù* *ɲ* *tábè]*
 [pot 3Pl-Acc 1SgS give.Perf]
 [*jí:* *bànà* *bálà]*
 [meal Purp cook-3Pl]
 'I gave them a pot, so they could cook meals.'
- c. [*bármà* *à-ɲgù* *ɲ* *tábè]*
 [pot 3Pl-Acc 1SgS give.Perf]
 [*jí:* *báná* *bàlà-Ø]*

[meal Purp cook-3Sg]
 'I gave him/her a pot, so he/she (might) cook meals.'

The paradigm of *bànà* plus 'cook' is (xx2). The 3Sg form *bàná* reflects Final Tone-Raising before the 3Sg verb.

(xx1)	1Sg	<i>bánà</i>	<i>ɲ</i>	<i>bálà</i>
	1Pl	<i>bànà</i>	<i>ɲ</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-Ø</i>
	3Pl	<i>bánà</i>		<i>bálà</i>

17.5.3 Causal ('because') clause (*sàbì* ~ *sàbù*)

Clause-initial *sàbì* (variant *sàbù*) means 'because'. It is a form of a regionally widespread 'because' form ultimately from Arabic.

(xx1)	<i>sáŋgà = à</i>	<i>ɲ</i>	<i>gè:ndò-mà-ndà,</i>
	Sangou=Loc	1Pl	Epen-go-Capac-StatNeg
	<i>sàbì</i>	<i>[óji nò]</i>	<i>ɲámí: bò-Ø,</i>
	because	[road Def]	ruined be-3SgS

'We can't go to Sangou because the road is no good.'

18 Anaphora

Anaphora 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. (xx1ab) are reflexive, (xx1c) is nonreflexive.

- (xx1) a. *[ɨ̃ kò: ɲgù] ɨ̃ númbè*
 [1SgP head Acc] 1SgS hit.Perf
 'I hit-Past myself.'
- b. *[kò:-nà ɲgù] númbè-∅*
 [head-3SgP Acc] hit.Perf-3SgS
 'He_x hit himself_x.' or 'She_x hit herself_x.'
- c. *à-ɲgù númbè-∅*
 3Sg-Acc hit.Perf-3SgS
 '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.

- (xx1) a. *[ɨ̃ ?álamà ɲgù] ɨ̃ só:-lè*
 [1SgP sheep Acc] 1SgS buy-Rev.Perf
 'I sold my sheep-Sg.'

- b. *séydù* [*ʔàlà-má-nà* *ngù*] *só:-lè-Ø*
 Seydou [sheep-3SgP Acc] buy-Rev.Perf-3SgS
 'Seydou_x sold his_x/his_y/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.

- (xx1) a. *[[ɨ́ kó:] ndò]* *ɨ́ símì*
 [[1SgP head] Inst] 1SgS build.Perf
 'I built (it) myself.'
- b. *[kò:-nà ndó]* *sìmì-Ø*
 [head-3SgP Inst] build.Perf-3SgS
 'He built (it) himself.'
- c. *[[âɨ́ kó:] ndò]* *sìmì-Ø*
 [[3PIP head] Inst] build.Perf-3SgS
 'They built (it) themselves.'

18.3 Logophoric and indexing pronouns

18.3.1 Logophorics absent

Elicitation has not produced logophoric constructions, where a third person pronoun inside a quoted segment is coindexed with the attributed author of the quotation ('he_x said that he_x is coming'). In (xx1a), the verb 'come' has its regular form (allowing for the tonal effect of the 'say' verb). In (xx1b), the usual 3Sg accusative form is used for the object of 'see', regardless of whether or not it is coindexed with Seydou.

- (xx1) a. *séydù* [*ʔèmbé* *ʔégá]* *ʔùnè-Ø*
 Seydou [Prog come] say.Perf-3SgS
 'Seydou_x said he_x is coming.'
- b. *séydù* [*ʔfà mbà]* *à-ngù* *à tégé]* *ʔùnè-Ø*
 Seydou [[market Loc] 3Sg-Acc 2SgS see.Perf] say.Perf-3SgS
 'Seydou_x said that you-Sg saw him_x/him_y/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 (*kónì*)

The topic particle *kónì* 'as for' follows the relevant NP or pronoun. It is generally preclausal.

- (xx1) *[mì kónì] ñ gě:l-lò*
[1Sg Topic] 1SgS go-ImpfNeg
'As for me, I'm not going.' (*gě:ndè*)

Independent pronouns are L-toned (1Sg *mì*, 2Sg *ò*) or have rising tone melodies (1Pl *mì-yá*, 2Pl *ò-yá*, 3Sg *ǎwⁿ*, 3Pl *à-yⁿá*). The latter drop to {L}-tone before *kónì*, as in *mì-yà kónì* 'as for us'. Other NPs with phonologically induced final H-tone likewise drop: *sàgàllà nɔ* 'the young man', *sàgàllà nò kónì* 'as for the young man'. However, other NPs containing H-tones retain these tones: *ñ bàw kónì* 'as for my father', *séydù kónì* 'as for Seydou'.

19.1.2 'Also' (*pé*)

pé 'also, too' follows the constituent it has scope over, which may be a nonpredicative constituent such as a NP, or the entire clause.

- (xx1) a. *mì / mì-yá pé*
1Sg / 1Pl too
'me/us too'
- b. *núḡò ?èmbé nùḡà pé*
song then sing.Impf-3SgS too
'He/She sings too (e.g. in addition to dancing).'

19.1.3 'Even' (X *fě*)

'Even X' can be expressed in several ways. The best equivalent is *fě* following the emphasized constituent. More emphatic phrase-initial particles *fǎ:* and *hál*, both meaning roughly 'as far as, all the way to', can also be used.

- (xx1) a. *[fǎ: bɛ:] ?ɔllɔ-mò-∅*
 [even child] go.up-Capac-3SgS
 'Even a child can go up (=climb).'
- b. *[hál bɛ:-ná-ŋgɛ fɛ] nù nùmbà*
 [as.far.as child-3SgP-Pl even] Red hit-Impf-3SgS
 '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-initially or clause-finally, with scope over the entire predicate.

- (xx2) a. *fě mɪ-ŋgú tiyà-mà:-li-∅*
 even 1Sg-Acc greet-Caus-PerfNeg-3SgS
 'He/She didn't even say hello.'
- b. *mɪ-ŋgú tiyà-mà:-li-∅ fě*
 1Sg-Acc greet-Caus-PerfNeg-3SgS even
 [= (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.

- (xx1) *?égè-∅ [kà: jà:-li-∅]*
 come.Perf-3SgS [but eat.meal-PerfNeg-3SgS]
 'He/She came but didn't eat.'

19.3 Pragmatic adverbs or equivalents

19.3.1 'Again' (*kásìn*)

kásìn 'again' (< Fulfulde) is exemplified in (xx1).

- (xx1) *[mó nò] tàgá-ndà kásìn*
[Dem Def] speak-Prohib again
'Don't-2Sg say that again!'

19.4 'Only' particles

19.4.1 'Only X' (X *tó:lè*)

'Only X' with some NP (or noun-like adverb) X, is expressed by possessed forms of the numeral *tó:lè* '1' (§4.7.1). Pronominal examples are in (xx1).

- (xx1) 1Sg *ñ tò:lè* 'only me'
1Pl *ñ 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 *añ tò:lè* 'only them'

Nonpronominal NPs are illustrated in (xx2).

- (xx1) a. *nòló-gè nò tò:lè*
man-Pl Def one
'only the men'

b. *?òbó báy nò tò:lè*
'house big Def one
'only the big house'

When 'only' effectively has scope over an entire VP or clause, it is normally grouped syntactically with a NP (or adverbial) constituent. In (xx2), for example, the cognate nominal 'sleep' rather than the verb is followed by *tó:lè*.

- (xx2) *[wàlè kál-lò] [[dòròngé tò:lè] dò:yà-Ø]*
[work(n) do-ImpfNeg-3SgS] [sleep(n) only] sleep.Impf-3SgS

'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 *kó ~ kóy* 'exactly' (confirming)

Clause-final *kó ~ kóy* is a confirmational emphatic, either answering a polar interrogative or confirming a statement by an interlocutor.

(xx1) *jùngá* *bò-Ø* *kóy*
hot be-3SgS Emph
'It sure is hot!'

19.5.2 Clause-final *dè* (admonitive)

dè is used after imperatives and statements with a warning note. For example, (xx1) might be used to warn someone not to pick up a hot object.

(xx1) *jùngá* *bò-Ø* *dè*
hot be-3SgS 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 (xx1). *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 *íj dá:yè* 'we spent the night' and *á dá:yè* 'you-Pl spent the night'. *nà* in *nà íj dá: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'.

(xx1) A: *káná yà* 'Good morning!'

- B: *nà ɲ dǎ:yè* 'We spent the night (well).
[èlà ndò] á dǎ:yè 'Did you-Pl spend the night (well)?'

In the afternoon and evening, the sequence is (xx2). *tíyà yà* (with *yà* 'and') is related to *tíyá-mì* 'greet'.

- (xx2) A: *tíyà yà* 'Good afternoon/evening!'

- B: *ɔ→ ná: dènè* 'We spent the day (well).
[èlà 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 (xx3) can be uttered to someone seen working in a field or at a worksite.

- (xx3) 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 (xx4).

- (xx4) *[èlà ndò] à dínù*
 [well.being Inst] 2SgS arrive.3Hort
 'May you-Sg arrive in well-being!'

On the two main Muslim holy days and at ceremonies like weddings, villagers greet each other with wishes like (xx5).

- (xx5) *bül-gènà tégò-mù*
 next.year see-Caus.3Hort
 'May (God) show (you/us) next year!'

20 Text

Brief information about circumstances of recording (informants and living non-celebrity persons mentioned in the text remain anonymous, use e.g. A, B, ... as labels). Use tabs to align text with interlinear glosses. Organize the text into small units that seem to function roughly like small paragraphs (perhaps including several clauses). Use hyphens and clitic boundary = in interlinears to correspond to the same markers in the text. Use brackets [...] in both the Dogon text and the interlinear to indicate phrasal groupings. Foreign (e.g. French, Bambara) items should be non-italic if the Dogon text is italicized. In addition to interlinear glosses, add free translations for each segment, followed by italicized comments in [...]. These comments should identify constructions or other grammatical features, and give a reference to a section of the grammar describing them.

Tales may involve segments that are sung by a protagonist. The songs may be in another language.

Format below shows use of italics (Dogon text, and comments following free translation). If speaker X continues uninterrupted, no need to put "X: ..." at beginning of each segment.

(xx1) X: *ηηη...*
xxx [analysis, if intelligible]
Y: *ηηη...*
xxx [analysis, if intelligible]

[formulaic story-opening phrase and audience response authorizing story to proceed, often unintelligible or partially so, sometimes borrowed from another language]

(xx2) X: *ηηη...*
[hare and hyena and] [day.labor.L-work in] go.Perf.L-3PIS,
ηηη...
[ReflPl two] [day.labor.L-work in] go and.SS,
ηηη...
[wage.L-work in] [3Pl Obj] receive.Perf-3PIS
ηηη...
apiary build-Impf-3PIS

'Hare and hyena went to (get) day-labor work. The two of them went to (get) paid work, and they (= people) took them in paid work. They were going to build apiaries (man-made beehives).'

[*X yo Y yo 'X and Y' §7.1; topic-indexing Reflexive Plural §18.2.2; -ηηη 'and.SS' subordinator in same-subject VP chains §15.2.5*]

...

- (xx9) ηηη...
[story submerged] [finish(noun) submerged] Emph
'That's it'
[*story-closing formula*]

Index

model for index, from Jamsay grammar (additions/comments in pink). Jamsay forms (to be replaced) are here colored dark yellow. References should ultimately be to pages, but while drafting the grammar section references like §6.2.1 are all that one can do.

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Adj-Num Inversion

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sample verb paradigms (not for publication)

This section, to be deleted when no longer necessary can be used to assemble simple paradigms of verbs and their "principal parts"; the data can then be reassembled in Chapter 10, *Inflectional Verbal Morphology*. To quickly locate this section, avoid using the word "sample" elsewhere in the grammar. Do not include stative-only quasi-verbs ('be [somewhere]', 'have', 'want', 'know', etc.) here. Also omit adjectival inchoatives ('be red'), reversives ('unhook'), causatives ('make drink'), and other sets that can be directly elicited in the relevant grammar sections (Chapter 9).

Inflectional categories can be relabeled or added, e.g. Progr[essive], Fut[uture], if they are not predictable from the basic forms shown. The "bare" form is the one used in nonfinal position in chains, often elicitable in 'X can VERB' construction. Imprt = imperative. If the verb is normally accompanied by a fixed nominal in the sense indicated, this can be indicated by a comment below the paradigm.

Copy and paste the two-line formula below, then fill in the forms for each verb. Some glosses are already suggested. Re-organize by verb stem shape: Cv, Cv.; CvC, CvCv, CvCCv, Cv:Cv, etc. For CvCv stems, it may be useful to subdivide by medial consonant (especially sonorants). If the language distinguishes a (nonmonosyllabic) class whose bare stem ends in a high vowel (e.g. i) from another whose bare stem ends in a non-high vowel, separate them as well. Separate special morphological classes (Mediopassive, Causative, etc.) from others. The two-line segment with 'xxx' for the gloss can be copied and pasted as many times as wished below.

'gloss'	Imprt	Impf	ImpfNeg	
bare	Perf	PerfNeg	VblN	
'xxx'	ḡḡḡ	ḡḡḡ	ḡḡḡ	
	ḡḡḡ	ḡḡḡ		ḡḡḡ

MONOSYLLABIC

'go in'	dà	dù dà:	dǎ:-lǎ	
	dò:ḡgò			
dǎ:-mò	dē:	dá:-lì		ḡḡḡ
	dǎ:ḡgè			

[homonym of 'insult' and 'pound']

'insult'	dà	dù dà:	dǎ:-lǎ	
dǎ:-mò	dē:	dá:-lì		ḡḡḡ

[homonym of 'go in' and 'pound', distinguished by transitivity]

'pound' dà dù dà: dɔ̃:-lɔ̃
dɔ̃:-mò dɛ̃: dá:-li ɲɲɲ
['pound with pestle in mortar', with noun dɔ̃:ɲɛ̀, otherwise homonym of 'go in'
and 'insult']

'eat (meal)' jà jù jà: jɔ̃:-lɔ̃
jɔ̃:-mò jɛ̃: já:-li ɲɲɲ
[used with noun pànáɲɛ̀ 'meal' or jí 'food']
à já:-yá 'will you go eat?'

'drink' nà nù nà: nɔ̃:-lɔ̃
nɔ̃:-mò nɛ̃: ná:-li ɲɲɲ

'draw water' ɲù ɲù ɲà: ɲũ:-lɔ̃
ɲũ:-mò ɲĩ: ɲó:-li ɲɲɲ
[Fr puiser]

'rain fall' ɲù ɲù ɲà: ɲũ:-lɔ̃
ɲũ:-mò ɲĩ: ɲó:-li ɲɲɲ
[with noun ʔáyà]

mixed Cv:, CvCCv

'go out' gòndò gò gòndà gòndó-lɔ̃
gò gò gò:ɲgà gò:-lɔ̃
gò:~mò gòɲgò (gòɲgà-y")
 gá ('be from')

 gɛ̃: gó:-li ɲɲɲ
 gũ:ndè gú:ndó:-li
 gò:ɲɛ̀

cf. causative gòɲgò 'take out'

CvCv

'pay (sb)' sòjà sò sòjà sòjɔ̃:-lɔ̃
sòjɔ̃:-mò sòjɛ̃ sòjá:-li ɲɲɲ
[homonym of 'tie']

'tie' sòjà sò sòjà sòjɔ̃:-lɔ̃
sòjɔ̃:-mò sòjɛ̃ sòjá:-li ɲɲɲ
[homonym of 'pay']

'step on'	tòḡà	tò tòḡà	tòḡà-lò	
	tòḡà-mò	tòḡà	tòḡá:-lì	ḡḡḡ
	[Fr marcher sur]			
'forget'	?àlà	?à ?àlà	?àlò-lò	
	?àlò-mò	?álè	?álá:-lì	ḡḡḡ
'add'	bàrà	bà bàrà	bàró-lò	
	bàró-mò	bárè	bárá:-lì	ḡḡḡ
	[Fr augmenter]			
'butcher'	?òrà	ò ?òrà	?òró-lò	
	?òró-mò	?óré	?órá:-lì	ḡḡḡ
	[skin and butcher (a slaughtered animal)', Fr dépouiller]			
'lay out'	bàbà	bà bàbà	bàbó-lò	
	bàbó-mò	bábè	bábá:-lì	ḡḡḡ
	['lay out mat/mattress'; Fr étaler]			
'say I'	ḡḡḡ	ḡḡḡ	ḡḡḡ	
	?ùnó-mò	?únè	?úná:-lì	ḡḡḡ
	[defective]			
'touch'	nàrà	nà nàrà	nàró-lò	
	nàró-mò	nárè	nárá:-lì	ḡḡḡ
'dance'	yòbà	yò yòbà	yòbó-lò	
	yòbó-mò	yóbè	yóbá:-lì	ḡḡḡ
	[used with noun yóbù 'dance']			
'catch'	dèbà	dè dèbà	dèbó-lò	
	dèbó-mò	débè	déba:-lì	ḡḡḡ
'abandon'	mèḡà	mè mèḡà	mèḡó-lò	
	mèḡó-mò	méḡè	méḡá:-lì	ḡḡḡ
'accept'	?àbà	?à ?àbà	?àbó-lò	
	?àbó-mò	?ábè	?ábá:-lì	ḡḡḡ
'come'	?èḡò	?è ?èḡà	?èḡó-lò	
	?èḡó-mò	?éḡè	?éḡó:-lì	ḡḡḡ

'give'	tàbù	tà tàbà	tàbó-lò	
tàbó-mò	tábè	tábá:-li		ḡḡḡ
'go down'	siḡò	si siḡà	siḡó-lò	
siḡó-mò	siḡè	siḡó:-li		ḡḡḡ
'see'	ḡḡḡ	tè tèḡà	tèḡó-lò	
tèḡó-mò	téḡè	téḡó:-li		ḡḡḡ
'speak'	tàḡà	tà tàḡà	tàḡó-lò	
tàḡó-mò	táḡè	táḡá:-li		ḡḡḡ
'reply'	kijà	kì kijà	kijó-lò	
kijó-mò	kíjè	kíjá:-li		ḡḡḡ
'eat (meat)'	tèmà	tè tèmà	tèmó-lò	
tèmó-mò	témè	témá:-li		ḡḡḡ
'slaughter'	sèlà	sè sèlà	sèló-lò	
sèló-mò	sélè	sélá:-li		ḡḡḡ
<i>['cut the neck of, Fr égorger]</i>				
'give birth'	nàlà	nà nàlà	nàló-lò	
nàló-mò	nálè	nálá:-li		ḡḡḡ
<i>[Fr accoucher]</i>				
'dig'	gòjà	gò gòjà	gòjó-lò	
gòjó-mò	gójè	gójá:-li		ḡḡḡ
'sing'	nùḡà	nù nùḡà	nùḡó-lò	
nùḡó-mò	núḡè	núḡá:-li		ḡḡḡ
<i>[used with noun núḡò 'song']</i>				
'shut (door)'	dèḡà	dè dèḡà	dèḡó-lò	
dèḡó-mò	déḡè	déḡá:-li		ḡḡḡ
'bump'	gàḡò	gà gàḡà	gàḡó-lò	
gàḡó-mò	gágè	gágá:-li		ḡḡḡ
<i>[Fr cogner]</i>				
'do farming'	wàlà	wà wàlà	wàló-lò	

wàló-mò wálè wálá:-lì ɲɲɲ
 [Fr cultiver, refers focally to weeding in July, with noun wól]

'beat' bàlà bà bàlà bàló-lò
 bàló-mò bálè bálá:-lì ɲɲɲ
 ['beat/play (tomtom)', with noun bóllè]
 ['clap hands' with noun tēbè]
 ['cook a meal' with noun pánáŋgè]

CvCv, perfective CvCi

penult high vowel
 'build' simù sìmà sìmú-lò
 sìm-mò símì símó:-lì ɲɲɲ
 'wring' pìnù pì pìnà pìnú-lò
 pìnú-mò pínì pínó:-lì ɲɲɲ
 'hold self up' ɲɲɲ ɲɲɲ ɲɲɲ
 ɲɲɲ tíŋì ɲɲɲ ɲɲɲ

penult a
 'do' kànà kà-kànà kál-lò
 kànú-mò kání káná:-lì ɲɲɲ
 'malfunction' --- ɲà-ɲàmà ɲàmú-lò
 ɲàmú-mò ɲámì ɲámá:-lì ɲɲɲ

CvCv ~ Cv:Cv

Cvyv
 'sleep' dòyò dò dǒ:yà dòyó-lò
 dòyó-mò dó:yè dóyó:-lì ɲɲɲ
 'kill' gè:wà gè gě:wà gèwó-lò
 gèwó-mò gé:wè géwá:-lì ɲɲɲ
 'harvest' gìwò gì gí:wà gìwó-lò
 gìwó-mò gí:wè gíwó:-lì ɲɲɲ
 ['harvest (millet) by cutting off seed spike', with noun gíwò]

'die' dò:wà dò dǒ:wà dòwǒ-lǎ
 dòwǒ-mò dǒ:wè dǒwá:-li ηηη

'buy' sò:wà sò sǒ:wà sòwǒ-lǎ
 sòwǒ-mò sǒ:wè sǒwá:-li ηηη

'sow (seeds)' tò:wà tò tǒ:wà tòwǒ-lǎ
 tòwǒ-mò tǒ:wè tǒwá:-li ηηη
 [Fr *semer*, with noun *tôw*]

'bathe' dù-yyà dù dǔ-yyà dù-yǒ-lǎ
 dù-yǒ-mò dǔ-yyè dúyá:-li ηηη
 [used with noun *gǒ* 'water', Fr *se laver*; homonym of 'carry on head']

'carry1' dù-yyà dù dǔ-yyà dù-yǒ-lǎ
 dù-yǒ-mò dǔ-yyè dúyá:-li ηηη
 ['carry (load) on one's head'; homonym of 'bathe']

'lie down' bì:-yò bì bǐ:-yà bì-yǒ-lǎ
 bì-yǒ-mò bǐ:-yè bǐyó:-li ηηη
 [Fr *se coucher*]
 [stative *bìyá-bìyá* 'be lying down', Fr. *être couché*]

Cvlv, unlengthened in PerfNeg

'get, obtain' ηηη bè bě:là bě-lǎ
 bèlǎ-mò bě:lè bélá:-li ηηη

Cvww

'send' tì:wà tì tǐ:wà tìwǒ-lǎ
 tìwǒ-mò tǐ:wè tǐwá:-li ηηη
 [with noun *tíw*]

'fear' ηηη dì dǐ:wà ηηη
 ηηη dǐ:wè dǐwá:-li ηηη

Cv:Cv

'say 2' tà:yà tà tǎ:yà tà-yó-lǎ
 tà-yó-mò tǎ:yè tǎyá:-li ηηη

'look' tɛːjò tɛːjə tɛːjə tɛːjò-lə ɲɲɲ
tɛːjò-mò tɛːjè tɛːjòː-li

'winnow1' pò:lò pò pò:là pò:lò-lə ɲɲɲ
pò:lò-mò pò:lè pò:lòː-li
['winnow in wind', Fr. vanner au vent, with noun pòlligè]

'shave' kà:yà kà kǎ:yà kà:yò-lə ɲɲɲ
kà:yò-mò ká:yè ká:yáː-li

'gather' bà:là bà bǎ:là bà:lò-lə ɲɲɲ
bà:lò-mò bá:lè bá:láː-li

final high vowel

'run' dù:nù dù:nù dù:nú-lə ɲɲɲ
dù:nú-mò dú:nì dú:nóː-li

'call' ɲà:ɲá:ɲà ɲà:ɲá-lə ɲɲɲ
ɲà:ɲá-mò ɲá:ɲì ɲá:ɲáː-li

CvCCv treated as prosodically heavy

'get up' ʔò ʔòllò ʔò ʔòllà ʔòllò-lə ɲɲɲ
ʔòllò-mò ʔóllè ʔóllóː-li

'remember' ʔè ʔèɲɲà ʔè ʔèɲɲà ʔèɲɲó-lə ɲɲɲ
ʔèɲɲó-mò ʔéɲɲè ʔéɲɲáː-li

'go up' ʔòllà ʔò ʔòllà ʔòllá-lə ɲɲɲ
ʔòllá-mò ʔóllè ʔólláː-li

'arrive' di dǐnnà dǐnnó-lə ɲɲɲ
dǐnnó-mò dǐnnè dǐnnáː-li

'sweep' ɲènnà ɲè ɲènnà ɲènnó-lə ɲɲɲ
ɲènnó-mò ɲénnè ɲénnáː-li
[Fr balayer]

'dispossess' bèllà bè bèllà bèlló-lə ɲɲɲ
bèlló-mò béllè bélláː-li
['take (sth) away from (sb)', Fr retirer qch à qn]

'keep' (?) dillò dì dǐllà dilló-lò
 dǐlló-mò dǐllè dǐlló:-lì ɲɲɲ
 [e.g. 'hold a stick', Fr tenir]

'fall' tǔbbà tǔ tǔbbà tǔbbó-lò
 tǔbbó-mò tǔbbè tǔbbá:-lì ɲɲɲ

'fly (away)' pillò pì pǐllà pilló-lò
 pilló-mò pǐlle pǐlló:-lì ɲɲɲ

'do well' kàn-dà kà kǎn-dà kàn-dó-lò
 kàn-dó-mò kán-dè kán-dá:-lì ɲɲɲ

'throw' dǒngà dò dǒngà dǒngó-lò
 dǒngó-mò dǒngè dǒngá:-lì ɲɲɲ

'carry2' bàmbà bà bǎmbà bàmbó-lò
 bàmbó-mò bǎmbè bǎmbá:-lì ɲɲɲ
 ['carry (baby) on one's back']

'hang up' jǎngà jà jǎngà jǎngó-lò
 jǎngó-mò jǎngè jǎngá:-lì ɲɲɲ
 [Fr accrocher]

'jump' tǒmbò tò tǒmbà tǒmbó-lò
 tǒmbó-mò tómbè tómbó-li ɲɲɲ

'pull' gǐmbà gǐ gǐmbà gǐmbó-lò
 gǐmbó-mò gǐmbè gǐmbá:-lì ɲɲɲ

CvNCv treated as prosodically light

'hear' ɲɲɲ nù nùndà nùndó-lò
 nùndó-mò núndè núndó:-lì ɲɲɲ

'treat' jòngà jò jòngà jòngó-lò
 jòngó-mò jǒngè jǒngá:-lì ɲɲɲ
 ['(doctor) treat (sick person)', Fr. soigner]

'hit, strike' nùmbò nù nùmbà nùmbó-lò
 nùmbó-mò númbè númbó:-lì ɲɲɲ

Cv:CCv

L-toned Impf rdp

'taste' dà:ndà dà dǎ:ndà dà:ndó-lò
dà:ndó-mò dá:ndè dá:ndá:-lì ɲɲɲ

'convey' sì:ndò sì sǐ:ndà sì:ndó-lò
sì:ndó-mò sí:ndè sí:ndó:-lì ɲɲɲ

[Fr emmener, opposite of 'bring', i.e. 'take (sth) away (from here)', 'convey (sth, sb) to sw']

'go' gè:ndò gè gě:ndà gè:l-lò
gè:ndó-mò gé:ndè gé:ndó:-lì ɲɲɲ

'bring' sò:ɲgò sò sǒ:ɲgà sò:ɲgó-lò
sò:ɲgó-mò só:ɲgè só:ɲgó:-lì ɲɲɲ

[Fr amener]

'pour' tù:ndà tù tǔ:ndà tù:ndó-lò
tù:ndó-mò tú:ndè tú:ndá:-lì ɲɲɲ

[Fr verser]

CvCvCv

L-toned Impf rdp

'have fun' mèràlà mè mèràlà mèràló-lò
mèràló-mò mэрálè mэрálá:-lì ɲɲɲ

[Fr s'amuser, with noun mэрэгè 'fun']

[mèràlá:-yè 'went and had fun']

'push' dùnjùrò dù dùnjúra dùnjùró-lò
dùnjùró-mò dúnjùrè dúnjùró-lì ɲɲɲ

'shake' pìrìyò pì pìrìyà pìrìyó-lò
pìrìyó-mò pìrìyè pìrìyó:-lì ɲɲɲ

'chop', 'cut' pàrà-gà pà-pàrà-gà pàrà-gó-lò
pàrà-gó-mò pàrà-gè pàrà-gá:-lì ɲɲɲ

'winnow2' pàgàrà pà pàgàrà pàgàró-lò

pàgàró-mò págáré págára:-lì ɲɲɲ
['winnow by shaking'; Fr vanner en secouant]

'find' bèlòŋgò bè bèlòŋgà bèlòŋgò-lò
bèlòŋgò-mò béléŋgè béléŋgò:-lì ɲɲɲ
[Fr trouver, as in finding sth accidentally]

'go back' bijìlò bì bijìlà bijìlò-lò
bijìlò-mò bífìlè bífìlò:-lì ɲɲɲ
[Fr retourner]

'crawl' ?àbàlà ?à ?àbàlá ?àbàlò-lò
?àbàlò-mò ?ábálè ?ábálá:-lì ɲɲɲ
['(baby) crawl', Fr. marcher à quatre pattes]

'roll (intr)' ɲɲɲ gù gùndúlà gùndúlò-lò
gùndúlò-mò gúndúlè gúndúlò:-lì ɲɲɲ

Causative VERBS

'show' tégò-mù tè tégò-mà tégò-mú-lò
tégò-m-mò tégò-mì tégò-mó:-lì ɲɲɲ

'roll' gùndúlò-m(ù) gù gùndúlò-mà gùndúlò-mú-lò
gùndúlò-m-mò gùndúlò-mì gùndúlò-mó:-lì ɲɲɲ

'shatter' tèbà-gà tè tèbà-gà tèbà-gó-lò
tèbà-gó-mò tèbà-gè tèbà-gá:-lì ɲɲɲ
['shatter (a waterjar, a glass)', Fr. briser, caus of tébè 'be shattered']

'break' mèlà-gà mè mèlà-gà mèlà-gó-lò
mèlà-gó-mò mèlà-gè mèlà-gá:-lì ɲɲɲ
['break/snap (a bone, in half)', Fr. casser]

Reversive VERBS

'sell' sò:-lò sò sò:-là sò:-lò-lò
sò:-lò-mò sò:-lè sò:-lò:-lì ɲɲɲ

STANCE VERBS (may involve Mediopassive suffix except in Stative form)

'sit (down)' ʔèbò ʔè ʔéba ʔèbò-lò
 ʔèbò-mò ʔébé ʔébo:-li ɲɲɲ

[stative èbà-èbà 'be seated, be sitting']

1PI ʔéba ɲ ʔèbà, 2PI ʔéba = á ʔèbà, 3PI ʔéba-ʔéba,

1Sg ʔéba ɲ ʔéba, 2Sg ʔéba = à ʔéba

'stop' ʔij-jà ʔi ʔij-jà ʔij-jò-lò
 ʔij-jò-mò ʔij-jè ʔi-jjá:-li ɲɲɲ

[Fr s'arrêter]

[stative ʔigá-ʔigà 'be standing', Fr. être debout, être arrêté]

'squat' sòmbò sò sòmbà sòmbò-lò
 sòmbò-mò sòmbè sòmbò-li ɲɲɲ

[Fr s'accroupir]

[stative sòmbà-sòmbà 'be squatting', Fr. être accroupi]

Text 1

The old man and the djinn.

dábùlè ɲ dàbùlà,
 story 1SgS narrate.Impf,

[bùn-nò-gè tábù ndò] dábùlè ɲ dàbùlà

[Buodou-person-PI language Inst] story 1SgS narrate.Impf

'I will tell a story. I will tell a story in Bunoge language.'

[nòlò kèmnò tó:lè] [bílá-nà ɲgù]

[person old one] [field-3SgP Acc]

[kòmòlò mbà] kéré mbà

[brousse in] chop when

'An old man was chopping (clearing) his field in the distant outback.'

bó, bó bò-Ø [wà:r kún] bó bò-Ø
 there, there be-3SgS [time all] there be-3SgS

'There, he was there, he was there all the time.'

málágè [nòlò kèmnò] ʔèmbà], [kùmàná mbá] ʔègè-Ø
 djinn [man old] then, [?? when] come.Perf-3SgS

'Then a djinn came up to the old man.'

kó:-nà *à-ηγù* *káy-yè-rè* *ʔùnè-Ø*
 head-3SgP 3Sg-Acc shave-3Hort-xxx say.Perf-3SgS
 'He (=djinn) told him (=old man) to shave his (=djinn's) head.'

[nòlò kèmnò nò] *ʔàbà:-li-Ø*
 [man old Def] accept-PerfNeg-3SgS
 'The old man refused.'

[nòlò kèmnò nò ηγù] *tòmbà-wⁿ,* *tòmbà-wⁿ,*
 [man old Def Acc] cajole-Impf, cajole-Impf,
 'He (=djinn) kept cajoling the old man.'

[nòlò kèmnò nò] *ʔèmbá* *ʔàbè-Ø,*
 [man old Def] then accept.Perf-3SgS,
 'Then (=eventually) the old man consented.'

ʔèmbà *[kó:-nà nò]* *ʔèmbá* *ká:yè-Ø,*
 then [head-3SgP Def] then shave.Perf-3SgS
 'Then he shaved his head.'

[kó:-nà nò] *kà:yè* *póllé mbà,*
 [head-3SgP Def] shave.Perf finish when,
a, à-ηγù kò:-kùlé-nà *[bàná bò:-Ø mbè n]*
 well, 3Sg-Acc head-hair-3SgP [manner be-3SgS Past Inst]
só:ηγ-yé ʔùnè-Ø,
 bring-3Hort say.Perf-3SgS,
 '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.'

[kó:-nà kùlè nò] *[bàná [mó nò] yé ká:yè nò]*
 [head-3SgP hair Def] [manner [this Def] which shave Def]
[bàná bò:-Ø mbè n] *só:ηγ-yé ʔùnè-Ø*
 [manner be-3SgS Past Inst] bring-3Hort say.Perf-3SgS
 'He (=djinn) told him (= old man) to bring (=restore) the hair of his (=djinn's) head as it had been, the way he (=old man) had shaved it.'

a, ʔémbà kírýóg-gè kírýóg-gè mbà,
 ah, then argue.Perf-3PIS argue.Perf-3PIS Impf,
a, [bàná sò:ηgà:-y kúndú] ʔóri-Ø,
 ah, [manner bring-Purp all] not.be-3SgS,
kóndò káni-Ø
 failure do.Perf-3SgS

'Well, they argued and argued then. There was no way to bring (=restore) it. He (=old man) tried and failed.'

[nòló kèmnò nò] [bé:-gè tá:ndù] bò sá:ⁿ-Ø mbè
 [man old Def] [child-Pl three] Exist have-3SgS Past
 'The old man had three children (=sons).'

a, [bè:-gè-nà nò] ?ég-gè
 ah, [child-Pl-3SgS Def] come.Perf-3PlS
 'Well, his children came.'

?émbà [ãŋ bāw nò ŋù] ?éjárè [?èbègè kàni]
 then [3PlP father Def Acc] asked.Perf.3Pl [what? be.done.Perf]
 'Then they asked their father, what had happened?'

ãwⁿ, [mó [kó:-nà ŋù] ká:y-yé] ?ùnè-Ø
 Well, [that [head-3SgP Acc] shave-3Hort] say.Perf-3SgS
 'Well, that one (=djinn) had told (him) to shave his head.'

[kó:-nà nò] ká:yè-Ø
 [head-3SgS Def] shave.Perf-3SgS
 'He (old man) had shaved his head.'

[kó:-kùlè nò] [bàná bò:-Ø mbè n]
 [head-hair Def] [manner be-3SgS Past Inst]
 só:ŋg-yé ?ùnè-Ø
 bring-3Hort say.Perf-3SgS
 'He (=djinn) had said to bring (=restore) his head hair the (same) way it had been.'

?ãwⁿ fè, [[?émé nò] nì] kóndò,
 3Sg even, [that Def] Inst] failure,
 [màsà kó] ?émbà kóndò kàní sà:-Ø
 [now Emph] then failure do Ppl.Perf-3SgS
 'Himself, he failed, he failed to do it now (=then).'

a, [bé:-gè nò] ?únè
 well, [child-Pl Def] say.Perf.3PlS
 [?émé kò] kájjà ?óri-Ø
 [that Emph] be.difficult not.be-3SgS
 'Well, the children said, that is not difficult.'

[ʔáwⁿ fè] ʔá:ⁿ [bìlà-ná à] tòḡà yé ʔègè-Ø nò]
 [3Sg too] 3Sg [field-3SgP Loc] walk which come.Perf-3SgS Def
 [sé:-nà tébò-gé nò]
 [foot-3SgP sole-Pl Def]
 [bàllé-Ø nè] [fá→ wà:-yà]
 [gather.Perf-3SgS and.then] [all.the.way.to finish]
 'What he (=djinn) had stepped (on) coming to his (=old man's) field, he (=djinn) must gather up his (= djinn's) footprints in their entirety.'

bàllé-Ø wá: mēⁿ táⁿ
 gather.Perf-3SgS finish if only
 [kó:-nà kúlè nò] sò sò:ḡgà-Ø
 [head-3SgS head Def] Rdp bring.Impf-3SgS
 'As soon as he (=djinn) finishes gathering, he (= old man) will bring the hair of his (=djinn's) head.'

a, [ǎḡ fè]
 well, [3SgS also]
 [sé:-nà tébò-gé nò] dḡgùlé-Ø mē
 [foot-3SgS sole-Pl Def] begin.Perf-3SgS if
 [bàllà: gè:ndé-Ø mē] [pùmbù-nà ndó] bómò-Ø
 [gather.Purp go.Perf-3SgS if] [rear-3SgP Loc] be-3SgS
 'Well, he himself, when he (=djinn) began (with) his footprints, when he went (along) gathering (his original footprints), there were (more footprints) behind him.'

kóndò kàní-Ø mbà, ʔèmbá dǔ:nì-Ø
 failure do.Perf-3SgS when, then run.Perf-3SgS
 'He tried and failed, then he (too) fled.'

dábùlè péndégéle
 story story.is.finished
 'The story is finished.'

data
 'the pig went/went back'[ʔàllà nò] gé:ndè / bíjilé

à-ḡḡù númbè 'hit him'
 à-ḡḡù béléḡḡè 'found him'
 à-ḡḡù dúnjúre 'pushed him'
 mì-ḡḡù dèbà 'Catch me!'

mì-ḡgú sòjà 'Tie me!
 mì-ḡgú nùmbò 'Hit me!
 mì-ḡgú bèlòḡḡò 'Fine me!
 mì-ḡgú dùḡjurò 'Push me!'

tùlùḡḡè 'neighborhood'
 tùlùḡḡé-gè
 ḡ tùlùḡḡè 'my'
 ḡ tùlùḡḡè 'our'
 tùlùḡḡé-nà 'his'
 gómbólò 'courtyard'
 gómbóló-gè
 ḡ gómbólò 'my'
 ḡ gómbólò 'our'
 gómbóló-nà 'his'
 kéléḡḡè 'marriage'
 kéléḡḡé-gè
 ḡ kéléḡḡè
 ḡ kéléḡḡè

revise

Postpositions are illustrated in (xx5). Some of the combinations do not occur naturally for semantic reasons but the tone melodies shown are supported by combinations with other stems of the same lexical tone classes, see §8.1.2, §8.2.3.1-2, and §8.2.5.

(xx5)	gloss	X	'with/in X'	'in/at X'	'on X' (<i>kò: mbà</i>)
a. lexical falling melody					
	'horse'	<i>sé (sé:)</i>	<i>sé: ndò</i>	<i>sé: mbà</i>	<i>sé: kò: mbà</i>
	'cat'	<i>ḡá:lí</i>	<i>ḡá:lí ndò</i>	<i>ḡá:lí mbà</i>	<i>ḡá:lí kò: mbà</i>
	'egg'	<i>póléḡḡè</i>	<i>póléḡḡè ndò</i>	<i>póléḡḡè mbà</i>	<i>póléḡḡè kò: mbà</i>
b. lexical rising melody					
	'pond'	<i>fētó</i>	<i>fētó ndò</i>	<i>fētó mbà</i>	<i>fētó kò: mbà</i>
	'yoke'	<i>ḡàndù:ré</i>	<i>ḡàndù:ré ndò</i>	<i>ḡàndù:ré mbà</i>	<i>ḡàndù:ré kò: mbà</i>
c. lexical low melody					
	'foot'	<i>sè:</i>	<i>sè: ndò</i>	<i>sè: mbà</i>	<i>sè: kó: mbà</i>
	'horn'	<i>kèlè</i>	<i>kèlè ndò</i>	<i>kèlè mbà</i>	<i>kèlè kó: mbà</i>
	'ear'	<i>sùḡùlè</i>	<i>sùḡùlè ndò</i>	<i>sùḡùlè mbà</i>	<i>sùḡùlè kò: mbà</i>

In (xx5), *ndò* , *mbà*, and *kò: mbà* follow Rightward H-Spreading in a regular fashion. In particular, nouns with lexical low melody show no H-tone before these postpositions.

[píŋgì nò-ŋgú] bò tìŋí sà
'Against the wall [focus] he leaned (his hand)'
(why bò ?)